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SOLID WASTE DISPOSAL ACT EXTENSION—1974

HEARINGS

BEFORE THE

SUBCOMMITTEE ON
PUBLIC HEALTH AND ENVIRONMENT

OF THE

COMMITTEE ON
INTERSTATE AND FOREIGN COMMERCE
HOUSE OF REPRESENTATIVES

NINETY-THIRD CONGRESS

SECOND SESSION

ON

H.R. 13176, H.R. 3317, H.R. 3954, H.R. 4475, H.R. 12537, H.R. 12937, H.R. 12956, and H.R. 13298

BILLS DESIGNED TO AMEND AND EXTEND THE SOLID WASTE DISPOSAL ACT

MARCH 27 AND 28, 1974

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SOLID WASTE DISPOSAL ACT EXTENSION—1974

WEDNESDAY, MARCH 27, 1974

HOUSE OF REPRESENTATIVES,
SUBCOMMITTEE ON PUBLIC HEALTH AND ENVIRONMENT,
COMMITTEE ON INTERSTATE AND FOREIGN COMMERCE,
Washington, D.C.

The subcommittee met at 10 a.m., pursuant to notice, in room 2226, Rayburn House Office Building, Hon. Paul G. Rogers, chairman, presiding.

Mr. ROGERS. The subcommittee will come to order, please.

The hearings today are the first of two which will deal with legislation designed to amend and extend the Solid Waste Disposal Act.

I am concerned that the Environmental Protection Agency, perhaps because of the action of the Office of Management and Budget, seems to be expending more effort in disbanding this program than it is in administering it.

The budget has been cut 82 percent and the manpower has been reduced from 310 to 118—hardly evidence of aggressive leadership.

In our major cities, the solid waste volume is estimated to have doubled in the past 20 years. Solid waste is growing five times faster than the population. At least half of our cities cannot rely upon land disposal of wastes in their own jurisdiction, and in such cities as New York, Chicago, Los Angeles, and Detroit, the date when there is no available land is quickly upon them.

In our 48 largest cities almost 50 percent of their environmental budgets are spent for solid waste management. And the technology used in the overwhelming majority of cases is the same used in the Dark Ages—pick up and dump.

The bill for this neglect is estimated at between $5 billion and $6 billion. And the problem of solid waste are worsening. The hazards associated with garbage dumps are generally not realized. But we have ample evidence that people have been killed as a result of the open burning and open dumps.

In this committee and in the Merchant Marine and Fisheries Committee, Members of Congress have been disheartened by reports that dumping has created a dead sea off the coasts of New York and New Jersey. Yet last week I read that EPA is not only allowing the continuation of this dumping but is in effect supporting its expansion.

I am concerned that although EPA undertook a program to reduce the number of open dumps in this Nation 3 years ago, we now have more open dumps than we had when the program began. Moreover, numerous Federal departments and agencies have been cited by the General Accounting Office audits for the practice of open dumping.

There is little doubt that this Nation's mineral assets are limited. But EPA has failed to take a leadership role in recovering these scarce resources, despite clear mandates from Congress that resource recovery programs be expanded.

There is little doubt that we need to accelerate our energy programs, but EPA has again not come to the fore in an aggressive manner to promote the concept of transformation of waste into energy.

And I am concerned that the thrust of the Council on Environmental Quality's annual report has drifted to the point where it now speaks mostly to the question of hazardous wastes. The reports clearly neglect the overall and much greater problem of garbage, even though its hazards to health are well documented.

The past three reports by CEQ run approximately 1,200 pages. Of this, the subject of solid waste disposal has been discussed on 11 pages.

I do not think the Congress or the American public will be content that an EPA program, which tries to entice more Government agencies to use recyclable paper, is an acceptable solution to one of the most serious threats to our environment.

We hope that during these hearinges we can stimulate new ideas and new concepts and, in doing so, stimulate EPA to assume the role which the Congress intended that it take when we passed this law.

Mr. CARTER. Mr. Chairman, will the distinguished chairman yield?

Mr. ROGERS. Certainly.

Mr. CARTER. I appreciate what our distinguished chairman has said. But I want to take slight issue. I think we actually have the best possible choice which could have been made for Administrator of the Environmental Protection Agency in Judge Russell Train. I think he is doing an excellent job. He does not hesitate to confront the administration when the administration is wrong.

We have made some steps forward; of course, we have not gone as far as we should, and we have usually assumed that the Federal role is that of experimentation and of help in pilot projects. We have those projects.

Not too long ago I visited St. Louis and I saw where solid waste was being recycled—the part of it which could be reused was being used and sifted out. The garbage portion was used in heating—supplying heat for the city of St. Louis. I understand the same thing is going on in Tennessee.

Let me congratulate the Administrator in this area, and I want to state publicly that I support him and wish him success in future years. I don't think there could be a better choice than Russell Train for that position.

Mr. ROGERS. I share that feeling. Mr. Train has just taken over recently the position with this Agency.

I hope my statement conveys the sentiment shared by the committee. I think the Agency has had restrictions placed on it by the Office of Management and Budget. But I want to put in the record the concern the committee has that we are simply not addressing this matter even though the intent of the law was for it.

We are very happy to have the Administrator of the Environmental Protection Agency here, who is an outstanding administrator and we hold him in high regard. I hope what we have stated here today will be of aid to him in bringing about some changes in the Government's effort in addressing ourselves to the solid waste problem.

Without objection, the text of the bills we will be considering and the Agency reports thereon will be placed in the record at this point.

[The text of H.R. 13176, H.R. 3317, H.R. 3954, H.R. 4475, H.R. 12537, H.R. 12937, H.R. 12956, and H.R. 13298, and Agency reports thereon follow:]

93D CONGRESS
2D SESSION

H. R. 13176

IN THE HOUSE OF REPRESENTATIVES

FEBRUARY 28, 1974

Mr. ROGERS (for himself, Mr. KYROS, Mr. PREYER, Mr. SYMINGTON, Mr. ROY, Mr. TIERNAN, Mr. CARTER, Mr. HASTINGS, and Mr. HUDNUT) introduced the following bill; which was referred to the Committee on Interstate and Foreign Commerce

A BILL

To amend the Solid Waste Disposal Act so as to provide for a comprehensive system of waste management and resource recovery, to protect the public health and environment, and for other purposes.

Be it enacted by the Senate and House of Representatives of the United States of America in Congress assembled,

SECTION 1. This Act may be cited as the "Comprehensive Waste Management and Resource Recovery Act".

SEC. 2. (a) Section 216 of the Solid Waste Disposal Act, as amended (42 U.S.C. 3259), is amended by adding at the end thereof the following new sections 217–235:

"TITLE I—WASTE MANAGEMENT AND RESOURCE RECOVERY REGULATIONS

"STATE WASTE MANAGEMENT AND RESOURCE RECOVERY PLAN

"SEC. 217. (a) (1) The Administrator shall, within six months after the date of enactment of the Comprehensive Waste Management and Resource Recovery Act, propose guidelines for the adoption, submission, implementation, and enforcement of effective State waste management and resource recovery plans. No later than six months after the date required for proposal of such guidelines and after opportunity for public hearing, the Administrator shall promulgate the proposed guidelines with such modifications as he deems appropriate.

"(2) Guidelines promulgated under paragraph (1) shall be limited to the purpose of effectuating the general national objectives specified in paragraph (3) and the specific requirements of this section.

"(3) In prescribing guidelines under this section and in evaluating or promulgating plans under subsections (b) and (d), respectively, the Administrator shall consider the following general national objectives:

"(A) protection of public health and promotion of public safety;

"(B) protection and enhancement of the air, water, and land environment;

"(C) reduction and prevention of potential or actual materials shortages;

"(D) conservation of energy and increase of energy availability;

"(E) reduction in the Nation's need for imports and consequent improvement in its balance of payments;

"(F) internalization of the costs of waste management and disposal, and resource recovery, and protection of health and environment for producers, manufacturers, importers, and users of materials and energy;

"(G) reduction of the costs of waste management and resource recovery and improvement of the productivity of waste management and resource recovery systems and facilities;

"(H) assurance of adequate and equitable public waste management and resource recovery services and equitable siting of waste management and resource recovery facilities and sites for all persons regardless of race, sex, age, national origin, economic status, or other irrelevant considerations; and

"(I) flexibility and responsiveness to differing local conditions and needs.

"(b) (1) Each State shall, after reasonable notice, public hearing, and consultation with an advisory board representing general purpose units of local government, adopt and submit to the Administrator within twelve months after promulgation of guidelines (or any revision thereof) under subsection (a) of this section an effective State waste management and resource recovery plan.

"(2) The Administrator shall, within six months after the date required for submission of a plan under paragraph (1), after opportunity for public hearing, approve or disapprove such plan or each portion thereof. The Administrator shall, by regulation, approve such plan or any portion thereof, if he determines that—

"(A) it was adopted after reasonable notice, public hearing and required consultation and it complies with the guidelines under subsection (a);

"(B) it provides for the establishment and operation of a State waste management and resource recovery system which, to the maximum extent feasible (except as provided in paragraph (3) of this subsection), effectuates the general national objectives specified in subsection (a) of this section as expeditiously as practicable (taking costs into account);

"(C) it requires any person owning or operating a waste management facility or disposal site to obtain

from the State (or such other agency as the State may designate) a permit to operate and it includes provision for conditioning issuance, continuation and renewal of any permit for a waste management facility or disposal site on compliance with standards for the characteristics and conditions, location, design, construction, operation, maintenance, performance, and abandonment of such facility or site;

"(D) it includes a showing that the State has adequate authority to implement and enforce the plan and that neither State nor local laws, nor the plan (nor implementation thereof) will adversely affect the ability of any other State to establish and implement an effective waste management and resource recovery plan;

"(E) it includes adequate requirements (i) for the State to enter and inspect and to conduct tests and monitoring and other surveillance and enforcement activities, and (ii) for waste management facilities or disposal sites to conduct such tests and monitoring, to keep such records, to make such reports, and to obtain and provide such other information as the State or the Administrator may reasonably require to effectuate the purposes of this Act;

"(F) it contains provision for revision of such plan, after notice, public hearing, and appropriate con-

sultation, whenever the Administrator, by regulation, determines (i) that new, more expeditious, or less expensive methods have become available for implementing the purposes of the Act, (ii) that revised guidelines of the Administrator have been promulgated with which the State plan is not in compliance, (iii) that information has become available which demonstrates the inadequacy of the State plan to effectuate the purposes of the Act, or (iv) such revision is otherwise warranted for just cause;

"(G) it contains (i) a prohibition on the operation of any new open dump or other land disposal site which fails to comply with the Administrator's guidelines and State standards after six months after promulgation of such guidelines or standards, (ii) a prohibition on the operation of existing open dumps or other land disposal site which fails to comply with such guidelines and standards within eighteen months after such promulgation, and (iii) a plan for bringing all abandoned open dumps and noncomplying land disposal sites into compliance as expeditiously as practicable thereafter, but in no event later than January 1, 1980;

"(H) it contains (i) a statewide inventory of waste management and resource recovery facilities and sites, (ii) an inventory of present and projected waste

management and resource recovery resources and needs within the State, including a list of major generators of waste within the State; an analysis of present and projected land availability for waste management and disposal; a statewide study of present and potential marketability or use of resources recoverable from waste; and an analysis of anticipated population, economic, and waste generation growth within the State;

"(I) it contains cost-effectiveness analyses of alternative waste management and resource recovery systems for large metropolitan areas, middle-size cities, small towns, and rural areas within the State, including an analysis of methods for improving productivity of such systems; and

"(J) it contains (i) standards for residential waste storage and collection, commercial and industrial waste storage and collection, land clearing, and rural and agricultural waste storage and collection, and (ii) an effective program for collection and disposal of abandoned motor vehicles and for litter prevention.

"(3) In the event the Administrator determines that the costs of the State waste management and resource recovery system which would effectuate to the maximum extent feasible, the general national objectives specified in subsection (a) of this section, would be so disproportionately high

for a State or local area by comparison to the national benefit which would result therefrom that it would be unreasonable to require such a system, he is authorized to approve a State plan which provides for establishment and operation of a State waste management and resource recovery system which otherwise meets the requirements of this section. Nothing in this paragraph shall be construed to apply to hazardous wastes regulated pursuant to section 219.

"(4) The Administrator shall approve any revision of a State plan, whether undertaken pursuant to subsection (b) (2) (F) or at the initiation of the State, if he determines, by regulation, that it meets the requirements of this section.

"(c) The Administrator may, upon application of the Governor of a State, extend the period for submission of any plan or portion thereof for a period not to exceed twelve months from the date otherwise required for submission of such plan.

"(d) (1) The Administrator shall promptly prepare and publish proposed regulations setting forth an effective waste management and resource recovery plan, or portion thereof, for a State if—

"(A) the State fails to submit a plan within the time prescribed,

"(B) the plan, or any portion thereof, submitted by such State is determined by the Administrator not to be in accordance with the requirements of this section, or

"(C) the State fails within twelve months after notification by the Administrator (or such lesser time as the Administrator may prescribe), to revise its plan as required pursuant to a provision of its plan referred to in subsection (b) (2) (F).

"(2) The Administrator shall, within six months after the date required for submission of such plan or revision thereof and after opportunity for public hearing, promulgate any such regulations with such modifications as he deems appropriate unless prior to such promulgation, such State (or such general purpose local governmental units as the Administrator may by regulation authorize) has adopted and submitted a plan (or revision) which the Administrator determines to be in accordance with the requirements of this section.

"(c) (1) Except as may be expressly provided by State law or as provided in paragraph (2), the State shall assign primary responsibility and authority for plan development and implementation to general purpose units of local government. The State plan to be submitted to the Administrator shall include plans developed by such units of

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local government, unless the State (1) determines that any such plan, or its implementation, (A) fails to meet any requirement of this Act or State standards or criteria intended to effectuate such requirement; (B) is inconsistent with any other such plan or with any areawide waste management and resource recovery plan which meets all applicable requirements, standards and criteria; or (C) is inconsistent with any State land use, air pollution, water pollution, noise pollution, or other environmental plan or requirement, and (2) provides an adequate opportunity for administrative or judicial appeal of such determination.

"(2) Nothing in paragraph (1) shall be construed to require inclusion in the State plan of plans developed by general purpose units of local government insofar as those plans are intended to effectuate general national objective (a) (2) (F) (relating to internalization of cost) or the guidelines prescribed pursuant to that objective.

"(f) For purposes of this Act, an 'applicable waste management and resource recovery plan' is the waste management and resource recovery plan, or most recent revision thereof, which has been approved under subsection (a) or promulgated under subsection (c) for any State or portion thereof.

"STANDARDS OF PERFORMANCE FOR NEW SOURCES

"SEC. 218. (a) (1) (A) The Administrator shall, within ninety days after the date of enactment of the Comprehen-

sive Waste Management and Resource Recovery Act, publish (and at least once a year thereafter revise) a list of categories of waste generation sources. He shall include a category of sources in such list if he determines that it may contribute significantly to the Nation's waste management problems and may cause or contribute to the endangerment of the public health or environment or to actual or potential energy or materials shortages or balance-of-payments deficits.

"(B) Within one hundred and eighty days after the inclusion of a category of sources in a list under subparagraph (A), the Administrator shall propose regulations establishing Federal standards of performance for new sources within such category. The Administrator shall afford interested persons an opportunity for written comment on such proposed regulations. After considering such comments, he shall promulgate, within ninety days after such publication, such standards with such modifications as he deems appropriate. The Administrator may, from time to time, revise such standards following the procedure required by this subsection for promulgation of such standards. Standards of performance or revisions thereof shall become effective upon promulgation.

"(2) The Administrator may distinguish among classes, types, and sizes within categories of new sources for the purpose of establishing such standards.

"(3) The Administrator shall, from time to time, issue information on processes or techniques which reduce or eliminate the generation of wastes, which reduce or eliminate the toxicity of any wastes generated, or which permit resource recovery from the wastes generated for categories of new sources and wastes subject to the provisions of this section.

"(4) The provisions of this section shall apply to any new source owned or operated by the United States.

"(b) (1) Each State may develop and submit to the Administrator a plan for implementing and enforcing State standards of performance which are at least as stringent as the Federal standards for new sources located in such State. If the Administrator finds the State plan is adequate, he shall delegate to such State the primary responsibility for implementation and enforcement of new source standards of performance.

"(2) Nothing in this subsection shall prohibit the Administrator from enforcing any applicable standard of performance under this section.

"(c) For the purpose of this section:

"(1) The term 'standard of performance' means a standard for generation of wastes which reflects the degree of limitation achievable through the application of the best system of reducing or eliminating the amount

or toxicity of any wastes generated or of recovering resources therefrom which (taking into account the cost of achieving such reduction) the Administrator determines has been adequately demonstrated.

"(2) The term 'new source' means any source, the construction or modification of which is commenced after the publication of regulations (or, if earlier, proposed regulations) prescribing a standard of performance under this section which will be applicable to such source.

"(3) The term 'source' means any building, structure, facility, installation, or equipment which generates any waste.

"(4) The term 'modification' means any physical change in, or change in the method of operation of, a source which increases the amount or toxicity of any waste generated by such source, which results in the generation of any waste not previously emitted, or which results in decreasing ability to recover resources from the waste generated.

"HAZARDOUS WASTES

"SEC. 219. (a) Within eighteen months after the date of enactment of the Comprehensive Waste Management and Resource Recovery Act, and from time to time thereafter, the Administrator pursuant to this section and after consul-

tation with representatives of appropriate Federal agencies shall by regulation—

"(1) identify hazardous wastes;

"(2) establish Federal standards and procedures for storage, treatment and disposal of such wastes and for resource recovery from such wastes; and

"(3) establish guidelines for State programs for implementing such standards.

"(b) In identifying a waste as hazardous, pursuant to this section, the Administrator shall specify quantity, concentration and the physical, chemical, or biological properties of such waste, taking into account means of disposal, treatment, storage, or resource recovery; disposal, treatment or resource recovery sites and facilities; and available disposal, treatment, storage, or resource recovery practices.

"(c) The standards established under this section shall include, but need not be limited to, (1) minimum standards of performance required to protect human health and the environment; (2) minimum acceptable criteria as to characteristics and conditions, location, design, construction, operation, maintenance, performance, and abandonment of disposal, treatment, or resource recovery sites or facilities for hazardous waste; and (3) requirements that any person generating waste must (A) appropriately label all containers used for onsite storage or for transport of hazardous

waste; (B) follow appropriate procedures for treating and storing hazardous waste onsite; and (C) transport all hazardous waste intended for offsite disposal to a hazardous waste disposal facility for which a permit has been issued. In establishing such standards the Administrator shall take into account the economic and social costs and benefits of achieving such standards.

"(d) The Administrator may issue a permit for the operation of disposal, treatment, or resource recovery site or facility for hazardous waste, upon such terms and conditions as he deems appropriate, if, he determines that such site or facility will meet the requirements and standards under this section.

"(e) Within eighteen months after the date of enactment of this Act, the Administration shall promulgate regulations establishing requirements for generators of hazardous wastes subject to regulation under this section to—

"(1) maintain records indicating the quantities of hazardous waste generated and the disposition thereof;

"(2) package hazardous waste in such a manner so as to protect public health and the environment, and label such packaging so as to identify accurately such wastes;

"(3) treat or dispose of all hazardous waste at a disposal, treatment or resource recovery site or facility

for hazardous wastes for which a permit has been issued under this Act;

"(4) handle and store all hazardous waste in such a manner so as not to pose a threat to human health or the environment; and

"(5) submit reports to the Administrator, at such times as the Administrator deems necessary, setting out—

"(A) the quantities of hazardous waste subject to Federal regulation under this subsection that he has generated;

"(B) the nature and quantity of any other waste which he has generated which he has reason to believe may have a substantial adverse effect on human health and other living organisms; and

"(C) the disposition of all waste included in categories (A) and (B).

"(f) The Administrator is authorized to enter into cooperative agreements with States to delegate to any State which meets such minimum requirements as the Administrator may establish by regulation the authority to enforce this section against any person.

"INFORMATION GATHERING

"SEC. 220. (a) For the purpose of (i) developing or assisting in the development of any State waste management

and resource recovery plan under section 217; any new source standard of performance under section 218; any regulations, standards, procedures, or other requirement under section 219; (ii) of determining whether any person is in violation of any requirement listed in clause (i); or (iii) carrying out section 224—

"(1) the Administrator may require any person who is subject or may be subject to such requirement or who can reasonably assist in carrying out section 224 to (A) establish and maintain such records, (B) make such reports, (C) conduct such monitoring or testing, and (D) provide such information as he may reasonably require; and

"(2) the Administrator or his authorized representative, upon presentation of his credentials (A) shall have a right of entry to, upon, or through any waste management facility, disposal site, or other premises which is or may be subject to regulation under this Act or in which any records required to be maintained under paragraph (1) of this section are located, and (B) may at reasonable times have access to any records and inspect any monitoring or test method or equipment required under paragraph (1).

"(b) Any records, reports, or information obtained under this Act shall be available to the public, except

that upon a showing satisfactory to the Administrator by any person that records, reports, or information, or particular part thereof (other than emission data), to which the Administrator has access under this section, if made public, would divulge methods or processes entitled to protection as trade secrets of such person, the Administrator shall consider such record, report, or information or particular portion thereof confidential in accordance with the purposes of section 1905 of title 18 of the United States Code, except that such record, report, or information may be disclosed to other officers, employees, or authorized representatives of the United States concerned with carrying out this Act or when relevant in any proceeding under this Act.

"PROHIBITED ACTS

"SEC. 221. (a) The following acts, and the causing thereof, by any person are prohibited—

"(1) operation of any facility or site for which a permit is required under this Act (A) without having obtained the required permit(s), (B) in violation of any term or condition of the permit, whether imposed by the Administrator or the State, or (C) during a period of revocation or suspension of the permit;

"(2) after the effective date of standards of performance promulgated under section 218, operation of

any source subject thereto in violation of any such standard;

"(3) the disposing of any waste in a manner which violates any requirement under this Act; or

"(4) the acceptance for treatment, disposal, or resource recovery of any improperly labeled or unacceptably containerized hazardous waste under section 219.

"FEDERAL ENFORCEMENT

"SEC. 222. (a) (1) Whenever the Administrator finds that any person is in violation of any requirement of an applicable waste management and resource recovery plan under section 217 or of an approved State program for implementing hazardous waste treatment and disposal standards under section 219, the Administrator shall notify the person in violation of the plan and the State in which the plan applies of such finding. If the violation extends beyond the thirtieth day after the date of the Administrator's notification, the Administrator may issue an order requiring such person to comply with the requirements of such plan or he may bring a civil action in accordance with subsection (b).

"(2) Whenever the Administrator finds that violations of an applicable waste management and resource recovery plan under section 217 or of an approved State program

for implementing hazardous waste treatment and disposal standards under section 219 are so widespread that such violations appear to result from a failure of the State in which the plan applies to enforce the plan effectively, he shall notify the State and publish proposed regulations to assume Federal enforcement in that State. If after public hearing the Administrator finds such failure extends beyond the thirtieth day after such notice, he shall promulgate regulations effective at once to assume Federal enforcement. During the period beginning with such promulgation and ending when the State satisfies the Administrator that it will effectively enforce such plan or program (hereinafter referred to as the 'period of federally assumed enforcement'), the Administrator may enforce any requirement of such plan or program with respect to any person—

"(A) by issuing an order to comply with such requirement, or

"(B) by bringing a civil action under subsection (b).

"(3) Whenever the Administrator finds that any person is engaged in any act prohibited by section 221 or is in violation of any requirement of or pursuant to section 218, section 219, or section 220, the Administrator may issue an order requiring that person to refrain from engaging in any prohibited act or to comply with such section or require-

ment, or he may bring a civil action in accordance with subsection (b).

"(4) An order issued under this subsection (other than an order relating to a violation of any requirement of, or pursuant to, section 219 relating to hazardous waste) shall not take effect until the person to whom it is issued has had an opportunity to request a public hearing before the Administrator concerning the alleged violation. A copy of any order issued under this subsection shall be sent to the State waste management agency of any State in which the violation occurs. Any order issued under this subsection shall state with reasonable specificity the nature of the violation, specify a time for compliance and assess a penalty, if any, which the Administrator determines is a reasonable period and penalty, taking into account the seriousness of the violation and any good faith efforts to comply with applicable requirements. In any case in which an order under this subsection (or notice to a violator under paragraph (1)) is issued to a corporation, a copy of such order (or notice) shall be issued to appropriate corporate officers.

"(b) (1) The Administrator may commence a civil action for appropriate relief, including a permanent or temporary injunction, whenever any person—

"(A) violates or fails to comply with any order issued under subsection (a); or

"(B) violates any requirement of an applicable waste management and resource recovery plan under section 217 or State program for implementing hazardous waste treatment and disposal standards under section 219 during any period of federally assumed enforcement under subsection (a) (2) or more than thirty days after having been notified by the Administrator under subsection (a) (1) of a finding that such person is violating such requirement; or

"(C) engages in any act prohibited by section 221 or violates any requirement of, or pursuant to, section 218, section 219, or section 220.

"(2) Any action under this subsection may be brought in the district court of the United States for the district in which the defendant is located or resides or is doing business, and such court shall have jurisdiction to restrain such violation and to require compliance. Notice of the commencement of such action shall be given to the appropriate State waste management agency.

"(c) (1) Any person who knowingly—

"(A) violates any requirement of an applicable waste management and resource recovery plan or State program for implementing hazardous waste treatment and disposal standards during any period of federally assumed enforcement under subsection (a) (2) or more

than thirty days after having been notified by the Administrator under subsection (a) (1) that such person is violating such requirement, or

"(B) violates or fails or refuses to comply with any order issued by the Administrator under subsection (a), or

"(C) violates any requirement, of or pursuant to, sections 218, 219, or 220, or engages in any act prohibited by section 221,

shall be punished by a fine of not more than $25,000 per day of violation, or by imprisonment for not more than one year, or by both. If the conviction is for a violation committed after the first conviction of such person under this paragraph, punishment shall be by a fine of not more than $50,000 per day of violation, or by imprisonment for not more than two years, or by both.

"(2) Any person who knowingly makes any false statement, representation, or certification in any application, record, report, plan, or other document filed or required to be maintained under this Act or who falsifies, tampers with, or knowingly renders inaccurate any monitoring device or method required to be maintained under this Act, shall upon conviction, be punished by a fine of not more than $10,000, or by imprisonment for not more than six months, or by both.

"(d) (1) The Administrator may suspend or revoke

any permit issued to any person who has received notice under subsection (a) (1) or a compliance order under this section, or against whom a civil action has been commenced under subsection (b).

"(2) Any order or any suspension or revocation of a permit shall become final unless, no later than thirty days after the order or notice of the suspension or revocation is served, the person or persons named therein request a public hearing. Upon such request the Administrator shall promptly conduct a public hearing. In connection with any proceeding under this section the Administrator may issue subpenas for the attendance and testimony of witnesses and the production of relevant papers, books, and documents, and may promulgate rules for discovery procedures.

"(e) The Administrator and the Department of Justice are prohibited from consenting to any proposed judgment in a civil or criminal proceeding under this Act (except as may be necessary in extraordinary circumstances), unless reasonable opportunity is afforded persons (natural or corporate) who are not named as parties to the proceeding to comment on the proposed judgment prior to its entry by the court.

"(f) In any instance in which there is a substantial factual basis for the Administrator to commence an administrative or judicial proceeding under this section and in which

the Administrator does not commence such proceeding within one hundred and eighty days after the agency has obtained information which provides such a basis, he shall not later than thirty days thereafter publish notice of his decision not to commence a proceeding along with the reasons for such decision. In addition, such notice shall summarize the information available to the Administrator and shall solicit public comment. Within ninety days after publication of notice, the Administrator shall consider all information then available to determine whether failure to commence a proceeding would constitute an abuse of discretion.

"APPEARANCE

"SEC. 223. The Administrator shall request the Attorney General to appear and represent the United States in any civil or criminal action instituted under this Act to which the Administrator is a party. Unless the Attorney General notifies the Administrator within a reasonable time, that he will appear in a civil action, attorneys who are officers or employees of the Environmental Protection Agency shall appear and represent the United States in such action.

"EMERGENCY POWERS

"SEC. 224. Notwithstanding any other provisions of this Act, the Administrator upon receipt of information that the handling of any waste or recovered resources by any person is presenting an imminent and substantial endangerment

to the health of persons, and that appropriate State or local authorities have not acted to abate such activity, may bring suit on behalf of the United States in the appropriate United States district court to immediately restrain any person from causing or contributing to the condition presenting the imminent and substantial endangerment or to take such other action as may be necessary.

"APPLICATION OF REQUIREMENTS TO FEDERAL AGENCIES

"SEC. 225. (a) Each department, agency, and instrumentality of the executive, legislative, and judicial branches of the Federal Government having jurisdiction over any property or facility, or engaged in any activity which generates, or which may generate, or which disposes of, treats, recovers resources from, or otherwise handles wastes shall comply with all requirements of this Act to the same extent as any other person.

"(b) The President or his designee may exempt any facility or activity of any department, agency, or instrumentality in the executive branch from compliance with any requirement referred to in subsection (a) of this section if he determines it to be in the paramount interest of the United States to do so. Any exemption shall be for a period not in excess of one year, but additional exemptions may be granted for periods of not to exceed one year upon the President's or his designee's making of a new determination. The

Administrator shall ascertain the exemptions granted under this subsection and shall report each January to the Congress all exemptions from the requirements of this section granted during the preceding calendar year.

"CITIZEN SUITS

"SEC. 226. (a) Except as provided in subsection (b), any person may commence a civil action on his own behalf—

"(1) against any person (including (i) the United States, and (ii) any other governmental instrumentality or agency to the extent permitted by the Eleventh Amendment to the Constitution) who is alleged to be (A) in violation of any requirement of, or pursuant to, sections 217–220 of this Act, (B) in violation of any order issued by the Administrator or a State with respect to any such requirement, or (C) engaged in any act prohibited by section 222 of this Act, or

"(2) against the Administrator where there is alleged a failure of the Administrator to perform any act or duty under this Act which is not discretionary with the Administrator. Any action under paragraph (1) of this subsection shall be brought in the district court for the district in which the alleged violation occurred and any action brought under paragraph (2) of this subsection shall be brought in the district court of the District of Columbia. The district courts shall have ju-

risdiction, without regard to the amount in controversy or the citizenship of the parties, to enforce such a requirement, or such an order, or to order the Administrator to perform such act or duty, as the case may be.

"(b) No action may be commenced—

"(1) under subsection (a) (1)—

"(A) prior to sixty days after the plaintiff has given notice of the violation (i) to the Administrator, (ii) to the State in which the violation occurs, and (iii) to any alleged violator of the requirement or order, or

"(B) if the Administrator or State has commenced and is diligently prosecuting a civil action in a court of the United States or a State to require compliance with the requirement of order, but in any such action in a court of the United States any person may intervene as a matter of right.

"(2) under subsection (a) (2) prior to sixty days after the plaintiff has given notice of such action to the Administrator, except that such action may be brought immediately after such notification in the case of an action under this section respecting a violation of any requirement pertaining to hazardous wastes or an order issued by the Administrator pursuant to section 222 (a). Notice under this subsection shall be given

in such manner as the Administrator shall prescribe by regulation.

"(c) In any action under this section the Administrator, if not a party, may intervene as a matter of right.

"(d) The court, in issuing any final order in any action brought pursuant to subsection (a) of this section, may award costs of litigation (including reasonable attorney and expert witness fees) to any party, whenever the court determines such award is appropriate. The court may, if a temporary restraining order or preliminary injunction is sought, require the filing of a bond or equivalent security in accordance with the Federal Rules of Civil Procedure.

"(e) Nothing in this section shall restrict any right which any person (or class of persons) may have under any statute or common law to seek enforcement of any emission standard or limitation or to seek any other relief (including relief against the Administrator or a State agency).

"EMPLOYEE PROTECTION

"SEC. 227. No person shall fire, or in any other way discriminate against, or cause to be fired or discriminated against, any employee or any authorized representative of employees by reason of the fact that such employee or representative has filed, instituted, or caused to be filed or instituted any proceeding under this Act, or has testified or is about to testify in any proceeding resulting from the

administration or enforcement of the provisions of this Act.

"JUDICIAL REVIEW

"SEC. 228. (a) A petition for review of action of the Administrator in promulgating any nationally applicable regulation under this Act shall be filed only in the United States Court of Appeals for the District of Columbia. Any person who will be adversely affected by a final order or regulation which applies to a portion of the Nation may file a petition with the United States Court of Appeals for the circuit wherein such person resides or has his principal place of business, for a judicial review of such order or regulation. Any petition under this subsection shall be filed within thirty days from the date of the contested action, or after such date if such petition is based solely on grounds arising after such thirtieth day.

"(b) Action of the Administrator with respect to which review could have been obtained under subsection (a) shall not be subject to judicial review in civil or criminal proceedings for enforcement.

"RETENTION OF STATE AUTHORITY

"SEC. 229. Except as otherwise provided in section 217(a)(2)(D), nothing in this Act shall preclude or deny the right of any State or political subdivision thereof to

adopt or enforce any requirement pertaining to matters subject to regulation under this Act.

"FEDERAL PROCUREMENT

"SEC. 230. (a) No Federal agency may enter into any contract with any person who is convicted of any offense under section 222 for the procurement of goods, materials, and services to perform such contract at any facility at which the violation which gave rise to such conviction occurred if such facility is owned, leased, or supervised by such person. The prohibition in the preceding sentence shall continue until the Administrator certifies that the condition giving rise to such a conviction has been corrected.

"(b) The Administrator shall establish procedures to provide all Federal agencies with the notification necessary for the purposes of subsection (a).

"(c) In order to implement the purposes and policy of this Act, the President shall, not more than 180 days after enactment of the Comprehensive Waste Management and Resource Recovery Act cause to be issued an order (1) requiring each Federal agency authorized to enter into contracts and each Federal agency which is empowered to extend Federal assistance by way of grant, loan, or contract to effectuate the purpose and policy of this Act in such contracting or assistance activities, and (2) setting forth procedures, sanctions, penalties, and such other provisions, as

the President determines necessary to carry out such requirement.

"(d) The President may exempt any contract, loan, or grant from all or part of the provisions of this section where he determines such exemption is necessary in the paramount interest of the United States and he shall notify the Congress of such exemption.

"(e) The President shall annually report to the Congress on measures taken toward implementing the purpose and intent of this section, including but not limited to the progress and problems associated with implementation of this section.

"ADMINISTRATION

"SEC. 231. (a) The Administrator is authorized to prescribe such regulations as are necessary to carry out his functions under this Act. The Administrator may delegate to any officer or employee of the Environmental Protection Agency such of his powers and duties under this Act, except the making of regulations, as he may deem necessary or expedient.

"(b) (1) All rulemaking proceedings under this Act shall be public as provided in paragraph (2).

"(2) Any draft regulations prepared by the Administrator and submitted to any other department, agency, or instrumentality of the Federal Government shall be made part

of the public file, along with any comments transmitted to the Administrator in response thereto or by the Administrator in response to received comments. Such draft regulations and comments shall be available to the public no later than the date of publication in the Federal Register of proposed regulations pertaining to the same subject matter.

"SEPARABILITY

"SEC. 232. If any provision of this Act, or the application of any provision of this Act to any person or circumstance, is held invalid, the application of such provision to other persons or circumstances, and the remainder of this Act, shall not be affected thereby.

"COMPREHENSIVE ECONOMIC COST STUDIES

"SEC. 233. (a) In order to provide the basis for evaluating programs authorized by this Act and the development of new programs and to furnish Congress with the information necessary for authorization of appropriations by fiscal years beginning after June 30, 1974, the Administrator, in cooperation with State, interstate, and local waste management and resource recovery agencies, shall make a detailed estimate of the cost of carrying out the provisions of this Act; a comprehensive study of the cost of program implementation by affected units of government; and a comprehensive study of the economic impact of requirements under this Act on the Nation's industries, communi-

ties, and other contributing sources of waste. The Administrator shall submit such detailed estimate and the results of such comprehensive study of cost for the five-year period beginning July 1, 1974, and the results of such other studies to the Congress not later than July 1, 1975, and shall submit a reevaluation of such estimate and studies annually thereafter.

"(b) The Administrator shall also make a complete investigation and study to determine (1) the need for additional trained State and local personnel to carry out programs assisted pursuant to this Act and other programs for the same purpose as this Act; (2) means of using existing Federal training programs to train such personnel; and (3) the need for additional trained personnel to develop, operate and maintain those facilities, sites, and equipment designed to implement the purposes of this Act. He shall report the results of such investigation and study to the President and the Congress not later than July 1, 1975.

"STUDY OF FEDERAL INCENTIVES AND DISINCENTIVES

"SEC. 234. (a) The Council on Environmental Quality in cooperation with the Administrator and other Federal agencies, shall conduct studies of existing Federal policies that influence the consumption and utilization of virgin natural resources or secondary materials. The policies subject to the study shall include, but not be limited to—

"(1) import and export quotas and regulations for virgin and secondary materials;

"(2) procedures and policies affecting the mining of minerals or the harvesting of timber on federally owned or controlled lands;

"(3) taxation policies, such as the percentage depletion allowance, capital gains treatment of income, and other tax policies which may affect the consumption and utilization of virgin or secondary materials;

"(4) policies under the Economic Stabilization Act pertaining to pricing of such materials; and

"(5) ratemaking policies of the Federal Power Commission and other such authorities.

"(b) The objectives of these studies shall be to determine the extent to which these policies stimulate, encourage, or otherwise lead (or in the future may be expected to lead) to an accelerated rate of consumption or utilization of virgin natural resources or secondary materials and to identify and recommend modifications of these policies in order to conserve presently or potentially scarce resources and materials and to encourage utilization and consumption of secondary materials.

"(c) The studies to be conducted under this section shall be submitted to the Congress no later than two years

after date of enactment of the Comprehensive Waste Management and Resource Recovery Act.

"ADDITIONAL REPORTS TO CONGRESS

"SEC. 235. Not later than one year after the date of enactment of the Comprehensive Waste Management and Resource Recovery Act and annually thereafter, the Administrator shall report to the Congress on measures taken toward implementing the purpose and intent of this Act including, but not limited to (1) the progress and problems associated with establishment and implementation of State waste management and resource recovery plans; (2) the development, application, and anticipated future development of Federal guidelines for such plans; (3) the status of administrative and judicial enforcement actions taken pursuant to this Act; (4) a list of the actions and persons engaging in them which gave the Administrator basis to believe that a violation of any requirement under the Act was occurring, but as to which the Administrator determined that no enforcement action was warranted and the reasons for such determination; (5) the progress and problems associated with regulation of hazardous wastes under section 219 of this Act; (6) the extent of development and implementation of techniques to reduce the generation of waste, to treat hazardous wastes, to separate municipal waste, to recover energy or materials from waste, to monitor or test for various

waste materials, and to reduce the impact of waste disposal practices on land, air, and water resources; (7) progress and problems associated with encouraging recycling and resource recovery through Federal procurement and with insuring Federal agency compliance with requirements under this Act; (8) the status of actions and orders under the emergency powers provision of this Act, including actions and orders which were contemplated but not brought or issued by the Administrator and the reasons for such decision; (9) status of litigation under this Act other than enforcement proceedings, including citizen suits; and (10) any recommendations for amendment of this Act which the Administrator deems warranted."

SEC. 3. (a) Section 7 of the Small Business Act is amended (1) by inserting "or in affecting additions to or alterations in the equipment, facilities, or methods of operation of such concern to meet requirements established under the Solid Waste Disposal Act," after "Act," in subsection (g) (1); by inserting "or under the Solid Waste Disposal Act" after "Act" in subsection (g) (2) (B); by inserting "and the Comprehensive Waste Management and Resource Recovery Act" after "1972" in subsection (g) (3).

SEC. 4. (a) Section 216 of the Solid Waste Disposal Act, as amended (42 U.S.C. 3251 et. seq.), is amended—

(1) by striking out subsection (a) (2) and inserting in lieu thereof the following:

"(2) There are authorized to be appropriated to the Administrator of the Environmental Protection Agency to carry out the provisions of this Act other than sections 208, 236, and 237, $28,500,000 for the fiscal year ending June 30, 1975, and $33,500,000 for the fiscal year ending June 30, 1976."

(2) by striking out subsection (a) (3) and inserting in lieu thereof the following:

"(3) There are authorized to be appropriated to the Administrator of the Environmental Protection Agency to carry out section 208 of the Act, $10,600,000 for the fiscal year ending June 30, 1975; and $15,600,000 for the fiscal year ending June 30, 1976." and

(3) by striking out subsection (b) and by inserting in lieu thereof the following:

"(b) There are authorized to be appropriated to the Secretary of the Interior to carry out this Act, $10,000,000 for the fiscal year ending June 30, 1975; and $10,000,000 for the fiscal year ending June 30, 1976."

(b) Such Act is further amended by adding the following new sections after section 235:

"GRANTS FOR STATE PROGRAMS

"SEC. 236. There are authorized to be appropriated for grants to States under this section for implementing and

enforcing State waste management and resource recovery plans under section 217, State new source standards of performance under section 218, and hazardous waste treatment and disposal standards under section 219 of this Act, $25,000,000 for the fiscal year ending June 30, 1975; and $28,100,000 for the fiscal year ending June 30, 1976."

"GRANTS FOR PROGRAM PLANNING AND DEVELOPMENT

"SEC. 237. (a) There are authorized to be appropriated for grants to States, areawide authorities, or to general purpose units of local government under this section for development, adoption, and implementation of State waste management and resource recovery plans under section 217, or hazardous waste treatment and disposal standards under section 219 of this Act, $6,400,000 for the fiscal year ending June 30, 1975; and $11,400,000 for the fiscal year ending June 30, 1976.

"(b) In order to be eligible for a grant under this section, any State must demonstrate that it has created a State agency (or has made adequate arrangement with public or private agencies, organizations, or institutions) to provide adequate technical assistance to general purpose units of local government and to areawide planning agencies in meeting the requirements of section 217(a) (3) (H) and (b) (2) (G)-(I).

"(c) There shall be established within the Environmental Protection Agency an Office of Technical Assistance which shall provide to the States adequate technical assistance to assist in meeting the requirements of subsection (b) and to general purpose units of local government and areawide planing agencies to assist in meeting the requirements of section 217(a)(3)(H) and (b)(2)(G)-(I)."

SEC. 5. Unless otherwise specified herein, the provisions of this Act shall become effective upon date of enactment.

93D CONGRESS
1ST SESSION

H. R. 3317

IN THE HOUSE OF REPRESENTATIVES

JANUARY 30, 1973

Mr. VIGORITO introduced the following bill; which was referred to the Committee on Interstate and Foreign Commerce

A BILL

To reduce solid waste pollution and litter which is caused by glass containers by making safer and more efficient the process of recycling glass containers by requiring that glass containers be made of clear glass.

Be it enacted by the Senate and House of Representatives of the United States of America in Congress assembled, That this Act may be cited as the "Clear Glass Container Act".

SEC. 2. Congress hereby finds—

(1) that it is in our national interest to initiate an effective program to combat solid waste pollution,

(2) that it is in our national interest to save and preserve our natural resources by recycling, instead of discarding those already in use,

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(3) that glass poses a special solid waste pollution problem because it will not burn in municipal incinerators,

(4) that glass containers must be sorted into separate and distinct colors in order to be recycled,

(5) that there does exist a specific danger of bodily harm to those who attempt to sort by color glass containers for recycling, and

(6) that the process of recycling glass containers would be made vastly more safe and efficient if glass containers were to be of a uniform color.

SEC. 3. (a) (1) No person shall manufacture for sale, sell, offer for sale, or introduce or deliver for introduction in interstate commerce—

(A) any product packaged in a container of glass,

(B) any container of glass which is intended for use in packaging any product for sale,

unless such container meets the requirements of this section.

(2) A container meets the requirements of this section if—

(A) such container is returnable,

(B) such container is made of clear glass, meeting standards prescribed by the Administrator by regulation, or

(C) such container is not made of clear glass, but

the Administrator determines that use of a container of colored glass is necessary to protect the contents thereof.

(b) Whoever violates subsection (a) of this section shall be fined not more than $1,000, or imprisoned for not more than six months, or both.

SEC. 4. For purposes of this Act:

(1) The term "Administrator" means the Administrator of the Environmental Protection Agency.

(2) The term "returnable container" means a container—

(A) which the Administrator determines under regulations is a container for which a reasonable money deposit is required from the consumer, and

(B) which bears the word "Returnable" on the outside thereof.

Regulations under subparagraph (A) of this paragraph shall be issued, amended, or repealed in accordance with the procedures established by section 701 (e) of the Federal Food, Drug, and Cosmetic Act (21 U.S.C. 371e).

(3) The term "interstate commerce" shall have the same meaning as that given it in section 201 of the Federal Food, Drug, and Cosmetic Act (21 U.S.C. 321).

SEC. 5. This Act shall not apply with respect to any container manufactured before the date on which initial regulations under section 4 (2) (A) take effect.

93D CONGRESS
1ST SESSION

H. R. 3954

IN THE HOUSE OF REPRESENTATIVES

FEBRUARY 7, 1973

Mr. DINGELL introduced the following bill; which was referred to the Committee on Interstate and Foreign Commerce

A BILL

To amend the Solid Waste Disposal Act to require an investigation and study of the decomposability and destructibility of materials.

Be it enacted by the Senate and House of Representatives of the United States of America in Congress assembled, That section 204 of the Solid Waste disposal Act (42 U.S.C. 3253) is amended by adding at the end thereof the following:

"(d) The Secretary shall conduct a full and complete investigation and study of the decomposability and destructibility of packaging and other materials as a means of reducing the amount of solid wastes and unsalvageable materials resulting from the industrial, commercial, and agricultural

operations of the country. Within one year after the date of enactment of this subsection the Secretary shall report to Congress the results of such investigation and study together with his recommendations, including, with respect to those materials which he determines it to be feasible, recommended standards of decomposability and destructibility."

93D CONGRESS
1ST SESSION

H. R. 4475

IN THE HOUSE OF REPRESENTATIVES

FEBRUARY 21, 1973

Mr. BURKE of Florida introduced the following bill; which was referred to the Committee on Interstate and Foreign Commerce

A BILL

To assist in the effective and suitable disposal of passenger cars at the time of the discontinuance of their use on the highways by encouraging the disposal of such cars through persons licensed by the Secretary of Transportation, and for other purposes.

Be it enacted by the Senate and House of Representatives of the United States of America in Congress assembled, That (a) this Act shall be known as "The Scrap Auto Act".

(b) That the manufacturer of any new passenger car shall at the time of delivery of such car to a dealer provide the dealer with a disposal identification card for such car. Such card shall set forth the passenger car's vehicle identifi-

cation number and shall contain such other information describing the car and shall be in such form, as the Secretary shall by regulation prescribe.

(c) The ultimate purchaser of any new passenger car from a dealer shall pay to the dealer a disposal fee of $30. The label that is required to be affixed to the new passenger car under section 3 of the Automobile Information Disclosure Act (15 U.S.C. 1232) shall clearly state that in addition to any other charges the ultimate purchaser is being charged a disposal fee of $30. Within ten days of such purchase the dealer shall send the Secretary the disposal identification card of such car and the disposal fee collected by the dealer.

SEC. 2. (a) The Secretary shall license persons for the purpose of providing, consistent with sound environmental practice, suitable and effective disposal of passenger cars no longer used on the public highways. Such licenses shall be issued, renewed, and terminated in accordance with regulations prescribed by the Secretary.

(b) Any person licensed under subsection (a) who receives a passenger car for disposal in accordance with regulations which the Secretary shall prescribe shall pay the owner of such car, or a municipality or State or its agent if the car is abandoned in addition to any other amounts paid in connection with the receipt of the car, the sum of $30 if a disposal fee was paid in accordance with subsection (b)

of the first section of this Act in connection with its purchase. The Secretary shall reimburse each such person for payments made under this section and in addition shall pay such person the sum of $5 for each payment made under this section.

SEC. 3. (a) There is hereby established in the Treasury of the United States an Automobile Environmental Quality Trust Fund (hereafter in this section referred to as "Trust Fund") consisting of such amounts as may be transferred to the Trust Fund pursuant to subsection (b). The Trust Fund shall be administered by the Automobile Environmental Quality Board established under section 4 (hereafter in this Act referred to as the "Board").

(b) All disposal fees collected under subsection (b) of the first section of this Act shall be deposited in the Trust Fund. Any amounts in the Trust Fund may be invested in the same manner as is provided by section 209(e) of the Highway Revenue Act of 1956 with respect to the Highway Trust Fund.

(c) Amounts in the Trust Fund shall be available, as provided in appropriations Acts—

(1) for making reimbursement and other payments to persons disposing of passenger cars, as provided by section 2(b), and

(2) to the extent of any surplus in the Trust Fund

(determined under subsection (d)), for (A) paying fees and expenses incurred as a result of this Act, and (B) for funding programs as established by the Board for disposal and salvaging of spent automobiles, consistent with sound environmental practice.

(d) For purposes of subsection (c) (2), a surplus in the Trust Fund consists of any accrued income from investment of the Trust Fund plus any accrued amounts which may reasonably be expected not to be claimed as reimbursement for payments made under section 2 (b). Any determination of the amount of surplus for purposes of this subsection shall be made by the Board after consultation with the Secretary.

SEC. 4. (a) (1) There is hereby established an Automobile Environmental Quality Board. The Board shall be composed of five members appointed by the President. Except as provided in paragraphs (2) and (3), members shall be appointed for terms of five years.

(2) Of the members first appointed—

(A) one shall be appointed for a term of five years,

(B) one shall be appointed for a term of four years,

(C) one shall be appointed for a term of three years,

(D) one shall be appointed for a term of two years, and

(E) one shall be appointed for a term of one year, as designated by the President at the time of appointment.

(3) Any member appointed to fill a vacancy occurring prior to the expiration of the term for which his predecessor was appointed shall be appointed only for the remainder of such term. A member may serve after the expiration of his term until his successor has taken office.

(b) Members of the Board shall each be entitled to receive $100 for each day (including traveltime) during which they are engaged in the actual performance of duties vested in the Board. While away from their homes or regular places of business in the performance of services for the Board, members of the Board shall be allowed travel expenses, including per diem in lieu of subsistence, in the same manner as the expenses authorized by section 5703(b) of title 5, United States Code, for persons in the Government service employed intermittently.

(c) The Chairman of the Board shall be designated by the President and shall serve as Chairman at the pleasure of the President. The Board shall meet quarterly and at the call of the Chairman.

SEC. 5. Any person who violates any provision of this Act shall be fined not more than $5,000.

SEC. 6. The Secretary shall prescribe such regulations as may be necessary to carry out this Act.

SEC. 7. For purposes of this Act—

(1) The term "passenger car" means a vehicle driven

by mechanical power that is manufactured primarily for use on the public streets, roads, and highways and is designed for carrying one or more (but not more than 10) passengers. Such term does not include a vehicle operated exclusively on a rail or rails.

(2) The term "new passenger car" means a passenger car the equitable or legal title to which has never been transferred by a manufacturer or dealer to an ultimate purchaser.

(3) The term "manufacturer" means any person engaged in the manufacturing or assembling of new passenger cars, any person importing new passenger cars for resale, or any person who acts for and is under the control of a manufacturer or importer of new passenger cars in connection with the distribution of such cars.

(4) The term "dealer" means any person who is engaged in the sale and distribution of new passenger cars to ultimate purchasers.

(5) The term "ultimate purchaser" means, with respect to a new passenger car, the first person who in good faith purchases such car for purposes other than resale.

(6) The term "vehicle identification number" means the identifying number for a passenger car required by the

Secretary by regulations prescribed under the National Traffic and Motor Vehicle Safety Act of 1966.

(7) The term "Secretary" means the Secretary of Transportation.

SEC. 6. This Act shall apply with respect to new passenger cars manufactured or assembled or imported after January 1, 1972.

H.R. 12537, introduced by Mr. Tiernan on February 4, 1974;

H.R. 12937, introduced by Mr. Tiernan (for himself, Mr. Badillo, Mr. Bergland, Mr. Corman, Mr. Edwards of California, Mr. Pepper, Mr. Riegle, Mr. St Germain, and Mr. Vigorito) on February 20, 1974; and

H.R. 13298, introduced by Mr. Tiernan (for himself, Mr. Badillio, Mr. Bergland, Ms. Collins of Illinois, Mr. Corman, Mr. Edwards of California, Mr. Hogan, Ms. Holtzman, Mr. Moakley, Mr. Pepper, Mr. Riegle, Mr. St Germain, Mr. Sarbanes, Ms. Schroeder, and Mr. Vigorito) on March 6, 1974,

are identical as follows:

A BILL

To protect the environment and conserve natural resources by stimulating the recovery, reuse, and recycling of waste materials and by decreasing the quantity of materials moved in commerce which must be disposed of ultimately as waste; to promote and regulate commerce by identifying and establishing standards and guidelines for the proper management of waste which poses a substantial hazard to human health or the environment, and for other purposes.

Be it enacted by the Senate and House of Representatives of the United States of America in Congress assembled,

TITLE I—FORMAL PROVISIONS

SHORT TITLE AND TABLE OF CONTENTS

SEC. 101. (a) This Act may be cited as the "National Resource and Energy Conservation Act of 1974".

(b) Table of contents.

FINDINGS AND PURPOSES

SEC. 102. (a) The Congress finds and declares that—

(1) The Nation no longer possesses an overabundance of natural resources necessary for material commerce, nor can it continue to be profligate in their use. To avoid shortages, price increases, and other burdens on commerce, greater emphasis must be placed on recovering and reusing resources now disposed of as waste, rather than on using scarce virgin natural resources.

(2) The improper disposal of waste, especially hazardous waste, seriously burdens commerce. This burden can be reduced by providing economic incentives to promote the use of materials and products that can be used again through recovery, reuse, and recycling and by identifying and establishing standards and guidelines for disposal.

(3) A saving of scarce virgin natural resources and a reduction in disposal costs can be achieved by changing the procurement practices of the Federal Government to favor the development and marketing of recovered waste.

(4) The costs of disposing of waste vary greatly from material to material and product to product, but such costs are not reflected in the market prices of materials or products. This exclusion of disposal costs from market prices amounts to an invisible subsidy for these materials and products, and increases the burden on the Nation's waste management systems. Such subsidy leads to a misallocation of resources in commerce, higher local taxes and assessments for disposal of waste, and nonrational marketplace behavior by producers and consumers who are unaware of such subsidy. A practical and convenient method must be found for eliminating or reducing such burdensome subsidies.

(5) The recovery of materials and the production of energy from waste can reduce the wasteful consumption and use of scarce virgin resources and produce substantial quantities of low-sulfur content fuels, both of which will help meet the Nation's long-term energy needs.

(b) Therefore, it is declared to be the purpose of the Congress to—

(1) reduce the wasteful allocation of scarce resources by recovering materials and producing energy from waste through an intensive research and development program in the Environmental Protection Agency (with the assistance of the National Aeronautics and Space Administration) and a program of technical as-

sistance and support to Government agencies and persons producing or using such energy;

(2) protect public health, living organisms, and the environment through guidelines, standards, and regulations with respect to the treatment and disposal of waste;

(3) provide for the study and preparation of recommendations for a practical and convenient national disposal cost system which will internalize waste disposal costs in order to permit rational value comparisons based on total costs associated with competing products and to encourage the maximum efficiency in the Nation's productive systems; and

(4) mandate environmentally protective purchasing policies for all agencies of the Federal Government and require, to the extent feasible, that such agencies purchase items which are composed of recovered, reusable, or recyclable materials, thereby establishing increased markets for such materials and setting an example for State and local governments and private enterprise.

DEFINITIONS

SEC. 103. As used in this Act, except as otherwise defined—

(1) "Administrator" means the Administrator of the Environmental Protection Agency.

(2) "Commerce" means commerce among the several

States or with foreign nations or in any State or between any State and foreign nation.

(3) "Consumables" means those products which are not normally disposed of in solid or liquid waste disposal systems and all edible products which are intended for human consumption.

(4) "Disposal of waste" means the discharge, deposit, or injection into subsurface strata or excavations or the ultimate disposition of any waste.

(5) "Disposal cost" means the economic cost (measured in dollars per standard unit of measure) of collecting, transporting, storing, utilizing, processing, and ultimately disposing of solid, liquid, and semisolid waste in the average waste disposal system in the United States.

(6) "Disposal site" means a location where any final disposition of waste occurs, which disposition may include the treatment of that waste as a part of the whole process of disposal.

(7) "Environment" includes water, air, land, all living things therein, and the interrelationships which exist among these inanimate and animate things.

(8) "Federal agency" means any department, agency, bureau, or commission in the executive branch of the Federal Government, any independent agency or establishment of the Federal Government including any wholly owned gov-

ernment corporation, or any establishment in the legislative or judicial branch of the Federal Government (except the Senate or House of Representatives).

(9) "Generation" means the act or process of producing waste.

(10) "Hazardous waste" means any waste or combination of wastes which pose a substantial present or potential hazard to human health, living organisms, or the environment because such waste or wastes—

(A) are nondegradable or persistent in nature;

(B) can be biologically magnified;

(C) can be lethal; or

(D) may otherwise cause or tend to cause detrimental cumulative effects.

The term shall not include any source material, special nuclear material, or byproduct material subject to regulation or control under the Atomic Energy Act of 1954 (42 U.S.C. 2011 et seq.) or any lethal chemicals subject to regulation under section 409 of the Act of November 19, 1969 (83 Stat. 209; 50 U.S.C. 1511–1518).

(11) "Municipality" means any city, town, county, parish, district, or other public body or combination thereof created by or pursuant to State law or compact which has responsibility for the planning or administration of waste management.

(12) "Person" means any person, Federal agency, State, or municipality.

(13) "Procurement item" means any device, goods, substance, material, product, or other item which is the subject of any purchase, barter, or other exchange made to procure such item.

(14) "Procuring agency" means any Federal agency or any State agency or municipality using Federal funds or any person contracting with such an agency in the performance of work under such contract.

(15) "Product" means any article, device, item, material, or substance or parts thereof produced for sale to a person for personal, household, or business use other than use as material in the manufacture or production of, or as a component part of, another such article, device, item, material, or substance, and any container or packaging material which is normally used for the distribution of any such article, device, item, material, or substance.

(16) "Recovered" means—

(A) to be reintroduced into commerce following disposal by the consumer after end usage in the final configuration prior to sale; or

(B) to be collected from municipal solid, liquid, or semisolid waste.

(17) "Recyclable" means to have useful physical or chemical properties after having served a specific purpose.

(18) "Reusable" means to be capable of reintroduction into the marketplace for sale, distribution, or use without any substantial alteration or change.

(19) "State" means any of the several States, the District of Columbia, and the Commonwealth of Puerto Rico.

(20) "Storage" means the interim containment of waste after generation and prior to ultimate disposal. Such containment for more than two years shall be considered disposal.

(21) "Transport" means the movement of waste from the point of generation through intermediate transfer points, if any, to the point of ultimate disposal.

(22) "Treatment" means any activity or processing designed to change the physical form or chemical composition of waste so as to render it recyclable, recoverable, energy productive, nonhazardous, or any combination of those.

(23) "Treatment facility" means a location at which waste is subjected to treatment and may include a facility where waste has been generated.

(24) "Unsafe disposal practice" means any method of collecting, storing, transporting, treating, utilizing, processing, or ultimately disposing of waste (including its conver-

sion into energy) which poses an unreasonably present or potential hazard to health, living organisms, or the environment.

(25) "Virgin natural resource" means raw materials such as previously unused copper, aluminum, lead, zinc, steel, and other metals and metal ores, woodpulp, and new or virgin textile materials which have useful physical or chemical properties which exist, unused, in nature.

(26) "Waste" means any unwanted or discarded solid, liquid, or semisolid material or materials.

(27) "Waste disposal system" means a system for the collection, storage, transport, treatment, utilization, processing, or ultimate disposal of waste, including the recovery of materials and the production of energy from waste.

(28) "Waste management" means the systematic control of the generation, collection, storage, transport, treatment, recycling, recovery, or disposal of waste.

TITLE II—PRODUCT STANDARDS AND REGULATION

PROHIBITION

SEC. 201. It shall be unlawful for any person to introduce or deliver for introduction in commerce any product which does not conform to the standards prescribed by the Administrator pursuant to section 203 of this title or regulations promulgated under section 206(a) of this title.

PENALTIES

SEC. 202. (a) (1) Any person, other than a person who commits a criminal violation under subsection (b), who is found by the Administrator after notice and an opportunity for an adjudicative hearing conducted in accordance with section 554 of title 5, United States Code, to have committed an act prohibited by section 201 of this title, shall be liable to the United States for a civil penalty of a sum which is not more than $20,000 for each day of violation. The amount of such civil penalty shall be assessed by the Administrator after notice and an opporunity for an adjudicative hearing conducted in accordance with section 554 of title 5, United States Code, and after he has considered the nature, circumstances, and extent of such violation, the practicability of compliance with the provisions violated, and any good faith efforts to comply with such provisions.

(2) If a person fails to pay any penalty assessed under paragraph (1) of this subsection, the Administrator may institute a civil action against such person, or he may request the Attorney General to do so, in the district court of the United States for any district in which such person is found, resides, or transacts business, to collect the penalty. Such court shall have jurisdiction to hear and decide any such action. In hearing an action under this paragraph, the court

shall sustain the Administrator's finding of violation and assessment of civil penalty if such action is supported by substantial evidence.

(b) Any person who knowingly commits an act prohibited by section 201 of this title shall, upon conviction, be fined not more than $20,000 or imprisoned for not more than one year, or both.

(c) The Attorney General or the Administrator may bring an action in the appropriate district court of the United States for equitable relief to redress a violation by any person of scction 201 of this title. The district courts of the United States shall have jurisdiction to grant such relief as the equities of the case may require.

STANDARDS

SEC. 203. (a) Within one year after the date of enactment of this title, the Administrator shall promulgate and shall, from time to time, revise such standards regulating the manufacture and distribution of certain products in commerce as he determines necessary to protect health or the environment against unreasonablc burdens and risks associated with the disposal of such products. Such standards may be imposed upon the manufacture and distribution of a product only if thc Administrator finds that promulgation of a regulation pursuant to title III of this Act will not protect health or the environment against such unreasonable bur-

dens or risks as effectively as standards promulgated under this section.

(b) The standards prescribed pursuant to subsection (a) of this section may include:

(1) prohibitions against the manufacture or sale of specific products;

(2) methods of distribution of specific products;

(3) percentages of recovered, reusable, or recyclable materials which shall be contained in specific products; and

(4) maximum permissible quantities of component materials that may produce adverse environmental effects when the products are discarded.

IMMINENT HAZARD

SEC. 204. (a) An imminent hazard shall be considered to exist when the evidence is sufficient to show that the disposal of a product will result in any unreasonable burden or risk to human health or the environment prior to the completion of an administrative hearing or other formal proceeding held pursuant to this title.

(b) If the Administrator has reason to believe that an imminent hazard exists he may petition an appropriate district court of the United States, or he may request the Attorney General to do so, to restrict the manufacturer and distribution of the product responsible for the hazard. The Ad-

ministrator shall simultaneously, if he has not done so, propose any regulation which may be warranted under section 203 of this title.

SEIZURE

SEC. 205. (a) The Administrator or the Attorney General may file an action against any product which constitutes an imminent hazard as described by section 204 (a) of this title or any product which the Administrator finds is manufactured or distributed in violation of section 203 or section 206 (a) of this title for seizure of such product.

(b) (1) The court in which such action is filed shall have jurisdiction to declare such product to constitute an imminent hazard or to be manufactured or distributed in violation of section 203 or section 206 (a) of this title and to grant (as ancillary to such declaration or in lieu thereof) such temporary or permanent relief as may be necessary to protect the public from such risk.

(2) In any such action, the product may be proceeded against by process of libel for the seizure and condemnation of such product in any district court of the United States within the judicial district of which such product is found. Proceedings and cases shall conform as nearly as possible to proceedings in rem in admiralty.

(c) Any product condemned under this section shall, after entry of the decree, be disposed of by destruction or

sale as the court may, in accordance with the provisions of this section, direct and the proceeds thereof, if sold, less the legal costs and charges, shall be paid into the Treasury of the United States. Such product shall not be sold under such decree contrary to the provisions of this title or the laws of the jurisdiction in which sold: *Provided*, That after entry of the decree and upon the payment of the costs of such proceedings and the execution of a good and sufficient bond conditioned that such product shall not be sold or disposed of contrary to the provisions of this title or the laws of the jurisdiction in which sold, the court may by order direct that such product be delivered to the owner thereof to be destroyed or brought into compliance with the provisions of this title under the supervision of an officer or employee duly designated by the Administrator. The Administrator may establish a schedule of supervision fees and regulations requiring the payment of the appropriate fee by the person obtaining release of the product under bond.

(d) When a decree of condemnation is entered against the product, court costs and fees and storage and other property expenses shall be awarded against the person, if any, intervening as claimant of the product.

EXPORTS AND IMPORTS

SEC. 206. (a) Notwithstanding any other provision of this title, no product and no sale of a product shall be deemed

in violation of this title if it is intended solely for export to any foreign nation except that no product may be exported if the Administrator by regulation finds that the product as exported and disposed of will, directly or indirectly, pose an unreasonable threat to the health of persons within the United States or the environment of the United States.

(b) The Administrator shall furnish to the governments of the foreign nations to which any product or class of products may be exported for which standards developed under section 203 of this title are applicable, a notice of the availability of all information in the possession of the Administrator which is relevant to such standards.

(c) The Secretary of the Treasury shall refuse entry into the United States of any product offered for entry if it fails to conform with standards promulgated under section 203 of this title. If a product is refused entry, the Secretary of the Treasury shall refuse delivery to the consignee and shall cause the disposal or storage of any such product which has not been exported by the consignee within three months from the date or receipt of notice of such refusal. The disposal or storage of such product shall be in accordance with such regulations as the Secretary of the Treasury may prescribe. In the alternative, the Secretary of the Treasury may deliver such product to such consignee pending examination and decision in the matter if—

(1) such consignee executes a bond payable to the United States in a face amount equal to the full invoice value of such product together with the duty thereon; and

(2) such consignee agrees that the full amount of such bond shall be forfeited if he refuses to return such product for any cause to the custody of such Secretary upon demand. All charges for storage, cartage, and labor on products which are refused admission or delivery under this section shall be paid by the owner or consignee, and in default of such payment the amount thereof shall constitute a lien against any importation made by such owner or consignee.

WASTE REDUCTION STUDIES

SEC. 207. (a) (1) The Administrator shall conduct a study of possible methods of regulating the design, use, reuse, and recycling of certain products to reduce the generation of solid waste, reduce the consumption of virgin materials resources, or to reduce burdens on the environment associated with the manufacture, utilization, or disposal of such products. Methods to be examined shall include regulations specifying minimum percentages of recycled materials to be contained in such products; product design specifications to reduce material utilization; product design specifications to

facilitate recycling, reuse, or disposal; prohibitions against the manufacture and sale of specific products and containers; deposits or bounties to insure the return of products and packages for recycling, reuse, or disposal; and specifications for product life and durability.

(2) As part of such study, for all product categories affecting solid waste, the Administrator shall identify possible standards for design, nse, reuse, and recycling of such products that would result in a reduced burden on or risk to health or the environment, a more efficient use of virgin natural resources, or a more equitable allocation of costs of environmental control or solid waste management.

(3) Methods studied under paragraph (1) of this subsection and standards identified under paragraph (2) of this subsection shall be analyzed as to technical feasibility, effectiveness, and economic efficiency. The Administrator shall report the results of such study to the Congress no later than eighteen months after the date of enactment of this title.

(b) The Administrator shall conduct research, investigations, experiments, surveys, studies and demonstrations of means of reducing waste generation and increasing the recovery of materials and the production of energy from solid, liquid, and semisolid wastes from residential, commercial, industrial, and agricultural sources. The Adminis-

trator shall report the results of such studies and investigations to the Congress on an annual basis.

STATE AUTHORITY

SEC. 208. (a) If the Administrator has promulgated standards under section 203 of this title or imposed a regulation under section 206(a) of this title with respect to a product, no State or local government may impose requirements which are different from those imposed under the provisions of such section with respect to such product.

(b) The Administrator may by regulation, upon the petition of any State or local government or at his own initiative, exempt State and local governments from the prohibitions of subsection (a) of this section, if such exemption will not, through difficulties in marketing, distribution, or other factors, result in placing an unreasonable burden upon commerce.

TITLE III—UNSAFE DISPOSAL PRACTICES

IDENTIFICATION

SEC. 301. (a) Within eighteen months after the date of enactment of this title and from time to time thereafter the Administrator shall issue regulations in accordance with this section and after consultation with representatives of other appropriate agencies—

(1) identifying unsafe disposal practices. In identifying such practices, the Administrator shall specify all

significant factors contributing to the danger posed by such practices including the proximity of identifiable sources of leaks to surface waters and to ground waters or underground hydrogeologic systems directly related to surface water systems, potential hazards to transportation avenues and facilities, the relationship of ultimate site use to hazards from decomposition gases and subsurface subagents, potential surface and subsurface fires, and geography, population density and location, meteorological conditions, geological peculiarities, and other characteristics of sites for generation, treatment, and disposal of wastes;

(2) identifying hazardous wastes. In identifying any waste that is hazardous, the Administrator shall specify quantity, concentration, and the physical, chemical, and biological properties of such waste, taking into account means of disposal, disposal sites, and available disposal practices;

(3) establishing standards for the control of unsafe disposal practices. Such standards shall include minimum standards of performance required to reasonably protect human health, living organisms, and the environment including acceptable criteria for the location, design, construction, and operation and maintenance of safe treatment and/or disposal sites and operating meth-

ods, techniques, and practices of safe disposal, taking into account the nature of the waste to be disposed of. In establishing such standards the Administrator shall—

(A) establish minimum requirements for generators of hazardous wastes. Such standards shall include the requirement that any person generating hazardous wastes obtain and hold a permit for the treatment and disposal of such wastes. Any person desiring such a permit must—

(i) maintain records indicating quantities of hazardous wastes generated and the disposition of all such hazardous wastes generated;

(ii) appropriately label all containers used for on-site storage or for transport of such wastes;

(iii) follow appropriate procedures for treating hazardous wastes on-site;

(iv) transport all hazardous wastes intended for off-site disposal to hazardous waste disposal facilities for which a permit has been issued; and

(v) submit an annual report to the Administrator or the appropriate permit authority which shall for the reporting period include quantities of hazardous waste generated, iden-

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tification of any new waste substance produced which would be commonly recognized by other members of the generator's industry as hazardous waste and disposition of all hazardous wastes;

(B) establish maximum requirements, where appropriate, for disposal practices with respect to nonhazardous wastes; and

(C) establish minimum requirements for obtaining and holding a permit for operating a waste treatment and/or disposal facility. Holders of such permits shall be required as a minimum—

(i) to locate, design, construct, operate, and maintain such a facility in compliance with minimum Federal standards for the treatment and disposal of wastes; and

(ii) to refuse to accept for treatment or disposal improperly labeled or unacceptably containerized hazardous wastes when such holder knows or has reason to know such wastes to be improperly labeled or unacceptably containerized; and

(4) establishing guidelines for State programs intended to implement unsafe disposal practice regulations. Such guidelines shall provide that—

(A) State programs require that any person generating hazardous wastes or operating a waste treatment or disposal facility obtain from the State a generator's or operator's permit. Such permit shall be terminable or modifiable for cause established by regulation. Such permit shall be issued and maintained contingent upon the holder's compliance with—

(i) minimum standards for control of unsafe disposal practices established by the Administrator under this title; and

(ii) State standards for location, design, and operation of waste disposal facilities, or

(ii) minimum inspection requirements to insure that no unauthorized waste is accepted for disposal;

(B) State programs require that all generators of nonhazardous waste must—

(i) comply with minimum State and/or Federal standards when disposing of nonhazardous waste on-site; and

(ii) insure that all nonhazardous waste transported off-site for disposal reaches a licensed waste disposal facility.

(D) the State has such regulatory and other

authorities as may be necessary to carry out the purposes of this title, including, but not limited to, the authority to inspect disposal sites and records, and to judicially enforce the requirements of this title against any person;

(E) the State notice and a public hearing before issuance of any permit; and

(F) the State shall transmit to the Administrator a copy of each permit application and provide notice of every action related to consideration of such permit application.

STATE PROGRAMS

SEC. 302. (a) Within eighteen months after promulgation of final regulations and in accordance with section 301 of this title, each State shall establish a State implementation plan to regulate disposal practices and submit such plan to the Administrator for approval. Each such plan shall be in accordance with the guidelines promulgated under subsection (a) (4) of section 301 of this title. If the State fails to submit a program for the Administrator's approval, or fails after a reasonable time to make such revisions as the Administrator determines are necessary for approval, the Administrator, after public hearings, shall issue regulations establishing an implementation plan for such State to the extent necessary to comply with minimum Federal guide-

lines which will then become such State's plan. If, after the Administrator has approved a State implementation plan, he determines that (1) revisions or corrections are necessary to bring such plan into compliance with new or revised Federal guidelines or (2) the State is failing to enforce the requirements in such a plan, he shall notify the State requesting that corrective action be taken. The Administrator may withdraw his approval if such corrective action is not taken within a reasonable time and proceed as if such State had failed to submit a State plan.

(b) The Administrator shall periodically, but not less than once every three years, review each State waste management plan which has been approved under this subsection to determine whether such plan is still in accordance with this title and to evaluate the success of such plan in terms of the declaration of purpose under subsection (b) of title I of this Act. To facilitate such review, the Governor or the head of the agency in such State which is responsible for hazardous waste management within such State shall submit to the Administrator periodically all information relevant and requested by the Administrator. The Administrator shall report to the Congress and the President simultaneously each year the results of such review including any recommendations for additional legislation which he deems necessary or appropriate.

FEDERAL ENFORCEMENT

SEC. 303. (a) (1) Whenever, on the basis of any information, the Administrator determines that any person is in violation of any requirement or standard under this title, he shall give notice to such person of such violation and shall also give such notice to the State in which such violation occurs.

(2) If such violation extends beyond the thirtieth day after notification by the Administrator, the Administrator may issue an order requiring compliance within a specified time period or suspending or revoking any permit issued under this title or he may commence a civil action in the district court of the United States in the district in which such alleged violation occurred, for appropriate relief, including temporary or permanent mandatory or prohibitive injunctive relief.

(3) If such violator fails to take corrective action within the time specified in an order under paragraph (2) of this subsection, he shall be liable for a civil penalty to be assessed by the Administrator in accordance with section 554 of title 5, United States Code, of not more than $25,000 for each day of noncompliance with such order.

(4) Any order or any suspension or revocation of a permit shall become final unless the person or persons named in such order, suspension, or revocation requests a public hear-

ing within thirty days after the order or notice of suspension or revocation is served upon such person or persons. Upon such request, the Administrator shall promptly conduct a public hearing in accordance with the provisions of section 554 of title 5, United States Code.

(5) Any order issued under this subsection shall state with reasonable specificity the nature of the violation and the time period within which compliance is required. The amount of the civil penalty assessed, if any, shall be determined by the Administrator on the basis of the seriousness of the violation and whether any good-faith efforts were made to comply with the applicable requirements or standards. Any civil penalty may be compromised by the Administrator.

(6) If a person fails to pay any penalty assessed under this subsection, the Administrator may institute a civil action against such person, or he may request the Attorney General to do so, in the district court of the United States for any district in which such person is found, resides, or transacts business, to collect the penalty. Such court shall have jurisdiction to hear and decide any such action. In hearing an action under this subsection, the court shall sustain the Administrator's finding of violation and assessment of civil penalty if such action is supported by substantial evidence.

(b) Any person who knowingly commits an act prohibited by section 307 of this title shall, upon conviction,

be subject to a fine of not more than $25,000 for each day of violation, or to imprisonment not to exceed one year, or both.

INSPECTIONS

SEC. 304. (a) For the purpose of developing or assisting in the development of any regulation or enforcing the provisions of this title, any person who stores, treats, transports, disposes of, or otherwise handles hazardous wastes shall, upon request of any officer or employee of the Environmental Protection Agency or of any State or political subdivision, duly designated by the Administrator, furnish or permit such person at all reasonable times to have access to, and to copy all records relating to such wastes.

(b) For the purposes of developing or assisting in the development of any regulation or enforcing the provisions of this title, officers or employees duly designated by the Administrator are authorized—

(1) to enter at reasonable times, any establishment or other place maintained by any person where hazardous wastes are stored, treated, or disposed of; and

(2) to inspect and obtain samples from any person of any such wastes and samples of any containers or labeling for such wastes.

Each such inspection shall be commenced and completed with reasonable promptness. If the officer or employee obtains

any samples, prior to leaving the premises, he shall give to the owner, operator, or agent in charge a receipt describing the sample obtained and, if requested, a portion of each such sample equal in volume or weight of the portion retained. If an analysis is made of such samples, a copy of the results of such analysis shall be furnished promptly to the owner, operator, or agent in charge.

INTERSTATE AND INTRASTATE COOPERATION

SEC. 305. (a) The Administrator shall encourage cooperative activities by State and local governments in connection with waste disposal and resource recovery programs to include material recovery and energy production from waste, encourage regional planning for, and the conduct of, interstate, interlocal, and regional waste disposal and resource recovery programs, encourage the enactment of improved and uniform State and local laws governing waste disposal and resource recovery.

(b) Within eighteen months following the enactment of this Act the Administrator shall conduct, and, upon completion, report to the Congress and the President the results of, a study of the feasibility of designing a national resource recovery plan to be implemented by the States individually or in cooperation with other States which will encourage the maximum recovery of resources from wastes and the subsequent recovery of energy from those wastes which are not

otherwise recoverable. In conducting this study the Administrator shall investigate various forms of interstate and intrastate governmental institutions and their adaptability to intergovernmental resource recovery programs.

IMMINENT HAZARD

SEC. 306. (a) An imminent hazard shall be considered to exist when the evidence is sufficient to show that the handling, storage, or disposal of wastes will result in any unreasonable threat to human health, living organisms, or the environment prior to the completion of an administrative hearing or other formal proceeding held pursuant to this title or

(b) If the Administrator has reason to believe that an imminent hazard exists he may petition an appropriate district court of the United States, or he may request the Attorney General, to order any operator of such disposal site or other person having custody of such waste to take such action as is necessary to eliminate the imminent hazard, including permanent or temporary cessation of operation of such disposal site, or such other remedial measures as the court deems appropriate.

PROHIBITED ACTS

SEC. 307. (a) The following acts and the causing thereof are prohibited and shall be subject to enforcement in accordance with the provisions of section 303 of this title—

(1) failure to comply with the conditions of any permit issued pursuant to an approved implementation plan under section 302(a) of this title;

(2) operating any disposal site or generating any hazardous waste without a permit required pursuant to an approved implementation plan under section 302(a) of this title; or

(3) the failure to comply with any regulation or order promulgated by the Administrator pursuant to this title.

INTEGRATION WITH OTHER ACTS

SEC. 308. The Administrator is directed to integrate all provisions of this title, including but not limited to: the establishment and administration of permit programs, the promulgation of implementation plans, the establishment and enforcement of standards for the control of unsafe disposal practices, inspections, and reports, to the maximum extent possible with the appropriate provisions of the Clean Air Act (42 U.S.C. 1857), the Federal Water Pollution Control Act (33 U.S.C. 466), the Federal Environmental Pesticide Control Act (7 U.S.C. 135), and such other authorities granting the Administrator regulatory authority. Such integration shall take place only to the extent that it can be done in a manner consistent with the goals and policies expressed within this title.

STATE AUTHORITY

SEC. 309. (a) Nothing contained herein shall prevent any State or local government from imposing more stringent requirements than those imposed under the provisions of this title.

(b) No State or local government shall impose with respect to wastes originating in other jurisdictions, requirements regulating or affecting the transport of such wastes into or across its jurisdiction or disposal within its jurisdiction which are more stringent than those requirements applicable to wastes originating within such receiving State or local jurisdiction or which discriminate against waste originating wthin such other jurisdiction.

