REPORT BY THE

RELEASED

Comptroller General

OF THE UNITED STATES

Federal Industrial Targets And Procurement Guidelines Programs Are Not Encouraging Recycling And Have Contract Problems

Two Federal programs were established by the Congress to encourage recycling through the use of procurement guidelines and industrial recycling targets. GAO reviewed the programs and the use of contractors on each.

As with other resource recovery efforts, one or both of the programs have lacked direction, coordination, needed resources and desired impact. Procurement guidelines intended to encourage recycling through Federal procurement of products containing recovered materials have not been issued. The Office of Federal Procurement Policy has not carried out its leadership responsibilities for this program. In addition, the Department of Energy's industrial targets program will not promote recycling because economic factors primarily determine industries' recycling levels.

GAO found that the use of contractors in both programs points to the need for an overall Federal contract conflict of interest policy.

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COMPTROLLER GENERAL OF THE UNITED STATES
WASHINGTON, D.C. 20548

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B-200887

The Honorable James J. Florio
Chairman, Subcommittee on Transportation HSE02306
and Commerce
Committee on Interstate and Foreign Commerce
House of Representatives

Dear Mr. Chairman:

As requested in your November 19, 1979, letter, this report discusses the Federal procurement guidelines program under the Resource Conservation and Recovery Act of 1976 and the industrial recycling targets program under the National Energy Conservation and Policy Act of 1978. The report also discusses the selection and use of contractors under each of these programs.

As arranged with your office, unless you announce its contents earlier, we plan to distribute this report to cognizant agencies, other interested parties, and make the report available upon request 30 days from the date of the report.

Sincerely yours,

Comptroller General
of the United States

THE COMPTROLLER GENERAL'S REPORT TO THE CHAIRMAN, SUBCOMMITTEE ON TRANSPORTATION AND COMMERCE, COMMITTEE ON INTERSTATE AND FOREIGN COMMERCE, HOUSE OF REPRESENTATIVES

FEDERAL INDUSTRIAL TARGETS AND PROCUREMENT GUIDELINES PROGRAMS ARE NOT ENCOURAGING RECYCLING AND HAVE CONTRACT PROBLEMS

D I G E S T

Materials recovered from industrial and municipal solid wastes could make major contributions to the Nation's requirements for metals and paper. Increased recycling could also provide a significant, new, fuel source and concurrently lessen solid-waste disposal problems.

However, two programs established by the Congress to encourage recycling through Federal procurement guidelines and industrial targets are not succeeding. One or both of the programs, like other resource recovery efforts, are lacking in direction, coordination, needed resources and desired impact. For example, under the Federal procurement program

- --the Office of Federal Procurement Policy has not pursued its leadership responsibilities, AGC00929
- --the Environmental Protection Agency (EPA) has yet to issue any recycling guidelines, and AGC00024
- --Federal agencies are reduced to waiting for policy directives before encouraging the purchase of recycled products.

The program for setting voluntary industrial recycling targets administered by the Department of Energy (DOE) will not promote recycling because economic factors determine such industry activities. AGC00912

GAO's review of the use of contractors on both programs supports the need for an overall Federal conflict of interest contract policy.

FEDERAL AGENCIES HAVE NOT SUPPORTED THE PROCUREMENT PROGRAM

Section 6002 of the Resource Conservation and Recovery Act of 1976 requires Federal agencies to purchase items that contain the highest percentage of recovered materials practical, given reasonable levels of price and performance.

Unfortunately, progress toward developing and implementing a Federal purchasing program and policy for products containing recycled materials has been minimal.

The Office of Federal Procurement Policy in cooperation with EPA has the legislated responsibility for implementing the program with guidelines to be developed by EPA. EPA has devoted limited resources to the program and has adopted a time consuming, rulemaking procedure to develop the required guidelines which are not expected to be issued before 1981, 3 years after Federal agencies are required to comply fully with the procurement aspects of the act.

Other agencies have also not met their responsibilities. For example, the Office of Federal Procurement Policy (1) has not pursued its policy making responsibilities, (2) has not issued implementing instructions to Federal procuring agencies, and (3) has not addressed conflicts or problems inherent in such a program.

Because the Office of Federal Procurement Policy has not issued policy directives, and EPA guidelines are not yet available, Federal actions to implement the program are uncoordinated and inadequate. Many agencies have stopped trying to implement the program until guidelines are available. A major Federal purchaser, the Government Printing Office, initially attempted to establish recycled material requirements in products it buys. However, the program soon became unworkable and the Government Printing Office now simply allows the use of recovered materials in the paper products it buys. AGC00178

AGC00005

The Department of Defense, another major Government purchaser, is reviewing its product specifications, but it is less than half finished. Defense procurement officials said for the program to be effective, policy guidelines are needed.

A PREFERENCE PROGRAM IS NEEDED

While Federal procurement policy appears to have limited promise for stimulating resource recovery, it is important that the Government do what it can to promote recycling and to set an example for State and private institutions. However, Federal procurement agencies and many private businesses now believe that the procurement program is unworkable without guidelines and given current levels of support. GAO believes that, to pursue this program, the Government should not, as is now planned, try to specify a recovered material percentage content for products it buys. Instead, GAO believes the best way to implement the program is to have a preference system that instills a sense of competition among Government suppliers to increase the amount of recovered materials in their products. Such a system has worked for the Buy American Act and been used to stimulate paper recycling in California.

Federal procurement experts told GAO that since the Resource Recovery Act does not specifically authorize a preference program, legislation is needed to initiate one.

Direct costs to the Government and administrative burdens could increase, however. Delays might also result from challenges to contract awards.

INDUSTRIAL TARGETS WILL NOT ENCOURAGE RECYCLING

The National Energy Conservation and Policy Act of 1978 required DOE to set voluntary industrial recycling targets at the maximum feasible level that could be achieved by January 1, 1987, taking into consideration technical and economic parameters. DOE established the targets for paper, metals, rubber, and textiles in February 1980, following studies completed by four contractors.

The targets have been criticized by recycling advocates as being needlessly low. In a number of cases they were lower than current recycling rates, and much lower than rates in European countries and Japan.

DOE asserts that the targets were set, as required by law, at levels that could be expected to be reached given expected technical and economic constraints. This approach, however, led to the development of targets that, in many cases, can be expected to be attained by the industries maintaining their present level of effort for recycling. Furthermore, because of time constraints, little attention could be given to the potential impact of new initiatives designed to encourage recycling.

In any event, GAO doubts that industry-wide targets set at any level can affect recycling by individual companies. Such economic and technical considerations as the relative price and availability of raw materials and the technical flexibility of available equipment determine what proportion of a firm's raw materials is from recycled sources. Voluntary targets have no significant impact on these considerations. Furthermore, many industries such as steel are composed of two segments. Large integrated mills are oriented towards production using virgin materials, and a greater number of small mills use scrap. The ratio of output between the two determines how much recycling the industry does. (See p. 50.)

No more Federal funds available for resource recovery should be funneled into the industrial targets program. These resources could be much more effectively focused on other Federal resource recovery efforts.

EPA AND DOE CONTRACTING EFFORTS

Both EPA and DOE largely relied on outside contractors to develop recycling guidelines and targets. Two of the contracts were awarded in situations that created the appearance of a potential conflict of interest. However, GAO did find that the contractors suggested guidelines or targets in order to obtain further business from its present or former industry clients.

EPA awarded three contracts under the procurement program at a cost of about $254,000 to examine paper products, construction products, and road construction materials. The contracts were awarded in accordance with all pertinent EPA and Federal regulations.

The contractor who conducted the paper study had done considerable work for the paper

industry in the past, creating the potential for a conflict of interest. Although GAO found no evidence of an actual conflict, EPA should have incorporated a conflict-of-interest clause in the contract. Also, its procurement regulations should require organizational and individual conflict-of-interest clauses in all contracts.

The DOE industrial targets were largely established as a result of four industry studies costing about $662,000. Most of the targets were established at levels suggested by the contractors. The contracts were awarded under a 1977 quick-response master contract designed to obtain needed support services quickly. As reported in previous GAO reports, these types of contracts tend to limit competition, especially when tasks are awarded to specific contractors. (See p. 59.)

Before the contract awards, DOE gave a minimal amount of consideration to the potential for a conflict of interest. One contractor did a considerable amount of business with the industry it studied. Disclosure statements on the potential for a conflict of interest were made by each contractor under the master contract, but not prior to the award of specific tasks.

In GAO's opinion, disclosure statements made at the time of the master contract award were of limited value as there were no specific tasks on which to base a potential conflict statement. The disclosure should have been made when each task was assigned to the contractors.

New DOE regulations, if properly implemented, may go a long way toward eliminating conflicts in the future. However, DOE needs to apply these regulations to current open, long-term contracts to ensure that such conflicts do not occur.

The awards of the EPA and DOE contracts again point out the lack of consistency from agency to agency in the management of such contracts.