FINANCIAL ASSISTANCE

SEC. 310. (a) The Administrator may make grants to appropriate State and interstate agencies and general purpose local governments, or combinations thereof, in an amount not to exceed 60 per centum of the reasonable costs of such programs, to assist them in the administration, enforcement, planning, implementation, training, manpower development, technical assistance, public information, basic data collection, or analytical services relating to—

(1) the collection, transport, processing, recovery, and disposal of hazardous waste;

(2) the control of any other unsafe disposal practices; and

(3) the recovery of material and energy resources from waste.

(b) The Administrator may withhold any portion of a program assistance grant including that allocated to the administration and enforcement of a permit program or implementation programs under section 302 of this title if—

(1) the Administrator has withheld or withdrawn approval of such program pursuant to section 302 of this title, or

(2) the Administrator has withheld or withdrawn approval of a program pursuant to section 302 of this title.

RESEARCH, DEVELOPMENT, INVESTIGATION, TECHNICAL ASSISTANCE, AND OTHER ACTIVITIES

SEC. 311. (a) The Administrator shall conduct, encourage, cooperate with, and render financial, technical, and other assistance to appropriate authorities, agencies, and institutions, in the conduct of, research, development, investigations, experiments, surveys, and studies relating to—

(1) any adverse effects on human health or the environment upon the release into the environment of

material present in the land disposal of solid, liquid, and semisolid waste, and methods to eliminate such effects;

(2) the operation, financing, and management of hazardous and nonhazardous solid waste management programs;

(3) the development and application of new and improved methods of collecting and disposing of solid waste and processing and recovering materials and energy from solid, liquid, and semisolid wastes;

(4) the reduction of the amount of such waste and unsalvageable waste material; and

(5) the avoidance of uneconomic shifts from one environmental control program to another.

(b) In carrying out the provisions of the preceding subsection, the Administrator is authorized to pay all or a part of the costs, as may be determined by the Administrator, of any project operated or to be operated by an eligible organization, which is designed—

(1) to develop, expand, or carry out a program (which may combine training, education, and employment) for training persons for occupations involving the management, supervision, design, operation, or maintenance of waste disposal and resources recovery equipment and facilities; or

(2) to train operators and supervisory personnel to

train or supervise persons in occupations involving the design, operation, and maintenance of waste disposal and resource recovery equipment and facilities.

(c) The Administrator shall, in cooperation with appropriate State, Federal, interstate, regional, and local agencies, allowing for public comment by other interested parties, as soon as practicable after the enactment of this title, recommend to appropriate agencies and publish in the Federal Register guidelines for systems of waste disposal, including the collection, transportation, storage, treatment, utilization, processing, and ultimate disposal of waste, including the recovery of materials and the production of energy from waste (including systems for private use), which shall be consistent with public health and welfare, and air and water quality standards and adaptable to appropriate land-use plans. Such guidelines shall apply to such systems whether on land or water and shall be revised from time to time.

(d) In carrying out the provisions of the preceding subsection, the Administrator is authorized to—

(1) collect and make available, through publication and other appropriate means, the results of, and other information pertaining to, such research and other activities, including appropriate recommendatons in connection therewith;

(2) cooperate with public and private agencies, institutions, and organizations, and with any industries involved, in the preparation and the conduct of such research and other activities; and

(3) make grants-in-aid to and contract with public or private agencies and institutions and individuals for research, surveys, development, and public education. Contracts may be entered into without regard to sections 3648 and 3709 of the Revised Statutes (31 U.S.C. 529; 41 U.S.C. 5).

TITLE IV—FEDERAL PROCUREMENT AND MEASUREMENT

PROCUREMENT REQUIREMENTS

SEC. 401. (a) With respect to each purchase and contract for property, the aggregate amount of which exceeds $5,000, no procurement shall be made by any procuring agency in the case of procurement items purchased—

(1) through advertisement for bids, of any procurement item which in comparison with other competing items offered for sale by suppliers is not composed of the greatest percentage of recovered materials and is not to the greatest extent recyclable or reusable following the use for which it was purchased, whenever a significant difference as to these characteristics exists between such items and competing items; or

(2) in the case of procurement items purchased through any other process, of any procurement item which is not to the maximum extent feasible composed of recovered materials and which is not to the maximum extent feasible recyclable or reusable following the use for which it was purchased.

The requirements of this subsection shall not apply if items meeting such requirements are not reasonably available, do not meet reasonable performance standards for such items set by the procuring agency, or are available only at prices which, in relation to the purpose of this Act, unreasonably exceed the current market price for other procurement items meeting such performance standards.

(b) Any findings necessary for the implementation of subsection (a) of this section shall be made by the procuring agency: *Provided*, That any disputes between the procuring agency and prospective suppliers as to such findings shall be arbitrated by a board consisting of the Comptroller General of the United States, the Administrator of the Environmental Protection Agency, and the Director of the Office of Management and Budget, or their representatives. Any decision of such board shall be final and binding on the parties.

(c) The Administrator, following consultation with the Administrator of the General Services Administration and the Public Printer, shall propose a system of guidelines rec-

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ommending to procuring agencies procurement practices for the procurement of recovered, recyclable, and reusable materials and items containing such materials, and which provide information regarding the availability of such materials and items, including their sources of supply, and potential uses of such materials and items.

(d) The Administrator, following consultation with the General Services Administration, shall prescribe, where feasible, such regulations as are necessary to establish standards, binding upon all procuring agencies, or such procuring agencies as the Administrator may designate, for the minimum content, in such procurement items as the Administrator may designate, of recovered, recyclable, or reusable materials where procurement items meeting such standards and reasonable performance standards for such items are reasonably available at prices which do not unreasonably exceed the current market price for other procurement items meeting such performance standards.

TITLE V—MATERIAL RECOVERY AND ENERGY PRODUCTION

DEFINITIONS

SEC. 501. As used in this title, "developer" means any person engaged in whole or in part in research or other efforts directed toward the development of effective and efficient facilities, equipment, and systems for maximizing energy con-

servation through material recovery and energy production, or both, from waste and receiving or applying to receive, directly or indirectly, any Federal financial assistance under this title.

DEVELOPMENT OF FACILITIES

SEC. 502. The Administrator, alone or in conjunction with the Administrator of the National Aeronautics and Space Administration, shall conduct research, development, investigations, experiments, surveys, studies, and demonstrations of means of increasing the recovery of materials and the production of energy in usable forms, or both, from solid, liquid, and semisolid waste, from residential, commercial, industrial, and agricultural sources; and is to determine the method or methods by which a maximum conservation of energy can be achieved through resource recovery or energy production, or both, from waste; and shall develop within three years from the date of enactment of this title, not less than three major facilities to demonstrate, substantiate, and validate any determinations made pursuant to this section as to the method or methods of achieving maximum energy conservation, including the development of any equipment or systems necessary or useful for generation, collection, storage, or transportation prior to introduction into any of these three facilities. Upon a finding, made four years following the enactment of this title, that the materials re-

covered or the energy produced, or both, from such facility or facilities could reasonably contribute to a conservation of virgin natural resources, energy consumption, and/or reasonably contribute to the Nation's energy production or both, or that the per unit cost of energy produced by such facility or facilities will not significantly exceed the per unit cost of energy from other readily available sources, as forecasted by the Federal Power Commission, for a ten-year period beginning July 1, 1978, the Administrator is further authorized and directed to take such steps as are necessary, within ten years from the date of enactment of this title, to assist each standard metropolitan statistical area, as defined by the Department of Commerce, to install and operate at least one such facility.

GRANTS

SEC. 503. (a) (1) The Administrator shall provide funds by grant or contract to initiate, continue, supplement, and maintain research and development programs or activities which, in his judgment, appear likely to lead to the development of a facility for the recovery of materials or production of energy from waste, or both, or which, in his judgment, may lead to an advance or advances in the state of the art.

(2) The Administrator is authorized to make such grants, loans, and contracts with any Federal agency, labo-

ratory, university, nonprofit organization, industrial entity, public or private agency, institution, organization, corporation, or individual.

(b) The Administrator, in the exercise of his duties and responsibilities under this section, shall establish procedures for periodic consultation with representatives of science, industry, and such other groups as may have special expertise in the areas of production, research, development, and technology. The Administrator may establish an advisory panel or panels to review and make recommendations to him on applications for funding under this section.

(c) Each grant under this section shall be made in accordance with such rules and regulations as the Administrator shall prescribe in accordance with the provisions of this section and the declaration of purposes under section 102 (b) of title I of this Act. Each application for funding shall be made in writing in such form and with such content and other submissions as the Administrator shall require.

LOAN GUARANTEES

SEC. 504. (a) The Administrator is authorized, in accordance with the provisions of this section and such rules and regulations as he shall prescribe, to guarantee and to make commitments to guarantee the payment of interest on and the principal balance of an obligation to initiate, continue, supplement, and maintain research and development

programs or activities which appear likely to lead to the development of a facility for the recovery of material or production of energy, or both, from waste or which, in the judgment of the Administrator, may lead to an advance or advances in the state of the art. Each application for such a loan guarantee shall be made in writing to the Administrator in such form and with such content and other submissions as the Administrator shall prescribe to reasonably protect the interests of the United States. Each guarantee and commitment to guarantee shall be extended in such form, under such terms and conditions, and pursuant to such regulations as the Administrator deems appropriate. Each guarantee and commitment to guarantee shall inure to the benefit of the holder of the obligation to which such guarantee or commitment applies. The Administrator is authorized to approve any modification of any provision of a guarantee or a commitment to guarantee such an obligation, including the rate of interest, time of payment of interest or principal, security, or any other terms or conditions, upon a finding by the Administrator that such modification is equitable, not prejudicial to the interests of the United States, and has been consented to by the holder of such obligation.

(2) The Administrator is authorized to so guarantee and to make such commitments to any Federal agency, laboratory, university, nonprofit organization, industrial or-

ganization, public or private agency, institution, organization, corporation, partnership, or individual.

(b) No obligation shall be guaranteed by the Administrator under subsection (a) of this section unless he finds that no other reasonable means of financing or refinancing is reasonably available to the applicant.

(c) (1) The Administrator shall charge and collect such amounts as he may deem reasonable for the investigation of applications for a guarantee, for the appraisal of properties offered as security for a guarantee, or for the issuance of commitments.

(2) The Administrator shall set a premium charge of not more than 1 per centum per annum for a loan or other obligation guaranteed under this section.

(d) No guarantee or commitment to guarantee an obligation entered into by the Administrator shall be terminated, canceled, or otherwise revoked, except in accordance with reasonable terms and conditions prescribed by the Administrator. Such a guarantee or commitment to guarantee shall be conclusive evidence that the underlying obligation is in compliance with the provisions of this section and that such obligation has been approved and is legal as to principal, interest, and other terms. Such a guarantee or commitment shall be valid and incontestable in the hands of a holder as of the date when the Administrator entered

into the contract of guarantee or commitment to guarantee, except as to fraud, duress, mutual mistake of fact, or material misrepresentation by or involving such holder.

(e) (1) If there is a default in any payment by the obligor of interest or principal due under an obligation guaranteed by the Administrator under this section and such default has continued for sixty days, the holder of such obligation or his agents have the right to demand payment by the Administrator of such unpaid amount. Within such period as may be specified in the guarantee or related agreements, but not later than forty-five days from the date of such demand, the Administrator shall promptly pay to the obligee or his agent the unpaid interest on and unpaid principal of the obligation guaranteed by the Administrator as to which the obligor has defaulted, unless the Administrator finds that there was no default by the obligor in the payment of interest or principal or that such default has been remedied.

(2) If the Administrator makes a payment under paragraph (1) of this subsection, he shall have all rights specified in the guarantee or related agreements with respect to any security which he held with respect to the guarantee of such obligation, including, but not limited to, the authority to complete, maintain, operate, lease, sell, or other-

wise dispose of any property acquired pursuant to such guarantee or related agreements.

(3) If there is a default under any guarantee or commitment to guarantee an obligation, the Administrator shall notify the Attorney General who shall take such action against the obligor or any other parties liable thereunder as is, in his discretion, necessary to protect the interests of the United States. The holder of such obligation shall make available to the United States all records and evidence necessary to prosecute any such suit.

(f) AUTHORIZATION FOR APPROPRIATIONS.—There are hereby authorized to be appropriated to the Administrator not to exceed $50,000,000 to pay interest on, and the principal balance of, any obligation guaranteed by the Administrator as to which the obligor has defaulted.

PROPRIETARY INFORMATION AND PATENTS

SEC. 505. (a) Whenever, pursuant to this title, the Administrator enters into any agreement contract for, sponsoring, or cosponsoring any research or development, he shall require as a condition of such Federal participation that all information—whether patented or unpatented, in the form of trade secrets, know-how, proprietary information, or otherwise—processes, or patents resulting in whole or in substantial part from such federally assisted research or

development shall be available to the general public, pursuant to subsection (b) of this section.

(b) (1) Any such agreement must provide that all such information, processes or patents will be made available to any qualified applicant on reasonable and nondiscriminatory license terms approved by the Administrator consistent with the purposes of this title when the research or development project reaches the stage of commercial application as determined by the Administrator: *Provided*, That if such information, processes, or patents results in whole from financial assistance granted under this title, such agreement may require, at the discretion of the Administrator, that such information, processes, or patents become the property of the United States and be dedicated to the general public.

(2) Whenever a participant in the energy research or development project holds background patents, trade secrets, know-how, proprietary information, or any other information, hereafter collectively referred to in this section as "background", which will be employed in and are requisite to the proposed research or development project, the agreement shall further provide that all background will be made available to any qualified applicant on reasonable and nondiscriminatory license terms approved by the Administrator, consistent with the purposes of this title.

(3) Any such license terms referred to under this

subsection shall take into account the extent to which the commercial viability of the total process or system was achieved with assistance under this title (and whether such assistance was in the form of grants or obligation guarantees) and shall appropriately protect the interests of the participants.

(c) The Administrator shall, in approving license terms, duly consider the effects of such terms on competition within the United States.

RECORDS, AUDIT, AND EXAMINATION

SEC. 506. (a) Each recipient of financial assistance or guarantees under this title, whether in the form of grants, subgrants, contracts, subcontracts, loans, loan or other obligation guarantees, or other arrangements, shall keep such records as the Administrator shall prescribe, including records which fully disclose the amount and disposition by such recipient of the proceeds of such assistance, the total cost of the project or undertaking in connection with which such assistance was given or used, the amount of that portion of the cost of the project or undertaking supplied by other sources, and such other records as will facilitate an effective audit.

(b) The Administrator and the Comptroller General of the United States, or any of their duly authorized representatives shall, until the expiration of three years after

completion of the project or undertaking referred to in subsection (a) of this section, have access for the purpose of audit and examination to any books, documents, papers, and records of such receipts which in the opinion of the Administrator or the Comptroller General may be related or pertinent to the grants, subgrants, contracts, subcontracts, loans, or other obligation guarantees, or other arrangements referred to in such subsection.

TITLE VI—COUNCIL ON ENVIRONMENTAL REPRESENTATION

SHORT TITLE

SEC. 601. This title may be cited as the "Environmental Representation Act of 1973".

FINDINGS

SEC. 602. The Congress finds that—

(1) the right to be adequately represented before Federal, State, and local legislatures, administrative agencies, and courts with respect to environmental questions is of primary importance to the well-being of the Nation;

(2) the impoverished often do not have access to such representation and other legal assistance because of economic barriers and the inadequacy of existing institutions to provide such representation and assistance;

(3) providing such representation and assistance

may help to restore faith in the laws of all levels of government;

(4) to be effective, any such representation and assistance must be isolated from political pressure; and

(5) lawyers providing such representation and assistance must represent the best interests of their clients in accordance with the Canons of Ethics of the American Bar Association and the highest standards of the legal profession.

DEFINITIONS

SEC. 603. As used in this title—

(1) The term "Board" means the Environmental Representation Advisory Board.

(2) The term "Chairman" means the Chairman of the Council on Environmental Representation which, for the purposes of this title, shall act on behalf of and in accordance with the general policies of such Council.

(3) The term "Council" means the Council on Environmental Representation.

(4) The term "eligible client" means any person or class of persons who, for reasons of economic barriers, do not have sufficient legal representation before Federal, State, or local legislatures, administrative agencies, or courts with respect to the protection of the environment of such person or class of persons.

(5) The term "environment" means air, land, or water and all living things therein or any other physical factor affecting the quality of life.

ESTABLISHMENT OF COUNCIL

SEC. 604. (a) There is established an independent agency to be known as the Council on Environmental Representation for the purpose of providing support for legal representation and assistance in proceedings, for matters relating to the quality of the environment as described in section 605 of this title.

(b) The Council shall consist of five members appointed by the President by and with the advice and consent of the Senate, not more than three of whom shall be of the same political party. A majority shall be members of the bar of the highest court of any State, and none shall be a full-time employee of the United States.

(c) The term of office of each member of the Council shall be five years, except that with respect to the members first appointed, one shall have a term of office of four years, one shall have a term of office of three years, one shall have a term of office of two years, and one shall have a term of office of one year. Any member appointed to fill a vacancy occurring prior to the expiration of the term for which his predecessor was appointed shall be appointed for the re-

mainder of that term. No member shall be reappointed to more than two consecutive terms.

(d) The members of the Council shall select from among their members a Chairman, who shall serve as Chairman for a term of two years. Thereafter, the Council shall annually elect a Chairman from among its members. The Chairman shall be the chief executive officer of the Council.

(e) A member of the Council may be removed by a vote of three members for malfeasance in office or persistent neglect of, or the inability to discharge, his duties, or offenses involving moral turpitude, and for no other cause.

(f) Members of the Council shall serve full time. The Chairman shall be compensated at the rate provided for Level III of the Executive Schedule Pay Rates (5 U.S.C. 5314) and other Council members shall be compensated at the rate provided for Level IV of the Executive Schedule Pay Rates (5 U.S.C. 5315).

FUNCTIONS AND DUTIES

SEC. 605. (a) The functions of the Council shall be to—

(1) establish programs, including local offices if necessary, to provide direct legal and other assistance to eligible clients and to make grants to eligible clients for the purpose of securing adequate representation and assistance to such clients before Federal, State, and local

legislative bodies, administrative agencies, and courts in matters dealing with the environment of such clients;

(2) inform the appropriate committees and Members of Congress fully of the current activities of the Council and testify, when asked or otherwise, before committees of Congress on matters affecting the environment of eligible clients;

(3) to accept in the name of the Council, and employ or dispose of in furtherance of purposes of this title, any money or property, real, personal, or mixed, tangible or intangible, received by gift, bequest, or otherwise; and

(4) perform such other related duties as may be necessary for the effective fulfillment of the duties and functions of the Council under this title.

(b) The Chairman shall prepare and submit simultaneously to the Congress and the President, not later than April 1 of each year beginning April 1, 1975, an annual report which shall include an analysis, evaluation, and review of—

(1) the activities of the Council including its representation of the interests of eligible clients under this title;

(2) the major Federal, State, and local agency actions and court decisions affecting the interests of eligible clients;

(3) the extent to which the interests of eligible

clients are protected by Federal, State, and local legislative bodies and administrative agencies; and

(4) any recommendation the Council might have to improve the representation of eligible clients.

(c) (1) The Chairman is authorized to intervene as a party or otherwise participate for the purpose of representing the interests of eligible clients in any proceeding before any Federal agency in matters affecting the environment of eligible clients, regardless of whether an agreement has been reached between the Council and an eligible client with respect to representing such eligible client's interests. The Chairman shall comply with agency statutes and rules of procedure governing the timing of such intervention or participation in such proceedings, and shall comply with agency statutes and rules with respect to the conduct of such proceedings. In any such proceeding, the Chairman shall refrain from intervening as a party unless he determines that such intervention is necessary to adequately represent the interests of eligible clients.

(2) Each Federal agency shall review its rules of procedure with respect to agency proceedings and shall, where necessary, after consultation with the Chairman, issue such additional rules as may be necessary to provide for the participation in any such proceeding by the Chairman as described in paragraph (1) in this subsection. Such rules shall

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provide for the orderly intervention or participation by the Chairman in agency proceedings and activities which may affect the environment of eligible clients.

(d) The Chairman shall establish a program for disseminating information to eligible clients with respect to the type of services which may be available under this title. Such information shall be designed to encourage eligible clients to participate in programs authorized under this title, and may be disseminated by mass media or other techniques designed to achieve a wide distribution of such information.

(e) (1) The Chairman is authorized to promulgate such regulations as may be necessary to carry out the functions vested in the Council.

(2) Such regulations shall insure that representation afforded under this title is not conducted in a frivolous manner or in a manner which would unduly harass the body before which such representation takes place. Such regulations shall also insure that representation under this title is not used for political purposes.

(3) All regulations issued under this title shall be promulgated in accordance with section 553 of title 5 of the United States Code.

(f) The Chairman is authorized to establish such regional and local offices as the Council determines necessary to carry out the purposes of this title.

(g) The Chairman is authorized to accept unconditional gifts or donations of services, money, or property: *Provided*, That the acceptance of such gifts, donations, services, money, or property shall not in any way affect the manner in which eligible clients are represented.

OFFICERS AND EMPLOYEES

SEC. 606. (a) The Chairman may appoint and remove employees of the Council as he determines to be necessary in order to carry out the purposes of the Council and to fix the compensation of such officers and employees, including attorneys, in accordance with the civil service and classification laws of the United States.

(b) The Chairman is also authorized to employ experts, expert witnesses, and consultants in accordance with section 3109 of title V, United States Code, and to compensate such persons at rates not in excess of the maximum daily rate prescribed for GS–18 under section 5332 of title V, United States Code, for each day they are so employed (including traveltime) and pay such persons travel expenses and per diem in lieu of subsistence at rates authorized by section 5703 of title V, United States Code, for persons in Government service employed intermittently.

ENVIRONMENTAL REPRESENTATION ADVISORY BOARD

SEC. 607. (a) There shall be established by the Chairman an Environmental Representation Advisory Board to

consult with the Council with respect to the functions and duties of the Council under this title. The Board shall consist of fifteen members who shall be appointed by the Council to serve for terms of three years each and who shall be representative of the organized bar, legal education, and the general public. None of the members of the Board shall have any significant economic interest in the functions and duties of the Council under this title.

(b) The Board shall elect from its members a President who shall serve at the pleasure of the Board.

(c) At any time, the Council or the President of the Board may convene a meeting of the Board for the purpose of reviewing the policies and procedures of the Board: *Provided,* That such a meeting shall occur at least every one hundred and eighty days.

(d) Members of the Board who are not regular full-time employees of the United States shall, while serving on business of the Board, be entitled to compensation at rates fixed by the Administrator, but not exceeding the daily rate applicable at the time of such service to grade GS–18 of the classified civil service, including traveltime. While serving away from their homes or regular places of business, such members may be allowed travel expenses, including per diem in lieu of subsistence, as authorized by section 5703

of title 5, United States Code, for persons in the Government service employed intermittently.

AUDIT AND RECORDS

SEC. 608. (a) (1) The financial transactions of the Council for any fiscal year during which Federal funds are available to finance its responsibilities under this title shall be audited annually by the General Accounting Office in accordance with such rules and regulations which may be prescribed by the Comptroller General of the United States. Any such audit shall be conducted at the place or places where accounts of the Council are normally kept. Representatives of the General Accounting Office shall have access to all books, accounts, records, files, and all other papers or property belonging to and/or used by the Council pertaining to its financial transactions and which are necessary to facilitate such audit. The representatives of the General Accounting Office shall be afforded access to the full facilities of the Council for the purposes of such audit. A report of such audit shall be made by the Comptroller General of the Congress together with such recommendations with respect thereto as he shall deem advisable. A copy of any such report shall be submitted simultaneously to the President.

(2) Funds received by the Council from a source other than appropriation Acts of the Congress shall be accounted

for and reported as receipts and disbursements separate and distinct from Federal funds.

(b) Each recipient of Federal assistance under this title shall keep such records as the Chairman shall prescribe, including records which fully disclose the amount and disposition by such recipient of the proceeds of such assistance, the total cost of the project or undertaking in connection with which assistance is given or used, the amount of that portion of the cost of the project or undertaking supplied by other sources, and such other records as will facilitate an effective date.

(c) The Chairman and the Comptroller General of the United States, or any of their duly authorized representatives, shall, until the expiration of three years after completion of the project or undertaking referred to in subsection (b) of this section, have access for the purpose of audit and examination to any books, documents, papers, and records of such recipients which in the opinion of the Chairman or the Comptroller General may be related or pertinent to the assistance referred to in subsection (b) of this section.

RELATIONSHIP TO CONGRESS

SEC. 609. On or before August 1 of each year, the Chairman, on behalf of the Council, shall prepare and submit concurrently to the President and to the Congress budget estimates to carry out the provisions of this title for the following fiscal year. Whenever the Chairman or the Council

submits any budget requests, supplemental budget estimates, legislative recommendations, prepared testimony for congressional hearings, or comments on legislation to the Congress he shall concurrently transmit a copy thereof to the President of the United States. No officer or agency of the United States shall have any authority to request or require the Chairman to submit his budget requests or estimates, legislative recommendations, prepared testimony for congressional hearings, or comments on legislation to any officer or agency of the United States for approval, comments, or review, prior to the submission of such recommendations, testimony, or comments to the Congress.

AUTHORIZATION FOR APPROPRIATIONS

SEC. 610. There are hereby authorized to be appropriated for the purpose of carrying out the activities of the Council under this title, $25,000,000 for the fiscal year ending June 30, 1975, $50,000,000 for the fiscal year ending June 30, 1976, and $75,000,000 for the fiscal year ending June 30, 1977.

TITLE VII—NATIONAL COMMISSION ON ENVIRONMENTAL COSTS

FORMATION

SEC. 701. (a) There is hereby established one hundred and twenty days after the date of enactment of this title a National Commission on Environmental Costs.

(b) The Commission shall be composed of twelve members appointed as follows:

(1) three appointed by the Majority Leader of the Senate from Members of the Senate, and three appointed by the Speaker of the House of Representatives from Members of the House of Representatives, of whom no more than two from each House shall be members of the same political party;

(2) three appointed by the President of the United States from employees of Federal agencies whose primary employment activity is the protection of environmental quality; and

(3) three appointed by the President of the United States, with the approval of the chairman of the Committee on Commcree of the Senate and the chairman of the Committee on Interstate and Foreign Commerce of the House of Representatives, from members of the general public, on the basis of special training, experience, or qualifications, none of whom shall serve as public servants during their terms of office and no more than two of whom may be members of the same political party.

Any vacancies shall be filled in the same manner in which the original appointment was made.

(c) (1) The members of the Commission shall be appointed for a term of three years.

(2) The members of the Commission shall elect one of their number to serve as Chairman.

(3) Five members of the Commission shall constitute a quorum, but a lesser number may conduct hearings and other deliberations.

(4) The General Services Administration shall provide administrative services for the Commission on a reimbursable basis.

DUTIES OF COMMISSION

SEC. 702. It shall be the duty of the Commission to—

(a) conduct a comprehensive study, including field testing and controlled experimentation to the extent possible, of the feasibility, practicality, and value of the establishment of a system of national disposal cost charges on all products, other than consumables. The Commission shall consider whether a basic charge should be imposed on all such products in commerce equal to 1 cent per pound or equal to the average per pound disposal cost of mixed municipal, household, institutional, and commercial waste and whether an additional charge should be imposed on such products as to which additional disposal costs may reasonably be attributed,

and whether some other system of charges would be more convenient or better calculated to insure that the price of products will include the cost of their disposal in a waste disposal system. The Commission shall further consider how the exact charges should be set and modified; how, by whom, and at what stage in the process of manufacture and distribution such charges should be collected; how the administering agency or agencies should make refunds or otherwise grant credits against such disposal cost charges for materials which are not in fact disposed of in a waste disposal system but instead are recovered, reused, or recycled; what the impact of such refund or credit would be upon the recycling of recovered products; how to administer the system, enforce the payment of such charges, and distribute credits or refunds; upon which classes of products such charges should be levied; how and for what purposes the amounts collected and not refunded should be expended; and such other issues and questions related to the internalization of disposal costs within the price of the products which the Commission deems relevant or appropriate;

(b) conduct a comprehensive study of means of reducing the wasteful use of materials in the production of goods and recommend whether standards ought to be

imposed upon the manufacture or distribution of products or materials and whether other means such as economic regulation should be imposed to reduce such wasteful use of materials. The Commission shall further consider how such standards, if any, shall be established, promulgated, and enforced, and the relative advantages and limitations of (1) an absolute prohibition on the manufacture or sale of specific products or materials, (2) mandatory methods of distribution for specific products, (3) content requirements, (4) labeling and advertising disclosure requirements; and (5) cost internalization and other economic regulation;

(c) conduct a comprehensive legal and factual study of the means of mitigating damage done by sources of pollution and internalizing the costs of such pollution. The Commission shall formulate and propose directly to the Congress such changes in the law as the Commission may deem appropriate, including the preparation of appropriate conforming and other technical amendments needed to maintain consistency between the various public laws governing such pollution. Such proposals may include recommendations as to legislation with respect to personnel, administration, taxation, and pollution control policy; and

(d) examine specifically and prepare detailed recommendations concerning—

(1) the control of all sources of pollution and environmental degradation through the use of environmental charges designed to internalize the social and environmental costs of such pollution and environmental degradation and other means of regulating commerce in order to protect the environment; and

(2) all feasible methods of environmental disclosure including notices regarding the damage done by polluters, labeling of products to indicate their environmental costs and the relative costs of such products and other means of effectively informing the public of pollution sources and alternative nonpolluting modes of public and private action; and

(e) submit interim reports to the President and the Congress at such times as the Commission may deem appropriate, and, in any case, within two years after the date of enactment of this title, and shall submit its final report within three years after such date. The Commission shall cease to exist sixty days after the date of submission of its final report.

POWERS OF COMMISSION

SEC. 703. The Commission shall have the following powers:

(a) The Commission or any duly authorized subcommittee or member of the Commission may, for the purpose of carrying out the provisions of this title, hold such hearings, sit and act at such times and places, administer such oaths, and require by subpena or otherwise the attendance and testimony of such witnesses and the production of such evidence as the Commission or such subcommittee or member may deem advisable. Any member of the Commission may administer oaths to witnesses appearing before the Commission or before such subcommittee or member. Subpenas may be issued under the signature of the Chairman or any duly designated member of the Commission, and may be served by any person designated by the Chairman or such member. Witnesses summoned before the Commission or any duly authorized subcommittee or member of the Commission shall be paid the same fees and mileage that are paid witnesses in the courts of the United States. Such attendance of witnesses and production may be required from any place in the United States to any designated place of such hearing.

(b) In case of contumacy or refusal to obey a subpena issued under subsection (a) of this section by any person who resides, is found, or transacts business within the jurisdiction of any district court of the United States, the district court, at the request of the Chairman of the Commis-

sion, shall have jurisdiction to issue to such person an order requiring such person to appear before the Commission or a subcommittee or member of the Commission, there to produce evidence if so ordered or to give testimony touching the matter under inquiry. Failure to obey such an order is punishable by such court as a contempt of court.

(c) Each Federal agency is authorized and directed to furnish to the Commission, upon request made by the Chairman in writing, on a reimbursable basis or otherwise, such assistance as is requested.

PERSONNEL AND AUTHORIZATION

SEC. 704. (a) A member of the Commission who is a Member of Congress, a member of the Federal judiciary, or an employee of the executive branch shall serve without additional compensation. A member of the Commission who is not otherwise employed by the Federal Government shall receive $150 per diem when engaged in the actual performance of duties vested in the Commission. All members of the Commission shall be reimbursed for travel, subsistence, and other necessary expenses incurred in the performance of such duties.

(b) Subject to such rules and regulations as the Commission may adopt, the Chairman shall have the power to—

(1) appoint and fix the compensation of an Executive Director, and such additional staff personnel as he

deems necessary, without regard to the provisions of title 5, United States Code, governing appointments in the competitive service, and without regard to the provisions of chapter 51 and subchapter III of chapter 53 of title 5, United States Code, relating to classification and General Schedule pay rates, but at rates not in excess of the maximum rate for GS–18 of the General Schedule under section 5332 of such title; and

(2) procure temporary and intermittent services to the same extent as is authorized by section 3109 of title 5, United States Code, but at rates not to exceed $100 a day for persons performing such services. In making such appointments the Chairman shall include among his appointees persons determined by him to be competent environmentalists, lawyers, economists, scientists, and engineers.

(c) There is hereby authorized to be appropriated to the Commission such sums as may be necessary not to exceed a total of $1,500,000. Authority is hereby granted for appropriated money to remain available until expended.

TITLE VIII—GENERAL PROVISIONS

CITIZENS CIVIL ACTIONS

SEC. 801. (a) Except as provided in subsection (b) of this section, any person may commence a civil action for injunctive relief on his own behalf, whenever such action constitutes a case or controversy—

(1) against any person (including the United States or any other governmental instrumentality or agency to the extent permitted by the eleventh amendment to the Constitution) alleged to be in violation of any regulation, order, or permit requirement promulgated pursuant to title II or title III of this Act.

(2) against the Administrator where there is alleged a failure of the Administrator to perform any act or duty under any title of this Act which is not discretionary with the Administrator. Any action brought against the Administrator under this paragraph shall be brought in the District Court of the District of Columbia.

The district courts shall have jurisdiction over suits brought under this section, without regard to the amount in controversy or the citizenship of the parties.

(b) No civil action may be commenced—

(1) under subsection (a) (1) of this section—

(A) prior to sixty days after the plaintiff has given notice of the violation to the Administrator and to any alleged violator of the regulation or order, or

(B) if the Administrator or Attorney General has commenced and is diligently prosecuting a civil action in a court of the United States to require

compliance with the regulation or order: *Provided*, That any person may intervene as a matter of right in any such actions;

(2) under subsection (a) (2) of this section prior to sixty days after the plaintiff has given notice of such action to the Administrator. Notice under this subsection shall be given in such manner as the Administrator shall prescribe by regulation.

(c) In any action under this section, the Administrator or the Attorney General, if not a party, may intervene as a matter of right.

(d) The court, in issuing any final order in any action brought pursuant to subsection (a) of this section, may award costs of litigation (including reasonable attorney and expert witness fees) to any party, whenever the court determines such an award is appropriate.

(e) Nothing in this section shall restrict any right which any person (or class of persons) may have under any statute or common law to seek enforcement of any regulation or order or to seek any other relief.

(f) When any actions brought under this subsection involving the same defendant and the same issues or violations are pending in two or more jurisdictions, such pending proceedings, upon application of the defendant reasonably made to the court of one such jurisdiction, may, if the court

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in its discretion so decides, be consolidated for trial by order of such court, and tried in (1) any district selected by the defendant where one of such proceedings is pending; or (2) a district agreed upon by stipulation between the parties. If no order for consolidation is so made within a reasonable time, the defendant may apply to the court of one such jurisdiction, and such court (after giving all parties reasonable notice and opportunity to be heard) may by order, unless good cause to the contrary is shown, specify a district of reasonable proximity to the applicant's principal place of business, in which all such pending proceedings shall be consolidated for trial and tried. Such order of consolidation shall not apply so as to require the removal of any case the date for trial of which has been fixed. The court granting such order shall give prompt notification thereof to the other courts having jurisdiction of the cases covered thereby.

RECORDS, REPORTS, AND INFORMATION

SEC. 802. (a) Each manufacturer of a product to which title II of this Act is applicable shall—

(1) establish and maintain such records, make such reports, provide such information, and make such tests as the Administrator or the Secretary of the Treasury may, at his discretion, reasonably require to enable him to determine whether such manufacturer has acted or is acting in compliance with such title II;

(2) upon request of an officer or employee duly designated by the Administrator or such Secretary, permit such officer or employee at reasonable times to have access to such information and the results of such tests and to copy such records; and

(3) to the extent required by regulations of the Administrator or the Secretary of the Treasury, make products coming off the assembly line or otherwise in the hands of the manufacturer available for testing by the Administrator: *Provided*, That the Administrator or the Secretary shall require only the minimum number of products needed to conduct such tests as he finds necessary to further the purposes of title II of this Act.

(b) (1) Any records, reports of investigations, or information obtained under any title of this Act shall be made available to the public by the Administrator upon identifiable request, and at reasonable cost, unless such information may not be publicly released under the terms of paragraph (2) of this subsection.

(2) The Administrator shall not disclose information obtained under any title of this Act which concerns or relates to a trade secret referred to in section 1905 of title 18, United States Code, except that such information may be disclosed in a manner designed to preserve its confidentiality—

(A) to other Federal Government departments, agencies, and officials for official use upon request;

(B) to committees of Congress having jurisdiction over the subject matter which the information relates;

(C) to a court in any judicial proceeding under a court order formulated to preserve the confidentiality of such information without impairing the proceedings; and

(D) to the public in order to protect their health and safety after notice and opportunity for comment in writing or for discussion in closed session within fifteen days by the party to whom the information pertains (if the delay resulting from such notice and opportunity for comment would not be detrimental to the public health and safety).

In no event shall the names or other means of identification of injured persons be made public without their express written consent. Nothing contained in this section shall be deemed to require the release of any information described by subsection (b) of section 552, title 5, United States Code, or which is otherwise protected by law from disclosure to the public.

REGULATIONS, PROCEDURES, AND JUDICIAL REVIEW

SEC. 803. (1) (a) At his own initiative, or upon the petition of any person, the Administrator is authorized to

issue regulations to carry out the purposes of any title of this Act and to amend or rescind such regulations at any time.

(2) The Administrator shall publish any regulations proposed under any title of this Act in the Federal Register at least sixty days prior to the time when such regulations shall become final. The Administrator shall also publish in the Federal Register a notice of all petitions received under subsection (a) and, if such petition is denied, the reasons therefor. Such notice shall identify the purpose of the petition and include a statement of the availability of any data submitted in support of such petition. If any person adversely affected by a proposed regulation files objections and requests a public hearing within forty-five days of the date of publication of the proposed regulation, the Administrator shall grant such request. If such public hearing is held, final regulations shall not be promulgated by the Administrator until after the conclusion of such hearing. All public hearings authorized by this subsection shall consist of the oral and written presentation of data or arguments in accordance with such conditions or limitations as the Administrator may make applicable thereto.

(3) Proposed and final regulations issued under any title of this Act shall set forth the findings of fact on which

the regulations are based and the relationship of such findings to the regulations.

(b) Any judicial review of final regulations promulgated under this Act shall be in accordance with sections 701–706 of title 5, United States Code, except that with respect to relief pending review, no stay of any agency action may be granted unless the reviewing court determines that the party seeking such stay is likely to prevail on the merits in the review proceeding, and that absent such stay party will suffer irreparable harm pending such proceeding.

(c) If the party seeking judicial review applies to the court for leave to addnce additional evidence, and shows to the satisfaction of the court either—

(A) that the information is material and was not available at the time of the proceeding before the Administrator; or

(B) that failure to include such evidence in the proceeding was an arbitrary or capricious act of the Administrator,

the court may order such additional evidence (and evidence in rebuttal thereof) to be taken before the Administrator and to be addueed upon the hearing, in such manner and upon such terms and conditions as the court may deem proper. The Administrator may modify his findings as to the facts, or make new findings, by reason of the additional evidence so

taken, and he shall file with the court such modified or new findings, and his recommendation, if any, for the modification or setting aside of his original order, with the return of such additional evidence.

AUTHORIZATIONS FOR APPROPRIATIONS

SEC. 804. In addition to specific authorizations for appropriations contained herein, there are authorized to be appropriated for purposes of carrying out this Act such additional sums as are necessary.

93D CONGRESS
2D SESSION

H. R. 12956

IN THE HOUSE OF REPRESENTATIVES

FEBRUARY 21, 1974

Mr. FROEHLICH introduced the following bill; which was referred to the Committee on Interstate and Foreign Commerce

A BILL

To direct the Chief of the Forest Service to permit certain communities to continue to use the Nicolet National Forest, Wisconsin, for solid waste disposal.

Be it enacted by the Senate and House of Representatives of the United States of America in Congress assembled, That notwithstanding section 211 (a) (3) of the Solid Waste Disposal Act, the Chief of the Forest Service shall permit the towns within the Nicolet National Forest in the State of Wisconsin, to continue their use of the existing solid waste disposal sites located within the Nicolet National Forest, Wisconsin, until July 1, 1975.

U.S. ATOMIC ENERGY COMMISSION,
Washington, D.C., May 8, 1974.

Hon. HARLEY O. STAGGERS,
Chairman, Committee on Interstate and Foreign Commerce,
House of Representatives.

DEAR MR. STAGGERS: The Atomic Energy Commission is pleased to respond to your letter of February 12, 1974, requesting our views on H.R. 12537, entitled the "National Resource and Energy Conservation Act of 1974."

This bill appears to be substantially identical to H.R. 11878, introduced by Representative Tiernan, who is also sponsoring H.R. 12537, on December 10, 1973. The major difference between these bills appears to be the omission in H.R. 12537 of Title II, "Transportation Policy," contained in the prior bill.

As you know, pursuant to your request dated December 12, 1973, for our views on H.R. 11878, we have submitted our report to your Committee by our letter dated May 3, 1974. A copy of that report is enclosed for your convenience.

For the reasons set forth in our report on the earlier similar bill, H.R. 11878, we would not favor the enactment of H.R. 12537, but we do support H.R. 4873, the "Hazardous Waste Management Act of 1973," proposed by the Administration.

The Office of Management and Budget has advised that there is no objection to the presentation of this report from the standpoint of the Administration's program.

Sincerely,

JOHN A. ERLEWINE, *General Manager.*

Enclosure.

U.S. ATOMIC ENERGY COMMISSION,
Washington, D.C., May 3, 1974.

Hon. HARLEY O. STAGGERS,
Chairman, Committee on Interstate and Foreign Commerce,
House of Representatives.

DEAR MR. STAGGERS: The Atomic Energy Commission is pleased to respond to your letter of December 12, 1973, requesting our views on H.R. 11878, entitled the "Resource Conservation and Recycling Incentives Act of 1973." We note that an identical bill, S. 2753, was introduced on November 28, 1973, by Senators Hart and Moss.

Although we support some of the bill's provisions, we have substantial problems respecting major provisions of the bill and, for the reasons summarized below, we would not favor its enactment. Rather, we recommend enactment of the Administration's proposed "Hazardous Waste Management Act of 1973," H.R. 4873.

The basic purposes of H.R. 11878 are declared to be the following: (1) to eliminate discriminatory common carrier rates charged for transport of recovered wastes; (2) to require all Federal agencies, to the extent feasible, to purchase items composed of recovered, reusable, or recyclable materials; (3) to protect the public health and environment by regulating the treatment and disposal of waste; (4) to provide for a national disposal cost system to "internalize" waste disposal costs; and (5) to conserve scarce resources by reusing waste as a source of energy through a research and development program to be conducted by the Environmental Protection Agency with the assistance of the National Aeronautics and Space Administration.

To achieve these goals, Title II of the bill would require that the Administrator of the Environmental Protection Agency (hereinafter: EPA) and the Federal Maritime Commission establish such transportation rates as would not be "unreasonable or unjustly discriminatory" against recovered materials. Under Title III, Federal supply procurements exceeding $5,000 would be subject to a requirement that the items to be purchased are "composed of the greatest percentage of recovered materials and . . . to the greatest extent recyclable or reusable," unless the agency find that such items are not reasonably available, do not meet performance standards, or are objectionable from a price standpoint. Agency findings, if challenged by a prospective supplier, would be subject to arbitration by a board composed of representatives of EPA, the Comptroller General and the Office of Management and Budget.

Title IV of the bill would direct EPA to issue standards regulating the manufacture of certain products as necessary "to protect health or the environment against unreasonable burdens and risks associated with the disposal of such products." Title P would require EPA to identify, within 18 months after enactment, unsafe disposal practices and hazardous wastes and to promulgate a com-

prehensive program, in cooperation with the States, designed to control the same. Both Title IV (§ 407) and Title V (§ 511) envisage a substantial research and development program to be undertaken by EPA. Title VI of the bill is directed toward energy recovery and directs EPA, "alone or in conjunction with NASA" to develop, within three years of enactment, "three major facilities for producing energy . . . from solid, liquid, and semisolid waste, from residential, commercial, industrial, and agricultural sources." For this purpose, EPA could undertake research and development through grants and contracts and guarantee loans, for which appropriations are authorized in the amount of $50-million.

A new "Council on Environmental Representation," consisting of five Presidentially appointed members, would be created by Title VII. Its primary function would be to assist "eligible clients" to secure "adequate representation" before any Federal or State body in matters "dealing with the environment of such clients." The new Council, with the assistance of an "Environmental Representation Advisory Board" to be established by the Chairman of the Council, would be empowered to set up regional and local offices. A total of $150-million in appropriations is authorized for the Council through the fiscal year ending June 1976. Another new body, the "National Commission on Environmental Costs," composed of 12 members appointed equally by the President and House and Senate leaders, would be created by Title VIII. The duties of this new Commission would include conducting comprehensive studies relative to establishing "a system of national disposal cost charges on all products, other than consumables"; reducing wasteful use of materials; and "mitigating damage done by sources of pollution and internalizing the costs of such pollution."

Preliminarily, we note that Section 103(11) excludes from the definition of "hazardous waste":

> ". . . any source material, special nuclear material, or byproduct material subject to regulation or control under the Atomic Energy Act of 1954 (42 U.S.C. 2011 et seq.) . . ."

In light of this exclusionary provision, it appears that the AEC's operational and regulatory responsibilities relating to its program for the control, storage and disposal of radioactive wastes would not be affected by those provisions of the bill covering such hazardous waste. We assume that this exclusion of AEC-controlled materials from the bill's coverage of "hazardous waste" is also intended to exclude such materials from coverage as ordinary "waste," and we therefore urge that the definition of "waste" (Section 103(27)) be clarified to reflect such intent. Otherwise, a contrary interpretation might be drawn so as to jeopardize or vitiate the AEC's statutory responsibilities, as indicated more fully in the additional comments annexed hereto. Notwithstanding, other provisions seem to us to pose serious problems.

First, we question the wisdom or desirability of designating EPA as the lead agency for the research and development to be conducted under various titles of the bill, especially with respect to the recovery of energy from waste. As you know, the President has proposed a new Energy Research and Development Administration (ERDA) to provide the organizational framework and technical expertise to direct the expenditure of ten billion dollars over the next five years to meet the Nation's energy needs. Having a broad charter and designed to conduct research and development in all energy areas—solar, geothermal, coal liquification and gasification, shale oil development, and nuclear power—ERDA would be responsible for the formulation and consolidation of effective policy and programs to meet the Nation's energy needs. In contrast, the approach taken in H.R. 11878 would result in further fragmentation of research and development work in the energy field which is so vital to the Nation's well-being.

A fundamental flaw in the bill may be its assumption that net national benefits will result from increased recycling of all materials. While this may be true for some materials, it is not immediately clear that such a policy would have universally beneficial effects or should be applied in all instances. Instead, we believe it is necessary to conduct an overall assessment of alternatives and a cost-benefit evaluation of the total complex of resource expenditure and recovery which would be involved in increased use of recycled materials.

We are concerned about the requirement to restrict Federal supply procurements to items "composed of the greatest percentage of recovered materials." To comply with and enforce this restriction would be most difficult, if not impossible. Coupled with the novel provision for arbitration between a disgruntled prospective seller and a procuring agency, this requirement could result in our procurements being seriously hampered as to jeopardize our major research and development activities in the vital nuclear energy field. Instead, we favor the pro-

visions proposed in the Administration's "Hazardous Waste Management Act of 1973" (H.R. 4873), which requires EPA, in consultation with other Federal agencies, to identify products that can utilize significant quantities of secondary materials and to issue guidelines with respect to the inclusion of such secondary materials to the maximum extent practicable in products to be procured by the Federal Government.

We are also troubled by the proposed "Council on Environmental Representation" which would represent (or obtain representation for) potential litigants unable to personally afford such representation before administrative agencies, legislatures or courts in matters dealing with "the environment of such clients." The bill's authorized appropriations for the proposed Council seem to envisage a large legal and technical staff which, in time, could encroach upon and impede the present responsibilities of regulatory agencies like the AEC to effectively accomplish their statutory missions and to provide for necessary protection of public health and rights. Since effective representation is now conducted before administrative, legislative and judicial bodies by various private legal and public interest groups, we believe a new Federal mechanism for individual litigants in this environmental protection area is unnecessary and unwarranted. Although Section 705(e)(2) is directed against undue or frivolous harassment of agencies by Council representations, the chance of such occurrence when many individual complaints are involved appears very great. With respect to the nuclear industry, the potential for additional delay and intervention in the hearing process also appears to run counter to an increasing desire to shorten licensing and regulatory processes so as to bring electrical generating capacity on line more quickly to help alleviate the national energy problems.

Accordingly, for the reasons summarized above, we do not favor enactment of H.R. 11878, and prefer enactment of H.R. 4873.

For your further information and consideration, additional comments on specific provisions of the bill are enclosed.

The Office of Management and Budget has advised that there is no objection to the presentation of this report from the standpoint of the Administration's program.

Sincerely,

JOHN A. ERLEWINE, *General Manager.*

Enclosure.

AEC ADDITIONAL COMMENTS ON H.R. 11878

1. *Section 102(a). Congressional Findings.*—(P. 4, lines 16–24 and P. 5, lines 20–23)—With respect to the general philosophy of the bill, although it may be true that costs of waste disposal constitute a societal burden not always reflected in the initial price of various virgin materials, we believe the following factors must be considered:

(a) Whether such eventual disposal costs are not actually in some fashion already taken into account, particularly by end-users in their overall decision to purchase virgin as opposed to recycled (or recyclable) material;

(b) Whether a complete assessment of the overall costs and benefits of recovering and rehabilitating material for reuse would demonstrate (universally or for particular materials) a net benefit to society in terms of resource conservation since significant effort to recover, extract, refurbish, transport, and dispose of residuals would appear to be involved in reuse of any materials;

(c) Whether, because disposal costs vary considerably from material to material (as stated in the bill) and from place to place, a practical or convenient method can be devised to define, internalize, or allocate such costs in the manner apparently envisioned by the bill. For example, since many Federally procured products are the result of several substages of manufacture in different situations throughout the country, can it be realistically expected that the individual sub-suppliers will be significantly influenced by any computed incremental societal costs for disposal that are tacked on to end-use applications of heavily used recycled materials, and so provide end products with desired material content;

(d) Whether major Federal procurement can be significantly affected by recycled material. For example, would electronic gear be required to contain recycled copper in the same degree that recycled paper may be required for stationery purchases;

(e) Whether such disposal costs can or should be taken into account even by end users because of the difficulties of computing an equitable cost increment.

2. *Section 103(6). Definition of "Disposal Cost".*—P. 7, line 4)—The definition of "disposal cost" does not appear to give weight to disposal activities which would still be required for residuals after recovery of the desired materials or to possible differential costs of transporting virgin materials and recovered materials *after* processing. It is also not clear that the use of "average" waste disposal system economics will provide an adequate base for computing disposal costs (which inherently vary widely) needed to make adequate value judgments concerning what incremental disposal costs can be appropriately accepted in procuring one product rather than another.

3. *Section 103(27). Definition of "Waste".*—(P. 11, line 1)—As indicated in our letter, we assume that the exclusion of AEC-controlled "source material, special nuclear material or byproduct material" from the definition of "hazardous waste" (Section 103(11)) is intended also to exclude such materials from coverage as ordinary "waste" under Section 103(27). That this is the intent seems to be a necessary and proper interpretation and we therefore recommend a clarification of Section 103(27) to obviate any contrary interpretation.

If the intent of the bill, under the definition of "waste", were *to include* nuclear waste material (source material, special nuclear material and byproduct material) as ordinary "waste", though not as "hazardous waste"—which in our view would be anomalous—then other provisions of the bill would have very serious and adverse effects on the AEC's regulatory mission, as follows:

(a) At present, the AEC must comply with the Resource Recovery Act of 1970 provision requiring that "[e]ach Executive agency which issues any license or permit for disposal of solid waste shall, prior to the issuance of such license or permit, *consult* with the [Administrator of the Environmental Protection Agency] *to insure compliance* with [solid waste recovery, collection, separation, and disposal] *guidelines recommended* under section 3254c of this title and the purposes of this chapter." [42 U.S.C. 3254e.(b); Emphasis supplied.] Now, however, Title V of the bill, entitled "Unsafe Disposal Practices", would require the Administrator of the Environmental Protection Agency (EPA) *to issue regulations*, after consultation with representatives of other appropriate agencies, establishing standards for the control of unsafe disposal practices including maximum requirements for disposal practices with respect to non-hazardous wastes and minimum requirements for obtaining and holding a permit for operating a waste treatment and/or disposal facility. [§ 501(a)(3)(B) and (C)]. Section 503 of the bill also gives the EPA enforcement authority with respect to its regulations so that the AEC would no longer have the primary regulatory responsibility in this area. With regard to wastes involving the aforementioned nuclear materials, the AEC is presently responsible for establishing standards for disposal of such material, issuing licenses for treatment and disposal of such material (including regulation of the location of disposal sites and permissible methods of disposal), and inspecting disposal sites and operations to assure compliance with the standards and license conditions. Since the AEC already has established the expertise, regulations, and procedures in this specific area as part of its overall regulatory responsibilities in the nuclear field, we believe that shifting such authority to EPA would be counterproductive and unwise.

(b) Such an interpretation of "waste" as including AEC-controlled materials would mean that under Title V of the bill, the authority of State governments to regulate nuclear wastes would be vastly expanded, in conflict with the existing provisions of the Atomic Energy Act of 1954, as amended. In an official interpretation of our Act, the General Counsel of the AEC has stated that "[b]y virtue of the Atomic Energy Act of 1954, as amended, the individual States may not, in the absence described in the Act from the standpoint of radiological health and safety." [10 CFR Sec. 8.4(a)]. However, section 502(a) of the bill would require each State to "establish a State implementation plan to regulate disposal practices" to complement the EPA's Federal program. Even more in conflict with the Atomic Energy Act and AEC operations and delegation of regulatory authority under Agreement State programs (42 U.S.C. 2021) is section 509(a) of the bill which provides that with respect to waste disposal practices "[n]othing contained herein [Title V of the bill] shall prevent any State or local government from imposing more stringent requirements than imposed under the provisions of this title." The AEC believes that in the interest of preserving an orderly system for the safe disposal of nuclear wastes that the authority ought to be retained by the AEC, subject to the provisions of the Atomic Energy Act.

In any event, Section 508 of the bill integrating it with other acts should be changed to make specific reference to the "Solid Waste Disposal Act" as amended

by the "Resource Recovery Act of 1970" (42 U.S.C. 3251–3259), unless the bill is intended to supersede these provisions in which case such intent should be specifically stated.

4. *Section 202(a)(1). National Recyclable Transportation Policy.*—(P. 12, line 18)—It is not clear (a) whether the proposed nondiscriminatory rate policy would also apply to recoverable materials which have not yet been "recovered" but are still mixed with essentially waste materials or (b) whether "only" equipment size, etc., should be considered in the policy determination or whether such factors as special maintenance or special treatment of equipment (for example, more frequent cleaning) are specifically intended to be included under "services."

5. *Section 301(a). Federal Procurement Requirements.*—(P. 20, line 11)—The bill does not provide sufficient guidance concerning what "unreasonable" cost differentials are or how they may be determined in purchasing goods with the greatest percentage of recovered materials or greatest potential for recycling as required. To determine "reasonableness", it appears that any procuring agency would have to do a complete cost-benefit study itself for each procurement item (over $5000), including determination of disposal costs, societal and resource costs, etc., which would be highly impractical. There are similar questions of practicality about the ability of the lead agency and GSA (§ 301(c)-(d)) to establish minimums for recycled material content which could be applied in all procurement activities (if incremental disposal costs do indeed vary with material and locale).

U.S. Atomic Energy Commission,
Washington, D.C., May 31, 1974.

Hon. Harley O. Staggers,
Chairman, Committee on Interstate and Foreign Commerce,
House of Representatives.

Dear Mr. Staggers: The Atomic Energy Commission is pleased to respond to your letter of March 11, 1974, requesting our views in H.R. 13176, a bill "[t]o amend the Solid Waste Disposal Act so as to provide for a comprehensive system of waste management and resource recovery, to protect the public health and environment, and for other purposes."

Although we support some of the bill's provisions, we do not favor enactment for the reasons set forth below. Rather, we recommend enactment of the Administration's proposed "Hazardous Waste Management Act of 1973," H.R. 4873.

The major thrust of the bill calls for state plans adopted pursuant to basic guidelines and standards to be promulgated by the Administrator of the Environmental Protection Agency (EPA). If the States failed to develop and implement effective plans pursuant to EPA guidelines, EPA could then issue plans to be applied to such States. Under the bill, other provisions to be added to the Solid Waste Disposal Act (42 U.S.C. 3259 et seq.) would cover, among other things, standards of performance for existing and new waste generation sources; the gathering of information designed to carry out the Act; provisions for Federal enforcement; citizen suits; and a grant program for state implementation of approximately $70 million for the fiscal year 1975 and 1976.

Of particular interest and concern to the AEC is the proposed Section 219, the "Hazardous Wastes" section of the bill. As you know, H.R. 4873, styled the "Hazardous Waste Management Act of 1973," which was proposed by the Administration and which you introduced in the First Session of the 93d Congress, contained provisions very similar to those in Section 219 of the present bill. The AEC supports enactment of H.R. 4873 because, among other things, it contains the following provision which is lacking in H.R. 13176, namely:

> "(a) This Act does not apply to—(1) any source material, special nuclear material, or byproduct material subject to regulation or control pursuant to the Atomic Energy Act of 1954, as amended; . . ." (§ 17, H.R. 4873)

Because H.R. 13176 does not contain a similar provision, § 219(a) would permit EPA to make the ultimate determination, "after consultation with representatives of appropriate Federal agencies," of the materials that constitute hazardous wastes and to establish Federal standards for storage, treatment, and disposal of such wastes. For those radioactive wastes resulting from source, special nuclear, or byproduct materials, the Atomic Energy Commission presently performs this latter function. To transfer this authority to EPA would, in our view, be most unwise and undesirable.

In addition, Sections 4 and 5 of H.R. 4873 contained certain more general provisions now contained in Sections 217 and 218 of H.R. 13176, such as (1)

requiring that any person operating a disposal site obtain a permit from the State, (2) allowing the State to set standards of performance with respect to disposal sites at least as stringent as Federal standards, and (3) delegating to the States the monitoring and enforcement authority with regard to these diposal sites. H.R. 13176 does not indicate that the general provisions of Sections 217 and 218 are not intended to be applicable also to hazardous wastes regulated under Section 219. In fact, a contrary interpretation can be drawn from Section 217(b)(3), dealing with the cost-benefit analysis that must be performed prior to approval of a state plan, which provides that "[n]othing in this paragraph [§ 217(b)(3)] shall be construed to apply to hazardous wastes regulated pursuant to section 219." The implicatiou of this provision in Section 217 is that other requirements of Section 217 (and perhaps 218) may also apply to hazardons wastes regulated pursuant to Section 219.

If the AEC's present authority to regulate nuclear wastes is trausferred to the EPA (and thence to the States) by H.R. 13176, the results would be counterproductive. The AEC has plans for establishing centralized radioactive waste repositories. However, if States were permitted to set disposal standards more stringent than Federal standards, the result would probably be nonuniformity and fragmentation among the States in an area where uniformity is highly desirable. Further, delegatiou of authority to the States as respects the issuance of permits, monitoring and enforcement in the area of radioactive waste disposal would place a heavy burden on States that might not be equipped to adequately handle such responsibilities.

For these reasons, the AEC opposes enactment of H.R. 13176 unless it is amended to contain the language present in Section 17 of H.R. 4873.

Additionally, we believe that other provisions of the bill pose substantial problems and for your consideration these are indicated in the enclosed additional comments addressed to specific sections.

The Office of Management and Budget has advised that there is no objection to the presentation of this report from the standpoint of the Administration's program.

Sincerely,

JOHN A. ERLEWINE, *General Manager.*

Enclosure.

AEC ADDITIONAL COMMENTS ON H.R. 13176

1. DEFINITIONS

We suggest that the scope and coverage of the bill be clarified by the inclusion of additional definitions. While Section 218(c) defines the terms "standard of performance," "new source," "source," (of waste generation) and "modification,' other key terms in the bill are left undefined. There is, thus, no definition of such terms, used throughout the bill, as "waste," "waste management," "disposal," "treatment" and "storage." In this regard, we note that the Administration's bill, H.R. 4873, does define most of these terms as well as others. Furthermore, the scope and coverage of H.R. 4873 are designed to protect the public health and other living organisms, whereas H.R. 13176 includes the environment, public safety, materials shortages, energy conservation and others, without definition.

2. TIME LIMITATIONS

Our experience has shown that unnecessarily restrictive or unrealistic time limitations can pose great difficulties for Federal and State agencies and industry. The end result may be self-defeating, and premature or inadequate guidelines could ensue. EPA is directed under the bill to promulgate state guidelines within six months after enactment (Sec. 217(a)(1)); and the States would be required to submit plans for compliance twelve months thereafter (Sec. 217(b)(1). State compliance regarding new disposal sites would be required within six months (Sec. 217(b)(2)(G)). However, under Section 233(a), EPA is not required to submit to Congress a cost and impact analysis of the bill until July 1, 1975, presumably *after* the EPA guidelines are proposed to the States. It would be better to require that the cost analysis precede the guidelines, since the degree of environmental protection, changes in production of waste, and impact of increased use of secondary materials, etc., to be provided by the guidelines should depend upon a balance of the costs and benefits involved.

3. INTERNATIONALIZATION OF COSTS

Section 217(a)(3)(G) specifies that a basic national objective which the bill is designed to effectuate is the "internationalization of costs of waste management and disposal, and resource recovery, and protection of health and environment for producers, manufacturers, importers, and users of materials and energy." While it may be true that costs of waste disposal constitute a societal burden not always reflected in the initial price of various virgin materials, we believe the following factors should be considered:

(a) Whether such eventual disposal costs are not actually in some fashion already taken into account, particularly by end-users in their overall decision to purchase virgin as opposed to recycled or recovered material;

(b) Whether a complete assessment of the overall costs and benefits of recovering and rehabilitating material for reuse would demonstrate (universally or for particular materials) a net benefit to society in terms of resource conservation since significant effort to recover, extract, refurbish, transport, and dispose of residuals would appear to be involved in reuse of any materials;

(c) Whether, because disposal costs vary considerably from material to material and from place to place, a practical or convenient method can be devised to define, internalize, or allocate such costs in the manner apparently envisioned by the bill. For example, since many Federally procured products are the result of several substages of manufacture in different situations throughout the country, can it be realistically expected that the individual sub-suppliers will be significantly influenced by any computed incremental societal costs for disposal that are tacked on to end-use applications of heavily used recycled materials, and so provide end products with desired material content;

(d) Whether such disposal costs can or should be taken into account even by end users because of the difficulties of computing an equitable cost increment.

It should also be borne in mind that it is not only the out-of-pocket costs of disposal, recovery, etc., that have to be internalized, but also some costs related to pollutant burdens upon the environment (and any consequent changes or deterioration which may cause productivity losses, additional control costs, etc.) that may have to be internalized. Such costs are difficult to determine.

4. OVERALL ASSESSMENT OF NATIONAL COSTS AND IMPACT

Section 233 calls for EPA to conduct a comprehensive study of the cost of program implementation. We believe this is a desirable objective, but would suggest in this regard that a specified provision be included to quantify national and state or local "benefits." Defining and quantifying benefits is a difficult task, not often undertaken but it should be undertaken for bills such as this rather than operating from what appears to be a presumption of significant national benefit as justification for the bill. In this regard, we note that Section 217(b)(3) refers to "state and local" costs as measured against "national" objectives. This appears to confuse pertinent factors since "local" cost should be directly balanced against local benefit, with the aggregation of all local costs balanced against any quantified national benefits. Indeed, in view of existing legislation for protection of air, water, and environmental quality, it is doubtful that the additional national benefits sought by the bill are substantial enough to justify the contemplated large Federal costs of implementation.

5. APPLICATION TO FEDERAL AGENCIES

Section 225 of the bill provides that Federal agencies "shall comply with all requirements of this Act to the same extent as any other person." Section 118 of the Clean Air Act (42 U.S.C. 1857f) contains similar language which provides that Federal agencies "shall comply with Federal, State, interstate and local requirements . . . to the same extent that any other person is subject to such requirements." As you may know, it has been held that this provision of the Clean Air Act, while requiring Federal compliance with applicable standards, does not, by virtue of the Federal Government's sovereign immunity, subject Federal facilities to state regulatory measures, and state permits or licenses are not required for the operation of such facilities (*Commonwealth of Kentucky* v. *Ruckelshaus*, 362 F. Supp. 360 [W.D. Ky. 1973]).

GENERAL ACCOUNTING OFFICE,
COMPTROLLER GENERAL OF THE UNITED STATES,
Washington, D.C., April 30, 1974.

Hon. HARLEY O. STAGGERS,
Chairman, Committee on Interstate and Foreign Commerce,
House of Representatives.

DEAR Mr. CHAIRMAN: Reference is made to your request for our comments on H.R. 12537, 93d Congress, 2d sess., which, if enacted, would be cited as the "National Resource and Energy Conservation Act of 1974."

The stated purposes of H.R. 12537 are to "protect the environment and conserve natural resources by stimulating the recovery, reuse, and recycling of waste materials and by decreasing the quantity of materials moved in commerce which must be disposed of ultimately as waste; to promote and regulate commerce by identifying and establishing standards and guidelines for the proper management of waste which poses a substantial hazard to human health or the environment, and for other purposes."

Section 311 of this bill provides for research, development, investigation, technical assistance, and other activities. The provisions of this section to a large extent duplicate what is currently provided for in sections 204, 209, and 210 of the Solid Waste Disposal Act, as amended by the Resource Recovery Act of 1970. In view thereof, the committee may wish to consider EPA's progress in implementing sections 204, 209, and 210 of the act before passing new legislation dealing with these same issues, and to include specific time frames and objectives for the work which remains to be done and for new work which the Congress feels there is a need.

We believe that it would be helpful if the terms used in section 401(a) of title IV such as "greatest percentage," "greatest extent," "significant difference," "maximum extent feasible," "reasonably available," "reasonable performance," and "unreasonably exceed," were more specific.

Section 401(b) of the bill provides for the Comptroller General to serve on a board which would arbitrate disputes between Federal procuring agencies and prospective suppliers. We believe that it would be undesirable for our Office to participate in the arbitration process in that such participation would be inconsistent with the concept of independence and objectivity which would be implicit in any reviews by our Office of the activities of this board. Accordingly, we urge that the reference therein to the Comptroller General be deleted.

Section 310(a) of the bill would authorize the Administrator to make grants to State and interstate agencies and general purpose local governments, and section 311(d)(3) would authorize the Administrator to make grants to public or private agencies and institutions and individuals. We note, however, that title III of the bill does not contain provisions requiring recipients of Federal assistance to maintain adequate records or authorize access to such records for purpose of audit and examination. While under the provisions of section 202 of the Intergovernmental Cooperation Act of 1968, 82 Stat. 1098, the Secretary of Labor and the Comptroller General would have access for the purpose of audit and examination to any books and records that are pertinent to financial assistance that might be received by States, such provisions are not applicable to records of local, public, or private agencies, institutions, etc. We suggest, therefore, that appropriate recordkeeping and access-to-records language along the following lines be included in title III:

"RECORDS AND AUDITS

"Sec. 312(a) Each recipient of Federal assistance under this Title pursuant to grants, subgrants, contracts, subcontracts, loans or other arrangements, entered into other than by formal advertising, and which are otherwise authorized by this Title, shall keep such records as the Administrator shall prescribe, including records which fully disclose the amount and disposition by such recipient of the proceeds of such assistance, the total cost of the project or undertaking in connection with which such assistance is given or used, the amount of that portion of the cost of the project or undertaking supplied by other sources, and such other records as will facilitate an effective audit.

"(b) The Administrator and the Comptroller General of the United States, or any of their duly authorized representatives, shall, until the expiration of three years after completion of the project or undertaking referred to in subsection (a) of this section, have access for the purpose of audit and examination to any books, documents, papers, and records of such recipients which in

the opinion of the Administrator or the Comptroller General may be related or pertinent to the grants, contracts, subcontracts, subgrants, loans, or other arrangements referred to in subsection (a)."

Title VI of the bill provides for the establishment of an independent agency to be known as the Council on Environmental Representation. The purpose of this Council would be to provide support for legal representation and assistance in proceedings relating to the quality of the environment. This support would be provided to eligible clients who are defined in the bill as "any person or class of persons who, for reasons of economic barriers, do not have sufficient legal representation * * *." We suggest that the term "economic barriers" be defined so as to clarify the criteria to be applied in determining who is an eligible client.

Also, under the Economic Opportunity Act of 1964, as amended (42 U.S.C. 2701) eligible persons may receive free legal services which are comparable to those that would be provided under the bill. Therefore, the Committee may wish to require that the legal services program, authorized under the bill, be coordinated with the legal services programs authorized under the Economic Opportunity Act.

Section 608(a) would require annual audits by the General Accounting Office of the financial transactions of the Council for any fiscal year during which Federal funds are available to finance its responsibilities under this title.

We are concerned about the inclusion of such a provision in this bill for several reasons. First, existing legislation gives us access to the records of executive agencies and the authority to review their programs, activities, and financial operations. Secondly, the requirement that we perform an annual audit limits our flexibility to decide where we can best apply our resources and would give this agency special treatment in relation to other agencies within the executive branch. Finally, the reference only to financial transactions may be interpreted so as to restrict us from performing reviews of programs and activities carried out by this Council. For these reasons, we suggest the Committee consider deleting this provision.

Enclosed is a list of technical and editorial changes the Committee may wish to consider.

Sincerely yours,

R. F. KELLER,
Deputy Comptroller General of the United States.

Enclosure.

Technical and editorial suggestions to H.R. 12537, 93d Congress.

On page 2, "Sec. 311. Research" should read "Sec. 311. Research, development, investigation, technical assistance, and other activities." (See p. 33)

On page 2, "Sec. 601, Title," should read "Sec. 601. Short title." (See p. 48)

On page 10, line 19, should read "REGULATIONS."

On page 19, line 19, "(a) should be dropped as there is no subsection "(b)."

On page 23, line 25 "(D)" should be relettered "(C)."

On page 24, line 6 "(E)" should be relettered "(D)."

On page 24, line 8 "(F)" should be relettered "(E)."

On page 30, line 23 "(a)" should be dropped as there is no subsection "(b)."

On page 31, line 20, citation to Federal Water Pollution Control Act should be changed to read "(33 U.S.C. 1251)." (See U.S.C. (1970) Supp. II.)

On page 31, line 21, citation to Federal Environmental Pesticide Control Act should have "of 1972" added and should read "(7 U.S.C. 136)." (See U.S.C. (1970) Supp. II.)

On page 41, line 30, "(1)" should follow "(a)."

On page 48, line 13, "1973" should be changed to "1974."

On page 54, line 21, should read "title 5," omitting "of the" to be consistent.

On page 55, lines 15, 17, and 21, "V" should be changed to "5."

On page 72, line 24, "(1) (a)" appears to be reversed and should read "(a) (1)."

DEPARTMENT OF JUSTICE,
Washington, D.C., May 7, 1974.

Hon. HARLEY O. STAGGERS,
Chairman, Committee on Interstate and Foreign Commerce, House of Representative, Washington, D.C.

DEAR MR. CHAIRMAN: This is in response to your request for the views of the Department of Justice on H.R. 12537, a bill entitled the "National Resource

and Energy Conservation Act of 1974" and the "Environmental Representation Act of 1973 [sic]" (Title VI).

Among other things, the bill directs the Administrator of the Environmental Protection Agency (EPA) to promulgate "standards regulating the manufacture and distribution of certain products in commerce as he determines necessary to protect health or the environment against unreasonable burdens and risks associated with the disposal of such products, "§ 203, and authorizes procedures for the seizure of "any product which constitutes an imminent hazard" as defined therein, § 205. The bill further provides for the issuance by EPA of regulations pertaining to unsafe disposal practices, § 301, and State plans to implement the regulations, § 302; greater use by the Federal Government of recyclable materials, § 401; research and the development of prototypes facilities to achieve maximum energy conservation, § 502; the creation of a National Commission on Environmental Costs to conduct various studies such as the feasibility of establishing a system of national disposal cost charges on all products, other than consumables, and various means of mitigating damage done by sources of pollution and internalizing the costs of such pollution, §§ 701–704. The bill under Title VI also provides for the creation of a Council on Environmental Representation to represent impoverished people before legislatures, administrative agencies and courts on environmental questions, §§ 601–610. Due to the significant differences between Title VI and the other portions of the bill we will divide our comments accordingly.

As to merits of the enactment of the legislation embodied in Titles I–V and VII–VIII, we defer to agencies such as the Environmental Protection Agency which are more intimately involved with the substantive considerations. We do, however, suggest certain modifications as follows.

First, under the plain language of the enforcement provisions litigation in the courts would not be handled exclusively by the Attorney General; litigation could be initiated by either the Administrator of EPA or the Attorney General, e.g., §§ 202, 204, 205, 303. Such a proposal which would allow representation independent of the Department of Justice conflicts with the statutory centralization of responsibility for protection of the Government's interest in litigation in the Department of Justice and the bill should be accordingly amended to so provide. 28 U.S.C. 516 provides:

Except as otherwise authorized by law, the conduct of litigation in which the United States, an agency, or officer thereof is a party, or is interested, in securing evidence thereof, is reserved to officers of the Department of Justice, under the direction of the Attorney General.

This statute, 28 U.S.C. 516, codifies the strong policy which is furthered by insuring that the Government take a consistent and uniform position in its litigation and that authority for representation of the Government's interests in court come from one source. It is suggested that a provision similar to that set forth in 42 U.S.C. 1480(d) be inserted in the bill and that all authorization for agency attorneys to provide representation be deleted.

Second § 308 provides that the Administrator shall integrate the measures to implement the provisions of Title III "to the maximum extent possible" with the Clean Air Act, 42 U.S.C. 1857, the Federal Water Pollution Control Act, 33 U.S.C. 466, and the Federal Environmental Pesticide Act, 7 U.S.C. 135. Nothing is said with respect to the application of the National Environmental Policy Act (NEPA), 42 U.S.C. 4321 *et seq.* We believe the bill should state whether NEPA is generally applicable or to which specific activities it is applicable. Such clarification would eliminate an area of possible litigation.

We now turn our attention to Title VI of the bill. We believe and support the underlying rationale that the indigent should have an opportunity to be heard with respect to environmental questions. However, we have a number of difficulties with the language of the bill as it now stands to implement that policy.

The bill provides that the Council on Environmental Represeutation would act to see that the views of the poor would be presented "in matters dealing with the environment" and "in matters affecting the environment of eligible clients."

§ 605. The term "environment" is defined to mean "air, land, or water and all living things therein or any other phyhical factor affecting the quality of life." § 603(5). The use of the term "environment" is vague and the definition provided does not clarify its use. On that basis, we believe, the Council's authority could be challenged. One of the basic difficulties is that so many problems can have an environmental dimension. E.g., *United States* v. *Students Challenging Regulatory Agency Procedures* (SCRAP), 412 U.S. 669 (1973), involving freight rates and their effect on the use of recyclable materials. A similar problem is presented

here in defining the Council's authority and functions simply in terms of "environment."

The bill at § 605A(c)(1) gives the Council authority to act as a super-agency or ombudsman:

The Chairman is authorized to intervene as a party or otherwise participate for the purpose of representing the interests of eligible clients in any proceeding before any Federal agency in matters affecting the environment of eligible clients, regardless of whether an agreement has been reached between the Council and an eligible client with respect to representing such eligible client's interests.

Under this provision the Council would not need a client's consent to act on his behalf and the Chairman of the Council could intervene as a party. We question the propriety of such a provision. Furthermore, no lawyer could represent an individual without that person's agreement, except under extenuating circumstances, e.g., mental deficiency. See *Code of Professional Responsibility* (American Bar Association).

Title VI also provides that the Chairman will disseminate information "to encourage eligible clients to participate" in the Council's programs. To the extent that such are litigation-oriented programs we suggest that this provision may be counter to the *Code of Professional Responsibility* restrictions on advertising and the soliciting of clients.

Furthermore, we question whether there is a need to provide environmental representation to indigents in light of the provisions in both the Clean Air Act and the Federal Water Pollution Control Act for reimbursement of attorney fees. E.g., *Natural Resources Defense Council* v. *EPA*, 5 ERC 1891 (C.A. 1, 1973).

In conclusion, whether Titles I–V and VII–VIII of this legislation should be enacted involves policy considerations as to which the Department of Justice makes no recommendation. If enacted, we believe that those titles should reflect the suggestions we have presented. We recommend against the enactment of Title VI.

The Office of Management and Budget has advised that there is no objection to the submission of this report from the standpoint of the Administration's program.

Sincerely,

W. VINCENT RAKESTRAW,
Assistant Attorney General.

Mr. ROGERS. Our first witness this morning is Hon. Russell E. Train, Administrator of the Environmental Protection Agency.

STATEMENT OF HON. RUSSELL E. TRAIN, ADMINISTRATOR, ENVIRONMENTAL PROTECTION AGENCY, ACCOMPANIED BY ARSEN DARNAY, JR., DEPUTY ASSISTANT ADMINISTRATOR FOR SOLID WASTE MANAGEMENT PROGRAMS

Mr. TRAIN. Let me say first how much I appreciate personally your very generous remarks about me. At the same time, I know there are significant policy concerns that this committee holds, as does, of course, the Environmental Protection Agency, with respect to the solid waste management area generally.

I also understand this committee naturally must look to the agency with program responsibility in this area, the Environmental Protection Agency. Therefore, I wouldn't expect this committee to permit me to use the Office of Management and Budget as a shield, so to speak, between EPA and this committee. I think we have to face up to the issues and discuss them in as forthright a way as we can.

Mr. Chairman, I am accompanied by Mr. Arsen Darnay, who I am sure is well known to you. He is our Deputy Assistant Administrator for Solid Waste Management Programs.

Mr. ROGERS. We welcome you.

Mr. TRAIN. He has long experience in the field and is knowledgeable on all our technical programs. On any point with which I feel I am not sufficiently familiar, I will refer the question to Mr. Darnay.

Mr. Chairman and members of the committee, I appreciate the opportunity which the committee has afforded me this morning to explore the subject of solid waste disposal and resource recovery and to discuss in particular our views with respect to H.R. 13176, the proposed Comprehensive Waste Management and Resource Recovery Act, and H.R. 4873, the Hazardous Waste Management Act.

Both bills recognize the need for Federal regulation of hazardous wastes. However, H.R. 13176 would require a Federal regulatory program for nonhazardous wastes while the administration proposal would not. It is the management of hazardous waste which is of particular concern to us because these wastes pose a substantial, present, or potential hazard to human health or living organisms. Those wastes, because of their concentration, quantity, or properties, are nondegradable or persistent in nature, or can be biologically magnified, or can be lethal, or may cause or tend to cause detrimental cumulative effects. The failure to control the amounts of these wastes, as well as how and where to dispose of them, pose serious threats to the quality of our lives and the environment in which we live. If not properly handled, these wastes can cause serious harm or injury to humans and other living species; can directly affect the ecological balance in often subtle, latent ways.

As we move toward implementation of the more stringent requirements governing the discharge of toxic pollutants into our waterways and as controls on hazardous air pollutants come into force, hazardous waste generators will be looking more and more to the land as an alternative to using the air or water as a place of disposal. This trend can only increase the size and scope of our hazardous waste problem.

Because of the extremely serious damage hazardous wastes can do to public health and the environment, we believe special attention should be directed to this problem. For this reason, we are pleased to note that H.R. 13176 would provide for a strong Federal role for the identification and the issuance of standards for the storage, treatment, and disposal of hazardous waste. However, H.R. 13176 places ultimate enforcement responsibility for all hazardous waste with the Federal Government. In contrast, we believe that there are only relatively few extremely hazardous wastes generated by industries operating on an interstate basis which are so toxic that primary responsibility for regulation and enforcement should be with the Federal Government. With Federal guidance and technical assistance, the States should be able and willing to establish adequate programs to assure proper management and disposal of those hazardous wastes not under Federal control.

Although hazardous wastes contribute by far the more severe threats to public health and other living organisms, the greater bulk of our solid waste problem is due to nonhazardous wastes.

Adverse impacts associated with nonhazardous wastes include a broad range of conditions. Open dumps in which nonhazardous wastes are deposited can cause odors, litter, dust, and noxious fumes. Fires in waste disposal areas have been known to burn out of control for periods of several weeks. Nonhazardous wastes buried in the land undergo biochemical decomposition. The resulting gas which is produced may create an odor nuisance, an explosion hazard, or the degradation of nearby groundwater. Ground settlement which also occurs from such decom-

position may interfere with subsequent use of the land for construction or recreation. The effects are essentially localized rather than interstate, and the incentives to minimize these effects are strongest at the local level.

We, therefore, believe that the best solution to the control of nonhazardous waste can be achieved primarily through State and local initiative. We believe States have been making good progress in this area. In our view, States and municipalities should continue to use the technology and efficient management techniques which have been developed and demonstrated. They can best adopt these demonstrated techniques to meet their individual needs. Our proposed Hazardous Waste Management Act sees the Federal role in this case as creating a proper regulatory environment for the States through guidance for State programs and as providing technical assistance when needed by States and local communities.

We believe that the States will meet the challenge. However, should we find that the States are unable to fulfill their responsibilities in this regard, we would be obliged to consider a stronger Federal role.

H.R. 13176 also proposes the initiation of two new grant programs. One program would provide $53.1 million in grants to State agencies to support their activities in waste management and resource recovery for 2 years. Another set of grants, amounting to $17.8 million over 2 years, would be for States who develop special planning and technical assistance programs.

We do agree with the concept of strong State programs. However, we disagree over the use of Federal funds to support these programs.

Mr. Chairman, I have some qualifications with that remark that I would like to bring out later.

Mr. ROGERS. Yes..

Mr. TRAIN. We believe State programs should be self-sufficient to ensure that they are most responsive and effective to State interests and objectives and to be sure that those who most benefit from programs pay for them. One viable mechanism that is an alternative to the grant programs in H.R. 13176 is the adoption of user charges. Several States and localities help finance their State programs by user charges. I would like to point out that this is one of the benefits of EPA's program under the Resource Recovery Act whereby we have helped and encouraged State and local governments to adopt improved methods of financing their programs.

H.R. 13176 would also call for new source performance standards with respect to waste generation sources. If we understand the purpose of these standards, they would seem to be largely redundant with our new source performance standards under the air and water pollution of the proposed Toxic Substances Control Act, now pending in a conference committee of the Congress, as well as with requirements in the pending Hazardous Waste Management Act.

The problems we face at all levels of government and in the private sector concerning the disposal of wastes stem in large measure from practices of inefficient consumption and disposal of limited natural resources. These practices must be replaced by more enlightened conservation. A key element in such conservation is the efficient recovery and reuse of discarded materials.

We do not suffer from a lack of discarded materials from which to recover beneficial and useful products.

Each year we produce, consume, and throw away more and more consumer commodities. Multiple packaging, built-in obsolescence, and the convenience of disposable consumer items have all contributed to our "throwaway" style of life. With only 7 percent of the world's population, we consume almost half of the Earth's industrial materials, most of these in the form of outworn equipment, discarded bottles, cans, packaging, and newsprint which end up sooner or later on local dumps across the country.

We have been examining ways to encourage resource recovery and to enhance the use of secondary materials in place of virgin natural resources under our authorities in the Resource Recovery Act of 1970. We have studied a broad range of subjects, including a number of the provisions contained in the measures before us today: potential markets for recovered resources, incentives for recycling, and taxes and product controls for reducing waste generation, just to mention a few.

Two of the more straightforward approaches to this problem would involve the widening of the market for recycled or recyclable materials through the Federal procurement process, and an analysis of the transportation rate-setting practices with a view toward equalizing, where appropriate, the treatment of secondary versus virgin materials.

Our proposed Hazardous Waste Management Act incorporates these two approaches. In the Federal procurement area, EPA would identify those products which lend themselves to recyclable components and provide guidance to Federal procurement agencies which would then be expected to comply to the maximum extent practicable. As to equalizing the treatment of recycled and virgin materials, our proposal would call for an investigation into rate-setting practices and would require, in all future proceedings in which rates for recycled materials are adjusted, a finding that such rates do not discriminate against secondary materials. Such a finding would become part of the official hearing record and would become the basis for future legal redress.

In addition to overcoming these legal and institutional barriers to recycling efforts, resource recovery benefits can also be derived from our demonstration and technical assistance programs under the Resource Recovery Act.

At the present time, we have six full-scale energy recovery demonstration systems underway, which represent a comprehensive array of energy recovery options. As a result of one of these demonstrations, as described earlier by Dr. Carter, the Union Electric Co. of St. Louis has recently announced its plans to utilize a system which will produce energy for area consumers from 8,000 tons of solid municipal waste per day. We know of at least 30 other electric utilities that are seriously considering this same technique. In addition, energy recovery and material recovery systems are being marketed by at least 12 firms. At least nine of these offer to finance plant construction.

In some cases, implementation of resource recovery requires fairly complex arrangements combining one or several communities and one or more State agencies along with the industrial sector. In such cases, we are working closely with States and cities in providing technical assistance and information on the technology, economics, financing,

and marketing aspects of resource recovery. We would expect to continue these technical assistance efforts under the proposed Hazardous Waste Management Act.

As this committee is, of course, aware, there have been a great number of bills introduced in the Congress which would, in some manner, seek to promote sound practices for solid waste management. While there is considerable disparity of opinion as to the actual means of achieving this goal, I believe the proposal embodied in the administration's Hazardous Waste Management Act provides the best set of programs for solid waste management. I recommend prompt enactment of H.R. 4873, the Hazardous Waste Management Act.

Although our views and the views of the committee may differ somewhat as to the specifics of this effort, I think we both realize the need for aggressive and creative steps in waste management and resource recovery. Our Earth and its resources are indeed the wealth we cannot afford to waste.

Thank you.

Mr. ROGERS. Thank you. Did you want to make any statement as to disagreeing over use of Federal funds as to the State programs?

Mr. TRAIN. The Resource Recovery Act of 1970 has authorized a modest program to support State planning activities. I believe we have provided something in the neighborhood of $12 million since its enactment for those programs.

Of course, this authorization expires in the very near future. The administration bill does not renew that particular authority, as I understand it.

I believe the principle of moving toward greater self-reliance on the part of the States in these environmental programs is a sound one. This is a matter we have been addressing, as you know, in the air and water field. This is particularly why I had these additional thoughts to express on this issue because I have been involved recently on the future course of Federal grants in the air and water areas. My thinking there has influenced the comments I wish to make on this subject.

I believe that here, as in the air and water field, the objective of greatest self-reliance is a sound one, and we should be exploring with the States ways and means of moving toward that objective. However, at the same time, it seems to me that as we are encouraging the States to undertake new responsibilities in these areas and many times thrusting new responsibilities upon them, we should in the near term certainly maintain a commitment to assist the States in this kind of an area.

Because of that feeling, although this is clearly the administration's position which I have presented, I do want the committee to know I am going to be undertaking a reevaluation of this to see whether this position might be modified to some extent in accordance with the general approach which I am suggesting.

I have had a chance to explore this within the administration, and obviously the written statement here expresses the position of the administration. However, I wanted you to know how I feel about this.

Mr. CARTER. Why is there a waste problem?

Mr. TRAIN. I think the growth in hazardous waste is one of the unfortunate sides of a highly developed technological society; many new products, many new chemicals. The production processes emit and

municipal waste contains heavy metals which can pose threats to public health when they reach groundwaters or other receiving waters.

There has been, I believe, a proliferation of the hazardous wastes themselves. In addition, as we have increasingly added new regulatory controls over the air and water disposal of waste, including the ocean disposal of waste, we have put more and more pressure on the on-land disposal of waste, or created more incentive, I should say, for the on-land disposal of waste.

Mr. CARTER. What is our most hazardous waste?

Mr. TRAIN. I think radioactive waste which is managed by the Atomic Energy Commission. That would be an example. Arsenic, cyanide, mercury are some of the other examples of the kinds of wastes that are highly hazardous. Likewise, some of our pesticides, when disposed of in concentrated quantities, can represent substantial hazards.

Mr. CARTER. Is there technology available now to properly manage hazardous waste?

Mr. TRAIN. There is considerable technology of various kinds. There is technology involved in the incineration of these wastes. This sometimes involves necessary scrubbing technology in order to avoid the release of hazardous air emissions into the atmosphere.

There are technologies for detoxifying certain wastes.

There are also ways of changing the product itself so the product can be achieved without the production of the hazardous residue, perhaps by recycling the waste or changing the nature of the process itself.

Undoubtedly, there needs to be more research and development in this area, but there is much that is readily available and much which can be more widely used through effective technical assistance.

Mr. CARTER. As to less hazardous solid wastes, there are about three ways we handle that. One is composting. That includes sludge from our sewage plant. Do you envision use of this method in the handling of solid wastes, favorably?

Mr. TRAIN. I think I have a predilection for that type of disposal. I am not sure as to the technology involved. Perhaps Mr. Darnay can comment.

Mr. DARNAY. I feel the best way of handling our organic residuals would be to get them back into the soil. That requires the cooperation of the whole society because these materials have to be economically returned to the soil in combination with fertilizers and other soil conditioners, and therein lies the problem. However, I believe ultimately that will be the final solution.

Mr. CARTER. Have you heard about the difficulty we are having disposing of sludge in this area?

Mr. DARNAY. Sludge disposal is a special problem. It is complicated by the fact that sludges frequently will contain heavy metals, pesticides, and other toxic materials which limit the use to which sludge can be put in terms of growing crops on the land on which it is disposed.

Mr. CARTER. As to the poison this sludge might contain, if it were not for the poisons, it could be useful as fertilizer, could it not?

Mr. DARNAY. Certainly. It is the oldest fertilizer used.

Mr. CARTER. I notice that many areas are using solid waste in electrical generation. For instance, in Switzerland, there are 35 generators, and at least 13 are used for electrical power. Have you read of that, or are you aware of that figure?

Mr. DARNAY. I am aware of the fact that in Europe the technology of the so-called wall-to-wall incinerator is well developed and widely practiced.

Mr. CARTER. Does it have the heat value of coal?

Mr. DARNAY. Solid waste as it comes out of the truck has half the heat value of coal.

Mr. CARTER. Paris uses this for heat, too; isn't that true?

It is unusual in this country; 50 percent of our paper is used for packaging, 87 percent of the glass is used for packaging, 11 percent aluminum, 20 percent plastics, and 9 percent of our steel is used in packaging.

Then the idea comes that perhaps we should also accentuate recycling. Do you agree with that?

Mr. DARNAY. Yes.

Mr. TRAIN. I had better make sure I am on the record, Dr. Carter. Very strongly so. It is an important direction for our country to be moving.

Mr. CARTER. I understand you have an interesting San Diego project.

Mr. DARNAY. In San Diego, we are going to convert the mixed municipal waste into oil which will then be sold to a utility which will burn it in their boilers. This oil is about three-quarters of the heat value of number 6 heating oil. If the process works out, and we have no reason to believe it won't, this should be one of the most innovative ways of dealing with the waste.

Mr. CARTER. Turning it into oil. I understand there is a shortage of that.

Mr. TRAIN. May I comment on one of your points? In reference to Europe, it is perfectly true in many parts of Europe there would have seemed to be more innovation in the process of recovery of solid waste than in the United States. You could also say this is also true in other energy areas, such as gasification.

Our technologies have been known and utilized in Europe for a number of years, due to a variety of factors. One, in the United States, we have had such abundant cheap sources of energy that we were not pressed to be innovative or to develop new technologies. In the solid waste area, we have had such abundance which we could afford to throw away, that we were not pressed by land or space to seek more conservation-oriented systems.

We are all aware that both these factors really don't exist anymore to the same extent they did in the past. So we are now being pressed in the United States to revise and change our ways of doing things in these areas.

Truly in the solid waste area, as I have said, it may sound a little rhetorical, but we must declare war on waste. It would be a very positive effort for our society to take.

Mr. ROGERS. Mr. Preyer.

Mr. PREYER. Thank you, Mr. Chairman.

Mr. Train, I thank you for your testimony. I would like to ask a few questions on materials and energies recovery.

On materials recovery, does increased recycling hold any real potential for meeting the shortage of any key raw materials in this country? Do we recover the kind of things we are short of or will be running short of, and is it enough volume to have an impact?

Mr. TRAIN. Most definitely. I would say right across the board, recycling holds the promise of conserving our raw materials and maintaining our supplies. We are becoming increasingly dependent for so many materials on foreign sources. This is very important. I don't know that I can identify the particular ones which are in critical supply and which can be benefited by recycling. As far as solid waste is concerned, some recylable materials would be paper, glass, steel, and aluminum and matters such as that.

With respect to certain hazardous materials, mercury for example, one of the ways to control the movement of mercury is to recycle it and control its use in that fashion.

Obviously, a very important resource which recycling helps to save is energy. We are all aware of the fact that the production of goods from recycled materials is almost across the board more energy-efficient than those things derived from virgin raw materials. This is in the magnitude of 4, 5, 10 times efficient.

In terms of overall impact from an energy standpoint, I think EPA has indicated that recycling in the large areas could achieve a reduction in the Nation's energy bill of almost one-half of 1 percent, which is very large indeed.

We have been talking about energy conversion aspects of solid waste—the potential of using mixed municipal waste for the production of energy. If this were undertaken in the major metropolitan areas it would be about 1½ percent of the Nation's energy bill.

It demonstrates the potential for improvement and gives us an important goal at which to aim.

Mr. PREYER. With the growing shortage of raw materials around the world, this recycling process appears to be the key.

How large must a city be before recovery is feasible?

Mr. DARNAY. If we are talking about separate collection of waste like aluminum cans or corrugated boxes, size makes no difference at all. When you get into processing plants where you have to put up capital for a processing system, I think you need a fairly large scale to have an economical plant.

Last year we would have said that a properly sized plant would be a thousand tons a day. This would represent a fairly substantial community, because each person generates about a ton of waste per year. A thousand-ton-per-day plant requires a population base of at least 400,000.

We have been revising this number downward because the value of the energy is going up so rapidly that smaller and smaller plants become economical.

Mr. PREYER. A community of any size can recover certain raw materials—paper, glass—and make it worthwhile?

Mr. DARNAY. Absolutely, providing they have a market at a reasonable distance from point of collection.

Mr. PREYER. Is there a danger that the energy collection processes will create new air pollution problems? There was some discussion about the mercury emissions in the Washington, D.C., area, as I recall.

Mr. TRAIN. These are areas of concern. We are examining the emission situation with respect to the St. Louis project because that is probably the largest field test we have to look at in this regard.

It is our opinion that the burning of trash and the production of energy in a project of that sort probably will result in reduced sulfur oxides. There is also a possible risk from substances such as mercury, but this would really depend on the nature of the particular waste.

I think it would be important to monitor these on a case-by-case basis to insure there was not a hazard being created. There is no reason why there would need to be.

Mr. PREYER. The St. Louis Post-Dispatch states that the pilot plant there triples air-dirt intensity. I do not know if air-dirt is a pollution or esthetic problem, but I assume there are some problems that would be more severe than in the materials recovery process.

Mr. TRAIN. I have discovered in this business there are problems in whatever you do.

Mr. CARTER. Mr. Chairman, if the distinguished gentleman will yield. I have been to see this plant with the gentleman from Missouri, Mr. Symington, and I was not aware of the dirt problem, although I wouldn't dispute the St. Louis Dispatch.

Mr. TRAIN. We are examining the situation. We think the problem is not going to be a serious one.

Let me ask Dr. Darnay to comment on this further.

Mr. DARNAY. The Dispatch refers to a particular test which was one of two tests. The Union Electric Corp. as well as the county air pollution control agency all agree that the results the paper highlighted are not conclusive.

EPA ran some tests. We got results that were a little bit above the "coal only" result and some below the "coal only" result, indicating it is a moot situation.

I would like to submit for the record a brief analysis of the situation.

Mr. PREYER. I think that would be very helpful.

[The following information was received for the record:]

AIR POLLUTION TESTING AT THE ST. LOUIS ENERGY RECOVERY DEMONSTRATION

(Status Report—March 29, 1974. Prepared by the U.S. Environmental Protection Agency)

The City of St. Louis, the Union Electric Company (UE) and the U.S. Environmental Protection Agency (EPA) are conducting a program to demonstrate the use of prepared solid waste as a supplementary fuel in an existing coal burning electric utility boiler. Energy from combustion of the solid waste is used to provide up to 15 percent of the steam energy used to run a 140 Megawatt turbo-electric generator.

As part of EPA's comprehensive assessment of the environmental, technical and economic aspects of the program a series of tests are being performed to evaluate the air pollution emissions which result from the combined burning of solid waste and pulverized coal in the UE boiler. Highly complex air pollution tests were conducted independently by UE and EPA from October thru December, 1973. Since that time, EPA and UE have been working to analyze—both physically and chemically—the properties of collected test specimens and to correlate the measured test data (such as the sulfur dioxide concentration in the stack gases in parts per million) with the many test variables. These variables include boiler load, percentage of solid waste in the fuel mix, moisture content of the solid waste, the coal firing rate and the operating conditions in the electrostatic precipitator (ESP, the air pollution control device).

A preliminary analysis of the data from the EPA tests suggest that particulate emissions can be either increased or decreased by 50 percent, depending upon test conditions, such as boiler load. In contrast, the data from the Union Electric tests indicate, as reported in the St. Louis *Post-Dispatch*, March 18, 1974, increases of

100 to 140 percent in particulate emissions when firing solid waste with coal. This apparent discrepancy may be the result of differences in the experimental conditions or experiment techniques[1] employed during the respective tests. EPA is presently trying to correlate these emission data with the test variables to explain the differences in measured emission values.

Preliminary analysis of data on the gaseous emissions, which were measured only on the EPA test, indicate that the sulfur oxide (SOx) emissions are not appreciably changed by the firing of solid waste with coal, and that there are no significant changes in the emission levels of the following: Hydrocarbons (HC); Carbon monoxide (CO); Mercury vapor (Hgv); and Chlorine (Cl and HCl).

To confirm or deny the preliminary indications, additional analyses of the data are required. These analyses are underway and are expected to continue for an additional two to four weeks. When the analyses are complete, all of the raw data and analyses will be made available to the public.

If inconsistencies and uncertainties in the test results remain when the analyses are complete, more air pollution tests will be conducted by EPA and UE. EPA is already planning additional air pollution tests at St. Louis for the purpose of obtaining data needed to set performance standards for new sources (boilers) that will be built to use fossil and solid waste fuels in combination. If necessary, these tests will be designed to resolve any questions raised by the existing test data.

Mr. PREYER. I have not heard any statements on the deep injection wells as a means of disposing of solid wastes. Is that a problem not covered by that act? Is that covered by the Safe Drinking Water Act or is that not a solid waste problem?

Mr. TRAIN. It certainly is a solid waste problem and I am not sure just how this bill does address this. The deep-well-injection waste is a matter of serious concern nationwide. I think we are all aware of some of the bad situations which have resulted from the underground disposal of arsenic and other materials of this sort.

The difficulty here is that it is very hard to be able to control the movement of the waste underground once it has been disposed of. It is hard to know what goes wrong if something does go wrong and the waste moves into a water supply. This is very difficult to correct. And many times the presence of waste may not be detected for many years.

You might say deep well injection should only be undertaken under very controlled conditions. This would require knowledge of the underground systems and other factors. I would say in the absence of any other means of disposition there is a serious problem.

Mr. CARTER. If the distinguished gentleman will yield.

The Clean Water Act does mention this.

Mr. DARNAY. An examination of the language of H.R. 13176 or the Hazardous Waste Management Act would indicate that the disposal processes can be regulated. Deep-well injections would be one process which could be regulated under either one of these authorities.

Mr. PREYER. Thank you.

Mr. Chairman, I won't pursue that any further but I wonder if we should extend that beyond drinking water?

Mr. ROGERS. What is the number of personnel who are working in solid waste?

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[1] There are two commonly used methods of measuring particulate emissions from utility boilers, the EPA method and the ASME (American Society of Mechanical Engineers) method. The EPA method is used by Federal and many state and local authorities in setting air quality control standards and in measuring the performance of stationary sources (boilers) against those standards. The ASME method is also used by many state and local pollution control authorities as well as by the electric utility industry. Because EPA and electric utility industry test methods are somewhat different, the results are sometimes difficult to compare strictly on a numerical basis.

Mr. TRAIN. I know we have 183 positions. Exactly how many we have on board I can't answer.

Mr. ROGERS. Would it be about 58?

Mr. DARNAY. If I may refer to my data here, Mr. Chairman.

In the Office of Solid Waste Programs itself, we have 121 positions, and approximately 20 vacancies. So 100 people are on board. In Research, 21 positions all filled. In the Regions, 41 positions, I believe of those, 20 are vacant. So we have approximately 40 vacancies.

Mr. ROGERS. The Office of Solid Waste Management has how many?

Mr. DARNAY. 121 positions assigned, and of those, 100 are filled.

Mr. ROGERS. Do those people have any other responsibilities?

Mr. DARNAY. None.

Mr. ROGERS. Completely devoting all their time to solid waste?

Mr. DARNAY. That is correct.

Mr. ROGERS. I understand you hadn't been given a clearance on the positions.

Mr. DARNAY. Of the 118 appropriated, over and above that in the President's original budget request, we have been given 58, which in essence represents the vacancies that I just mentioned. This was the allocation.

Mr. ROGERS. So even though the appropriations gave you 118, in effect, OMB has not given you that number?

Mr. DARNAY. That is correct.

Mr. ROGERS. So the law there is not being carried out. I won't ask you to draw the conclusion. It is rather obvious.

What has been your funding? Could you give us your levels of funding since 1970? Just run down quickly how much money you asked for, how much the Congress gave you.

Mr. DARNAY. For 1970, budget request $15.2 million; appropriation $15.4 million.

For 1971, budget request $18.0 million; appropriation, $20.6 million.

For 1972, budget request of $28.4 million; appropriation, $35.9 million.

For 1973, budget request of $21.4 million appropriation, $36.6 million.

For 1974, $5.8 million budget request; $8.7 million appropriation. An additional $6 million Agency carryover from previous years was directed for solid waste management programs in 1974. Also, an additional $15 million was displayed in the Solid Waste budget which was earmarked for Agriculture.

Mr. ROGERS. What about the 1975 request?

Mr. DARNAY. At this time I believe the 1975 request is $14.7 million.

Mr. ROGERS. What does that include?

Mr. DARNAY. That would include the operations of the Office of Solid Waste Management Programs, and Research, and our regional activity.

Mr. ROGERS. How much goes to your regional activity?

Mr. DARNAY. $900,000.

Mr. ROGERS. How much to research?

Mr. DARNAY. $5 million.

Mr. ROGERS. And what is the rest?

Mr. DARNAY. The remainder is $8.8 million.

Mr. ROGERS. For what purpose?

Mr. DARNAY. That would cover contracts, grants, and personnel to carry out activities and to satisfy our legislative mandates, such as assistance to States, operation of demonstration grants under section 204 of the Solid Waste Act, as amended and other activities.

Mr. ROGERS. How much goes to demonstration grants?

Mr. DARNAY. In round numbers, approximately $2 million.

Mr. ROGERS. And how much for training?

Mr. DARNAY. I have no figure on that. Let me say that training and planning combined in that figure are approximately $2.5 to $3 million, but I have no breakout of the two categories because they tend to be closely related.

Mr. ROGERS. Do you know how many people you will train?

Mr. DARNAY. No; because the States carry out training programs.

Mr. ROGERS. I am asking how many people you are going to train, or is this money for States to plan?

Mr. DARNAY. The total I mentioned covers money for States to carry out planning activities. A State planning program involves the funding of a group of people who carry out training activities directly through their own services or through a university.

Mr. ROGERS. Whom do they train?

Mr. DARNAY. Operators of disposal facilities, people who drive the tractors on the site or operate the scale houses or whatever. They train municipal managers also. They deal with higher levels of management. Most of our training activities have been directed toward the operator level. This is the focal point. This is where the need appears to be the greatest.

Mr. ROGERS. This gives how much money to the States, generally? Do you pro rate it equally for the States?

Mr. DARNAY. Roughly $3 million is for States. This amount is not pro-rated among the States by formula. In terms of what we can spend, we are constrained. All 50 of the States are in various stages of their planning efforts. If they have completed their planning efforts, obviously we can't support them. We do not have the authority to give program grants.

Mr. ROGERS. You are just trying to help them plan. Is that what these moneys are for?

Mr. DARNAY. Yes, the moneys go for their carrying out the State plan for waste management.

Mr. ROGERS. How many have submitted plans?

Mr. DARNAY. I believe 49 have submitted final plans or have plans in the draft stage.

Mr. ROGERS. Do you approve the plans?

Mr. DARNAY. Yes. This is done under a planning grant from us. As part of our requirements, we have to approve the planning package as part of the grant condition.

Mr. ROGERS. How many have you approved?

Mr. DARNAY. Let me look that up, Mr. Chairman, or submit that for the record.

I believe we have approved 44. I will submit some detail on this for the record.

[The following information was received for the record:]

PROGRESS IN STATE SOLID WASTE MANAGEMENT PLANS, APRIL 1974

	Inventory stage	Plan draft stage	Plan completed	Plan approved
Alabama			×	×
Alaska		×		
Arizona			×	×
Arkansas			×	×
California			×	×
Colorado			×	×
Connecticut			×	×
Delaware		×		
District of Columbia			×	×
Florida			×	×
Georgia			×	×
Hawaii			×	×
Idaho			×	×
Illinois	×			
Indiana		×		
Iowa			×	×
Kansas			×	×
Kentucky			×	×
Louisiana			×	×
Maine			×	×
Maryland			×	×
Massachusetts			×	×
Michigan			×	×
Minnesota			×	×
Mississippi			×	×
Missouri			×	×
Montana			×	×
Nebraska			×	×
Nevada			×	×
New Hampshire			×	×
New Jersey			×	×
New Mexico			×	×
New York		×		
North Carolina			×	×
North Dakota			×	×
Ohio			×	×
Oklahoma			×	×
Oregon			×	×
Pennsylvania			×	×
Rhode Island			×	×
South Carolina			×	×
South Dakota			×	×
Tennessee			×	×
Texas			×	×
Utah			×	×
Vermont			×	×
Virginia			×	×
Washington			×	×
West Virginia			×	×
Wisconsin			×	×
Wyoming			×	×
American Samoa		×		
Guam			×	×
Puerto Rico			×	×
Virgin Islands			×	×
Total of States[1]	1	4	45	44

[1] Excludes District of Columbia and territories.

Mr. ROGERS. What happens, you give them a little money and they plan. How much generally do these grants run, $40,000 to $50,000?

Mr. DARNAY. No, they can run as little as $40,000 or $50,000 and they can run as high as several hundred thousand dollars.

Mr. ROGERS. Well, for $2 million I wouldn't imagine you could spend too much in too many areas. Perhaps you can give us a breakdown.

[The following information was received for the record:]

SOLID WASTE FUNOING SUPPORT TO STATES

SUMMARY TABLE

[In thousands of dollars]

	Fiscal yaar—									
	1966	1967	1968	1969	1970	1971	1972	1973	Esti-mate 1974	Tota*
Total funds	399	996	1,315	1,639	1,399	1,718	1,643	3,002	3,000	15,111
Total Statas supported	14	31	36	31	32	34	36	43	50	50
DETAIL BY FUNDING MODE										
Planning grants	399	996	1,315	1,639	1,399	1,215	1,228	1,810	(1)	10,001
States supportad	14	31	36	35	31	32	32	35	(1)	49
Demonstration grants							101	1,056	(1)	1,157
States supported							3	7	(1)	10
Training grants						503	314	136	(1)	953
States supportad						8	12	4	(1)	12

[1] Not available.

Nota: Total for solid wasta ($15,200,000), comparas to $231,000,000 air, $121,000,000 water funds to States through fiscal yaar 1974.

SOLID WASTE FUNDING TO STATE AGENCIES, BY FISCAL YEAR

[Expressed in whole dollars]

	1966	1967	1968	1969	1970	1971	1972	1973
Alabama								
Alaska							31,685	35,356
Arizona						13,583	26,669	24,755
Arkansas			20,200	12,058	7,278			70,000
California	50,000	70,000	63,385	69,913	38,545	29,658	79,275	245,826
Colorado	21,265	22,250	22,431		24,250	24,250	62,692	96,500
Connecticut	25,402	41,013	68,168	35,484	46,999	81,544	81,544	195,510
Dalaware		10,000		28,718	6,000			
District of Columbia			50,000	81,900	5,500			
Florida		26,418		12,981	25,182	44,186		71,787
Georgia		30,284	27,286	41,869	19,546	168,870	32,000	150,000
Hawaii	20,400		40,924	29,158	50,000		60,000	20,000
Idaho	21,610	11,702	16,285	14,026	24,636		24,636	45,221
Illinois							148,899	98,867
Indiana					21,025			45,000
Iowa						22,703		98,744
Kansas		17,877		20,451	17,274			
Kantucky	15,000	15,000	25,663		63,062	128,816	92,186	60,000
Louisiana		31,035	29,322	36,480				20,000
Malne	14,000		11,986	15,000		20,000	20,000	47,301
Maryland		29,467	24,863		51,716	99,651	836	25,000
Massachusetts		25,000				132,185		62,000
Michigan		58,035	43,876			66,612	77,359	40,000
Minnesota		16,303		40,758	45,557	34,586	112,650	249,992
Mississlppi				31,029	28,468	35,107		
Missouri			36,831		37,567	32,491	55,617	73,388
Montana		20,434	14,087	19,471		73,535	37,065	104,520
Nabraska						23,311		39,612
Navada							14,211	17,510
Naw Hampshire					12,725	12,898	13,864	17,513
New Jarsey	50,000	46,000	33,927	103,280	244,447			75,000
New Mexico			28,860	27,184	22,117	39,094	37,240	39,647
New York	50,000	125,000	250,000	500,000	138,007	76,170	58,692	20,000
North Carolina		14,376	5,174	11,499	14,462			
North Oakota		13,016	13,496	19,315		2,760	19,000	20,080
Ohio		34,340	49,760	59,165	57,665	121,485	30,091	67,500
Oklahoma	29,500	12,500	31,712	23,732				53,000
Oregon		12,040	15,280	21,157	14,192		28,684	85,000
Pennsylvania	40,374	125,000	193,380	174,403	225,074		156,027	
Rhode Island	12,020	2,438		12,100				24,987
South Carolina	35,000	57,794	44,094					60,000
South Dakota			15,274		16,527	15,096	17,324	18,285
Tennessee		18,230	22,841	32,142	36,412	90,157	20,111	50,000
Texas		27,806	12,945	21,374		46,838	51,029	75,000
Utah			9,298	15,329		4,494	12,028	

SOLID WASTE FUNDING TO STATE AGENCIES, BY FISCAL YEAR—Continued

[Expressed in whole dollars]

	1966	1967	1968	1969	1970	1971	1972	1973
Vermont				23,830		29,826	30,703	30,000
Virginia		36,188	11,441	24,447	33,566			24,924
Washington		20,000	24,332		37,684	53,347	120,000	99,997
West Virginia	15,412	26,700	15,336	6,914	21,072	35,000		46,895
Wisconsin						61,565	30,060	134,794
Wyoming			14,224			9,300		20,000
American Samoa							32,245	26,000
Guam				53,775			28,275	
Puerto Rico			23,692	20,171	12,545			35,000
Trust Territory								
Virgin Islands						88,500	0	56,000
Total	399,983	996,246	1,315,391	1,639,113	1,399,100	1,717,618	1,642,697	3,001,510

Mr. ROGERS. What happens to the people? Whom are you training? Private industry people? Municipal people? Do they make any contributions? Are they licensed? Do they get certificates? We would like to know what happens.

After they plan, you don't know what happens?

Mr. DARNAY. We don't have any leverage over the States in implementing their plans. We can try to persuade them to be cooperative, but there is no Federal linkage between the Federal Government and the States.

Mr. ROGERS. Should there be?

Mr. DARNAY. Yes.

Mr. ROGERS. Would you let us know what you think the authorities should be, for the record? I won't ask you to do if now. If you will do it for the record.

Mr. DARNAY. Yes.

[The following information was received for the record:]

By "Federal linkage" we are not suggesting that the Federal Government dictate to the States the manner in which they are to implement their solid waste management plans, but rather, we would hope to advise the States as to proper hazardous waste management programs as would be the case under the proposed "Hazardous Waste Management Act."

Mr. ROGERS. I get a feeling from your testimony you are only really concerned about hazardous material, hazardous waste.

Mr. TRAIN. That is the thrust of the administration's view.

Mr. ROGERS. Is that EPA's view, too?

Mr. TRAIN. We consider this to be the fundamental step——

Mr. ROGERS. What I am trying to learn so the committee can propose legislation, has the program grown? Is the solid waste program diminished?

Mr. TRAIN. No.

Mr. ROGERS. Is it growing?

Mr. TRAIN. No.

Mr. ROGERS. Why do we adopt the approach of backing away from it, and judging from the budget figures we are not addressing ourselves to the problem. Is there any real reason for this other than budgetary?

Mr. TRAIN. I wouldn't say the legislation represents backing away. Over the past 6 months or so we have succeeded in, I think, really

turning around what had become, I think it is fair to say, a fairly negative position as far as solid waste management is concerned.

I think the original 1974 budget represented a very substantial cutback to approximately $6 million, as I recall. We have succeeded within the administration to restore the levels of fuding which had existed prior to that time.

Mr. ROGERS. Well, almost, $14 million?

Mr. TRAIN. Yes.

Mr. ROGERS. I commend you for that.

Mr. TRAIN. The basic first step was to turn around the thinking in that basic way. As I say, I think we really have succeeded in that.

Beyond that, I do feel the hazardous waste area is the most important to address. I do believe there are other areas in which the Federal Government should be undertaking more leadership than it is doing at the present time.

We have proposals at the present time pending within the administration in several of these areas; all I can say at this point—I mention this to indicate we are not frozen in our thinking. We are pressing for further expansion of these authorities.

Mr. ROGERS. That is encouraging, and I felt sure you would, Mr. Train. If we could get that going that would be helpful. I am not sure we can wait until the Agency can convince everybody in the executive branch what is happening—the trash is mounting.

Mr. CARTER. Mr. Chairman, I don't think we should wait for anybody. As an independent branch of the Government we should legislate this and indicate what we think is necessary.

Mr. ROGERS. That is why I want to lay some foundation. I agree with the gentleman.

Let me ask you this: What is hazardous waste? Where do you draw the line?

Mr. DARNAY. You are touching a sore spot of mine. It is often very difficult to draw a distinct line.

Mr. ROGERS. I agree with you, we ought to just strike the word "hazardous" out of the bill. We have the facts here. They are set forth in this blue book beginning on page 17, that of all the fires in New York City, about half of them in New York City are caused by garbage. I would say that is pretty hazardous. People killed on the New Jersey Turnpike because there were dumps there and the smoke came across the roadway. The dumps near the airport which attract the birds have killed literally hundreds of people. Children killed in garbage dumps not supervised or covered over. The water systems that we have documented which have been poisoned.

I think your answer is correct, but the administration, I am afraid, does not make that distinction. This committee will.

Mr. TRAIN. It is hard to draw the line. I certainly fully agree. There is obviously no clear demarcation between that which is hazardous and that which is not hazardous. There are probably items at either end of the spectrum we would all agree would fall within one category or another, but there would be a rather broad gray area in the middle, and some might be hazardous in some conditions and not in other conditions.

I believe it is a regulatory problem. We are dealing with some 17,000 disposal sites around the country, and in terms of a bare minimum fundamental program if we could identify those truly hazardous ma-

terials and undertake to control them, regulate them, that would be a very substantial step forward.

Mr. ROGERS. Do you need more authority to regulate mercury? I would hope not.

Mr. TRAIN. We have been fairly successful in that. I am not sure we have all the authorities we need. We have been very successful in preventing the movement of mercury into the water system, but in terms of the case Mr. Preyer mentioned, the burning in incinerators, I think we might.

Mr. ROGERS. I think you probably do. I think Food and Drug also has a little authority as far as some of these substances getting out and being disposed of. I would think as to the atomic materials, we have tried to give authorities on that before; that is why I am somewhat at a loss to see this bill coming up and centering on the "hazardous". It should be broadened.

Mr. TRAIN. We should be careful not to strike agreements in changing the bill at this point. I think we have expressed some reservation as to the practicality of definition in all these cases, and I think we surely can agree there is a gray area dividing hazardous and nonhazardous which would be difficult to administer. Surely we would want to explore with you the possibilities of expanding the scope of the legislation.

Mr. ROGERS. I understand the constraints but we want to get to the truth of the matter and I think we have reached that point where we say "hazardous" does not have much meaning when you talk about solid waste.

What about this "mission 5,000"? What has happened?

Mr. TRAIN. Let me indicate what I know. I think it is important to indicate I have done some homework. Then I will ask Mr. Darnay to fill in the gaps.

Some 5,500 dumps have been closed. This has been a public education effort, not a regulatory or enforcement effort. This has happened all over the country and has been very successful in some respects.

By the same token, probably as many or more open dumps have been added to the national total in the past 3-year period, so the net result represents no substantial reduction. You might say were it not for the program we might have a substantial number of additional dumps which we don't have.

Our data is not perfect in the area, since we don't have an enforcement or regulatory program. We don't go out and actually monitor all these facilities.

Mr. DARNAY. I would like to comment further on "mission 5,000." It proves basically two things. One, you can sensitize the Nation to the existence of a problem by a vigorous public education program, and I think this is the achievement of "mission 5,000." The second thing it proves is that where strong economic and other forces are standing up against you public education does not do the job alone although it is part of the job.

We have learned that you can't upgrade the practices by jawboning alone. "Mission 5000" has achieved its objectives, but we can't be out there looking at every parcel of land which is what we would have to do with people who closed in one area but opened in another.

Mr. ROGERS. I commend you for the closing of 5,000 open-burning dumps, but it is not encouraging to the committee to know we are

having more open up than those that were closed down, in spite of the jawboning.

How many were closed down due to the Clean Air Act?

Mr. TRAIN. There is no way for us to know.

Mr. ROGERS. Should we be concerned? Should we have any authority to do this or should we just go ahead and try to jawbone through the whole matter? Do we need any authority?

Mr. DARNAY. I think, Mr. Chairman, the issue is one of degrees of desirability. The States do have authority as to regulation. The statistical basis for the contention that more dumps have opened up than were closed is very uncertain.

Mr. ROGERS. I have no way of knowing that your figures are uncertain.

Mr. DARNAY. We have checked those that have closed.

Mr. ROGERS. Would you submit a list to the committee of the 5,000 you have closed and the dates?

Mr. DARNAY. I will be more than happy to do that; yes.

[The following table was received for the record:]

MISSION 5000.[1]—SUMMARY TABLE: JULY 1970 TO OCTOBER 1973

	Estimated dumps in 1966	Dumps closed or converted	Estimated percent		Estimated dumps in 1966	Dumps closed or converted	Estimated percent
Alabama	185	93		Nebraska	609	42	
Alaska	127	17		Nevada	107	9	
Arizona	163	45		New Hampshire	176	10	
Arkansas	291	34		New Jersey	220	211	
California	626	93		New Mexico	111	19	
Colorado	270	231		New York	792	426	
Connecticut	119	63		North Carolina	448	182	
Delaware	19	28		North Dakota	387	4	
District of Columbia				Ohio	582	381	
Florida	427	154		Oklahoma	275	24	
Georgia	139	37		Oregon	203	43	
Hawaii	70	12		Pennsylvania	547	307	
Idaho	45	59		Rhode Island	38	6	
Illinois	606	883		South Carolina	232	122	
Indiana	416	187		South Dakota	373	3	
Iowa	298	60		Tennessee	265	59	
Kansas	497	29		Texas	830	65	
Kentucky	214	170		Utah	163	39	
Louisiana	245	16		Vermont	112	41	
Maine	132	0		Virginia	201	114	
Maryland	132	34		Washington	328	93	
Massachusetts	285	85		West Virginia	340	70	
Michigan	964	315		Wisconsin	816	213	
Minnesota	516	200		Wyoming	57	26	
Mississippi	332	38		Puerto Rico	69	10	
Missouri	438	95					
Montana	98	84		Total	15,989	5,581	[2] 35.7

[1] A detailed listing of Mission 5000 dump closings/conversions may be found in the committee's files.
[2] Closed.

Mr. ROGERS. Do you need any authority at all to deal with this problem or should we just turn it over somewhere and hope it is going to be done? Do we need any Federal authority in the whole matter of solid waste? Should we pass legislation? Should we let it all die or should we just demonstrate a little bit and hope someone is going to find out about it?

What is your general feeling?

Mr. TRAIN. The administration is not proposing a general regulatory authority in the Federal Government over open dumps throughout the country.

Mr. ROGERS. There is not way you feel we ought to encourage that with some authority? If it is no problem, maybe we don't need any law.

Mr. TRAIN. You said "encourage"——

Mr. ROGERS. We have been trying to do that, Mr. Train, and he has just testified jawboning was not effective and more dumps are opening than were closed. So should this committee give you some aid to begin to do something about the problem or should we ignore it?

Mr. TRAIN. I don't think we should ignore it.

Mr. ROGERS. What are we to do? You have plans. I wouldn't think more than you are trying to encourage to close should be opening. Maybe all that money has been wasted.

Mr. DARNAY. I think one can underestimate the amount of progress that has taken place.

Mr. ROGERS. I am just using the figures given to the committee.

Mr. DARNAY. As a result of the planning efforts, numerous States have gone forward with legislation which is being enforced within the capacity of the State to enforce. So I think progress has been made under the authority we were given.

Mr. ROGERS. Many of the authorities given to you by this committee were not used. You were not permitted to, by policy.

How many projects do we have that are doing something about solid waste? Are we making any progress or aren't we?

Mr. DARNAY. We have about seven energy and technology demonstration projects; one at Menlo Park. I can list these very quickly.

Mr. ROGERS. And the State they are in, what happens, and the results.

Mr. CARTER. One is in Nashville and another in St. Louis.

Mr. TRAIN. Unfortunately, the one in Nashville is not one of our projects, I will simply list these and ask Mr. Darnay to fill in the information on their progress:

Franklin, Ohio, fiber recovery; metal recovery from incineration residue in Lowell, Mass.; energy recovery, St. Louis; energy recovery by steam generation, Baltimore; energy recovery, pyrolysis, for fuel oil, San Diego; energy recovery from conversion of waste to fuel gas, there is the waste to electricity project at Menlo Park; then again compositing and energy recovery involving pyrolysis for fuel oil in Delaware.

Mr. DARNAY. In Franklin, Ohio: 2.8 million total, Federal share 1.9 million. The project is a successful demonstration of recovery of metal and fibers and has been operating on a regular basis for better than a year.

Mr. ROGERS. What are the costs?

Mr. DARNAY. Per ton, I don't have that immediately in front of me but I will supply it.

[The following information was received for the record:]

FRANKLIN, OHIO, DEMONSTRATION—SUMMARY REPORT

ECONOMICS

On the basis of approximately two years' operating experience in Franklin, the wet separation of solid wastes into recoverable products appears to be an economically attractive option for resource recovery and waste disposal. This judgment, of course, depends upon the alternative costs of other means of

disposal. Indications are that the costs are competitive with incineration costs and, in some situations, may even be competitive with the costs of long haul to distant sanitary landfills.

In general, for all resource recovery facilities, the larger the solid waste processing plants, the more likely they are to be economically competitive with alternative disposal methods. This generalization stems from the fact that resource recovery systems are usually capital intensive facilities and their cost per ton becomes lower as the investment costs are spread over larger volumes. Therefore, a small 150 ton per day plant, such as the one at Franklin, would have a high cost per ton and would probably not be appropriate for small communities. Franklin's net costs are only about $7.00 per ton because the Federal demonstration project subsidized two-thirds of the plant's capital cost.

Sufficient data have been accumulated to permit reasonable projections of the costs and revenues for larger scale Franklin-type systems. This section of the report presents the projected costs for a 500 ton per day facility which could service a community of roughly 200,000 people. The costs were derived from the experience gained in operating the Franklin pilot plant and therefore reflect certain characteristics which are specific to the Franklin locale. It is important to note that the economic data that follow reflect projected costs of a particular system in a particular city according to particular design specifications. The final net cost could, therefore, vary significantly if the concept were implemented in a different place.

Table 3 presents the projected costs for the wet processing and recovery systems in a 500 ton per day plant. The respective cost and incremental revenues are shown for each of the three subsystems.

Figure 2 shows the incremental costs and revenues when all the subsystems are combined to form an overall solid waste processing complex. The final net cost range is $5 to $11 per ton. Obviously, the system's economic visability is a function of recovery rates, the economic life span of the hardware, operating costs, and market prices for the products. The major design, operating parameters, and assumptions from which the economic data was developed are presented below.

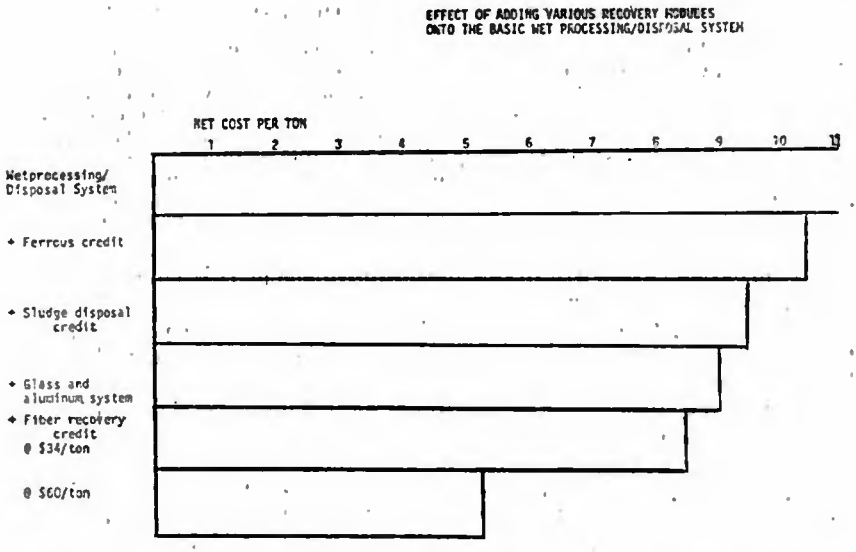
TABLE 3.—PROJECTED ECONOMICS OF THE WET PROCESSING/RECOVERY SYSTEM

[500 tons per day, 300 days per year]

	Revenues per year	Cost per year	Cost per ton input
I. Hydrasposal system (as designed at Franklin):			
Capital cost $5,900,000		$570,000	$3.80
Operation and maintenance		1,140,000	7.60
Credits:			
Ferrous metals	$140,000		(.90)
Sludge disposal	150,000		(1.00)
Net costs		1,470,000	9.50
II. Fiber recovery system [1]—Option to add on to the basic wet processing system above:			
Added capital cost ($3,100,000)		290,000	1.90
Added operating and maintenance		450,000	3.00
Credits:			
Paper fibers sold for $34 per ton	800,000		(5.30)
Incremental net profit		(60,000)	(.40)
Paper fibers sold for $60 per ton	1,350,000		(9.00)
Incremental net profit		(610,000)	(4.10)
III. Glass and aluminum recovery system [2]—Option to add on to the basic wet processing system:			
Added capital cost ($1,000,000)		96,000	.60
Added operating and maintenance		60,000	.40
Credits:			
Glass sold for $12 per ton	85,000		(.60)
Aluminum sold for $200 per ton	120,000		(.80)
Incremental net profit		50,000	(.40)

[1] Fiber recovery system's economic success is a function of fiber recovery rate, price paid for fiber, and economic life span of the hardware.

[2] Glass and aluminum recovery system's economic success is a function of recovery rates, prices paid for glass and aluminum, and economic life span of the hardware.



ASSUMPTIONS

Initial Capital Investment.—This figure reflects the projected costs for all buildings, equipment, design; engineering, site preparation, and installation in 1974 prices.

Land.—The costs of land are not included in the estimates. It is assumed that facilities would be built on land already owned by the city or on land which the city would be required to purchase for any comparable solid waste or sewage treatment process.

Economic Life of the Project; 15 years.—This is an estimate based on the expected equipment service life.

Interest.—The combined interest and capital recovery rate was assumed to be 5 percent per year.

Operating and Maintenance Costs.—These costs are based upon projections made by the Black Clawson Company were reviewed by A. M. Kinney, Inc., Consulting Engineers, and EPA. They are based upon the specific array of equipment at Franklin and the particular design specifications within that process.

Throughput.—The system would have a design capacity of 500 tons per day and would operate 300 days per year on a 24 hour basis. The system is not constrained by the 500 tpd size. In fact, Black Clawson is currently proposing similar systems ranging up to 2,500 tons per day.

Mr. ROGERS. Does it pay for itself or not?

Mr. DARNAY. It wouldn't pay for itself as it now stands. It was never meant to be a demonstration of a full-scale system, so it wouldn't. The same plant built at an appropriate scale would.

Mr. ROGERS. Have we built one at appropriate scales?

Mr. DARNAY. We have no plans to do that.

Mr. ROGERS. Why not?

Mr. DARNAY. We believe the Franklin plant demonstrates.

Mr. ROGERS. You have said it will not even pay for itself.

Mr. DARNAY. We have enough information on the Franklin project to be very certain of its economic viability.

Mr. ROGERS. How many are following it? It has been going a year. How many are planning on following that?

Mr. DARNAY. I believe there is only one project contemplating using that basic technology. That is in Detroit.

I would like to submit more detail on this for the record.

[The following information was received for the record:]

FURTHER INTEREST IN THE FRANKLIN, OHIO, DEMONSTRATION

The wet pulping system in Franklin is being actively considered by several cities that have made a commitment to implement a resource recovery system in addition to the city of Detroit. Hempstead, New York is evaluating proposals for a 2000 ton/day energy recovery system. In this case, the organic fraction recovered in the process would be used as fuel. Dade County, Florida is in the process of reviewing systems to supply solid waste fuel as input to steam boilers. Memphis, Tennessee is examining the Franklin system to obtain a fuel in a 2000 ton/day facility for use in TVA boilers for the generation of electricity. The Franklin concept is also being utilized in Japan where a 2000 ton per day fiber recovery plant is now under construction.

Mr. DARNAY. They are in the planning phase at this time.

Mr. ROGERS. Who is "they"?

Mr. DARNEY. The city of Detroit. They have not made a commitment to this project. That is one place where it is contemplated to be used, but we are not sure.

Mr. ROGERS. Well, that is not much of a demonstration project, if we are not sure anybody is going to use it.

What is next?

Mr. DARNAY. The city of Lowell, Mass., the total cost is $4.4 million, Federal share is $2.4 million. This project is basically a recovery of incinerator residue completely different from the Franklin project. It is in construction phases now.

The project has every chance of being economically self-sustaining, primarily because of the very high price for metals today. The project looks very good.

Mr. ROGERS. When will it be completed?

Mr. DARNAY. I believe it will be completed in mid-1975.

Mr. ROGERS. Are you continuing to fund it?

Mr. DARNAY. We made a commitment at the time the grant was made for $2.4 million. Then, in turn, we provide the funding on a month-to-month basis as the project develops. We will fund it all the way to the end—all of these.

Mr. ROGERS. Let us know the funding for each year and what is projected.

[The following information was received for the record:]

GREATER LOWELL RESOURCE RECOVERY PROJECT

Grantee: City of Lowell, Massachusetts. Grant No. 801535.
Project director: James L. Sullivan, City Manager, City Hall, Lowell, Massachusetts. Telephone 617/454–8821.
Principal contractor: Raytheon Company.
EPA Project officer: David G. Arella, Telephone 202/254–7848.

Budget period and time period	Total cost	Federal cost
Design and bid: Jan. 30, 1973 to June 30, 1974	$432,847	$324,635
Construction: July 1, 1974 to Apr. 30, 1975	3,102,153	1,434,114
Operation and evaluation: May 1, 1975 to Apr. 30, 1976	835,000	626,250
Total	4,370,000	2,384,999

Objective: The principal objective of this project is to demonstrate that the various commodities in normal incinerator residue can be separated and economically recovered.

Project description: The City of Lowell will build a full size processing plant capable of handling 250 tons of incinerator residue in 8 hours. Residue from Lowell and several neighboring communities will be processed in the facility. The plant will be designed by the Raytheon Company using the system piloted by the U.S. Bureau of Mines at College Park, Maryland. Using a series of

screens, shredders, classifiers and other ore benefication equipment the plant will extract more than 40,000 tons of products—steels, non-ferrous metals, and glass—from the incinerator residue annually. Revenue from the sale of the products is expected to exceed $1,500,000 a year.

Project status: The project is on schedule. The preliminary design was completed in December 1973. The final design is nearing completion and construction is scheduled to begin in July 1974.

Mr. DARNAY. St. Louis, Mo., shredded fuel facility, air pollution tests are being run; $4.1 million; Federal share $2.7 million.

A great success. Commitments have been made for it to be replicated in Chicago, and we know of other communities where it is being planned. A number of utilities are looking at it. Twenty-five communities have made a commitment. It is our most successful demonstration. Very, very economical.

Mr. ROGERS. Tell us the cost-benefit ratios.

Mr. DARNAY. I can tell you the approximate cost of the process on a per ton basis. It will probably cost $4 a ton to the fuel supplier, and the benefit, the value of the material as fuel, is around $3 per ton and rising. At this point we are not counting the sale of nonferrous metals which are also extracted but not yet recovered.

Mr. ROGERS. So what would this be in the savings to the city, in savings per ton?

Mr. DARNAY. It depends on the local conditions. This kind of process compared to a $1 dump fee might be more expensive. Compared to a $15 incineration fee it might save $10 to $12 a ton to the city.

Mr. ROGERS. That sounds very successful. I commend you.

Mr. CARTER. I am reading here: "Two tons of solid waste will produce the heat of a ton of coal." The approximate worth to the city should be around $12.50. as I see it.

Mr. DARNAY. There are several others I can submit for the record or go through them at this time.

Mr. ROGERS. What about Menlo Park?

Mr. DARNAY. It is an unusual project. It is a direct Federal support project. Basically, it consists of a burning of the waste in a pressurized fluid bed incinerator. The gases are taken from the incinerator; placed in a turbine and the turbine in turn moves an electrical generator.

We have had considerable difficulties from a technical standpoint, and the problem is that the gases coming from the incinerator carry particles which erode the blades of the turbine. Unless this problem can be fixed, it will not be possible to continue implementation of the facility.

The contractor is now working on a gas cleaning filter. The problems with that are that there is a likelihood that in cleaning the gas sufficiently to preserve the blade, the pressure will be reduced to such an extent it will not drive the turbine. We are looking at this with some anxiety.

Mr. ROGERS. Do you intend to continue the funding?

Mr. DARNAY. We are examing the gas filtering process, and if that should turn out to be a failure, I think the benefits of continued Federal funding wouldn't be favorable.

Mr. ROGERS. Do you have an estimated cost of the completion of the operation if this problem is overcome?

Mr. DARNAY. I believe the current work, the work that will decide whether or not this is a worthwhile project, has already been made available. I don't have details but can supply it.

Mr. ROGERS. No. What I am asking is, how much would it take to complete the project if the particular problem is overcome?

Mr. DARNAY. The project would be a success, and it would take no more funding.

Mr. ROGERS. I recall some question as to whether you were giving it the funding originally called for.

Mr. DARNAY. I believe the Agency has put into that project $6.5 million as the 100-percent funding for the project.

Mr. ROGERS. I think it would be well for us to have this breakdown.

[The following information was received for the record:]

CPU-400 PROJECT—FUNDING HISTORY (COMBUSTION POWER CO.)

Contract	Initiated	Amount
Feasibility study	1967	$133,000
Subscale experiments	1968	2,506,000
Pilot plant, low pressure testing (development of basic incinerator)	1971	2,351,000
Simulated turbine corrosion tests	1971	28,000
Turbine integration, high pressure testing	1972	1,496,000
Actual funding to date		6,514,000
Under negotiation to solve turbine erosion problems		1,400,000

Mr. ROGERS. Let me ask you one question about the dead-sea situation off New York. What is the Agency doing about that?

Mr. TRAIN. We have been monitoring, in connection with NOAA, the situation which has received a great deal of publicity. We don't have any evidence there is a movement of that sludge into the beaches, but we are obviously going to be watching the situation very closely.

Mr. ROGERS. Are we going to be able to do anything about it?

Mr. TRAIN. Short of closing the beaches, no. Assuming the stuff were moving on the bottom, I don't imagine there is any way to stop it.

Mr. ROGERS. I was asking about the dumping.

Mr. TRAIN. New York has announced a plan to move all those dumping areas considerably offshore. Instead of 3 miles fairly close in these areas will be moved to around some 30 miles offshore, as I recall. I have not checked this.

Mr. ROGERS. Have we demonstrated any way we can handle that problem without dumping it? Do we have any research going, any demonstration projects going?

Mr. TRAIN. Plainly, ocean dumping is not a preferred alternative, and permits for the use of the oceans for dumping are only contemplated until such time as other alternative disposal methods are available.

Mr. ROGERS. I agree with you, but what are we doing? Is the Agency doing anything to help find the alternative? I don't see it reflected in any of the plans or testimony.

It seems to me this would be a very major problem we have to handle, yet I don't see any activity.

Mr. DARNAY. In our Delaware project, we do have plans to recover and utilize sludges.

Mr. ROGERS. What are you going to do?

Mr. DARNAY. Compost these sludges and make them available either to the land or to the fuel.

Mr. ROGERS. I would like to have for the record exactly what you plan to do, how much funding it will take, and the time projection, what time goals you have set. Is it encouraging?

Mr. DARNAY. We have not begun the work in the physical terms, so it is difficult to say.

Mr. ROGERS. Have you already planned it?

Mr. DARNAY. Yes.

Mr. ROGERS. So we know exactly what you are going to do?

Mr. DARNAY. Yes.

Mr. ROGERS. Will you let us know exactly what you are going to do?

Mr. DARNAY. Yes.

Mr. ROGERS. Have the plans been approved?

Mr. DARNAY. Yes.

Mr. ROGERS. What will the funding be?

Mr. DARNAY. I believe $9 million Federal share, the total is on the order of $15 million.

Mr. ROGERS. Is it in the current budget?

Mr. DARNAY. Yes.

Mr. ROGERS. How much?

Mr. DARNAY. This is a project which was approved in the last fiscal year when we had authority to extend funding under the act. Total project cost, $13.8 million, with a Federal share of $9 million.

Mr. ROGERS. When will the first of the project be begun, and when will the payment be made?

Mr. DARNAY. Payments are being made in various time phases. The operation of the plant begins in 1977 and extends to August 30, 1978. Construction begins October 1, 1975. It is a long-term project, and the expenditure of the money extends from 1974 through 1978.

Mr. ROGERS. If you will, let us have all that.

[The following information was received for the record:]

COMPOSTING AND ENERGY RECOVERY, DELAWARE RECLAMATION PROJECT

Grantee: State of Delaware. Grant No. 801569.

Project director: John C. Bryson, Secretary, Department of Natural Resources and Environmental Control, Dover, Delaware. 19901. Telephone 302/678-4792.

Principal contractor: To be determined.

EPA project officer: Robert Holloway, Telephone 202/254-7417.

Budget period	Time period	Total cost	Federal cost
Design	June 1, 1974 to September 30, 1975.	$1,400,000	$916,560
Construction	October 1, 1975 to August 31, 1977.	10,500,000	6,862,640
Operation and evaluation	September 1, 1977 to August 31, 1978.	1,860,000	1,220,800
Total		13,760,000	9,000,000

Objective: The principal objective of this project is to demonstrate, with a full size plant, that municipal solid waste, domestic sewage sludge and selected industrial wastes can be satisfactorily and economically separated into useable fractions or organic compostables, organic non-compostables, ferrous and non-ferrous metals, glass cullet, and an inert, clean fill material, and that certain of these fractions can be further processed into fuel, fuel gases, carbon, and a marketable humus product.

Project description: A 500 ton per day processing plant will be built to physically, chemically and biologically convert solid wastes into useful products. Incoming refuse will be shredded and then mechanically separated into a number of different waste streams. Organic materials, including sewage sludge will be introduced into a mechanically driven, aerobic digester where they will be converted to compost. A portion of the compost will be marketed as a fuel supplement and the remaining compost will be marketed as agricultural products. Combustibles not suited for composition will be processed through a pyrolysis reactor from which fuel gas and carbon char will be removed. Ferrous and non-ferrous metals, as well as glass cullet will be recovered from various locations within the plant. The plant is projected to produce 310 tons per day of various products having a total market value of $4,355. This amounts to a gross revenue of $8.70 per ton of waste processed.

Project status: The grant agreement is currently being re-negotiated to modify the process to prepare supplemental fuel by shredding and classification, rather than by composting. The Federal cost of the amended project will remain at $9,000,000. The project time period will also remain roughly the same.

Mr. ROGERS. Dr. Carter, you wanted to ask a question?

Mr. CARTER. You are doing the best you can with what you have. As a member of this committee, I think we should not be a part of the problem but a part of the solution. This is a tremendous problem throughout this country. There is much to do, and we don't have much time in which to do it.

But as a separate branch of the Government, this committee should write appropriate legislation to lead, guide, and assist our States in solid waste disposal, in recycling and distillation and certainly transformation of solid waste into steam and electricity.

It is our duty as the committee to provide you legislation, to authorize; and we ourselves can't be called blameless, because we have not exerted the leadership and haven't written the legislation for you.

I pledge myself as one to assist in that area.

Mr. ROGERS. I share the gentleman's feeling and this committee is going to do what it can. But I would like for you to review your current authority to see if you could perform in carrying out your current authority.

Mr. HEINZ. I would like to associate myself with Dr. Carter's eloquent comments and compliment Dr. Carter on having made such a timely statement.

I do notice, Mr. Chairman, that we have a very comprehensive witness list today and probably others on future days.

I am certain that, based on the testimony we will be taking, numerous questions will arise that we may wish to submit to you, Mr. Train, and EPA.

I think the chairman has touched on great areas of importance. I am sure there will be more, and I would like, Mr. Chairman, if I might, to reserve the right to submit further questions on the testimony we will be taking, for comment or reply, as the case may be.

Mr. ROGERS. I am sure that will be agreeable to the Agency.

Mr. TRAIN. That wouldn't only be agreeable but preferable because then you will have the benefit of other witnesses' testimony. I don't know what your schedule is but it would be helpful for us to come back after we have had a chance to review the record, and you likewise, and address further questions at that point.

Mr. ROGERS. Thank you very much. We may have to do that.

Mr. Kyros.

Mr. KYROS. I am sorry I am late. I am a member of the Merchant Marine Committee and we just passed a bill.

In the February 4, 1973, issue of the Washington Star, a story appeared alleging that the OMB has caused the deletion of the recycling incentives. Is not EPA being inconsistent in its 1973 and 1974 reports?

What studies are underway to achieve the goals of your organization?

Mr. TRAIN. As to the first part of your question on OMB, I am not familiar with that situation. I will ask Mr. Darnay to answer it if he can.

Now, with respect to the need for incentives in the area of recycling, I, for one, do feel this is an appropriate area for incentives, market incentives primarily.

As you know, we have felt there are market constraints on recycling which have prevented recycling from achieving its full potential, and some of these we have been able to address in legislation before the Congress, such as discriminatory freight rates.

Other suggestions have been made that the problem should be addressed by removing tax incentives presently available for raw materials. Personally, I feel, while there is some conceptual validity to that, I doubt if this would be a realistic attitude in getting to the problem. It leads to incentives through tax credits of various kinds for direct subsidies.

There have been various kinds of tax credits discussed in the Congress. I believe the Committee on Ways and Means has recently had hearings which included some discussion on various bills before it on that subject.

The administration has so far opposed enactment of the proposals which have been put forth in the Congress for this purpose.

From the standpoint of environmental policy there is much to be said for the development of these kinds of incentives. The system has changed in this respect over the last year or two quite substantially because of the radical improvement in the market for scrap materials. The demand has gone way up and the economics of recycling have very demonstrable improved. So perhaps the across-the-board incentives—I know I, at one time looked upon them with some favor—may not be necessary now.

In the field of energy conversion, given the environmental benefits as well as the energy supply incentives which are available, this might be an area where tax incentives might be applied. This could be an area that might have a benefit to both energy and environmental needs.

As to the first part of your question, I will turn to Dr. Darnay.

Mr. DARNAY. I believe you are referring to a controversy, just about a year and a month old, of OMB's involvement in our first report to the Congress pursuant to section 205 of the Resource Recovery Act. One controversy was as to the report itself, which made statements about the problem, and a parallel activity going on in the administration. a debate over various kinds of incentives. OMB's participation in the preparation of that report was minimal.

At the same time a debate was being carried on within the executive branch on the desirability of tax incentives. The upshot of this was a decision not to go forward at that time.

Mr. KYROS. One of the policies we have is to help States meet their responsibility without Federal intervention, yet isn't it true OMB has ordered EPA to cease funding?

Mr. TRAIN. I addressed that at the beginning of my testimony. I will repeat some of that.

OMB did address a letter to the Agency which directed EPA to announce plans by the end of this fiscal year for phasing down the program grant to the States in the air and water field. Actual phase-down would begin a year later.

This eventuated from a discussion we had as to our budget. And I replied to that letter, stating the OMB letter really represented a misunderstanding or it did not represent the understanding of the discussions we had. While I could agree that greater self-reliance on the part of the States in all these programs was the worthwhile long-term objective, and we could also agree we should be exploring with the States various options for moving in that direction at some point, still the fact remains we are asking the States to undertake a lot of new responsibilities in the air and water field, as well as in the solid waste field and other environmental fields. This simply is not the time to start cutting back on what is a modest level of Federal assistance in this regard.

So I think we should actively explore the possibilities of moving toward greater self-reliance and certainly we should maintain our commitments and even consider, in my view, increasing the commitments.

Mr. KYROS. Would it be possible for you to submit to the committee what option papers you have prepared to help the States become economically self-sufficient in this area?

Mr. TRAIN. I don't believe we have any papers at this time. I don't believe we have had an opportunity since these exchanges with OMB to explore this matter in any real fashion at all.

Obviously, when we do have some concrete thoughts, first we will want to discuss these with State and local governments, and actually such options as we may think make such sense may depend on what the States have to suggest.

I have had a very constructive, appreciative letter from the Governor of Maine as a result of the letters I sent out to all the Governors, trying to calm the waters on this issue.

Mr. KYROS. Thank you.

Mr. ROGERS. Will you tell us for the record who in OMB are the individuals who deal with the solid waste problem? Normally they will have one or two men who will deal with you basically in matters of solid waste. Who are these people?

Mr. DARNAY. Are you interested in names of the individuals?

Mr. ROGERS. Yes.

Mr. DARNAY. Larry Barrett, and Mr. James Tozzi is his immediate superior.

Mr. ROGERS. I don't presume you would know what their backgrounds are right off, would you?

Mr. DARNAY. Both gentlemen have environmental backgrounds. Mr. Barrett was with the Environmental Protection Agency or one of its predecessor agencies and Mr. Tozzi was involved with environmental projects with the Department of Defense.

Mr. ROGERS. Thank you for your testimony. The committee is concerned, as you can see, as to the lack of action in the area of solid wastes. We hope we will be able to build support in the administration, as well as nationally, to allow you to do things that have to be done.

The committee will stand adjourned until 2 o'clock this afternoon.

Thank you for being here.

[Whereupon, at 12:15 p.m. the subcommittee recessed, to reconvene at 2 p.m. the same day.]

AFTER RECESS

[The subcommittee reconvened at 2 p.m., Hon. Paul G. Rogers, chairman, presiding.]

Mr. ROGERS. The subcommittee will come to order, please.

We are continuing our hearings regarding the solid waste and recycling legislation.

This afternoon, the committee is very pleased to have representatives of the National League of Cities-United States Conference of Mayors, two distinguished Floridians who are old friends of the chairman, I might add. They may not admit it, but nevertheless, we have been good friends for a long time, Mayor John B. Orr, Jr., of Miami-Dade County; and Mr. Richard Simmons, city manager of West Palm Beach, Fla.

I am particularly pleased to welcome you gentlemen to the committee. I know that the testimony you will give us will help the committee in deciding what to do with this legislation. We will be pleased to have you proceed as you desire.

STATEMENTS OF HON. JOHN B. ORR, JR., MAYOR, MIAMI-DADE COUNTY, FLA., AND RICHARD SIMMONS, CITY MANAGER, WEST PALM BEACH, FLA., ON BEHALF OF THE NATIONAL LEAGUE OF CITIES AND THE UNITED STATES CONFERENCE OF MAYORS; ACCOMPANIED BY FRAN BUHLER, DIRECTOR, SOLID WASTE MANAGEMENT TASK FORCE

Mr. ORR. Thank you, Mr. Chairman.

Busy as I know you gentlemen are, I trust you will indulge me for just a moment in personal reference for the edification of the other members of your committee.

The University of Florida has always prided itself on its great debate tournaments it has had in the past and it has done very well in national competition. Although your chairman has long since been graduated from that institution, they still talk about his prowess in that field.

I know that if the university should ever establish a hall of fame for debaters, why Paul Rogers' name would be at the head of the list.

I am honored to be here. Accompanying me is Mr. Richard Simmons, city manager of West Palm Beach, Fla., who is also a member of the National League of Cities and United States Conference of Mayors, Solid Waste Management Task Force and manager of the Solid Waste Advisory Committee to the National Commission on Productivity; and Fran Buhler also with us, is director of the task force.

Mr. ROGERS. We welcome you to the committee.

Mr. ORR. Mr. Chairman, members of the committee, I am John B. Orr, Jr., mayor of Miami-Dade County, Fla., a regional government covering some 222 square miles of territory and occupied by approximately 1,300,000 human beings.

I appreciate this opportunity to testify on H.R. 13176, the "Comprehensive Waste Management and Resources Recovery Act," on behalf

of Miami-Dade County and the National League of Cities and the U.S. Conference of Mayors which jointly represent over 15,000 municipalities of all sizes throughout the United States and Puerto Rico.

The leaders of the Nation's cities are encouraged that the committee is showing its recognition that greater priority must be given to the problems—and the potentials—of solid waste, resource conservation. and energy recovery. For too long, solid waste has been the shunned stepchild of the environmental movement. Attention has been focused on air pollution and water pollution, without any apparent realization that our "pushing down" on those pollutants causes land pollution and the squandering of our scarce resources to "pop up" elsewhere.

We are dealing with two immediate crises—in solid waste management and in resource conservation and energy recovery:

—Solid waste can provide over 86 percent of the Nation's anticipated energy shortfall with the lifting of the Arab oil embargo:

—Over one-half of the Nation's cities will run out of disposal capacity within 5 years;

—The cost for municipal refuse collection and disposal services, both residential and commercial, was $6.4 billion in 1973 and is expected to reach $7.8 billion by 1976;

—In fiscal year 1971, our 48 largest cities spent 47 percent of their total environmental expenditures for solid waste management: that same year, of the total direct solid waste expenditures for Federal, State, and selected large local governments, 98 percent came from local governments; and

—By the end of the century, our country will depend on foreign sources for more than one-half of its supply of 13 basic raw materials.

The National League of Cities and the U.S. Conference of Mayors urgently call upon this committee and the Congress to set as its goal new and expanded legislation before the end of this fiscal year.

The bill before the committee, H.R. 13176, has several provisions of major significance. I shall discuss four provisions that have major impact on cities and then make recommendations for additional provisions which should be included in the committee's bill. These recommendations are based upon the policies of the National League of Cities and U.S. Conference of Mayors, the report of our task force on solid waste management entitled "Cities and the Nation's Disposal Crisis," and my own county's experiences.

First, the bill would require the States to prepare and submit for EPA's approval a State waste management and resource recovery plan to accomplish several general national objectives. This requirement seems to be based upon the Clean Air Act of 1970. I am pleased to observe its improvements over that act; it would remedy many of our objections to that act previously raised before this committee. It would establish broad national objectives, which already are national policies and are highly desirable. It would temper these goals with economic reality and the necessity for local flexibility to meet varying local conditions. As a result, therefore, the committee would establish a suitable framework for rationalizing solid waste management and resource conservation, and relating land pollution to air and water pollution.

I would like to make the following general comments on the State plan:

The structure for developing and implementing the statewide waste management and resource recovery plan places primary responsibility with general-purpose local governments, which we heartily endorse. It does not deal adequately with the respective responsibilities of the different levels of government.

Nor does it relate solid waste plans to other planning and management programs. We have developed an alternative program for statewide planning modeled after the section 208 areawide waste treatment management program under the Federal Water Pollution Control Act Amendments of 1972. We urge the committee to give this proposal serious consideration (see pp. 176–80).

Responding to the specifics of section 217, we strongly support the requirement that the State assign primary responsibility and authority for plan development and implementation to general-purpose units of local government.

Let me say here, gentlemen, I have observed of what seems to me to be a disposition on the part of the Congress, generally, to deal with local problems not only in the field of solid waste management but in mass transportation and every other problem, through State governments, apparently on the basis that somehow or other, doing it that way would make the program more responsive to the direct needs of the people under the assumption that maybe the Governor knows better than you or that the Governor knows better than local communities.

Frankly, I can't testify with respect to the condition in States that maybe have more highly structured political systems, where parties are more important. Frankly, I think the Congress will agree with me that Florida is basically a no-party State, and we have the full range of political philosophy in both of the parties and basically very weak party organization or control.

The likelihood of a Governor's consulting with a locally elected official is very small. I have been mayor for about 1½ years. In the second primary and general elections, I supported Governor Askew. Not once during that period of time has he ever consulted with me about a local problem.

That is just not the way it works in Florida. If a problem arises in Miami, he goes to a patronage chairman in Miami whose virtue is a passion to raise money. So the likelihood of a program being responsive to meet local needs is rarely improved in my experience by your making the funds available to a State and, then, trusting that State to trickle that money down to the individual communities.

I want to say here right now that our current local administration is dedicated to the proposition that local problems ought to be solved locally, wherever it is possible. Toward that end, without seeking any Federal assistance, our people voted to impose upon themselves last year the biggest general obligation bond issue that was passed in the United States, some $550 million, $50 million of which was for solid waste disposal.

It is fair to say that cities have had the experience in dealing with solid waste problems and the States have not. General-purpose local governments (cities and counties) have the ultimate responsibility to bring together all the forces for community development and conservation, and make the public policy tradeoffs necessary between competing demands for a community's scarce resources.

This provision would allow us to build upon existing capacity, rather than duplicate it with consequent delays. The State's role is protected, and it would retain final approval authority. We would recommend that the State should bear the burden to demonstrate that a unit of local government is acting inconsistently with the State or other applicable plans and that the local government be given the opportunity to revise its plan before the State overrides local responsibility.

We strongly support the requirement that the State consult with representatives of general-purpose local governments and have public hearings. The provision that there be, as a minimum, an advisory board of general-purpose local governments would establish a formal mechanism for State and local communications, rather than the often ad hoc consultation which usually occurs. We recommend that the advisory board be appointed by the statewide associations representing units of general-purpose local governments.

The inventory of the State's present and anticipated solid waste resources, facilities, and needs will be a useful tool to guide policymakers and planners. We would suggest that not only should the plan include assessment of availability of land, but also the identification of specific sites suitable for land disposal and other facilities, and the commitment of such lands far enough in advance to minimize the problems identified by our task force.

Specifically, the Task Force on Solid Waste Management found that the most pressing problem is disposal sites with almost 50 percent of our survey respondents saying that they would run out of landfill capacity within 5 years. We will do that much faster in Dade County. Furthermore, the bill should provide relief for those jurisdictions faced with unreasonable or discriminatory restrictions by other States or local governments on the transportation or disposal of wastes.

The provision for State standards for residential waste storage and collection may impose an excessive burden on cities, countering the national policy of flexibility to meet local needs. Are these standards to say "How" cities are to store and collect wastes, or "What" should be collected and stored?

This provision should be clarified. In addition, it must be explicit that cities should be able to establish and enforce standards more stringent than those set by the State or Federal Government.

While we support the national objective of providing services without discrimination, we must question the practicality and scope of objective (H) which calls for "adequate and equitable waste management and resource recovery services and equitable siting of . . . facilities and sites . . . regardless of . . . irrelevant considerations."

Finally, provision should be made to facilitate and encourage regional cooperation between jurisdictions, including fair and equitable allocation of costs and responsibilities.

Second, the bill would extend the authorizations under the present law an additional 2 years, including the section 208 demonstration and construction grant program at $10.6 million and $15.6 million in fiscal year 1975 and fiscal year 1976. We continue to support the section 208 program, even though the administration has made it almost nonexistent. To assure full effectiveness of the State waste management and resource recovery plan, specific sums should be authorized for that pro-

gram, with provisions made for funding general purpose local governments in planning and implementing the plan.

Third, the bill would establish Federal standards for sources of wastes that contribute significantly to the Nation's waste problems or which pose public health, environment or other dangers to the attainment of national goals. We recommend that general purpose local governments be specified as eligible to have permit authority. We also recommend that different standards be applied to new sources that pose a direct hazard to public health, and to those that affect other national goals. For nonhealth hazards, State and local governments should be allowed to weigh economic, social, environmental, and energy factors in setting standards of performance.

Fourth, the bill would establish a Federal program to regulate hazardous wastes. The term "hazardous" is not defined in the bill, and this raises serious questions regarding the extent of this section. It appears that the standards are designed to protect human health and the environment; if so, this is an almost limitless mandate. We suggest that this term be defined more narrowly to protect against hazards to human health or living organisms as recommended for new sources. If esthetic values are to be protected, or general environmental enhancement goals, these should be distinguished in a manner similar to that made in the Clean Air Act between primary and secondary standards. As in the case of new source regulations, general purpose local governments should be authorized to issue permits on delegation from the State.

The National League of Cities and the U.S. Conference of Mayors urge the committee to go beyond the present bill and address the major issues that confront cities in their efforts to deal with the solid waste crisis and the energy crisis. Specifically, we urge increased attention be focused on:

Energy recovery from solid waste; Federal financial assistance for construction of solid waste management and resource conservation facilities; Increasing productivity; Disposal through landfill as a continued major need; and Reduction of solid waste.

ENERGY RECOVERY FROM SOLID WASTE

We urge the committee, the Congress, and the administration to recognize the energy recovery potential of solid waste. As noted before, 86 percent of the anticipated energy shortfall after the lifting of the Arab oil embargo can be met from solid waste as a fuel. This is calculated on the basis of 600,000 barrels per day shortfall and 180 million barrels per year produced from solid waste. It is a nonpollution energy source that will meet stringent environmental standards, and it is available now. The Environmental Protection Agency estimates that our solid wastes in large urban areas could produce enough energy to light every home and commercial establishment all year long. It is equal to 27 percent of the oil projected to be delivered through the Alaska pipeline. It is the equivalent of 12 percent of current utility coal use.

Major Federal commitments should be made to stimulate energy recovery from solid waste. The current limited demonstration program should be expanded to provide for further development of applicable

technology to test the replicability of these technologies under varying institutional circumstances, and to assure rapid state of the art advancements in related materials recovery technology. Cities need immediate help with technology transfer of demonstrated new technologies in the form of practical, federally funded; feasibility studies, and demonstration projects.

FEDERAL FINANCIAL ASSISTANCE FOR CONSTRUCTION OF SOLID WASTE MANAGEMENT AND RESOURCE CONSERVATION FACILITIES

To support the construction of solid waste management, disposal, resource conservation, and energy recovery facilities, we recommend a program of below market interest rate loans. These would be provided by the Federal Government for 100 percent of the cost of facilities construction. Borrowers should be able to reduce the amount of the loan repayment in amounts to be determined, if the facility produces any or all of the following features:

Regionalization of disposal or resource recovery services; resource or energy recover; increased productivity and efficiency.

The amount of repayment also could be reduced according to an accelerated depreciation schedule applied to facilities that are being replaced.

The proposed project should be consistent with applicable solid waste, environmental, and other plans, and should provide a system of distributing the costs of construction, operation, and maintenance of the system equitably among the users.