A Government-wide conflict of interest policy is sorely needed to direct all agencies' use of such contracts.

NEED FOR A COORDINATED FEDERAL RESOURCE RECOVERY PROGRAM

If the Nation is truly serious about exploring the recycling of resources, a more centralized, coordinated Federal effort is needed. EPA should lead Federal resource recovery efforts with the assistance of the recently enacted interagency resource recovery committee. The committee should coordinate Federal efforts toward increased recovery. Recycling efforts, like the Federal procurement program, should be under the purview of this interagency committee.

RECOMMENDATIONS TO THE ADMINISTRATOR, OFFICE OF FEDERAL PROCUREMENT POLICY

The Office of Federal Procurement Policy should implement its responsibilities under section 6002(g) of the Resource Conservation and Recovery Act of 1976 and should direct Federal procuring agencies toward accomplishing the act's objectives. The Administrator should work with the Administrator of EPA and the Congress, if necessary, to develop a preference purchasing program and should more actively address the policy issues raised by introducing recycling considerations into the procurement process.

RECOMMENDATIONS TO THE ADMINISTRATOR, ENVIRONMENTAL PROTECTION AGENCY

The Administrator of EPA should work with the Office of Federal Procurement Policy, and the Congress, if necessary, to develop a preference program for the procurement of recycled products. EPA should increase its efforts to identify uses for recycled materials. However, it should avoid long-term efforts to determine percentage specifications for the content of recovered materials in purchased products.

EPA's regulations should be amended to require that conflict-of-interest clauses be included in all contracts.

RECOMMENDATIONS TO THE SECRETARY OF THE DEPARTMENT OF ENERGY

GAO recommends that the Secretary of DOE not pursue any efforts to redefine industrial targets. DOE should continue to work with EPA to identify recycled products and programs that could have the most positive impact on the demand for the Nation's energy supplies.

Long-term task order or quick-response contracts of the type used in the industrial targets program should contain language stating that competition is required where more than one of the available contractors has the expertise to complete a specific task. Where possible, the Secretary should amend all current open master contracts to ensure that new tasks or assignments are governed by the new DOE conflict-of-interest regulations.

RECOMMENDATIONS TO THE CONGRESS

The Congress should consider enacting legislation establishing a preference program for recycled products in Federal agency procurements, taking into account the additional cost and administrative burden on the Federal procurement system. The Congress should direct the Administrator of the Office of Federal Procurement Policy to take a more active role with EPA to implement the objectives of section 6002 of RCRA.

The Congress should not appropriate any more funds for industrial targets program unless evidence can be offered that the program will increase recycling.

The Congress should also enact legislation establishing a Federal conflicts of interest contracting policy. The Congress should review ongoing Office of Management and Budget efforts to develop directives on the use of contractors especially to prevent conflicts of interest.

AGENCY COMMENTS

Appendixes II, III, and IV contain DOE's, EPA's, and the Office of Management and Budget's formal comments. Chapter 6 discusses these comments in detail.

The Environmental Protection Agency

EPA believes the report is an accurate assessment of the recycling procurement program. It agrees with several of the recommendations but questions the practicality of implementing a Federal procurement preference system for recycled materials. It is currently amending its regulations to require a conflict-of-interest certification from all offerors and the inclusion of a conflict-of-interest clause in all contracts over $10,000.

GAO believes a purchase system giving preference to the supplier with the product with the highest recycled materials content may alleviate many of EPA's concerns.

The Office of Federal Procurement Policy

The Office of Federal Procurement Policy disagrees with our conclusions that the Government's procurement program under RCRA is uncoordinated. The Office's views, however, are somewhat contrary to those of EPA, DOD, and GPO--agencies that concur with the problems and issues presented in this report. GAO believes there is a clear need for the Office of Federal Procurement Policy to become more actively involved by addressing policy questions that need to be resolved if the program is to move forward.

Like EPA, the Office is also opposed to a preference system for practical reasons. In GAO's opinion, a preference program offers the best potential for implementing the recycling procurement program, taking into consideration the problems now stalling the program.

The Department of Energy

DOE agrees with the conclusion that industrial targets will not encourage recycling and supports recommendations regarding the lack of future work on the targets program and the accompanying reporting system.

DOE argued that the NECPA requirement to establish targets created a need that the quick-response master contracts were designed to accommodate. It stressed that it adequately monitored the targets contracts for conflicts of interest. GAO continues to be concerned, however, about the adequacy of competition under quick-response master contracts. In this case the master contracts were awarded without knowledge of specific tasks, and the "second round" of competition resulted in only four contractors submitting proposals for four projects.

GAO acknowledges that the program manager closely monitored the progress of the contractors' performance. GAO found no evidence to suggest that a conflict compromised the efforts of any contractor. However, the possibility of such a conflict was not adequately addressed during the assignment of the work under the master contracts, although recent DOE regulations may prevent it in the future. This, along with other recent GAO work on the Government's use of consultants, points to the need for an overall Federal conflict of interest contract policy.

Contents

ABBREVIATIONS

DOD	Department of Defense
DOE	Department of Energy
EPA	Environmental Protection Agency
GAO	General Accounting Office
GPO	Government Printing Office
GSA	General Services Administration
NECPA	National Energy Conservation and Policy Act of 1978
RCRA	Resource Conservation and Recovery Act of 1976

CHAPTER 1

INTRODUCTION

In November 1979, the Chairman of the Transportation and Commerce Subcommittee of the House Interstate and Foreign Commerce Committee, asked us to examine two specific Federal efforts to encourage recycling. He requested that we review the procurement guidelines program enacted in section 6002 of the Resource Conservation and Recovery Act of 1976 (RCRA), and the industrial targets program enacted in section 374(a) of the 1978 National Energy Conservation and Policy Act (NECPA). Concerned that existing efforts were not accomplishing the congressional intent for both programs, and aware that a large part of the effort for each had been contracted out to private consultants, the Chairman specifically asked us to examine contract awards under each program and related contractual issues.

This chapter discusses the Federal involvement in resource recovery and defines the scope of our work. The following chapters discuss in detail the recycling targets and guidelines programs and related contractual efforts.

WHAT IS RESOURCE RECOVERY/RECYCLING?

Resource recovery is the conservation or recovery of valuable mineral, material, and energy resources from industrial and municipal wastestreams that would otherwise be disposed of in municipal and industrial landfills, oceans, or by incineration. Many of these methods of disposal preclude the future recovery of valuable material or energy components. Recycling is a resource recovery method involving the collection and treatment of a waste product for use as a raw material in the manufacture of the same or a similar product. Transformation involves the recovery of a material for use in the manufacture of a different product. For this report, the term "recycling" should be considered to represent both recycling and transformation.

U.S. industries will generate an estimated 380 million tons of industrial solid waste during 1980 and the general public will generate another estimated 175 million tons of municipal solid waste in the same period of time. Recovered and recycled materials from these wastes could provide significant proportions of the Nation's requirements for manufacturing metals, glass, plastics, fibers, and rubber, and could serve as a new fuel source with an energy potential equal to 272 million barrels of oil per year.

Figure 1 shows in a simplified way some of the processing steps such basic industrial minerals as iron ore or copper go through from extraction to production, use, and disposal. As illustrated in the figure, there are many kinds of waste generated during the processing of a material and, thus, many opportunities for recycling during a typical materials flow cycle.

The terminology used to identify the waste is usually associated with the "stage" at which the material becomes waste, e.g., mining waste, industrial waste, and municipal solid waste. Any waste can also be "hazardous" or one that poses a substantial or potential hazard to human health or the environment when improperly treated, stored, transported, or disposed of.

Industrial waste can be broadly defined as production and pollution residue from processing and manufacturing operations. Such wastes typically take the form of slag, sludge, and dust. Our May 15, 1980 report, "Industrial Wastes: An Unexplored Source of Valuable Minerals" (EMD-80-45) describes the potential for recovery from these wastes and the lagging Federal effort to enhance industrial waste recovery.