To maximize the incentive for resource conservation, the various levels of government as well as the private sector should institute purchasing practices which, to the maximum extent feasible, assure the purchase of materials which are recyclable or reusable, or which contain reecycled materials. The Federal Government should also enact legislation to reduce freight and shipping rates for solid waste materials in transit to resource recovery facilities and/or secondary material users.

Gentlemen, I would like to turn at this point to the experience that we have had in Dade County on solid waste because we are right in the middle of the problem right now.

For many years, our predecessor administrations have employed a consultant on solid waste and I believe his mother must have been frightened by an arsonist because the only recommendations we ever got were for incineration.

Of course, they were sold a completely smokeless and pollution-free, new, absolutely modern incinerator plant which is now belching ashes and smoke and dirt all over the area in which it is located and it has created a real nice pollution problem. We turned that around.

I want to say this, too, about this new local government that we have down there. We have taken our elected officials largely out of the consultant selection process. The only way we participate in it in any field, whether it be solid waste or transportation or sewers, is in the approval of the final contract.

Our county manager appoints, when any problem is raised, those members of his staff that represent the disciplines interested in any particular problem and he can call anyone else, any other expert in to

hear the proposals and to determine the worth of any consultant and politically based considerations are eliminated from this consultant process.

But frankly, this field of solid waste disposal is so new and so many things are happening at this time, that it is just difficult to keep up. We put out a proposal and I think initially, some 55 concerns responded. It was then moved down to about 17.

We, in effect, asked them how can we handle our solid waste program? We had proposals everywhere from incineration and sanitary landfill up through composting, this system where they compress the waste into building blocks, on through to resource recovery and ultimately to energy production.

We learned a lot from the bids and threw them all out because there was such a disparity and we didn't know enough when we started.

I would like to say, Mr. Chairman, at this point too and parenthetically, of all of the Federal agencies with which I have dealt, I have found none more cooperative than the Environmental Protection Agency. We have gotten great assistance from them in many of our programs, particularly a vast new countywide sewer program which is designed to ultimately eliminate the pollution of our waters in the area and to improve the condition of our treatment.

I wanted to say this because I know they are on the hotseat here today.

Mr. ROGERS. Yes; the committee is delighted to hear that. We will be delighted, too, to pass that on to the Agency. I think they will appreciate those kind words.

Mr. ORR. They are cooperating absolutely with us in connection with a very critical problem that now faces us with regard to sewage disposal. We just could not ask for anything better.

We asked them for help in this consultant selection process. We wanted really for them to send down an expert on this because we didn't have anybody who really was, there were so many changes being made, and we didn't have the capacity to do that.

It seems to me that ought to be one of the real functions of Federal participation in a matter like this, collection of the vast amount of new information that is being poured in, should be made available to local governments because it can save us an awful lot of money and it seems to me that that is a proper role for the Federal Government to assume.

Traditional solid waste disposal had been confined to the technique of either land-fill or incineration, both of which caused many problems while representing a poor substitute. In this regard, their efforts have related in substantial improvement in land-fill methods. Other experiments, and you have heard all of that testimony this morning, we regard as very productive.

Dade County has watched these experiments with a great deal of interest but we feel strict environmental controls are required. Traditional incineration has been the way out for south Florida but this way is coming under increasing public attack due to the air pollution that results. We right now are in a position where we are having a pre-bid conference with the respective firms that have made proposals to us under our insistense that whatever proposals be submitted now include some plan for resource recovery and some plan for energy production.

I would trust that any Federal program that is instituted now would remain flexible enough to permit the utilization of these new techniques as they are being developed and, of course, some of them are extremely exciting.

I am personally proud of the willingness of our local people to obligate themselves for the principal financing of this local problem, this waste disposal. I commend you for your interest in provoking the Federal Government into action because there are so many things that we don't have the capacity to do, and we are a large city, you know, with a great many more resources than many of the cities in the country and particularly if you can develop this capacity for research and experimentation and models, it seems to me it would be a gigantic contribution.

[Attachment referred to follows:]

TITLE I. WASTE MANAGEMENT AND RESOURCE RECOVERY SYSTEM PLANNING PROCESS AND PROGRAM

WASTE MANAGEMENT AND RESOURCE RECOVERY PLANNING PROCESS

Sec. 101. Within three years of the enactment of this Act, each State shall submit to the Administrator for his approval a proposed comprehensive waste management and resource recovery planning process which is consistent with this Act. Not later than 45 days after the date of submission of such a process, the Administrator shall either approve or disapprove such process. If the Administrator rejects the planning process, he shall give the specific grounds for rejection and recommended revisions.

Sec. 102. The State's continuing comprehensive waste management and resource recovery process prepared in accordance with this title shall be maintained in a current condition and reviewed and revised periodically, but not less than every three years. The Administrator shall from time to time review a state's planning process for the purposes of insuring that such planning process is at all times consistent with this Act.

Sec. 103. A continuing comprehensive waste management and resource recovery planning process is a planning process which shall to the maximum extent feasible, carry out the policies and ends of Section 101 of the National Environmental Policy Act of 1969, and which process shall include:

(*a*) the preparation and continuing revision of a statewide inventory of waste management and resource recovery systems of the State;

(*b*) the compilation and continuing revision of data, on a statewide basis, related to population densities and trends, economic characteristics and projections, environmental conditions and trends, and directions and extent of urban and rural growth;

(*c*) the preparation and continuing revision of an inventory of State, local government, and private needs and priorities concerning waste management and resource recovery;

(*d*) the preparation and continuing revision of an inventory of state, local government, and private institutional and financial resources available for waste management and resource recovery within the State;

(*e*) the participation by the public and the appropriate officials or representatives of general units of local governments in the planning process and in the formulation of definitions, guidelines, rules, and regulations for the administration of the planning process, such participation, except in any proceedings of the State legislature, to include public hearings with adequate public notice;

(*f*) coordination of the continuing comprehensive waste management and resource recovery planning process with the planning and regulatory activities of all State agencies insofar as such activities relate to land use, air, water, noise, or other pollution standards; the planning and regulatory activities of general units of local governments; and the planning activities of areawide agency designated pursuant to regulations established under Section 204 of the Demonstration Cities and Metropolitan Development Act of 1964 and Title IV of the Intergovernmental Cooperation Act of 1968;

(*g*) criteria for the identification and the designation pursuant to such criteria of areas suitable for regional waste management and resource recovery facilities, and the provision for an appeal or petition procedure for general units of local governments (and for other interested parties as defined by State law or regulation) concerning the designation or exclusion of any land in or from such areas;

(*h*) the provision of technical assistance and training programs for State and local agency personnel concerned with the development and implementation of State and local waste management and resource recovery programs;

(*i*) the establishment of a process for public education concerning waste management and resource recovery programs; and

(*j*) development of substantive State policies to guide the development of waste management and resource recovery systems, and criteria for the implementation thereof.

WASTE MANAGEMENT AND RESOURCE RECOVERY PROGRAM

Sec. 104. As a condition of continued eligibility of any State for grants pursuant to this Act after the five complete fiscal year period following the enactment of this Act, it shall be determined in accordance with the procedures provided for in Section —— that the State has developed an adequate waste management and resource recovery program, which program shall include:

(*a*) an adequate continuing, comprehensive waste management and resource recovery planning process as provided in Section 103 of this Act;

(*b*) methods of implementation for—

(1) regulating unsafe disposal practices which are no less stringent than the regulations established under Section 219 of this Act;

(2) reducing excessive product packaging;

(3) encouraging recyclable products, including giving priority to the use of recycled materials in procurement policies;

(4) removing transportation and non-importation barriers to waste management and resource recovery so as to implement the purposes of this Act, while assuring proper regulation of solid waste in transit;

(5) facilitating, where possible and at the request of the general units of local governments involved, multijurisdictional waste management and resource recovery systems, including enabling legislation for cooperative agreements between general units of local governments;

(6) periodically revising and updating the waste management and resource recovery program to meet changing conditions; and

(7) assuring, except in any proceedings of the State legislature, the participation of officials or representatives of general units of local government and the public in the development of subsequent revisions in the implementation of and the formulation of guidelines, rules and regulations concerning the waste management and resource recovery program.

(*c*) any method of implementation employed by the State shall include an appeals procedure for the resolution of, among other matters, conflicts over any decision or action by the State in the development or implementation of the waste management and resource recovery program: Provided, that the State shall bear the responsibility to demonstrate that land use decisions or actions of general units of local governments are inconsistent with the waste management and resource recovery program;

(*d*) State laws, regulations and criteria affecting the waste management and resource recovery program are in accordance with the requirements of this Act;

(*e*) the waste management and resource recovery program has been reviewed and approved by the Governor;

(*f*) the State has coordinated its waste management and resource recovery program with the planning activities and programs of its State agencies, the Federal Government, general units of local governments, and areawide agencies designated pursuant to Sec. 204 of the Metropolitan Development and Demonstration Cities Act of 1966 and Title IV of the Intergovernmental Cooperation Act of 1968; and

(*g*) whenever possible, States are encouraged to designate for areawide planning, review and comment purposes that areawide agency designated pursuant to Section 204 of the Demonstration Cities and Metropolitan Development Act of 1964 and Title IV of the Intergovernmental Cooperation Act of 1968.

AREAWIDE AND LOCAL WASTE MANAGEMENT AND RESOURCE RECOVERY PLANNING PROCESS

Sec. 105. Each Governor shall designate within 60 days after enactment of this Act, after consultation with appropriate officials of general units of local governments, a single Umbrella Multijurisdictional Organization (UMJO) for each metropolitan area in the State.

(*a*) The State shall establish a single set of geographic regions within the state, based on the Standard Metropolitan Statistical Areas established by OMB or urbanized areas as defined by the Bureau of the Census; boundaries may be expanded by State and local officials in cooperation with each other, but no jurisdiction outside the SMA or urbanized area shall be included without its consent.

(*b*) Each Umbrella Multijurisdictional Organization (UMJO) shall be a metropolitan planning organization created under state legislation or established under state enabling legislation. Its planning boundaries may, at local option, encompass an area greater than that for implementation.

(1) In interstate metropolitan areas, each Governor is authorized to enter into cooperative arrangements with the Governors of adjoining states toward the creation and joint designation of UMJO's. The State containing the largest portion of the multi-state metropolitan area shall take the initiative in coordinating with other affected states.

(*c*) The designated UMJO shall be an organization performing the functions established in accordance with the guidance provided by the Office of Management and Budget Circular A-95 pursuant to Section 204 of the Metropolitan Development and Demonstration Cities Act of 1968 and Title IV of the Intergovernmental Cooperative Act of 1968.

(*d*) The Policy Board of the UMJO, as a minimum, shall contain a majority of elected officials of general units of local governments. The composition criteria shall be established through state enabling legislation. The Policy Board shall, however, have to assure fair and equitable treatment for the largest incorporated municipality within its jurisdiction.

(*e*) If the Governor does not make a designation within the time period specified in this Section, the chief elected officials of general units of local governments within a metropolitan area may by agreement designate the boundaries and planning organization.

(*f*) The functions of the designated UMJO's shall include, but not be limited to:

(1) develop and update short and long-range areawide waste management and resource recovery goals, policies, priorities and areawide waste management and resource recovery Plans through a continuing and comprehensive waste management and resource recovery planning process to attain and maintain applicable federal, state, regional and local policies and requirements;

(2) promote mutual problem-solving and exchange of information; and

(3) resolve competing objectives and establish priorities which will be recognized by federal and state agencies.

(*g*) An areawide waste management and resource recovery management plan prepared under such planning process shall include, but not be limited to:

(1) the identification of areawide waste management and resource recovery needs over a twenty-year period, updated every three years, including public and private waste management and resource recovery facilities and any requirements for the acquisition of land, and a program to provide the necessary financial arrangements for the development of such needs;

(2) the establishment of construction priorities for such facilities and time schedules for their initiation and completion;

(3) the coordination and assurance of consistency in areawide waste management and resource recovery plans with other local areawide state and federal land use plans.

(i) Procedures provided for in regulations issued by the Office of Management and Budget pursuant to Section 204 of the Metropolitan Development and Demonstration Cities Act of 1968 and Title IV of the Intergovernmental Cooperation Act of 1968 shall be utilized for coordination and in the determination of consistency;

(4) the identification of the measures necessary to carry out the plan, the period of time necessary to carry out the plan, the costs of carrying out the plan within such time and the economic, social, energy, and environ-

mental impact of carrying out the plan within such time, including but not limited to:

(i) financing,

(ii) areawide disposal sites,

(iii) protections for long-term contracts for the purpose of disposing of solid wastes; and

(5) assurance in implementation of an areawide waste management and resource recovery management plan that each participating general unit of local government pays and receives its proportionate share of costs and revenues.

(*h*) Areawide waste management and resource recovery management plans shall be certified annually by the Governor or his designee as being consistent with applicable statewide policies, standards and criteria and such approved Plans shall be submitted to the appropriate federal agency for approval.

(i) If, after a specified time period has expired, the Governor has not forwarded the plan, the UMJO may submit the plan directly to the appropriate federal agency, with the Governor's approval presumed;

(ii) The State should bear the responsibility to demonstrate that an Areawide Plan is inconsistent with state policies, standards, and criteria. If the State rejects an Areawide Plan, it shall give the specific grounds for rejection and recommended changes, and allow adequate time for the UMJO to resubmit its Areawide Plan.

(*i*) The UMJO may, by contractual agreement, utilize the staff resources of general units of local government or of other local or state agencies to carry out selected elements of the planning process. However, it should have sufficient resources to coordinate the development and monitor implementation programs and to produce long and short-term plans to be carried out by general units of local governments.

(*j*) The State shall have primary responsibility for assuring the attainment and maintenance of relevant standards in non-metropolitan or non-urbanized areas, in cooperation with units of general purpose local governments.

Sec. 106. (a) In the absence of state law to the contrary, general units of local governments shall have the responsiblity and authority to implement plans to attain and maintain applicable federal, state, regional, and local waste management and resource recovery policies and requirements.

(1) Each general unit of local government within a metropolitan area shall develop and submit to the UMJO a waste management and resource recovery implementation program to attain and maintain applicable requirements. The UMJO shall submit to the Governor a Comprehensive Implementation Program to attain and maintain standards which shall, to the greatest extent possible, not be inconsistent with federal, state and areawide policies and requirements and which shall incorporate the Implementation Programs of the participating general units of local governments.

(2) A waste management and resource recovery implementation program shall include:

(i) methods to collect wastes in an efficient and cost effective manner;

(ii) upgrade collection prodnctivity:

(iii) combine, where economies of scale dictate, transfer, separation, volumetric reduction, disposal and recycling of solid waste into areawide arrangements:

(iv) dispose of municipal solid waste in properly controlled sanitary landfills:

(v) maintain proper and adequate cost accounting procednres for optimum flexibility and accountability in waste management and resource recovery systems;

(vi) npgrade system efficiencies where possible for maximum cost effectiveness;

(vii) establish standards and implement practices which assure and guard the safety of employees, and require the same of contracting companies; and

(viii) give priority to the use of recycled materials in procurement policies.

(*b*) The UMJO shall review implementation programs for inconsistency but shall not have authority to veto or initiate an Implementation Program without a specific delegation from a general unit of local government. If the UMJO rejects an Implementation Program, it shall give the specific grounds for rejection and

recommended changes, and allow adequate time for the general unit of local government to resubmit its Implementation Program.

(c) Authority may be delegated and funds allocated from general units of local government to the UMJO or to functional agencies.

Sec. 107. (a) The Administrator shall make grants to:

(1) UMJO's and to general units of local governments for the payment of the reasonable costs of developing and operating continuing areawide waste management and resource recovery planning process, areawide waste management and resource recovery management plan, and

(2) to general units of local governments for the payment of the reasonable costs of developing and operating a waste management and resource recovery implementation program.

(b) The amount granted to any UMJO or general unit of local government under (a) of this section shall be 100 percentum of the costs of developing and operating a continuing areawide waste management and resource recovery planning process and management plan, and a waste management and resource recovery implementation program under sections 105 and 106 of this Act for each of the fiscal years ending on June 30, 19—, June 30, 19— and June 30, 19— and shall not exceed 75 percentum of such costs in each succeeding fiscal year.

(c) Each applicant for a grant under this section shall submit to the Administrator for his approval each proposal for which a grant is applied for under this section. The Administrator shall act upon such proposal as soon as practicable after it has been submitted and his approval of that proposal shall be deemed a contractual obligation of the United States for the payment of its contribution to such proposal. There is hereby authorized to be appropriated to carry out this section — for the fiscal year ending June 30, 19—.

Mr. ORR. If I may. I would like to call on Mr. Simmons who serves as an administrator and city manager of West Palm Beach and has a special responsibility with respect to the U.S. Conference of Mayors.

Mr. ROGERS. Thank you. We will withhold any questioning until Mr. Simmons concludes.

STATEMENT OF RICHARD SIMMONS

Mr. SIMMONS. Thank you very much.

Mr. Chairman, I appreciate the opportunity as a manager and member of the Task Force for the National League of Cities to make this presentation. I compliment you on getting the Federal input back from local government.

In the age of environmental concern, we are often rushing toward solutions to problems that have been with us for generations. We have long needed this type of public support to solve these extensive problems. The solutions are not nearly as easy as the definition of the problem.

We need your continuing support as a national goal to solve these problems but we do not need frantic, hysterical solutions which cost more and produce poor results. Solutions must be well thought out and must be long-lasting. We must remember that the incidence of all these regulations in solid waste is on local government. That is where the buck stops.

Solutions too often are determined on a national level without real determination of the incidence on already overburdened local government. I compliment you. This bill is good in its approach to systematic solving of these problems on a sound and reasonable basis and I think very importantly, allows regional differences to be considered.

I know in my case, Florida has no snow-removal problem and no massive falling of leaves in the autumn that many of the other States do but we do have high water tables and year-round tropical growth.

These are differences between States that must be accounted for on the local level and I compliment you on approaching it in that manner so that we can meet those differences.

INCREASED PRODUCTIVITY

Our task force estimates that 70 to 80 percent of total solid waste budgets is allocated to refuse collection. We recommend that EPA's technical assistance program, which contributes directly to increased efficiency and lower costs in local collection systems, should be expanded and should receive greater funding commitment from Congress. The technical assistance program should be further developed to include disposal and resource conservation systems, in addition to collection.

We also call for development of new means to increase the effectiveness and feasibility of delivering technical and management assistance through innovative mechanisms, such as specially designed seminars, intensive case study workshops, and so forth.

But effective technical assistance requires more than merely funding an additional number of staff positions. For example, EPA's Collection Management Information System (COLMIS) which has been tested and proven successful in a number of cities was the final result of several payoffs from other program activities. It required 2½ years from one staff member; a 2-year study and analysis contract that cost $500,000; a couple of smaller 6-month studies in a city and a county; and some testing and trial runs in cities desiring technical assistance. Similar requirements have been necessary to produce other EPA tools, such as the five-stage improvement process for solid waste collection.

We also recommend the establishment and funding of a National Center for Research in Waste Management, designed to further advance the State of the Art and geared to the practical needs of public and private waste management.

Let me digress because this technical advisory group is a small group and they serve as consultants to us on this and also the National Commission of Productivity. I think what the mayor has just said is tremendously important.

You are graduating an awful lot of engineers today and there are a lot of G-men and T-men in Washington but not nearly enough garbage and trash-type G- and T-men. Strangely, there are very few people who know anything about garbage and trash collection and nobody is graduating that knows anything about collection problems. This is something new.

Engineers can design plants but this is where 75 to 80 percent of your money is spent. If we are going to solve this problem, we can save the money for solving the problem of disposal by better collection techniques.

We need somebody from EPA who is knowledgeable to help us evaluate these systems. This group helped us on setting up a regional authority. They came down, they were very knowledgeable, they contracted with a regional authority person in Michigan that was knowledgeable in authority operation and assisted our county in doing this. We need more of these people.

I served as a manager in Brevard County when the space industry was cut back. Believe me, you will never get that group of people together again. I ask you please, please keep this group of people together with technical expertise that can give us the sort of thing that he is talking about because nobody is really training how to pick up garbage and trash and we need this type of assistance.

LANDFILL DISPOSAL

While new technology will reduce the volume and change the chemical and biological characteristics of the residuals from municipal solid waste, disposal through landfill will continue to be required for ultimate disposition of residuals that are not reclaimed, converted or recovered.

We need to know more than is now known about the true detrimental impact on the land and underground water of typical municipal solid waste. But we also underscore the increasing importance of lifting the veil of ignorance, suspicion, and possibly exaggerated concern manifest in the "not-in-my-neighborhood" attitude toward new landfill sitings. One research project for the proposed national center should be to address a full range of disposal problems, such as leachate studies and testing, research in transportation requirements and safeguards relative to rail haul, and extensive work on improved methods of sludge disposal.

The National League of Cities and the U.S. Conference of Mayors feels that landfill operations—properly planned, engineered, and implemented—are environmentally acceptable and, because of their competitive economic edge, are likely to remain the primary disposal mode in many sections of the country for several years. Resource conservation and energy recovery systems will not eliminate entirely the need for landfill disposal. Disposal of residuals will remain a continuing challenge.

REDUCTION OF SOLID WASTE

Excessive packaging practices and other activities which add to the volume and proliferation of solid wastes must be curtailed. This could include packaging standards, increased research in biodegradable packaging, and financial disincentives.

I have a couple or three comments I would like to make on some of EPA's presentation this morning. One of the things that I would like to try to highlight, is stopping the stream. We talk about recycling. It is a lot more expensive to get it out of the garbage and get it back somewhere than it is to stop it from coming into the waste stream.

I would encourage you to look at not what the public relations people of this industry have done, but I would take a look at Oregon's returnable bottle program. I have heard varying sides on the thing. Is it good? Is it bad? We must stop some of this stuff from coming in because solid waste is growing five times more rapidly than our population.

We have to stop it, and it is very, very costly, once you get it in, to get it out. So I would encourage you to look into packaging or some way to stop the solid waste flow from increasing.

I would like to compliment the chairman on his gray area of division of hazardous and nonhazardous waste this morning. You know, this is the age of do it yourself. I doubt if many of you have been out, but some time when you go home, go out to your dump, and when they dump a garbage truck, look at what comes out of the back of it.

This do-it-yourself craze, we spray our own yards with insecticides, we do our own painting. I guarantee you those garbage trucks are full of almost everything, and residential solid waste is hazardous, and it is something that we must address.

I don't think you can separate it. All you have to do is look at what comes out of a household when they dump a truck.

One thing that I think EPA should be encouraged to do, and I think sometimes we try to reinvent the wheel without looking, and we waste funds, I have noticed that too often, for instance, in some of their pilot studies, that they have done an excellent job in attempting to do this, one system I have looked at is composting.

Composting has proved to be in their pilot studies at the plant at Johnson City, Tenn., and the one at Gainesville, Fla., proved to be very high in cost.

Yet there is a private enterprise composting system that was developed in this country and could not be sold in the early 1960's and went to Jamaica. It is different from the systems that EPA tried. There is a system now, and it has been built at Disney World in Florida, after considerable research, and I think they have done a lot of this, a system at a price that is very competitive in price with incineration which is not always, the most desirable type solution.

Since this was not an EPA study, as the mayor said, I asked EPA, but they did not have the authority to do it, to evaluate this system, even though it was developed by private enterprise, to see if all that glitters is gold, so that we can determine if it's worth the investment, not just because EPA thought it up. Anybody can think it up, but we need someone to evaluate it to see if it is a salesman's pitch or it is true.

Private industry has come a long way in this and I would encourage EPA to look into those areas. I think in looking at recycling, it is very important. I think we have to go to it. I would caution you that sometimes an oversimplification of recycling, depending on the area, can cost considerable more than you think.

Sometimes, we need to move slowly into major new directions.

I would say one other thing and, then, I will stop. Ours is a county with a large unincorporated fringe and we do not have the metropolitan government, that is an urban-type metropolitan government, that Dade County has.

One of our biggest problems today outside of our cities—and we have a large water catchment area—is the dumping on the land. Somehow, we must mandate that people in the outlying fringes have proper collection techniques because they are literally littering our landscape around our cities, outside your cities, and unincorporated areas except areas like Dade where they can deal with it on an urban basis. There is no mandated collection and perhaps just don't pay for it and they dump it by your roadside. This is a big thing that we have to get into.

I congratulate you, I think you are going in the right direction. We appreciate very much your allowing us to participate and through your bill, take into consideration local government.

CONCLUSION

Mr. ORR. Very briefly in conclusion, the National League of Cities and the U.S. Conference of Mayors urge the committee to go beyond the present bill and address the major issues that confront cities in their efforts to deal with solid waste crises and the energy crisis.

Specifically, we urge increased attention be focused on energy recovery from solid waste; Federal financial assistance for construction of solid waste management and resource conservation facilities; increasing productivity; disposal through landfill as a continued major need; and the point that Dick made, reduction of solid waste.

In other words, I think maybe we ought to be thinking as much about the creation of solid waste as the disposal of it. The Nation is faced with a total crisis of scarcity of resources that can be partially resolved through a major Federal effort in solid waste management, resource conservation, and energy recovery. The Federal Government has minimized and ignored the problems and potentials of solid waste and the administration's present approach appears to perpetuate this low priority.

The National League of Cities and U.S. Conference of Mayors calls upon the Congress and the President to respond to our Nation's needs and make a commitment to the Nation and to our Nation's cities that we will have a major new solid waste resource conservation and energy recovery bill by July 1 of this year.

Thank you very much, gentlemen.

Mr. ROGERS. Thank you very much, Mr. Orr and Mr. Simmons, for your very kind and helpful testimony.

Mr. Nelsen.

Mr. NELSEN. Thank you, Mr. Chairman.

[Off the record.]

Mr. NELSEN. I first want to express a thank you to you for your testimony dealing with EPA. I believe, as you point out, that they have done a good job.

We often find a problem, we enact legislation, we make demands of an agency and they are starting out from scratch so they don't have all the answers but I am glad to get your summation that you believe they have done a good job and I agree with you.

At this point we need to take a look at some of the legislation that we have enacted with a view toward giving a little more flexibility to some of the activities we ask of them.

I was interested in your reference to the State plan. I think we recognize this in this committee, and I believe the Interstate and Foreign Commerce Committee in health, clean air, you name it, has tried to get the State harnessed, feeling that we don't have enough manpower at the national level to do the job.

I want to compliment you on the way your local community has acted. But at the same time, you do admit that the State activity in it has not been what it ought to be. Our purpose has always been to try to get the State working on the total picture.

Now, I am a little concerned about solid waste and landfill for the reason that we take all of this and dump it out there is some slough and with the weather, the rain, leaching, that material is going somewhere.

There are a lot of things in that solid waste that might better have been smoke, rather than going down to our underground water supply.

Then, we get into our powerplants that are burning coal and we are insisting on scrubbers on the stack of this powerplant, only to find the residue, the solid waste that we get from the scrubber is deposited somewhere and lies there forever and is very massive.

So, we have not found by research at this point the best way to use coal which we must do and the same way with landfill. I believe our big effort is going to have to be in research to find better ways to take care of the problem because, as you point out, the things that go out for the fellow to pick up when he picks up trash can contain any number of things and some of it very detrimental to public health.

Thank you for your testimony. It has been very informative.

The Chairman is a good debater. I sometimes have to take him on. However, he is one of my dear friends.

I notice the name "Orr" and the majority leader in the Minnesota State Senate years ago was named Charles Orr and a great guy. I think you might be in the same category.

Thank you very much.

Mr. ORR. Thank you.

Mr. ROGERS. Dr. Carter.

Mr. CARTER. Thank you, Mr. Chairman.

I must say we have an excellent chairman and an excellent ranking member on this committee. We are very fortunate.

I was very much impressed by the testimony which was given. Sometimes I differ a little bit from some of my colleagues on the committee about the participation of certain groups. I find myself in agreement with Mayor Orr here that sometimes a State Capital can be a hindrance. So many times they seem to interfere with programs and serve as a stumbling block.

Certainly you need the expertise that EPA can give you and you don't need someone with whom you have to argue a long time about getting it—someone who will stand in your way, and this does happen.

I personally would like to see the States bypassed in some cases. Many of our programs have been very efficient without such. Most times, there is a delay in assistance going down to the local level. Not long ago I received a letter, I believe, from a large automotive concern showing an interest in scrap. For many years, we have had no interest by the steel companies or large companies in obtaining scrap.

We have seen old automobiles dotting our countryside, rust-polluting our streams, and so on. But this letter asked that we do something about the sale of scrap overseas. I wrote the gentleman and told him I believe he would be wise to try to collect some of that scrap that was lying around the countryside.

The Lord knows we have too much out there. This dumping which you mentioned, I am very much impressed with that because I am in a rural area and we have some garbage disposal systems, solid waste disposal systems, and most of them are very poor. They don't even have landfills in some areas. They don't have incinerators.

I have seen some lovely farmland made to look awfully bad by dumping. I think that perhaps we should write some incentive into the law to get States to pass antidumping laws and do something about it.

I notice you are very much for Federal loans to your cities at a low-interest rate. Is that correct?

Mr. ORR. Yes, that is the position of the U.S. Conference of Mayors.

Mr. CARTER. I am very much interested in your water system there. I have not been fortunate enough in my area to get any substantial amounts of EPA money for water systems. How did you go about getting it?

Mr. ORR. We had done a considerable amount of research and made a commitment initially of something in excess of $100 million of local funds first. I think that is one of the things that encouraged them.

Mr. CARTER. Did you go through the State first to get to the EPA?

Mr. ORR. I really can't answer that, Dr. Carter. My dealings in it were directly with the EPA.

Mr. SIMMONS. The Federal Government gives the money but in Florida where you come on the priority list, it is established by the State, department of pollution control.

Mr. ORR. Yes, I do have that recollection now. I am glad you reminded me. That is one of the problems we had. We had total cooperation from EPA in terms of the implementation of our plan. Some $86 million was allocated by the Federal Government toward this plan initially. Then, we had to go up there in the State and fight to get it. We were trying to prevent the dumping of raw sewage in the Atlantic Ocean and the St. Petersburg area, for example, was trying to build up its treatment to 95 percent, you know, an optimum thing.

Here we are dumping something like 50 million gallons of raw sewage in the Atlantic Ocean daily. We had to sit back and wait on one aspect of our plan for St. Petersburg to get to 95 percent treatment. It seemed kind of illogical to me.

I had a vague suspicion that maybe some political considerations entered into that.

Mr. CARTER. You put up $100 million there? How much assistance did you get from EPA on that?

Mr. ORR. They have committed a grant of some $86 million. We are currently involved in a lawsuit. One of the municipalities in our area, the one in which one of the plants will be located, has brought a suit largely based on the fact, well, the gravamen of the suit is that we didn't study the problem thoroughly enough.

The answer is that they think it ought to be somewhere else. You know, everybody is for rehabilitation but not next to me. We are currently involved in a suit where a municipality within our county has filed suit against EPA to enjoin them from distributing these funds to us.

We have intervened in the suit and are hopeful that we will get a proper result.

Mr. CARTER. I hope that you do.

Now, is that all the funds you will get, the $86 million, to match your $100 million or will you get more in a loan in addition to that?

Mr. ORR. Hopefully over the years, this is really just a start of a major countrywide system. There are still a number of privately operated sewage disposal facilities charging differing rates to people. We are hoping ultimately to consolidate that all under our water and sewer authority and more money will surely be required in the future.

Mr. CARTER. You mentioned that your city was discharging 50 million gallons of sewage in the Atlantic.

Mr. ORR. The county, yes, sir.

Mr. CARTER. Of course, you are going to build a disposal system sometime in the future?

Mr. ORR. Yes, sir. The initial plan calls for our providing 90 percent treatment of that sewage before it is ultimately disposed of into the ocean and as soon as the state of the art permits, a recycling.

You know, we have a problem down there of substantial salt water intrusion into the sewage pipes. We can't recycle that. They have not figured out a way to dispose of the salt yet. So we can't jeopardize our water supply by recycling the waste into the Glades.

Mr. CARTER. What are you going to do with the sludge?

Mr. ORR. That is being piped to a disposal plant that is located on Virginia Key.

Mr. CARTER. Don't you think that can finally be used as a fertilizer?

Mr. ORR. Yes, sir.

Mr. CARTER. I believe it should be.

Mr. ORR. You know, we have built a golf course, we think it is the finest municipal course in the United States right now, on the dump.

This is the Key Biscayne course. There is a certain resident of the community that passes that on his visits.

Mr. CARTER. Thank you.

Mr. ROGERS. Mr. Hudnut.

Mr. HUDNUT. Thank you, Mr. Chairman. I too appreciate your testimony and have learned a great deal from it. I have no expertise in this field at all but I do represent a city quite similar to yours, Indianapolis, Ind., where we have just gone through a metropolitan form of government as you probably know, which in a sense, is the obverse of yours.

I understand that Dade County took over the city of Miami but in Indianapolis, the city has taken over Marion County. It has gone the other way. We have a city-county consolidation with a fine mayor.

[Off the record.]

Mr. HUDNUT. I was glad to hear what you said about EPA because frankly, at least in my city, they have not in recent months enjoyed a very good press. There is a great deal of feeling which is too bad, not just in Indiana, but nationally, that they are the bad guys these days and a lot of our problems in the energy crisis are related to overzealous environmental bureaucracy.

Anyway, as I say, I don't have any expertise in the field but I would like to ask you a question.

I was intrigued by your appeal to develop more people who have some technical competence in the field we are discussing. I know what the bill says about the grants to the States and so forth but I wonder if you have any thoughts about ways in which the Congress might provide incentives to young men and women to go into this field or to develop an interest in it, how we might harness some of America's technical competence and manpower for this field which is going to become increasingly important.

I was amazed at the statistics that you rattled off the top of your head, the volume of trash and garbage proliferating five times as fast

as population in our country. We all read articles all the time how we are deleted with being buried under the mounds of this but that is a statistic.

Are there any suggestions you might have about the way legislation like this might help to attract the talent you are speaking of?

Mr. ORR. I think the bill before you now will make some contribution toward that because solid waste disposal has, in fact, been the stepchild of the environmental movement. I think that your attention to it will provide some incentives. I am not competent to suggest others.

You know, your interest in the increasing amount of garbage in ratio to the population provides me, if you will indulge me again, and I am sorry Congressman Nelsen had to leave—I was reading a story in Sports Illustrated the week before the Minnesota-Dolphins Super Bowl game. They put in all the information then currently available on the relative merits of the two teams and came out with a prediction that Minnesota would win.

The fellow who was writing the story did issue this caveat. He pointed out that a study had been done by a fine eastern university in which they poured in all the information they had as of 1900, I think, on our transportation problems and its effects that it would likely have on our environment.

In other words, they had all the information prior to the invention of the automobile, utilization of the automobile as a means of transportation. The result of the study demonstrated that by 1950, the major metropolitan areas of the United States would be covered with 6 inches of horse manure.

It demonstrates that an awfully lot depends on what information goes in. The state of this art right now is very hazy and the solutions of today are unlikely to be the solutions of next year or even the year after that, so that we have to have a Federal policy that will encourage research, that will develop information as it accumulates and could relate the information as it is developed and, then, make it available and it certainly ought to be a flexible policy.

Mr. CARTER. Would the distinguished gentleman yield?

Mr. HUDNUT. Yes, sir.

Mr. CARTER. I have a little farmland down in Kentucky. It seems that people find it a favorite dumping ground. I would much rather it be covered by that horse manure. There is no doubt about it, it increases the fertility.

Mr. SIMMONS. I might comment on the question about education which you asked about. Maybe certainly there are not many, but I think EPA, and I too want to compliment EPA, there is a little known section of this technical advisory group, these are young men who have spent some time actually in the cities riding the trucks. they have done some marvelous things on standards measurement so that I can determine how much it cost a ton or how many tons a day I could get by using a standard measurement with Indianapolis or with Louisville, Ky., they are really technically competent.

These are the sort of people that helped us on setting up a regional government. These are the sort of people who can help the mayor. I would encourage getting the best of these people and training them. It was the nicest Federal thing I have ever done. We had a group of cities meeting together attempting to establish an authority.

I called the chairman and called Mr. Rogers and asked him if he could help us. We filled out no forms, we filled out nothing. They said, yes, we will have someone down. They had two competent people down with no redtape, no forms. They did a good job. This is the sort of help we need. I don't know how we get additional people but let us keep what we have here. They have done an excellent job.

Mr. HUDNUT. If I may ask one more question, Mr. Chairman.

I am wondering if you will comment on the relationship between the efforts in the private sector through private enterprise and what a city like West Palm Beach or Miami is doing. I know at least in my area we have some rather heavy industry and some rather sophisticated industry and they are very concerned about solid waste disposal but I don't know that there is any relationship between their efforts and the municipality in which they exist.

I am wondering if you see any kind of emerging partnership between the public and private sectors at this point?

Mr. ORR. Yes, sir. As a matter of fact, several of the bids we have examined are bids where private industry will take over the disposal plant charging the county a rate for the use of it. We are looking at all of them. Frankly, I prefer to see it that way.

Mr. HUDNUT. Will the public money be used to build the plant that would then be operated by the private enterprise?

Mr. ORR. In some of the proposals, that is the case. In fact, the one that was most seriously considered, that was the case. I think it is true of loans too. There was one that wanted an initial loan from the Government to build a facility and, then, one of these composting plans envisaged their being able to sell the resulting compost.

Our investigation indicated that the experience of disposing of that had not been good.

Mr. SIMMONS. I think it varies. The composting plant sold to Disney World, the company will construct the plant and operate it at a given price per ton. That is one way private enterprise does it. They just come in, you don't invest anything. I think we can use those proposals. If they can do it more economically than we can do it, it makes good sense to use it.

I think there is an interesting thing in the collection field today. We found out about it through the National Commission for Productivity. Solid waste collection used to be a mom-and-pop sort of thing. You have now some large solid waste firms and conglomerates in the country that are fine management firms.

The former Director of Office of Solid Waste Management, Mr. Hale, is with one of these large firms. They have hired the best person they could find to do the job. I think this is encouraging in that you are getting the expertise of fine personnel and a little bit more money for research and techniques.

This is one of the encouraging things in private enterprise instead of being a mom-and-pop operation.

Mr. HUDNUT. Thank you very much.

Thank you, Mr. Chairman.

Mr. ROGERS. Let me just ask, if you want to supply these responses for the record, it certainly will be accepted.

I think it would be helpful for us to have a copy of the task forces statement on energy recovery and perhaps its relationship to the act.

We would like to have your comment on the Tiernan bill, H.R. 12537, for the record.

Would you let us know your feelings on the requirement for the internationalization of cost of waste disposal, environmental damage, requirement that State plans contain effective programs for litter prevention and recycling of abandoned autos and requirement for phasing out all open dumps? Just give us generally your reaction if we could have it for the record. I have two or three other questions that I request that you look at and see if you can let us have your thinking which will be helpful to the subcommittee.

[The following questions and answers were received for the record:]

QUESTIONS SUBMITTED BY CHAIRMAN ROGERS AND ANSWERS OF NATIONAL LEAGUE OF CITIES

Question 1. Please provide the subcommittee with a copy of the Task Force's Savannah statement on Energy Recovery from Refuse and its relationship to the Clean Air Act?

Answer.

STATEMENT OF THE NATIONAL LEAGUE OF CITIES AND THE UNITED STATES CONFERENCE OF MAYORS—SEPTEMBER 11, 1973

The National League of Cities and the U.S. Conference of Mayors view with disappointment the recent statements of the President that the health standards of the Clean Air Act must be weakened to meet the nation's energy needs. We believe that alternative energy resources are available so that we do not have to sacrifice the air quality of our cities for more energy. We must have both.

One potential source of energy that has received little national attention has been municipal solid waste. The National League of Cities and the United State Conference of Mayors Joint Task Force on Solid Waste Management strongly urged, in their report "Cities and the Nation's Disposal Crises", that much greater national priority be given to the potential energy uses of municipal solid waste, and that the current Federal solid waste program be expanded to develop this energy resource.

The energy value of solid waste is a proven fact. Demonstration projects funded by the Environmental Protection Agency have shown the feasibility of using a city's garbage as a supplemental fuel. Municipal solid waste has one-half the energy value of coal, but without its sulfur content. It can be mixed with domestic high sulfur coal and petroleum to produce a fuel that can be burned in our cities and that won't pollute the air. It has even been estimated that the daily energy potential of municipal solid waste may equal the daily input of the Alaskan Pipeline.

The Joint Task Force did not say that municipal solid waste is the answer to our energy needs. It is one alternative, a supplemental fuel resource that must be developed with more diligence than in the past.

For several years the leaders of the nation's cities have been calling for an expanded and comprehensive energy program, to avoid the need for the type of trade-off between air quality and energy that has been proposed by the President. Only now has the nation realized the seriousness of the problem, a problem that has led cities to appeal to the President and the Congress for a mandatory fuel allocation plan to assure cities enough energy to perform their essential municipal functions. We have also warned the nation of an impending crisis in solid waste management. The Task Force found that one-half of our cities will run out of space for land fill within the next five years.

The nation has a unique opportunity to reconcile two crises together, to develop our municipal solid waste into energy supplies. We urge that this potential not be ignored any further.

Question 2. Your testimony only addresses H.R. 13176. What is your reaction to the provisions of the Tiernan bill (H.R. 12537)?

Answer. We support the following concepts embodied in the Tiernan bill as being consistent with encouraging through both direct and indirect means sound solid waste management and resource recovery practices:

A. Establishing product standards and regulations (Title II);
B. Revising federal procurement and measurement practices to encourage use of recycled and reclaimed materials (Title IV); and
C. Establishing a national commission on environmental costs to conduct a comprehensive study of the many issues surrounding the internationalization of solid waste disposal/resource recovery costs (Title VII).

Question 3. Your testimony does not address several of the provisions of H.R. 13176—

(*a*) The requirement for the internalization of costs of waste disposal and environmental damage;

Answer. We support the concept of attempting to internalize the costs of waste disposal and environmental degradation but submit that further study is needed to determine the practicality of implementing measures which would accomplish this objective.

(*b*) The requirement that State plans contain effective programs for litter prevention and collection and recycling of abandoned autos;

We wholeheartedly support the requirement. The problem of litter is one which local governments can deal with at best on a severely limited basis due to its inherently multi-jurisdictional nature. Effective actions must be taken at the state and, where appropriate, federal level to wipe out this most distressing solid waste problem.

(*c*) The requirements for phasing out all open dumps;

We support the phasing out of open dumps as rapidly as possible as a sound environmental measure.

Question 4. Your testimony questions the "practicality and scope" of objective (H) to provide equitable and adequate solid waste management services. Would your testimony differ if a specific requirement were set forth requiring intramunicipal inputs of dollars and manpower for collection and street cleaning services to be equal within plus or minus 10 percent on a per capita basis, unless the local government could demonstrate that any greater disparity was due to a good faith attempt to meet greater needs in areas where higher expenditures are occurring?

Answer. Although we agree with the intent of this section, (i.e. prohibiting discrimination against different income groups by place of residence) we still maintain that the data required to make such an assessment would be extremely difficult if not in many cases impossible to obtain. We question the scope of this proposal in that it appears inconsistent with the rest of the Act which favors granting *States* the power and responsibility to determine collection and disposal standards.

Question 5. It is not clear whether you would oppose State standards to assure that storage of waste would be secure enough and collection frequent enough so that propogation of rats and other disease-carrying agents could be reduced or eradicated? How do you feel about such a requirement?

Answer. We would not oppose such standards at the state level provided local government officials were afforded an opportunity to participate in the development of such standards.

Question 6. How can legislation facilitate regional solutions to Solid Waste problems?

Answer. We have submitted to the Committee a copy of our proposed "Waste Management and Resource Recovery System Planning Process and Program" patterned after Section 208 of the Water Pollution Control Act. We feel that enactment of procedures and incentive similar to these would facilitate regional solutions to solid waste problems.

Question 7. Do you disagree with EPA's position that the extent of resources and energy recovery should be left to the free market? Why?

Answer. Yes. We believe that strong Federal incentives are needed to insure increased utilization of recycled products and reclaimed materials from both an environmental and energy standpoint. We would note that in the area of beverage containers alone while consumption of beer and soft beverages increased only 29% between 1959 and 1969, the consumption of containers used to distribute these products increased over 160%. This represents an estimated 8.8 million tons of beer and soft drink cans, most of which must be disposed of by municipal refuse services. Also, because there is no incentive to return such containers, they frequently appear dumped by the roadside or some other esthetically dis-

pleasing location. From an energy standpoint, considerable savings would be realized as a result of the three million tons of raw material which could be saved under a mandatory returnable system—in addition to a direct energy savings of from 25 to 80 million BTU's (per 1000 gallons of beverage produced).

The private sector for a variety of reasons has failed to initiate actions which would bring about more efficient and less costly use of resources. We feel there is little reason to expect that they will embark upon such a course of action now or in the near future due in part to the initial economic requirements and existing Federal policies. Thus, it is our position that the Federal Government must encourage through various incentives and disincentives production and consumption patterns which are conducive to that end.

Question 8. Your testimony at page 8 favors greater technical assistance efforts by EPA to local governments. What is your reaction to proposed section 237 of H.R. 13176, which calls for creation of an Office of Technical Assistance in EPA and requires States to set up technical assistance programs to aid localities?

Answer. We favor the provision generally but would encourage the Committee to add language either in the bill or the Committee report which encourages states to pass through an adequate amount of the funds they receive (i.e. which would insure that the funds "trickle down").

Question 9. How long can cities continue to use landfill without exhausting land supplies? Should we begin planning now—(i.e., economic and land use planning) for the day when no landfill will be permitted?

Answer. We have not studied this longer term aspect of the solid waste disposal problem.

Mr. ROGERS. We are very proud to have you here, and personally it has been a great pleasure for me to have you both before our subcommittee to give helpful testimony. I think the ideas that you develop will be seriously considered in guiding this legislation as we write it.

Thank you for being here; we are grateful.

Mr. SIMMONS. Thank you, Mr. Chairman.

Mr. ROGERS. The next witness is Mr. Franklin M. Kreml, president of the Motor Vehicle Manufacturers Association.

Is Mr. Kreml not here yet? Then if we could have Mr. Norman L. Dobyns, vice president of the American Can Co.

STATEMENT OF NORMAN L. DOBYNS, VICE PRESIDENT, AMERICAN CAN CO.

Mr. DOBYNS. Mr. Chairman, while the staff is passing around some material, please permit me an introductory remark. It has been some time since you and I were together, but I would like to remind you that when you and I first met, you made us in the can industry generally and in my company specifically very forcefully aware of your concern over the pudding can or the "snack pack" container.

This goes back some period of time. As I said, one of my first exposures to your forcefulness was when you brought your concern over this product to our attention. I would like also, if you don't mind my reflecting on the past, to remind you that as a company, the American Can Co. did respond.

Mr. ROGERS. Extremely well.

Mr. DOBYNS. I think you will agree, between your forceful direction and our willing response, we in effect have solved the problem. While it has no bearing whatever on your deliberations today, I did want you to be reminded of the fact that as a company, and personally as a vice president of that company, we are here in an effort to help you solve problems. We do not wish to perpetuate problems or indeed not be responsive to congressional direction.

I hope you don't mind my reminding you that you and I have had a good relationship in the past because you asked us to do something and we did it.

Mr. ROGERS. I remember it very well. This is a very good example, I think, of where industry responded on its own without having to have a law to require them to do something when they recognized there was a problem. I think it is one of the best examples I know of where you responded quickly, and I commend you for it.

Mr. DOBYNS. Mr. Chairman, I appreciate that. We did wish to be responsive. Your having made those remarks is very pleasing to me because it permits me to launch into my little presentation today.

First off, I do not have a prepared statement, a written prepared statement. If you think it necessary at the conclusion of my presentation, I will be happy to submit one at a later time. But actually as a witness from the American Can Co., I wanted really to visit with you and respond to your questions in more or less an informal way, because my experience with prepared statements is that they rarely answer your questions, and I do want to be in a position to answer your questions and Mr. Carter's questions and Congressman Hudnut's questions.

I think one of the greatest problems that we in industry—as we deal with the issues of solid waste and litter—face today is not so much the problem of solving the problem, it is one of communicating what we are attempting to do. As you so well know better than I, the Congress is facing many problems, industry is facing many problem. There are solutions available, but often we are not aware of them. I want to use the old snack pack or pudding can example which you solved with our, if you will forgive me, with our help and now talk about solid waste.

Again, what we have here is a problem that with congressional direction and the leadership of this committee possibly we can solve the problem. With the help of the staff, we have passed out some published materials on a new system.

Now, I would like to be very candid with this committee. This system is a resource reutilization and energy creating system. It is a system developed by the American Can Co., and I am here to make you aware of our efforts, our hopes for the future, our willingness to work with you on solving the problem.

At the same time, I want to be fair and say that there are other systems. But I would like to address our system, not so much because I am trying to draw your attention from any other systems, but simply because I know more about our system.

Now, with that, let me say that the brochure which you have before you describes what we call Americology. Now, I have no great affection for that name. It is an interesting name and one which we hope will draw the attention of the Congress and the public to our attempt to solve the problem.

This system is an industrial type plant which would permit a municipality, a city or a county, to bring its collected solid waste to that plant where the valuable materials will be extracted and reintroduced into the marketplace. The residues will be turned into energy. This plant has taken us, Mr. Chairman and gentlemen, since about 1967 to develop.

We have worked very hard. We have spent a great deal of our own capital resources, without subsidization or assistance of any kind. We have developed this system, because we want to solve the problem.

This system we submit represents the ideal solution to the problem, because it permits the city to dispose of its waste, it preserves valuable material, it creates energy.

Mr. ROGERS. If we may interrupt. This is the second call for a quorum. The committee will stand in recess for 5 minutes.

[Brief recess.]

Mr. ROGERS. The subcommittee will come to order, please.

When we recessed, Mr. Dobyns was giving us some of his thoughts on the process developed by the American Can Co. We will be pleased to have you continue.

Mr. DOBYNS. I believe I was saying, Mr. Chairman and Dr. Carter, that we have developed a system which, if you will permit me, benefits the public in three ways. It conserves depletable resources, it creates energy, and it permits a solution of the solid waste problem. I was saying, I believe, that we have developed a system which I will remind you we have been working on with engineering and scientific experts, material handling experts, since 1967, because we want to solve the problem.

Our new system is now available. It is new; it is available to cities and counties throughout the United States, and as a matter of fact, I have here—and I will leave with you and with the staff—our Dade County, Fla., proposal.[1] I am sorry that the distinguished mayor and the city manager from West Palm Beach did have to leave, because I hoped to have an opportunity to share reflections on their problems with them. We are very familiar with the situation in Florida. We are, in fact, one of those who submitted a proposal to Dade County. I will make no commercial or competitive commentary, I just want you to be aware that we are in your area, we do understand the situation and we are very hopeful that we can be a part of the solution.

The Americology system is basically a 500-ton-a-day system. It can be expanded with appropriate configuration of the equipment to a 1,000-ton-a-day system, which means that what we have available is a system for communities of about 200,000 to about 500,000.

You asked some very incisive questions this morning, and other members did as well relative to what kind of communities could benefit from some of the technology. I believe Mr. Darnay in his response indicated there could be programs for communities of 10,000. In my view Mr. Darnay was intending to convey that there can be some collection programs—wastepaper can be separated prior to collection, for example. Ferrous metallics can be separated prior to collection, picked up apart from the rest of the unsegregated refuse. I don't believe Mr. Darnay was intending to convey that a plant-type operation can support itself with 10,000 people, because it cannot.

In order to have a resource recovery, an energy-creating system, you have to have some materials feeding into the system and we are going to need something like 200,000 people. This does not mean a smaller community is forever banned from participation, because I believe I recognize the committee's interest in regional approaches. I would say

[1] The Dade County, Fla. proposal and appendixes may be found in the committee's files.

that one way a smaller community could become a beneficiary of an industrial-type solution to the problem is by associating itself with other nearby communities.

Every little town on Earth does not have to have its own plant. That doesn't make any sense. I recognize the political problems that are sometimes created by regionalization. I submit we are just going to have to solve them because we need this solution. We need people benefitting from this solution and regionalization as is reflected, I believe, in your bill, is one step to a solution.

Now having said that, there was some other testimony this morning relative to the high value that scrap now has. Dr. Carter has expressed some interest in scrap exports and other testimony related to scrap. I think the record should be clear that cities and counties should not hope to profit from their own waste. There has been quite a bit of rhetoric on this subject. The point is not to make the city have a profit. A city like New York, which is neither of your constituencies but it is the worst example I can cite, New York spends $35 a ton to dispose of its solid waste.

With a resource reutilization and energy-creating system if you have a market for materials and the scrap market today clearly shows there is a market available, we can reduce those costs from $35 to something under $10. Now that is not a profit of $25, but it is a reduction in expenditures of $25 per ton, which has got to be an enormous benefit to a city, of whatever size.

Now also in all candor if you live in a very rural area where you are dumping your material for 50 cents a ton, you are not likely to get fascinated by investments in a system of this kind. However, I submit and I perceive it to be the view of the committee that we can't continue to dump, so that 50-cents-a-ton solution politically or in the public interest will not be available very long.

So, all of us as a society are going to be led to more sophisticated solutions and the point I am hopeful I can leave with the chairman and with the committee is that we are not dealing with blue-sky solutions that might be available when both you and I may be retired. They are available now.

Mr. ROGERS. Thank you very much for being here. What, in general, would a system like this cost?

Mr. DOBYNS. A 500-ton-a-day system in an environment which would require winterized-type construction is about a $4 million investment. We have appeared before the Ways and Means Committee. All this is not in the jurisdiction of this committee, but we strongly support 60-month amortization and continuation of the investment credit to permit us to capitalize those investments.

Mr. ROGERS. How many can you produce, say, in a year's time?

Mr. DOBYNS. My frank answer is that I do not know. It depends on where they were located, what kind of weather and environment we are dealing with, the availability of local construction personnel. As you know, that is a very complicated area.

Mr. ROGERS. I was thinking of your production capacity rather than installation.

Mr. DOBYNS. Believe me, I am not ducking your question. It is going to take us from the day a contract is signed to completion about a year per plant. Now that does not mean that if we get six contracts

all at one time, that we are talking about 6 years. It means that we will have six plants underway, all of which will take a year to 18 months.

Usually equipment is available, construction personnel are available in those communities.

Mr. ROGERS. Thank you for being with us. We appreciate your testimony.

Mr. DOBYNS. Thank you, Mr. Chairman.

Mr. ROGERS. We have one more witness. We are going to have to have a recess for 5 minutes because of a vote. The committee stands in recess for 5 minutes.

[Brief recess.]

Mr. ROGERS. The subcommittee will come to order please.

We will continue our hearings on solid waste. The next witness is Mr. Franklin M. Kreml, president of the Motor Vehicle Manufacturers Association. I understand he will be accompanied by Mr. Allen Anderson.

STATEMENT OF FRANKLIN M. KREML, PRESIDENT, MOTOR VEHICLE MANUFACTURERS ASSOCIATION, ACCOMPANIED BY ALLEN ANDERSON

Mr. KREML. Correct, sir. If I may be permitted, I would like to have him join me as soon as he returns to the room.

Mr. ROGERS. Certainly. Your prepared statement will be made a part of the record in full.

You may proceed as you desire.

Mr. KREML. Thank you, sir.

I have a brief statement which with your permission I would like to present.

I am Franklin M. Kreml, president of the Motor Vehicle Manufacturers Association, a national trade association representing domestic manufacturers of motor vehicles. I welcome this opportunity to appear here today to offer MVMA's views on the junk vehicle implications of the solid waste management bills pending before the subcommittee. I will focus on H.R. 13176 introduced by Chairman Rogers, H.R. 4475 by Congressman Burke, and H.R. 11878 by Congressman Tiernan.

Tomorrow your schedule includes testimony from one of our members, the Ford Motor Co. While this statement represents the view of MVMA and of the industry generally, we suggest that the subcommittee give particular consideration to the detailed views of Ford.

Junk vehicles are, of course, a part of the overall solid waste problem. On the other hand, 80 to 85 percent—or 4 out of 5—vehicles retired from use each year are being recycled through existing scrap recovery channels. This proportion of vehicles recycled to vehicles retired is one of the highest, if not the highest, of all recyclable products. Such an achievement has been made possible by the combined efforts of the many independent businesses involved in the reprocessing network with only limited governmental intervention or assistance.

Essentially, then, the forces of supply and demand, together with technological developments, have resulted in an economic—or market—solution to the largest segment of the junk vehicle portion of our solid

waste problem. Historically, however, neither demand nor price have provided an economic incentive adequate to attract the last 15 to 20 percent of the junk vehicles not now moving into the recycling system.

Auto hulk recycling involves a highly complex supply and demand network. Numerous factors, including insufficient increases in domestic steel production, major shifts in steelmaking technology which have limited the increase in demand for vehicle scrap, and fluctuating prices for vehicle scrap, currently interact to limit demand. Prices for vehicle scrap have, of course, experienced substantial upward movement, in some areas, as much as threefold, in recent months, as a result of strong domestic and foreign markets for scrap steel.

Because the junk vehicle problem is so complex, we do not feel that any single solution or improvement at a particular step in the system will be totally effective or guarantee that all vehicles retired from service each year will be reprocessed. Success can be achieved only through a coordinated effort—one which focuses on all aspects of the problem and is based on the participation of everyone involved—the Federal Government, the States, local communities, the public, and industry.

MVMA and its members are committed to assisting in the development of meaningful solutions to the solid waste problem—and specifically junk vehicle disposal and recycling and, therefore, support the basic objective of the hearings which this subcommittee is conducting today and tomorrow.

The association's position on junk vehicle disposal is set out in a policy statement of the MVMA executive committee. I ask that the text of this policy statement be included in the record of these hearings.

Mr. ROGERS. Yes. Without objection it will be made a part of the record [see p. 207].

Mr. KREML. Our commitment to finding solutions has been evidenced by the participation—through MVMA—of American Motors Corp., Chrysler Corp., Ford Motor Co., and General Motors Corp. in financing a demonstration project in several rural northern Michigan counties. The project has developed and implemented an approach to junk vehicle collection and disposal for that area. The Michigan Legislature is currently considering legislation so adopt that program for statewide application.

With this background let me address certain aspects of several bills before the subcommittee beginning with H.R. 13176. Section 217 of H.R. 13176 establishes nine national solid waste, energy and materials management objectives to be attained by State programs. These programs are to be developed pursuant to guidelines established by the Environmental Protection Agency.

Criteria for the Environmental Protection Agency's approval of the State solid waste programs are set forth in the bill. Procedurally section 217 requires the States, as they are developing their overall solid waste plans, to consult with an advisory board representing local governments and, with certain exceptions, to assign primary responsibility and authority for the development and implementation of the plan to local governmental units.

We think that these are wise procedures to follow, both in the planning and implementation stages. Each State and local junk vehicle problem differs because of the complex economic and technological

factors which combine to varying degrees to cause the problem in each locality. Therefore, we concur that the development of programs should be coordinated at the State level to meet the particular need of the State's urban, suburban, and rural communities. Input of the various communities should be invaluable in the evolution of specific programs.

Among the criteria for plan approval is the requirement for "an effective program for collection and disposal of abandoned motor vehicles * * *." We feel that this language might better read, "a program by which each State plans to reduce its current stock of abandoned motor vehicles and its rate of motor vehicle abandonment."

Whereas the bill now focuses on collection and disposal, it ignores a critical element of the problem—the frequency of vehicle abandonment. If abandonment is reduced, the need for collection and disposal programs could also be lessened.

Furthermore, the phrasing we propose allows the planners to define for their own areas the degree of effectiveness and the pace of their particular programs. What would be specified legislative is that the various plans shall reduce the abandoned vehicle problem. The States and localities would be free to determine how much a reduction is desirable over given periods of time. In this way, a wide series of alternatives are available, from which each locality has optimal freedom to tailor a solution to the problem peculiar to its area.

H.R. 13176 includes authorization for Federal grants in support of State solid waste programs created under section 217. Just as the extent of the junk vehicle problem varies among the States, and among communities within each State, so do program and funding requirements differ.

The level of initial and continuing program financing should, therefore, reflect local requirements. The method of raising the necessary funds should be equitable and create a minimum of administrative expense. In lieu of Federal funds, small increases in State fees for vehicle licensing, title transfer, or registration could finance the State programs. Under such funding mechanisms, all vehicle owners would be paying for their vehicle's disposal during the period in which they use it. A minimum of administrative expense is incurred since this method levies minimal increases in existing State fees and collects them through already established channels. Eight States, including California, have adopted programs of this type in the last few years, and other States are reviewing such programs in their legislatures.

MVMA endorses the study of Federal incentives and disincentives provided in section 234 of H.R. 13176. Because the complexities of recycling and resource recovery include many economic and technological phenomena which have not been adequately explored, we support comprehensive research efforts.

Turning briefly to H.R. 4475, we see several provisions of significant concern. In summary, the bill establishes a national "bounty system" whereby new-car buyers would pay a Federal disposal fee of $30 to be deposited in an automobile environmental quality trust fund. For those vehicles on which the $30 fee was paid, federally licensed vehicle disposal facilities would pay the last owner a $30 bounty in addition to the purchase price of the "retired" vehicle. The Department of Transportation would then pay the disposal facility $35, reimbursement of the bounty, plus an additional $5.

In our view, the bounty system is not cost effective. As I have pointed out, 80 to 85 percent of "retired" vehicles currently flow into the recycling system without a bounty to attract them. Therefore, the proposed bounty would be needlessly paid on this 80 to 85 percent in the hope of attracting vehicles which might not otherwise enter the recycling system. No bounty under the proposed act could be paid on a vehicle unless the fee had been previously paid on that vehicle. Therefore, whatever impact the proponents of a bounty system anticipate would not be felt until vehicles purchased now were to be "retired" at the end of their useful life. For those vehicles not prematurely "retired" as the result of serious accident damage, that might be 7 to 10 years from now.

I would like to add that 7 to 10 years is a conservative estimate. Furthermore, there are no assurances that a bounty would substantially reduce abandonment.

In addition, the MVMA thinks the bounty system established by H.R. 4475 is an inequitable financing alternative. It penalizes new-car buyers, who are rarely abandoners, in an attempt to lure the last owner into properly disposing of the vehicle.

Finally, the bounty system, as proposed in H.R. 4475, probably would entail significant administrative costs in collection of the fee, licensing of disposal facilities, and payment of the sums involved for disposal.

I am about to move to H.R. 11878. Before I do, it occurs to me we might possibly leave the impression that we are special pleaders for new-car owners. Let me say that our dealers, who are our customers, have their lives tied up financially in the used-car lot. There is no place where that became more evident than during the energy crisis when they were unable to move medium-size automobiles for many weeks. So this represents no special pleading, I assure you.

As for H.R. 11878, many of its provisions are of specific interest to MVMA and its members.

Of major concern to us is the minimal impact which we feel the product standards, provided for in title IV, would have in increasing junk vehicle recycling, while potentially producing conflicts with other Federal regulations on the vehicle. Based on U.S. Bureau of Mines data and the experience of many shredding operations, at least 90 to 95 percent of the ferrous and nonferrous metals in the vehicle is recyclable. In addition, at least 90 percent of the vehicles' nonmetallic materials, such as rubber and plastics, is recoverable in the form of energy or reclaimed materials. On balance, then, the motor vehicle is as a unit highly recyclable, and there is little need for such cumbersome product standards to be applied to it with the ostensible objective of making it recyclable.

Given this high level of recyclability, it would not seem reasonable to attempt to alter the vehicles' material content to improve recyclability through product standards, particularly in view of the potential risk of conflicting with other performance standards such as vehicle safety, emission control, and damageability, as well as the upcoming noise standards. Product standards such as those which could result from this bill may further adversely affect the vehicle's fuel economy and performance—critical problems during this period of petroleum supply shortage. Such standards could inhibit the developmental process by which continuing improvements are made for

vehicle safety, emission, noise, and damageability control, as well as improvements in vehicle fuel economy.

The vice president of one of our member companies testified before a congressional committee last week and mentioned his concern about the large number of regulations on the vehicle coming from different departments of the executive branch of the Government, and the need for maintaining a reconciliation between these regulations.

Section 403 of H.R. 11878 calls for EPA to promulgate product standards allowing prohibitions on the manufacture and distribution of certain products within 12 months of the bill's enactment. This prohibition could occur 6 months before EPA is required by section 407 to complete an extensive evaluation of the potential impact of such prohibitions on the manufacture and sale of products, and their effectiveness in improving waste disposal. It seems clear to us that a study of alternative regulatory methods should precede a statutory requirement for the imposition of standards. These waste reduction studies of alternative regulatory measures and their impact are also to include an analysis of the technical feasibility, effectiveness, and economic efficiency of standards. Without prior knowledge of these factors, the creation of standard-setting authority as provided in section 403 seems to us at least premature. An analysis of the impact of product standards should include a thorough review of the economic cost of such a program and an accurate evaluation of its benefits.

Similarly, under H.R. 11878, the timetables for product standards and regulations for unsafe disposal practices are not synchronized. EPA is required to issue product standards within 12 months after enactment unless existing or potential regulations on disposal practices will adequately protect public health and the environment. Yet 18 months is allowed for the promulgation of regulations on disposal practices, according to section 501. Because of this schedule, decisions on product standards could be required 6 months before regulations on disposal practices were established, let alone evaluated for their effectiveness relative to standards in protecting health and the environment.

We must emphasize that the time frame for implementation of any product standards promulgated must allow a realistic leadtime for manufacturers to comply. As our member companies have pointed out, the required leadtime between the planning stage and actual production approximates 3 to 5 years, depending on the type of vehicle and, I might add, the extent of change involved.

Related to the product standards provisions of title IV of H.R. 11878 is the pre-emption provision of section 408 allowing the Environmental Protection Agency to grant exemptions to States and local governments, if no unreasonable burdens on commerce will result "through difficulties in marketing, distribution, or other factors." We urge complete pre-emption of State and local activity in standard setting relative to this title. It is difficult to conceive of motor vehicles being manufactured to potentially widely differing product specifications possibly promulgated by 50 State and innumerable local governments. The potential effects on prices to the consumer are staggering, particularly in light of the highly efficient, and thus economic, mass production practices of the industry.

MVMA strongly endorses Federal research and demonstration programs on the recovery of energy from waste materials as provided in

title VI of H.R. 11878. The consistent availability of power at reasonable costs is, of course, important to this industry as it is to other users whether they be domestic, commercial, or industrial consumers. Efforts to expand the mix of low-cost fuels for the production of power are, therefore, of concern and interest to industry.

Title VII of H.R. 11878 provides for a Council on Environmental Representation. While we fully support the stated goals of such a Council, organizations already exist which are working toward these objectives. Duplications of some of the responsibilities of existing agencies will not necessarily yield better or faster achievement of those goals. Overlapping responsibility can produce conflict and confusion resulting in slower progress at higher costs to Government and ultimately the consumer. The laws of the land, carefully developed over nearly 200 years, contain proven avenues for appeal of legislative, judicial, and administrative decisions.

In conclusion: (1) we reiterate the fact that the motor vehicle is one of the most recycled and recyclable products in America today, (2) the major problem which remains to be solved lies primarily with the States and local communities finding the combination of factors, appropriate for their areas, to attract into the recycling system a significant portion of the 15 to 20 percent of "retired" vehicles not now being recycled, and (3) the minor modifications which we have suggested in H.R. 13176, combined with the other provisions impacting junk vehicles which are found in that measure, set a national framework within which the States and local communities should be able to meet the challenge of the junk vehicle problem.

Finally, I reaffirm our support for the goal of reducing solid waste and improving resource conservation through resource recovery programs.

[Testimony resumes on p. 209.]

[Mr. Kreml's prepared statement and attachment follow:]

STATEMENT OF FRANKLIN M. KREML, PRESIDENT, MOTOR VEHICLE MANUFACTURERS' ASSOCIATION

I am Franklin M. Kreml, President of the Motor Vehicle Manufacturers Association—a national trade association representing domestic manufacturers of motor vehicles. I welcome the opportunity to appear here today to offer MVMA's views on the junk vehicle implications of the solid waste management bills pending before the Subcommittee—especially H.R. 13176 introduced by Chairman Rogers, H.R. 4475 by Congressman Burke and H.R. 11878 by Congressman Tiernan.

Tomorrow, your schedule includes testimony from one of our members—the Ford Motor Company. While this statement represents the view of MVMA we suggest that the Subcommittee give particular consideration to the detailed views of one of our members.

At the outset, I want to emphasize that the development of more effective means of coping with the national solid waste problem is an effort of vital concern to MVMA and its members. Therefore, we endorse the basic objectives of the hearings which your Subcommittee is conducting.

Junk vehicles are, of course, a part of the overall solid waste problem. On the other hand, 80 to 85 percent of the vehicles "retired" for use each year are being recycled through existing scrap recovery channels. This proportion of vehicles "retired" is one of the highest, if not *the* highest, of all recyclable products. Such an achievement has been possible through the combined efforts of the many independent businesses involved in the reprocessing network with only a limited degree of governmental intervention or assistance. Essentially, then, the forces of supply and demand, together with technological developments, have resulted in an economic solution to the largest segment of the junk vehicle portion of our solid waste problem. Historically, however, neither demand nor price have pro-

vided an economic incentive adequate to attract the 15–20% of the junk vehicles that are not now moving through the recycling system.

Auto hulk recycling is a highly complex supply and demand network. Throughout the system, numerous technological, economic, and legal factors currently interact to limit its effectiveness. These include insufficient increases in domestic steel production, major shifts in steelmaking technology which have limited the increase in demand for vehicle scrap, and fluctuating prices for vehicle scrap. Prices for vehicle scrap have, of course, experienced substantial upward movement in recent months as a result of strong domestic and foreign markets for scrap steel.

Because the junk vehicle problem is so complex, no single solution or improvement at only one step in the system will be totally effective or guarantee that all vehicles retired from service each year will be reprocessed. Success can be achieved through a coordinated effort—one which focuses on all aspects of the problem and is based on the participation and support of everyone involved—the federal government, the state, local communities, the public, and industry.

MVMA and its members are committed to assisting in whatever way possible in the development of meaningful solutions to the solid waste problem—and specifically to increasing the effectiveness of the junk vehicle disposal and recycling.

This commitment and the Association's views on junk vehicle disposal are expressed in a policy statement adopted by the MVMA Executive Committee. I ask that the text of this policy statement be included in the official record of these hearings. In summary, the policy supports the concept of a balanced, coordinated approach to the junk vehicle problem and supports several steps to increase the effectiveness of recycling programs. In addition, our commitments have been evidenced by the participation—through MVMA—of American Motors Corporation, Chrysler Corporation, Ford Motor Company, and General Motors Corporation in financing a demonstration project in several rural northern Michigan counties which has developed and implemented an approach to junk vehicle collection and disposal for that area. The Michigan Legislature is currently considering legislation to adopt that program as an ongoing statewide effort.

With this background, let me address certain aspects of the several bills before the Subcommittee—beginning with HR 13176. Section 217 of HR 13176 establishes nine national solid waste, energy, and materials management objectives to be attained by state programs, developed pursuant to guidelines established by the Environmenttal Protection Agency. Criteria for these state solid waste programs are set forth in the bill. Among them is a requirement for "an effective program for collection and disposal of abandoned motor vehicles . . ." Procedurally, Section 217 requires the states, as they are developing their overall solid waste plans, to consult with an advisory board representing local governments and, with certain exceptions, to assign primary responsibility and authority for the development and implementation of the plan to local governmental units.

Within the context of the measure, we think that these are wise procedures to follow both in the planning and implementation stages. Each state and local junk vehicle problem differs because of the complex economic and technological factors which combine to varying degrees to cause the problem in each locality. Therefore, we concur that the development of programs should be coordinated at the state level to meet the particular needs of the state's urban and rural communities. Input of the various communities should be invaluable in the evolution of specific programs. We urge that this procedure be observed in the planning and implementation of the required junk vehicle programs as well as those designed to improve overall solid waste management.

I have mentioned that Section 217 calls for the inclusion in each state's plan of "an effective program for the collection and disposal of abandoned motor vehicles . . ." We feel that this language might better read, "a program by which each state plans to reduce its current stock of abandoned motor vehicles and its rate of motor vehicle abandonment." Whereas the bill now focuses on collection and disposal, it ignores a critical element of the problem—the frequency of vehicle abandonment—which, if reduced, would also lessen the need for elaborate collection and disposal programs. Furthermore, the phrasing we propose allows the planners to define for their own areas the degree of effectiveness and the pace of their particular programs. What would be specified legislatively is that the various plans shall reduce the abandoned vehicle problem. The states and localities would be free to determine how much a reduction

is desirable over given periods of time. In this way, a wide series of alternatives are available, from which each locality has maximum freedom to tailor a solution to the nature of the problem prevalent in its area.

H.R. 13176 includes authorization for federal grants in support of state solid waste programs created under Section 217. Just as the extent of the junk vehicle problem varies among the states, and among communities within each state, so do funding requirements differ. The level of initial and continuing program financing should, therefore, reflect local requirements. The method of raising the necessary funds should be equitable and create a minimum of administrative expense.

As for funding junk vehicle programs, we recommend small increases in state fees for vehicle licensing, title transfer or registration. Under such funding mechanisms, all vehicle owners would be paying for their vehicle's disposal during the period in which they use it. A minimum of administrative expense is incurred since this method levies minimal increases in existing state fees and collects them through already established channels. Eight States, including California, have adopted programs of this type in the last few years, and other states are reviewing such programs in their legislatures.

MVMA endorses the study of Federal incentives and disincentives provided in Section 234 of H.R. 13176. Because the complexities of recycling and resource recovery include many economic and technological phenomena which have not been adequately explored, we support comprehensive research efforts.

Section 218 of H.R. 13176 provides for the Environmental Protection Agency's promulgation of standards of performance for "any building, structure, facility, installation or equipment which generates waste" on which construction or modification is begun after proposed regulations are published.

A performance standard, as defined therein, limits the generation of waste by application of the best system, considering costs, for reducing or eliminating the amount of toxicity of any wastes generated or the best system of recovering resources from wastes which the Environmental Protection Agency determines has been adequately demonstrated.

We presume that the "equipment" referred to in the definition of new sources means equipment which is a part of the operations within or around the buildings or facilities referred to in the definition. If our assumption is correct, it may be helpful to clarify the definition by adding "appurtenant thereto" after the word "equipment" in Section 218(c)(3).

Turning briefly to H.R. 4475, we see several provisions of significant concern. In summary, the bill establishes a national "bounty system" whereby new car buyers would pay a federal disposal fee of $30.00 to be deposited through the Department of Transportation into an Automobile Environmental Quality Trust Fund. For those vehicles on which the $30.00 fee was paid, federally licensed vehicle disposal facilities would pay the last owner a $30.00 bounty in addition to the purchase price of the "retired" vehicle. The Department of Transportation would then pay the disposal facility $35.00—reimbursement of the $30.00 bounty plus an additional $5.00.

In our view, the bounty system is not cost effective. As I have pointed out, 80–85% of "retired" vehicles currently flow into the recycling system without a bounty to attract them. Therefore, the proposed bounty would be needlessly paid on this 80–85% in the hope of attracting vehicles which might not otherwise enter the recycling system. No bounty could be paid on a vehicle unless the fee had been previously paid on that vehicle. Whatever impact the proponents of a county system anticipate, would not be felt until vehicles purchased now were to be "retired" at the end of their useful life. For those vehicles not prematurely "retired" as the results of serious accident damaged, that might be 8 to 12 years from now. There are no assurances, however, that the bounty would substantially reduce abandonment.

In addition, the MVMA thinks the bounty system established by H.R. 4475 is an inequitable financing alternative. It penalizes new car buyers, who are rarely abandoners in an attempt to lure the last owner of a vehicle into properly disposing of the vehicle.

Finally, the bounty system, as proposed in H.R. 4475, probably would entail significant administrative costs in collection of the fee, licensing of disposal facilities, and payment of the sums involved for disposal.

As for H.R. 11878, many of its provisions are of specific interest to MVMA and its members.

Of major concern to the Motor Vehicle Manufacturers Association is the minimal impact which we feel the product standards, provided for in Title IV,

would have in increasing junk vehicle recycling while potentially producing conflicts with other regulations on the vehicle. We do not think that product standards will reduce the 15 to 20% of those vehicles retired annually which are not moving into the recycling system. Based on U.S. Bureau of Mines data [1] and the experience of many shredding operations, at least 90 to 95% of the ferrous and non-ferrous metals in the vehicle is recyclable. In addition, at least 90% of such non-metallic materials, as rubber and plastics, is recoverable in the form of energy or reclaimed materials. On balance, then, the motor vehicle is highly recyclable, and there is little need for such product standards to be applied to it. In our judgment, the proposed product standards concept is far more cumbersome than alternative approaches which would further increase the percentage of retired vehicles which are recycled.

Given this high level of recyclability of the vehicle, it would not seem reasonable to attempt to alter its material content to improve recyclability through product standards, particularly in view of the potential risk of conflicting with other performance standards such as vehicle safety, emission control and damageability. Additional conflicts can occur as noise limitations evolve. The goals of existing and contemplated programs involving standards on the vehicle need to be assigned priorities. Product standards such as those which could result from this bill may further adversely affect the vehicle's fuel economy and performance—critical problems during periods of petroleum supply shortage. Such standards could inhibit the developmental process by which continuing improvements are made for vehicle safety, emission, noise and damageability control, as well as improvements in vehicle fuel economy. Witness, for example, the negative effect that emission and damageability standards have had on vehicle fuel economy.

Section 403 of H.R. 11878 calls for EPA to promulgate product standards allowing prohibitions on the manufacture and distribution of certain products within 12 months of enactment. These prohibitions could occur six months before EPA is required by Section 407 to complete an extensive evaluation of the potential impact of such prohibitions on the manufacture and sale of products, and their effectiveness in improving waste disposal. It seems clear to us that a study of alternative regulatory methods should *precede* a statutory requirement for the imposition of standards. The findings of the study, when completed, should then point out the preferable methods of regulation to be adopted. These waste reduction studies of alternative regulatory measures and their impact are also to include an analysis of the technical feasibility, effectiveness and economic efficiency of standards. Without prior knowledge of these factors, the creation of standard setting authority as provided in Section 403 seems premature. An analysis of the impact of product standards should include a thorough review of the economic cost of such a program and an accurate evaluation of its benefits. The public interest will only be served by such a full evaluation of the economic impact, as well as the projected environmental impact, of the standards proposed.

Similarly, under H.R. 11878, the timetables for product standards and regulations for unsafe disposal practices are not synchronized. EPA is required to issue product standards within 12 months after enactment unless existing or potential regulations on disposal practices will adequately protect public health and the environment. Yet 18 months is allowed for the promulgation of regulations on disposal practices, according to Section 501. Because of this schedule, decisions on product standards could be required 6 months before regulations on disposal practices were established, let alone evaluated for their effectiveness relative to standards in protecting health and the environment. We would urge that this timetable be reorganized to allow safe disposal practices to prove their worth before decisions on product standards may be required.

We must emphasize that the time frame for implementation of any product standards promulgated must allow a realistic lead time for manufacturers to comply. As the vehicle manufacturers have pointed out, the required leadtime between the planning stage and actual production approximates 3 to 5 years, depending on the type of vehicle. Consequently, if final standards issued by the Environmental Protection Agency should in any way affect vehicle engineering and production, it is obvious that the industry would need a sufficient interval to comply.

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[1] "Dismantling A Typical Junk Car," by K. C. Dean and J. W. Sterner, U.S. Bureau of Mines, 1969.

Most importantly product standards are completely unnecessary with respect to the vehicle. The vehicle is already almost completely recyclable. The junk vehicle problem is one that relates to bringing vehicle to the recycling system; not what happens to them once they are in the recycling network.

Related to the product standards provisions of Title IV of H.R. 11878 is the pre-emption provision of Section 408 allowing the Environmental Protection Agency to grant exemptions to states and local governments, if no unreasonable burdens on commerce will result "through difficulties in marketing, distribution, or other factors." We urge complete pre-emption of state and local activity in standard setting relative to this title. It is difficult to conceive of motor vehicles being manufactured to potentially widely differing product specifications possibly promulgated by 50 states and untold local governments. The potential effects on prices to the consumer are staggering, particularly in light of the highly efficient, and thus economic, mass production practices of the industry.

Title V of H.R. 11878 establishes a comprehensive structure designed to improve waste disposal practices with roles defined for the federal government, the states, and local governments.

We feel that primary responsibility for the development of specific programs in this field should rest with the states and local communities. In contrast to similar types of controls on air and water pollution, political boundaries are less of a barrier in the effective control of solid waste.

Nevertheless, the federal government should have a role in improving disposal practices applicable to retired motor vehicles and other components of solid waste as well. That role should include the assistance, as called for in Section 501 of the bill, in identifying unsafe disposal practices. It should involve aid to the states in the development of performance criteria designed both to improve site selection and operation of disposal facilities. Finally, the federal role relative to junk vehicles could appropriately encompass the types of assistance called for in the attached MVMA policy statement.

There is a continuing need for research and investigation of alternative ways to reduce the solid waste problem and increase recovery of resources. Therefore, we support the plan, as described in Section 505A of H.R. 11878, for the Environmental Protection Agency to encourage cooperative activity by state and local governments in developing waste disposal and resource recovery programs. The encouragement could, for example, include providing more technical information, as well as increased federal support for research. Since both the components and seriousness of the solid waste problem vary from state to state, it would be inappropriate for EPA to study, as required in Section 505B, the feasibility of designing a national resource recovery plan to be implemented by the states.

MVMA also strongly endorses Federal research and demonstration programs on the recovery of energy from waste materials as provided in Title VI of H.R. 11878. The consistent availability of power at reasonable costs is, of course, important to this industry as it is to other users whether they be domestic, commercial or industrial consumers. Efforts to expand the mix of low cost fuels for the production of power are, therefore, of concern and interest to industry. The federal government can assist by providing research and demonstration grants for the development of facilities producing energy from waste.

Title VIII of H.R. 11878 establishes a National Commission on Environmental Costs to recommend a practical and convenient national disposal cost system which will internalize waste disposal costs. Composition of the Commission includes Members of Congress, employees of Federal agencies dealing with the environment, and qualified public members. We think it would enhance the scope and expertise of the Commission if some of its membership were drawn from those who administer state programs attempting to solve solid waste problems. Their knowledge of costs, effectiveness, and financing methods of current programs would be of great value, and thus, should certainly be represented in the recommendations of the Commission.

The Commission is to make an interim report to Congress within 2 years of its creation and a final report within 3 years. Some of the topics assigned for study seem to duplicate those required of other investigations called for in the bill—for example, studies and recommendations on the imposition of standards and how standards shall be established, promulgated and enforced. We hope that the structuring of research in solid waste will be reviewed with the utmost care and with full consideration of the timeliness warranted by other sections of the bill.

We believe that the Commission's study must consider all disposal charge concepts, their feasibility, and appropriateness. Specific products and their actual

disposal costs cannot be ignored in favor of a general approach applicable across the board. Mechanisms to generate revenue should be equitable to all consumers and the efficiency and cost of program administration should weigh heavily in considering alternatives.

Title II of H.R. 11878 addressed transportation policy and the questions which have been raised concerning the relationship between transportation rates for recyclable and virgin materials. In our view, freight rates should be just, reasonable, and non-discriminatory. Action has been taken in the form of the recently enacted provision of PL 93–236, the Regional Rail Reorganization Act of 1973, which instructs the ICC to eliminate by expedited proceedings any existing discrimination against the shipment of recyclable materials.

Section 202 of the above referenced title calls for a broad, 2 year study of issues bearing on the relationship of transportation policy and the recyclability of secondary materials. We believe that such a study should be coordinated with requirement for ICC action contained in The Regional Rail Reorganization Act. Without such coordination, even further delay may result before the issue of discriminatory rate structures and practices is resolved.

Title VII of H.R. 11878 provides for a Council on Environmental Representation. While we fully support the goals of protecting public health and the environment which such a Council might aid in attaining, organizations already exist which are expending their concerted efforts toward these objectives. Duplications of some of the responsibilities of the Environmental Protection Agency and other agencies of government which could develop from the provisions in this Title will not necessarily yield better or faster achievement of those goals. Overlapping responsibility can produce conflict and confusion resulting in slower progress at higher costs to government and ultimately the people. The laws of the land, carefully developed over nearly 200 years, contain proven avenues for appeal of legislative, judicial and administrative decisions. Therefore, we cannot support creation of a Council on Environmental Representation.

In conclusion, I reiterate the fact that the motor vehicle is one of the most recycled and recyclable products in America today. We feel that the major problem which remains to be solved lies primarily with the states and local communities finding the combination of factors, appropriate for their areas, to attract into the recycling system a significant portion of the 15–20% of "retired" vehicles which are not now being recycled. We think that the minor modifications which we have suggested in H.R. 13176, combined with the other provisions impacting junk vehicles which are found in that measure, set a national framework within which the states and local communities may be able to meet the challenge of the junk vehicle problem.

I reaffirm the commitment of motor vehicle manufacturers and MVMA to participate in the development of meaningful solutions to the complex problem of junk vehicle disposal. You have our support for the goal of reducing solid waste and improving resource conservation through increased resource recovery.

POLICY

of the

MOTOR VEHICLE MANUFACTURERS ASSOCIATION
of the UNITED STATES, INC.

on

JUNK VEHICLE DISPOSAL*

Introduction

Our highly industrialized society, while enjoying steady economic growth, is facing a serious solid waste management problem. For such progress and affluence also generates waste – we have become more a nation of "users" rather than consumers. As a result, our conventional waste collection and disposal methods are proving inadequate, our environment is being littered, and valuable natural resources are not being properly conserved.

Junk vehicles, one part of the national solid waste problem, pose unique disposal challenges. Presently, resource recovery – the recycling of waste materials into reusable products – is the most effective method for reducing the junk vehicle population. Recycling is a highly complex supply-demand network which begins with the collection of abandoned vehicles, involves intermediate processing stages, and is not completed until the reprocessed metal is consumed in the manufacture of iron and steel.

There are numerous technological, economic and legal constraints interacting within the junk vehicle reprocessing system. Consequently, there is no one single solution that will be totally effective in assuring the recycling of all abandoned vehicles. Various alternatives have been proposed to reduce existing barriers to effective recycling, but too little is yet known about the impact of technological changes and economic incentives to be able to accurately determine any one course of action. As vehicle manufacturers and citizens, the industry and the MVMA recognize that unrecycled vehicles represent an aesthetic and environmental concern and a waste of natural resources, and are therefore committed to assist in whatever way possible to develop meaningful solutions to the complex junk vehicle problem. Thus, the MVMA supports the following as a matter of policy:

Policy

- A balanced approach is required to resolve the junk vehicle problem – one which focuses on all aspects of the recycling system and which is a highly coordinated effort encompassing the participation and support of the federal government, the states, local communities, industry and the public.

**As approved by the MVMA Executive Committee on May 18, 1973*

- Since the degree of vehicle abandonment, and therefore the program and funding needs, vary among the states and among communities within each state, demonstration programs should be established and supported by state/local governments in order to accurately evaluate statewide junk vehicle program needs, to assess the funding levels required to sustain ongoing programs, and to determine appropriate and equitable funding mechanisms.

- The administration of abandoned vehicle collection programs and recycling projects is the proper responsibility of the states and local communities. The federal government, however, should play a supportive role in such local programs through the loan of surplus federally-owned equipment, authorization for the use of available labor to supplement local manpower, and the maintenance of an effective national vehicle recycling information center to inform and assist the states and local communities in developing efficient abandonment, collection, and recycling programs.

- State and local levies imposed to finance junk vehicle programs should be based on a realistic assessment of continuing funding requirements, should be so structured as to distribute the cost of maintaining such programs equitably, and should involve a minimum of administrative expense.

- Because the potential effectiveness of junk vehicle programs is hindered in many states by inadequate laws, immediate steps should be taken by state and local governments to develop appropriate statutes to expedite title clearance, to provide local zoning and shielding regulations for junk yards, to control the accumulation of junk vehicles on private property, to streamline trespassing laws, and to encourage the establishment of adequate junk vehicle storage sites in rural areas.

- To expand the demand for junked vehicle and other scrap, a program should be developed that would place recycled materials on a more equal economic footing with virgin or primary materials. At this time, however, more information about the economic and technological complexities of recycling and resource recovery is required before an effective federal program can be designed. Before Congress acts in this area, therefore, further research should be undertaken,

Mr. ROGERS. Thank you very much, Mr. Kreml and Mr. Anderson, for giving us this statement.

Mr. KREML. Thank you, sir.

Mr. ROGERS. Mr. Carter.

Mr. CARTER. Thank you, Mr. Chairman.

As you have mentioned, this was a very good statement. I notice that you feel one way to get car owners to dispose of their cars properly would be for them to pay a small fee each year to the State; is that correct?

Mr. KREML. We think that State and local programs should have the capacity to reduce the 15 to 20 percent of "retired" vehicles which are not now attracted into the recycling system. We think these State and local programs should be financed, not by Federal appropriations, but by minimal increases in certain established State fees: for example, the automobile license or the title transfer.

In this way, each State can determine the precise amount which that State's program requires. Thus, there is no necessity for establishing additional administrative machinery, since every State has the administrative mechanism for the collection of such fees.

Mr. CARTER. You would let the State do that?

Mr. KREML. Yes, sir. We urge that the State do it.

Mr. CARTER. And you say it would have the advantage of inducing owners to turn their cars in when they are ready to be junked, is that correct?

Mr. KREML. Not necessarily so, sir. We have learned from our demonstration project in northern Michigan that there are many abandoned vehicles in areas distant from towns and cities. The only way in which those vehicles are going to be recovered is to go out and get them and haul them to the facilities where they can be disassembled, shredded, and converted to usable scrap. That collection process is what these moneys would be used for in very substantial part.

Have I responded adequately on that?

Mr. CARTER. Yes, sir. But you would not want States to set the standards?

Mr. KREML. No, sir, not as conceived in H.R. 11878.

Mr. CARTER. For obvious reasons.

Mr. KREML. For obvious reasons; yes, sir.

Mr. CARTER. I believe you don't approve of the Council of Environmental Protection representation, is that correct?

Mr. KREML. I do not say that we disapprove of it. I think that would be presumptuous of us. Our view is that the objectives of such a Council are most desirable and ought to be met. We believe that there are existing organizations which have this responsibility.

Mr. CARTER. We have a Council of Environmental Quality at the present time in addition to EPA.

Mr. KREML. Yes, sir.

Mr. CARTER. I think you have a valid point there. There is a lot of logic in what you are saying.

Mr. KREML. Our purpose is to be completely constructive.

Mr. CARTER. If we were to build into the passenger car the $30 or so which one could get for turning in a car when it is ready to be abandoned, that would solve the problem for the cars which we sell now, but it will do nothing for the ones that we have sold for the past 8 to 10 years; is that correct?

Mr. KREML. The cars which we are selling today are generally not going to be retired for 7 to 10 years. In other words, they are not even going to become candidates for the category of junk vehicles for 7 to 10 years.

Mr. CARTER. They are going to last forever?

Mr. KREML. For 7 to 10 years or perhaps 8 to 12 except those whose utility is destroyed as a result of being involved in a serious accident.

Mr. CARTER. I have always wanted to beat Volvo with their 11 years anyway.

Mr. KREML. Sir, these are the facts despite the occasional thoughtless and quite incorrect statement that "they don't build them the way they used to."

Mr. CARTER. I certainly want our companies to be the best.

Mr. KREML. Yes, sir.

Mr. CARTER. Thank you, Mr. Chairman.

Mr. ROGERS. I was wondering, I think it is the beer industry, the can industry, aluminum industry, have initiated a program themselves to try to reclaim. The industry itself pays a reclamation bonus in some instances, although I don't know if this is true in all cases. That is rather intriguing to me.

Has the automobile industry considered this? For instance, it could be turned back into the dealer of the car that sold it like aluminum cans are. You could pay that owner something and it might give you an opportunity to sell him one of your cars again of the particular brand.

Mr. KREML. That is a very attractive supposition, sir.

Mr. ROGERS. That is a very appealing thing. What do you think?

Mr. KREML. This matter has not been formally considered by the association, and we do not have an association position on it.

I am apprehensive about such a proposal for essentially the same reasons that I am opposed to having the Federal Government establish a national junk vehicle program. The concept might not be as cost effective as State and local programs.

It might cost more money and be less effective for dealers to do it. The public might still be required to fund supplemental governmental programs.

Mr. ROGERS. I expect the public is going to get it anyhow one way or another.

Mr. KREML. The public ought not to pay 1 cent more than is necessary to do the job.

Mr. ROGERS. Does the public have to pay more for the beer can? I don't think they are charged any more. You might do it on a percentage basis. Furthermore, I would think if it is turned back to your company, there is no reason to charge the owner because the company could reclaim that material.

Mr. KREML. You mean turn back the hulk?

Mr. ROGERS. Yes, for instance, to the car dealer. It seems to me that would be a great way to do it because you have representatives in almost every community of the major car dealers.

Mr. KREML. This concept is new to me.

Mr. ROGERS. Could you take this back and let your constituency consider that and let us have the reaction for the record? I realize you could not give that today.

Mr. KREML. I would like to do that, and like to point out one additional factor.

Mr. ROGERS. Certainly.

Mr. KREML. The function which we would then be engaging in would be a duplication of that performed by the metal scrap industry. It is the steel industry which assays its need for scrap as to quality and as to amount. Through its purchases, it governs much of the market. I think that we might perhaps effect some serious disequilibrium in the market which is already complex and subject to price fluctuations often based on the demand for steel.

Mr. ROGERS. Of course, I presume that would be so in anyone dealing in scrap. You never know what it may be. I should think that if you have a reasonable amount, certainly it is worth something. It is not just steel that is recyclable. You have the tires, you have other things. So I would think that the automobile dealer is in the unique position to help clean up the country of the automobiles themselves when they are abandoned simply by a technique of encouraging this.

I would hope that you would take that and let us have the reaction of the industry and of your group.

Mr. KREML. We certainly will do that, sir.

Mr. ROGERS. If you will let us have that for the record, we will be grateful.

[The following information was received for the record:]

POSSIBLE USE OF MOTOR VEHICLE NEW CAR DEALERS AS DISPOSAL AGENTS FOR JUNK VEHICLES

The Motor Vehicle Manufacturers Association (MVMA) submits the following additional comments with regard to the question of the advisability of legislating mandatory involvement of motor vehicle dealers as disposal agents for junk vehicles.

At the outset, we point out that MVMA is an association whose membership includes major domestic motor vehicle manufacturers. The association does not, of course, represent motor vehicle dealers, nor for that matter automotive used parts dealers or scrap processors. Therefore, this statement can only reflect the view of our member manufacturing companies. Because of our long and continuing interest and concern over the matter of junk car disposal, however, we offer these general observations.

America's metal scrap and used vehicle parts industries are comprised of thousands of businesses located throughout the country. They interact effectively to remove potentially salable parts from, and recycle, 80 to 85% of the vehicles which are removed from service annually. Generally, owners who wish to dispose of a vehicle properly have only to deliver it to their local dismantler or scrap processor. In some areas free tow-in service is available. In other areas, usually remote, rural sections far removed from scrap processors, the cost of moving inoperable vehicles to the scrap market can become prohibitive, particularly when demand for metal scrap and the price of scrap are low.

The automobile dealer's role in the disposal of "retired" vehicles has included the option of accepting "retired" vehicles as trade-ins. With few exceptions, a dealer will take a used vehicle, regardless of its condition, in trade on a new or used car or truck. Since most "retired" vehicles have minimal value, the dealer may take them as a customer service to facilitate the sale of a new or used vehicle. The dealer may then deliver to an auto wrecker or a scrap processor those vehicles which, in his judgment, have no remaining useful life. The auto wrecker may remove usable parts for subsequent sale before passing the stripped vehicle hulk on to a scrap processor, who converts the hulk into a form of scrap usable in the iron and steelmaking process.

In our view, the concept of legislatively requiring new car dealers to pay the owner of an obsolete vehicle a certain amount for his vehicle is not likely to have an impact on reducing the abandoned vehicle backlog. This incentive already

exists in that the auto wrecking and scrap processing industries are generally willing to pay for a junk vehicle. Usually, payment is based on the weight of the vehicle and the current market price for reclaimed scrap.

To statutorily require motor vehicle dealers to make junk vehicle disposal a part of their business could result in the addition of a middleman in the existing recycling system. By adding yet another participant in the highly cost-sensitive scrap recycling process, the overall cost of scrap vehicle processing might rise and thereby potentially impede recycling. For instance, the dealer, who seldom has scrap storage or processing facilities himself, would dispose of the junk vehicle through a scrap processor, thus incurring an additional unnecessary transportation cost in the recycling system. Many dealers located in metropolitan areas with relatively high property values could be required to provide additional land for junk vehicle storage or divert land from its current use for this purpose. Undoubtedly this would also add to the cost of vehicle recycling.

The MVMA supports several steps to reduce the problem represented by the 15 to 20% of "retired" vehicles which are not recycled each year and those vehicles which have accumulated over the years. We urge state and local governments to develop appropriate statutes to expedite title clearance, to provide for local zoning and shielding regulations for junkyards, to control the accumulation of junk vehicles on private property, to streamline trespassing laws, and to encourage the establishment of adequate junk vehicle storage sites in rural areas. We support the development of state junk vehicle clean-up programs. These programs should be funded by the imposition of a small surcharge on the annual state vehicle registration or title transfer fee. Eight states, including California, have adopted programs of this type in the last few years and several others are considering such action. In summary, MVMA believes that the potentially more efficient and cost-effective approach lies in the direction of state and local programs tailored to meet local conditions and needs; and that these can be best and adequately funded by a relatively modest increase in existing state registration or license fees.

Mr. KREML. May I comment further?

Mr. ROGERS. I welcome it. I know you are not inclined to view this favorably, I understand that, but I would like to have an official position of the industry because if we were to decide to write this into law, I would want to know how they feel.

Mr. KREML. We must consider the added question of the dealer. Almost all dealers are a separate, independent business enterprise—over which vehicle manufacturers do not and can not have control.

Mr. ROGERS. I understand that.

I won't pursue this anymore. If you would just give it some thought and see what the companies think.

Mr. CARTER. I want to tell you about the dealers. I had one call me last night. They are really hurting, some of our smaller dealers. I regret it. Of course, it is brought on by the oil crisis. I hope we can get some of the smaller cars out to them.

Mr. ROGERS. Mr. Anderson, would you like to make a statement?

Mr. ANDERSON. No, I think it has been covered by Mr. Kreml.

Mr. ROGERS. Thank you for being here. We thank you for your patience in waiting for us this long in the afternoon.

Mr. KREML. Thank you very much.

Mr. ROGERS. The committee will stand adjourned and will meet tomorrow in room 2237.

[Whereupon, at 4:30 p.m. the subcommittee adjourned, to reconvene at 10 a.m., Thursday, March 28, 1974.]

SOLID WASTE DISPOSAL ACT EXTENSION—1974

THURSDAY, MARCH 28, 1974

HOUSE OF REPRESENTATIVES,
SUBCOMMITTEE ON PUBLIC HEALTH AND ENVIRONMENT,
COMMITTEE ON INTERSTATE AND FOREIGN COMMERCE.
Washington, D.C.

The subcommittee met at 10 a.m., pursuant to notice, in room 2237, Rayburn House Office Building, Hon. Paul G. Rogers (chairman) presiding.

Mr. ROGERS. We are very pleased to have our distinguished colleague from Rhode Island who has been one of the leaders in this area and has introduced legislation also, the Honorable Robert O. Tiernan.

STATEMENT OF HON. ROBERT O. TIERNAN, A REPRESENTATIVE IN CONGRESS FROM THE STATE OF RHODE ISLAND

Mr. TIERNAN. Let me express my appreciation for your leadership.

Thank you for the opportunity of testifying before the committee on the problem of waste management. I realize that the committee has a number of witnesses it would like to hear this morning, so I will keep my statement as short as possible, but I want to touch upon the highlights of my bill.

The problem of waste management has received widespread attention in the past few years. State and municipal governments, private companies, research institutions, and Federal agencies are moving swiftly in this area, and should be so encouraged. Astounding advances have been made in certain areas of waste management in an extremely short period of time, especially in municipal waste disposal practices. Five years ago who would have believed that Union Electric of St. Louis would be investing $70 million of its own capital to increase its capacity to process and burn all of the municipal waste generated by metropolitan St. Louis? Using a process of shredding and air classification, 7 percent of the waste by weight is recovered in the form of ferrous metals, 13 percent is landfilled, and 80 percent is incinerated as a supplemental fuel in the Union Electric coal burners.

Several other cities in the United States, including New Orleans, San Diego, Lowell, and Franklin, are engaged in the development of waste disposal systems which use modern technology to revolutionize municipal disposal practices by emphasizing the recovery of resources and the generation of energy from waste. This beneficial application of technology to waste disposal is a necessary and refreshing development. I would, however, caution against the sacrifice of long-term needs to short-term solutions. I refer to the current trend

of developing systems which use the vast majority of waste as a supplemental fuel, 50 percent in the case of St. Louis. We must be wary of this attractive and lucrative choice because it necessarily relegates paper and paper products, which comprise nearly 50 percent of municipal waste, to the role of a supplemental fuel, rather than a recovered resource. To burn approximately 120 million tons of paper products annually when newspapers and printers are crying for wastepaper seems to be an inexcusable folly.

Those engaged in setting the trends in industry and research for innovative disposal practices, and those responsible for government policies in this area, should seriously examine the development patterns of waste disposal and evaluate them in light of the potential energy and material savings which maximum resource recovery systems present. Title V of the National Resource and Energy Conservation Act of 1974, H.R. 12537, which is the bill I introduced, provides the mechanism whereby the Environmental Protection Agency could make this comparison. I believe this to be of vital importance. The Environmental Protection Agency has testified before other committees that they are presently engaged in the extensive technology and techniques of resource recovery and energy production, and I would agree that they are. However, I would also contend that what has not yet been demonstrated, and what needs to be verified before large-scale adoption of these systems is undertaken, is the method or methods which best conserve our natural resources and reduce our energy consumption.

Even if resource recovery from municipal waste were to be maximized in the future, markets for these materials would have to exist if recovery systems are to be successful and viable. The Federal Government could play an important role in stimulating markets for recovered goods by revising its procurement standards. The National Resource and Energy Conservation Act provides for the establishment of new procurement standards which require the purchase of items which, when compared to other items offered for sale, contain the greatest percentage of recycled or recyclable materials. At present, specifications for the percentage of recycled materials contained in procured items range over the full scale of possibilities, and although Federal agencies are working individually to increase the purchase of recycled items, no overall policy dictates that recycled items be purchased.

Product availability, performance standards, and cost must also be considered in procurement and the importance of these factors is not undermined by these new procurement standards. The Federal Government has always been a trend setter for State and local government procurement practices and the conscious effort to incorporate maximum recycled or recyclable criterion in Federal procurement standards would greatly promote recycling. New Federal procurement policies could thereby help to eliminate one of the economic barriers to recycling, namely, the poor marketability of recycled materials.

Changes in procurement policies and demonstration projects for resource and energy recovery from municipal waste; however, will be of little or no benefit if they are not done in conjunction with the establishment of safe disposal practices for both hazardous and non-

hazardous waste. Hazardous waste, namely, toxic chemical, flammable, radioactive, explosive, and biological wastes, pose an immediate and potential threat to health and environment. An estimated 10 million tons of hazardous wastes are generated annually in this country by industrial sources. Because of federally established controls over the disposal of these wastes in air or water, which previously had been a major receptacle for hazardous wastes, generators have turned to inexpensive and uncontrolled land disposal. Proper environmental disposal of these wastes could cost upward of $60 per ton, while improper disposal can be as cheap as $3 per ton. The technology does exist for the proper treatment of these wastes.

In fact, approximately 6 percent, or 600,000 tons, of hazardous waste generated annually is being treated by the infant hazardous waste management industry in this country. But we must do better if we are to avoid the disastrous consequences of unsafe disposal practices in the future. The Environmental Protection Agency, in its "1973 Report to Congress on Hazardous Waste Disposal," concluded that "the most effective solution at least cost to the public is a program for the regulation of hazardous waste treatment disposal." The National Resource and Energy Conservation Act I think goes a long way in meeting the requirements.

In conjunction with this effort to eliminate the unsafe disposal of hazardous waste, we should also eliminate the unsafe disposal of nonhazardous waste. This country generates over 4 billion tons of nonhazardous waste annually from municipal, commercial, industrial, agricultural, and mineral sources. The nearly 250 million tons of municipal waste produced poses a serious disposal problem for our society. Per capita generation of this waste is increasing as is the population concentrated in urban areas. Approximately 75 percent of this waste is being disposed of in open dumps, and only 6 percent of our 14,000 land disposal sites are being operated within recognized sanitary landfill standards. To compound the problem, land availability for disposal is becoming scarce. As outlined earlier, some municipalities are in the process of improving disposal practices by constructing systems of resource and energy recovery.

These municipalities, however, contribute only a minute percentage of our total urban waste production. We cannot ignore the other 250 metropolitan centers and the innumerable small communities in the United States which are not developing these systems, and hope that they will someday recognize the need for safe disposal practices. Not only should action be taken to initiate a program for safe disposal practices, but this program should be augmented by regulations governing the manufacture and distribution of products which can be harmful even if properly disposed. Safe disposal practices will not be a cure-all for the possible harmful effects of certain products, and we must not assume that they will be. Regulatory authority over products should be granted to safeguard the the effectiveness of the entire system.

Another of the hardships which the public must endure and which is directly attributable to waste is the cost of disposal. The people of the United States annually spend $4.5 billion for municipal collection and disposal of waste. This represents a substantial expenditure which reaps no benefits. The National Commission on Environmental

Cost would study the feasibility of establishing a system of national cost disposal charges on all products other than consumables. The cost of disposal should be included in the cost of the product, and should not be borne by the public at large. Numerous organizations and studies, including the National Commission on Materials Policy, have recommended that this be done. My bill would study the method for implementing and administering that recommendation, and would also study a method of internalizing the cost of pollution, another problem for which the public is forced to assume financial responsibility.

In addition to those economic burdens, much of the public must suffer inadequate legal representation in matters concerning the environment because of the prohibitive cost of that service. The Council on Environmental Representation would establish programs to assist eligible clients either directly through legal representation, or indirectly through grants for the purpose of securing legal representation. There is an urgent need in this country to effect the doctrine of equal justice under law, and in the struggle for environmental quality the interests and needs of low-income citizens should not be neglected. As in other areas of legal representation, the Congress should step forward and assume a role of leadership in providing legal assistance to those in need. No segment of our citizenry should be left out of important environmental decisions which will surely affect their lives.

Mr. Chairman, I believe the steps outlined in this statement represent a comprehensive approach to our national waste management problem. I urge the committee to give them their most serious consideration.

Mr. ROGERS. Thank you very much, Mr. Tiernan, for a very helpful statement. We certainly will go into these points.

Dr. Carter?

Mr. CARTER. Thank you. Mr. Chairman. Thank you, Governor. It's good to see you again. I see you quite often and you always make good statements. This is a good one.

In your testimony you state that the cost of disposal should be included in the cost of the product and should not be borne by the public at large.

Mr. TIERNAN. I think that is what we will eventually have to come to. Whether we can include that immediately in the legislation, I am not sure, but I think it is something the committee could possibly consider, and something which does require further study. I think that is something we will have to come to.

Mr. CARTER. I agree, it may require some study because there is some difficulty in it.

Would you apply this to automobiles, for instance?

Mr. TIERNAN. That is something which would have to be considered. Disposal represents a heavy cost to every taxpayer in the Nation. It is going to be more of a problem as we use up more of our land for development. The result will naturally mean less and less open fields such as I have in my district in the rural areas. In those areas, they just drop old automobiles out on any of the back lots and leave them there to rot for 10 or 15 years. But eventually we have to start putting a premium on product disposal, in this case the automobile. We have to consider how are we going to dispose of the product after it has outlived its usefulness.

Mr. CARTER. We have many hazards to health caused by these abandoned cars throughout the country. However, if we include the cost now, that would leave approximately 100 million cars which we have in use at the present time not covered. There are approximately that many cars in our country now. But in the future, it would be effective for the 10 million or so.

Mr. TIERNAN. I merely cite that as being another of the disposal problems. With the recent shortage of so many of our metals, the junk automobile has become a very important product. Cities and towns are finding the abandoned cars that used to be piled up in the municipal yars are being sought by many of the scrap dealers. It may be that is a potential plus for the junk automobile.

Mr. CARTER. Just last week, I received a communication from a rather large company asking that we embargo the exportation of these old car hulks. I must admit I replied to the gentleman who asked for the embargo to show good faith by going out into the countryside and getting some of these I would want good faith on the part of the company insofar as going out and reclaiming these junk cars.

Mr. TIERNAN. That might not be a bad idea.

I would want to add that I have cosponsored Mr. Rogers' bill because his bill covers areas which are not included in my bill, namely, nonhazardous wastes. I think this committee has done a great service by including that in H.R. 13176.

Mr. CARTER. I want to compliment the distinguished gentleman on his presentation.

Mr. ROGERS. Some of the aluminum can companies have paid a bonus for the return of cans. What you think of automobile companies having a requirement that they institute a program of returning old cars back to the dealer and perhaps being paid something because this dealer can get so much out of the scrap? In other words, instead of putting that responsibility on the public by putting a higher cost on the product, and, instead of putting the State in a taxing situation, why should not they pick up the practice as some of the aluminum people have done?

Mr. TIERMAN. That may be an idea to be considered by the committee. As I understand it, aluminum companies have a voluntary plan whereby they pay for the total amount accumulated. Whether the automobile industry should be required to adopt the same type of plan, I do not know.

Mr. CARTER. What would you consider to be a feasible amount for the return of an old car?

Mr. ROGERS. I think studies would have to be made.

Mr. CARTER. It does present problems, of course, as to older cars. If the car is already junked, it would be ipso facto, and even a fee of $10, if we put that into effect now with 100 million cars in use at the present time—would represent quite an amount.

Mr. TIERMAN. You have another problem involved here. I know when I was in college I purchased an old 1932 wooden-spoke Plymouth and drove it down here to Washington, then drove it back and got $50 for it because it was an antique. If I had kept it, it might be worth $500 now.

Mr. CARTER. Back in the hills of Kentucky, when I was 17 years old, another fellow and I bought a Model T for $30 and sold it back for $26. So we did not lose much.

Mr. ROGERS. Next we have a brief statement from our colleague from the State of California, Congressman Don Edwards. Please come forward, sir.

STATEMENT OF HON. DON EDWARDS, A REPRESENTATIVE IN CONGRESS FROM THE STATE OF CALIFORNIA

Mr. EDWARDS. Mr. Chairman, H.R. 13176 is an extremely important and necessary piece of legislation. Our Nation has traditionally been blessed with an abundance of raw materials and consumer goods. As a result, we are a generous but wasteful people. Throwaways, disposables, and conveniences are taken for granted and have become a part of our daily lives. However, we are now beginning to feel the consequences of these actions. Many essential materials like paper products are in short supply and heaps of waste and garbage threaten to bury us as places to dispose of them become increasingly scarce. We are learning that there really is not such thing as a throwaway or a disposable, and that these conveniences will come back to haunt us sooner rather than later. We must take action now to deal with this expanding problem.

The measure you are considering would establish a comprehensive system of waste management and resource recovery. It would require and encourage the recycling of waste materials, solving many disposal problems and easing shortages of some raw materials. It would make our resource system a closed, circular, and complete process, in which each part would take from and contribute to the next. In the long run it will save us time and money and energy.

Putting American ingenuity and thriftiness to work on the problems of resource recovery and waste management has already led to the discovery of many innovative solutions to our problems. We can create and harness energy from sewage. We can sort out and recover tens of millions of dollars worth of materials from abandoned cars. Many new jobs will be established as the recycling industry grows. Junkmen, garbage collectors, and sewage engineers will become important links in the cycle.

I urge the subcommittee to give this measure their favorable consideration and prompt action. I assure you that your efforts to pass effective and comprehensive legislation for waste management and resource recovery will receive my wholehearted support.

Mr. ROGERS. Thank you, Mr. Edwards, for taking time from your busy schedule to share your views with us today.

Mr. EDWARDS. Thank you, Mr. Chairman, for affording me the opportunity. It has been my pleasure.

Mr. ROGERS. Today we have quite a list of witnesses, the House is going in early, and it would be helpful if witnesses would file their statements for the record and summarize within 10 minutes. That way we will be able to hear everyone who wants to be heard.

Our next witness is Dr. Richard Lesher, president of the National Center for Resource Recovery, Washington, D.C.

STATEMENT OF DR. RICHARD L. LESHER, PRESIDENT, NATIONAL CENTER FOR RESOURCE RECOVERY

Dr. LESHER. Thank you very much. It is a pleasure to be here with you, and we are very pleased to have the opportunity to comment on the act.

As the name of our organization implies, our entire recovery mission is devoted to the advancement of resource recovery, and we are vitally interested in measures which would speed the achievement of resource recovery and recycling on a national basis.

Before commenting specifically on the bill, however, I would like to tell you a little about our organization, our assessment of the solid waste management practices currently, with special attention on important recent developments, and briefly state some predictions about developments of the next few years.

I feel this essential background is necessary in order to properly assess public policy needs. With your indulgence, we would like to illustrate this part of the testimony with slides; and again, our statement is somewhat longer than 10 minutes, but not a great deal longer.

As recently as a year ago, there was nearly universal doubt that resource recovery would ever become widespread, and while those attitudes are rapidly changing because of the rapid progress of recent months, there still exists a great deal of mythology and misinformation.

Incidentally, we use the terms "resource recovery" to include recycling of used materials back into the manufacture of similar or identical new materials, as well as to include the process of conversion into other resources. For example, processing ferrous scrap into new steel is an example of recycling, while conversion of contaminated organic matter into compost or fuel would be included in the term "resource recovery."

The National Center for Resource Recovery was formed in October of 1970. The Center had its origin in the early meetings of the National Industrial Pollution Control Council, which was formed by President Nixon to charge individual industries to identify and solve environmental problems faced by each industry. Air and water pollution were prime targets, and some very substantial progress was made by the actions of the various subcouncils. Solid waste, though, was a different, and in many more ways, a more difficult problem. Particularly with municipal trash and garbage. It was recognized that the multiplicity of problems went beyond the capability of any single entity of government or industry to solve. A multidisciplinary, multiteam approach is required.

By tradition, this waste has been the domain of the communities that generate it. But because of increasing volume, rising costs, and the environmental ill effects that result when waste is improperly handled, it was obvious that the cities needed help. Leaders in industry were convinced that they could assist with many of the management tools and technology so successfully demonstrated in our manufacturing, marketing, and distribution system. It was the intention to apply a systems approach to upgrade archaic waste management be-

cause it was realized that in our trash heaps are potential values that might be reclaimed for new and productive use. I might add that this assessment was made at a time before shortages of materials and fossil fuels were prevalent.

As a result, 12 industries and 2 unions formed the national center. There are now 17 industries and 3 unions represented on the board. The charge of this nonprofit research organization is to work with government organizations at all levels and with the private sector in seeking solutions to municipal solid waste management problems.

The first undertaking of the center, in the spring and summer of 1971, was a preliminary assessment of the state of the practice of solid waste management and the emerging technology, in order to identify national needs and services that the center might perform.

Municipal solid waste is an unbelievable mixture of the "leavings" of human activity. If you examine the municipal waste stream, you will find paper, glass, ferrous metals, food wastes, plastic wastes, rubber, demolition debris, nonferrous metals, and other miscellaneous materials. These wastes represent underutilized resources. If only there were some way to unscramble the egg and to extract clean fractions into usable raw materials.

In 1971, the vast majority of American cities were putting this material into open dumps where they pollute the air and the ground water, and constitute health hazards. Some 80 percent of our cities were practicing open dumping despite the fact that it was against the law in most States. Many of them are still doing the same thing. The single biggest solid waste challenge is to close the dumps. This single action not only would end the pollution associated with dumping, but it would force the city up the cost curve and the technology curve, and make resource recovery a much more competitive alternative.

It is our judgment that H.R. 13176 would provide effective mechanisms for accomplishing these objectives, and we therefore strongly support those provisions of the bill.

In 1971, some 300 large-scale municipal incinerators were in operation, and three-quarters of these could not meet air pollution standards. Worse yet, virtually all of them were wasting a very valuable energy source.

Overall, some 90 percent of our cities could not meet the then existing standard, and I fear that this number has not gone down as much as we had hoped.

But if we look back into history even further, we find that there have been some improvements.

Historically—and we sometimes forget this—man has dumped his wastes in the streets, and when mixed with manure, they sometimes caused epidemics. Nor is recycling new.

The difference was that 40 years ago when poverty was the rule of the day, handpicking the garbage dumps was a means to supplement family income rather than to achieve resource recovery and conservation. The Resource Recovery Act was passed in 1970, and its main purpose was to substitute capital for labor, to develop the technology which would recover resources on an economically competitive basis. In early 1971, there was only one near-total system in the entire country which was ready to come online: the Black Clawson System in Franklin, Ohio, utilizing a hydropulper to process solid waste. Black Clawson began operating in the summer of 1971.

Other systems were at the pilot stage of development. The U.S. Bureau of Mines was developing a system to process incinerator residue to retrieve metals and glass from incinerator ash. This system will be built full-scale to be operating in Lowell, Mass., in 1975, with funding from the Resource Recovery Act of 1970. Combustion Power Co. was in the early stages of development of a fluid bed unit to convert organic wastes into fuel gas. This system is now in the pilot stage.

Many companies were working with pyrolysis—incineration in the absence of oxygen—to convert organic waste into gas or oil. The Garrett Research and Development Corp., pilot plant will be scaled up to serve San Diego County and to produce oil from solid waste. And that should be operating in 1976, again with funding under a demonstration grant from EPA.

The Monsanto Co. has also advanced the state-of-the-art of pyrolysis and their system is currently being constructed—under an EPA grant—to provide salable steam and other byproducts to downtown Baltimore.

In Nashville, soon to be completed is a facility to process 700 tons of refuse per day in order to recover some materials and to provide marketable steam for heating and cooling in the downtown section. This facility does not have Federal funding.

Incidentally, trash and garbage have about 50 percent of the Btu value of coal.

In 1971, what has in our view turned out to be the most promising development, was in the procurement stage. This system came online in St. Louis in 1972. The city of St. Louis shreds municipal solid waste in this facility. After extracting the ferrous metals the organic materials are transported to the Union Electric Corp., where organic wastes are mixed with powdered coal and burned to produce electricity. I will return to this technical approach in a few moments because of its importance.

However, most of the work undertaken under the Resource Recovery Act of 1970, however, concentrated on the organic fraction of solid waste. That is, the work had started on the back end of the system and had left a gap in the front end.

In all of the emerging systems there was a need for front-end processing in order to recover the materials—paper, glass, and metals—which could be recycled back into new products. It was here that the center decided to focus its effort because the absence of a front-end materials processing recovery system was the single biggest barrier to the logical advancement of resource recovery.

It was also evident that the particular capabilities of the Center could be best utilized in this area to develop the technology, to develop the markets for these materials by securing long-term commitments from our supporting industries, and, by pulling this together into an attractive economic concept. The cities were broke—and they still are—making it necessary to highlight the profit motive in order to attract private capital to this field. It was clear, that a viable front-end system would permit cities to move forward in a modular approach and later add on whichever back-end turned out to make the most sense. The two could be developed in parallel, and in fact, they have. Selected members of the board of directors of the National Center have been the key to this process.

The National Center has devised the National Resource Recovery Network, a carefully planned and engineered demonstration program which will be a coordinated group of resource recovery facilities located in several cities in order to demonstrate and evaluate new technology; develop and sustain national markets for recovered materials; and, to help in the development of a new, self-supporting industrial activity for extracting valuable resources from what today are the waste products of our society.

In operation, mixed refuse will be shredded for size reduction with standard off the shelf equipment; an air classifier will then separate the light (organic) and heavy (inorganic) fractions; ferrous metals will be magnetically separated; small pieces of mixed glass will be screened out; high density heavy media tanks will be used to separate the larger pieces of glass and aluminum from the other nonferrous metals; the mixed aluminum and glass will then be separated electrostatically; and, finally, the remaining glass will be optically sorted into basic clear, green and amber components. The remaining organic fraction can be used as a fuel source.

The city of New Orleans, La., has been chosen as the lead city in the network. Under a 12-year agreement, a private waste management company will build and operate a multi-million dollar industrial type resource recovery facility. Member-companies of the NCRR will provide long-term contracts for the recovered materials. The city will provide the site and a disposal fee. The National Center will provide technical assistance in contractor selection and in the design, construction, and operation of the facility. In addition, the Center will provide $750,000 toward the capital cost on a loan/grant basis. The U.S. Environmental Protection Agency will provide research funds and the facility will be used as an equipment test and development site.

As has been pointed out, shredding is the first step in processing municipal solid waste. Shredding was being pioneered in only a few cities in 1970–71. Today, quite a few more cities have taken this first step.

At least 25 or 30 communities will be operating shredders in 1976–77. Each of these sites represent a potential for adding on processing and recovery units in a modular fashion. Because of this national development, and because of the need for additional tests and development of individual unit processes, the Center has also undertaken a comprehensive engineering test and evaluation program, which includes an operating air classifier.

The 10-ton-per-hour air classifier visibly demonstrates how shredded refuse can be separated into its basic organic and inorganic fractions. This is important because, after shredding and air classification, the two fractions can be further processed. The unit, completed in early 1973, traveled to six municipal refuse shredding facilities in the country to gather engineering and performance data on various separation processes to be incorporated in the system.

Under contract to the Office of Solid Waste Management in EPA, the National Center is carrying out research which is essential to this total process. In this work we are developing sampling and testing procedures and formulating specifications for materials recovered from municipal refuse. Materials included are folded newsprint, ferrous

metals, aluminum scrap, other nonferrous metals, glass cullet, inert fine materials and mixed organics for use as refuse derived fuel.

As you might suspect, quality control of these materials is a new and challenging endeavor but one which is essential if materials recycling is to take place on a national basis and in large volumes.

For the last few months of 1973, the air classifier was operated at the New Castle County solid waste facility outside of Wilmington, Del., where a number of other units of materials processing equipment were set up. That demonstration was supported by EPA, the U.S. Bureau of Mines, and several private companies in addition to the National Center. This equipment, plus additional units, will soon be demonstrated in Washington, D.C., and, when ready for public demonstration, we will be pleased to extend invitations to this committee to view the facility firsthand.

The Black Clawson system was the main focus of resource recovery in 1970–71. Although, in Houston and a few other places, composting systems had been tried and in most cases, they had failed.

Today, we have in operation several systems, the most promising of which, in our view, is the St. Louis project which substitutes garbage for coal. At a very minimum, at least 15 near-total systems will be in operation in the 1967–77 period, and perhaps as many as 25 or 30, or even more will be built with private capital, most will embrace both materials recovery and energy recovery. This dramatic forward movement of resource recovery will be the result of many factors, including development of statewide resource recovery programs such as are now underway in New York and Connecticut; the rapid growth, development and interest in resource recovery of the solid waste management industry; the resource recovery demonstration programs of EPA, the Bureau of Mines and private industry; the test and evaluation of technology; and rapidly changing attitudes and economics.

But the single most important factor as this committee is well aware, is the recent dramatic worldwide movement from an age of abundance to an age of scarcity. This movement is best illustrated by the current energy problems and a dramatic shift—that is, a doubling of prices of secondary materials. The price mechanism will be a strong force in reducing wastes. It will also cause substitution effects and it will encourage recovery of materials and energy. All of these forces combined have produced a surge in the interest exhibited by private enterprise in resource recovery. It would perhaps be quicker to subsidize scores of new systems, but probably not nearly so effective. It would appear that private market forces and private capital are moving to fill the void. This process, of course, can be enhanced and accelerated.

Careful planning and analysis can lead cities—large and small—toward optimal recovery programs. A model total system would include provision for source separation, transportation and recycling of waste paper, mechanical separation of metals and glass for recycling at a central facility and conversion of the contaminated organic fraction into energy. This model will represent a total system approach which will be employed by many cities in the near future.

Of the many feasible technical approaches to the conversion of organic matter into energy, the St. Louis-Union Electric approach of a direct substitution of shredded waste for coal, will probably be the

most widely replicated. The most important reason for this is that the capital plants already exist and only need to be modified to handle waste—rather than build total facilities.

SUMMARY, CONCLUSIONS, AND RECOMMENDATIONS

In summary, there appears to be widespread agreement in both the public and private sectors that resource recovery is a desirable national objective deserving of high priority and encouragement. Among the many benefits are reduction or elimination of the pollution aspects of disposal, conservation of virgin materials, conservation of energy which is two-fold, energy recovery from waste and energy savings in the process of manufacturing commodities from scrap as opposed to virgin materials, and this progress can be achieved with the private sector without placing an undue burden on public sector budgets at the Federal, State, or local level.

As a nation, our concern for resource conservation and our concern for preserving and enhancing our environment are rather recent. The problem of solid waste management was largely ignored for centuries and only in the past few years has there been an interest in converting from the disposal mode to the resource recovery approach.

However, a great forward thrust since the passage of the Resource Recovery Act in 1970 has not been evident. This is because rather modest amounts of money have been spent in research and development. Moreover, the research, development, test, and evaluation process requires a certain amount of time which cannot be arbitrarily reduced.

Fortunately, most of that is behind us and city managers and private operators will soon be able to choose from among several technically and economically viable options. Infusions of large amounts of additional R. & D. funds could have been redundant and would not have necessarily shortened this period of time.

Nevertheless, I would suggest that the Nation is now currently in a rapid transition from the age of disposal to the age of recovery, and progress is much swifter than most observers would have deemed possible a year or so ago. And, of course, this is the first such transition in all of recorded history. Further, there is substantial evidence to suggest that private enterprise and private capital are rushing into this new opportunity.

It would appear that the major provisions of H.R. 13176 are relevant, desirable, and would indeed accelerate this dramatic progress. More importantly, this bill would undoubtedly result in broader participation by all of the individual States much more evenly. Therefore, the NCRR enthusiastically supports the provisions of the bill pertaining to development of State waste management and resource recovery plans; provisions for establishment of Federal regulations concerning disposal of both "hazardous" and "nonhazardous" wastes; and Federal funding for State planning and implementation.

We also believe that adequate funding and staffing should be provided to EPA for carrying out these portions of the bill. We further suggest that adequate funding should be provided to EPA for strengthening and continuing vigorous programs in the following areas: (a) education and training; (b) information gathering, analysis, publi-

cation, and dissemination; (c) technical assistance; (d) technical and economic studies, research; and (e) demonstrations.

We recommend inclusion of a provision calling for EPA to investigate freight rates and to endeavor to assure that freight rates on secondary materials are not unduly discriminatory.

We recommend against inclusion of the provisions calling for new source performance standards with respect to waste generation sources. Not only would these provisions be exceedingly difficult and expensive to administer, they would be redundant and unnecessary if disposal practices are fully regulated.

In closing, I would just like to say that the entire effort of the National Center is devoted to the promulgation of the systems approach to resource recovery. We congratulate this distinguished committee for its intense interest in and support of this area of endeavor.

I thank you for the opportunity to appear before you and would be pleased to answer any questions.

Mr. ROGERS. Thank you very much, Dr. Lesher, for a very helpful statement.

Dr. Carter?

Mr. CARTER. I just want to compliment the gentleman on a very good statement. It is quite comprehensive and very good.

Mr. ROGERS. Mr. Hastings?

Mr. HASTINGS. I am sure the committee will take into consideration some of your suggestions.

Mr. ROGERS. Doctor, does the National Center for Resource Recovery receive any Federal funding?

Mr. LESHER. Yes, Mr. Chairman, we do.

Mr. ROGERS. To what degree?

Mr. LESHER. Over the period of the lifetime of the Center, it has been about 6 percent for specific contracts. Most of our financial support comes from labor and industry.

Mr. ROGERS. If you had additional Federal funding, would this funding be put to good use?

Mr. LESHER. We are pleased with the technology that has been developed and the educational process that is going on in conjunction with our demonstration activities. This is a modest level of effort and certainly it can be increased to great advantage.

Mr. ROGERS. You might let us have something for the record.

[The following statement was received for the record:]

FUNDING OF THE NATIONAL CENTER FOR RESOURCE RECOVERY

Mr. Chairman, it was recognized from the beginning that the multiplicity of problems of solid waste collection, disposal and management went beyond the capacity of government or industry to solve alone. That reasoning still stands.

But a start had to be made. Industry and labor, therefore, embarked on its own program, creating the National Center for Resource Recovery, with funding provided by labor and industry. In some of our efforts, the Environmental Protection Agency has come forward with encouragement and financial support. The National Center members will have paid in $5 million for the first four years (thru 1974) to get the Center in the so-called "garbage" business, focusing, as we have noted, on mixed municipal refuse. EPA has funded some studies and will contribute to the evaluation of the City of New Orleans project. This funding will amount to roughly $300,000 or 6 percent of the National Center's financial burden.

The New Orleans project is the first total front-end recovery system in the world and one of our major thrusts over the next few years will not only shepherd

the facility through its infancy but to seek replication of this kind of facility—coupled with energy recovery units where they make sense—in other U.S. communities.

I do believe that the federal government can fruitfully and effectively join forces with the National Center in certain aspects of our mutual interests. We are not speaking in terms of tremendous infusions of monies. I would suggest that funding to assist in replication of New Orleans-type facilities would speed the day when communities begin to move into the 20th century in solid waste management and disposal. And, we must not forget, in this time when we are in crisis country in the energy field, energy recovery.

The National Center can provide the leadership in engineering feasibility, marketing and management through an increased level of federal funding in various programs and services already underway, plus begin the search for even greater opportunities across the country. The National Center was established for the purpose of bringing together labor, industry and government into cooperative efforts, and has already moved to a point in research and development that New Orleans will soon be processing half that city's municipal wastes in a modern, cost-effective facility; the District of Columbia is embarking with the National Center on a test and evaluation facility at D. C. incinerator No. 1; and the Center's transportable demonstration program is visiting key locales to display and demonstrate the feasibility of moving from the old concept of throwing things away (while polluting and wasting) to modern methods to dispose and recover.

Mr. CARTER. Mr. Chairman, may I ask one question?

Mr. ROGERS. Certainly.

Mr. CARTER. How is the city of Nashville obtaining its funding?

Dr. LESHER. The Nashville program is funded by tax-exempt pollution control bonds for the capital plant and the revenues from the sale of steam and other byproducts will be used to partially offset total costs. A similar formula with variations will be carried out in many cities. For example, in our process in New Orleans, the city is currently spending about $12 a ton to operate antiquated systems. Under the plan, the city will derive approximately 50 percent of that and additional revenue will go to the operator from the sale of the byproducts of the system. Eventually, you will get away from the dumping charge which is a subsidy of sorts. The dumping charge will eventually be driven down to zero.

Mr. ROGERS. Thank you. We are grateful to you for your testimony today.

Dr. LESHER. Thank you.

Mr. ROGERS. Our next witness is Mr. William Farnam, chairman, Advisory Group on Solid Waste Management, National Commission on Productivity.

We are glad to have you present here this morning, Mr. Farnam.

STATEMENT OF WILLIAM F. FARNAM, PUBLIC WORKS DIRECTOR, INGLEWOOD, CALIF., AND CHAIRMAN, THE ADVISORY GROUP ON PRODUCTIVITY IN SOLID WASTE MANAGEMENT, THE NATIONAL COMMISSION ON PRODUCTIVITY; ACCOMPANIED BY GEORGE H. KUPER, DIRECTOR, PUBLIC SECTOR PROGRAMS

Mr. FARNAM. Mr. Chairman, gentlemen, good morning. My name is William F. Farnam. I am the public works director, Inglewood, Calif., and also the chairman, the advisory group on productivity in solid waste management of the National Commission on Productivity.

I will be brief and at your request will not read my statement to you but I would like to submit it for your consideration.

Mr. ROGERS. It will be made a part of the record [see p. 228]. But I want you to cover your testimony fully.

Mr. FARNAM. Thank you. I would also like to give to your committee an advance copy of our report on "Opportunities for Improving Productivity in Solid Waste Collection" [see p. 230].

Mr. ROGERS. That will be helpful, and thank you.

Mr. FARNAM. We have heard about resource recovery today and I think it is vital that we establish a national policy on resource recovery. I doubt that any of us feel it is not an imperative. However, I would like to say the front-end of the system: refuse collection, is where the major costs are to be found. This is where we need to really improve. Our advisory group on productivity has members of the public, public works directors, city managers. We have had people from private agencies in refuse collection. We have had people from education. Our general conclusion is that some people are doing a fine job of collecting refuse and others are doing a wretched job.

Some jurisdictions still have as many as five men on the refuse collection vehicle. We have perhaps the highest industrial accident rate in collection. This is totally inexcusable.

It need not be that way. Some localities have been able to make progress in cost reduction, safety, and worker morale. I do not see how we can do a good job in the complicated task of resource recovery until we start doing a good job in the simple collection of refuse. That is why I urge you to consider the productivity concept as you have in your bill. I would just like to give you a few brief examples of why this is important.

In my community, Inglewood, Calif., I developed a one-man refuse collection system some years ago. The good part about this is that the young men who are working in this system like it. It is a job of working smarter. That is what productivity is all about. The very fact that this country has the benefits that we do that cause us to be as great as we are is because of our productivity, our ability to work smarter.

Mr. ROGERS. What do you generally pay these people?

Mr. FARNAM. About the same going rate as is paid throughout the United States. It is a little bit higher than it was at first when we went from two men to a one-man collection. And it is not a dead-end job. Traditionally, five-man garbage crews are where the men who cannot do anything else must go.

The role of our advisory group has been to identify the best systems, the best methodologies. Those are the systems that ought to be considered by solid waste managers throughout the country. Once they are identified we must set about letting other people know about it, because it is all well and good to have a good system but if nobody else knows about it, it does not help. Once we have identified what the best systems are, then we must get the message out. There are many vested interests in the community. There may be a labor union or even management itself that does not want to change. Then quite often there is the politician who is wary of change, because change is risky and he does not know whether he wants to get into it.

I think this is where we need a Federal imperative to get the message out. The experience of a few says we can get the job done.

The city manager of West Palm Beach, Fla., sent some of his people to Inglewood, Calif., to look into our one-man refuse system. He did

not send himself or the mayor. He sent some of his garbage men. He felt he should send the man on the lowest level, the man actually doing the work. They could work with our system and see how they would like it and could work effectively in it.

The result was when the men went back to West Palm Beach, they actually assisted the manager in reducing crew size from three men to two because they had seen the value of it for themselves. I do not know if they ultimately plan to use just one man or not.

These are the kinds of techniques included in productivity. We managers think we need the Federal Government to assist in getting the message out and to enable coordination with the States and local communities. After all, the cities have the responsibility of actually managing the solid waste system. The inclusion of productivity in your proposed legislation is one of the ways to establish productivity as a mutual goal for all who are interested in problems of solid waste management. We can have all the technology in the world, all the money in the world to carry the plan through, but if solid waste collection is not managed with productivity as a goal we cannot possibly be expected to do a good job of resource recovery and solid waste disposal.

Thank you.

[Testimony resumes on p. 237.]

[Mr. Farnam's prepared statement follows:]

STATEMENT OF WILLIAM F. FARNAM, PUBLIC WORKS DIRECTOR, INGLEWOOD, CALIF., AND CHAIRMAN, THE ADVISORY GROUP ON PRODUCTIVITY IN SOLID WASTE MANAGEMENT OF THE NATIONAL COMMISSION ON PRODUCTIVITY

Since sanitation represents the third largest municipal expenditure, exceeded only by education and law enforcement, I am happy to see that the Federal government is taking an active role in assuring that these resources are efficiently and effectively consumed. In 1971 local solid waste management in the U.S.—both public and private—cost over $3 billion, an increase of 58% from 1967. The industry employs approximately 225,000 people. The collection function at one accounts for 80% of the solid waste costs and three-quarters of the employees. So, while solid waste collection is not a politically sensitive issue like sanitary landfills and resource recovery, which have and should continue to evoke a national concern, we should at the least, adopt as a national goal the provision of collection services at the lowest cost possible within the existing technologies and known "best practices" without sacrificing quality. Improving the productivity of those resources with which we currently provide this service is one way to attain this goal and to internalize increased disposal costs.

I believe there is a potential for improving the productivity of our solid waste systems in many American communities for two reasons. First, based on a study by The Urban Institute for The National Commission on Productivity, there are significant variations between jurisdictions in the cost and performance of collection operations—in one case a variation of 500%. Variables for housing density, topography, climate, population, etc. can account for some of these differences, but not all of them. As an example, two cities, 30 miles apart, with similar service levels, demographic and climatic conditions, collected respectively 334 tons per man-year and 908 tons. The more productive of these two cities picked up 88 tons per $1000 expended while the other only 35 tons per $1000. Similarly, a comparison of five jurisdictions within one major metropolitan area, indicated that the monthly cost per household of twice-a-week back yard pickup ranged from $2.70 to $5.45. Furthermore, the most expensive operation was public while a private concern operating next door charged only $3.60. These variations indicate clearly that some solid waste operations are vastly more productive than others.

Secondly, I know that productivity improvements are possible because I have achieved them in my department in Inglewood, California.

In national terms, a 20 percent readily attainable 1 year productivity improvement in residential solid waste collection alone would represent significant gains. The National Commission on Productivity's Advisory Group on Solid Waste has

estimated that such an improvement could produce close to $200 million annually in savings or better service.

As personnel compensation accounts for 70% of the residential collection costs, approximately $980 million per year, it is incumbent upon solid waste managers to maximize the utilization of these human resources. Jurisdictions around the country can realize substantial savings by redesigning their collection routes to reflect population movements thereby equalizing crew workloads and precluding the need to pay overtime to especially burdened teams, while others sit idle.

Additionally, the research of EPA's Office of Solid Waste Management Programs has proven that effective collection services can be provided by three-men trucks for back-yard pickup and two-men trucks for curb-alley. Many communities still support five-men crews. In Inglewood, we have converted completely to one-man trucks, which, while special equipment is required at an initial capital investment, the savings in salaries, reduced accidents, and higher employee morale—which improves productivity by itself—has more than paid for the new trucks. There are currently 18 other jurisdictions around the country, with which I am familiar, that are in varying stages of adopting the one-man garbage truck. Such crew reductions must be undertaken in close cooperation with labor and effected solely by attrition and transfer to other municipal functions.

In Inglewood, I was able to convert to the one-man truck, by initiating a career development program which includes training of the high school graduates, who enter public service as garbage collectors, for other skilled municipal jobs and encouraging them to move to other departments after three years of service. The program has provided a cadre of young, ambitious, employees who operate quickly, safely and with pride in their work and equipment. Slowly, but at last, other jurisdictions are realizing the importance and rewards, to both employees and management, of incentive programs that can improve the reputed drudgery of garbage collection.

Already many jurisdictions have realized productivity improvements by replacing unwieldy commercial steel drums with lighter containers which conserve the worker's energy and speed up collection. For residential collections many jurisdictions advocate the use of plastic bags instead of trash cans which eliminates the second motion of returning the can to its place and reduces the trash inadvertently dropped during transfer to the truck. In this case the worker becomes more effective as well as efficient if management accounts for the changeover to bags by rerouting crews commensurate with their increased potential.

In addition to maximizing the utilization of human resources, some solid waste managers have accrued substantial savings through improved vehicle maintenance—both preventative and repair. In New York City, 36 percent, not unusual amongst jurisdictions, of all sanitation vehicles were in the repair shop on any one day. As a result, the fleet grew to unnecessary proportions, just so that demand could be met. Through establishment of city-wide repair standards, approximating the flat-rate manual standards; decentralization of five repair shops; and better inventory control and work scheduling, vehicle downtime has been reduced to 7%.

As you can see, better methods for collecting solid waste do exist as do technological advances. Why, then, do we need a national policy to insure their use? Because the innovative approaches are currently applied by only a small fraction of the solid waste operation in this country. There are, in my opinion, 3 reasons why their adoption has not been more widespread. First, many managers are not aware that these "best practices" exist. The communications network amongst local jurisdictions does not insure the dissemination of this information. I feel that the proposed bill could overcome this obstacle by creating a central repository for information in one place within the state and by requiring the state coordinator to disseminate all new developments to the managers in his area. Secondly, many sanitation departments do not have the analytic capability to diagnose the problems in their system and to develop the solutions. Again, I feel that the proposed bill can alleviate this situation by making available to the jurisdictions such analytical expertise. Thirdly, unless the system is grossly ineffective and generates numerous complaints, there is little incentive for managers to change their way of doing things and even less incentive for the elected officials and chief administrative officers to encourage the department head to improve his operation. Several examples of regional competition between service delivery organizations have been proven as an effective stimulus to voluntarily improving productivity. Perhaps these state depart-

ments could collect efficiency and effectiveness data from local jurisdictions for the purposes of establishing an informal, healthy competition between communities.

Society has determined that solid waste removal is a public responsibility—even if the service is contracted to a private firm. Society is also demanding that municipal taxes not consume an increased proportion of their income. If solid waste managers are to provide effective services during a period of rising costs within the financial constraints imposed on all public administrators, they will have no choice but to improve the productivity of their existing resources. I am pleased to endorse the Federal Government's effort to help us meet these demands.

If it would aid the deliberations of this committee, I would refer you to some of the work done by the National Commission on Productivity in the field of solid waste management. The Urban Institute work mentioned earlier was prepared for the Commission in 1972 and is contained in the report: *The Challenge of Productivity Diversity: Part II Measuring Solid Waste Collection Productivity*, available from the National Technical Information Service. Subsequent to that effort, an Advisory Group in Solid Waste Management, of which I am the Chairman, was formed by the Commission. The report of our group is presently being printed and is now only available in page proof form. When it is available we intend a distribution to 15,000 solid waste managers across the nation. We will also be distributing a "Brief for Elected Officials" that is intended to get legislators and councilmen raising productivity related questions of their solid waste managers.

In our experience, there is no question of the need for productivity in the management of public services. It is important, however, that the drive for productivity improvement be tempered with common sense, good judgment, and an understanding of how it is to be accomplished. The legislation you are considering here today provides local managers with the opportunity and the ability to bring about the improvements we all seek. I offer my congratulations and thanks for your attention and help in establishing a rational framework for this country's solid waste managers to demonstrate their full capability.

[The report referred to follows:]

IMPROVING PRODUCTIVITY IN SOLID WASTE COLLECTION

A BRIEF FOR ELECTED OFFICIALS

(The National Commission on Productivity)

The contents of this pamphlet are based on the findings and recommendations of the National Commission on Productivity's Advisory Group on Solid Waste Management, a panel of management, labor, government, and academic experts in the sanitation field.

More extensive treatment of the subject may be found in the Advisory Group's report, *Opportunities for Improving Productivity in Solid Waste Collection.*[1] The report may be obtained by writing to:

National Commission on Productivity, 1750 K Street NW., Washington, D.C. 20006.

WHY BE CONCERNED?

There are four reasons why elected officials should be concerned with improving the productivity of solid waste collection.

1. It has been proved an almost certain way to have money or limit cost increases.

2. It can improve service quality and cut complaints.

3. Better collection productivity will build the management muscle needed to handle the really tough solid waste problems: disposal, resource recovery, and energy conversion.

4. Trash collection has been measured and hence is a good place to start; that also makes it a prime target of press and citizen efficiency probes.

This pamphlet is designed to help elected officials assess the productivity of trash and garbage collection and get started toward improvement.

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[1] The full report may be found in the committee's files.

Productivity simply means getting more and higher quality services for the money you are spending. It might also mean actually saving money *without cutting back on service.*

With today's high rate of inflation, improving productivity could help to keep costs from rising while continuing to provide the same level of service—and that alone can be a significant accomplishment.

People are slowly beginning to realize that they may be paying far more than they need to for public services. The easiest way to see this is to compare costs with other jurisdictions.

A recent survey for the National Commission on Productivity revealed differences in collection performances of more than 500 percent. In one example of two cities similar in size, density, and topography, rough indicators show that one sanitation department collected 88 tons of trash for every $1,000 spent, while the other collected only 35 tons for every $1,000. The former was picking up 908 tons of waste per man-year while the latter managed only 334 tons per man-year.

Such discrepancies in performance show up in the cost to the government, and in turn to the taxpayer.

Cost comparison of 13 collection operations in one major metropolitan area showed wide ranging differences. Take the examples shown in Chart 1 of five neighboring jurisdictions which provide essentially the same service—twice-a-week pickup—from the backyard (as opposed to the front curb or back alley):

CHART 1 [see full report]

Cost of Twice-A-Week Backyard Pickup for Five Jurisdictions in the Same Metropolitan Area

The chart demonstrates that the same service in the same metropolitan area may cost twice as much in one jurisdiction as in another. And public managers will be quick to note that private collection does not necessarily mean more efficient service.

Even more startling is the fact that in some cases higher levels of service actually cost less than a lower level of service. For example, one city picks up the trash three times a week from the backyard for $2.66 per month for each household. A county in the same metropolitan area picks up only once a week, and from the front curb—so that residents have to carry the containers to the curb themselves—at a cost of $3.60 per month for each household, or 35 percent more costly than its neighboring jurisdiction's higher level of service.

Many officials will respond to these figures by pointing out differences in housing density, climate, topography, or even differences in definition or accounting methods. And it is true that some of the cost difference can be explained by such factors.

But bear in mind that some of the most striking differences occur in communities which are very much alike, and may even be neighbors with almost identical characteristics. Besides, experience has shown that there is great potential for improving productivity in virtually any collection system, and large increases in those that are lagging behind.

THE POTENTIAL: $200 MILLION ANNUALLY

Experts believe that for the United States as a whole improved collection productivity could mean $200 million per year in direct savings, forestalled cost increases, expanded service, improved service quality, or higher benefits to employees.

This translates into savings of 15 to 20 percent for each collection operation.

Some examples:

The 14 members of the Southeastern Oakland County Incinerator Authority in Michigan reduced average collection costs by 16 percent within a six-month period without reducing service levels.

Little Rock, Arkansas, is saving $200,000 annually from changes suggested by technical advice costing the city $18,000.

East Peoria, Illinois, expects to save $64,000 a year as a return on $10,255 spent on technical help.

Huntington Woods, Michigan, saves 28 percent in collection costs through a combination of recruiting and moving from two-man to one-man collection crews.

River Rouge, Michigan, cut annual costs by 58 percent through labor savings realized by switching to lighter storage containers.

Such examples are representative a numerous other improvements across the country. The potential for other communities is equally great. Cursory observation reveals a multitude of obvious easy-to-solve problems in both public and private collection systems.

Some localities still use 55-gallon steel drums for stashing the trash. One city has 800,000 such drums; in each complete round of collections sanitation workers heave more than 30 million pounds of drums along with the refuse, and then put the 30 million pounds back. This is difficult and enervating work.

In other communities collectors stick to routes that have grown up haphazardly as the community has expanded.

Old or poorly maintained equipment cuts into efficiency. Out-of-date trucks aren't as well designed and don't hold as much. Vehicle downtime may be excessive. One large northern city tolerates having one out of five of its fleet vehicles in the shop on a working day. Actually, that's a big improvement over the situation of two years ago, when, on some days, more than half their trucks were out of service.

Many towns and cities have larger collection crews than they need.

In some communities collection franchises and contract perpetuity reward higher cost operations and penalize the taxpayers by precluding competition among firms.

Why do such conditions persist?

Why Are Some Communities Lagging?

Elected officials are usually so pressed with handling one crisis after another that they seldom have time to really manage the government. And yet in many communities no improvements will be made unless they take the initiative.

Refuse collection costs each householder very little. So long as his trash is picked up regularly, collection usually does not become a critical issue. And because it isn't a big public issue, elected officials tend to turn their attention to more pressing problems.

When, for example, is the last time you took a serious look at collection operations? Do you know, in any detail, what the various elements of collection cost? Perhaps since the system last came under your scrutiny, population shifts have occurred, pick-up tonnages have changed, or routes have become imbalanced.

Do you know how your system compares with those of other jurisdictions in cost, in level of service?

Without pressure from elected officials, sanitation systems managers tend to play it safe rather than take a chance with making improvements. Most genuinely believe they are doing the best job possible, and therefore see no reason to change.

High capital costs of new equipment, and the risks attendant upon its introduction, influence them to stick to the tried-and-true.

The long-term funding required for planning and orderly replacement of equipment is not often available to solid waste managers.

And solid waste operations are subject to various pressures of politics, vested interests, racial tensions and other urban problems.

All these things contribute to a passive stance in solid waste management.

The elected official holds the key to productivity improvment. He must learn how the costs of his operation compare with those of other like communities. He must assure himself that his solid waste manager knows the latest developments in the field. And he must provide a climate for constructive change.

The elected official, if he is to judge the performance of his solid waste collection system, must himself have a rudimentary understanding of how the system works and where the key problems are likely to be found.

The Key Questions

Certain key questions, will, if answered, provide the information by which you can improve the productivity of your community's waste collection system.

1. Have routes been designed to minimize wasted time?

Portland, Maine, redesigned collection routes while moving from a once-every-two-weeks pickup of dry refuse only to a weekly collection of combined trash and garbage. Even with the higher level of service, and with operations extended to households not before served, Portland saved $23,000 a year over previous costs and improvement costs.

There are three rules-of-thumb to efficient routing:

(a) Routes should be situated so as to minimize travel between collection districts and disposal site. In addition, proper scheduling of trips can reduce time lost from trucks lining up at the disposal site waiting to dump.

(b) Collection routes should be balanced and crew districts divided, so that workloads are equalized and are based on a "fair day's work." This requires analysis of the workday, distances traveled, housing density, topography, climate, and volume and weight collected. Routes and scheduling should be designed to cut the non-collection time of truck and crew to a minimum, and to avoid the situation in which one crew finishes early while another is paid overtime to finish its route.

(c) Collection routes should be designed to assure the most economical path of the crew—the shortest way to cover all pickup points. Routes may have grown up haphazardly, and are no longer economically designed. Others fail to take into account such factors as which streets are heavily traveled during rush hour. Some simple routing techniques can significantly reduce unnecessary travel time.

2. How many workers are there in a pickup crew, including the driver?

Reducing the size of collection crews—if properly done—can be an effective way to improve productivity. Crews larger than three men for backyard pickup, and two men for curb-alley collection should be questioned.

Some jurisdictions still are not aware that one-man truck crews have proved successful for curb alley service in dramatically cutting costs while improving the morale of labor. Through common sense rerouting and replacing two-man with one-man trucks, several cities, including Inglewood, California, and Huntington Woods, Michigan, have saved up to 28 percent in collection costs, while maintaining the same level of service.

Reduced crew size can substantially increase productivity. Operators tend to be better paid and less likely to be injured. Many collection injuries occur when one man is in the way while another throws a switch.

Crew size must take other factors into account including the level of service, the type of mechanical pickup vehicles in use, the climate and topography of the jurisdiction, and the degree of physical exertion required of the collectors.

3. Is labor looked upon as part of the problem or part of the solution.

Solid waste collection is a labor-intensive activity. But the NCOP Advisory Group concluded that most of what appeared to be labor problems are basically managerial problems.

Labor's cooperation is necessary if changes to increase productivity are to be successfully implemented. In order to gain this cooperation management should be concerned with the problems and needs of labor, and workers should be included in designing and introducing changes in the collection system.

Collection workers are an invaluable source of ideas for improving productivity. A truck crew, for example, can be a gold mine of information about balancing routes or reducing delay.

CHART 2 [see full report]

Managers will still manage, certainly, and the chief responsibility for improving performance falls squarely on their shoulders. But they should recognize that workers who have a hand in reshaping operations are more likely to take an interest in the success of those operations.

A combination of clear employee accountability and improved job satisfaction leads to better performance. Productivity—especially as measured by quality of service—depends to a great extent on the interest and motivation of the worker. New York City's productivity program has cut missed collections from ten percent to virtually zero. Management changes, such as lighter containers or disposable bags, can make the sanitation employee's round easier. Other changes can make his job—now one of the most injury-ridden of all occupations—safer.

Some departments have career ladders that allow the workers to move up to more responsible jobs within the city government.

Labor resistance to many innovations understandably reflects the fear of loss of jobs. But Inglewood, California, made the switch to one-man crews without firing any collectors. Reductions were made through normal attrition and transfer of workers to other positions within the city work force. Collectors regarded the change as an improvement in the quality of their job. They are now paid better and like their jobs better.

A good time to make changes in crew size is with the expansion of service or a change in equipment. The number of men on a crew clearly must be related to the type of equipment in use and the actual difficulty of the job.

Solid waste managers who take concrete steps to improve working conditions and to solicit employee participation in improvement may find that these efforts yield big dividends. Changes should make the job easier, safer, or provide opportunity for advancement.

Field trips for rank-and-file workers as well as managers can be eye-openers. West Palm Beach, Florida, sent several crewmen to Inglewood, California, to observe the single-man crew system. The collectors, skeptical at first, actually operated the Inglewood trucks. They came away convinced that the system would work for West Palm Beach.

4. Do the storage containers help or hinder collection productivity?

Manual lifting of large and heavy containers can retard productivity. Proper containers save the worker's energy, speed up collection, and can lead to reduction in crew size.

By replacing unwieldy 55-gallon steel drums with lighter containers. River Rouge, Michigan, gained annual savings in collection operations of 58 percent.

Larger, heavier containers can be used when the collection vehicle has a mechanical lift as at Scottsdale, Arizona. Curiously, Scottsdale encountered objections when two families shared a container, since one family could see what the other was throwing away. The system was accepted, however, when three or four families used the same disposal container. This commingling of rubbish preserved the privacy of one family's trash.

Disposable bags ease the burden of collectors, and they also contribute to employee safety. Their introduction could also facilitate a transition from backyard to curbside collection in your community, if such a change proved desirable.

5. Is vehicle downtime excessive?

A vehicle that is not out on the street is obviously not productive. The greater the downtime, the more trucks that need to be purchased if crews are not to stand idle or be compelled to work overtime. However you cut it—high maintenance costs, excessive capital expenditures for trucks, or additional labor costs—vehicle downtime means added cost.

There are four major reasons for excessive vehicle downtime: poor vehicle performance, aging vehicles, lack of regular maintenance, and inadequate management of repair operations.

The high risks associated with the purchase of expensive capital equipment can be minimized through establishment of performance standards and product evaluation. Good information of this type is not easy to come by. Your solid waste manager will have to seek it out through professional and public service organizations. Though few reliable performance standards have been developed, quality differences in vehicles should be recognized by managers. In making his selections, your manager should be aware of the trade-offs between initial costs and vehicle life, performance specifications and personnel requirements.

Vehicle life should be taken into account. Because of hard usage, sanitation vehicles have a useful life of approximately five years. Their orderly replacement must be planned and budgeted for.

Refuse collection trucks get tough and constant use. Regular preventive maintenance programs are a must, if these trucks are to be kept in service.

Your investigation of your system's vehicle maintenance operations should take into account such things as repair site, parts inventory, scheduling of work, and performance standards. The mechanic who performs this essential work must be made to feel a part of the operation, neither a second-class citizen nor a prima donna. If your repair shop is government-operated, time and cost standards for work performed should compare favorably with those of private shops.

By reorganizing its repair sites, improving its inventory processing, adjusting the scheduling of work on vehicles, and setting performance standards akin to flat rate standards used in private industry, New York City, has reduced sanitation vehicle downtime from 36 percent to 8 percent.

What Can Elected Officials Do?

There are some practical steps you can take to ensure that productivity improvements are made.

A large part of the productivity problem is that many system managers don't really know how good or bad their operations are. They lack the most basic information that would tell them how well or poorly they are doing.

Elected officials should require their solid waste managers, perhaps with the assistance of the city manager or the budget director, to provide the following information:

Tons collected per crew collection hour; households served per crew collection hour; costs per ton collected; costs per stop; number of people served per truck per week.

These are five basic productivity performance measures. Table 1 shows the best known performance of other systems for the same measures. When your manager has compiled the information for your collection operation, you can compare your service with that provided in other communities throughout the country.

You can easily expand this chart to make room for entering information from some of your neighboring cities and towns, should you wish to compare performances on a local basis. If the figures you get back seriously deviate from the national best-known performances, you'll know you have problems that need investigation.

You should see to it that your solid waste operation has an effective cost accounting or management information system that will provide the data needed to spot problems and inefficiencies and take corrective action. Without such a system managers cannot compare performance from one period to another, nor can they satisfactorily compare the efficiency of their operations with that of other communities. In establishing such an accounting or information system, the solid waste manager may need from your budget director.

Ask your manager the key questions listed above. Attention to those areas can provide the opening wedge for actually doing something about improving the collection system. Can satisfactory answers be provided?

TABLE 1.—BEST KNOWN PRODUCTIVITY PERFORMANCE IN RESIDENTIAL SOLID WASTE COLLECTION SYSTEM

[For 3 levels of service]

Level of service [1] and crew size	Productivity performance measure				
	Per ton collected	Per stop	Tons collected per crew collection hour	Households serviced per crew collection hour	Number of people served per truck per week
Curb or alley, once-a-week:					
1 man	$8.44	$0.19	2.2	100.9	7,763
2 men	11.82	.22	2.1	109.6	7,517
3 men	10.34	.38	3.8	99.2	7,060
Curb or alley, twice-a-week:					
1 man	12.71	.38	1.3	88.5	3,636
3 men	13.65	.45	3.0	199.5	6,316
Backyard, once-a-week: 2 men	18.00	.31	1.2	71.7	5,130

[1] Determined by point of collection and frequency of collection.

You should be sure that your collection manager is up to date in his field and aware of the many advances being made. He should be a member of relevant professional associations, subscribe to magazines and journals in the field, attend important meetings, seminars and conventions, and travel to observe other systems at work. The elected official should assure that the opportunities for keeping up to date are available, and that they benefit the collection operation.

Cooperation and the sharing of information with neighboring jurisdictions can help improve productivity. Fourteen communities in Southeastern Oakland County, Michigan, exchanged operational information and developed a friendly competition. In a six-month period, savings in collection costs averaged 16 percent for the participating communities. Contracts with private operators were negotiated at lower figures as a result of the experience.

Technical assistance from outside your government may be required. Many managers need the help of systems analysts to undertake a detailed study of their collection operations. If such help is not available from within the government, it should be sought elsewhere. Information, technical assistance, and training can be provided by many state agencies and municipal leagues, academic sources, professional associations or private consultant firms. The Office of Solid Waste Management Programs in the Environmental Protection Agency; the National Solid Waste Management Association; Public Technology Incorporated; the National Safety Council; the American Public Works Association; and your state's land grant university are a few such organizations.

In cases where collection is performed by private contractors you, or whoever negotiates and monitors the contracts, should ask the same questions of the contractor that you would direct to a public system manager.

Finally, it is up to you to provide the kind of climate that encourages productivity improvement. That means raising the incentives for the manager and employees to improve productivity, and reducing the risk to them if a well planned, well executed effort does not turn out exactly as predicted.

Collection is just one part of the solid waste management system, but it is a good place to start energetically improving the overall system. Not only can it produce immediate results, but, by building the managerial ability here, you will also be preparing directly for the more difficult problems of disposal, resource recovery, and energy conversion that already confront state and local governments. If your management can't handle the collection problems you can expect continuing trouble with the bigger ones.

MEMBERS OF THE ADVISORY GROUP ON PRODUCTIVITY IN SOLID WASTE DISPOSAL

William F. Farnam, Chairman, Public Works Director, Inglewood, Calif.

Professor Stanley M. Altman, Program for Urban and Policy Sciences, State University of New York at Stony Brook.

Donald Borut, Director, Management Development Center, International City Association.

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Samuel Hale, Jr., Assistant Administrator for Solid Waste Management Programs, Environmental Protection Agency.

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John J. Lamerato, General Manager, Southeastern Oakland County Water and Incinerator Authorities, Berkley, Mich.

Phillip B. Rooney, Vice President/Operations, Waste Management, Inc., Oak Brook, Ill.

Professor John R. Russell, Harvard Business School.

Richard Simmons, City Manager, West Palm Beach, Fla.