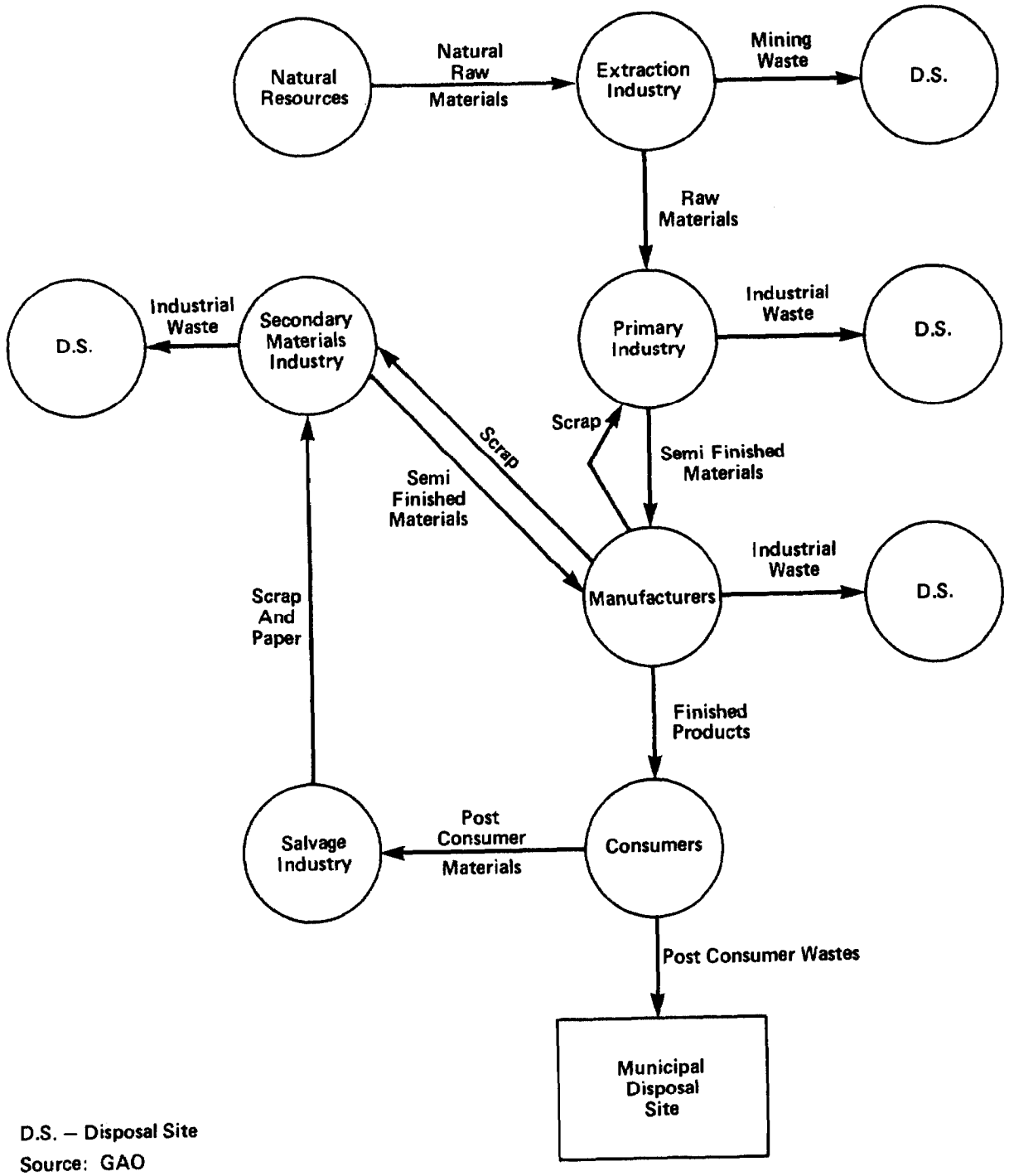
The term "scrap" is usually associated with metal industries. Scrap is discarded metal that is usually recycled either back to the primary producer, or through a secondary metals industry that relies largely on scrap as its basic raw material.

Scrap is classified as new scrap (home or prompt) or obsolete scrap. New scrap is produced by the metal producer or manufacturer. Therefore, the chemical composition of new scrap is known, and there is little or no resistance to recycling. Most new scrap is recycled by returning it to a primary producer or secondary producer.

Obsolete scrap metal is that material remaining after a product has served its purpose (been consumed) and is discarded, usually in the municipal wastestream. The exact chemical composition and origin of the metals are sometimes unknown or the mixture may be expensive to separate.

Municipal solid waste is at the end of the materials life cycle and is composed of everything consumers throw away. As much as 75 percent is organic and combustible material that could be converted into refuse derived fuel. A number of Federal, State, and local as well as private efforts have

FIGURE 1: A TYPICAL MATERIALS FLOW



D.S. – Disposal Site

Source: GAO

been directed toward capturing the energy content of solid waste. See our February 1979 report, "Conversion of Urban Waste to Energy: Developing and Introducing Alternate Fuels from Municipal Solid Waste" (EMD-79-7). The 25 percent of the waste that is noncombustible is composed of dirt, metals, glass, ceramics, ash, and moisture.

BENEFITS OF RECYCLING

Resource recovery by recycling is becoming increasingly important as the U.S. dependence on imported energy and materials grows. It is generally accepted that resource recovery and recycling can

--save energy and natural resources and reduce imports when minerals and materials are recovered from the industrial and municipal wastestreams and

--lessen the burdens and environmental problems associated with solid waste disposal.

For example, the recycling of aluminum cans saves not only natural resources and reduces the need for bauxite imports, but also saves substantial amounts of energy in the production of new aluminum. It takes approximately 51,000 kilowatt hours of electricity to manufacture a ton of aluminum from bauxite compared to only about 2,000 kilowatt hours of electricity when recycled cans are used.

Recycling can also ease the growing waste disposal problems in this country. When metals and other noncombustibles are recovered from the municipal solid waste and the "garbage" is converted into refuse derived fuel, the volume of waste requiring disposal is as little as 5 percent of what it might have been without resource recovery. The sterile residue that remains also considerably reduces landfill and transportation requirements when it is disposed of.

THE FEDERAL ROLE IN RESOURCE RECOVERY AND RECYCLING

Since the mid-1960s, the Nation's experience with fossil fuel and materials' shortages and increased interest in environmental protection have turned congressional concern to resource recovery as a means of conserving valuable resources and eliminating the negative environmental effects of waste disposal. Since 1965, the Congress has enacted a number of laws that establish resource recovery goals as a priority of the Nation's environmental and energy conservation programs. These include:

--the Solid Waste Disposal Act of 1965;

--the Resource Recovery Act of 1970 (an amendment to the Solid Waste Disposal Act of 1965);

--the Resource Conservation and Recovery Act of 1976; and

--the National Energy Conservation Policy Act of 1978.

Each of these laws contains general reference to the desirability of conserving the Nation's resources and the development of recycling and recovery capabilities in the United States. Each also establishes a number of program objectives to be pursued by the Environmental Protection Agency (EPA) and other agencies. Under these and other legislation, EPA, and the Departments of Energy, Interior, and Commerce have initiated programs, albeit with limited resources, in the following areas to enhance resource recovery

--research and development,

--demonstration and pilot projects,

--technical assistance to State and local governments, and

--financial assistance.

THE PROCUREMENT GUIDELINES AND TARGETS PROGRAMS

The two programs that are the subject of this report established Federal guidelines or goals in hopes of encouraging the recycling of waste materials. Section 6002 of RCRA directs the EPA to prepare recommended guidelines for use by Federal agencies in procuring goods. These voluntary guidelines are intended to create Government demand for goods containing recycled materials. Federal agencies are to purchase items containing the highest percentage of recovered materials practicable, given reasonable levels of competition, cost, availability, and technical equivalency. The Office of Federal Procurement Policy within the Executive Office of the President is to implement the policy established by section 6002 of RCRA.

A similar program was enacted under NECPA. Section 461(c) which adds section 374(a) to the Energy Policy and Conservation Act, requires the Department of Energy (DOE) to establish voluntary targets for the use of recovered materials in four industries--metals, textiles, paper, and rubber. The targets are to be (1) based on available information and

(2) established at levels that represent the maximum feasible increase that can be achieved by January 1, 1987, taking into consideration technical and economic parameters.

OBJECTIVES, SCOPE, AND METHODOLOGY

The Chairman of the Subcommittee on Transportation and Commerce of the House Interstate and Foreign Commerce Committee asked that we determine

- --whether or not the two recycling programs as implemented by EPA and DOE are, or will, encourage recycling;
- --whether or not procurement guidelines and the industrial targets reflect realistic levels to promote increased recycling;
- --the manner by which EPA and DOE procured contractor services under both programs;
- --the role and appropriateness of using contractors to help set the targets and guidelines; and
- --the effectiveness of the respective agency administration of contracts under both programs.

To review the DOE industrial targets' program, we

- --contacted DOE to determine how the contractors were selected, what methodology was used to establish the industrial targets, and what effect the targets would have on recycling;
- --interviewed selected industry representatives, trade associations, and individual companies to obtain their views and concerns on the targets; and
- --evaluated private industry criticism of the contractors' analyses and the industrial targets themselves.

We also contacted the Office of Technology Assessment and the Congressional Research Service, whose staffs had developed some preliminary criticisms of the metals and paper targets.

To review the EPA Federal procurement program, we

- --contacted EPA, The General Services Administration (GSA), the Department of Commerce, the Government Printing Office (GPO), and the Office of Federal Procurement Policy to (1) identify the roles of various agencies involved (2) ascertain what has been done to date, and (3) evaluate the effectiveness of section 6002 of RCRA to promote recycling;

--surveyed these same agencies and the Department of Defense (DOD) to determine the impact, if any, of procurement recycling program initiatives;

--surveyed 10 industry associations and 5 private firms to determine their opinions about the procurement program;

--evaluated the criteria used by EPA to select products for contractual study for the setting of potential guidelines; and

--evaluated the contract reports and determined how they will be used by EPA to further the procurement program.

During our review of the contracts awarded under DOE and EPA programs, we

--determined what Federal, EPA, and DOE procurement regulations existed when the contracts were initiated in regard to competition and conflict of interest;

--reviewed contract files and talked to responsible officials to determine if regulations were being complied with;

--determined if a potential for conflict of interest or other inproprieties existed; and

--examined whether or not the contract work should have been done in-house.

CHAPTER 2

ENCOURAGING RECYCLING THROUGH FEDERAL PROCUREMENT: LITTLE ATTENTION OR PROGRESS

The Federal Government is the Nation's leading buyer of goods and services, spending over $93 billion in fiscal year 1979. It is frequently assumed that the sheer magnitude of its purchases allows the Federal Government to wield considerable leverage in the marketplace. This potential leverage is well recognized, and as a result, Federal procurement is often used to try to accomplish such social and economic goals as (1) the strengthening of small businesses, (2) the preserving of regional economic balance, and (3) the encouraging of minority businesses.

It is not surprising, then, that Federal procurement is also envisioned as a means of stimulating the recovery of resources from solid wastes. The Resource Conservation and Recovery Act of 1976 (RCRA), as amended, requires all Federal agencies to purchase items that contain the highest percentage of recovered materials practical, given reasonable levels of availability, price, and performance, and at the same time, maintain a satisfactory level of competition. EPA and the Office of Federal Procurement Policy have primary responsibility for implementing these objectives.

Unfortunately, little progress has taken place because of both agencies' lack of attention to the program and related problems. These other problems are discussed in chapter 3.

PRIOR ADMINISTRATION POLICIES

Even before congressional initiatives under RCRA, the Government had taken some action to stress procurement as a means of stimulating resource recovery. In response to a Presidential message on the environment in 1970, the Council on Environmental Quality sent a letter to major Government agencies requesting that each agency examine its procurement system to promote the use of recycled materials. Due in part to this initiative, GSA established a procurement program that called for suppliers to provide products with specified percentages of recovered materials. The intent was to encourage waste recovery through Federal procurement without sacrificing quality.

Under this program market tests were performed to determine industry's capacity to produce products with increased reclaimed material percentages and to measure its willingness to bid on such products. Using the data accumulated, product specifications were written to reflect the amount of reclaimed materials

that industry could provide. As of October 1973, 86 GSA purchase specifications for paper products were altered to require various percentages of recycled material. These specifications were placed on paper products representing more than $66 million, or about 72 percent of the dollar volume of Government paper purchases. Paper products were emphasized because paper constitutes about 50 percent of all solid waste materials. In addition, specifications for tires and plastic pipe were altered to permit the use of reclaimed materials at the discretion of the supplier.

After studying this program, we reported to the Congress on May 18, 1976, 1/ that several significant actions had been planned to stimulate the use of recycled materials in products purchased by Federal agencies. We reported that increased management emphasis and a formal program were needed, and that GSA and DOD needed to expand the program in other commodity areas besides paper. We also reported that research reports indicated that aluminum, copper, brass, zinc, lead, textiles, and rubber products have recycling potential and should be explored for possible inclusion in the Government's program.

In addition, we recommended that the Congress review the progress of the program after Federal agencies had time to respond to the new initiatives including general voluntary guidelines that were issued by EPA on January 9, 1976. These guidelines merely requested procuring agencies to purchase products containing the highest percentage of recycled materials possible.

GSA's lead efforts in this program were superseded by the passage of RCRA, which assigned lead responsibility for the formal program to EPA and the Office of Federal Procurement Policy.

THE RESOURCE CONSERVATION AND RECOVERY ACT OF 1976

Recognizing that huge amounts of wastes that contain valuable energy and material products are continuously lost, the Congress passed the Resource Conservation and Recovery Act of 1976 (RCRA). Section 6002 has a clear objective: to utilize the economic incentive of Federal procurement to increase recycling.

Briefly stated, section 6002 requires Federal procurement agencies to select items that contain the highest percentage

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1/"Policies and Programs Being Developed to Expand Procurement of Products Containing Recycled Materials," (PSAD-76-139).

of recovered materials practical, given reasonable levels of price, availability, and technical performance, while still maintaining a reasonable level of competition. Section 6002 is enforceable for all purchases over $10,000.

The Office of Federal Procurement Policy was given overall responsibility in coordination with EPA for implementing the program at all levels of government. All procurements were to be made in compliance with RCRA after 2 years of its enactment. Additionally, Federal agencies were asked to undertake a review of their product specifications within 18 months to ensure that the use of recovered materials was not needlessly discriminated against. Specifications were also to be changed to require the use of reclaimed materials to the maximum extent practical without jeopardizing the intended end use of the item.

Though section 6002 has remained essentially unchanged since its enactment, slight changes were introduced by the Quiet Communities Act of 1978. The amendments basically call for EPA to include in its guidelines recommended practices for the certification of recovered materials contained in products bought by the Government. In addition, vendors are also required to certify the percentage of recovered materials in their product after the date specified in any guidelines that are issued for that product.

How RCRA is supposed to work

Specific interrelated responsibilities to implement various aspects of the recovered materials procurement program were assigned to a number of different agencies. The overall success of the procurement program is to a large degree dependent on each agency carrying out its responsibilities under 6002 and other sections of the act. For example, section 5002 requires the Department of Commerce, working through the National Bureau of Standards, to, among other things, establish guidelines for developing specifications for materials recovered from solid wastes and to work with such professional standard-setting organizations as the American Society for Testing and Materials to help gain commercial acceptance of the specifications.

Under section 6002, the Office of Federal Procurement Policy is responsible for implementing the procurement program, and EPA is to issue guidelines for use by procurement agencies in complying with the act. Concurrently, Federal procurement agencies are to review their product specifications so that they encourage, and do not discriminate against, the use of recovered materials. Only when all of these responsibilities are fulfilled, can the procurement process hope to encourage recycling.

THE OFFICE OF FEDERAL PROCUREMENT POLICY AND EPA HAVE NOT TAKEN TIMELY ACTIONS

Though some Federal actions have been taken to establish a systematic, formalized program, they have been slow in developing, and uncoordinated. Aggressive actions are sorely needed, especially by the Office of Federal Procurement Policy and EPA to ensure timely guidelines and to coordinate the Government's actions. The Office of Federal Procurement Policy, at least initially, has left most program initiatives to EPA. While EPA has to some extent begun actions to comply with legislated provisions for a procurement program, it has little to show for its efforts. No guidelines have been issued and none are planned until 1981.

Inadequate staffing, overly stringent and rigorous rule-making procedures, plus a lack of overall direction are the primary factors behind the delays. At the present level of effort, it will be many years, if ever, before the program's full potential is realized.

The Office of Federal Procurement Policy has not pursued its responsibilities

Section 6002 of RCRA assigned specific responsibility to the Office of Federal Procurement Policy to implement the procurement policy provisions of the act. RCRA also required it to submit annual reports to the Congress detailing the progress of the program and the actions that had been taken by Federal agencies to maximize the use of recovered materials. As lead agency for procurement policy, the Office of Federal Procurement Policy is in a unique position to provide guidance and take actions to ensure that Federal agencies are complying in a timely, coordinated manner. Unfortunately, the Office has done little in this regard.

On February 2, 1977, the Office of Federal Procurement Policy issued a letter to establish policies related to the implementation of procurement goals. For the most part, the letter did little except to reiterate the provisions of the act, calling for "Federal procurement to be effected in a manner that maximizes the use of recovered materials." The letter further pointed out that decisions not to procure such items shall be based on the determination that they

(1) are not available within a reasonable time,

(2) fail to meet the reasonable performance standards of the procuring agencies, or

(3) are only available at an unreasonable price.

Determinations under (2) above were to have been made on the basis of Bureau of Standards guidelines, if they were available for that product.

By issuing this letter, the Office of Federal Procurement Policy feels it has fulfilled its current responsibility for implementing the act. The Office has done little since then. Many policy questions regarding reasonableness of price and competition have not been addressed but supposedly will be discussed in forthcoming EPA guidelines. As a result, procurement agencies, such as the Department of Defense and GSA, have had to take independent actions to comply with RCRA. We found that because implementing instructions and guidelines have not been issued, certain Federal efforts to purchase products made from recycled materials have been uncoordinated and inadequate. (See p. 18.)

Clearly, there is a need for the Office of Federal Procurement Policy to become more actively involved. It, in effect, has left all program policy and development issues to EPA. Its participation is presently limited to attending interagency meetings and compiling the annual report required by the law. However, only this Office has the authority and leadership at the level necessary to resolve the issues and questions procurement personnel face in trying to implement the program.

An Office of Federal Procurement Policy official told us that his office has limited staff (less than 20 professionals) and that because of the highly technical nature of the procurement considerations, the agency is awaiting EPA's guidelines before actively pursuing the program.