Donald S. Wasserman, Assistant to the President for Collective Bargaining Services, American Federation of State, County and Municipal Employees.

NATIONAL COMMISSION ON PRODUCTIVITY

Chairman, John T. Dunlop, Director, Cost of Living Council.

I. W. Abel, President, United Steelworkers of America.

Roy Ash, Director, Office of Management and Budget.

Peter J. Brennan, Secretary of Labor.

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Berkeley Burrell, President, National Business League.

Edward W. Carter, Chairman of the Board, Broadway-Hale Stores.

William T. Coleman, Jr., Dilworth, Paxson, Kalish, Levy and Coleman.

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Frederick Dent, Secretary of Commerce.

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Paul Hall, President, Seafarers' International Union of North America.

Lane Kirkland, Secretary-Treasurer, American Federation of Labor and Congress of Industrial Organizations.

Virginia Knauer, Special Assistant to the President for Consumer Affairs.

William Kuhfuss, President, American Farm Bureau.

R. Heath Larry, Vice Chairman of the Board, United States Steel Corp.

Edward H. Levi, President, University of Chicago.

John H. Lyons, President, International Association of Bridge, Structural and Ornamental Iron Workers.

George Meany, President, American Federation of Labor and Congress of Industrial Organizations.

Arjay Miller, Dean, Graduate School of Business, Stanford University.
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John Scott, Master of the National Grange.
George P. Shultz, Secretary of the Treasnry.
Herbert Stein, Chairman, Council of Economic Advisers.
M. Peter Venema, Chairman of the Board, Universal Oil Products Co.
W. Allen Wallis, Chancellor, University of Rochester.
Leonard Woodcock, President, International Union, United Automobile, Aerospace and Agricultural Implement Workers of America.
Walter B. Wriston, Chairman, First National City Bank.
Executive Director, John M. Stewart.

Mr. ROGERS. Thank you very much.

Mr. Carter?

Mr. CARTER. I want to compliment the gentleman on his presentation. I want to say I believe he knows from the bottom up how it is done. It is always good to hear from someone who knows how the collection system works. We have had innumerable philosophers with Ph. D.'s who have great theories about it but not many men who actually know how the system works. This man does.

Thank you.

Mr. ROGERS. Thank you.

Mr. Hastings?

Mr. HASTINGS. No questions.

Mr. ROGERS. Would you like to identify your associate?

Mr. KUPER. I am George Kuper, Director of Public Sector Programs of the National Commission on Productivity.

Mr. ROGERS. Thank you, Mr. Farnam, do you think it would be helpful to have research done in collection areas?

Mr. FARNAM. Research should be done and certainly there can be better equipment, but I think our main message today, at least from our point of view, is a need to consider good management. Other than good physical equipment, it is people who make it work, after all.

Mr. ROGERS. Thank you very much. We are very happy to have you here.

[Testimony resumes on p. 241.]

[The following questions and answers were received for the record:]

QUESTIONS SUBMITTED BY CHAIRMAN ROGERS AND ANSWERS OF NATIONAL COMMISSION ON PRODUCTIVITY

Question 1. Why should the Federal Government concern itself with the productivity of a locality's solid waste collection system? If the locality chooses to retain a less efficient collection system shouldn't it have the right to do so?

Answer. The Federal Government has a responsibility to conserve our national resources. The historical growth in costs (58% increase in municipal solid waste handling costs between 1967–71) and the projected increase in local government employment (an average annual incremental increase of 450,000 employees per year through 1985) make is imperative that we develop alternative methods to satisfy demand for services without over burdening a finite supply of our resources of men and capital.

The glamorous discussion is solid waste management concerns waste of basic materials through our disposal systems. I am also concerned and feel that the federal government must become concerned about the equally important waste in the cost of collecting those materials. That cost makes up 80% of total solid waste expenditures today! If we can't even collect solid waste efficiently how can we be expected to process it economically?

To date only a few local governments have demonstrated a concerned effort to achieve the improvements that are readily attainable. The Federal government can play a unique role in facilitating the transfer of information between jurisdictions and provide the priority for attention necessary for local govern-

ments to take action. A closely coordinated effort at the state level could assume a similar function.

If a community chooses to retain a less efficient collection system, that choice should be a conscious decision made with the knowledge of the direct and indirect costs associated with that inefficiency. Most citizens expect that their taxes are supporting municipal services that are being provided at the lowest cost possible. The citizens' desire to minimize their tax burden makes one believe that they would expect their systems to improve to the level of the known best practices.

Question 2: How much would it cost the Federal government to provide technical assistance directly to local governments to improve productivity of collection systems? How much would it cost for the Federal government to train State personnel to provide such assistance to local governments? How much does it cost to gather the necessary dat to analyze ways in which productivity can be enchanced?

Answer: Much of the data used in analyzing the opportunities for productivity improvement in local jurisdictions is already collected but not coordinated in a fashion so as to be meaningful. Where it is not presently collected, the data can be easily obtained. The local need, therefore, is more in the area of analytic talent to use the data and make the recommendations for improvement.

The cost of providing sufficient technical assistance to meet the potential demand for analytical capability will vary depending upon the size, density and age of system and equipment of the communities being served. A good formula derived from private industry, however, is something in the neighborhood of 1% of gross sales spent in cost cutting, productivity improving type activity such as industrial engineering. Using gross numbers from our study, that would be 1% of the total estimated cost of residential collection—$2.8 billion—or $28 million that we should be willing to spend to improve collection productivity locally.

The benefits of this exercise are projected by our study to be in the area of $200 million nationwide during the first year. It is safe to say that very little of that $28 million is now being spent by local governments for the purpose of bringing about productivity improvements. The Federal government should not be expected to shoulder this entire burden as the benefits accrue to the local governments in the form of increased service capability and lower cost.

The EPA has had experience in training local administrators in the necessary techniques and would be in a better position to provide the estimates you desire. However, it is important that the EPA role or other Federal involvement be in the form of helping local governments do the analysis and improvement themselves—not in doing the work for them. Productivity improvement is a routine task requiring constant attention over a long period of time.

Question 3: How do the costs discussed in number two compare to projected saving resulting from productivity improvements? In what way, if any, can productivity improvements reduce consumption of gasoline?

Answer: The Advisory Group on Productivity in Solid Waste Management estimated a $200 million annual savings would result from a 20% productivity improvement in solid waste collection alone, which accounts for 80% of the total solid waste cost. Of the communities which have effected improvements already, which are only a small number, many have realized savings in excess of 20% of their collection costs.

Where a capital investment is made in expectation of a productivity improvement in return, the savings have repaid the costs of implementation. It is not uncommon to realize 20–30% savings with less than a 5–10% first time capital cost.

Consumption of gasoline can be reduced by rerouting of collection vehicels so that:

1. There is minimal, if any, backtracking of trucks on their routes.
2. Routes start at the closest place to the vehicle storage garage.
3. Routes finish at the point closest to the disposal site or transfer station.

As many cities have not rerouted their vehicles for many years, disregarding population movements and changes in disposal sites, it is likely that significant energy savings could be achieved through better vehicle routing.

Energy could be saved by developing logical disposal and transfer sites.

Improved vehicle maintenance programs which afford significant productivity improvements would also achieve energy savings.

Question 4: Who should bear the costs of providing the technical assistance for productivity improvements—the Federal taxpayer? The State or local taxpayer? Persons receiving collection services? Should the Federal government's costs for providing technical assistance be recoverable from the State and local governments which have achieved productivity improvements?

Answer: The Federal government should be responsible for studying and eliminating inter-organizational constraints which impede productivity improvement.

It would also be appropriate for the Federal government to partially subsidize research and development of improved technologies and methods which would apply to numerous jurisdictions, crossing state boundaries, and which could not be afforded by individual communities. However, there will always have to be provisions for local modification during adaptation.

The difficulty with recovering improvement costs is two-fold: 1) recovering a portion of the dollar savings from local jurisdictions would also remove a part of the incentive necessary to get the improvements we need; and 2) many times the improvements are difficult to recover such as increased employee benefits and improved quality of service.

More importantly, the aim is to establish an attitude and understanding of productivity improvement which establishes it as one of the goals of public administration. If the federal government's initial efforts are successful in accomplishing this change in attitude, local governments will more readily assume the burden of improvement costs as well as initiative.

Question 5: Who should benefit from productivity improvements? In what form should this benefit be provided?

Answer: The employees, management and constituents will all benefit from productivity improvements.

The worker will benefit by having a safer job and perhaps by sharing in the resulting savings. Employee development programs can be initiated so that he is no longer in a dead-end position and can obtain training for other skilled municipal positions. Through development of program goals and work standards he will know exactly what is expected of him and, based on previous experience, he will eagerly meet these standards, if management does its job properly. Too often productivity improvement is viewed as threatening to job security because of the lack of adequate measures by management. The improvements discussed are all possible without layoff, but require management to take advantage of attrition, overtime and other factors of production such as vehicle maintenance, etc.

Management will know precisely how the system is working and where the problem areas are. They can achieve significant cost reductions and increased employee morale. They can meet the demands to provide the desired service levels at a time when costs are rising faster than tax revenues. It will provide them the financial wherewithal and management capabilities to attack the problems of resource recovery.

The consumer must receive an effective collection service at costs he can afford.

Question 6: Should sanitation workers receive shorter hours or higher pay? Should there be a tax reduction or reduction in collection charges? Should there be improved or more frequent services?

Answer: As a result of productivity improvements employees may work shorter hours or receive higher pay. At the present time their average pay is commensurate with national standards for similar work. If the operation is optimally staffed and still the work can be done in less than 8 hours, then the employees should be allowed to work shorter hours.

If productivity improvements generate annual savings that are not needed to further compensate the employees or to further improve the system, then a reduction in collection charges or taxes might be considered. It is more likely that the benefit from productivity will be realized in the form of less tax or charge increase in the future. Solid waste is just one portion of the municipal system that is supported by taxes. Perhaps the productivity savings should be utilized to improve other municipal functions and services that need an infusion of resources.

Productivity analysis includes an evaluation of the service delivery levels desired by the public. Previous analysis has demonstrated that in the solid waste collection area, service levels are frequently higher than what the public really considers sufficient and have remained this way through habit more than any-

thing else. Through a limited community sales effort, costly and oftimes unnecessary traditions such as separate garbage collection, back-yard pickup, and 3 times a week collection can be eliminated at considerable savings to the operation. However, it is essential that the benefits of a decreased level of service at least partially accrue to whoever is paying the indirect cost of the lower quality service (e.g. the householder who has to carry his garbage cans to a pickup point) are that such changes in service not be called productivity improvement unless those indirect costs are accounted for.

Question 7. Do the answers to the questions in number six depend on which of the national goals is deemed to be most important—reduction of cost? protection of public health? relaxation of the local tax burden?

Answer. Certainly if our national policy is to be reduction of costs or relaxation of the tax burden without consideration of constituent desires then we would not re-invest the resulting productivity savings back into the municipal system but would instead return it to the taxpayer.

If, however, our national policy is to be responsive to the demands of our constituencies such as protection of public health, environmental programs, energy conservation programs, then we can very effectively support the expansion of these programs through the productivity savings, without increasing the tax burden to the community.

Question 8. Who should answer the questions in number six—the Federal government? States? local governments?

Answer. Local government can best answer the questions raised in number six because they know best the needs of their communities and because they ought to know best the strengths and weaknesses of their operation. They should, however, be encouraged to achieve and maintain the most efficient operation possible.

Question 9. If a State or local government fails to implement productivity improvements, should the Federal government be authorized to require such improvements?

No!

Answer. As long as society mandates the Federal government to insure the efficient and effective consumption of our national resources, local governments must be informed of the need to implement those productivity improvements which will produce this effective and efficient consumption.

Question 10. Who suffers when productivity improvements are implemented?

(a) Does the sanitation worker suffer greater psychological and physical stress?

(b) Does he suffer increased risk of serious accident?

(c) Do a substantial number of workers face risk of layoff or unemployment? (If so, shouldn't the costs of welfare or unemployment compensation be weighed in figuring the costs and benefits of productivity improvements?

(d) Does the sanitation worker suffer reduced job satisfaction?

(e) Do productivity improvements result in a reduced pool of available jobs for the unskilled, unemployed?

(f) Does the average homeowner suffer reduction of services?

Answer: (a) If the worker suffers then it is not a productivity improvement. He is working smarter, not necessarily harder. The improved system should relieve psychological and physical stress which will automatically optimize the worker's production. The fear of change is the most dangerous side effect to the worker, and can be avoided if the worker is included in the development of the improvement.

(b) There is much evidence to support the fact that improved systems, equipment and training will reduce the risk of serious accidents while productivity is simultaneously increased.

(c) Local government for too long has been considered the employer of last resort and the task of collecting garbage the job of last resort. Removing this job from the rolls of welfare employment will show greater professionalism and pride of work on the part of employees. It will also provide a truer cost of welfare to society.

Management must provide employment for all the sanitation workers and assure the workers of this before any changes are made. Adequate reductions in the workforce can be effected through attrition and re-training, which will actually increase the morale of the employees as they see the opportunity for advancement.

(d) Job satisfaction will be increased as the employee perceives himself as an integral part of the system which he has helped to improve. The opportunities for advancement through retraining and job mobility will further motivate him and enhance his job satisfaction.

(e) As the unskilled sanitation worker is trained and moves on to other skilled municipal jobs it really creates a pool of jobs for unskilled workers. For the worker's own welfare and safety he must be trained.

(f) The objective of productivity improvement is to provide the services desired by the taxpayer at a reasonable price for the services rendered. Any reduction in service should result only from the citizens' desire to eliminate it.

Our next witness is W. Clayton Stephens, Jr., president, Energy System Division, Wheelabrator-Frye, Inc., of New York.

We see you have with you an old friend of the committee, who worked with the EPA and did liaison work. His performance was outstanding and he was most helpful in that position. So we welcome him back again, John Clark.

STATEMENT OF W. CLAYTON STEPHENS, JR., PRESIDENT, ENERGY SYSTEM DIVISION, WHEELABRATOR-FRYE, INC., ACCOMPANIED BY JOHN W. CLARK, DIRECTOR, GOVERNMENT RELATIONS

Mr. STEPHENS. Mr. Chairman and members of the subcommittee, it is a pleasure to appear before you today to discuss the proposed bill, H.R. 13176, and again commend the subcommittee for its ongoing leadership in protecting the public health and our natural environment.

Wheelabrator-Frye, Inc., is an environmental services company. In 1973, we had sales in excess of $257 million and have over 3,000 engineering, technical, and support personnel. Our subsidiary, Rust Engineering, is one of the largest engineering design firms in the country. Just last month, our Pittsburgh-based Air Pollution Control Division received the largest single air pollution control order ever placed—$55 million for Wheelabrator-Lurgi electrostatic precipitator systems.

As a company, we are committed to the resource recovery business and to the maximum utilization of both the energy and raw materials value of refuse. We are the U.S. licensee of Von Roll, a leading Swiss engineering firm which now has 88 refuse-energy systems in operation—many for more than 10 years—with an additional 50 such systems under construction around the world.

Both Europe and Japan encountered the problems of refuse disposal and high-cost energy before the United States and have responded by developing refuse-to-energy systems that are highly reliable energy producers and environmentally clean. In addition, since the oil crisis, orders and interest in Von Roll systems abroad have accelerated.

Currently, Wheelabrator has under construction a 1,200-ton per day (440,000-tons per year) refuse-energy system at Saugus, Mass. This plant, which represents a capital cost of approximately $30 million, will be operational in July 1975. It is based on the system design of Von Roll and will convert the municipal refuse of up to 18 adjacent north shore communities (approximately 500,000 people) to clean energy. This clean energy (in the form of 2 billion pounds of steam annually) will be sold to the General Electric Lynn River Works in Lynn, Mass., and will save General Electric the equivalent of 73,000

gallons a day of low sulfur fuel oil. The process will recover the ferrous metals from the refuse as well, and produces a high quality sterile ash suitable for roadfill or sanitary landfill.

At present, we are involved in discussions with a number of major cities on bids for resource recovery projects where we would design, construct, operate, and finance similar refuse-energy systems. These projects would be undertaken on a guaranteed performance basis. In addition, Rust Engineering has a contract with the cities of Minneapolis-St. Paul for the development of an advanced pyrolysis system to process refuse and sewage sludge, and to reclaim usable materials.

Many of us have been exposed to some of the staggering statistics regarding the potential of garbage; for example, that the roughly 200 million tons of municipal refuse collected annually in the United States equates in energy value to almost 300 million barrels of fuel oil; or that if energy recovery were practiced in all major urban areas, the quantity of energy generated would be equivalent to about 1.5 percent of the Nation's total energy consumption. However, it is still surprising to many people to learn that the technology to recovery energy from refuse has been well demonstrated for years throughout the world and is now processing over 10 million tons of refuse annually, or to learn that Frankfurt, Germany, produces 7 percent of its electrical energy from such refuse-energy systems.

The economic factor which led Europe to recognize the energy potential of solid waste early are changing in the United States and are beginning to resemble the situation existing for many years abroad. Solid waste is a plentiful energy resource, and uniquely, it is generated in the areas where fuel is in the greatest demand. Energy is currently the most valuable component of refuse, but energy recovery techniques include materials recovery, as well. In fact, refuse can be considered a type of ore containing numerous resources in addition to energy. The degree to which these resources can be recovered economically depends on their value, the available markets, and the most of recovery.

Solid waste is clearly a huge, untapped resource. There does not seem to be any argument that we must make a concerted effort to utilize it. The key question really is, not are we going to utilize it, but when and how.

Wheelabrator-Frye has some strong convictions about these questions that are very relevant to the committee's consideration of solid waste legislation. We believe that:

1. The effort must be undertaken now, particularly in the major urban areas that have tremendous quantities of waste, high disposal costs, dumps that should be closed, and tremendous needs for additional energy. Technology is available for these systems, and by acting now, a substantial increase in capital cost from inflation will be avoided.

2. That projects must be based on proven, reliable technology. There is no room for major projects that are essentially experiments.

3. That projects must be developed on sound economics with the value recovered maximized, and projects evaluated on the lowest total disposal cost over an extended period, not such yardsticks as initial cost only.

4. That private industry must play a critical role in the solution to the solid waste problem. That a systems, service contract approach by private industry will be the key to effective solutions. This will require

the development of a partnership approach between private industry and State and local governments. Communities will benefit from this partnership by improved service and lower total cost over the long term.

5. That communities must improve their ability to plan and organize waste disposal activities; to engage in regional cooperation; to minimize local political constraints; to move decisively to utilize solutions offered by the private sector and to, in some cases, change the way they contract with private industry.

6. The Federal Government must provide legislation that reduces institutional barriers at the local levels; that sets clear policy and objectives; that provides strong requirements and/or incentives to sound waste management practices—particularly energy recovery; and that drastically reduces the availability of hazardous dumping sites.

The solid waste problem presents some rare opportunities to the cities of the United States. Over the next 5–10 years, they cannot only take major steps toward solving the disposal problem and gain substantial needed resources, but can do it by using modern advanced management techniques in a way that will assure communities permanent solutions at the lowest cost over the long term. This can be done by the effective utilization of private industry's demonstrated willingness to build, operate and finance solid waste systems. Solutions must draw on the technological capabilities, operating techniques and capital of the private sector.

In parts of the United States there are waste disposal facilities built by communities in the last 5 years and financed by general obligation bonds. Some of the facilities which are still new, either never worked properly from the start, or could meet only the barest air pollution codes of the time and must be closed under more stringent laws, or cost so much to operate that they will be closed as soon as some other alternative is available.

These facilities were generally built by the lowest bidder who had no responsibility to operate the plant after start-up and were contracted for on a multiple contract basis rather than a systems, single source responsibility basis. Thus, the towns did not know who to blame when things went wrong. The operating cost problems of some of these facilities emphasizes the need to base decisions on total costs (capital plus operating) since the operating costs over the expected life of the plant are substantially larger than the initial cost. We estimate that it will take at least $10 billion in capital cost to build resource recovery plants in the United States that will meet the estimated requirements. Over the operating life of these plants a minimum of $20 to $25 billion will be needed to operate and maintain them.

In order to insure effective solutions, responsible companies must step forward with reliable, proven systems that they are willing to stand behind. By means of private ownership and operation, communities will be assured that they will receive efficient, dependable service since companies will not risk investment capital on unproven experimental systems that they must operate over the long term. It will also result in a lower total disposal cost over the long term to the towns, since they will benefit from the development of new and im-

proved systems and operating techniques resulting from continuing research and development by industry.

We were able to commit to ownership and operation risks over a 20-year period at the Saugus plant because of our association with Von Roll and because of what we have learned from them about building and operating plants around the world. We know our system is going to work well and efficiently.

If this private ownership operation concept is encouraged in legislation and built into the guidelines administered by the Environmental Protection Agency, the United States will take a major step toward solving our waste problems and local communities will benefit from the best service at the lowest cost as well as developing significant property tax revenues and new employment opportunities.

Within the context of our general recommendations in this area, we would like to offer the following specific comments on H.R. 13176.

A potential short-term difficulty with the State waste management and resource recovery plan mechanism established in the legislation is that, upon enactment, many communities that have made or are now making actual commitments to such systems may feel compelled to suspend such efforts—pending EPA promulgation of guidelines and subsequent approval of plans pursuant to the guidelines. This could have the effect of delaying by 2 years—or more—many recovery systems that are now either committeed to or being finalized failing the clarification of congressional intent for such communities. This clarification would enhance the substantial progress already underway in resource recovery and, in many instances, provide a strong base upon which to build the State plans. There are some cities and States that have taken impressive steps toward solving the problem. Certainly the proposed legislation should in no way impede their progress. Rather, it should encourage it.

The national objectives enumerated in section 217(a)(3) seem comprehensive and sufficiently specific to provide firm guidance to Federal, State, and local solid waste administrators. However, the legislation should be more explicit that none of the objectives are to take precedence over the others but are all to be considered equally. It is especially important that the objective mandating "flexibility and responsiveness to differing local conditions and needs" not be subordinated.

Section 217(b)(2) should expand the State permit requirement in the plan submitted to EPA (subsection C) to provide for a consolidation of the myriad of local permits often required of resource recovery systems in the State agency administering the plan (for example, the one-stop shopping concept). However, the design standards seemingly mandated for such systems should be deleted in that such standards too specifically drawn could hamper local innovation and the upgrading of existing facilities as technology develops. General performance standards for the systems would be preferable with the liability for ongoing compliance with such standards clearly established.

Section 218 requires the Administrator to promulgate "standards of performance for new sources (of waste)." While Wheelabrator-Frye claims no real expertise in the generation of waste—but rather in its control—such standards may well be unduly disruptive to critical

manufacturing operations and the need for them obviated by the concerted national resource recovery effort the legislation will require.

Section 225 is a firm mandate that the Federal Establishment employ resource recovery in its vast disposal operations. As the Nation's largest single consumer, a comprehensive energy and materials recovery program in our Federal facilities could be a pacesetter and model for the overall national effort. If enacted, EPA and the Congress should be vigilant that any exemptions from such a program be thoroughly justified and scrutinized on an ongoing basis.

Sections 234 and 235 require various studies in this area that should be useful to EPA's regulatory activities and future congressional deliberations. It is important these studies be adequately funded and staffed to enable their timely submission to the Congress without having to forgo the broadest possible public participation in their preparation.

Section 236 authorizes State program grants for the implementation and enforcement of the act's requirements under sections 217–219. Unquestionably, such grants to the States are not unreasonable given the substantially increased requirements to be placed upon them. A further comment about grants would be to commend H.R. 13176's continued funding of section 208 demonstration program that provides a vehicle for bringing promising technological innovations to the attention of numerous decisionmakers. While Whcelabrator-Frye fully expects the private sector to perform the basic research and development of needed technology in this area, the demonstration grant program serves a useful function that should be continued in an expanded resource recovery effort.

The statutory creation of an Office of Technical Assistance within EPA may or may not be needed, but it would appear that EPA's current technical assistance activities and personnel would have to be significantly expanded to satisfy the act's many obligations. The EPA Office of Solid Waste Management provides a firm base upon which to build this expanded program and should be commended for its technical assistance efforts.

We strongly endorse H.R. 13176 subject only to the concerns discussed above. It would provide the firm, comprehensive base required for a concerted national energy and materials recovery effort. Clearly, all wastes are potentially hazardous and a Federal program limited solely to the control of toxic refuse, as the administration proposes, is too little, too late. Further, it would do little to halt the profligacy of current disposal methods which the country can no longer afford.

Mr. Chairman, that concludes our comments. Any questions you might have will be welcome.

Mr. ROGERS. Thank you very much, Mr. Stephens, for your statement.

Dr. Carter?

Mr. CARTER. It seems to me that you represent quite a company. You have plants in operation throughout the world?

Mr. STEPHENS. There are 88 plants in operation and another 50 under construction. Those are plants built and designed by Von Roll of Switzerland.

Mr. CARTER. You are associated with Von Roll?

Mr. STEPHENS. That is right. The plant being built in Boston is their design and they are cooperating with the construction and operation. We are estimating it will be able to handle 1,200 tons per day. It has a nameplate rated capacity of 1,500 tons. This installation would handle communities of roughly a half million people.

Mr. CARTER. What is the cost?

Mr. STEPHENS. At the present time, $13 is the disposal charge.

Mr. CARTER. What is the cost of the installation?

Mr. STEPHENS. $30 million, approximately.

Mr. CARTER. How do they plan to pay you for this?

Mr. STEPHENS. They would pay a disposal charge based on the amount of refuse being brought to the plant.

Mr. CARTER. On that basis, you go ahead and build this installation?

Mr. STEPHENS. On that basis and from the revenues derived from the sale of energy to General Electric of the total required to amortize the plant investment; to pay operating costs, and return on investments, the General Electric portion would represent a significant portion.

Mr. CARTER. Thank you, Mr. Chairman.

Mr. ROGERS. Mr. Hastings?

Mr. HASTINGS. Thank you, Mr. Chairman. The overall question we are going to be considering is as to the proper role of the Federal, State, and local municipalities. What is your position as to what the Federal role should be in this whole question?

Mr. STEPHENS. Our company's feeling is that the State and the local communities themselves have got to be the ones that develop the plan for the aggregation of raw materials and develop the regional cooperation necessary as well as to deal with such local problems as permits.

The role of the Federal Government should be to accelerate this process by legislation; setting forth the requirements and providing technical assistance to the States which would in turn provide encouragement to get the wheels rolling. It is a local problem which has to be dealt with within the lines of local directives. I think all the encouragement the Federal Government can give to States and cities would be very helpful.

Mr. HASTINGS. Do you think EPA should be given the authority to totally administer this program?

Mr. STEPHENS. No. I think they should set general guidelines.

Mr. HASTINGS. EPA would be just another means of providing more information?

Mr. STEPHENS. I see the Federal Government's role as more of an umbrella. I think the way it is developing in a few States now, it tends to be this.

Some of the cities and States that are making impressive progress, have recognized that there is a role for the State and local governmental bodies and there is also a role for private industry. They do not want to repeat some of the disasters of waste disposal facilities that I referred to in my comments. We also know that private industry is willing to commit capital to these plants. It is willing to operate them over a long period of time, willing ot guarantee and operate on a contract service basis.

The State and local governments are the implementation mechanisms that organize and plan and draw everything together. If pri-

vate industry maintains the role of doing what they do best, I think the solutions will be there and 5 or 10 years from now we will have a very effective system in the United States.

Mr. HASTINGS. Obviously, your system has to be based upon economics. I am a little concerned. I know you probably operate economically in the larger cities, but what about the rural areas? How would you suggest the Federal Government approach that problem? I would suspect that free enterprise is not going to be attracted to those areas.

Mr. STEPHENS. We are currently working on small modular systems for this market. Our cutoff now is for towns of 100,000 people, the ones who have the highest disposal costs, the scarce land, and all the other problems. But looking down the road a bit, these problems are going to be faced by smaller towns. We are looking at small modular systems that could be used in towns of 10,000 to 15,000 people.

Mr. HASTINGS. 10,000 or 15,000 does not relate to rural. Dr. Carter and I could help you out with that. We have all kinds of land but some of these proposals simply do not apply. I am trying to search for answers to that question. Regionalization is something, of course, that makes a great deal of sense. There are political barriers though were "home rule" frequently stands in the way.

Mr. STEPHENS. There is some progress being made but in regionalization there is assumed some degree of geographic closeness. It is similar to towns in the Boston area which we are working with.

I would think that the answer to those rural areas would be a combination of small modular systems, sensible regionalization, and judicious use of landfill.

Mr. HASTINGS. Would you be concerned over one set of national standards that would have to apply equally to all sections of the country?

Mr. STEPHENS. I would be, yes.

Mr. HASTINGS. So would I.

Mr. STEPHENS. It was one of the points made in our statement. However, the legislation is structured and it has to contain flexibility for local counties.

Mr. HASTINGS. I have no more questions.

Mr. ROGERS. Thank you very much for being here. The testimony is most encouraging.

Mr. Preyer?

Mr. PREYER. You speak of solid waste, not just as a disposal problem but as a potential huge untapped resource.

Mr. STEPHENS. That is right.

Mr. PREYER. I wonder if we have any figures as to how huge this resource is? You mentioned Frankfurt, Germany, as using waste to generate 7 percent of its electricity.

Mr. STEPHENS. Yes.

Mr. PREYER. If your system was established in cities of over 100,000, how much energy would be generated for their needs?

Mr. STEPHENS. As an example, if 200 million tons of refuse were converted, it would equate to almost 300 million barrels of fuel oil. This is one of the kinds of statistics that are available.

Mr. PREYER. These are things available right now?

Mr. STEPHENS. Absolutely. In this book, in the back, there are figures that we submitted to the committee which equate even into mega-

wattage and the percentage of total U.S. electrical product. These are most impressive statistics.

Mr. PREYER. Fine.

Thank you, Mr. Chairman.

Mr. ROGERS. Should we mandate a State plan?

Mr. STEPHENS. I would say yes.

Mr. ROGERS. Thank you very much. We are grateful for your presentation. I have some additional questions I would appreciate your answering. They are in written form.

Thank you.

[The following questions and answers were received for the record:]

QUESTIONS SUBMITTED BY CHAIRMAN ROGERS AND ANSWERS OF WHEELABRATOR-FRYE, INC.

Question No. 1. Please discuss in greater detail the advantages to a city of a privately owned and operated recovery system.

Answer: The principal advantages are:

(1) A private company would contract on a guaranteed performance basis and invest it's own capital in the project. This will ensure that the commuuity has a system which will work properly over the long term.

(2) The community should benefit from lower disposal costs over the long term due to the produetivity and efficiency of private Industry.

(3) No capital to invest or operating requirements.

(4) Property tax revenues and new employment opportunities generated by the facility.

(5) Facilitates multiple use of the waste processing plant by a number of communities. This increases ecouomies of scale.

Question No. 2. Would Federal loan guarantees to cities for the construction of recovery plants be helpful to this effort? If so, how would they be structured? Would such guarantees be preferable to construction grants?

Answer: It does not seem that this is necessary since private industry has demonstrated its willingness to invest the capital required to finance the projects. In this manner the most efficient use of capital will be realized.

Question No. 3. Your system in Massachusetts provides energy from the refuse to a manufacturing plant—not an electrical utility. Who are the principal customers of these refuse/energy systems in Europe and the Far East: large users (like the GE Plant), utilities, whom?

Answer: Utilities are the customers of these plants in a number of cases; also district heating systems for apartments, hospitals, universities, etc. and energy for industrial plants, i.e. pulp and paper, heavy manufacturing.

Question No. 4. What type of air pollution control problems, if any, are associated with your system? How is it controlled at your Massachusetts plant?

Answer: We utilize two Wheelabrator/Lurgi electrostatic precipitators in a system where the gases are cooled before passing through the precipitators. These precipitators are designed to meet all applicable emission codes as required at Federal and State level.

Question No. 5. Describe your advanced pyrolysis system in Minneapolis-St. Paul. What is its cost? What does it produce from the sludge and refuse?

Answer: Our contract is to develop the scope and engineering of a pyrolysis system which would process sewage sludge and refuse at the rate of 250 tons solid waste and 100 tons sewage sludge a day. The pyrolysis process will produce a gas which will serve as a fuel and it will also produce activated carbon which will be used in the Minneapolis-St. Paul wastewater treatment plant. I believe the value of the demonstration plant phase is approximately $10 million. It will also reclaim ferrous metals and aluminum.

Mr. ROGERS. Our next witness is Mr. Eugene J. Wingerter, executive director, National Solid Waste Management Association.

STATEMENT OF EUGENE J. WINGERTER, EXECUTIVE DIRECTOR, NATIONAL SOLID WASTES MANAGEMENT ASSOCIATION; ACCOMPANIED BY JAMES GRECO, TECHNICAL DIRECTOR; AND WILLIAM BRASHARES, COUNSEL

Mr. WINGERTER. It is a pleasure to be here.

Mr. ROGERS. Will you identify your associates.

Mr. WINGERTER. The technical director is James Ricco; and the association counsel is William Brashares.

My name is Eugene J. Wingerter. I am the executive director of the National Solid Wastes Management Association in Washington, D.C. As the national association for the private waste management industry, we are vitally interested in the program proposed through the Comprehensive Waste Management and Resource Recovery Act (H.R. 13176) under consideration by the House Interstate and Foreign Commerce Committee, Subcommittee on Public Health. My purpose in appearing before you today is to present our comments on this proposed legislation and recommendations that, we believe, will further the goals of this program.

The private waste management industry has played a major role in meeting the needs of this important public service function. A recent survey by the U.S. Environmental Protection Agency has determined that the private waste service industry handles three-quarters of the Nation's wastes including 50 percent of the residential refuse and over 93 percent of the commercial and industrial wastes. In fulfilling this public service responsibility, the industry has made an extensive commitment to automated equipment and new technology for improving the productivity and quality of the collection, processing, and disposal of approximately 700,000 tons of wastes each day. The commitment by this industry is based on a rapidly expanding government-industry partnership in which hundreds of communities are utilizing, under contract or through franchise, the resources and capabilities of this service industry.

One of the prime incentives for this industry commitment has been the direct effort of the U.S. Environmental Protection Agency, Office of Solid Waste Management Programs. Under the legislative framework and programs of the Resource Recovery Act of 1970, an extensive initiative was undertaken by the OSWMP to improve communications and coordination throughout the entire solid waste management field, both the public and private sector. As a result, today there is an increased awareness of the crucial problems in solid waste management and policies to be set by State and local governments, as well as, opportunities for industry in achieving the goals of not only improving solid waste management but also strengthening the commitment to resource recovery and energy conservation.

The improvement of the State and local governmental decisionmaking process in this field is a current, imperative need. Secondly, the removal of historic and archaic institutional barriers which impede the application of new technology and more efficient methods of waste processing and disposal is a prerequisite to a national commitment to resource and energy recovery. In general, we believe that H.R. 13176 is responsive to the legislative requirements for overcoming these exist-

ing barriers to improvements in solid waste management systems and also as to the initiation of resource recovery programs.

I would like to offer specific recommendations on various sections of the proposal.

FEDERAL AND STATE ROLES

Section 217 delineates the roles of the EPA, State, and local governments in planning of State programs for solid waste management and resource recovery. The role of EPA in providing guidelines for State plans and programs is essential. Many solid waste planning efforts to date have entailed merely a compilation of data on existing services without defining a course of action for the expansion and improvement of these services. Thus, we recommend the guidelines stress the importance of addressing implementation of these plans. While placing primary responsibility for planning on the local government will ultimately lead to improved local programs and services, it is essential that States have more than a coordinating role in this program.

Institutional and jurisdictional barriers in solid waste management are predominately at the local level of government. Unless States are empowered to establish and enforce programs that encompass a broader spectrum of needs than those prevailing at the local level, a highly fragmented approach to solid waste management will continue.

We do believe that the States' responsibility should be the overall administration and coordination of local and regional solid waste plans that comprise the State plan and the uniform enforcement of State standards and regulations. Thus we recommend that section 217 (p. 4, lines 17–18) be revised to require that State plans provide for the coordination of a State waste management and resource recovery system rather than the actual operation of such systems.

COMPLETED LANDFILL SITES

Section 217(2)(g) requires States to establish plans for bringing existing and abandoned land disposal sites into compliance with the most current disposal standards. This raises the question of what to do with a completed land disposal site that had been operated in accordance with the prevailing State standard and is not now an environmental hazard. A substantial number of land disposal sites have been covered and closed and are not considered to present any major environmental problems. To reexcavate these sites merely to conform with the most current standards in many cases may be unnecessary and costly unless the environmental hazards are determined to be sufficiently serious. Neither a municipality, private firm, nor the owners of land once used for disposal sites can assume the open-ended and uncertain liability this section would require as it is now drafted.

We recommend, alternatively, that this section require States to provide in their plans a procedure for taking corrective action on abandoned or completed land disposal sites when those sites are determined by the administration of the EPA to be hazardous to public health and safety.

NEW SOURCE STANDARDS

Section 218 requires the EPA to establish standards of performance for new sources generating wastes, which as stated, would serve as minimum for States to enforce in their respective programs. Since existing waste generating sources are exempt under this section, it is essential that any Federal standards of this type take into consideration the availability of technology and processes to handle these wastes in an environmentally acceptable manner. We are concerned, however, that the intent of this section is to focus upon the broad issue of source reduction through the direct regulation of commerce and industry. If this is the intent, it is inappropriate since it would deter or discriminate against new business development in these fields. Further, this approach will lead to a highly inequitable structure of regulation.

One of the primary risks in permitting States to establish waste generation standards more stringent than Federal standards is the potential for States to exclude or to severely restrict through regulation, new or expanded commercial and industrial development.

Thus, we recommend that any Federal standards for new sources be considered the maximum and applied only in cases where there is a clear and imminent danger to public health and safety. If a State can demonstrate to the satisfaction of the Administrator that conditions within the State require more restrictive standards to maintain public health and safety, then a more stringent standard may be implemented.

HAZARD WASTES

Section 219 sets forth a comprehensive procedure for hazardous waste management with coordinated Federal and State roles for implementing and enforcing the standards to be established under this program. The treatment and disposal of hazardous and toxic wastes require rigid procedures for control and enforcement of standards.

Federal standards must reflect the degree of hazard as well as the availability of technology to alleviate the hazard. Federal standards for control and treatment of hazardous wastes should be considered the maximum unless a State can demonstrate that specific conditions within its jurisdiction require more stringent standards to protect public health and safety. The treatment technology for the many chemical waste types encompassed under these Federal regulations requires constant substantial volumes to insure practical and economical disposal methods. Regional facilities will undoubtedly be established by industry in the major industrial areas of the country to handle the hazardous wastes once national standards are promulgated. The types and quantities of hazardous wastes to be handled by these facilities will vary depending upon the composition of industries in the region served. Hazardous waste treatment and disposal services will necessarily be tailored to the characteristics of waste generated by the industrial firms who do not process these wastes on site.

Therefore, in order to prevent States from establishing standards that might be considered excessive and counterproductive to the intention of this section, we recommend that the Federal standards promulgated for hazardous wastes management be considered maximum.

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CITIZEN SUITS

Section 226 poses a difficult problem of balancing two interests. One being the interest in giving every conceivable complaint "its day in court, no matter how technical or subjective the dispute. The other interest being the local and national purpose to move ahead in achieving these environmental objectives. We view the latter as having greater priority. It must be recognized that injured parties may fully protect their rights by existing legal processes without the additional stimulus of this "citizen suit" provision.

FEDERAL STUDIES PROGRAM

Sections 233 and 234 requires the Environmental Protection Agency to undertake studies to address economic and policy issues which directly affect the fulfillment of the goals of this legislation. These studies are a necessary first step in the establishment of incentives and national programs for expanding recovery and reuse of waste materials, including utilization of wastes as a supplemental energy source. To date several of these investigations have focused on selected technical and economic issues impacting on resource recovery. But the record is not yet complete. Further studies are required for a better understanding of the implications of incentive proposals such as tax credits for secondary material usage and recycling facilities.

GRANTS

State program grants identified under section 236 are intended to aid States in fulfilling their roles in the coordination and implementation of their solid wastes programs. The use of these funds should be limited to support of administrative and enforcement organizations at the State level; for the adequate implementation of the regulatory aspects of this program, and for coordination in the development and implementation of the various local plans.

PLANNING AND DEVELOPMENT GRANTS

Section 237 establishes an Office of Technical Assistance under the Environmental Protection Agency to assist States and local government in meeting the requirements of this program. We consider this a vital EPA function.

The extensive technical assistance efforts of EPA to cities and regional planning groups have produced the most impressive and significant accomplishments under the Resource Recovery Act. The program has been the catalyst in furthering the application of tried and proven technology and systems by communities in improving their waste management services. The technical assistance effort has enabled the successful accomplishments of one community's program to be transferred to other communities with similar requirements.

These efforts—while most impressive—have been accomplished with a minimum of manpower and resources.

The scope of accomplishments cannot advance with only a skeleton technical staff and resources. Adequate manpower is required. Com-

munities cannot and will not wait indefinitely for technical assistance which is restricted by manpower limitations within the Office of Solid Waste Management programs. As a result, communities most likely will search for solutions to their problems within a narrow data framework or take no action at all.

We urge the committee to provide the Office of Solid Waste Management programs adequate fiscal resources and staffing authorization in order that it may fulfill the administrative and technical roles established in this legislation.

Mr. Chairman, in summary, we believe H.R. 13176 offers a most practical and efficient program for improving solid waste management and resource recovery at both the State and local levels.

This proposal would provide the stimulus for enabling substantial private capital investment in new resource recovery programs and facilities. Through industry-government partnership the public will benefit from improved quality of waste management services that are economically supported through the existing private financial structure without a direct Federal subsidy.

NSWMA commends the subcommittee and its staff for its endeavor and I appreciate this opportunity to present the assessment and support of private waste management industry of H.R. 13176, Comprehensive Waste Management and Resource Recovery Act.

Mr. ROGERS. Thank you very much. I think some of these suggestions you made will be most helpful to the committee, and we will certainly consider them.

Mr. Preyer?

Mr. PREYER. I thank you also. I think this is a very clear statement. You address yourself to a number of the problems we have been discussing here this morning. We appreciate your contribution.

Mr. ROGERS. Thank you.

Dr. Carter?

Mr. CARTER. Thank you, Mr. Chairman. I was particularly impressed by what you said about the citizen suits. You evidently are opposed to them, is that correct?

Mr. WINGERTER. We are not opposed to the rights of the citizen in seeking remedy through the judicial system as a result of environmental harm he may have suffered. These alternatives are available to the citizen today and to provide emphasis in this legislation for this action would encourage unwarranted activity in that area.

Mr. CARTER. I have seen landfills that are quite objectionable and have caused storms of controversy in surrounding neighborhoods. I believe one man complained that the odor was the most obnoxious ever to invade human nostrils. I do not know that we should bar our citizens from taking legal action.

Thank you, Mr. Chairman.

Mr. ROGERS. Thank you very much.

Next we will hear from Mrs. Ruth Clusen, national chairman, Environmental Quality, the League of Women Voters of the United States.

We welcome you to the committee. Your statement will be made a part of the record in its entirety, even though you do summarize.

STATEMENT OF RUTH C. CLUSEN, NATIONAL CHAIRMAN, ENVIRONMENTAL QUALITY, THE LEAGUE OF WOMEN VOTERS OF THE UNITED STATES

Mrs. CLUSEN. Thank you. I am Ruth Clusen, chairman of the Environmental Quality, League of Women Voters of the United States. We would like to file our prepared statement and also offer for the record a statement of our position on solid waste management. (See p. 261.)

Mr. ROGERS. Without objection, it is so ordered.

Mrs. CLUSEN. These hearings are a welcome indication that the Subcommittee on Public Health and Environment considers solid waste pollution to be an urgent environmental issue. The passage of solid waste legislation by the 93d Congress is among the league's major objectives and we are pleased to have this opportunity to present the views of our members on two bills now being considered by this committee—H.R. 13176 and H.R. 12537.

Two years ago, league members undertook an extensive study of solid waste management and resource recovery. More than 1,000 local leagues participated in this study by examining firsthand in their own communities the many aspects of solid waste management and the potentials of resource recovery. The purpose of league studies is to provide the substantive underpinnings for league action on public policy issues. We speak to the issue of solid waste, as to other issues, on the basis of our observations and experiences in hundreds of towns and cities throughout the country. The message from leagues in those towns and cities is uniform: We need policies and programs to forestall the depletion of nonrenewable resources, to reduce the volume of wastes and to recover part of the costs of present waste disposal. While no single piece of legislation can be expected to address itself to all aspects of the solid waste problem, we think that these bills would make an important contribution.

H.R. 13176 recognizes a necessary division of responsibilities by proposing to establish a Federal-State-local review system for solid waste management and resource recovery. On one level, the bill assigns the initiative for promulgating guidelines to the Federal Government. On another level, it emphasizes need for States to formulate and implement comprehensive waste management programs on the basis of plans developed by "general purpose units" of local government.

We think State governments would be receptive to this approach because the bill's provision for State plans would allow them to design programs most relevant to their needs. The balanced approach of this is a timely response to criticisms by States of too much Federal intrusion in mandating environmental standards. Under the proposed act, State plans would have the potential of being flexible and individualized within the guidelines established by EPA.

Section 217(b)(3) is an example of the reasonable approach H.R. 13176 takes. If the Administrator finds that the costs of the State waste management and resource recovery system are unreasonably high in comparison to national benefits, he can approve a modified State plan which meets the act's other requirements. We think this provision makes the requirements less rigid by taking differences in local capabilities and needs into account.

One change we recommend in this bill concerns the procedure by which State plans would be formulated. According to section 217(e)(1), State plans would, in effect, be a compendium of local plans. That is, drawn up by local governmental units and consolidated and coordinated by the State. Our experience indicates that this kind of approach may reinforce the parochialism which sometimes exists at the local level. This provision also fails to recognize the efficiency of regional and intergovernmental approaches, the potential economics of scale found in regional systems and the need to establish comprehensive waste management plans whose purview goes beyond narrow and artificial political boundaries. In addition to this, the need to harmonize local plans may restrict innovations by the State planning agency, especially in the absence of incentives to work for regional cooperative arrangements.

H.R. 12537 takes a somewhat different approach in that it gives the Federal Government a larger role and takes a more limited view of the State's role, confining the latter to the regulation of unsafe disposal practices and hazardous wastes. EPA would be responsible for promulgating regulations and for resource recovery efforts. We prefer the approach taken in H.R. 13176 because it recognizes the need for highly individualized State systems, but we think the provisions for interstate and intrastate cooperation in H.R. 13176 are most important and should be an integral part of any solid waste legislation.

Another change we would recommend in H.R. 13176 concerns section 217(a)(3) which states that in prescribing guidelines and promulgating plans, the EPA Administrator shall consider a list of national objectives. The list is formidable and there is no indication of priorities. Perhaps it would be more realistic and would give the Administrator more guidance if the bill included a statement on the relative importance of these objectives. For example, "reduction in the Nation's need for imports" is not perhaps as important an objective in this context as "protection of public health."

The league applauds the exceptional section in H.R. 13176 dealing with new source performance standards. Section 218 breaks new ground in solid waste legislation proposals by authorizing the Administrator to promulgate standards by which the generation of wastes can be assessed before construction of certain facilities begins.

We expect that there will be a great deal of opposition to this section because, if vigorously enforced, it would have extensive ramifications on the development of new facilities. Since it calls for environmental impact assessments (on waste generation), the arguments against it will be similar to the arguments we are now hearing against the National Environmental Policy Act; namely, that industrial expansion must not be slowed by environmental considerations. We disagree with this argument. The environment does not stand in oppositions to development; it is a factor that must be taken into consideration in planning for development. So, requiring an assessment of the solid waste impact of proposed development would enable communities to deal with a problem before it becomes a crisis. Just as many local governments now consider traffic generation or population in their deliberations about new development, now solid waste generation, too, would be assessed and could be planned for.

While both bills contain provisions regulating hazardous waste treatment and disposal, the approaches taken by each vary. One bill, H.R. 13176, establishes a regulatory system that includes a permit program administered by the Administrator of EPA. The other, H.R. 12537, emphasizes the State role and the States would have to conform to Federal guidelines. The two bills are alike, however, in that they differentiate between hazardous and nonhazardous wastes. We think this differentiation is academic and subjective because all wastes can be considered potentially hazardous. For example, a waste that is not toxic per se may become hazardous if available treatment methods do not exist, if improper treatment occurs, or if the waste is not properly disposed of.

In this regard, section 219(b) of H.R. 13176 states that the Administrator of EPA shall consider, among other things, all "available disposal treatment, storage, or resource recovery practices." We understand this provision to mean that EPA standards will be realistic and workable because they will rely on current technologies.

Both bills consider the effects of Federal policies on resource consumption and resource recovery. Section 234 of H.R. 13176 authorizes the Council on Environmental Quality in cooperation with EPA and other Federal agencies to conduct studies of existing Federal policies that influence the consumption and utilization of virgin natural resources or secondary materials.

While we believe there is a demonstrable need for additional information on pricing, ratemaking by the Federal Power Commission, resource mining and timber harvesting, we have become wary of superfluous, repetitious studies which often serve only to delay positive action. For this reason, we question the need for time-consuming studies on tax, freight rate, and Federal procurement policies, but we would strongly endorse examination of Federal policies that may promote the proliferation of hazardous wastes and wastes that are difficult to dispose of.

H.R. 12537 moves beyond studies to mandating changes in Federal procurement policies. We support the provisions of title IV because we think that the Federal Government can perform a central role in influencing the market, first by setting an example; and, second, by establishing standards for what constitutes reasonable price and reasonable performance in given procurement items. In other words, we think the Federal Government can increase the demand for recyclables by setting the boundaries of what is acceptable.

Of the two bills being considered today—H.R. 12537 makes provision for waste reduction measures at the Federal level. We feel that such policies must be an integral part of any comprehensive waste management law because they represent a realistic approach to solid waste: they will reduce the volume of materials disposed of which glut the waste stream; they will reduce resources consumption; they will reduce energy consumption. While the league strongly supports resource recovery and energy recovery projects, we think waste reduction is equally important to solid waste management.

The approach of H.R. 12537 centers primarily around EPA studies of waste reduction measures. We think this is an important step, and while we think there must be a demonstrable justification for such policies, we consider that preliminary data provide adequate—and

indeed compelling—rationale for waste reduction policies, particularly for beverage containers.

There is a pressing need for Federal leadership in waste reduction programs: through enactment of returnable, refillable beverage container legislation; through programs that reduce the volume of packaging materials; through product standards that insure longer product life; through imposition of deposits or bounties to encourage product re-use. We think it is only through some reduction policies that local governments will be relieved of a growing portion of their solid waste burden and that resource depletion can be forestalled.

Mr. Chairman, we have other comments with regard to resource recovery and the Council on Environmental Representation. These we will simply submit as part of our statement.

[Testimony resumes on p. 262.]

[Mrs. Clusen's prepared statement and the league's position on solid waste management, referred to, follows:]

STATEMENT OF RUTH C. CLUSEN, CHAIRMAN, ENVIRONMENTAL QUALITY, LEAGUE OF WOMEN VOTERS OF THE UNITED STATES

Mr. Chairman, members of the committee and staff, I represent the League of Women Voters of the United States, a volunteer citizens' organization of 1,350 Leagues with approximately 150,000 members in the 50 states, the District of Columbia, Puerto Rico and the Virgin Islands.

These hearings are a welcome indication that the Subcommittee on Public Health and Environment considers solid waste pollution to be an urgent environmental issue. The passage of solid waste legislation by the 93rd Congress is among the League's major objectives and we are pleased to have this opportunity to present the views of our members on two bills now being considered by this commitee: H.R. 13176 and H.R. 12537.

Two years ago, League members undertook an extensive study of solid waste management and resource recovery. More than 1000 local Leagues participated in this study by examining first-hand in their own communities the many aspects of solid waste management and the great potentials of resource recovery. League studies are not an academic exercise. Their purpose is to provide the substantive underpinnings for League action on public policy issues. We speak to the issue of solid waste, as to other issues, on the basis of our observations and experiences in hundreds of towns and cities throughout the country. The message from Leagues in those towns and cities is uniform: we need policies and programs to forestall the depletion of nonrenewable resources, to reduce the volume of wastes and to recover part of the costs of present waste disposal. While no single piece of legislation can be expected to address itself to all aspects of the solid waste problem, we think that these bills would make an important contribution.

SOLID WASTE MANAGEMENT: A DIVISION OF RESPONSIBILITIES

Solid waste is a problem of national scope, and therefore, it must be the concern of every level of government. The League thinks that while the major responsibility for solid waste management should remain with state and local governments, the role of the federal government should be expanded. H.R. 13176 recognizes this necessary division of responsibilities in proposing to establish a federal-state-local review system for solid waste management and resource recovery. On one level, the bill assigns the initiative for promulgating guidelines to the federal government. On another level, it emphasizes the need for states to formulate and implement comprehensive waste management programs on the basis of plans developed by "general purpose units" of local government.

The League would support this approach and we think state governments would be receptive to it because the bill's provision for state plans would allow them to design programs most relevant to their needs. The balanced approach of this proposal is a timely response to criticisms by states of too much federal intrusion in mandating environmental standards. Such criticism surfaced most recently in the debate over safe drinking water legislation. Under the proposed

Act, state plans would have the potential of being flexible and individualized within the guidelines established by EPA.

Section 217(b)(3) is an example of the reasonable approach H.R. 13176 takes. If the Administrator finds that the costs of the state waste management and resource recovery system are unreasonably high in comparison to its national benefits, he can approve a modified state plan that meets the Act's other requirements. This provision makes the requirements less rigid by taking differences in local capabilities and needs into account. The cost factor which is often an excuse for non-compliance is thus modified.

One change we recommend in this bill concerns the procedure by which state plans would be formulated. According to Section 217(e)(1), state plans would, in effect be a compendium of local plans, i.e., drawn up by local governmental units and consolidated and coordinated by the state. The League's experience indicates that this kind of approach may reinforce the parochialism which often exists at the local level. This provision also fails to recognize the efficiency of regional and intergovernmental approaches, the potential economies of scale found in regional systems and the need to establish comprehensive waste management plans whose purview goes beyond narrow and often artificial political boundaries. In addition, the need to harmonize local plans may restrict innovations by the state planning agency, especially in the absence of incentives to work for regional cooperative arrangements.

H.R. 12537 takes a somewhat different approach. It gives the federal government a larger role and takes a more limited view of the states' role, confining the latter to the regulation of unsafe disposal practices and hazardous wastes. EPA would be responsible for promulgating most regulations and for resource recovery efforts. While we prefer the approach taken in H.R. 13176 because it recognizes the need for highly individualized state systems, we think that the provisions for interstate and intrastate cooperation in H.R. 12537 are most important and should be an integral part of any solid waste legislation.

Another change we would recommend in H.R. 13176 concerns Section 217(a)(3) which states that in prescribing guidelines and promulgating plans, the EPA Administrator shall consider a list of national objectives. The list is formidable and there is no indication of priorities. We think it would be more realistic and would give the Administrator more guidance if the bill included a statement on the relative importance of these objectives. For example, "reduction in the nation's need for imports" is not as important an objective in this context as "protection of public health."

New Source Performance Standards

The League applauds the exceptional section in H.R. 13176 dealing with new source performance standards. Section 218 breaks new ground in solid waste legislation proposals by authorizing the Administrator to promulgate standards by which the generation of wastes can be assessed before construction of certain facilities begins.

We expect that there will be a great deal of opposition to this section because, if vigorously enforced, it would have extensive ramifications on the development of new facilities. Since it calls for environmental impact assessments (on waste generation), the arguments against it will be similar to the arguments we are now hearing against the National Environmental Policy Act: namely, that industrial expansion must not be slowed by environmental considerations. We disagree with this argument. The environment does not stand in opposition to development; it is a factor that must be taken into consideration in planning for development. Requiring an assessment of the solid waste impact of proposed development would enable communities to deal with a problem before it turns into a crisis. Just as many local governments now consider traffic generation or population in their deliberations about new development, now solid waste generation, too, would be assessed and could be planned for.

Hazardous Wastes

While both bills contain provisions regulating hazardous waste treatment and disposal, the approaches taken by each vary. One bill, H.R. 13176, establishes a regulatory system that includes a permit program administered by the Administrator of EPA. The other, H.R. 12537, emphasizes the state role in hazardous waste management, but the states would have to conform to federal guidelines. The two bills are alike, however, in that they differentiate between hazardous

and non-hazardous wastes. We think this differentiation is academic and subjective because all wastes can be considered potentially hazardous. For example, a waste that is not toxic per se may be rendered hazardous if available treatment methods do not exist, if improper treatment occurs or if the waste is improperly disposed of.

In this regard, Section 219 (b) of H.R. 13176 states that the Administrator of EPA shall consider, among other things, all "available disposal treatment, storage or resource recovery practices." We read this provision to mean that EPA standards will be realistic and workable because they will rely on current technologies rather than on projected or prototypical systems.

Federal Incentives and Disincentives

Both bills consider the effects of federal policies on resource consumption and resource recovery. Section 234 of H.R. 13176 authorizes the Council on Environmental Quality in cooperation with EPA and other federal agencies to conduct studies of existing federal policies that influence the consumption and utilization of virgin natural resources or secondary materials.

While we believe there is a demonstrable need for additional information on pricing, ratemaking by the Federal Power Commission, resource mining and timber harvesting, we are wary of superfluous, repetitious studies which often serve only to delay positive action. For this reason, we question the need for time-consuming studies on tax, freight rate and federal procurement policies, but we would strongly endorse examination of federal policies that may promote the proliferation of hazardous wastes and wastes that are difficult to dispose of.

H.R. 12537 moves beyond studies to mandating changes in federal procurement policies. We support the provisions in Title IV because we think that the federal government can perform a central role in influencing the market, first by setting as example; and second, by establishing standards for what constitutes reasonable price and reasonable performance in given procurement items. In other words, the federal government can increase the demand for recyclables by setting the boundaries of what is acceptable. Finally, as a by-product of its policy, the federal government can encourage the development of flexible and innovative specifications.

Waste Reduction

Only one of the bills being considered today—H.R. 12537—makes provision for waste reduction measures at the federal level. We feel that such policies must be an integral part of any comprehensive waste management law because they represent a realistic approach to solid waste: they will reduce the volume of materials disposed of which glut the waste stream; they will reduce resources consumption; they will reduce energy consumption. While the League strongly supports resource recovery and energy recovery projects, we think that waste reduction is equally important to solid waste management.

The approach of H.R. 12537 centers primarily around EPA studies of waste reduction measures [Section 207(a)(1)]. While we consider these to be an important step, and while we think there must be a demonstrable justification for such policies, we consider that preliminary data provide adequate—and indeed compelling—rationale for waste reduction policies, particularly for beverage containers.

There is a pressing need for federal leadership in waste reduction programs: through enactment of returnable, refillable beverage container legislation; through programs that reduce the volume of packaging materials; through product standards that ensure longer product life; through imposition of deposits or bounties to encourage product re-use. It is only through some reduction policies that local governments will be relieved of a growing portion of their solid waste burden and that resource depletion can be forestalled.

Resource Recovery

Only H.R. 12537 makes provision for energy and materials recovery from solid waste. While we applaud federal measures to aid in the development of such systems, we question the simplistic acceptance of energy recovery as proposed in this title as the complete answer. Simply stated, energy recovery is a good idea, but it does not go far enough because it does not get at the heart of the energy problem.

One approach to the problem of fuel shortages may indeed be to utilize solid waste as a source of energy. Another approach would be to decrease our energy and materials consumption by manufacturing fewer disposable products. We think these approaches are two sides of the same coin: reducing the quantity of solid waste and recovering what we can from what is left. The proposed act, however, focuses only on the latter.

While the League sees great value in energy and resource recovery systems, their reliance on large and constant volumes of trash discourages reduction in the amount of solid waste that is generated. Such systems do not meet the issue of energy conservation head on. We would prefer, instead, provisions that would quantify energy consumption, that would make manufacturers aware of the relative energy costs of producing a product and force them to pay for more costs.

Another factor that needs to be taken into consideration in any discussion of energy recovery is that some materials in solid waste are simply too valuable to burn. The present price of a ton of waste newspaper indicates that the market considers wastepaper extremely valuable and that, in turn, raises the question of which is more valuable—paper as paper or paper as fuel.. Economic costs notwithstanding, the relative social costs of each technique must also be considered. In other words, is it more important to work for resource recovery to forestall the need for timber cutting in our National Forests or to work for energy recovery to abate—even to a small extent—the need for oil shale development or nuclear power plants?

Energy recovery is not an absolute good. It may be the only workable system in some areas, e.g., in the Virgin Islands where there are no secondary materials industries and limited land areas. But we question whether the rather narrow mandate of this bill to develop only energy recovery facilities in every SMSA is the ideal goal.

We also question the specific requirement of Section 502 that the per unit energy cost of an energy-producing facility may not significantly exceed the per unit cost of energy from other readily available sources. What do "significantly" and "cost" mean in this context? Are economic costs to be the sole determinant of whether or not we go ahead with energy recovery? Should not social and environmental costs also be considered? And if so, how are they to be measured? For example, given a choice between burning relatively cheap oil from Atlantic offshore wells or more expensive trash from eastern seaboard cities, our members would want the strong social and environmental benefits of the latter to be factors in a decision.

In addition, rather than requiring every SMSA to have an energy recovery facility within thirteen years of the date of enactment, we recommend that the Environmental Protection Agency do limited work on perfecting the necessary technologies. Having done that, EPA should make the information, expertise and technical performance standards generally available, together with a loan program as an added incentive. This approach would not force energy recovery from solid waste; it would just make it possible. The benefits of both energy and materials recovery systems are many: recycling saves energy used in mining, transporting and processing the virgin material; markets indicate that certain materials are being profitably reused; and dwindling supplies of natural resources mean we must cut down on materials consumption.

COUNCIL ON ENVIRONMENTAL REPRESENTATION

One of the most innovative proposals of H.R. 12537 is contained in Title VI which would authorize the establishment of a Council on Environmental Representation. While the League supports this concept wholeheartedly, we would like to make some recommendations based on our experience in environmental matters and our involvement with legislation to establish a Legal Services Corporation for the poor.

Section 605(a) states that the function of the Council shall be to establish programs, including local offices, to provide direct legal and other assistance and to make grants to eligible clients for the purpose of securing representation and assistance to such clients before federal, state and local legislative bodies, administrative agencies and courts in all environmental matters. Section 605(c) authorizes the Chairman of the Council to intervene in any proceeding before any federal agency in matters affecting the environment of eligible clients. Section 605(d) authorizes the Chairman to establish a program for disseminating information to eligible clients with respect to the type of services which may be available under this title.

The functions contemplated in these provisions constitute an enormous undertaking. We see problems in the following areas:

(1) There is no definition of "eligible client." The Council is to be established ostensibly to provide access to representation and other legal assistance for the "improverished." Who is to determine eligibility and according to what criteria? Should a statutory range of income be specified? Should there be guidelines for determining priorities in granting assistance, i.e., given limited funds and personnel, is assistance to go to the lowest-income clients? Is assistance to be determined on the basis of the immediacy or the gravity of the environmental question in a given case?

(2) The language of the bill should more precisely clarify legislative intent. As it now reads, the Council would have to provide for assistance in court cases, to follow the activities of administrative agencies, and to afford representation in legislative bodies at all levels of government. The latter alone is a sizable task because "adequate representation" would include substantive input in drafting legislation, testifying at hearings, and lobbying. Moreover, in our experience, adequate representation does not end with the passage of a bill or the promulgation of a regulation. There must also be provision for monitoring the execution of laws and regulations. Is this what the committee intended? If so, can the Council and its staff do all this and do it well? If the Council were to focus on the environmental problems of low-income inner city residents, the parameters of its functions could be more clearly defined and the probability of its successfully carrying them out increased.

(3) At the present time, as you are well aware, there are a number of environmental and public interest groups involved in litigative and legislative activities in the environmental field. The work of the Council should be coordinated with the ongoing work of these groups by making sure they are represented on the Environmental Representation Advisory Board and by working out guidelines for giving them grants when they take on cases consistent with the purposes of this Act. Moreover, we think that "eligible clients" (once that term is defined) as a class should be represented on the Board. The bill now provides for the "general public" to be represented, but that term is too amorphous to guarantee adequate participation for the groups the Council is intendended to serve.

The League supports the concept of this Council and hopes that the legislative authorization for it will make it unmistakably clear that the Committee foresaw much more than a cosmetic body.

The League commends this committee for taking up the solid waste issue. We continue to support you in your efforts to protect and improve our environment.

STATEMENT OF POSITION ON SOLID WASTE MANAGEMENT

As announced by the national board, April 9, 1973, the League of Women Voters of the United States believes that:

The role of federal government should be expanded, although the major responsibility for solid waste management should remain with the state and local governments.

The federal government should establish policies and programs to increase the demand for secondary materials, to encourage recycling of post-industrial and post-consumer wastes and to reduce the generation of solid wastes.

The federal government should help state and local governments develop recycling facilities and at the same time should encourage private construction and operation of recycling facilities.

The federal government should encourage and support education of the public on these issues.

AMPLIFICATION OF POSITION

In more specific terms, the League supports expanding the role of the federal government to include authority to:

Establish federal criteria and standards for collection and disposal. Issue regulations based on federal standards for disposal. Offer financial assistance to local governments for disposal. Intensify research and development for new, improved, less expensive methods of collection and disposal by offering financial and technical aid to governments and industry.

The primary goal of national recycling policies and programs should be to forestall depletion of nonrenewable resources. The concurrent reduction in volume of wastes for which a community must find disposal sites and the recovery of part of community waste disposal costs should be secondary goals.

In order to increase demand for secondary materials, the federal government should:

Equalize tax treatment for virgin and secondary materials by such methods as reduction of tax exemptions for extractive industries and increase of tax exemptions for secondary materials industries.

Equalize transportation costs for virgin and secondary materials. Increase charges for federal land uses which yield virgin materials. Reduce subsidies for the use of inorganic fertilizers and/or offer subsidies for the use of compost and sewage sludge. Offer tax benefits to companies which install equipment that allows use of recyclable materials.

Revise federal specifications for products made of reclaimed materials. Increase federal government purchase orders for products made of reclaimed materials.

To assist state, local and regional agencies to develop (plan and build) recycling facilities, the federal government should:

Increase its financial aid for research and development. Increase its technical assistance capabilities. Offer planning grants to regional and state agencies. Offer low cost loans.

For construction and operation of recycling facilities:

Industries should invest private capital. Users should pay fees according to the amount of waste generated.

Mr. ROGERS. Thank you for an excellent statement.

Our next witness is Ms. Patricia Taylor, Environmental Action. Your full statement will be made a part of the record if you care to just summarize it.

STATEMENT OF PATRICIA TAYLOR, IN BEHALF OF ENVIRONMENTAL ACTION, FRIENDS OF THE EARTH, AND THE SIERRA CLUB

Ms. TAYLOR. Mr. Chairman, members of the committee and staff, we appreciate this opportunity to share with you our views on H.R. 12537 and H.R. 13176. I am representing Environmental Action, Friends of the Earth and the Sierra Club, environmental organizations interested in turning around our Nation's solid waste policies to increase energy and material conservation and recycling.

When Congress amended the Solid Waste Disposal Act in 1970, hope was raised among citizens, local solid waste officials and private industries involved in recycling that Federal resource and solid waste policies and priorities would be changed. The Resource Recovery Act focused attention on recovery of materials from waste as an alternative to land disposal for the first time in the Nation's history.

Unfortunately, the findings and purposes section of the Resource Recovery Act of 1970 could easily be used as a preface to the legislation presently under consideration.

One year ago, the administration proposed to give the Federal solid waste effort, $5.8 million while focusing solid waste programs on the management of hazardous wastes. Although Congress raised the level of funding to $14.8 million, 60 of the staff positions authorized have been impounded by OMB, an unusual, yet extremely effective method of restricting the capabilities of an administrative agency.

This move is but one example of the attempts undertaken to thwart the intent of the Resource Recovery Act. The act has been poorly im-

plemented as well. For example, section 209 states, "The Secretary"—now Administrator of EPA—"recommends to appropriate agencies and publish in the Federal Register guidelines for solid waste recovery, collection, separation, and disposal systems." Last April, almost 3 years after enactment, proposed guidelines for landfill and incineration of solid waste were published in the Federal Register.

Final guidelines have just recently been promulgated. That it took 4 years to promulgate basic guidelines is hardly a commendable or exemplary record. An equally important section of the act, section 211, requires executive agency compliance with all guidelines promulgated under section 209. To date, I know of no plans for implementation of section 211. After working 4 years to promulgate these guidelines, it is appalling that EPA has not even developed plans for such compliance.

It is imperative that all new legislation being considered contain a strong and clearly defined mandate, to assure EPA actions in areas intended by the Congress.

We would like to emphasize the importance of materials and energy conservation in waste. Solid waste problems related to increased packaging are a perfect example of how a nationwide economic trend can impact upon local disposal facilities, and what they can imply for a national materials policy. According to the U.S. Environmental Protection Agency, packaging is not only the single largest component of municipal solid waste, it is also the most rapidly growing portion, increasing 43 percent between 1958 and 1972. The EPA has also determined that if each individual consumed no more packaging in 1972 than he or she consumed in 1958, we could save almost 600 trillion Btu's, the equivalent of 300,000 barrels of oil per day. In addition to these energy savings, if per capita consumption of packaging had remained stable, resource savings and less solid waste would have resulted. Instead, materials and energy have been wasted and local solid waste facilities overburdened delivering overpackaged goods to the consumer.

A specific example of unnecessary packaging is the proliferation of one-way "throwaway" beer and soft drink beverage containers. Consumption of beer and soft drink beverages increased only 29 percent between 1959 and 1969, while the consumption of beer and soft drink beverage containers during the same period increased a phenomenal 164 percent. Annually, 244 trillion Btu's of energy, the equivalent of 115,000 barrels of oil per day, are wasted in the production of these "throwaway" containers. An alternative container, the refillable bottle, delivers the same product while using significantly less energy. However, the container industry is trying to phase it out, except in areas where legislation requiring mandatory deposits has been passed, such as Oregon's "bottle bill."

Thus, the consumer has not changed his or her consumption habits; instead, manufacturers have changed the packaging materials—at increased costs in material, energy, solid waste production, and often consumer prices.

The impact of present wasteful material consumption extends beyond our borders. Of the aluminum annually produced in the United States, 6 percent goes into the production of packaging material, and 85 percent of the bauxite used in aluminum production is imported. If we

were to reduce consumption of aluminum in "throwaway" beverage containers, we would reduce our dependence on foreign materials as well as conserve energy. We could also conserve materials which are in short supply by freeing up the materials used in the wasteful production of excess packaging.

Thus, the problem of excess packaging is of truly national significance. It requires the formulation of a national policy designed to deal with the problem. H.R. 13176 should be amended so as to address this major waste generation problem. Amendments based on the provisions of either H.R. 2596 or H.R. 2172 could make a valuable contribution to solving the problem of excess packaging by discouraging the use of one-way "throwaway" beverage containers. Another step that can be taken immediately is outlined in section 406 of H.R. 12537—the establishment of product durability standards and regulations.

If new legislation is to address the roots of the present solid waste management crisis, it must encourage the reuse of products, an increase in product longevity, and reduction of packaging consumption and other measures to reduce waste generation.

For these reasons, the committee should consider, along with beverage container provisions and section 406 of H.R. 12537, the inclusion of provisions which would address explicitly the problem of waste generation. We strongly support section 218, which would establish standards of performance for new sources of waste.

Mr. Chairman, in addition to these necessary actions to reduce waste at its source, there is a national need to improve our handling of those wastes which eventually find their way to local disposal facilities. H.R. 13176 does address this need. We strongly concur with this basic principle. On the other hand, the distinction made between hazardous and nonhazardous waste in the legislation, we feel, is a somewhat artificial one.

Thus, the outlining of national goals in this area, called for by H.R. 13176, is extremely important. The most difficult task, however, is going to be the achievement of those goals. We are especially pleased with the objectives in relation to reduction and prevention of potential as well as actual material shortages. A farsighted attitude toward resources is sorely needed at this point in time.

Internationalization of the costs of waste management is another national policy objective which deserves special attention. Pricing goods so that they include the cost of environmentally sound disposal as well as the costs of production can have far reaching effects not only by generating revenue, but also in encouraging recycling and waste reduction. Because of the importance of this concept, we urge support for the establishment of a National Commission on Environmental Costs, as called for in H.R. 12537. Because cost internationalization is a national objective which impacts the entire economy and entire waste disposal system, we urge this additional, important activity at the Federal level.

Of special interest is objective (h)—assuring adequate and equitable waste management services to all persons. In testimony before the Senate Commerce Committee, John Hampton, of the National Tenants Organization, described some of the factors which necessitate this objective.

Certainly local government must play an active role in developing plans. Already, local governments are the implementers. We would give preference to regional or areawide planning over general purpose units of local government, whenever a regional agency has the authority and expertise. In all areas where regional authorities exist, local governments should be required to consult with regional units before submitting plans to the States. In addition, we feel citizen representation on State advisory boards to supplement local government representation should be included.

The elimination of the use of open dumps should be given high priority in any guidelines for safe disposal. The upgrading of present disposal methods is intimately linked with the potential for increased utilization of waste materials for energy and materials recovery. Economic barriers to recycling, such as discriminatory freight rates, go hand-in-hand with the low fiscal costs of environmentally deleterious disposal methods in use around the country. Present disposal practices, for both hazardous and nonhazardous wastes must be upgraded. Calculation of disposal costs must take into account the heavy environmental costs of bad waste management practices.

We strongly support the inclusion of abandoned vehicle and litter prevention programs in the State plans.

The provision which allows EPA to exempt States from achieving national objectives to the maximum extent possible because of high costs reflects a legitimate concern. However, this section should include minimal provisions requiring State plans to include provisions for the closing of open dumps.

A problem which has plagued EPA in enforcing the Resource Recovery Act has been submitting reports to Congress by the mandate date—as well as the condition of reports once they have passed through various other agencies for further review and comment. To alleviate these delays, we support the specific deadlines given guidelines and reports. In addition, any reports to Congress, as well as draft regulations prepared by EPA and submitted to any other agency or department of the Federal Government should be made available to the public at the same time.

The thrust of the study to be carried out by the Council on Environmental Quality is particularly important. In recent testimony before the Transportation Subcommittee concerning transportation freight rate legislation, we pointed out the need for reexamining policies which encourage the use of virgin materials. Providing percentage depletion allowances and capital gains treatment of income to extractive industries gives virgin materials an advantage in the marketplace which is no longer in keeping with our present and future resource needs.

We believe that national policies and priorities which have hindered the utilization of secondary materials must be changed. We also believe that efforts to reduce the generation of wastes must be undertaken at the Federal level. The manifestation of the solid waste problem—rapidly increasing amounts of revenue being spent by local governments, increasing generation of waste, misallocation of material and energy resources and unsatisfactory waste disposal—demand that the national objectives set forth in H.R. 13176 be given the highest priority.

Thank you.

[Testimony resumes on p. 270.]
[Ms. Taylor's prepared statement follows:]

STATEMENT OF PATRICIA TAYLOR IN BEHALF OF ENVIRONMENTAL ACTION, FRIENDS OF THE EARTH, AND THE SIERRA CLUB

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Unfortunately, the findings and purposes section of the Resource Recovery Act of 1970 could easily be used as a preface to the legislation presently under consideration.

One year ago, the Administration proposed to give the federal solid waste effort $5.8 million while focusing solid waste programs on the management of hazardous wastes. Although Congress raised the level of funding to $14.8 million, 60 of the staff positions authorized have been impounded by OMB, an unusually, yet extremely effective method of restricting the capabilities of an administrative agency.

This move is but one example of the attempts undertaken to thwart the intent of the Resource Recovery Act. The Act has been poorly implemented as well. For example, Section 209 states, "The Secretary (now Administrator of EPA), shall . . . recommend to appropriate agencies and publish in the Federal Register guidelines for solid waste recovery, collection, separation and disposal systems." Last April, almost three years after enactment, proposed guidelines for landfill and incineration of solid waste were published in the Federal Register. Final guidelines have just been promulgated. That it took four years to promulgate basic guidelines is hardly a commendable or exemplary record. An equally important section of the Act, Section 211, requires Executive agency compliance with all guidelines promulgated under Section 209. To day, I know of no plans for implementation of Section 211. After working 4 years, to promulgate guidelines, it is appalling that EPA has not even developed plans for Executive agency compliance.

It is imperative that all new legislation being considered contain a strong and clearly defined mandate, to assure EPA actions in areas intended by the Congress.

Local governments presently bear over 98% of the cost of solid waste collection and disposal. It is also local disposal facilities that are overburdened with wastes resulting from national policies which inhibit the utilization of secondary materials. National consumption and production practices have also resulted in ever-increasing waste generation. In a period of national energy and materials shortages, local efforts to deal with the growing solid waste problem require more than a token gesture on the part of federal policy-makers.

The National League of Cities/U.S. Conference of Mayors pointed out the impact of rapidly increasing waste generation in their report. "Cities and the Nation's Disposal Crisis." Describing limited space available for urban solid waste disposal and skyrocketing collection costs, they stated, "Measures to restrict excessive waste production are in the national interest."

We would like to emphasize the importance of this approach from an environmental perspective. Solid waste problems related to increased packaging are a perfect example of how a nation-wide economic trend can impact upon local disposal facilities, and what they can imply for a national materials policy. According to the U.S. Environmental Protection Agency, packaging is not only the single largest component of municipal solid waste—it is also the most rapidly growing portion—increasing 43% between 1958 and 1972. The EPA has also determined that if each individual consumed no more packaging in 1972 than he or she consumed in 1958, we could save almost 600 trillion BTUs, the equivalent of 300,000 barrels of oil per day. In addition to these energy savings, if per capita consumption of packaging had remained stable, resource savings and

less solid waste would have resulted. Instead, materials and energy have been wasted and local solid waste facilities over-burdened delivering over-packaged goods to the consumer.

A specific example of unnecessary packaging is the proliferation of one-way "throwaway" beer and soft drink beverage containers. Consumption of beer and soft drink containers increased only 29% between 1959 and 1969, while the consumption of beer and soft drink beverage containers during the same period increased a phenomenal 164%. Annually, 244 trillion BTUs of energy, the equivalent of 115,000 barrels of oil per day, are wasted in the production of these "throwaway" containers. An alternative container, the refillable bottle delivers the same product while using significantly less energy. However, the container industry is trying to phase it out, except in areas where legislation requiring mandatory deposits has been passed, such as Oregon's "Bottle Bill."

Thus, the consumer has not changed his or her consumption habits, instead manufacturers have changed the packaging materials—at increased costs in material, energy, solid waste production, and often, consumer prices.

The impact of present wasteful material consumption extends beyond our borders, 6 percent of the aluminum annually produced in the U.S. goes into the production of packaging material. 85 percent of the bauxite used in alnminum production is imported. If we were to reduce consumption of aluminum in "throwaway" beverage containers, we would reduce our dependence on foreign materials as well as conserve energy. We could also conserve materials which are in short supply by freeing up the materials used in the wasteful production of excess packaging.

Thus, the problem of excess packaging is of truly national significance. It requires the formulation of a national policy designed to deal with the problem. H.R. 13176 should be amended so as to address this major waste generation problem. Amendments based on the provisions of either H.R. 2596 or H.R. 2172 could make a valuable contribution to solving the problem of excess packaging by discouraging the use of one-way "throwaway" beverage containers. Another step that can be taken immediately is outlined in Section 406 of S. 12537—the establishment of product durability standards and regulations.

If new legislation is to address the roots of the present solid waste management crisis, it must encourage the reuse of products, an increase in product longevity and reduction of packaging consumption and other measures to rednce waste generation.

For these reasons, the Committee should consider, along with beverage container provisions and Section 406 of S. 12537, the inclusion of provisions which would address explicitly the problem of waste generation. We strongly support Section 218, which would establish standards of performance for new sources of waste. This section is particularly important if we are to reduce the impact of rapidly increasing consumption of materials which end up as waste. The term "standard of performance," however, should be more specifically defined to give directives to the Administrator. We suggest that the "standard of performance" may include: prohibitions against the manufacture of specific prodncts, methods of distribution of specific products, percentages of recovered, reusable or recyclable materials which shall be contained in specific products and maximum permissible quantities of component materials that may produce adverse environmental effects when the products are discarded. The cost to industry and the public of reducing wastes and increasing recycling should be considered, but this cost should be both environmental and economic.