EPA's APPROACH TO SECTION 6002

EPA, on undertaking the task, immediately realized that guidelines could not be drafted for the millions of products the Government buys. Consequently, it developed criteria to select only those materials in wastestreams that are: (1) significant in terms of Federal procurement; (2) significant in terms of volume, degree of hazard, or difficulties of disposal; (3) economical to recover; and (4) have proven technical uses. From these criteria, waste materials were identified and then matched against products the Government buys. The results of the matchup are shown on the next page.

Waste - Product Match Ups

Waste Material	Product
Paper	Printing paper Writing paper Sanitary paper Packaging Insulation Construction paper Hardboard
Sludge	Compost Road beds
Rubber (tires)	Pavement Retreads Reefs
Plastic	Pipes
Glass	Ceramic bricks Glasphalt Concrete
Iron and steel	Bars Cast iron pipes Structural shapes
Aluminum	Siding
Slag	Cement
Fly and bottom ash	Road fill Road base stabilizer Asphalt Concrete additive Cement Aggregate
Sulfur	Asphalt cement
Oil	Oil
Refuse-derived fuel	Energy
Various wastes	Automobiles Hand tools
Various chemicals	Paint Soap and wax
Wood, metal, textiles	Office furniture
Kiln, lime, and gypsum dust	Chemical waste neutralizer Fertilizer

EPA's strategy calls for the selected products to be subjected to "reasonableness tests" that take into consideration:

(1) Technical equivalency--the product made from recovered materials must be technically equivalent to the product made from virgin materials. The inclusion of the recovered materials must not decrease the quality of the product.

(2) Availability--the product must be available within a reasonable period.

(3) Cost--the price of the product must be reasonable.

(4) Competition--a sufficient number of competitors must be available.

Specific guidelines are then to be issued for each product detailing to procuring agencies how and where to purchase products containing recycled materials.

Are the planned guidelines overly comprehensive?

EPA, as part of its initial efforts to draft guidelines, chaired an interagency working group meeting in July 1977, to obtain information on the types of information procurement personnel need to implement section 6002. Specific requests were made at that time for information on

(1) the technical equivalency of products made from recovered materials,

(2) sources of supply,

(3) delivery times for the products involved,

(4) measuring and certifying the recovered materials content of the product,

(5) determining a reasonable price, and

(6) determining a maximum recovered materials content without limiting competition.

The guidelines EPA anticipates issuing for each product will contain all of the information requested by the procurement

agencies. The guidelines will also contain specific information relating to the purchase of the product covered by the guidelines and discuss

--the applicability of guidelines,

--who should comply,

--which product categories are affected,

--what actions need to be taken by purchasing offices to ensure compliance, and

--recommended timeframes.

EPA also plans to help resolve some of the definitional problems procurement personnel might encounter in implementing this program. A section of each guideline will therefore be dedicated to defining recovered materials, and what is reasonable in the way of competition, price, delivery time, and performance. The guidelines will also address such specific policy points as

--whether a contractor must certify the actual recovered material content, or merely that a minimum percentage has been included;

--preferences or premium that may be given to products that contain recovered materials to give the product an advantage over its virgin counterpart;

--performance standards that may have to be revised and modified to reflect the greatest use of recovered materials; and

--phased implementation of the recommended recovered material content, for example, 10 percent in the first year, 20 percent in the second, 50 percent in the third year, and so forth.

By nature of their comprehensiveness, the guidelines are time consuming to prepare. Furthermore, it appears that the EPA guidelines will address such policy issues as reasonableness of price and competition that would normally be reserved for the Office of Federal Procurement Policy. Each product guideline will apparently serve to substitute for overall implementing directives that have not yet been issued.

While not yet apparent, drafting the guidelines will become increasingly bothersome as more products are added to the program and the existing ones require updating. This necessitates a continued reliance on contractor services. (See p. 16.)

Stringent guideline review procedures will also cause delays

Further delays can also be expected from the time-consuming review procedures proposed EPA guidelines will go through. EPA's operating philosophy is to have guidelines and regulations that are absolutely defensible. EPA argues that in particular the procurement guidelines must be absolutely defensible so that Federal procuring agencies will have little excuse for not following them to the letter, even though they are voluntary. EPA, therefore, plans to follow the review process established for its environmental regulations.

Input on each guideline will be solicited from a number of sources including key elements within EPA, Federal, State, and local agencies, private individuals and organizations, and the legislative branch. Present procedures call for EPA, using input from various sources, to draft the guidelines, and then submit a draft copy of the guidelines to the interagency working group, including the Office of Federal Procurement Policy, for review. The guidelines must then be revised, if needed, to incorporate the working group's views. The revised draft will then have to be submitted to a steering committee (composed of six EPA Assistant Administrators). Only upon approval by the steering committee will the proposed guidelines be published in the Federal Register.

Upon publication of the draft guidelines, public hearings are planned to disseminate information and solicit comments from the public. Based on their input, the guidelines will be revised, if needed, and then resubmitted to the interagency working group for approval. The guidelines must then be resubmitted to the steering committee prior to being published in the Federal Register.

As one would suspect, these procedures that will have to be followed for each set of product guidelines will be time consuming. The total time required for one set of guidelines from the time they are drafted until the time it is issued could require 2 or more years. EPA recognizes the time consuming nature of the process, but believes that it will result in guidelines with a more realistic chance of success. Also EPA officials feel that the process is necessary to comply with section 7004(b) of RCRA which encourages public participation.

Contractors are being relied on to accumulate data

Partially as a result of the product specific information mentioned on page 15 that is planned for inclusion in the guidelines, EPA found it necessary to employ contractors

to accumulate data and to see if the potential products identified in the match-up met the reasonableness criteria that were established. (See p. 14.) Consequently, contractors were asked to accumulate data on (1) product availability; (2) sources of supply; (3) delivery time; (4) cost; (5) recommended procedures on certifying recovered material content; and (6) the technical equivalency of the product.

As part of determining product availability the contractors were also to suggest the appropriate level of recovered material to be contained in the product. In essence EPA has determined that the guidelines are to include suggested percentages of the amount of recovered material to be included in certain products. Theoretically, these percentage specifications will be part of the agency's procurement solicitation. Businesses bidding on a Government contract will then have to meet these specifications. The recovered material percentage, whether specified in terms of a set percentage or a range, will serve as a guide to help procurement personnel specify the highest percentage of recovered materials practical.

At the time of our review, EPA had awarded four contracts to study the feasibility and practicality of procurement guidelines for fly ash, paper, building construction materials, and road construction materials. (See chapter 5 for a discussion of the award and administration of these contracts.) In addition to these contracts, data are being extracted from a number of studies on the use of sewage sludge as a soil conditioner.

EPA's program design may necessitate a continued reliance on their services. The data that EPA is attempting to include in the guidelines are, by nature, subject to change as the circumstances surrounding the product market changes. As such, specifications must be continuously updated. Costs, for example, can fluctuate as technology evolves and as new competitors enter the marketplace. Similarly, data on technical feasibility may have to be updated as technology evolves and recycled products come to be commercially accepted. Also, new studies will have to be undertaken if new products are to be included in the program.

Guidelines are not expected until 1981

EPA has obviously developed a comprehensive strategy to implement the procurement program. However, although EPA initiated the development of four separate product guidelines

in 1977, it estimates that the first guidelines for fly ash, will not be forthcoming until early 1981. Guidelines on paper products and sewage are expected at the end of 1981, while road construction materials guidelines are due in 1982.

EPA officials stated that the high priorities given to the handling, treatment, disposal, and storage of hazardous wastes under RCRA have prevented them from concentrating on the procurement program. Consequently, the issuance of the guidelines is being delayed. Furthermore, little is being done to advance guidelines on other EPA identified products that the Government could purchase to enhance resource recovery.

Although EPA's adopted procedures for developing guidelines are very time consuming, a lack of adequate resources has also greatly contributed to delays in issuing the guidelines. Even though RCRA was passed in October 1976, EPA officials told us that it was May 1977 before attention was focused on the procurement guidelines. Since then, the Congress has not provided any funds to specifically carry out this subtitle and relatively few resources have been dedicated to the program as shown in the following table.

EPA Resources Directed to Procurement Guidelines

	FY 1978	FY 1979	FY 1980	FY 1981
Staff years assigned	1.5	1.5	1.0	a/0.5
Dollars (in thousands of dollars)	$143	$111	-	-

a/Projected.

OTHER FEDERAL ACTIONS ARE ALSO LAGGING BEHIND

To be successful, the resource recovery procurement program requires more than procurement policy leadership and EPA guidelines--although these are important to provide direction. It requires coordinated actions by several Federal agencies including DOD, the Government Printing Office (GPO), GSA, and the National Bureau of Standards. DOD, GPO, and GSA are particularly important because they make most of the Government's purchases. The National Bureau of Standards under the Department of Commerce has specific related responsibilities assigned to it by RCRA.

We examined what these agencies have done to comply with the act. At the time of our review, a number of positive steps had been taken, but more needs to be done. Most needed, however, are aggressive actions by the Office of Federal Procurement Policy and EPA to coordinate the Government's fragmented actions under the program.

General Services Administration

Although GSA is the agency with the most experience with recycling standards (see p. 8), little has been accomplished since its existing program was initiated. After RCRA was passed, GSA tried to expand its program by establishing percentage requirements of recovered materials for a broad range of products, while maintaining competition, price, and quality of the item. Numerous letters were sent out to suppliers requesting specific information on the amounts of recovered materials they could provide in their products. GSA soon found, however, that many suppliers did not have this information available or were unwilling to certify the recovered materials content of their products. Thus, their efforts to establish a recovered material requirement for a broad range of commodities were not fruitful. However, some 92 paper product specifications largely established under the previous program requiring a recovered material percentage ranging from 3 to 100 percent are still being used. Almost nothing has been accomplished for the other product categories.

In the previous program, GSA had as a part of its paper products specifications, a "two-tiered" requirement for reclaimed fiber. As shown in the following table, this requirement specified that the paper be composed of a fixed percentage of reclaimed fiber, of which a certain percent had to be derived from post-consumer wastes (the first column in the table). The rest could be obtained from industrial scrap that is largely recycled "in-house." This ensured that the specifications encouraged recycling at the post-consumer level where increased recycling would have the best impact.

GSA Required Minimum Percentages of Recovered Fiber in Paper and Paperboard Products, 1976

	Required percentage of post-consumer waste	Total required percentage of recycled material
Fine and Printing		
Paper, Looseleaf	-	30
Paper, Blotting	-	35
Columnar Pads	-	25
Backing (Pads)	-	100
Memo Column Pads	-	20
Mailing Envelopes		
White, Bond, Rag	-	25
Light Colors	-	20
Dark Colors	-	30
Sanitary Papers		
Paper, Toilet Tissue	20	50
Towels, Paper	40	95
Napkins, Table, Paper	30	60
Tissue, Facial	5	20
Paper, Doily	40	50
Coarse Papers		
Trays, Prepacking	-	30
Paper, Wrapping, Waxed	-	10
Bags, Paper, Grocers	-	25
Tags, Shipping, Blank	-	13
Bags, Paper, Waxed	-	10
Boxes, Paperboard Lunch	40	80
Bags, Paper, Kraft and Foil	-	15
Paper, Wrapping, Freezer	-	20
Industrial Wipers		
Towels, Wiping, Paper	-	20
Industrial, Institutional	-	20
Towels, Paper, Plastic Wiping	-	20
Disposable Food Service		
Plates, Paper	-	15
Cups	-	15
Butter, Chips	-	25
Fiber Boxes	10	35
Miscellaneous		
Graph Paper	-	50
Paperboard, Drawing	15	85
Labels	10	25
Cardboard, Paper	-	10

Source: GSA

When RCRA was passed, however, GSA eliminated the post-consumer waste requirement and instead imposed a flat fixed percentage requirement that generally covered all recovered materials. By shifting the emphasis of the Government's program away from post-consumer wastes, GSA has been criticized for not focusing the program where it is needed the most--on the post-consumer wastestream. Because manufacturers can meet Federal specifications by using wood byproducts and manufacturing wastes that are economical and easy to recycle, many believe that little incentive is being given to recycling the paper in our municipal wastestream.

GSA is also proposing to lower its recovered material requirements for paper towels from 95 percent to 30 percent. Such a reduction is being considered as a means of broadening the competitive base by allowing more manufacturers to meet the percentage requirement. While such actions will, if taken, undoubtedly lead to a broadening of the competitive base and probably better prices, they do little to promote recycling. Ideally manufacturers should be encouraged to raise their level of recycling to obtain the Government's business.

Although GSA, like all procurement agencies, was required under RCRA to undertake a review of all of its product specifications for bias against recycled materials, only a limited number have been changed. Officials told us that the Government is moving away from product specifications and toward buying commercial off-the-shelf items. Consequently, GSA did not see a need to change its product specifications. The commercial item descriptions that are being used in standard procurement actions in lieu of the specifications do, however, include the clause "recovered materials are to be used to the maximum extent practical." Of the 343 descriptions issued to date, 296 now include the provision.

DOD and GPO actions

DOD's existing system for preparing new specifications and for reviewing and updating existing product descriptions was used to comply with RCRA's requirements. For those specifications that qualify, clauses are being inserted that require the contractor to use recovered materials to the maximum extent practical.

At the time of our review, approximately 18,000 of the 40,800 specifications had been reviewed. Of those reviewed however, we were unable to determine the number that were

changed to comply with RCRA because DOD did not know the extent of the changes attributable to RCRA. DOD officials did estimate, however, that 10 percent of their product specifications require the use of virgin materials. We found, for example, that virgin materials are still being required for armor plate, fibrous rope, and molded plastic.

Because these products are apparently used in situations where performance is critical and failure cannot be tolerated, Defense officials are reluctant to substitute recovered for virgin materials. Their preference for virgin materials, in some cases, is based on the possible introduction of undesirable characteristics through the use of recovered materials, as well as the uncertainty as to how they will perform. Officials told us that until the technical equivalency of recovered materials is demonstrated, specifications for products with critical applications will continue to stipulate the use of virgin materials.

Somewhat similar to the DOD specifications, GPO also revised its paper specifications that allow the use of recovered materials. GPO paper specifications now permit manufacturers to use recovered material to the maximum extent possible. These specifications were amended to include the clause:

> "Reclaimed fiber in any percentage is permitted, provided that the requirements of their standards are met."

GPO believes that the change provides the manufacturers with flexibility as to the amount of recovered materials they wish to use. However, manufacturers of recycled paper still claim that GPO's specifications and purchasing practices are sufficiently stringent to effectively preclude them from bidding.

GPO also made some initial attempts to devise specifications for products other than paper it buys. However, it soon became clear that in the absence of policy direction from the Office of Federal Procurement Policy and EPA, it was not feasible to implement the intent of RCRA without sacrificing cost effective procurements and without impairing the normal flow of paper for operational requirements. GPO is presently awaiting specific guidance.

GPO officials told us that while they are responsible for making paper purchases, responsibility for the specifications lies with the Joint Committee on Printing. The Joint Committee has done a number of things to encourage

the use of reclaimed fiber. To begin with, brightness requirements for plain copier, xerographic, white natural, and color papers were modified. In addition, a specification for form paper was established with brightness and color requirements that would encourage the use of recycled fibers.

The National Bureau of Standards is just getting started on RCRA

The Department of Commerce's National Bureau of Standards' responsibilities under sections 5001 through 5004 of RCRA are important to the successful implementation of a Federal procurement program for recycled products. For example, under these sections Commerce is charged with

- --developing guidelines for the development of specifications for the classification of materials recovered from waste,
- --providing such information as may be necessary to assist Federal agencies with procurement of items containing recovered materials, and
- --encouraging the development of new uses for waste materials.

The National Bureau of Standards has had problems obtaining funding to pursue its responsibilities. Not until fiscal year 1979, when the Bureau reprogrammed $1 million of its own funds to this area, did it have any significant resources devoted to this area. It did receive direct congressional funding of $878,000 in fiscal year 1980.

Consequently, the Bureau is just getting started on projects that eventually could assist the procurement program. Some of its current work includes research on standard methods of testing refuse-derived fuel and a program to identify technical, political, and institutional barriers to marketing recycled materials.

CONCLUSIONS

This chapter conveys the uncoordinated and confused status of the Government's efforts to buy goods containing recovered materials. Even though RCRA clearly applies to all purchases in excess of $10,000, only a few product categories are planned for inclusion in the program. Almost no direction has been provided to agency procurement officials by responsible agencies on how to buy

goods that contain the highest percentage of recovered materials practical. At the rate at which EPA is proceeding, it will be many years before guidelines exist for a significant number of products the Government buys. EPA's approach, besides being very time consuming and rigorous, is dependent on contractor services that could become increasingly costly as the program is expanded to include other products the Government buys.

More important, there are still many conflicts in the program which the Office of Federal Procurement Policy needs to deal with in cooperating with EPA before the guidelines can be published. Other potential problems highlighted in the next chapter point to the clear need for that Office to develop a much more definitive policy to implement the program.

CHAPTER 3

OTHER PROBLEMS IMPEDING IMPLEMENTATION OF THE RCRA PROCUREMENT PROGRAM

The lack of procurement guidelines is not the only problem hampering the success of RCRA. Other problems, including conflicting Federal policies, industry resistance, the possibility of increased cost and paper work, difficult certification procedures, and uncertainties over future supplies of recovered materials, have and will continue to hamper the effectiveness of the program. These problems remain unsolved and consequently the prospect of using Federal procurement to stimulate resource recovery is questionable.