Much of the information which would result from the implementation of section 218 would be applicable to the problem of establishing performance standards for existing waste generation sources. The wastefulness of presently operating sources must be reduced. Continuation of EPA study, like that envisioned in Section 206 of H.R. 12537. can, in conjunction with new source standards, help to generate the knowledge needed to deal with this problem.

Mr. Chairman, in addition to these vital actions to reduce waste at its source, there is a national need to improve our handling of those wastes which eventually find their way to local disposal facilities. H.R. 13176 does address this need. We strongly concur with this basic principle. On the other hand, the distinction made between hazardous and non-hazardous wastes in the legislation, we feel, is a somewhat artificial one.

Not only are all wastes potentially hazardous, but the most prevalent means of waste disposal is the open dump—hazardous to air, water and land. An EPA report concerning the Administration's proposed Hazardous Waste Management Act justifies the exclusion of nonhazardous waste disposal on the basis of the

low priority presently given solid waste management at the state and local levels. EPA points to the limited manpower and financial resources presently committed to solving nonhazardous waste management problems. This situation necessitates a comprehensive look at waste management, including both hazardous and nonhazardous materials.

Thus, the outlining of national goals in this area, called for by H.R. 13176, is extremely important. The most difficult task, however, is going to be the achievement of those goals. We are especially pleased with the objectives in relation to reduction and prevention of potential as well as actual material shortages. A farsighted attitude toward resources is sorely needed.

Internalization of the costs of waste management is a national policy objective which deserves special attention. Pricing goods so that they include the costs of environmentally sound disposal as well as the costs of production can have far reaching effects not only in raising revenues, but also in encouraging recycling and waste reduction. Because of the importance of this concept, we urge support for the establishment of a National Commission on Environmental Costs, as called for in H.R. 12537. Because cost internalization is a national objective which impacts the entire economy and entire waste disposal system, we urge this additional, important activity at the federal level. However, we feel that states, often in the forefront in developing solutions in this area, should be encouraged through the EPA guidelines, to continue their efforts.

Of special interest is objective (H)—assuring adequate and equitable waste management services to all persons. In testimony before the Senate Commerce Committee, John Hampton, of the National Tenants Organization, described some of the factors which necessitate this objective, "Studies undertaken by both EPA and private consulting firms show that inferior solid waste collection occurs in pocket areas throughout the city—often in 100 square block dimensions. Demographic field investigations have proven that unacceptable conditions directly correlate with low income, high population density and small percentage of home ownership. In other words, the poorer the neighborhood, the worse the solid waste problem." It is often these same areas which are selected for location of landfills or incinerator disposal sites. Adequate and equitable public services should be provided to all citizens.

Although all guidelines should be flexible and responsive to differing local conditions and needs, this "national objective" has the potential for becoming a major loophole in EPA's setting of guidelines. Because the guidelines have the potential for being very broad in the first place, this section should be eliminated entirely.

Certainly local government must play an active role in developing plans. Already, local governments are the implementers. We would give preference to regional or area-wide planning over general purpose units of local government, whenever a regional agency has the authority and expertise. In all areas where regional authorities exist, local governments should be required to consult with regional units before submitting plans to the state. In addition, citizen representation on state advisory boards to supplement local government representation should be included.

The elimination of the use of open dumps should be given high priority in any guidelines for safe disposal. The upgrading of present disposal methods is intimately linked with the potential for increased utilization of waste materials for energy and materials recovery. Economic barriers to recycling, such as discriminatory freight rates, go hand-in-hand with the low fiscal costs of environmentally deleterious disposal methods in use around the country. Present disposal practices, for both hazardous and nonhazardous wastes must be upgraded. Calculation of disposal costs take into account the heavy environmental costs of bad waste management practices.

There is a legitimate federal role to be played in implementing analysis of various types of resource recovery and waste management systems. Duplicating the efforts called for in Section (b)(2) of H.R. 13176 in every state would be a waste of resources. A centralized dissemination of information, as EPA has done on landfill and incinerator operations would be more effective. Requiring EPA to submit reports and up-dates of that work on an annual basis would provide a reasonable check.

We strongly support the inclusion of abandoned vehicle and litter prevention programs in the state plans.

The provision which allows EPA to exempt states from achieving national objectives to the maximum extent possible because of high costs reflects a

legitimate concern. However, this section should include a provision which requires that state plans include provisions for the closing of open dumps at a minimum.

A problem which has plagued EPA in enforcing the Resource Recovery Act has been submitting Reports to Congress by the mandate date—as well as the condition of reports once they have passed through various other agencies for further review and comment. To alleviate these delays, we support the specific deadlines given guidelines and reports. In addition, any reports to Congress, as well as draft regulations prepared by EPA and submitted to any other agency or department of the Federal government should be made available to the public at the same time.

The thrust of the study to be carried out by the Council on Environmental Quality is particularly important. In recent testimony before the Transportation Subcommittee concerning transportation freight rate legislation, we pointed out the need for reexamining policies which encourage the use of virgin materials. Providing percentage depletion allowances and capital gains treatment of income to extractive industries given virgin materials an advantage in the marketplace which is no longer in keeping with our present and future resource needs.

I would like to submit for the record a copy of a letter [see p. 27] sent March 26, 1974 to Defense Secretary James Schlesinger from five environmental groups in which we outlined the need for changes in Department of Defense procurement policies. Although GSA has made tentative steps in establishing federal procurement programs, this is one area where federal purchasing dollars can have an immediate impact on present methods of waste handling, which must be encouraged and developed as an example.

Finally, we support the need for continued federal financial support, not only of state planning and implementation of guidelines, but also demonstration projects, federal loan guarantees and grants for the construction of energy and resource recovery facilities.

The opposition to these types of programs seems to originate from three interest groups. The first is the Administration, whose plans for dealing with the solid waste crisis are inadequate, lacking in foresight and not supportive of efforts to recover energy and resources. To point out the absurdity of the present Administration policy, the main legislative proposals to encourage recycling of materials in the proposed Hazardous Waste Management Act are federal procurement policies and freight rate legislation. Yet, in their second annual Report on Resource Recovery and Source Reduction, the EPA points to the negligible impact of changing federal procurement policies, stating, "The direct market creation effects of a program of federal procurement of products would probably be small," thus eliminating one-half of the Administration's proposed resource recovery program.

The second group expressing concern about demonstration programs are people concerned about the amount of financial resources that would be sunk into such a program. We feel that it is important to put into perspective the financial commitment made by the federal government in solid waste to date EPA has allocated $12.87 million under Section 204 grants and $19.8 million under Section 208 grants. Federal funding of energy and resource recovery facilities pales when compared to the estimated $6 billion spent each year by local governments on solid waste collection and disposal.

The third group, surprisingly enough, is composed of some of the private industries interested in developing the material and energy recovery systems now being considered in many cities. These industries, such as the American Can Co., suggest that initiatives such as Americology can be instituted profitably, without the assistance of federal demonstration programs. However, a close look at present recovery rates of one material, glass, shows the need for continued federal efforts. Between June 1970 and August 1973, 2.5 billion glass containers were recycled. The number of containers sounds impressive, especially when one reads the press releases of the glass companies proclaiming the new era of resource recovery. However, these 2.5 billion containers represent less than 3 percent of the glass produced during that period of time.

We believe that national policies and priorities which have hindered the utilization of secondary materials must be changed. We also believe that efforts to reduce the generation of wastes must be undertaken at the federal level. The manifestation of the solid waste problem—rapidly increasing amounts of revenue being spent by local governments, increasing generation of waste, misallocation of

material and energy resources and unsatisfactory waste disposal—demand that the national objectives set forth in H.R. 13167 be given the highest priority.

Thank you.

Mr. ROGERS. Thank you both very much for being here and giving the committee this excellent testimony.

Ms. TAYLOR. Mr. Chairman, last Tuesday, a letter was sent to the Defense Secretary and others regarding Department of Defense procurement policies. I would like to submit the letter for the record.

Mr. ROGERS. Yes. That will be helpful.

[Testimony resumes on p. 277.]

[The letter referred to follows:]

ENVIRONMENTAL
DEFENSE
FUND

162 OLD TOWN ROAD, EAST SETAUKET, N.Y. 11733/516 751-5191

March 26, 1974

Honorable James R. Schlesinger
Secretary
U.S. Department of Defense
The Pentagon
Washington, D. C. 20301

Honorable Howard H. Callaway
Secretary
U.S. Department of the Army
The Pentagon
Washington, D. C. 20301

Honorable John W. Warner
Secretary
U.S. Department of the Navy
The Pentagon
Washington, D. C. 20350

Honorable John L. McLucas
Secretary
U.S. Department of the Air Force
The Pentagon
Washington, D. C. 20330

James R. Cowan, M.D.
Assistant Secretary for Health and the Environment
U.S. Department of Defense
The Pentagon
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Mr. George W. Millas
Director of Environmental Quality
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Administrator
U.S. Environmental Protection Agency
Washington, D. C. 20460

Mr. Arsen Darney
Deputy Assistant Administrator
Solid Waste Management Programs
U.S. Environmental Protection Agency
Washington, D. C. 20460

Lieutenant-General Wallace H. Robinson, Jr.
Director
Defense Supply Agency
Cameron Station
Alexandria, Virginia 22314

Dear Dr. Schlesinger:

Respectfully, we call your attention to a law we believe the Department of Defense is neglecting and may be violating. We are particularly concerned by this violation because compliance with the law would lead to nationally significant savings of energy and other resources, an increase in vitally needed jobs, a decrease in consumer costs, and important environmental gains. Leadership from you and DOD in this matter would bring an important measure of good will and respect for DOD. Decisive action would set an important example for other Federal agencies and for state governments during this era of chronic energy shortages.

The law in question is the National Environmental Policy Act of 1969. Section 4331(b)(6) provides that:

> In order to carry out the policy set forth in this chapter, it is the continuing responsibility of the Federal Government to use all practicable means consistent with other essential considerations of national policy, to improve and coordinate Federal plans, functions, programs and resources to the end that the Nation may ...
>
> > (6) enhance the quality of renewable resources and approach the maximum obtainable recycling of depletable resources.

To our knowledge, the procurement policies and practices of the DOD have not been brought into more than preliminary compliance with the above provision. Yet the purchasing power of DOD is immense and could exert a steady, pervasive pressure to achieve "maximum obtainable ['reasonable'] recycling of depletable resources." Recent studies by Arthur D. Little and Company indicate the scope of DOD purchases generally: 0.4% of all meat packed in the United States, 0.7% of all dairy products, 0.2% of canned and frozen goods, 0.1% of all beverages, 1.1% of all fiber cans, 0.3% of all glass and glass products, and 0.2% of all metal containers.

A specific example will be instructive. In being specific, however, we do not wish to narrow your focus. Analysis of DOD's entire procurement policies and regulations should reveal literally hundreds of opportunities for energy and resource savings. This example is thus only illustrative, although it may also have symbolic value that you may wish to exploit.

The example concerns one-way beverage containers systems as compared to the refillable-container-deposit system. National conversion back to the refillable bottle system would result in a net energy saving of between 0.2 and 0.4% of the total U. S. energy demand. The lower figure is enough to meet the electrical needs of Washington, D. C., Pittsburgh, San Francisco and Boston for about 5 months. This result is detailed in the attached study by Dr. Bruce M. Hannon, Director of the Energy Research Group of the Center for Advanced Computation at the University of Illinois. Dr. Hannon has converted the Input-Output data of the Department of Commerce from a dollar base to an energy base and has used the resulting matrix to compute energy requirements, both direct and indirect, for various products. His study of beverage containers represents an important advance in energy analysis.

Dr. Hannon has also analyzed these systems using another parameter which has extraordinary current significance: employment. The refillable-container-deposit system is not only less energy intensive, it is more labor intensive. In a time of critically high unemployment this is important. The record size of current and anticipated age classes entering the labor market promises to render unemployment a persistent problem for some years to come. Significantly, the rise in employment accompanying a shift to returnable containers occurs in low-level jobs where the unemployment rate is highest. A net increase of some 130,000 jobs would result from complete conversion of the American beverage industry to refillable containers.

In addition to these advantages, complete conversion would save consumers approximately $1.4 billion. Solid waste problems would diminish; as Oregon has shown, litter from beer and soda cans would nearly disappear. Pressure on iron, aluminum and petro-chemical feedstock resources would be reduced. The net advantages, in other words, are not only environmental, they are economic and social as well. These advantages would accrue to the nation as a whole. They would also accrue to DOD personnel directly. Retail consumers will save about 30% for soft drinks and 10 to 15% for beer in refillable containers. Inculcating millions of young Americans away from throw-away consumption habits will be a long term benefit for which DOD could take credit, and deservedly so.

We believe there would be a reduction in the cost of, and in the amount of personnel required for, the handling of DOD's solid waste. Additionally, a portion of the savings from abandoning the expensive disposable container system could be used to hire the additional personnel needed to handle refillable containers at DOD commissaries, exchanges and other distribution points.

It is true that these reforms are opposed by the disposable container industry. But its shrill portents of doom for the refillable-container-deposit system have simply not materialized in Oregon and localities that have overcome its opposition. We believe DOD could provide important leadership in accelerating a return to economic and environmental reason in this field. Total sales of DOD commissaries and exchanges, for example, are over $6 billion.

Shortly there will be a further compulsion to reform DOD procurement policy. The Solid Waste Disposal Aact (Title 42, U.S.C., Section 3251, et seq.) instructs EPA to issue guidelines for use of Federal procurement to develop market demand for recovered resources. Additionally, Executive Order 11752, entitled "Prevention, Control and Abatement of Environmental Pollution at Federal Facilities," Federal Register Vol. 38, No. 243 (19 December 1973) provides, at Section 4(a)(4), that:

> (a) Heads of Federal Agencies shall insure that all facilities under their jurisdiction are designed, constructed, managed, operated and maintained so as to conform to the following requirements:
>
> * * * *
>
> (4) Guidelines for solid waste recovery, collection, storage, separation and disposal systems issued by the Administrator (of the Environmental Protection Agency) pursuant to the Solid Waste Disposal Act, as amended."

Even before implementation of the Solid Waste Disposal Act, NEPA impels action now. Ongoing DOD procurement of goods and supplies is clearly "a major Federal Action" within the meaning of the National Environmental Policy Act. Section 4332 of NEPA states in part:

> Sec. 102. The Congress authorizes and directs that, to the fullest extent possible: (1) the policies, regulations, and public laws of the United States shall be interpreted and administered in accordance with the policies set forth in this Act, and (2) all agencies of the Federal Government shall --
>
> * * *
>
> (C) include in every recommendation or report on proposals for legislation and other major Federal actions significantly affecting the quality of the human environment, a detailed statement by the responsible official on
>
> * * * *
>
> (v) any irreversible and irretrievable commitments of resources which would be involved in the proposed action should it be implemented.

We therefore request that the DOD prepare an Environmental Impact Statement analyzing its procurement practices, together with feasible alternatives to those practices, from economic, environmental and social viewpoints. As a part of this process we believe that sale of beer and soft drinks in one-way containers at commissaries, post exchanges, private concessions and other outlets on DOD installations should be scrutinized. We believe that such scrutiny will result in your decision to specify more energy efficient distribution methods for such beverages on DOD installations. We believe that through the Impact Statement process, DOD can comply with NEPA and, specifically, with Sections 4331(b)(6) and 4332.

In addition, we respectfully request that you furnish us with the following information:

1. Any studies of DOD procurement of beverage industry products, or any other products, prepared by DOD, or any other Federal agency or organization on behalf of DOD.

2. Any studies or reports prepared by or on behalf of DOD analyzing the impact of DOD procurement on increased utilization of secondary, recycled and reusable materials.

3. Any studies exploring and analyzing the environmental, economic, solid waste, and energy consequences of different procurement policies, including any environmental impact statements.

4. Any studies or reports analyzing the cost, volume and nature of DOD's solid waste program, including the cost associated with disposal of disposable beverage containers.

5. Any data on (a) the total number and type of beverage industry containers purchased during each of the last five years by DOD and by the purchasing agencies and departments under its control, including post exchanges, commissaries, and private concessions; (b) the total sales of each type of beverage industry product by DOD post exchanges, commissaries and other agencies; (c) a breakdown of the information requested in (a) supra, into the number of returnable and throwaway beverage containers purchased by or on behalf of DOD for each of the five years.

We look forward to your response to our recommendations and suggestions.

Respectfully,

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Mr. ROGERS. Our next witness is Mr. William C. Dell, executive vice president, Combustion Power Co., Inc., Washington.

STATEMENT OF WILLIAM C. DELL, EXECUTIVE VICE PRESIDENT, COMBUSTION POWER CO., INC.

Mr. DELL. Thank you, Mr. Chairman. I have had the opportunity to testify before this committee before.

Mr. ROGERS. Yes. We remember.

Mr. DELL. I have made available a brochure.

Mr. Chairman, members of the committee. Successful demonstration of the full-scale CPU–400 gas-turbine system for material recycling and utilization of municipal wastes as nonpolluting fuel for the generation of electricity will require authorization and appropriation of approximately $12 million of R. & D. funds over 3 years commencing in fiscal year 1975.

The demonstration plant will be the end product of 7 years' research and development effort in new combustion technology financed by the Government at a cost of nearly $8 million. It will be an environmentally-safeguarded unit serving a population of 250,000. The electric power return will meet the total requirements of up to 10 percent of the population served.

Members of the Congress who have supported and overseen the CPU–400 project are desirous, no doubt, of its completion on a timely basis. We are at that threshold now.

Several years ago, when research and development work was progressing through the throes of infancy, Congress was bent on pushing forward, as expressed in the language accompanying the Resources Recovery Act of 1970:

> The committee was particularly interested in research efforts to produce electrical energy using municipal wastes as the fuel.
>
> One method under study, for example, will reduce waste disposal cost to $1 per ton as compared to clean incineration costs of $6 to $8 per ton. This reduction results from the value of recovered electric energy and the other recoverable materials.
>
> The cost of development of the system through the full scale operating prototype is approximately $19.5 million. It is the type of technological development which should be considered for funding under this section.

It now appears that the overall cost for completion of the CPU–400 project will be about $20 million. The cost of the project has not escalated over the years.

We would hope that the system would be made available to all communities upon completion of the federally-funded demonstration, but, hopefully, with continued Federal Government interest.

The pilot plant for the CPU–400 is located in Menlo Park, Calif., and has been under the supervision of EPA for several years. It has been utilized to incinerate random loads of municipal wastes collected by nearby communities.

As of this moment, the system has a proven performance record for incinerating normal-type municipal waste, well inside existing pollution limits. The combustion technology utilizing a pressurized fluid-bed has been thoroughly examined and found worthy by EPA. The computerized fully-automatic system for taking the refuse from the dump truck and through every cycle has been proven. In this process,

the refuse is pulverized and automatically sorted, with reclaimable metals and glass removed from the combustible portion for reuse.

Remaining R. & D. now being negotiated with EPA, will be devoted to eliminating deposits on the turbine blades which occur in the power generation cycle. This essentially is the result of molten micron-sized pellets of aluminum that are not fully oxidized carried in the hot gas flow. A newly-invented granular filter, which has been successfully tested in subscale over the past few months, will be employed to overcome this remaining problem. The plant will be back in full tests with the filter in place by November of this year. The filtering system will virtually remove all particulate matter, making the system even more acceptable from an environmental standpoint.

Other requirements of the original program have been completed. In brief:

Air pollution emission standards of 0.03 grains/standard cubic foot have been met and will be far exceeded with the incorporation of the granular filter.

Combustion efficiencies of over 99.5 percent have been achieved.

Exhaust gases have been controlled to below 30 ppm for carbon monoxide; below 20 ppm for sulfur dioxide; 138 ppm for nitrogen oxides; and 161 ppm for hydrogen chloride.

Finally, the CPU–400 pilot plant has additionally been used to demonstrate making electric power from hog fuels (wood waste) in cooperation with EPA and the Weyerhaeuser Co.; it will again be used to safely burn high-sulfur coal in a demonstration project now underway sponsored by the Office of Coal Research in cooperation with EPA. Both of these tests involve the generation of electricity through the same gas-turbine system used in the garbage tests.

It should be re-emphasized that this program from its inception has been and remains a Government-sponsored R. & D. contract. The pilot plant in Menlo Park and all of the sophisticated test equipment is wholly-owned by the U.S. Government as well as the patents that have resulted from this work. The program has been completely open and fully reported, and Combustion Power Co. has no exclusive domestic rights to the system.

The CPU–400 project was undertaken to make a giant step forward in the state-of-the-art of municipal waste recycle and energy recovery. Both the combustion technology and the use of a gas turbine represent a significant adventure in this kind of work.

Mr. Chairman, yesterday I had the opportunity to hear the EPA testimony by Mr. Russell Train and Mr. Arsen Darnay. If it is agreeable to you, I would like to make a few additional comments specifically related to that testimony.

Mr. ROGERS. All right, it is my understanding from our questioning yesterday they are prepared to proceed after your filter has been demonstrated.

Mr. DELL. First, Mr. Darnay described the CPU–400 project as one that has had considerable technical difficulties. I think a more positive way to put this is that the CPU–400 system is technically the most advanced solid waste recycling and energy recovery system in development in the free world today. We expected to have technical problems in this development, and we now believe that we are on the verge of solving them all. Of course, if we encounter an unsolvable technical problem, the program should, and would, stop.

Mr. Darnay also testified that the newly-invented filter must work but there is concern about temperature and pressure losses. Our subscale test thus far on the new filter indicates that the pressure drops and temperature losses in the filter are completely acceptable. We see no problems in proceeding with its full-scale development.

In the beginning of this program, there was great concern as to whether we could burn solid waste in a fluid-bed. We accomplished that. Then there was concern as to whether we could process solid waste adequately in large quantities to feed a fluid-bed combustor—we accomplished that. Then there was concern as to whether we could control the combustion process adequately to operate a gas turbine—we accomplished that. Now there is concern as to whether we can remove the small aluminum particles from the hot gases—and we will accomplish that.

Second, and perhaps the most disturbing, Mr. Darnay, in reply to your question as to what are the plans in the event the filter works, stated that no additional funds would be required because the program would then be successful. As I have stated in my prepared testimony, this program was originally proposed as a $19.5 million development effort to build a full-scale plant. If it was to stop with an experimental subscale pilot plant, it should never have been started.

Mr. ROGERS. I think the committee feels the press of the intent was that it should be built as a demonstration project. I think the committee will let our feelings be known on that.

Thank you very much. It is encouraging what you have done with the unit. This committee, as you know, has actually seen that and it was most impressive.

Mr. DELL. We would like to have you come back and take another look.

Mr. ROGERS. As soon as you get that aluminum filter, maybe we can.

Our next witness is Mr. Victor Sussman of the environmental and safety engineering staff of the Ford Motor Co.

STATEMENT OF VICTOR H. SUSSMAN, DIRECTOR, STATIONARY SOURCE ENVIRONMENTAL CONTROL OFFICE, FORD MOTOR CO.

Mr. SUSSMAN. My statement, if you will notice, is typed on both sides of the sheet which is part of a company project to save paper.

Mr. ROGERS. Is this recycled?

Mr. SUSSMAN. I do not know, but I might mention that our last annual report did consist partly of recycled paper.

My name is Victor H. Sussman, and I am director of Ford Motor Co.'s stationary source environmental control office. My principal responsibilities are to insure that our manufacturing facilities comply with governmental environmental regulations and to provide technical representation on these matters with governmental agencies. Prior to joining Ford, for 19 years I worked with various governmental environmental agencies at the Federal, State, and local level. For 14 years immediately before joining Ford, I was director of the Pennsylvania State Air Quality and Noise Control Bureau.

H.R. 13176 establishes a blueprint for Federal-State cooperation in a deliberate and progressive solid waste management program. This bill has a number of obvious similarities to the Federal Clean Air Act and Water Pollution Control Amendments of 1972 in establishing a

procedure whereby State implementation plans are developed in accordance with Federal guidelines. There presently are many difficulties and controversies with respect to federally mandated State-level activities. The plethora of Federal guidelines (which often change in direction and substance), procedural redtape and reporting requirements (which in themselves are creating a significant solid waste problem) are adversely affecting Federal-State working relationships. One of the last reports I submitted to EPA in my previous position in Pennsylvania weighed 44 pounds and took 2 man-years of effort to prepare. To this day, I have been unable to determine that this and other similar State reports have been put to any useful purpose.

If Federal program grant support is withdrawn (as recently indicated), it is obvious that the States will either disregard most Federal guidelines or drop local and State programs entirely. Program grant support is the only reason most States are complying with Federal directives. The State would be more willing to comply with Federal directives if they were provided with real and meaningful roles in the development of implementation plan guidelines. There is wide experience and this experience should be used in a positive manner. It is not enough to have selected State officials appointed to EPA advisory committees where they may or may not be listened to. Congress can insure that State government has a meaningful and appropriate input by requiring all program guidelines be reviewed, before promulgation, by a committee of State waste management program officials. Meetings of this committee should be open to the public and a record made of the committee proceedings. The annual report to Congress required by section 235 should contain a report prepared by this committee of State officials.

Mr. ROGERS. It sounds like a good suggestion, Mr. Sussman.

Mr. SUSSMAN. Thank you.

Since, as I have previously noted, air, water, and solid waste pollution problems are closely interrelated, it would be quite helpful if section 217 required that the guidelines specifically provide for coordination of timetables, reporting requirements, permit issuance procedures, et cetera, required under the Clean Air Act and Water Pollution Control Amendments of 1972. A single industrial operation can have numerous regulatory requirements placed on it under Clean Air Act Implementation Plan regulations, NPDES permits and now the proposed solid waste management permits. Governmental agencies have been unable to issue single permits and otherwise simplify procedures because of the different timing and other requirements in Federal air and water pollution control legislation. In fact, my office has had to develop a computerized program in order to keep abreast of the various dates on which we are to submit reports, applications or other material to various governmental agencies. By requiring a simplification of permit issuance and other compliance procedures, Congress would give recognition to the fact that air, water, and solid waste managment efforts are closely interrelated.

H.R. 12537, title II, product standards and regulation, requires the Administrator of EPA to set standards for the manufacture and distribution of any product to protect health or the environment against unreasonable risks of disposal provided he finds that regulating disposal is not as effective as regulating input content. As defined the

word "product" covers end items, but not materials incorporated by manufacture into end items, although it includes all packaging, including packaging of intraindustry shipments.

The provision also would give EPA broad powers to prohibit the introduction into commerce of products which, upon disposal, would cause unreasonable burdens and risks to health and the environment.

We oppose title II as a costly and less effective means of achieving the legislative objectives than alternatives such as elimination of any discriminatory freight rates, the imposition of a small disposal fee—for example, in the case of the motor vehicle, a $1 surcharge added to the annual registration fee—and the implementation of improved State and local collection/recycling systems. The imposition of product standards covering material content would tend to stifle initiatives, deter product improvement and innovations, and increase consumer cost.

I would like to submit for the record a detailed statement in support of our position opposing product standards for motor vehicles.

Mr. ROGERS. That will be accepted and will be made a part of the record. [See statement p. 285, this hearing.]

Mr. SUSSMAN. This statement points out that the motor vehicle is currently one of the most recyclable and recycled of all the major consumer products; a surcharge of not more than $1 on the motor vehicle registration or title transfer fee has provided effective support for governmental programs to move discarded vehicles into recycling systems.

This statement is included at the end of this presentation.

Another argument against the promulgation of product standards is the question of conflicting performance objectives.

We believe that the proposed mandatory product standards may not only prohibit the use of some very desirable materials and postpone the development and introduction of new ones, but actually result in conflicts with other important Government regulations while I have pointed out.

I would like to submit for the record the following examples of certain materials not currently recyclable and used to meet current or anticipated Government regulations—laminated safety glass, steel belted radial tires, PVS plastic, and reinforced thermosetting plastics.

Under title II, there also is section 208 on "State Authority." Section 208 starts out giving preemptive status to product standards and disposal regulations established by the Administrator, but then provides that the Administrator can waive such status for any State requirement if the waiver will not place an unreasonable burden on commerce.

We believe that enactment of this provision, if product standards are established, would encourage States and municipalities to compete in the development of different solutions.

We recommend that the study required under this provision should consider, in addition to the "average type" disposal charge concepts such as a penny a pound mentioned in the bill, the feasibility and appropriateness of specific disposal charges for specific products based on their actual disposal costs.

Therefore, in summary, we favor enabling legislation such as H.R. 13176, which will permit development of an effective and progressive

program at State and local levels, where knowledge about the empathy for these programs exist. We believe that it not only would be counterproductive to specify detailed programs to be implemented—such as specified in H.R. 12537—but would straitjacket administrative agencies thus inhibiting the discretion and flexibility need to effectively and efficiently carry out legislative intent.

[Testimony resumes on p. 286.]

[Mr. Sussman's prepared statement follows:]

STATEMENT OF VICTOR H. SUSSMAN, DIRECTOR, STATIONARY SOURCE ENVIRONMENTAL CONTROL OFFICE, FORD MOTOR CO.

My name is Victor H. Sussman and I am Director of Ford Motor Company's Stationary Source Environmental Control Office. My principal responsibilities are to ensure that onr manufacturing facilities comply with governmental environmental regulations and to provide technical representation on these matters with governmental agencies. Prior to joining Ford, for 19 years I worked with various governmental environmental agencies at the federal, state and local level. For 14 years immediately before joining Ford, I was Director of the Pennsylvania State Air Quality and Noise Control Bureau. I note this experience with government because some of the comments I wish to offer are related to improved federal-state working relationships in environmental control activities. Such improved working relationships are not only in the best interest of government, but are vital to enabling industry to efficiently and effectively comply with regulatory requirements. All too often, because of differences between varions governmental agencies, industry is whipsawed in its attempts to get clear directions and reallstic requirements regarding its pollution control efforts.

H.R. 13176 establishes a bine print for federal-state cooperation in a deliberate and progressive solid waste management program. Thls bill has a number of obvious simllarities to the Federal "Clean Air Act" and "Water Polintion Control Amendments of 1972" in establishing a procednre whereby state "Implementation Plans" are developed in accordance with Federal "guidelines." There presently are many difficuitles and controversles with respect to federally mandated state level activities. The plethora of federal guidelines (which often change in direction and substance), procedural red tape and reporting requirements (which in themselves are creating a significant solid waste problem) are adversley effecting federal-state working relationships. One of the last-reports I snbmitted to EPA in my previous position in Pennsylvania weighed 44 pounds and took two man-years of effort to prepare. To this day, I have been unable to determine that this and other similar state reports have been put to any usefnl purpose.

If federal program grant support is withdrawn (as recently indicated) it is obvions that the states will either disregard most federal guidelines or drop local and state programs entirely. Program grant support is the only reason most states are complying with federai directives. The states would be more willing to comply with federal directives if they were provided with a real and meaningful role in the development of "Implementation Plan Guidelines." There is wide experience at state and local levels in the operation of environmental control programs and this experience should be used in a positive manner. It is not enongh to have selected state officials appointed to "EPA Advisory Committees" where they may or may not be listened to. Congress can ensure that state government has a meaningful and appropriate input-by requiring all "program guidelines" by reviewed, before promulgation, by a committee of state waste management program officials. Meetings of this committee should be open to the pnblic and a record made of the committee proceedings. The annual report to Congress required by Section 235 should contain a report prepared by this committee of state officials.

Since, as I have previously noted, air, water and solid waste pollution problems are closely inter-related, it would be quite helpful if Section 217 reqnired that the "guidelines" specifically provide for coordination with timetables, reporting requirements, permit issuance procedures, etc., required under the Clean Air Act and Water Polintion Control Amendments of 1972. A single industrial operation can have numerous regulatory reqnirements placed on it under Clean Air Act Impiementation Plan regulations, NPDES permits and the proposed solid waste management permits. Government agencies have been nnable to issne single permits and otherwise simplify procedures because of the different

timing and other requirements in Federal air and water pollution control legislation. My office has had to develop a computerized program in order to keep abreast of the various dates on which we are to submit reports, applications or other material to various governmental agencies. By requiring a simplification of permit issuance and other compliance procedures, Congress would give recognition to the fact that air, water and solid waste management efforts are closely inter-related—and Section 217 of H.R. 13176 and Section 302 of H.R. 12537 provides this opportunity.

I would now like to address a number of specific issues related to the approaches to solid waste management, indicated in these Bills.

H.R. 12537 Title II "Product Standards and Regulation" requires the Administrator of EPA to set standards for the manufacture and distribution of any product to protect health or the environment against unreasonable risks of disposal provided he finds that regulating disposal is not as effective as regulating input content. As defined the word "product" covers end items, but not materials incorporated by manufacture into end items, although it includes all packaging including packaging of intra industry shipments.

The provision also would give EPA broad powers to prohibit the introduction into commerce of products which, upon disposal, would cause "unreasonable burdens and risks" to health and the environment.

In addition, Title II directs the Administrator of EPA to conduct a study of possible methods of regulating the design use, reuse, and recycling of certain products to reduce the generation of solid waste, consumption of virgin resources, and the burdens on the environment associated with the manufacture, utilization, or disposal of such products.

We oppose Title II as a costly and less effective means of achieving the legislative objectives than alternatives such as elimination of any discriminatory freight rates, the imposition of a small disposal fee (e.g. in the case of the motor vehicle, a $1 surcharge added to the annual registration fee), and the implementation of improved state and local collection/recycling systems. The imposition of product standards covering material content would tend to stifle initiatives, deter product improvement and innovations and increase consumer cost.

I would like to submit, for the record, a detailed statement in support of our position opposing product standards for motor vehicles [see p. 285.]. This statement points out that:

> The motor vehicle is currently one of the most recyclable and recycled of all the major consumer products
>
> A surcharge of not more than $1 on the motor vehicle registration or title transfer fee has provided effective support for governmental programs to move discarded vehicles into recycling systems.

This statement is included at the end of this presentation.

Another argument against the promulgation of product standards is the question of conflicting performance objectives.

We believe that the proposed mandatory product standards may not only prohibit the use of some very desirable materials and postpone the development and introduction of new ones, but actually result in conflicts with other important government regulations in the areas of safety, damageability, and emissions, as well as our ongoing goals of improved fuel economy, reduced noise levels, improved appearance, durability, and overall product value.

I would like to submit for the record the following examples of certain materials not currently recyclable and used to meet current or anticipated government regulations.

Laminated Safety Glass.—The bonded polyvinyl butyrate layer in the glass, necessary for safety requirements, makes separation of the glass from the plastic for recycling of either product impractical.

Steel Belted Radial Tires.—Radial tires represent improvements in safety, fuel economy (regulation anticipated) and also have prolonged tire life. However, the moulding process makes separation of the steel wire from the rubber tread impossible, making recycling very difficult.

PVC Plastic.—FMVSS 302 sets flammability standards for automotive interior materials. PVC meets these standards better than most plastics. It is not n recyclable, however, and cannot be burned to recover fuel value as could many of the other automotive plastics. (It should be noted that the majority (by weight) of plastic used in the automobile is thermoplastic (e.g., grills, instrument panels, lamp lenses, fender liners, etc.) which is completely recyclable in production and potentially usable at least for its fuel value when the automobile is scrapped.)

Reinforced Thermosetting Plastics.—As opposed to thermoplastics, these reinforced thermosetting plastics, when reinforced with fiberglass, are not generally recyclable. They are used to reduce weight and improve styling in the front end of several vehicle lines. However, the weight savings are usually significant and represent a net energy save over the life of the vehicle (gas mileage improvements minus crude oil and energy content of the plastic).

Furthermore, the fuel economy standards now being proposed in Congress are in large measure the result of the negative effect that emissions control standards have had on vehicle fuel economy coupled with the critical petroleum supply shortage. It is, therefore, extremely important to determine in advance what priority should be given the objectives to be accomplished.

In our judgment, imposition of new recycling product standards on automobiles will have little, if any, impact on capturing the other 15–20% of retired vehicles that are not now being recycled. A more reasonable approach to increasing the number of vehicles recycled would include in our view, grants and other assistance to improve recycling business, and, the development of sound State and local collection/recycling systems.

Under Title II, there also is Section 208 on "State Authority". Section 208 starts out giving preemptive status to produce standards and disposal regulations established by the Administrator, but then provides that the Administrator can waive such status for any state requirement if the waiver will not place an unreasonable burden on commerce.

We believe that enactment of this provision (if product standards are established) would encourage states and municipalities to compete in the development of different solutions. Such a situation would make it very difficult for Ford or any other company which manufactures a high volume of uniform products in a relatively small number of locations to maintain acceptable product quality at reasonable price. This is particularly true where we, a motor vehicle producer, must meet other federal standards—safety, emissions, damageability—which might conflict with disposability and use of recycled materials.

We believe that the objective could be achieved better and at less consumer cost with complete federal preemption (deleting Section 208(b)). If experience shows that areas which should be controlled are not controlled, or that standards should be modified, the better remedy is through amendment of the federal standards rather than miscellaneous state actions.

Title III.—"Unsafe Disposal Practices" requires the EPA to establish disposal regulations for implementation by the states. Again, it is important that these regulations not conflict with regulations adopted under other Federal Statutes (e.g. regulations controlling "leaks to surface waters and to ground waters" etc., should be consistent with requirements of the 1972 Water Pollution Control Act). Also, such regulations should be developed with full and meaningful participation by the States.

Title IV.—"Federal Procurement and Measurement" proposes (in Section 401(d)) the establishment of federal procurement practices that will encourage the use of recovered materials to the maximum extent feasible, including establishment by EPA of product standards for minimum content of recycled, reused and recyclable materials.

We support the intent of this provision, but disagree with the method suggested to implement the plan, since it would be difficult, if not impossible, for many manufacturers to comply with rigid standards, particularly when second and third tier suppliers are responsible for supplying sub-components.

As an alternative, the Company suggests an incentive program under which a contractor would request the manufacturer to specify the percent of recycled material that he can certify as used in the manufacture of a product. The percent of recycled materials used would then be considered, along with price and other factors, in governmental purchase decisions.

Title V provides for the establishment of a program to foster energy recovery by providing financial assistance in the research, development and installation of solid waste heat recovery facilities for residential, commercial, industrial and agricultural sources. Financial assistance can be in the form of grants, loans, and loan guarantees.

We support this provision. With sanitary landfill capacity in the major metropolitan areas steadily diminishing and transportation costs increasing, it is essential that better methods of solid waste disposal be developed and utilized. The program outlined under Title V will assist in this development. Heat recovery from solid waste offers one of the better methods of recovering resources from solid waste, particularly in the light of the fuel shortage facing this nation.

Huge sums of money will be required to develop and build these facilities. The financial assistance program proposed in this provision of the Bill will encourage a more rapid development and utilization of heat recovery facilities.

Title VII—"National Commission on Environmental Costs" would create a twelve member Commission (NCEC) to undertake the research and comprehensive study needed to form the basis of a practical national disposal cost system. The NCEC would be composed of six members of Congress, three federal agency employes, and three from the general public.

We recommend that the study required under this provision should consider, in addition to the "average-type" disposal charge concepts such as a penny a pound mentioned in the Bill, the feasibility and appropriateness of specific disposal charges for specific products based on their actual disposal costs. The study should also consider the feasibility and appropriateness of levying the disposal charge over the useful life of a product as opposed to including it in the original sales price. For products such as automobiles, for example, that have numerous years of useful life and, in many cases, more than one owner, it would appear more appropriate that the various owners share the cost of final disposal of the vehicle. This is one of the main reasons we have supported the imposition of a surcharge added to annual motor vehicle registrations or title transfers, to process motor vehicles that have been either abandoned on public or private property, or left to deteriorate at auto wreckers or auto graveyards. California, Hawaii, Illinois, Maryland, Minnesota, Montana and North Dakota have adopted programs of this kind in the last few years. While a number of other states now have bills pending recommending this approach.

The Bill also proposes that the NCEC study the use of standards as a means to reduce wasteful use of materials, to reduce pollution damage, and to make recommendations concerning control of all pollution sources. In our view, these studies tend to duplicate other investigations provided for in the Bill and overlap the authority of existing agencies, notably the Council on Environmental Quality and the Environmental Protection Agency. The Commission should work very closely with the existing agencies on any studies that tend to overlap or duplicate projects that might be underway.

Finally we believe the Commission would be strengthened if some of its membership were drawn from those in the business community specializing in pollution control and solid waste disposal. The practical knowledge and experience that such individuals could share with other members of the Commission should be of significant value in structuring and completing the various studies.

Therefore, in summary, we favor enabling legislation such as H.R. 13176, which will permit development of an effective and progressive program at state and local levels, where knowledge about the empathy for these problems exist. We believe that it not only would be counter productive to specify detailed programs to be implemented (such as provided for in H.R. 12537) but would straitjacket administrative agencies thus inhibiting the discretion and flexibility needed to effectively and efficiently carry our legislative intent.

STATEMENT IN OPPOSITION OF PRODUCT STANDARDS FOR MOTOR VEHICLES

The motor vehicle is currently one of the most recyclable and recycled of all the major consumer products. On the average, 80 to 85% of the vehicles "retired" from use each year are being reprocessed through existing scrap recovery channels. During this past year, because of the high demand for iron and steel in the United States, as well as foreign countries, the number of motor vehicles recycled nearly equaled the number of vehicles removed from service. This is not to say the junked motor vehicle problem is solved. What it does signify is that this country currently has a very complete recycling system for motor vehicles and that when there is a strong market for recycled scrap, there is sufficient technology and equipment available to recycle those motor vehicles that are relatively accessible. The vehicles that do not normally enter the recycling system are those that have been abandoned on public or private property sufficiently far away from the recycling center so that it is not economically profitable for private industry to collect the vehicles and transport them to be processed. Junked vehicle projects designed to solve this problem in Minnesota, northern Michigan and a number of states in the Appalachian Region have shown that the net operating costs for gathering vehicles discarded outside the recycling system are $15 or less per unit collected. To fund this kind of program, the Company has advocated the imposition of a surcharge, generally not more than $1, on annual motor vehicle registration or title transfers. Seven states have approved this

approach in their respective legislatures and others have the plan under consideration.

As to the recyclability characteristics of the vehicle itself, the U.S. Bureau of Mines and many operators of large shredding operations in this country and overseas have found that at least 90 to 95% of the ferrous and non-ferrous metals in the vehicles being processed is recoverable. In addition, at least 90% of the non-metallic resources, excluding glass, are in principle recoverable in the form of energy. The following discussion attempts to support these generalized statements by examining the recyclability of each of the materials in a 1971 Ford composite vehicle.

The attached exhibit shows the various materials that made up the average 1971 Ford vehicle. They are: iron, steel, aluminum, rubber, lead, glass, etc. As indicated, technology currently exists to separate out and reclaim as secondary materials nearly every material used in the Ford car. The few exceptions are rubber, glass and plastics. New technology is under development that will either recover these materials in the form of energy or as reclaimed material. It is our judgment that within a year energy recovery technology will be available for both the rubber and plastic, and that it will be commercially feasible to recycle at least one grade of plastic, namely urethane foam.

Until recently, urethane foam that is widely used for seating and safety padding in autos, presented a growing disposal problem. This material approaches one-half cubic yard in volume in some of the newer model cars and is expected to appear in large volume at motor vehicle recycling plants (auto shredders) in the next five to seven years. Urethane foam is unsuitable as landfill because of it high water absorption, compressability and low biodegradability. About 95% of the urethane foam in a car can be separated and collected by the current air elutriation used at many shredders. Ford's Scientific Research Staff has recently developed a process by which the foam may be reduced by a factor of 30 in volume and converted to useful by-products and has engaged in a cooperative program with the U.S. Bureau of Mines to develop the process for shredder operations.

ASSESSMENT OF RECYCLING/RECOVERY TECHNOLOGY FOR MATERIAL IN 1971 FORD COMPOSITE VEHICLE

Materials	Weight (pounds)	Recycling technology: Fully developed	Recycling technology: Under development	Energy recovery technology under development
Ferrous metal:				
Steel	3,105	X		
Iron	691	X		
Total	3,796			
Nonferrous metal:				
Zinc	58	X		
Aluminum	62	X		
Copper	31	X		
Lead	26	X		
Total	177			
Nonmetallic:				
Rubber	101		X	X
Plastic	100		X	X
Glass	90		X	
Total	291			
Grand total	4,264			

Mr. Rogers. I presume you would support the Federal procurement proposal?

Mr. Sussman. I agree that the EPA, rather than setting standards, should require the manufacturer to certify the percent of recycled material in his product. This would be considered, along with price and other factors, in purchasing decisions.

Mr. ROGERS. Put it in bids?

Mr. SUSSMAN. Yes, and use an incentive program. We have a statement here on title V which we support, also title VII.

Mr. ROGERS. Mr. Sussman, thank you for your testimony. I appreciate the way you summarized it and the committee will consider it. Thank you so much.

Mr. SUSSMAN. Thank you.

Mr. ROGERS. The last witness is Mr. James Masson. We welcome you to the committee and you may proceed.

STATEMENT OF JAMES E. MASSON, COUNSEL, QUADRATEC, INC.; ACCOMPANIED BY DONALD A. CRANOR, GEOLOGIST

Mr. MASSON. We appreciate the opportunity to speak before the committee. At this point, I would like to introduce Mr. Donald Cranor, who is the geologist with Quadratec, Inc.

I wish to speak today to the bill, H.R. 13176, now pending before the second session of the 93d Congress.

Quadratec, Inc. is a professional consortium located in Richmond, Ind., that involves principal members providing an interdisciplinary approach to professional services. Included are the basic disciplines of architecture, engineering, geology, soil science, surveying, and planning. Associated expertise is provided in the areas of environmental sciences and landscape architecture.

By virtue of the structure of this professional consortium, we have been involved in solid waste management studies in east central Indiana. From our interest and wish our experience in the environmental impact of solid waste disposal, we come before you today.

In our review of H.R. 13176, we are in agreement with its overall objectives. However, there are several points of clarification that we feel are needed to enhance the effectiveness of the proposed legislation.

With regard to the overall objective of the proposed bill there appears to be a conflict. Section 217 at page 2 and at page 4, (2) (b) calls for the States to adopt "State waste management and resource recovery plans and systems." However, to the extent that the plans should provide for resource recovery, the proposed legislation at (g), page 6, seems to allow the continued operation of landfill solid waste disposal methods. Paragraph (g), while containing a prohibition on the operation of any new open dump or other land disposal site which fails to comply with guidelines, fails to look toward the elimination of the landfill system of solid waste disposal. The reason being that this section allows landfill operations to continue as long as there is compliance with guidelines and would probably allow new landfills to be established after passage of this law. This seems to be in contravention with the objectives of resource recovery, for once trash is buried, recovery of resources therefrom will not be accomplished. The notion of waste management is also thwarted in that landfilling such materials does not achieve a system of management, and in fact encourges a piecemeal, and fragmented system of local landfills which precludes the actual establishment of regional waste management programs.

In east central Indiana, and indeed throughout much of the Midwest, there are inherent problems in the development of sanitary landfills. Some common problems are of geologic origin; namely, proximity of bedrock, high water tables, presence of granular material, lack of suitable cover and unfavorable topography. Another major problem is that the most suitable landfill sites are also the best agricultural crop lands, which are virtually lost forever to crop production when used as landfill sites. Once in operation, hazards encountered include contamination of ground and surface waters, road maintenance, and disruption of neighborhood patterns. There is also no way to curb upward costs of solid waste disposal.

When the concept of recycling was first considered, environment was a primary reason to recycle. Today, energy is yet another factor causing increased interest in recycling. In recycling, energy is not used to bury energy and energy production is achieved from organic residue recovery. With increased emphasis on these, there is an ever widening interest on the part of the general public in solid waste management, and resource recovery.

The proposed bill at page 9, section 2(e) (1), provides that the State shall assign primary responsibility and authority for the plan of waste management and resource recovery to be developed and implemented by the general purpose units of local government. As recent as this week, Quadratec has been involved in attempting to accomplish a solid waste disposal management system in Wayne County, Ind., that is where Richmond is located.

Although, through local county units of government there was wide acceptance of the concept of recycling and the establishment of on-line solid waste management programs, the concept was vetoed due to the higher initial costs as compared to a landfill operation close to the center of population.

From Quadratec's recent studies, the most feasible approach to bridging the gap between local landfills and resources recovery is to facilitate the establishment of interim on-line regional solid waste management systems. Such systems would consist of local receiving transfer stations at centers of population with transfer of solid waste to a central disposal point. This disposal point initially would be a conventional landfill. During the assembly of a complete on-line system with sufficient quantity—approximately 300,000 tons per year—of solid waste, to economically operate a resource recovery plant, the funding, engineering, and construction of such a plant can be accomplished. As the plant is placed in operation the landfill would be phased out and used only to dispose of the nonrecoverable residue from the recycling process.

This is to say, in Wayne County specifically, the waste necessary to economically operate a recycling system is about 300,000 tons of waste per year and Wayne County, Ind., could only generate approximately 90,000 tons per year. It therefore becomes incumbent to operate a recycling system to include other area counties of similar size and population. However, existing Federal or State laws do not facilitate coordination among units of government to achieve a system of recycling within such an area. This particular problem highlights the necessity for the proposed Federal legislation outlined by H.R. 13176. Further coordination is required between subunits of State government, that

is, between city and county governments, in order to attain the objectives of obtaining sufficient quantities of solid waste to support an area recycling system.

Because of this problem of lack of ability to coordinate local units of government to achieve an area recycling system, we feel that this bill should include allowance for private sectors of the economy to be given Federal assistance in guidelines and financial help so that foundations and not-for-profit corporations for example may be allowed to organize to coordinate local units of government in a logical geographical area with the objective of obtaining their solid waste in order to make a recycling system feasible. This will enable local rural communities to end the cycle of landfill following landfill to a more logical on-line system of solid waste management that will eventuate the recovery of natural resources. It is virtually impossible for many communities to break this chain of landfill following due to financial, population, and geographical limitations.

In summary, it has been Quadratec's experience that the general public strongly favors the concept of sound solid waste management and ultimate recycling. Most communities today are disposing of solid waste via landfill operations. As the resources of each site are exhausted, new locations are sought, usually under the extreme protest of neighbors in the community. The availability of new landfill sites which meet proper physical requirements diminishes at a rapid rate. It is obvious resource recovery is impossible once the solid waste has been buried. Therefore, we believe that solid waste management plans must promote the conversion from local landfill operations to on-line systems with ultimate solid waste management and resource recovery by area recycling systems. The proposed legislation contained in H.R. 13176 will promote such systems, hopefully by giving local units of State government the means by which they can unite and coordinate solid waste management and resource recovery systems at less cost to the American taxpayer not only in terms of dollars but in resource recovery and a return of a part of the environment to the people.

I would like to add for emphasis, Mr. Chairman, that the problem we have encountered is the coordination between local units of government in coming together to unite to do this. If the private sectors or agencies of State government can do this with State or Federal funds, we feel this would be a good objective to achieve.

Thank you.

Mr. ROGERS. Thank you very much, Mr. Masson. Do you have something?

Mr. CRANOR. We are attempting to do here in Quadratec, one of the initial attempts to bring the recycling process to mid-sized communities. Other communities in the area have also shown an interest but have failed to come up with some necessary funds to accomplish the initial conversion.

Mr. MASSON. We are speaking to Mr. Carter's statement as to the rural areas.

Mr. ROGERS. Yes, and Mr. Hastings is concerned, as I am.

Thank you for your comments here today.

This concludes the hearing and the committee stands adjourned.

[The following statements and letter were received for the record:]

Statement of Dow Chemical, United States

WASTE MANAGEMENT AND RESOURCE RECOVERY

H.R. 12537, Title III; H.R. 13176, Sec. 217

Consideration of environmental damage from the discharge of solid wastes must recognize the basic mobility difference between such wastes and the discharges of volatile or soluble materials to air or water. When disposed of, solid waste become a relatively immobile pollutant as contrasted with those materials which are released to the atmosphere or waterways and thereby can travel great distances from their source. Because of their immobility, solid wastes are primarily a local problem which varies in severity and best method of management from one geographical area to another.

This concept is recognized in H.R. 13176 and we laud the intent of Section 217 as it provides for Federal guidelines and national compliance but permits flexibility with State by State planning. We also support the scope of such planning as reflected by the "national objectives" to be considered in development of guidelines.

A further necessary consideration is the difference between hazardous and non-hazardous solid wastes, just as there are differences between toxic and non-toxic discharges to air and water. Municipal wastes generally possess a very low toxicity or hazard potential and therefore can be managed differently than certain industrial wastes which may be toxic. Legislation which attempts to deal with all solid wastes should maintain a clear regulatory distinction between non-hazardous and hazardous wastes.

Such distinction is more evident in H.R. 13176 and H.R. 4873 than it is in H.R. 12537.

HAZARDOUS WASTE

H.R. 4873; H.R. 12537, Title III; H.R. 13176, Sec. 219

We agree with the concept of appropriate regulation of the disposal of hazardous waste on land. In analyzing the provisions of the three bills before your committee, we see a very mixed pattern of proposals for regulatory control, some of which are troublesome. We strongly feel that a regulatory mechanism should not unduly impede innovation and the development of new technology.

We therefore recommend your consideration of the following principles:

(1) Legislation should provide a meaningful definition of hazardous waste.

(2) The regulatory agency should be directed to state the results to be achieved, not the methods to be used in disposal or treatment.

(3) The regulatory program should concentrate on standards for the actual disposal of wastes.

(4) To maintain incentive for continued improvement of technology, regulation of manufacturing processes must be avoided.

(5) Federal standards with State implementation and enforcement appear to be the most economical and meaningful plan for regulation, since disposal practices will depend to a large extent upon climatic, topographical, and land-use, and other considerations of a local nature.

Based upon our analysis of the three bills, we emphasize that definition of hazardous waste should receive Congressional direction. We offer the following definition for incorporation in a bill from your committee:

> "A hazardous waste is any waste or combination of wastes which (a) are solid or liquid in nature and which (b) are not utilized in recycle or recovery processes and which (c) pose a substantial present or predictable potential hazard to human health or living organisms when disposed of in sufficient quantities in or on the land."

We believe this definition provides maximum incentive for industrial recycling and recovery. It seems generally accepted that technology will be further developed during the next few years for greater resource recovery and recycling. If wastes with recoverable resources were regulated, the development of new technology would be stagnated or slowed dramatically by the standard for treatment and disposal. A material should be defined as a hazardous waste only after that point at which its commercial value has been utilized.

We recommend Section 219 of H.R. 13176 for incorporation in your final legislation. Our proposed definition could be incorporated as a new subsection

after subsection (a) of Section 219. Subsection (d) of H.R. 13176 provides for issuance of permits for operation of disposal, treatment, or resource recovery sites, but makes issuance of the permit discretionary with the Administrator. We believe that promulgation of suitable performance standards stating what is to be accomplished, obviate any need for discretionary power in issuing permits. It seems to us that the Administrative decision in issuing permits should bo precise: "Will the site or facility meet the standards"

In contrast to H.R. 13176, H.R. 4873 provides for only partial delegation of hazardous waste management to the States. That is, some hazardous wastes, to be identified by the Administrator, would be completely regulated by EPA. We believe that the double systems of regulation would be duplicative of regulatory machinery and personnel and excessively costly. So long as standards are carefully prepared, we do not see that health and environment would be protected to any greater degree by the double regulatory mechanism.

Title III of H.R. 12537 also provides duplicative regulatory schemes for achieving the purposes of disposal. One scheme, the permit system for disposal facilities for hazardous waste seems appropriate. However, we strongly maintain that a permit system for generators of waste is unneeded. A regulatory system for generators of waste would unduly restrict American capability to respond to needed changes by tending to "lock in" processes according to the technology available at the time the permit was issued. We doubt if the bureaucratic reach of this proposal has been appreciated. For example, even hospitals would be required to hold generator permits since pathological wastes represent a significant portion of the hazardous waste problem recently reported by EPA.

STANDARDS OF PERFORMANCE FOR NEW SOURCES, PRODUCT STANDARDS, AND REGULATION

H.R. 12537, Title II; H.R. 13176, Sec. 218

Section 218 of H.R. 13176 and Title III of H.R. 12537 have the common purpose of attempting to encourage recovery and recycle from various waste sources and to minimize health and environmental problems. Although the approach in the two bills is quite different, we find both objectionable because of the unlimited authority given the Administrator to regulate large segments of commerce, and the lack of significant impact on the waste problems of the country. We believe that provisions of the bills for management of solid waste and for regulation of the disposal of hazardous waste will provide adequate and constructive management of the waste problems of the country. We must recognize that municipal garbage, municipal and industrial rubble such as slag, masonry dirt, mining waste, along with sewage treatment solids are among the major components of our waste management problem. As such, neither new source standards or product standards will alleviate these problems. During the last four years, Congress has passed many environmental laws for minimizing health and environmental insult. Many of these laws are yet not completely implemented. The anticipated toxic substances control act legislation and hazardous waste legislation will close the remaining gaps for health and environmental insult. We feel strongly that duplicative regulatory schemes must be avoided.

We have seen during the past year that direct price controls on primary products have been of limited effectiveness. We therefore wish to emphasize that free market economics should be the primary force for stimulating recovery or recycling of materials. New Source standards or product standards would have to be developed on the basis of the supply/demand economics of a given point in time. Locking technology to one given point in time is just unrealistic and will create artificial cost and supply/demand distortions.

We also object to the absolute blanket authority to control production processes and product composition. Any authority to control production or composition of products is premature until *completion* of the studies on costs and recycling contemplated in these bills. The data and information to define the need must be developed and verified before any such authority to control commerce can be considered. Section 203 of H.R. 12537 provides the Administrator with an arbitrary right to control both production volume and product composition without safeguards of criteria which can be understood. Under the extremely broad direction of "protection against unreasonable burdens and risks associated with disposal" the American public would be most confused as to whether concrete, lumber, glass, plastic, paper, metals, or other materials, were intended to be regulated. Similarly, Section 218 of H.R. 13176 contains no criteria for establishing new source standards other than demonstrated technology and "taking

into account the cost" of such technology. Given such broad undirected authority, public confusion would result in inability to anticipate Administrative decisions. Orderly and timely investment of capital and replacement of plants would be seriously impeded in many sectors of the economy. We fear the ripple effects of arbitrary decision would have far reaching social and economic consequences.

We therefore respectively recommend that Section 218 of H.R. 13176 and Title II of H.R. 12537 be abandoned. Both provisions are essentially duplicative of regulatory procedures, either established or anticipated, so far as protection of health and environment. Both provisions would be devastating to the supply/demand characteristics of American commerce.

ENERGY RECOVERY

H.R. 12537, Title V

The development of technology to utilize wastes as an energy source deserves priority recognition, and we are pleased to find such recognition in H.R. 12537. We concur that development of energy recovery technology and facilities will not only contribute to our needed energy sources, but will also contribute to solution of land utilization, sanitation, and other problems associated with the massive amounts of solid waste generated annually. Some degree of Federal support, in addition to efforts of the private sector, seems appropriate and of great value in aiding the States in their planning and resource recovery efforts.

We strongly urge, however, a more realistic approach to background information and patent policy than provided in Section 505. Industry and private institutions have already developed valuable technology for energy recovery. Under the proposal, qualified high-technology companies and institutions likely would not participate in recovery contracts because of lack of compensation for their know-how. This will lead to contractors with limited background and will result primarily in "reinvention of the wheel" rather than extension of technology.

We therefore most strongly recommend that Section 505 be deleted in its entirety from the bill. Such deletion would by law result in the know-how and patent provisions of contracts automatically falling within the provisions of the Government Patent Policy and the Federal Procurement Regulations. The value of background information and the conditions of its use would be considered in negotiating individual contracts.

ECONOMIC COST STUDIES

H.R. 12537, Title VII; H.R. 13176, Secs. 233 and 234

We support the concept of studies as proposed in Sections 233 and 234 of H.R. 13176 and Title VII of H.R. 12537 since such studies would provide a needed and rational identification of the many interdependent factors involved in economical management of non-hazardous solid wastes. Because of overlapping direction, we suggest integration of the various study concepts into one, or at the most, two study groups.

H.R. 12537 proposes a National Commission to study costs but directs the study so specifically that its potential value may be jeopardized. Further, the specific direction toward product taxation and product standards appear to limit the consideration of emerging recovery and recycling technology and changing economics of virgin materials. Rather than directing the Commission to determine the best system to "insure that the price of products will include the cost of their disposal," we believe that the study authority should have the freedom to consider and recommend alternatives which may not necessarily include disposal cost in the price of products. For example, our present system of paying disposal costs locally from general or property tax funds might prove feasible, particularly since these costs vary greatly with geographic or demographic areas. We suggest that specific directives be replaced with a broader charge which would basically direct the authority to:

(*a*) Conduct a comprehensive study of means of reducing the wasteful use of material; and

(*b*) Conduct a comprehensive study of means of paying disposal costs without predetermining at this time, prior to study, which courses Congress wishes the report to recommend.

The provisions of H.R. 13176, Section 233, which would involve State and local inputs to the cost and impact studies are proper and important since such costs

and impacts may vary significantly from one geographical area to another. Section 234 would direct studies of a broader Federal policy level and again we suggest that the objectives of such studies be those stated as items (*a*) and (*b*) above.

In addition to permitting broader consideration of alternatives and the involvement of the States, the value of these studies could be further increased by putting them all under one authority rather than using a fragmented approach.

COUNCIL ON ENVIRONMENTAL REPRESENTATION

H.R. 12537, Title VI

We believe that a Council on Environmental Representation as proposed in Title VI of H.R. 12537 is an unnecessary and inappropriate part of environmental legislation.

During the last three years, the Congress has enacted many environmental laws such as the Water Act, the Air Act, the Ocean Dumping Act, and others which are now being implemented. American municipalities and industry are jointly launched on the program of cleaning the environment, and there is visible progress, along with strong momentum, and a clear statutory mandate for continuing momentum, to abate the environmental problems of the United States. Massive funding of a diminishing problem is inappropriate.

We emphasize that the public hearing process is available to every citizen before regulations are established.

We observe that environmental lawsuits are brought for one of these reasons:

(1) To stop an illegal disposal or illegal environmental insult;
(2) To collect damages;
(3) For harassment purposes.

The Environmental Protection Agency has an extensive charter to protect the environment; the economically impoverished need only register a complaint with EPA to gain enforcement of any illegal disposal or illegal environmental insult. Congressional oversight of the Agency is certainly another effective recourse for the impoverished. If a person has a legitimate claim for damages, a large number of lawyers are available to take his case on a reasonable commission basis.

In contrast, if a person wishes to harass EPA or an environmentally related project, then the massive legal subsidy fund of Title VI of H.R. 12537 indeed will be most useful. We believe the massive appropriations would create a bonanza for the unscrupulous "ambulance-chasing" lawyers instead of contributing to environmental improvement. Furthermore, the funded harassment activities would very likely result in widespread environmental back-lash.

In summary, we recommend your complete rejection of the concept of the Council on Environmental Representation.

GENERAL AND PROCEDURAL PROVISIONS

H.R. 12537, Title VIII; H.R. 13176, Sections 218 and 220

We strongly urge your greater consideration of the value of proprietary and trade secret information. It seems that the provisions of H.R. 13176 could require an industry to give up process or treatment technology to EPA for dissemination to the total industry without any compensation for the value of the technology or even the cost of reporting it to the Administrator [Subsection 220(a) and Subsection 218(a)(3)]. This is certainly a disincentive to innovation, i.e., the responsible company is penalized and the foot-dragger gets a free ride. We suggest deletion of Subsection 220(a). Also, we urge that Subsection 220(b) be broadened to provide for protection of all information entitled to protection by 18 U.S.C. 1905, instead of the proposed limitation of only method or process trade secrets. Without this broadening "process blueprints" will readily be available to competitors. Similarly, we suggest that the words "a trade secret" in 802(b)(2) should be replaced with "information."

In providing procedures for judicial review, we urge that remedy should be available in a U.S. Court of Appeals for the circuit wherein a person adversely affected resides or has his principal place of business, and that the period during which petitions for judicial review may be filed be 90 days. The diversity and complexity of regulations requires more time for careful review. The greater time span would encourage more judicious use of the appeal procedures.

SUMMARY STATEMENT

H.R. 4873, H.R. 12537, H.R. 13176

Dow supports legislation which protects health and environment in an orderly, timely, and non-redundant manner. To meet these criteria in the subject proposed legislation we offer the following comments for the record and for consideration by your subcommittee:

1. For technical effectiveness and administrative efficiency, solid waste management can be best achieved by a combination of Federal guidelines with State implementation and enforcement. Section 217 of H.R. 13176 appears to be a feasible approach. We urge, however, that legislation maintain a clear regulatory distinction between non-hazardous and hazardous wastes.

2. We agree that regulation of land disposal of hazardous wastes is timely and the provisions of Section 219 of H.R. 13176 for Federal standards with State implementation and enforcement should be effective. Definition of hazardous waste either in the legislation or in the legislative history is needed and we suggest the following for inclusion in H.R. 13176:

> "A hazardous waste is any waste or combination of wastes which (a) are solid or liquid in nature and which (b) are not utilized in recycle or recovery processes and which (c) pose a substantial present or predictable potential hazard to human health or living organisms when disposed of in sufficient quantities in or on the land."

We believe this definition to be more realistic than that now contained in Title III of H.R. 12537 and yet amply protective of health and environment. Additionally we recommend that issuance of permits for disposal, treatment, or recovery sites be based upon established standards rather than discriminatory power of the Administrator.

3. The double permit system proposed in Title III of H.R. 12537 requiring permits for both generation and disposal of hazardous wastes is doubly redundant in view of duplicative permits and the pending toxic substances control legislation. Providing that adequate standards are employed in issuing disposal facilities permits, a permit system for generators of wastes is unneeded and would tend to stagnate technology at the level prevailing at the time the permit was issued. A similar rationale applies to the new source standards suggested in Section 218 of H.R. 13176. Emphasis should be placed on what is to be accomplished rather than on how it is to be done.

4. The directive and authority to control production, composition, and distribution of products proposed to be given to the Administrator in title II of H.R. 12537 would be devastating to free enterprise commerce and certainly premature to the studies proposed in Title VII which are to define whether such regulation is needed. For these reasons we urge that the concepts of Title II, H.R. 12537 be deleted from any near term legislation.

5. We support the advancement of energy recovery technology as proposed in H.R. 12537 but strongly believe the value of private background technology must be recognized and protected in order to attract the better qualified potential contracts.

6. The proposal for a council on environmental representation in H.R. 12537 should be abandoned. It would divert from more productive efforts a large portion of taxpayer money to subsidize unnecessary legal actions of doubtful legitimacy. Mechanisms to accomplish the purpose are already provided by agency enforcement, existing Congressional oversight, and common legal channels.

7. We generally support the various cost and resource utilization study proposals of H.R. 12537 and H.R. 13176 in order to provide realistic bases for future Congressional evaluation. We believe the concepts in the two bills should be integrated and suggest the directive for cost studies in H.R. 12537 be simplified and broadened to:

(*a*) Conduct a comprehensive study of means of reducing the wasteful use of materials; and

(*b*) Conduct a comprehensive study of means of paying disposal costs.

8. We strongly urge greater consideration for the value of confidential and proprietary information as a means of maintaining incentives and innovation. Greater protection according to 18 U.S.C. 1905 should be provided and the broad information gathering provision of Subsection 220(a) of H.R. 13176 should be deleted.

STATEMENT OF E. I. DUPONT DE NEMOURS & CO.

We recognize that the disposal of wastes is an ever increasing problem because of the steadily increasing generation of solid wastes, the high cost of disposal, and the unavailability of disposal sites. There appears to be a serious doubt whether existing legislation is sufficient to cope with the problem. We also share this Committee's concern that some of our natural resources are being depleted at a rapid rate, thereby dictating that greater consideration be given to more efficient consumption of such resources. We should encourage further utilization of those materials presently being discarded as wastes which still have potential value as a resource within the practical limits of technology and economics.

The Du Pont Company does not profess to possess expertise in all areas of the solid waste, hazardous waste disposal and resource conservation problems. Nevertheless, we believe that they attempt to legislatively resolve these problems in their entirety may be overly ambitious because of inherent complexities and the current state of knowledge. However, we would like to offer some general suggestions which address these problems, and then focus on some of the sections of H.R. 13176 which have particular significance to us.

SOLID WASTE DISPOSAL

1. We support the establishment of minimum federal standards for the disposal of wastes via open dumps, landfill, and incineration.

2. Regionalization of collection, separation and disposal systems should be fostered in an effort to provide economy of scale.

3. Regional disposal systems which include incineration with energy recovery should be fostered as a direct way to ameliorate a number of important national problems.

These systems would:

(*a*) Provide a relatively clean, non-polluting waste for disposal,

(*b*) Reduce the land required for landfill because of the significant reduction in the amount of waste, and

(*c*) Reduce the need for oil imports by utilization of the energy recovered from the solid waste.

4. The litter issue can best be dealt with by dealing with the cause—people. This should be coupled with an intensive public education campaign dealing with the problems including taxpayer costs which result from the collection and disposal of litter. Strict enforcement of anti-litter laws should be encouraged. Empirical solutions often suggested such as requiring materials to be environmentally degradable will not solve the problem. For example, although paper is a degradable material it makes up a significant percentage of litter today. The fact that it is degradable does little to lessen its nuisance as litter prior to its degradation.

RECYCLING

1. We recognize the complexity of the freight rate classification system and encourage the concept of providing recycled or recyclable materials with more equitable rate treatment. However, all surface carrier rates for the transportation of any property should be compensatory. No rate should be deemed compensatory if it fails to cover the variable costs of performing the service.

2. We favor government procurement practices which provide more favorable treatment toward the purchase of recycled materials, so long as no sacrifices are made with respect to cost, quality, safety, etc.

3. Until economical, mechanical separation techniques are developed and proven, more efficient handling of solid wastes, and separation of recyclable materials from the waste stream could be performed at the consumer level. This could best be encouraged through consumer education and appropriate regulations on municipal collection techniques.

PREFERRED APPROACH TO SOLID WASTE MANAGEMENT

The solid waste problem is obviously a very broad issue affecting all segments of the populace and the economy. It must be recognized that there may be no simple and equitable solution to the entire problem that can be legislatively enacted. For example, although the issues of solid waste disposal and resource conservation have been essentially interwoven by the bills before this Subcommittee, we feel they are quite dissimilar and should be treated accordingly. A

general cost/benefit analysis should he performed for the various types of solid wastes generated in order to deterfine whether the material in question should merely be disposed of or diverted into some type of resource-recovery system.

A number of factors, which will vary regionally, should be considered in determining whether a material has any residual value which ought to be recovered:

(*a*) Cost of recovery, including energy and environmental considerations, compared to the cost of disposal,

(*b*) scarcity of the material or recovreable resource in question.

(*c*) availahility of disposal of recycling technology, and

(*d*) availability of a market or use for such recovered material or resonrce.

Wastes which do not warrant materials recovery efforts as indicated by the suggested cost/benefit analysis, should be disposed of by methods that encourage energy recovery, conserve valuable land, and do not sacrifice safety. Since incineration is a good, sanitary disposal technique which will generally reduce the volnme of the average solid waste stream by over 90 percent, and offer energy recovery potential, it sohuld be considered prior to any landfill operation. This is especially true in light of the shortage of suitahle landfill sites in urban areas. Applicable air and water pollution control regulations should be met, of course. Landfill systems should be adequately designed to avoid sanitation problems and to avoid pollution of adjacent or underground waters which may result from leaching from the landfill.

ENERGY RECOVERY IS RESOURCE RECOVERY

For the materials which are appropriate for recycling or resource recovery based on the suggested cost/benefit analysis, private reclamation systems should be encouraged by tax incentives and other suitable means. Recycling should not be encouraged just for the sake of recycling. Markets for recycled or recovered resources should be encouraged if they exist, or developed if it is economically feasihle, or if the resource is scarce. We highly encourage the inclusion of energy production as a form of recycling or resource recovery. The present energy crisis demands that we do not indiscriminately discard materials which still have energy potential. We endorse EPA's efforts in supporting pilot projects to recover energy such as the one in St. Louis.

The high energy content of plastics makes them beneficial components in solid waste which can he used to generate energy and to assist combustion of other components of solid waste. This concept is heing used in some European nations and in advanced U.S. installations. The EPA pilot projects are producing encouraging leads for the future. It would appear that the conversion of petrolenm to a useful plastic item of commerce followed by the recovery of the energy in the plastic once it is discarded through incineration or through recycling is actually an efficient dual use of a natnral resource. We recognize that the development of systems for the collection and primary separations of solid waste, and the construction of power generating facilities which can burn such fuels, is an essential prerequisite. Nevertheless, we feel this is a much more viable solution that restrictive reguiation of materials which are so useful to society.

The following represents our comments with respect to the specific provisions of H.R. 13176:

Sec. 217—State Waste Management and Resource Recovery Plans

This section encompasses a very energetic proposal to require states to develop comprehensive waste management and resource recovery plans pursnant to EPA guidelines; and if a state fails to develop a suitable plan, EPA would be required to promulgate a plan for such state. EPA and industry (Du Pont Included) have testified before the Senate Commerce Committee that the regulation of nonhazardous wastes should be left to the states or municipalities unless the situation regresses to a point where the public health or welfare is jeopardized. Nonhazardous wastes (assuming they remain as such) are essentiaiiy an aesthetic and spatial problem which can best be dealt with on a case-by-case basis depending on local needs and resources. The myriad of local problems are not conducive to a formai, rigid, far-reaching plan. We support the establishment of minimum federal standards for the disposai of wastes via open dumps, landfill and incineration where abuse can lead to serious health and environmental problems.

Sec. 218—Standards of Performance for New Sources

In accordance with the definition of hazardous waste below, we believe that the Administrator should oniy be given the authority to establish standards of performance for new sources generating hazardous waste.

Section 218 as it now appears would give EPA the authority to control waste generation far beyond what is necessary to solve waste disposal problems. Through this mechanism, EPA could dictate the types of processes employed simply because the vague requirements of that section are met. There is no provision in Section 218 for the type of product produced, the type of new material used, economic factors, and local and national needs. We believe that most waste disposal problems should be dealt with at the point of disposal not at the end of the production line.

This point is further emphasized by the requirement that standards of performance call for the use of the best system of reducing the amount and toxicity of waste. We feel it is unreasonable in most instances to require the use of certain types of process solely based on the waste generated irrespective of whether adequate post production treatment is available. As mentioned in the earlier paragraph, selection of processes is a highly complex technical procedure which necessitates consideration not only of waste generation but also a number of additional factors.

Sec. 219—Hazardous Wastes

We favor regulation of the disposal of hazardous wastes with a number of caveats:

Although EPA is required to identify hazardous wastes, no attempt is made at defining what is hazardous waste. All substances in some quantity could be hazardous. We suggest that a definition of "hazardous waste" be included.

Hazardous waste means any waste or combination of wastes after they have been disposed of which the Administrator finds will cause serious adverse effects on human health to animals or to plants. The Administrator shall take into account the following factors in determining which wastes are hazardous:

(1) the toxicity of the waste and its natural decomposition products after disposal in the environment;

(2) the biological magnification of toxic components of wastes and their natural decomposition products;

(3) the seriousness of the hazards in terms of the quantity and concentration of the waste disposed of and the likelihood of adverse effects occurring from the disposal;

(4) current methods of disposal and the availability of technology to convert the waste to nonhazardous form;

(5) the effect of regulating the waste in terms of the risks avoided vs. the benefits gained or lost from the consumer, economic, social, and environmental standpoint.

We reemphasize our objection to standards of performance and urge the Committee to deal with the regulation of the disposal of the wastes per se;

Some "relationship to other laws" provision should be included to minimize conflicts with the Clean Air Act and the Federal Water Pollution Control Act among other applicable federal laws. We suggest that any hazardous waste bill be applicable only if wastes are not subject to reasonable, effective and appropriate control under other existing federal laws. We feel such an amendment would allow EPA to focus on truly hazardous materials without burdening industry and itself with overwhelming recordkeeping and monitoring responsibilities. This is the approach this Committee adopted in the Toxic Substances Bill (H.R. 5356) last year;

We believe that EPA should be required to issue regulations identifying unsafe disposal practices and hazardous wastes and establishing control standards and state guidelines through formal rulemaking procedures which allow an appropriate opportunity for comment from the public and private sectors. This section is the heart of this title and EPA should not be required or allowed to operate in a vacuum of technical advice. The regulations EPA would be required to issue under this title would deal with a number of varied and complex issues. Interested and affected parties should be provided with opportunity to air their views and information before EPA issues final regulations. The bill now only requires EPA to consult with other federal agencies;

This section also makes an assumption that resource recovery is a viable possibility for hazardous wastes (Sec. 219(a)(2)). Industry generally does not dispose of anything it can profitably recover. We suggest that the resource recovery aspect be an optional approach where appropriate.

Sec. 220—Information Gathering

This section and a few others in this bill call for various reports and other information to be made available to EPA. Much of this information is potentially

trade secret data which should be afforded confidentiality protection. The protection outlined in Sec. 220(b) should be extended to include emission data.

Sec. 226—Citizen Suits

We suggest that only "adversely affected persons" or at least "affected persons" have standing to sue.

Sec. 233—Study of Federal Incentives or Disincentives

We feel the studies required by this section, i.e. import/export quotas, mining policies, taxation policies, etc. may invade the jurisdiction of other committees.

We would be pleased to work with the committee staff to further develop any of the above points. Please call on us if we can be of any assistance.

STATEMENT OF THE GLASS CONTAINER MANUFACTURERS INSTITUTE, INC.

Mr. Chairman and members of the committee, the members of the Glass Container Manufacturers Institute welcome this opportunity to comment in summary form on aspects of H.R. 13176. The members of this national trade association produce more than 90 percent of the glass containers for food, beverages, medicines, cosmetics and other commodities. More than 77,000 persons are directly employed in 27 states at 125 factories.

The industry commends H.R. 13176 sponsors for their attention to the continuing problem of solid waste management in the United States. GCMI supports the intent of the legislation—to improve procedures for the disposal of waste and simultaneously to recover materials for additional use. One of the primary goals of the glass container industry has long been the development of secondary uses for waste glass containers.

The legislation recognizes the role of local government in solid waste management and resource recovery and we support the financial grants under Sections 236 and 237 for actual research and development of plans for specific resource recovery systems.

In working with public works officials throughout the United States, this industry has, of course, advocated the increased activity of resource recovery by local and state government. Public works officials are sympathetic. These officials have been kept up to date on this rapidly developing field. While most public works officials have the necessary knowledge of resource concepts, they lack necessary resources to carry out programs of progressive waste management and resource recovery. The farsighted provisions of H.R. 13176 seek to remedy that problem.

There are many potential uses for all waste container glass. This waste glass or "cullet" may be used for making new bottles or as a raw material for making a variety of secondary products. The most readily available use for waste glass is in the manufacture of new glass containers. Properly prepared and sorted, crushed waste glass has been used to provide up to 30 percent of a glass plant's raw materials requirements and this use may be extended up to 50% in the future.

When distances or transportation cost prohibit cullet for use in the manufacture of glass containers, it can be used as a raw material to make other products. The use of waste glass in secondary products generally reduces or even eliminates the need for extensive processing of the glass rich mixture which is the end product of separation systems. Recently the Glass Container Manufacturers Institute commissioned the Midwest Research Institute to study the economic feasibility of basing new industries on six secondary products made with reclaimed glass. Here are the most promising products:

1. Foamed glass building materials
2. Ceramic building tiles
3. Terrazzo flooring
4. Glass wool insulation
5. Glass rubble building panels
6. Slurry seal street paving

A complete summary of these products and their economic feasibility is attached to this testimony.

In reference to the practical effects of H.R. 13176, the glass container industry believes the federal government should continue to assist in the development of resource recovery systems by creating incentives and support to private industry and to state and local governments. As the bill specifies, the problems of solid

waste must be resolved primarily at the local level. However, regional cooperation, (state laws permitting) for resource recovery structures, should not be precluded. This cooperation certainly should be a part of investigations mandated under Sections 234 and 235.