We believe that some of these problems could be avoided by committing adequate resources to the program and by introducing economic incentives through a preference system for Federal purchases. In this section, we discuss in detail some of the problems surrounding the RCRA program, and for comparison, discuss the actions taken to implement a program with somewhat similar provisions--the Buy American Act.

CONFLICTING FEDERAL POLICIES HAMPER RCRA'S IMPLEMENTATION

The RCRA procurement program inherently conflicts with established procurement policy. Most of these conflicts have yet to be addressed or resolved. Consequently, procurement officials are waiting for EPA guidelines before proceeding.

Conflicts with best price

Changes in procurement procedures when used to accomplish socioeconomic goals tend to be disliked by procurement officials because they generally complicate the process and interfere with their primary mission--to obtain an acceptable product at the lowest possible price. RCRA, simply stated, requires the Government to buy products made from the highest percentage of recovered materials at reasonable prices.

What is reasonable, however, has never been defined. EPA plans to address this when it issues guidelines for specific products. At present, however, one of the major dilemmas confronting procurement officials is whether products made from recovered materials should be bought if they cost more, and if such purchases are to be made,

how much more should the Government be paying? Since no direction has been given to the agencies, little is being done to buy these goods, unless of course they happen to cost less.

GPO, for example, made efforts after RCRA was enacted to determine what industry could provide in the way of recovered materials. The information obtained was going to be used to set percentage requirements which suppliers would then be asked to meet. Suppliers were also asked to submit a lesser percentage if the required percentage could not be met, and selection would be based on the maximum percentage that could be provided. GPO found the program to be unworkable and suspended it in January 1979, pending the issuance of EPA's guidelines. Officials told us suspension was necessary because they were unable to resolve the dilemma of choosing between suppliers offering goods made with higher percentages of recovered materials at higher prices and lower priced goods made with fewer recovered materials.

Conflicts with "buy commercial" policy

In addition to the dilemma over the price of products made from recovered materials, Federal policy on buying commercial off-the-shelf items is also causing problems. Federal procurement policy now requires agencies to rely on commercially available products rather than have the Government design the products it needs. This policy, established in May 1976, runs counter to planned EPA efforts to set recovered material product specifications.

Under the "buy commercial" policy, Federal agencies are discouraged from specifying how the products are to be manufactured. Consequently, Federal agencies would be precluded from specifying a percentage or range of recovered materials for products the Government buys. EPA hopes to establish percentage requirements in its guidelines for the products that are planned for inclusion in the program. This apparent conflict has also left procurement officials confused.

Conflicts with other programs

The above sections discuss two specific Federal procurement policies that run counter to RCRA. Federal procurement is used as a means of achieving a host of socioeconomic goals in addition to recycling. These programs could combine to dilute the overall effect of the Government's purchasing power in stimulating recycling.

While there is no complete current list of programs that are enhanced through the use of Federal procurement, a list was made by the Commission on Government Procurement in December 1972. That effort identified 39 separate pieces of legislation that use Federal procurement to achieve separate goals. A partial listing of some of these laws which are still in effect is included on the following page.

Social and Economic Programs Enhanced by Federal Procurement Policy

Program	Authority	Purpose
Buy American Act	41 U.S.C. 10a-10d	To provide preference for domestic materials over foreign materials.
Preference for Purchasers Under the Foreign Aid Program	22 U.S.C. 2354(a)	To require the purchase of U.S. end products for the military assistance program.
Clean Air Act of 1970	42 U.S.C. 7606(a)	To prohibit contracting with a company convicted of criminal violation of air pollution standards.
Prison-made Supplies	18 U.S.C. 4124	To require mandatory purchase of specific supplies from Federal Prison Industries, Inc.
Small Business Act	15 U.S.C. 631-647; see also 41 U.S.C. 252(b) and 10 U.S.C. 2301	To provide preference to small business concerns.
Blind-made Products	41 U.S.C. 46-48	To make mandatory purchase of products made by blind and other handicapped persons.
Labor Surplus Area Concerns	Section 502, Public Law 95-89	To provide preference to concerns performing in areas of concentrated unemployment or underemployment.

The possibility, therefore, exists that recycling specifications in many cases may have to be waived, or at least share equal status with those of other programs where they conflict. The law itself gives no direction on this matter. Thus, the real potential of the procurement approach to stimulate recycling may be limited.

The many conflicts that will have to be resolved again points out the crucial role the Office of Federal Procurement Policy should be playing in the program. Without the successful resolution of these conflicts, RCRA's full potential appears limited.

QUESTIONABLE IMPACT ON RECYCLING

Besides conflicting Federal policies, RCRA must also overcome a number of other potential hurdles. These hurdles, at first glance, appear quite formidable, and if they are not solved, could make the program impractical to implement and cast doubt over the viability of using Federal procurement as a means of promoting recycling. To begin with, the Government is not as influential in the commercial marketplace as generally believed and industry may refuse to sell its products to the Government if its requirements are too stringent or require drastic changes to existing modes of operations.

For this reason, we believe the Government should not attempt to specify how its products are to be manufactured. Instead incentives should be used to allow industry to maximize the use of recovered materials.

Estimates of the extent of the Government's ripple effect may be too optimistic

Some Government and industry officials perceive a need for the recycling procurement program to become a model for the rest of the country. Such views are to a large extent attributable to the sheer magnitude of the Federal Government's purchasing power and because State and local governments, and even private industry, are believed to often emulate the Federal Government's example. The Government's impact will then, in effect, be much more than the sum of its individual purchases. This so-called "ripple effect" occurs because State and local governments as well as some private companies often do not maintain laboratories to test the products they buy and tend to rely on Federal product specifications or guidelines to ensure quality and consistency.

A. D. Little's October 1973 report to EPA entitled, "Can Federal Procurement Practices Be Used to Reduce Solid Wastes?" states that Federal procurement can play a catalytic and leadership role in bringing Government developed standards and products into commercial acceptability. The report points out that, in general, where the Government has required special, sophisticated hardware, it has taken the leadership role, and the civilian sector has followed. In such cases, the civilian industry recognized that Government purchase specifications represented advanced technology, and they were consequently adopted.

Using paper as another example, A. D. Little noted that GSA's earlier attempts (see p. 8) to use reclaimed fiber in its paper products prompted numerous inquiries from State governments who expressed an interest in the Federal Government's program. A number of large cities and probably more important, many large private companies that utilize large quantities of paper--A T & T, Procter & Gamble, and Coca-Cola to name three--were also interested in the Government's program and exploring the feasibility of using reclaimed fiber in the paper they buy.

Although the net impact of the ripple effect on the domestic economy has never been quantified by EPA, its impact is believed to vary with product and use. The more widely the product is used, the greater the likelihood of a large ripple effect. The possibility of a ripple effect is also increased when a product is purchased as a part of a larger unit. For example, the Government could change its specifications to require recovered aluminum in the airplanes it buys. While airplane manufacturers do not manufacture aluminum, they are large aluminum purchasers and may be able to influence the amount of recovered materials used by aluminum manufacturers.

Estimates, however, of the potential impact of Government purchases and the related ripple effect can easily be overly optimistic. The Government purchases millions of different types of products--everything from paper clips to tanks. While the total volume of Federal purchases is immense, its influence on individual product markets may be small. For example, although the Government purchases tons of paper, it is estimated that Federal, State and local governments together only purchase about 3 percent of the total paper produced. Except for sophisticated products that have no applicability in the commercial markets, for example, major weapon systems, aircraft, and warships, the Government's purchases represent a very small percentage of what is produced. This is shown in the following data extracted from tables compiled by A. D. Little in 1970. This study is the most complete of this type but recent studies also indicate that the Government's share of individual markets is not significant.

Government Expenditures As a Percentage of Domestic Output: Above 5 Percent

Commodity	Defense 1970	Non-Defense 1970	Total 1970
Nonferrous Ore Mining	18.10	0.51	18.61
Maintenance Construction	3.86	2.69	6.55
Ordnance	55.63	19.39	75.02
Industrial Organic Chemicals	10.69	0.52	11.21
Explosives	45.52	2.32	47.84
Engines and Turbines	5.69	0.99	6.68
General Industrial Machine and Equipment	4.72	0.41	5.13
Office Computing and Accounting Machines	4.36	1.67	6.03
Electric Apparatus and Motors	4.88	0.91	5.79
Communication Equipment	27.47	3.96	31.43
Electronic Components	7.65	1.17	8.82
Aircraft and Parts	35.26	5.26	40.52
Ships, Trains, Trailers, and Cycles	14.84	4.06	18.90
Optical and Photographic Equipment	3.43	1.96	5.39
Office Supplies	4.28	3.57	7.85

Source: A. D. Little, Inc.