In reference to Section 234, "Study of Federal Incentives and Disincentives", the glass container industry offers these policy positions;

(1) The industry favors tax deductions or credits for use of materials reclaimed from solid waste. Of course, any formulas used must be fair and equitable among industries and companies within an industry.

(2) Investment tax credits on systems and facilities that promote resource recovery and the increased used of recycled materials, is a worthwhile federal role.

(3) The industry believes the investigatory agencies should examine rapid amortization for investment in systems and facilities which promote resource recovery and the use of recycled materials.

GCMI previously endorsed in principle Section 236 and 237 that provide grants and aid to state and local government units for planning, development and construction of resource and solid waste management system facilities.

Although the industry commends the purpose of the bill, we feel constrained to offer specific language that we feel will improve the purpose of the legislation. Accordingly, GCMI, after a close examination of the bill, submits the following recommendations:

1. "WASTE"

The word "waste" needs a specific definition. A definition of "waste" should exclude "container or packaging material" for purpose of 218 and 219. In our judgment, a reasonable definition of "waste" should be amended to read:

> "Waste" means any discarded, disposed, unused, or otherwise unusable solid, liquid, or semisolid material or materials. The term shall not include any source materials, special nuclear materials, or by-product material subject to regulation or control under the Atomic Energy Act of 1954, nor shall it include any container or packaging material which has been traditionally used for the distribution of any non-hazardous product.

By leaving the meaning of "waste" broadly defined or not defined at all, (1) there would be no notice to prospective offenders, and (2) the provisions would be administered in accordance with the subjective definitions of the Administrator of the Environmental Protection Agency.

II. "EQUITABLE ALLOCATION OF COSTS"

Subsection 217(a)(F) which provides for the "internalization of the costs of waste management and disposal . . ." also suffers from the "vice of vagueness." The question which must be faced here, is, who must internalize the costs? If the administrator of agency is permitted such authority, discrimination may ensue and the free market mechanism may be seriously disrupted at a potentially high cost to the consumer. Therefore, subsection 217(a)(3)(F) should be amended as follows:

> (F) equitable allocation of costs of waste management and disposal, and resource recovery, and protection of health and environment;

III. "HAZARDOUS WASTE"

Assuming that a definition for "waste" is formulated, at what point does waste become a hazard? Certainly, Congress does not want to predicate this point on the personal philosophies of the administering agents. Tight definitional language is necessary and we recommend the bill as amended to include the following definition of "hazardous waste" which exempts containers or packaging materials:

> "Hazardous waste" means any waste or combination of wastes which pose a substantial present or potential hazard to human health or the environment because such waste or wastes are nondegradable or persistent in nature; can be biologically magnified; can be lethal; or may otherwise cause or tend to cause detrimental and cumulative effects. The term shall not include any container or packaging material which has been traditionally used for the distribution of any nonhazardous product.

IV. "RESOURCE RECOVERY"

The term "resource recovery" is not directed toward any specific objects. A narrow definition of this term should read: "resource recovery is the recovery of resources from waste."

The effect of incorporating these definitions into the bill is twofold. First, it will clarify the existing broad language; and second, it will enable GCMI to give its full support to the bill as a progressive step in the direction of environment improvement.

In summary, the industry commends the sponsors of this legislation for recognizing the need for strengthening solid waste systems and resource recovery and providing incentives for local and state government to do the proper job in these areas. However, in developing these new relationships between the federal government and other government units, it is important not to interfere with the delicate balance achieved in our economy's freedom of choice concept.

STATEMENT OF GRANT J. MERRITT, EXECUTIVE DIRECTOR OF THE MINNESOTA POLLUTION CONTROL AGENCY STAFF

The Source Reduction and Resource Recovery Staff of the Minnesota Pollution Control Agency wishes to thank the subcommittee for allowing us the opportunity to submit written testimony for the record on H.R. 13176, the Comprehensive Waste Management and Resource Recovery Act.

The staff of the MPCA agrees that legislation is sorely needed in the area of resource recovery and resource and energy conservation as it relates to solid waste. While H.R. 13176 does approach some facets of resource recovery, we feel that the Bill could be substantially strengthened by the inclusion of the following concepts.

It appears that higher transportation rates are charged on recovered materials especially on scrap iron and steel. This legislation should deal with the gross inequity in the transportation regulations. Recovered materials should compete with virgin materials in the marketplace and we would like to see incentives for the use of recovered materials. Under present law, there are only incentives for the continued use of more and more virgin materials.

Because the various agencies, departments and instrumentalities of the Federal Government are so large and produce much waste to be disposed of daily, we believe they should be strongly encouraged to do their share in creating demand for recycled materials. This might be accomplished through legislation requiring that agencies of the Federal Government purchase paper with a given percentage of recycled content.

In regard to specific sections of H.R. 13176, we have the following comments.

STATE WASTE MANAGEMENT AND RESOURCE RECOVERY PLAN

There do not appear to be sufficient incentives in this section of the Bill for states to develop an effective state plan. Subsection (4)(d)(1) orders EPA to prepare and publish regulations for a waste management and resource recovery plan for any state if that state does not submit a plan of its own. We fear that this subsection may negate any good portions of the Bill by allowing a state to rely too heavily on the EPA. As an alternative to the concept of the EPA actually promulgating regulations for a state's plan, we believe it would be more beneficial for EPA to provide financial and technical assistance to such states with EPA still retaining the right of final approval of such plans.

Further, while we concur in the idea of primary responsibility for plan development residing in local government, we propose that the language in the Bill be changed to "general purpose units of local and regional governments." This incorporation of the term "regional" will encourage units of government to consider other units in developing their plans. We do believe, however, that the coordinating state authority should be defined in a clear manner. The law should designate a state agency which is responsive to the needs of human health and the environment which has adequate staff with expertise and technical capability to perform the coordinating function.

APPLICATION OF REQUIREMENTS TO FEDERAL AGENCIES

We object to giving the executive branch the authority to exempt "departments, agencies or instrumentalities" from the provisions of this Act. Addition-

ally, we feel that the provisions of this Act are not nearly as strong as they might be, therefore, we would not like to see the possibilities for exemptions as they are set out in Section 225(h).

HAZARDOUS WASTES

While we are very pleased to see the inclusion of a section on hazardous wastes in the Bill, we would urge the inclusion of a definition of the term and hereby suggest the following: "'Hazardous Waste' means any waste or combination of wastes which pose a substantial present or potential hazard to human health or the environment because such waste or wastes are nondegradable or persistent in nature; can be biologically magnified; can be lethal; or may otherwise cause or tend to cause detrimental and cumulative effects."

Additionally, we would suggest that a section be included on needless waste. The EPA Administrator should be given the authority to promulgate standards regulating the manufacture and distribution of certain products. Such standards should allow the EPA Administrator to—

Prohibit or suspend the manufacture, distribution, or sale of a product in commerce;

Restrict the manner in which a product may be distributed, sold, or utilized in commerce;

Declare that a product, to be distributed or sold in commerce, must contain a specified percentage of reclaimed, recovered, reusable, or recyclable materials;

Declare that a product, to be distributed or sold in commerce, must not contain more than a specified quantity of identified component materials which are determined to produce adverse effects upon disposal;

Or any combination of the foregoing

to the extent necessary to protect human health and the environment against unreasonable burdens or risks associated with the disposal of such products or to prevent the unreasonable depletion of any virgin natural resource.

STATEMENT OF EDWARD L. MERRIGAN, COUNSEL, NATIONAL ASSOCIATION OF RECYCLING INDUSTRIES, INC. (NARI)

Mr. Chairman, my name is Edward L. Merrigan. I am a member of the firm of Smathers, Merrigan & Heriong, Washington, D.C., and am counsel to the National Association of Recycling Industries, Inc. (NARI). NARI's offices are located at 330 Madison Avenue, New York City, and its membership consists of approximately 700 firms located throughout the United States, all of which share one common economic purpose: the recycling of solid waste materials into new raw materials and products.

NARI's members are the recyclers of all types of metals, paper, textiles, rubber, plastics and other waste materials. In metals, for example, our members include firms which collect scrap metals from solid waste; firms which recover, process, refine and convert scrap metals into new raw materials, and finally manufacturers who purchase these recyclable metals for utilization in products for both domestic consumption and export.

Similarly, in the paper industry, NARI's membership includes all segments of paper recycling. Some of our members collect waste paper from various sources. Others sort, grade and process waste paper into new raw materials for sale to paper manufacturers. Our membership includes these consumers of recycled paper materials (the paper mills), and the exporters of waste paper. Also, as just indicated, NARI's membership encompasses, in like manner, broad cross-sections of the textile, rubber and plastics recycling industries.

Thus, while many have only recently "discovered" recycling, industrial recycling actually dates back many decades in this country. Some of our member companies were founded in the last century. During periods of war and other national emergencies, recycles of solid waste materials in this country have rendered an essential national defense service—they supplied the recycled materials required to replace critically short virgin raw materials. Similarly, in times of peace, recyclers render a most significant economic, conservation and solid waste management service to the nation.

The recycling industry processes over 3 million tons of non-ferrous scrap; it benefits our balance of payments picture by exporting more than $100 million of recyclable non-ferrous metals each year. It recovers more than 12 million tons of

waste paper for sale to our nation's paper, paperboard and building materials manufacturers.

Obviously, as a result of these recycling efforts, significant quantities of waste materials are already being removed from our nation's growing "mountains of solid waste," with resulting savings in solid waste disposal costs for state and local governments, and these recycled raw materials have replaced and conserved very large quantities of our nation's most precious and dwindling natural resources.

In terms of conservation alone, the results have been truly remarkable. Even with the existing unfair and unjustifiable discriminations against recyclable materials, today's relatively meager recycling of only 12 million tons of waste paper each year (about 20% of the nation's total raw material needs) actually results in the conservation of 200 million trees a year. If Congress enacts the transportation, federal procurement and other recycling legislative proposals we support before this Committee and the Committee on Ways and Means, then we feel confident that, in paper alone, the paper and boxboard industries would soon be able to increase their utilization of recycled waste paper from the present 20% to the 35% goal cited by the National Academy of Sciences. Such expanded recycling would conserve hundreds of millions of additional trees, and thus help balance the nation's soaring paper demands between our limited virgin tree resources and our plentiful recyclable resources. This is most significant in that paper production will increase by 50% in just the next decade and the growing demand on our available timber supplies are already almost impossible to meet. In fact, the Senate Banking Committee recently found it necessary to report legislation which will place strict export controls on certain types of timber found to be in critically short supply even today.

In metals, the recycling industry's recovery of copper, lead, zinc, aluminum and other metallics from both industrial and post-consumer solid wastes is often referred to as our "mines above ground." In other words, the metals we recover from recyclable metal wastes are practically always equal in quality to their virgin metal counterparts, and they are used by American metal manufacturers interchangeably with and in essentially the same manner as the competing virgin materials. Recycled copper, for example, represents about 45% of the country's present raw material supply; recycled lead more than 50%, while recycled aluminum and zinc are almost 20% of our domestic manufacturing supplies.

The Bureau of Mines, however, warns that by the end of the century, U.S. demand for metals will have quadrupled, and that unless we recycle more, we will need imports at 7 times the present rate to satisfy our needs. In a recently released 722 page volume, the U.S. Geological Survey of the Department of the Interior explained the situation as follows:

> "The fact is that the future drain on our mineral supplies will become enormous. Even with a leveling off in growth in per capita consumption, it will be necessary to build a 'second America' within the next three decades in the sense of having to duplicate or replace the physical plant built during all our history."

Accordingly, the USGS Report emphasizes, "our ability to meet projected needs to the end of the century will depend largely on . . . recycling and conservation in mineral production and use, and imports from foreign sources."

In the paper industry, the qualitative acceptance of recycled wastepaper is substantially the same as in the metals industry for recycled scrap metals. On August 3, 1971, expert witnesses appeared before the Senate Rules Committee which was conducting hearings on legislation that would require the Public Printer to furnish recycled office paper products to members of the Senate and House and to use recycled paper in his printing of the Congressional Record. These experts testified that newsprint manufactured from 100% de-inked, recycled newspapers "ranks well above the national and regional averages (for virgin newsprint) in printability, opacity and tearing strength, the latter factor being recognized by the newspaper industry as the most critical property" required of newsprint.

Senator Frank Moss, who introduced the aforementioned bills, also testified before the Senate Rules Committee, and he stated:[1]

> "The bill, S. 2267, would require that paper used in the Congressional Record contain a specified percentage of recycled material. In this case, it

[1] See Hearings, Senate Rules Committee, "Use of Recycled Paper By Congress," August 3, 1971, p. 9.

may not be so much a ease of taking the iead, as it is for congress to eatch up to what is already being done in the newspaper industry. Aiready, over 200 newspapers use reeycled paper for part of their production, and these include . . . the Baltimore Sun, the Washington Post, the Philadeiphia Inquirer, the Boston Giobe, the Boston Herald Traveler, the Chicago Sun-Times, the Chicago Daily News, the Louisviiie Courier-Journai, the New York Post, the New York Daily News, the San Francisco Examiner, the Oakiand Tribune, Newsday, and the Gannett chain. . . . (A)ecycled newsprint is cheaper. There is no reason why at least part of the Congressionai Record couid not be printed on recyeled materiai."

Paper and paperboard products produced by our recycling industry partially or totaiiy from reeyeled fibers are in everyday use by American consumers and industriai users in hundreds of varied products. Reecycied paper is being used to write on, to print on and to serve as containers. The recycied raw material is availabie and the products containing them can readiiy be manufactured. The General Serviees Adminiistration found this to be the ease when it recently revised its proeurement speeifications to inelude pereentages of reecycled paper in the manufaeture of an extensive range of paper products, but as I shaii indicate in greater detaii in just a moment, GSA cicarly has not gone far enough.

Recycled paper containing a minimum of 25% post eonsumer solid waste materiais is now absoiuteiy requlred by New York City and many other leading ioeal and State government agencies. In the private sector, corporations such as Amerlean Telephone & Telegraph, Bank of America, Canada Dry, Coca Cola, Time, Ineorporated and others are now printing their annual reports on recycied paper, and they are requiring the inciusion of recyeied paper in their procurement specifications.

In the textiie industry, reeycling has been erippled and almost destroyed by Federal stigmatic labeling requirements and other federal economie policies and programs, but for years, recycled textile fibers have been recognized as equal to or better than virgin fibers for the manufacture of certain textile products. Recyeied textiies also constitute the principai raw materials for industries such as the industrial wiping eioth manufacturers. It is thus encouraging to note that a long list of the most prominent members of the Senate Commerce Committee have sponsored legisiation to be considered in the course of these hearings which would change the stigmatie labeiing requirements of the Wool Produets Labeling Act and remove other grossly uncaiied for impediments to sorely-needed textile recyeling.

NATIONAL ECONOMIC, RAW MATERIAL SUPPLY, CONSERVATION, INFLATION, ENERGY AND SOLID WASTE DISPOSAL CRISES CONTINUE TO MOUNT WHILE FEDERAL POLICIES SIMULTANEOUSLY SHACKLE EXPANDED RECYCLING

It is truly remarkable, however, that the reeyeling industry has been able to sueceed at all in the face of numerous antiquated federal policies which actually impede, stifle and shaekle recycling. In the tax area, the federal income tax laws grant depletion aiiowances and capital gains treatment to the virgin metals and timber industries, but afford no similar tax benefits to recyelers. Aeeordingly, simpie economics make it impossible for recycled commodities to eompete on an even footing with their virgin counterparts in the marketpiaee. The resuit: manufaeturers are constrained to continue to depiete our critieaiiy scaree natural resources by using virgin materials instead of competing reeyeled materials.

In the transportation area, the Federal Maritime Commission and the Interstate Commerce Commission have historieaiiy licensed, approved or failed to chaiienge baseless rail and ocean freight rates for the transportation of virgin and recycled materials which unconscionably diseriminate in favor of the same commodities and against recyeiable materials, albeit both compete in the same marketplaces and the recyeiable commodities always possess a lower basic valuation before these discriminatory freight rates are arbitrarily added to destroy or impede their inherent competitive advantages.

In the area of federal procurement, until recently the General Services Administration wrote specifications for its paper and boxboard procurements which actuaiiy restrieted bidding to the suppliers of virgin materials. Under pressure from the President's Council on Environmentai Quality, GSA eiiminated those aeross-the-board restrictions, but today its speeifieations still do not cail for products composed of very large percentages of recyeled raw materials. However, while GSA has at least moved favorabiy, the Public Printer has remained

adamant. The result: While newspapers and corporate reports throughout the country are printed on recycled newsprint and recycled paper, the Congressional Record and other Government paper supplies are still 100% virgin stock.

The federal impediments and disincentives to effective recycling are clearly pitiful and indefensible when it is understood that expanded recycling offers the most promising answer to many of the most serious economic, raw material supply, conservation, energy and solid waste disposal crises confronting our nation today.

A. The Balance of Payments—Raw Materials Supplies Crises

In the economic sector, the United States, once the world's strongest exporting nation, recently suffered a very disturbing, unfavorable negative balance of payments, and today the situation is not much better. That predicament arose, in part at least, from our country's growing reliance on imported copper, aluminum, lead, zinc and other critical metals when there are available, here in the United States, vast quantities of recyclable metals which could be utilized in place of these foreign imports, or at least to limit the size of those imports in the future. As stated above, however, increased domestic metals requirements in the years immediately ahead promise to make the present balance of payments problems in this particular area far worse than they are today unless Congress does something immediately to unshackle the recycling forces here at home. In this regard, the Deputy Assistant Secretary of the Interior for Mineral Resources recently described the situation as follows:

> "In the case of metals, the forecast indicates a continuing rapid rise in demand, but at the same time, a very small increase in supply from domestic sources.
>
> "This results in a forecast that, in metals, reliance on foreign sources will increase from Five Billion Dollars in 1970 to an annual level of Sixteen Billion Dollars by 1985 and to a staggering Thirty-Six Billion Dollars by the year 2000 . . .
>
> "And that is what can happen unless something is done."

The Deputy Assistant Secretary of Interior went on to state:

> ". . . the direct implication is that we are going to become even more hard pressed than ever to find a rational basis for settling our accounts with other nations."

A recent New York Times analysis, based on Department of Interior data graphically illustrated the growing U.S. dependence on imported materials:

> "Of the thirteen basic industrial raw materials required . . ., the U.S. in 1950 was dependent on imports for more than one-half of its supplies of four—aluminum, manganese, nickel and tin. By 1970 the list had increased to six as zinc and chrominm were aded . . . by 1985 the U.S. will depend on imports for more than one-half of its supplies of nine basic raw materials—as iron, lead and tungsten are added to the list. By the end of the century our country will depend on foreign sources for more than one-half of its supply of each of the thirteen raw materials except phosphate."

In its May 21, 1973, issue, Newsweek magazine described the ultimate prospects for the United States, if we permit these balance of payments deficits and materials shortages to continue unchecked, even more seriously by stating that these "mineral shortages eventually could threaten not only U.S. affluence but also civilization as it is now known." Newsweek went on to state:

> "As government officials and environmentalists search for ways to cut the drain on the nation's natural resources, their thoughts turn increasingly to recycling."

Finally, in the February 15, 1974, issue of Forbes magazine, Secretary of the Interior Rogers Morton reviewed the entire disturbing picture and concluded: "A Minerals Crisis Would Be Worse Than The Energy Crisis." He stated:

> "Far more than it depends on imports of oil, the U.S. economy depends on imports of various ores and minerals. Suppose the producer nations got together on things like iron ore and bauxite and copper and decided to create cartels and jack up the prices? . . .
>
> "I just think as a matter of safety and economic security it would behoove us to make sure that we are not overly reliant on foreign sources of essential mineral ores and minerals. . . .
>
> "In the case of energy, we crossed suddenly over the threshold from surplus to short supply, but that's not going to happen in other materials. It's going to be a gradual thing and therefore might be more insidious. You're not going to be as conscious of it. . . .

"That's why I feel we've got to make some decisions on where we're going. We've got to start assessing what's really going to waste in this country through the failure to recycle. . . ."

B. The Mounting Solid Waste—Resource Depletion Crises

While the recycling industry has been recovering three million tons of nonferrous metals each year and 12 million tons of waste paper, the President's Council on Environmental Quality has been reporting to Congress that solid wastes are piling up here in the United States at the alarming rate of 4.3 billion tons a year, including agricultural wastes.

Industrial solid wastes alone account for 110 million tons of waste, much of which could be recycled. These wastes include recoverable waste paper, metals, textiles and other potential raw materials. In addition, Americans throw away more than 250 million tons of residential, commercial and institutional solid wastes each year. Annual collected solid waste alone in this category includes 30 million tons of paper; 60 billion cans; 30 billion bottles, 4 million tons of plastics; 100 million tires; and millions of discarded automobiles and major appliances. These wastes are expected to increase in volume by 50% by the end of this decade.

Most of this waste is carted to limited remaining land fill areas, is incinerated, or is abandoned, dumped and disposed of in some unsightly and unproductive fashion. The total cost of this collection and disposal of solid waste now approximates $6 billion a year. By the end of the decade, it will increase by over 50%, according to the Council on Environmental Quality, to almost $10 billion. In fact, solid waste control costs are expected to exceed air and water pollution costs. In its 1970 Environmental Report to Congress, CEQ stated:

"A considerably higher rate of spending would be needed to upgrade existing systems to acceptable levels of operations."

In fact, the President's Council found 94% of all existing open dumping systems to be inadequate, while 75% of the municipal incinerators are not only insufficient—they are among the worst air pollution offenders. In New York City, most local land fill areas have been exhausted, and the City is now spending more than $36 a ton to collect and dispose of solid waste build-ups.

And, of course, as stated above, while these growing mountains of solid waste continue to spiral out of control, we are witnessing an insatiable drain on our critical supplies of natural resources. In its 1970 Report to Congress, the President's Council on Environmental Quality described the situation as follows:

"Population growth threatens the Nation's store of natural resources. Currently, the United States with about 6% of the world's population, uses more than 40% of the world's scarce or non-replaceable resources and a like ratio of its energy output. Assuming a fixed or nearly fixed resource base, continued population growth embodies profound implications for the United States and for the world."

Faced with these alarming conditions, the Council on Environmental Quality advised the Congress in 1970 that crash programs are needed to attack these twin problems of mounting solid waste and depleting natural resources, head-on and without delay. The Council thus urged the Congress to pursue every possible means to encourage and increase recycling of our precious natural resources, and in its 1970 Report to Congress, the Council stated (at pages 114, 121):

"In his February 10 Message on the Environment, the President announced the Federal Government's goal to reduce solid waste volume and encourage reuse and recycling. Recycling waste materials into the economy has not been widely applied in the United States. *Economic considerations and the abundance of virgin resources have forestalled the development of recycling technology and markets. Primary materials producers, often with the help of tax concessions, have developed remarkably efficient technologies for removing metals and other substances from their virgin state. But meanwhile, techniques for separating and recovering waste materials remain primative and expensive . . . .*

"Methods must be developed to reuse a greater percentage of products and to develop new products from and new uses of solid waste . . . .

"Industry . . . and all levels of government must be enlisted to maximize the recycling of solid wastes."

C. Availability of Recyclable Materials

We have in this nation an incongruous situation of massive dimensions. While on the one hand we rapidly reach the limits of our natural resources, and while

we increase our dependence on imports of our needed raw materials, we have available to us large quantities of recyclable materials. Environmental Protection Agency studies indicate that there is available for recycling in this country each year additional millions of tons of the following major commodities: copper, aluminum, zinc and lead. These are the raw materials our nation needs but which are not being recycled in spite of the great concerns we have now in the United States for our resource future.

D. Assistance in the Battle Against Inflation

As our nation reaches deeper into its limited supplies of natural resources and commits itself to greater use of imported material, so does it foster increased inflationary pressure. In the last analysis, the U.S. taxpayer and consumer must pay the price for this materials use policy.

Business Week, in its May 5, 1973, issue summed up this problem most succinctly as follows:

> "This country is used to relatively cheap raw materials. . . . In the days when U.S. mines and forests supplied not only domestic industry but the world, this approach made sense. But now, the U.S. no longer has a wide advantage over other manufacturing nations in acquiring materials. . . . More and more it must buy on the world markets and pay world prices.
>
> "In the homemarket this means a study upward push on prices . . . in other words, the depletion of natural resources gives the economy a chronic inflationary bias."

What Business Week and many other authorities are saying is that our failure to use available recycled materials is contributing directly to our current economic problems as well as to our balance of payments, resource conservation, and solid waste management problems.

E. Energy Savings—Reduced Air and Water Pollution

Throughout the nation there is extreme concern about the growing "energy crisis." Eight years ago, large portions of the East Coast were blacked out by a power failure, and we are told such failures will almost certainly occur again. Critical shortages of gasoline, fuel oil, natural gas and other energy resources are reported almost daily. Simultaneously however evidence is available to prove that one of the best ways to save huge amounts of industrial energy and industrial fuels is for manufacturers to orient to the use of recycled raw materials. The Atomic Energy Energy Commission and the Environmental Protection Agency, which have been studying this matter, recently reported that certain basic industries (steel and paper, for example) can achieve 74% energy savings by producing their products from recycled materials instead of from virgin ores or woodpulp. At the same time, EPA reports that "resource recovery results in lower quantities of atmospheric emissions, water pollution wastes, (and) mining and solid wastes. . . ."

Here are some additional examples of how recycling directly impacts energy conservation, all as proved by recent studies made by AEC and EPA:

Aluminum.—It requires less than 3% of the original energy commitments to make a ton of aluminum from recycled metal rather than mined ore. Put another way, the delivery of a ton of aluminum from natural resources requires over 30 times the energy output needed to deliver an equivalent ton from recycled sources.

Currently, a little more than 1,000,000 tons of aluminum are recycled. This represents tremendous energy savings to the nation—but what is more important is the fact that well over 2,000,000 tons of aluminum are *not* recycled. Currently, recycled aluminum represents less than 30% of our domestic use of this metal. Therefore, the doubling of our current aluminum recycling rate—from 1,000,000 to 2,000,000 tons—would represent the savings of 49.38 billion KWH or 20.1 million barrels of oil each year.

Paper.—Studies made by the U.S. Environmental Protection Agency comparing the environmental impact of utilizing recycled waste paper rather than virgin pulp show energy savings in the range of 60% to 70% in favor of the recycling method. In the manufacture of a product utilizing low grade (post-consumer) waste, the study showed that over 3 times the energy was required to make the same product with virgin pulp. In another paper product area, it required 2½ times the energy to manufacture with virgin fiber as opposed to deinked and recycled waste paper.

Currently, only about 13,000,000 tons out of an annual paper production of over 60,000,000 tons are derived from recycled sources. Yet, it has been confirmed that over 35,000,000 tons of additional waste paper are recoverable for raw material use. The doubling of our current use of recycled paper would represent an energy savings of 55.0 billion KWH or 32.5 million barrels of oil each year.

Further, since paper comprises almost half of the nation's collected solid waste, it represents another important energy source after recyclable materials have been extracted for new raw material uses. The EPA indicates that about 80% of this non-recyclable solid waste is combustible and could be recovered in the form of energy. The EPA has stated: "If energy recovery were practiced in all major urban areas, an estimated quadrillion BTU's of energy could be acquired annually. This quantity of energy is equivalent to . . . the nation's entire energy consumption for residential and commercial lighting . . . more than half of the direct oil imports from the Middle East . . . almost ⅓ of the energy that will be delivered by the Alaskan Pipeline."

Steel.—It requires 2 to 3 times the energy to manufacture a steel product with virgin ore rather than recycled metal. Every time a ton of steel is produced with virgin ore, rather than with recycled scrap, it costs the nation 8.8 million BTU's of energy.

Yet, each year, only about ⅓ of the recycled steel available to us in the U.S. is recovered and reused. Each million tons of scrap that is lost as a raw material costs this nation over 8 trillion BTU's of energy and over 1,500,000 barrels of oil.

In this connection, Mr. E. F. Andrews, Vice President, Allegheny Ludlum Industries, Inc., Pittsburgh, recently summarized the situation in steel production as follows:

> "To produce a ton of steel from scrap takes only 5.5 million BTU's. But to replace it with a ton of steel from ore takes 18 million BTU's."

Mr. Andrews thereupon proceeded to state that studies made by his company led to these unassailable conclusions: (1) for every ton of recyclable scrap used by a steel company in place of virgin iron ore, the company saves 12.5 million BTU's of energy, and (2) increased utilization of 12 million tons of ferrous scrap each year by the steel industry would result in energy savings equal to 26 million barrels of oil or 150 billion cu. ft. of natural gas. "It's enough energy to meet the electric power needs of Boston, Hartford, Pittsburgh, Philadelphia and Chicago for the entire year," said Mr. Andrews.

Similar examples can be given for many other recycled commodities including copper, where it has been estimated that it requires only about one-eighth the energy to manufacture a product with recycled copper rather than mined ore.

Further compounding the energy conservation issue is the fact that as our natural resources become more depleted, more energy per net ton is required to extract it from less accessible sources, either of domestic or overseas origins. If one were to factor in all of the energy costs of each future ton of ore compared to a ton of recyclable material, the scales would tip even more heavily in favor of encouraging the use of greater quantities of recyclable materials.

To summarize, therefore, NARI directs the Committee's attention to the following statistics developed by Federal studies which indicate why the recycling legislation which has been pending before this Committee for so long should be adopted without further delay.

ENERGY REQUIREMENTS AND SAVINGS, RECYCLABLE VERSUS VIRGIN MATERIALS UTILIZATION

	Virgin material requirement, kilowatthour per ton	Recyclable materials requirement, kilowatthour per ton	Kilowatthour savings for each ton of recyclable material	Barrels of oil saved for each ton of recyclable material
Aluminum	51,379	2,000	49,379	29.1
Copper	13,532	1,727	11,805	7.0
Iron	4,270	1,666	2,604	1.5
Magnesium	90,821	1,875	88,946	52.2
Paper	6,730	2,520	4,210	2.5
Titanium	126,115	52,416	73,699	43.3

FOUR YEARS HAVE PASSED WITHOUT RESULT SINCE CONGRESS PASSED THE RESOURCE RECOVERY ACT AND DIRECTED THAT ACTION BE TAKEN TO ELIMINATE FEDERAL OR FEDERALLY SPONSORED DISCRIMINATION AGAINST RECYCLABLE SOLID WASTE MATERIALS

In response to the President's plea in 1970 for crash programs aimed at reversing the disastrous "mounting solid waste—virgin resource depletion crises" just briefly described, Congress passed the Resource Recovery Act. That statute did not attempt to legislate definitively to remove the federal roadblocks to expanded recycling or to provide new incentives to promote recycling. Rather, it directed the Environmental Protection Agency to investigate and determine—

(1) How Federal procurement might be utilized to develop market demand for recyclable materials;

(2) how existing public policies, including subsidies and economic incentives and disincentives, percentage depletion allowances, capital gains treatment and other federal tax provisions impede or unfairly discriminate against recycling;

(3) how Congress should proceed to eliminate disincentives to recycling; and

(4) what incentives, including tax relief or other assistance, should be provided to accelerate the reclamation and recycling of useful raw materials from solid wastes.

Over the years since 1970, numerous federal agencies (Commerce, Interior, GSA, EPA, CEQ) have repeatedly gone on record against rail and ocean freight rates administered by the Interstate Commerce Commission and the Federal Maritime Commission which unjustly discriminate against recyclable materials and perpetuate foolhardy drains on scarce virgin natural resources. All appeared before the Interstate Commerce Commission and protested against the imposition of any further increases in railroad freight rates for recyclable materials until the basic rate discriminations which favor competing virgin commodities are eliminated. EPA also intervened in a formal investigation the Federal Maritime Commission instituted against the Pacific Westbound Conference to challenge the outrageous disparity in rates for transportation of containerized exports of woodpulp and waste paper to the Far East. Finally, EPA has constantly taken the position that changes in the federal income tax laws should be made at least to equalize for users of recyclable materials the unfair economic market advantages users of virgin resources have heretofore enjoyed. Unfortunately, however, nothing effective has been done by the Administration itself since Congress passed the Resource Recovery Act in 1970 to equate the treatment of competing virgin and recyclable materials in the areas of federal procurement, federal tax treatment and federally administered transportation costs.

In the meantime, however, other federal committees and agencies have carefully studied these problems and have strenuously recommended that Congress act without further delay to adopt legislation such as that contained in the bills now sponsored by Congressmen Rogers, Dingell and Tiernan and many of their colleagues in the House. In its 1972 Report to the President, for example, his Citizens' Advisory Committee on Environmental Quality (of which Mr. Laurance Rockefeller is Chairman) stated, at pages 40, 41 and under the heading "Freight Rates":

"Freight Rates

"Traditionally, freight rates established by the Interstate Commerce Commission (ICC) for the most part discourage recycling. . . .

"Over the past year or so, the ICC has given some encouragement to the use of recycled materials. In giving the railroads an across-the-board increase, it accorded a lower rate increase to scrap metal, paper, and textile commodities. . . .

"In general, ICC freight rates continue to discourage use of secondary materials. . . .

"Congress is focusing renewed attention on rising ocean freight rates. They are set by the Federal Maritime Commission (FMC) under the authority of the Shipping Act of 1916. These rates, like those of the ICC, tend to benefit new contrasted with secondary materials."

THE URGENT NEED FOR ELIMINATION OF DISCRIMINATORY RAIL AND OCEAN FREIGHT RATES

One of the most signifieant eost factors involved in the recovery and utilization of recyclable materials is the rate paid to transport those materials on our nation's railroads and in our steamships in the export trade. Historieally, transportation rates established by the railroads and the steamship eouferenees have grossly and unfairly diseriminated against reeyclable materials and in favor of their virgin eounterparts—and while the recycling industry, NARI, the Department of Commerce, Environmental Protection Ageney and the President's Counell on Environmental Protection Agency and the President's Counell on Environmental Quality have continuously urged the Interstate Commerce Commission, for example, to take effective action to eliminate this baseless discriminatiou and to hoid down the ever-inereasing rates charged for transporting recyclable materials, nothing of any substance has been done. In faet, during the period from 1967 through 1973, the ICC has licensed or attempted to liceuse the following inereases in rates for the transportation of recyclable commodities without first taking any action whatsoever to eliminate the basic rate discrimination upon which these annual percentage increases are based:

Case No.	Year	Increase per hundredweight on waste paper (percent)	Increase per hundredweight on nonferrous metal scrap (percent)
Ex parte 256	1967	3	3
Ex parte 259	1968	5	5
Ex parte 262	1969	6	6
Ex parte 265	1970	6	6
Ex parte 267	1971	11	11
Ex parte 281	1972	(1)	(1)
Ex parte 295 (sub. 1)	1973	3	3

[1] 2.5 percent surcharge; 3 percent permanent increase.

The effect of these actions by the Commission has been, of course, to widen the rate discrimination against recyclables which already exists in the basie rate strueture, and these annual rituals have served to worsen the eompetitive position of recyelables eaeh year. Finally, the legality of the Commission's actions was tested in a court aetion known as the *S.C.R.A.P.* case. Just recently, the United States District Court for the District of Columbia rendered a decision in that case which held that the Commission violated the National Environmental Policy Act whenever it approved an across-the-board pereentage rate inerease for the transportation of recyelables without first determining, in a properly-prepared environmental impaet statement how the base rate strueture discriminated against recyelable commodities in particular instances, and how that discrimination can be eliminated. A copy of that decision, which is so pertinent to the proceedings now before this Committee, is tendered for filing in the record at this juncture.

Regarding the diseriminatory base rate structure just referred to, evidence developed during hearings before the Subcommitee on Fiscal Policy of the Joint Economic Committee on "The Economics of Recycling Waste Materials" in November, 1971, showed the following at pages 37, 38 of the hearing record:

RAIL FREIGHT RATE COMPARISONS, PULPWOOD VERSUS WASTE PAPER

[Rate: In cents per hundred pounds]

Territory and miles	Pulpwood		Wastepaper	
	Rate	Revenue per Car	Rate	Revenue per Car
Eastern:				
95 miles	[1] 14	$144.38	[2] 28	$224
225 miles	[1] 20¼	209.99	[2] 40	320
298 miles	[1] 24½	254.84	[2] 43	344
Southern:				
100 miles	[3] 9.8	102.90	[3] 18	144
168 miles	[3] 12.0	126.00	[3] 22	176
205 miles	[3] 13.9	145.95	[3] 27.	216
Western:				
150 miles	[4] 16.8	100.80	[5] 37	185
300 miles	[4] 24.5	142.00	[5] 50	250
500 miles	[4] 31.3	172.15	[5] 63	315

[1] M/W 23 cords or 103,500.
[2] M/W 80,000.
[3] M/W 21 cords or 105,000.
[4] M/W 55,000.
[5] M/W 50,000.

Source: Item 6287-2, supp. 262, tariff T/C 754; item 75660, tariff TL-TCRTB-E-2009-H; item 75660, tariff SFTR No. S-2011L; item 3920, tariff W-2000 J; item 2005 SFA 777; WTL pulpwood scale.

Similarly, the evidence produced during the hearings before the Joint Economic Committee demonstrated that the same type of compieteiy unjustifiabie discrimination in "rates" and "revenue per raii car" exists in the transportation of non-ferrous ores and non-ferrous scrap materials. Copper ores and concentrates, for example ,were transported in 1971 by raii from Los Angeies to Tacoma, Washington at a rate per ton of $17.05, resuiting in a "revenue per car" of $937.75, whiie copper scrap is transported between the same points at a rate of $26.80 per ton, which results in a "revenue per car" for the railroad of $1,340.

In iike manner, copper ores were transported by raii from Copperhiil, Tennessee to Laurei Hill, New York at a rate of $17.86 per ton, with a "revenue per car" to the raiiroads of $982.30, whiie copper scrap was forced to travei the same distance with iess weight per car, at a rate of $22.60 per ton.

The disparities in the transportation of virgin aluminum and aluminum scrap were even more startling. The evidence before the Joint Economic Committee showed that competing shipments from Mobiie, Alabama to Los Angeies. for example, were carried on the foiiowing discriminatory basis:

Alumina and bauxite:	
Rate M/W 80,000 (per ton)	$16.73
Revenue (per car)	669.20
Aluminum scrap:	
Rate M/W 60,000 (per ton)	45.80
Revenue (per car)	1,374.00

In fact, in the *S.C.R.A.P.* case mentioned above, the Interstate Commerce Commission itseif introduced statistics to show:

(i) That the average rates per hundredweight charged by raiiroads for the transportation of virgin woodpuip and competing waste paper were—

[In cents]

Year	Virgin pulp	Wastepaper	Net difference in rates
1959	17.4	31.3	13.9
1971	24.4	43.0	18.6

(ii) That the average rates per hundredweight charged by the raiiroads for the transportation of virgin nonferrous ores and concentrates aud competing uonferrous scrap metai were—

[In cents]

Year	Virgin metal	Scrap metal	Net difference in rates
1959	51.7	65.1	13.3
1971	70.3	88.0	17.7

(iii) That, in 1969, waste paper was required by the railroads to pay rates which were in excess of 115% of the railroads' variable costs, while competing woodpulp travels at rates which include only 69–83% of the railroads' costs for the transportation involved; and

(iv) That the rates charged by railroad for the transportation of waste paper return "Profits Per Car" to the railroads of—

	Percent
In the East	25–35
In the South	20–31
In the West	8–14

(v) While the rates charged by railroads for shipments of textile wastes (the most difficult waste commodity to recycle profitably) return "Profits Per Car" to the railroads of—

	Percent
In the South	32–40
In the official territory	More than

These are only a few examples of how the entire railroad freight rate structure is incongruously tilted against recyclable materials and how it operates automatically to bar recyclable materials from marketplace after marketplace while mountains of solid waste materials continue to build throughout the nation and the insatiable drains on our natural resources proceed unabated. Consider, in the final analysis, that it costs $3.00 per ton more to transport waste paper than it does to transport woodpulp made from trees, and about $2.00 a ton more to transport a ton of metal in scrap form than it does to transport the very same commodity in the virgin state, and it immediately becomes clear why discriminatory freight rates are precluding effective recycling throughout the **United States.**

Since the transportation cost element is such a significant proportion of the total costs involved in marketing recyclable materials, any inequitable, discriminatory rate has an immediate, decisive impact on their marketability, especially in light of the added tax inequities the Ways and Means Committee has under consideration in connection with its energy tax legislation.

Moreover, virgin commodities often enjoy point-to-point rate bases, calculated on a mileage scale. Most recyclables however move by rail on a commodity scale of rates. The net result here is a distinct ton-per-mile advantage for virgin commodities. Furthermore, most recyclables move greater distances to their points of consumption. For instance, woodpulp is transported from forest to mill on the average of 136 miles, whereas waste paper averages a distance of 434 miles from recovery point to consumption point. Direct profit advantages to the railroads as a result of these discriminatory rate practices are self evident. Finally, in addition to establishing inequitable rates which directly produce a market imbalance to the disadvantage of recyclable materials, many rates on these low-value commodities are established without any relevancy to the nature or value of the materials. Thus, in case after case, recyclable materials with commodity valuations less than 25–50% of the values of competing virgin materials nevertheless travel at rates 50–100% higher, or more. We can supply numerous examples of highly competitive, desirable recoverable and reusable materials which defy economic recycling simply because the added costs of collection and transportation exceed the potential market value of the material at the consumer delivery point.

Perhaps the most alarming aspect of this rail freight rate problem is the obstinate refusal of the Interstate Commerce Commission to do anything constructive about it. As stated above, the record shows that during the last six or seven years, the railroads have sought and the ICC has rubber-stamped one annual rate increase after another on recyclable materials without first taking any action whatsoever to eliminate the basic, underlying historic rate discrim-

inations discussed above. The Commission even promised the Chief Justice of the Supreme Court and the District Court in Washington during Court proceedings in the *S.C.R.A.P.* case that it would utilize its current investigation of the entire rate structure in a case called Ex Parte 270 to review and eliminate all discrimination against recyclable materials. However, when the recycling industry appeared in Ex Parte 270 and urged the Commission to investigate the rates applicable to waste paper, textile wastes and non-ferrous metal scrap, the Commission pleaded an inability to do so because of the press of other business and an alleged lack of funds.

On the hopeful side, two or three members of the ICC have dissented in recent years against the Commission's stubborn recalcitrance in this area, and in written opinions, they have also expressed the view that no further rate increases should be approved by ICC with reference to recyclables until the railroads first eliminate the basic rate discriminations. So far, however, these farsighted Commissioners are in the minority, and it is plain that unless Congress passes the transportaton sections contained in the bills introduced by Congressman Tiernan, the ICC will, for years to come, continue arbitrarily and blindly to forestall effective recycling.

How regrettable the ICC's attitude really is was perhaps best demonstrated recently when the railroads themselves originally voluntarily excluded most recyclable materials from their proposed 1973 across-the-board rate increases! The ICC, however failed to react positively, so the railroads soon changed their minds and separately asked for another across-the-board 3% hike on recyclables. In 1974, they proposed a further 3% increase. Clearly, if the ICC would take a firm, enlightened environmental position and insist that all of the basic rate discriminations for recyclables be eliminated before any further rate increases can be sought or sustained for those commodities, the railroads themselves would have no alternative but to cooperate. Patently, therefore, early passage of the transportation sections of the pending bills is vitally necessary, since apparently the ICC will act only when Congress flatly directs it to do so.

Moreover, in the event Congress passes other legislation now sought by the railroads themselves which would wholly or partially free them from the jurisdiction of ICC, that legislation should certainly provide simultaneously that the railroads' ability to fix or increase rates for recyclables would still continue to be subject to some federal authority, preferably that of the Environmental Protection Agency in the event the Commission is to be ushered out of the rate increase picture entirely.

The situation regarding ocean freight rates for recyclables is equally urgent and unconscionable. Those rates, of course, are subject to the jurisdiction of the Federal Maritime Commission. The rates are fixed by steamship conferences under provisions of the Shipping Act of 1916 which gives the conferences broad antitrust law immunity for their rate-fixing activities. The mounting evidence against the conferences, however, in cases involving rates they have historically fixed for competing virgin and recyclable commodities, certainly raises a question as to whether Congress should re-consider, on an emergency basis, the broad immunity under the antitrust laws heretofore provided for these rate-fixing activities under the Shipping Act.

The same evidence also suggests Congress should likewise reconsider whether the Commission's jurisdiction over these conference rates should be broadened to make it necessary for the FMC to consider and pass on the legality of those rates (as the ICC is empowered to do with reference to rail rates) before they may become effective. Presently, the conferences can set any rates they desire by merely publishing them, and the rates can be challenged only after they are already in full force and effect. Finally, experience indicates that the FMC's procedures in this area are far too tedious and prolonged to be really effective. Cases take approximately two to three years for decision, and the Commission seems powerless to conclude even relatively clear-cut cases of rate discrimination in less time.

In July, 1972, the Commission commenced one rate investigation involving competing recycled waste paper and virgin woodpulp shipments to the Far East. The Pacific Westbound Conference, made up of several steamship companies, principally Japanese, is the main respondent in that case. These are the basic facts. The Pacific Westbound Conference, with headquarters in San Francisco, is comprised of both U.S. and Japanese carriers. These carriers meet and arbitrarily fix rates at which they will carry commodities to the Far East, including competing woodpulp and waste paper. The Japanese carriers particularly travel east from Japan loaded down with Japanese exports to the U.S. and Canada.

But, in westbound traffic from California to the Far East, they have experienced approximately 2,000,000 tons of empty cargo space each year. Under the Shipping Act of 1916, these U.S. and Japanese carriers have arbitrarily and capriciously set "open rates" fo rthe transportation of woodpulp to Japan—with the result that woodpulp always travels to Japan at rates as low at $16.50 per ton or much less. Simultaneously, however, the same carriers have fixed rates for waste paper at $33.25 per ton or more.

Evidence taken from the PWC carriers' own files shows that today almost all waste paper shipments are loaded by California shippers in 40 foot containers at their own plants. These shippers then deliver these sealed containers, which weigh a maximum of approximately 45,000 pounds, to the carrier's vessel, where the carrier simply hoists the loaded container aboard. Computed at $33.25 per ton, the carrier enjoys a "revenue per container" on these waste paper shipments of approximately $700.00.

Simultaneously, however, PWC carriers transport woodpulp at the $16.50 rate, but a large percentage of woodpulp is still carried breakbulk, i.e. noncontainerized. That means the virgin woodpulp has to be loaded by the carriers bale-by-bale, instead of in one 40 foot container. In other cases, where the wood pulp is shipped in 40 foot containers like waste paper, the carriers are required, at their own expense (out of the $16.50 per ton rate), to send their empty containers great distances to the pulp plants for loading; and then to return (again at their own expense) the loaded containers to their vessels. At best, the carrier collects a "gross revenue per container" for these shipments (also limited to 45,000 pounds) of less than $350.00. Out of that $350., the carrier obviously has to defray the container dispatch costs just referred to, meaning that, in the final analysis, the carrier gets far less than $350. per container for these woodpulp shipments.

The evidence in the Pacific Westbound case also shows that, while the bulk of all woodpulp shipments are carried in U.S. vessels, almost all waste paper shipments are carried by the Japanese members of PWC. In 1972, the carriers of woodpulp received revenues of only $2,760,000 for carrying a total of approximately 160,000 tons of woodpulp to the Far East at the low $16.50 per ton rate, while the Japanese carriers of waste paper enjoyed revenues of about $3,325,000 for carrying only about 100,000 tons of waste paper at the discriminatory $33.25 rate. In other words, the Japanese carriers collected about $550,000 more for carrying only 100,000 tons of waste paper than the woodpulp carriers, mainly American liners, who carried 160,000 tons of woodpulp.

These facts, taken from the PWC carriers' own records demonstrated beyond peradventure that, in the final analysis, the Shipping Act of 1916, passed ostensibly to benefit U.S. carriers, is being grossly distorted by the Pacific Westbound Conference solely to permit a group of large Japanese carriers, most of which are part of huge international cartels, to blatantly discriminate against U.S. shippers of waste paper and against all of the valid environmental priorities of the United States Government inherently involved.

But, the shocking facts do not end there. This outrageous discrimination is being perpetuated when admittedly, during 1972, PWC carriers sailed to the Far East with approximately 2,000,000 tons of empty space. Empty space, of course, returns no revenue to the carriers. Thus it is clear that, if the PWC carriers would simply agree to carry waste paper at even the $16.50 rate charged for competing woodpulp shipments, every 100,000 tons of additional waste paper carried in these empty spaces would produce $1,650,000 of new revenues for the carriers. If all 2,000,000 tons of empty space could conceivably someday be filled with such shipments, the additional revenues to the carriers would be more than $33,000,000 a year.

The picture for competing virgin metals and scrap metals carried aboad vessels of the Pacific Westbound Conference, the Far East Conference and other conferences is equally depressing and equally difficult to understand. Recently, FMC commenced an investigation in that area also, and a copy of that Order of Investigation is also offered at this point for inclusion in the record. Plainly, these ocean freight rate discriminations must be eliminated now, along with the railroad rate discriminations mentioned above, because manufacturers abroad are pleading for the right to purchase U.S. recyclable materials on a fair and reasonable basis, but their pleas are going unanswered as our domestic mountains of solid waste continue to grow alarmingly, because after freight rates are added as a cost item, recyclable materials can no longer compete in the marketplaces, either here at home or abroad, with their competing virgin counterparts.

THE EXISTING FEDERAL TAX PROVISIONS WHICH DISCRIMINATE AGAINST RECYCLING

Long ago, when our nation was young and its supplies of natural resources seemingly unlimited, Congress adopted various tax policies designed to stimulate and encourage increased utilization and depletion of those natural resources. In order to satisfy national needs and objectives far different from those now before the Congress for solution, those tax policies were specifically designed to reward the gradual exhaustion of both renewable and non-renewable virgin resources. Necessarily, of course, those same policies stifled and discouraged broader utilization of recyclable materials. Depletion allowances and capital gains treatment of income derived on virgin metals and capital gains treatment (as opposed to higher ordinary tax rates) and a limited depletion allowance for profits derived from the cutting of trees in the paper industry simply made it economically disadvantageous for many manufacturers to use recyclable materials which, of course, have never enjoyed similar favorable federal tax treatment.

(A) *Tax Treatment of Virgin Metals and Minerals Which Compete With Recyclable Metals*

In the case of metals, for example, percentage depletion allowed under the federal tax laws automatically places metal ores in a more advantageous competitive position than recycled metals. Percentage depletion for iron and copper is 15% of gross income and percentage depletion for most other major metals is 22%.[4] In addition, there is a special tax provision, similar to the timber capital gains provision, which allows capital gains treatment on profits realized from the disposal of domestic iron ore.[5]

Because of these special tax provisions, integrated mining companies enjoy a much lower effective tax rate than those committed to recyclable metals. The 1969 U.S. Treasury Tax Reform Studies show that integrated mining companies, excluding oil companies, have an effective tax rate of only 24.3% of net income as opposed to 43.3% for other manufacturing companies.[6] A company which recycles metals, therefore, is taxed at the 43.3% rate while its competitor, the integrated company, dedicated to continuous depletion of virgin metals, is taxed at a rate of only 24.3%.

(B) *Tax Treatment of Trees Which Produce Virgin Woodpulp to Compete With Recycled Waste Paper*

In its 1973 Report to Congress on the Resources Recovery Act, the Environmental Protection Agency stated, at page A–9:

> "The cost of virgin woodpulp can be kept down significantly by two tax treatments—a cost depletion allowance (credit against income taxes based on timber owner's invested capital in a forest and percentage of reserves sold) and a capital gains allowance (profit from sales of timber treated as a capital gain if the timber has been owned for more than six months)."

As a result of the capital gain treatment alone,[7] paper companies (mostly large integrated paper corporations) using trees as a source of raw material have an effective tax rate that is lower than that of a company committed to the use of recyclable waste paper as its raw material. Based on information contained in Treasury Department Tax Reform Studies and Proposals of 1969, integrated paper companies paid an effective tax rate of about 5% less than other types of manufacturing industries.[8] More current information contained in the Corporation Statistics of Income compiled by the Internal Revenue Service, indicates that the differential continues to be at least as great even after applying the increased 30% capital gain rate required under the Tax Reform Act of 1969. Manufacturers utilizing recycled waste paper would clearly usually fall into the regular manufacturing category, subject to the high ordinary tax rates.

The lower effective tax rate resulting from the use of trees over waste paper necessarily results in higher after-tax profits. Accordingly, a taxpayer with an available choice will always turn to the utilization of trees as his paper-making raw material rather than purchasing recycled waste paper.

The recycling industry represented by NARI favors the adoption of a simple recycling tax credit or tax deduction which would approximately eliminate the

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[4] Internal Revenue Code, § 613(b).
[5] Internal Revenue Code, § 631(c).
[6] Tax Reform Studies, U.S. Treasury, 1969, part I, page 100.
[7] See Internal Revenue Code, § 631(a) which taxes gains on timber at the 30 percent capital gains rate.
[8] Tax Reform Studies and Proposals, U.S. Treasury Department, part 3, p. 434 (1969).

discriminatory tax advantages now enjoyed by users of competing virgin natural resources.

CAUTION AGAINST TOO MUCH GOVERNMENT CONTROL AND MANAGEMENT OF PRIVATE RESOURCE RECOVERY ACTIVITIES

NARI firmly believes these legislative proposals to be instrumental in accomplishing the goal of expanded recycling and resource recovery. however, we must caution federal, state and municipal governments from exercising too much control and management of private resource recovery activities. Such expanded control could inhibit and adversely affect the ability of the private sector to perform its traditional commercial activities. Government financing of municipal waste programs must be carefully planned and implemented so as not to result in unjust or unfair competition with tbe private sector.

Any form of subsidized competition carries with it the inherent risk of altering the balance of supply and demand found in the free market system. Government particlpation tends to give those it belps a competitive advantage over private industry. The problems it seeks to eliminate could thus very well be aggravated by forcing out of the industry many highly skilled and qualified businesses.

Often problems arise from the passage of laws by local governments which do not fully appreciate or understand the scrap lndustry. Sometimes promulgation of laws intended to encourage recycling have the opposite effect. An example can be found in a recent New Jersey statute which forbade transportation of New York's solld waste into New Jersey—tbe purpose being to protect New Jersey's landfill areas, however, the result was to ban all recyclable commodities including scrap metals wbich were being shipped there for reuse by metal dealers.

Conclusion

NARI and its members in the recycling industry throughout the country submit thc time has surely arrived for the adoption of bold, imaginative poiicies in these vital areas by the Federal Government. Clearly, we are at a point in our hlstory which demands immediate, constructive reorientation of our national attitudes and outlook. No industrial nation experiencing a severe energy crisis can continue to waste millions upon millions of barrels of oil each year in the utilization of virgin raw materials when recyclables are readily substitutable, and their substitution will result in monumental energy savings.

• NARI thus calls upon the Congress to rededicate itself to the spirit of resource recovery and to adopt the legislative proposals which call for the elimination of discriminatory freight rates for the transportation of recyclable materials, and the elimlnation of other federal policies and provisions which likewise have prevented this nation from attaining the high recycling rates it must achieve if it is to continue as one of the world's great powers in the decades to come.

NARI only asks for government prudence and restraint when entering the recycling field for if too much control is exerted, it may hamper rather than help tbis ultimate goal.

STATEMENT OF RALPH L. HARDING, JR., PRESIDENT, SOCIETY OF THE PLASTICS INDUSTRY, INC.

Mr. Chairman and members of the subcommittee, my name is Ralph L. Harding, Jr., president of The Society of the Plastics Industry, Inc. We are the principal trade association and spokesman for the plastics industry, headquartered in New York City. Our association represents more than 1,200 members who account for more than 75% of the sales of plastics in the United States. We regret that we were unable ot testify during the hearings beld March 27–28, 1974, but appreciate the opportunity to submit our statement for the hearing record.

The Society supports the concept of a comprehensive approacb to the growing problem of solid waste management in the United States. Although plastics only represent approximately two percent of the total solid waste stream, the industry recognizes the magnitude of the disposal problem facing the nation and has gone on record in the past as favoring a systems approach to solid waste management which includes the utilization of energy recovery and recycling.

Accordingiy, SPI was an early supporter of the total system undertaken recently by the State of Connecticut.

Because it will be necessary to implement a plan wbicb encourages development of effective programs at state and locai leveis, we support the basic concept of H.R. 13176 as providing the essentiai framework for a cooperative effort invoiving the federal government, as weil as state and iocai entities. However, we beiieve the guideiines promuigated under the act shouid be flexible enough to account for variations in local conditions, as weli as to permit states or local agencies to proceed with pians which may aiready be under way, proviaing that such plans are founded on currentiy acceptabie modes of solid waste management techniques.

The Society of the Piastics Indnstry further supports those provisions of H.R. 13176, as provided under Titie I, wbich act to prohibit the use of open dumps. Open dumps, as the subcommittee chairman correctiy observed during the conrse of the public bearings on tbe above-captioned iegisiation, are a throw back to the Dark Ages.

The solution to the mounting probiem of soiid waste disposal in our urban society does not iie exciusiveiy with one tecbnique and H.R. 13176 wisely provides for anaiysis and implementation of systems which may be adaptable to large metropoiitan areas, middie size cities, smaii towns and rural areas.

It shouid be noted that, for instance, in areas where popuiation density and land use permit impiementation of sanitary landfiils this technique may, indeed, prove to be a cost-effective and heaithfui mode of waste disposal. In this connection, piastic wastes can be beneficiai in a properiy maintained iandfiil, contribnting to stabilization of the fiil. Further they do not create problems of leaching or gas generation.

Where energy recovery systems arc contemplated, piastics again may be particularly useful because they are petroleum-based products with high heat content. Thus in systems which consume waste to provide recoverabie energy supplies, such as electric power, steam, gas or oii, the plastic content of these wastes may well be a significant factor in the successfui operation of such systems.

It should further be pointed out that while plastics are petroleum-based, the consumption of valuable oii and gas for plastics manufacture accounts for less than 1.5 percent of the totai oil and gas consumed in the U.S.

Additionally, if plastic products arc used as fuei in pyrolysis or shredded refuse combustion units, these products have the capacity of repiicating in whoie or part the energy used to produce them in the first instance. This amounts to an effective dual use of a resource.

As bas been indicated by other witnesses who appeared before the subcommittee, there is a growing recognition of the effectiveness of energy conversion processes and as these installatioas become more prevalent, piastics materials will play a significant role.

Many geologists bave been telling us that the eaergy crisis is but the first of many resource shortages we wiil face as the years advance. Piastics will undoubtedly be required as substitutes for mauy natural raw materials now commonly used. Some of these plastics may well bc recycied, rather than consumed as fuel. Today, in-piant recycling of pure piastics is wideiy practiced. In the soiid waste stream, however, the problem of separating differing types of plastics presents genuine problems. Obviously, further research will be required to develop practical and economical means of separatiag plastic wastes for purposes of recycling products which enter the soiid waste stream. Such studies might well be encompassed under Secs. 232–235 of H.R. 13176.

While recognizing the effort of H.R. 13176 to deal with effectlve disposal of solid wastes. The Society of the Plastics Industry opposes ianguage in H.R. 12537 (Title II) to empower the administrator of EPA to set standards for tbe manufacture and distribution of any product to protect the public against unreasonable risks of disposal. In effect, EPA wouid be given power to prohibit the iatroduction of certain products into commerce if tiey cause "unreasonable burdens or risks" to health and the environment.

The pending Toxic Substances Controi Act (S. 426), which is stiii in conference, would already give EPA tbe power to restrict disposal of substances if restrictions are necessary to protect healtb and the environment. However, attempting to controi disposal by setting standards for the product wonld, we believe, prove to be expensive, cumbersome and unworkable. Such intervention in the marketplace wouid, inevitabiy, work to tbe detriment of the economy aad the consumer.

Similarly, SPI believes the establishment of a "National Commission on Environmental Costs," contemplated by H.R. 12537, is an unusually expensive means of researching the practicality of disposal taxes, source reduction or mitigation of environmental damage. Much of this work would overlap with research already being conducted by EPA and the Council on Environmental Quality. It seems unnecessarily wasteful to create yet another federal agency to research questions within the jurisdiction of existing authorities such as EPA or CEQ.

The Society similarly opposes the provision in H.R. 12537 to create a Council on Environmental Representation to aid in the filing of citizen environmental lawsuits. Such a Council would add to the federal costs without any clear showing of need.

We commend the subcommittee and its chairman for addressing a complex problem and believe that by enacting legislation which provides an effective blueprint to proceed with modern disposal techniques, industry and government can share in the solution of environmental and health needs without sacrificing the advances which technology also brings.

STATEMENT OF HOWARD CHESTER, EXECUTIVE SECRETARY, STONE, GLASS, AND CLAY COORDINATING COMMITTEE

Mr. Chairman and members of the committee, my name is Howard Chester. I am the Executive Secretary of the Stone, Glass and Clay Coordinating Committee. Our Committee is composed of six International Unions, all affiliated with the AFL–CIO, who have joined together to cooperate on mutual problems that affect any one of our six affiliates. We have a combined membership of 240,000 workers, with active locals in almost all of the fifty states.

Two of our affiliated Unions are directly concerned in this hearing; the Glass Bottle Blowers Association and the American Flint Glass Workers Union, which two Unions represent the employees who manufacture glass containers.

We support the positive and practical solution of recycling solid waste and providing incentives to encourage the use of recycled materials.

Several cities and states are moving forward in the direction of planned resources recovery plus the added benefit of energy conservation provided by using solid wastes as fuel. To quote Mr. Arsen Darnay, EPA's Deputy Assistant Administrator for Solid Waste:

> There is enough energy in the solid wastes in large U.S. cities to light every home and commercial establishment in the country all year long . . . The total energy provided by this big city waste would be the equivalent of 150 million barrels of oil a year . . . If the burning is accompanied by recovery of the metals, glass, rubber and other items for recycling, there would be an additional energy saving equal to 30 million barrels of oil a year. The reason for this is that it normally takes less energy to manufacture a product using secondary materials, such as scrap iron or steel, than to make it with the virgin materials . . . such as iron ore.

Connecticut and Massachusetts are moving in this direction and have announced plans calling for recycling or reuse of solid wastes. The Union Electric Co. plans to develop a solid waste utilization system for the metropolitan area of St. Louis. Franklin, Ohio is now operating a recycling plant that will take unsorted garbage and automatically process it to reclaim glass, metals and paper-making fibers.

We support these practical and positive approaches that conserve our resources through recycling and conserve our energy with use of secondary materials in manufacturing and by burning waste as fuel. I am attaching the EPA press release, the article on St. Louis and Union Electric, and the announcement by Massachusetts Governor Sargent.

We are strongly opposed to job-destroying legislation that would impose a tax, deposit or ban on non-returnable beverage containers. This type of restrictive legislation would result in a serious loss of jobs in the glass container industry as well as in the can and plastic industries. We do not need more unemployment by restrictive legislation in an economy impacted by energy-caused unemployment and excessive foreign imports.

The AFL–CIO stands in opposition to restrictive legislation against the non-returnable container. To quote from Resolution No. 88, "The Environment," as passed by the AFL–CIO Convention, "Legislation . . . at any government level . . . which seeks to resolve this problem by restricting the sale or use of non-

returnable containers, regardless of the unemployment and other negative consequences, should be opposed." Another resolution passed by the AFL–CIO in convention, October 1973, titled "Waste and Environment" opposed job-destroying legislation and endorsed the positive concept of resource recovery. The Maritime Trades Department in convention passed a resolution titled "Ecology and Jobs," opposing job-destroying legislation and endorsing resource recovery as a positive approach. I have attached each of the resolutions referred to with the adopted text as passed in October 1973.

We strongly support these resolutions and we respectfully submit that Industry, Government and Labor are moving towards constructive solutions to the solid waste problem—that legislation to ban or require mandatory deposits would result in a serious loss of jobs in the beverage container industry. So we are strongly opposed to restrictive legislation and support the positive and practical solution of recycling, conserving our natural resources and energy.

In conclusion, on behalf of the Glass Bottle Blowers Association and the American Flint Glass Workers Union, two of the member Unions of our Committee, I want to thank you for this opportunity to express our convictions on this extremely important subject. We hope that you will give favorable consideration to these views in your deliberations on the proposed legislation.

[EPA Press Release, Feb. 22, 1974]

EPA Official Urges Using Solid Waste as Fuel

There is enough energy in the solid wastes in large U.S. cities to light every home and commercial establishment in the country all year long, a U.S. Environmental Protection Agency official said today.

Arsen Darnay, EPA's Deputy Assistant Administrator for Solid Waste Management Programs, told a news conference that the wastes could be converted into energy to generate the electricity in large urban areas. The total energy provided by this big city waste, he said, would be the equivalent of 150 million barrels of oil a year.

If the burning is accompanied by recovery of the metals, glass, rubber and other items for recycling, he said, there would be an additional energy saving equal to 30 million barrels of oil a year. The reason for this is that it normally takes less energy to manufacture a product using secondary materials, such as scrap iron or steel, than to make it with the virgin materials counterpart, such as iron ore.

Darnay listed 21 cities, including such large urban areas as New York, Chicago, Philadelphia, and Detroit, where a plan to burn trash as an auxiliary fuel to make electricity has either been adopted, or is under serious consideration. (See list of cities at end of news release.)

Some of the plans to use solid waste as auxiliary fuel for electricity are modeled on an EPA-supported demonstration in St. Louis by the city and the Union Electric Company. After magnetic metals are removed for recycling by the Granite City (Illinois) Steel Company, the waste is burned along with coal in one of Union Electric's boilers.

Darnay said, "In the St. Louis Demonstration, we have convincing evidence of a large, virtually untapped energy source for the country. We calculate that our large urban areas (the Standard Metropolitan Statistical Areas)—where solid waste can be profitably used as fuel—generate about 90 million tons of residential and commercial solid waste each year.

"About 70 to 80 percent of this waste can be burned. If that combustible waste were used as fuel, we would have an energy recovery of 800 trillion British Thermal Units annually, the equivalent of 150 million barrels of oil a year.

"That's enough energy to light our homes and commercial establishments all year long. It's also equal to 27 percent of the oil projected to be delivered through the Alaskan pipeline."

Darnay also said that many cities can save fuel by revising procedures for collecting solid wastes. If those communities which now collect solid waste twice a week were to collect once a week, a fuel saving of 29 percent could be achieved. Improved vehicle routing procedures, he said, could reduce fuel consumption nationwide by five percent. These two changes together could result in a national annual saving of 18.2 million gallons of diesel fuel and 39.1 million gallons of gasoline, he said.

Energy is also saved, Darnay declared, when consumers buy smaller automobiles or require less packaging. He said if each individual used no more packaging

in 1972 than he did in 1958, we could have saved almost 600 trillion BTUs in 1972, the equivalent of .3 million barrels of oil per day.

Energy recovery is under consideration in the following cities:

New York, Chicago, Philadelphia, Detroit, Washington, D.C. (including suburban Maryland and Virginia), Boston, St. Louis, Baltimore, Cleveland, Milwaukee, San Diego, Buffalo, Rochester, Memphis, Albany, Akron, Nashville, Knoxville, Bridgeport and Brockton, Massachusetts, and Eugene, Oregon.

* * *

MASSACHUSETTS UNVEILS NEW RECYCLING PLAN

BOSTON, Jan. 17 (UPI).—The State of Massachusetts has unveiled a plan calling for recycling or reuse of 90 per cent of the solid waste generated by its 5.5 million residents.

The plan, released Tuesday by Gov. Francis W. Sargent, calls for using half of the estimated eight million tons a year of trash that will be generated in the state by 1980 for fuel. Gov. Sargent said trash could be burned by power companies to generate 15 per cent of the state's electricity.

Other trash components that would be recovered or reused include glass, scrap iron, aluminum and other metals. These products, plus the burnable material shipped to power companies, would be sold for a total of $40 million a year.

The plan was developed for the state by the Arthur D. Little Co. under a $27,500 six month contract. The three-layer plan calls for a statewide network of transfer stations to collect trash, 10 strategically located primary resource recovery stations, and two secondary recovery facilities.

The transfer stations and resource recovery plants would be located on state-owned land, but would be built and operated by private companies.

* * *

[From Wall Street Journal, March 1, 1974]

UNION ELECTRIC CO. PLANS ECONOMIC USE OF ST. LOUIS' TRASH

FIRM SETS SYSTEM TO EMPLOY MOST OF AREA'S SOLID WASTE FOR FUEL, RECYCLING PURPOSES

ST. LOUIS.—Union Electric Co. said it plans to develop a solid-waste utilization system that will handle essentially all of the solid waste generated in the metropolitan St. Louis area, which includes the City of St. Louis and six adjacent counties in Missouri and Illinois. Charles J. Dougherty, president, said the system is expected to be in full operation by mid-1977.

Mr. Dougherty said the decision was based on the success of a two-year prototype system operated by Union Electric, the City of St. Louis and the Environmental Protection Agency. The new solid-waste utilization system, which will require a $70 million capital investment, will be built and owned by Union Electric. Mr. Dougherty said it will cost $11 million annually to operate but is expected to be economically self-supporting.

The plan calls for the establishment and operation of five to seven collection-transfer centers capable of handling 2.5 million to three million tons of waste annually. Refuse will be transferred from these centers by rail in closed containers to processing facilities at the company's Meramec and Labadie, Mo., powerplants, where combustible wastes will be burned with coal to generate electricity and noncombustible materials will be sold for recycling.

Mr. Dougherty said the solid-waste utilization system has "tremendous" potential. "Obviously, recycling and reusing waste materials makes sense environmentally. When that can be achieved economically, it is a significant and positive achievement." He added that the system will all but end the need to use land for waste disposal.

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AFL–CIO RESOLUTION NO. 88

THE ENVIRONMENT (E.C. REPORT, PAGE 112)

Authorizations for the sewage plant construction program enacted by the 1972 amendments to the Federal Water Pollution Control Act should be fully honored by congressional appropriations. The Clean Air Act program must be given the financial and manpower resources to accelerate its enforcement and re-

search activities, and monitoring the effectiveness of non-federal abatement programs.

Pending enactment of legislation to establish a national long-range solid-waste effort after the present act elapses next year, Congress should appropriate the necessary funds to restore the federal program to effectiveness during this period.

The federal government must expand its efforts in developing techniques for disposing solid wastes, recovering valuable materials from wastes and for using wastes in new ways such as fuels. The federal government should provide funds to local governments in establishing alternate measures for disposing of solid wastes.

Legislation to prevent environmental blackmail should be enacted to apply to all pollution abatement programs at all levels of government. It is equally important to pursue passage and funding of adequate unemployment compensation, other financial assistance, retraining and relocation programs for workers, who may lose jobs as a result of environmental control activities.

Restrictions on over-use by automobiles and other intrusions on areas of the national parks system, should be established to protect these priceless national assets so that they can continue to enrich the lives of future generations of Americans.

Congress should establish and fund a program to acquire land for the development of regional, state and local recreation areas easily accessible to large population centers.

Legislation to establish a national solid waste program should contain these elements: An expansion of the federal role in developing, implementing and enforcing standards for disposing of solid waste; required federal reporting for all entities dumping solid wastes into the environment; acceleration of technologies to solve the problem of disposal, collection, separation and re-use. Full consideration should be given to the human values affected, particularly on employment in both the private and public sectors.

America is in dire need of a national land use policy to enhance the quality of the land environment, guard against monopoly and speculation, and provide the framework for programs which will be responsive to the economic and social needs of the nation.

Such a policy should include federal grants-in-aid to assist state and local governments and regional entities in improving existing programs, adopting broad land-use laws, including prevention of speculation, or uncontrolled commercialization; enhancing opportunities for acquiring land for low-income housing and public recreation; and a national study of taxes that affect land-use.

Federal programs to improve land-use planning and programs on federally owned lands, should guard against ecological damage from mining operations, particularly strip mining, and soil erosion. Over-exploitation of merchantable timber in our National Forests by the devices of clear cutting and excessive harvesting, in violation of sustained yield principles, should be prevented.

Federal legislation to prevent or reduce ecological damage from strip mining on all lands, and to require effective reclamation of such lands should be enacted by the Congress.

The internal combustion engine is the major source of air pollution and the major drain on petroleum fuels. The AFL–CIO proposes creation by Congress of a high-priority federal research and development program to seek alternative feasible sources of power for motor vehicles.

Burning of coal, particularly in power plants, is not only a major source of pollution from sulfur oxides of sulfur but, because of antipollution programs, prevents the full use of coal with high sulfur content. The expansion of EPA programs to develop effective technologies, to reduce emissions of sulfur from coal burning facilities should be given high priority and adequate resources.

Continued support is pledged to the principle of family farm ownership, the breakup of huge land monopolies, and strict enforcement of the 160 acre and anti-speculation provisions of federal reclamation laws.

Resolution No. 88, book 1, page 107—The Environment. Amended and adopted.

(Resolution No. 88 covers the substance of Resolution No. 3, book 1, page 2 and Resolution No. 75, book 1, page 84.)

Amendment: On page 107, after the second paragraph of Resolution No. 88, insert the following:

"Legislation—at any government level—which seeks to resolve this problem by restricting the sale or use of non-returnable containers, regardless of the unemployment and other negative consequences, should be opposed. This Convention goes on record in support of effective anti-littering legislation."

Waste and Environment

AFL–CIO Resolution No. 80—By Delegates representing Glass Bottle Blowers Association; United Steel Workers of America; Distiliery, Rectifying and Wine Workers International Union; American Flint Glass Workers Union; Cement Lime and Gypsum Workers International Union; United Paperworkers International Union; and Aluminum Workers International Union.

Whereas, Environmental groups that mean well but are not fully informed on all issues involved continue to press for job-destroying legislation at local, state and national levels of government, and

Whereas, The AFL–CIO and its 14 million members are as desirous of a clean environment as any group, since the working man's family depends on such an environment for their primary recreational pursuits, and

Whereas, The AFL–CIO Executive Council while urging restraints on ill-conceived legislation which would destroy thousands of job opportunities thus creating more problems than such legislation could hope to solve, and

Whereas, The concept of "resource reduction"—the advocacy of reduced production of various goods as a means of conserving resources and improving the environment—is a negative approach which would serve to diminish the living standards of Americans in all walks of life, and

Whereas, The trade union movement has long contended the positive concept is resource recovery, by which the nation makes worthwhile use of its waste in ways for which technology already exists, and

Whereas, The realization of this goal depends on a broadly expanded federal program of development and assistance in putting this technology to work, and

Whereas, Efforts to obtain such a federal program are undermined by the environmental advocates who continue to spread the erroneous doctrine that legislation can solve the solid waste and resource preservation problems, and

Whereas, Adoption of such legislation would have a staggering impact on the national economy by eliminating well-paying jobs and substituting for them lower-paying jobs, thus reducing the cash flow in the business world, creating conditions which would cost still more jobs, and

Whereas, This cutback in the national economy would cause serious tax losses at all levels of government, resulting in a need to cut back or eliminate essential programs which have been developed over years of effort; therefore, be it

Resolved That the delegates to this Tenth Biennial Convention of the American Federation of Labor and Congress of Industrial Organizations firmly reject the contention that jobs must be sacrificed to preserve the environment, and be it further

Resolved That this Convention is on record as opposing any such legislation that would destroy workers' jobs in the name of protecting the environment, and be it further

Resolved That the Convention endorses the concept that the only successful means of preserving our resources and solving our solid waste problem is through an imaginative system of resource recovery through which we can transform waste into useful materials, and be it further

Resolved That this Convention urges members of Congress, environmental leaders and industry to turn their thinking in that direction and proceed to insist that the federal government embark on a far-reaching program to achieve that goal.

Referred to Committee on Resolutions.

Resolution No. 80, book 1, page 91—Waste and Environment. Adopted.

* * *

Ecology and Jobs

AFL–CIO Maritime Trades Department Resolution No. 31

(Submitted by Glass Bottle Blowers' Association)

Whereas, The American Labor movement has long-standing commitments to protecting this nation's environment and to achieving full employment for its people.

We reject the counsel of those who would sacrifice workers' jobs to clean up pollution. We equally reject the contention of polluting industries which attempt to hide behind the legitimate concerns of workers for their jobs as an alibi for doing nothing.

A clean environment and full employment are not incompatible; in fact, they can and should go hand-in-hand.

Whereas, Labor's position is especially pertinent in relation to the twin problems of solid waste disposal and depletion of valuable natural resources. The answer to these companion problems lies in transforming waste into usable products.

The answer does not lie in proposals to ban disposable cans and bottles or to curtail use of certain materials. These proposals are really "nonsolutions." By disrupting industry and causing heavy losses of jobs, more problems would be created than solved.

Similarly, we reject proposals that would: (1) place a hidden excise tax on products containing certain materials, or (2) expand the depletion allowance loophole to companies that use waste materials. The depletion allowance loophole has encouraged using up valuable natural resources and has not provided for prudent materials-use policies.

Whereas, The Federal government must expand its efforts in developing new techniques for disposing of solid wastes, recovering valuable materials from wastes and for using wastes in new ways, such as fuels.

To do this, the Congress must greatly increase the solid waste budget of the Environmental Protection Agency that was slashed by the Administration. With increased funds the EPA could assist local governments in establishing alternate measures for disposing of solid wastes.

We urge the Congress to direct the Interstate Commerce Commission to halt present freight practices which apply much higher rates for recyclable materials than for virgin materials.

This action alone would make recycled materials more economical.

Whereas, We believe an approach based on reason, tempered by economic realities, can reach an accommodation between the nation's economic and environmental well-being. The approach necessitates a far-reaching program to make the recovery of litter and solid waste a productive and profitable endeavor.

Systems already exist that could lead to profitable recovery. Technology in this area, already well advanced, is moving forward rapidly, but it requires strong support from the Federal government.

Resource recovery is a positive approach with a promise of expanded use of waste and a parallel reduction in use of precious natural resources.

Whereas, The task of preserving the environment and vital natural resources and achieving full employment require the cooperation of all citizens.

Therefore, be it

Resolved, That the AFL–CIO Maritime Trades Department in convention assembled adopt and implement this resolution proposed by the Glass Bottle Blowers' Association, AFL–CIO and prepared from a statement adopted by the AFL–CIO Executive Council, August 2, 1973.

PACIFIC WESTBOUND CONFERENCE,
Washington, D.C., April 23, 1974.

Hon. PAUL G. ROGERS.
House of Representatives, Committee on Interstate and Foreign Commerce, Rayburn Building, Washington, D.C.

DEAR CONGRESSMAN ROGERS: It has just come to our attention that at hearings held on March 27, 1974, before your Subcommittee on Public Health and Environment concerning waste recovery legislation (H.R. 13176 and companion bills), testimony was submitted on behalf of the National Association of Recycling Industries (NARI) which dealt in part with transportation rates for ocean carriage of recyclable products. Essentially the same testimony was presented by NARI in early March of 1974 to the Subcommittee on Transportation and Aeronautics during hearings on H.R. 6637 and similar bills. At that hearing, we submitted on behalf of the Pacific Westbound Conference a Statement and Supplemental Statement which joined issue with the allegations raised by NARI. (We were advised at the hearing that the provisions in H.R. 6637 relating to ocean carrier rates for recyclable products were being eliminated from the bill.)

We understand that the matter of ocean transportation rates for recyclable products is not contained in any of the bills before your Subcommittee. However, because the NARI testimony contains specific allegations of unfair ocean freight rates for recyclable products, we believe that the record before your Subcommit-

tee should contain all of the facts which bear upon the matter. With such a complete record it will be readily seen that the allegations are without substance.

Therefore, we respectfully request that the Statement and Supplemental Statement [1] referred to above, along with this letter, be made a part of the record of hearings on H.R. 13176 and related bills. In furtherance of this request, we enclose five copies of the Statement and Supplemental Statement.

Very truly yours,

LILLICK, MCHOSE, WHEAT, ADAMS & CHARLES,
HAROLD E. MESIROW,
Counsel for Pacific Westbound Conference.

[Whereupon, at 12:45 p.m., the subcommittee was adjourned.]

[1] See statement of Mr. Mesirow in hearings held March 12, 13, and 14, 1974, before the Subcommittee on Transportation and Aeronautics, Interstate and Foreign Commerce Committee, entitled, "Freight Rates for Recyclable Materials," Serial No. 93-77.

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