Government Expenditures As a Percentage of Domestic Output: Less Than 2 Percent

Commodity	Defense 1970	Non-Defense 1970	Total 1970
Fabrics and Yarn	0.29	-	0.29
Apparel	0.26	0.17	0.43
Household Furniture	0.23	0.27	0.50
Office Furniture	0.67	1.26	1.93
Coated and Converted Paper	0.32	0.21	0.53
Sanitary Paper Products	0.34	0.56	0.90
Cardboard Boxes	0.23	0.09	0.32
Corrugated and Solid Fiber Boxes	0.12	0.05	0.17
Newspapers	0.01	0.01	0.02
Periodicals	0.01	-	0.01
Synthetic Rubber	0.31	-	0.31
Cellulosic Man-Made Fibers	1.38	-	1.38
Organic Fibers, Noncellulosic	0.58	-	0.58
Paints and Allied Products	0.08	0.04	0.12
Fertilizers	0.03	1.09	1.12
Agricultural Chemicals	0.34	0.39	0.73
Chemical Preparations	1.40	0.10	1.50
Tire and Inner Tubes	1.42	0.08	1.50
Miscellaneous Plastic Products	0.53	0.09	0.62
Glass and Glass Products	0.28	0.21	0.49
Primary and Secondary Iron and Steel	0.20	0.01	0.21
Primary and Secondary Copper	0.08	0.30	0.38
Primary and Secondary Aluminum	0.63	0.03	0.66
Metal Containers	0.29	-	0.29
Farm Machinery and Equipment	0.36	0.04	0.40
Metalworking Machinery and Equipment	1.22	0.40	1.62
Special Industrial Machinery	0.28	0.27	0.55
Service Industry Machines	1.08	0.09	1.17
Household Appliances	0.16	0.04	0.20
Electric Lighting and Wiring Equipment	0.37	0.02	0.39
Motor Vehicles and Parts	1.57	0.16	1.73

Source: A. D. Little, Inc.

As can be seen, few of the Federal Government expenditures for many product categories amount to as much as 2 percent of the total domestic output. Expenditures that exceed 5 percent of domestic output are generally products with limited commercial applicability, for example, ordnance, aircraft, and

aircraft parts. In addition these products are highly technical and made of many component parts and are therefore not easy to adapt to a recycling program. An exception is Government purchases of office supplies that account for almost 8 percent of the domestic output. The products in this category, however, are widely diversified which makes individual products difficult to analyze. Products in this category include stationery, magnetic tapes, business forms, ledgers, adhesives, rubber bands, erasers, staples, and paper clips.

Thus, it appears that the impact of the Government's purchases in most markets where recycling is feasible is quite small, and the ripple effect resulting from the Government's purchases is limited or at least of questionable significance. It also appears that industry does not depend on the Government for its livelihood, and that there is a good possibility it may choose not to sell to the Government if its product specifications are too stringent or require drastic changes in normal modes of operation.

INDUSTRY VIEWS ON RCRA

Industry officials generally favor RCRA's objectives; however, they expressed concern over the direction in which the Government is heading and the administrative problems that could conceivably result. Industry basically feels that it is already recycling all it can within economic and technical limits, and the Government's program would only serve as a burden to their efforts. More specifically, their concerns were voiced in the following areas.

Administrative problems

One of the prime concerns expressed by industry officials is the increased paperwork that may be necessary to administer the program. For example, an automobile made from over 15,000 different parts from more than 10,000 suppliers, would require a substantial amount of paperwork to track the amounts of recovered material contained in each of the components and to determine the total recovered material content. Small tools are yet another example. Small tool manufacturers claim their products may weigh less than a pound yet contain over 63 separate parts. Most of these parts are purchased from outside vendors who, in turn, purchase their materials from other vendors. Due to the small size of their orders, they feel it would be impractical to obtain the data necessary to determine the recovered materials content of their product.

Even if it were possible to record the amount of recovered material contained in a product, industry is concerned as to how recovered material content could be certified. In practically all products, including relatively homogeneous products like paper, it is difficult to verify the recovered material content with absolute assurance that the specified materials are present. Decisions to award a contract to a manufacturer based on the use of recovered materials could be subject to immediate challenge by unsuccessful competitors. Little factual data would exist to adjudicate these disputes.

Questionable achievements

Most industries generally believe that recovered materials are already being utilized to the maximum practical level as dictated by economic and technical considerations and therefore the program would do little to promote more recycling. Decisions to use virgin materials, scrap, or a combination of the two are determined by (1) the marketing economies (price and supply) of scrap versus virgin materials and (2) the technical limits of using obsolete scrap. More specifically, the use of scrap is to a large degree dependent on its cost and level of contaminants that can be endured without affecting the overall quality of the product. Within these limits, industries believe scrap is already being utilized to the maximum extent practical.

Industry representatives also told us that instead of increasing recycling, the program may simply cause a switch in markets. Companies now selling virgin products to the Government would simply sell them to the commercial sector and if they now produce products with recycled inputs, shift these to the Government market. For this and other reasons, many industries believe that the Government can better enhance recycling by offering incentives through taxes, loan guarantees, and so forth.

Questionable availability of recoverable materials

Another concern expressed by industry was the questionable availability of recovered materials. Industry appears to be reluctant to invest in resource recovery plants and equipment unless adequate supplies of scrap and related waste material can be assured. Such assurances are necessary to justify the investments in resource recovery equipment. Unfortunately, there is at present in some industries controversy over the future availability of recovered materials. This is evidenced by the situation in iron and steel.

A study conducted by Fordham University 1/ for the American Iron and Steel Institute to project the availability of scrap supplies in the future, predicted limited supplies, but a similar study conducted on behalf of the scrap dealers by Robert R. Nathan Associates 2/ found the reverse to be true.

The divergence in conclusions appears to be not so much in the amounts of iron and steel that are available but rather in the amount of scrap of suitable quality that is truly recyclable and can realistically be expected to reach consumers in periods of high steel demand. In other words, controversy still exists over how much of the scrap is recoverable and can be suitably processed, and sold at prices that make it competitive with virgin materials. In light of such uncertainties, investments are not likely to be made in equipment that will expand a company's recycling capability until adequate incentives are provided to help reduce some of the risks.

A PREFERENCE SYSTEM APPEARS TO BE THE MOST PRACTICAL SOLUTION

The problems surrounding the RCRA procurement program have not only delayed the program but also cast serious doubt on use of Government procurement as a means of stimulating resource recovery. Federal agencies who have at first tried judiciously to implement the program, now believe the procurement program to be unworkable without EPA guidelines and have stopped trying to implement it.

Although EPA's plan for the program is logical and comprehensive, we do not believe the program will be effective. Not enough resources have been committed to the program and the necessary leadership has been lacking. The proposed EPA program is too demanding and rigorous given the limited managerial resources available to pursue it.

Therefore, a more simplified approach or policy may be more effective. We believe that the Government, in trying

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1/"Purchased Ferrous Scrap - United States Demand and Supply Outlook," William T. Hogan, and Frank T. Koelbel, Industrial Economic Research Institute of Fordham University, June 1977.

2/"The Horn of Plenty Keeps Overflowing," Phoenix Quarterly, Vol. 9, No. 3, Fall 1977, Institute of Scrap Iron and Steel, Inc., Washington, D.C.

to implement section 6002 of RCRA, should not try to specify a recovered material percentage for products it buys. Such a procedure is not only time consuming to develop and difficult to administer, but also interferes with such existing Federal policies as the "Buy Commercial" policy. In addition, the Government is a marginal purchaser for most commercial products, and industry, not being dependent on the Government's business, has the option of not selling to the Government. Thus, a program based on product specifications that require a specific percentage of recovered material will probably reduce competition. This is especially true if the products the Government requests require major modification to existing modes of operation without significantly increasing profits.

We believe Federal implementation of RCRA can best be served by instilling a sense of competition among suppliers to increase the amount of recovered materials used with the Government's business being offered as the reward. Perhaps one of the best ways to effectively offer this reward would be to establish some sort of simple preference system. Such a system appears to work effectively under the Buy American Act, and could be applied much more easily and faster to a range of products rather than individual product specifications.

The Buy American Act

The use of a simple preference system to accomplish socioeconomic goals is not new. The Buy American Act (41 U.S.C.-10a-10d) requires the U.S. Government to provide a competitive advantage to bidders offering domestically produced goods. Enacted in 1933 to combat the Depression and to retaliate against a "buy British" attitude, the act was never intended absolutely to prohibit Government use of foreign materials. Rather, the act's domestic bias is tempered by a number of provisions that permit the Federal Government to purchase foreign materials when (1) domestic materials are unreasonably priced in comparison to competing foreign materials, (2) unavailable in sufficient quantity, or (3) are of an unsatisfactory quality.

Like RCRA, the Buy American Act was initially difficult to administer. To implement the act, a system was set up where preferences were given to domestic bids by raising the price of the foreign bids by a prescribed percentage for purposes of bid evaluation. After the foreign bids are adjusted upwards, all bids foreign and domestic, are compared and lowest bid selected.

A preference system has already been demonstrated in California

Besides being successfully used to implement the Buy American Act, a preference system is also in use to buy recycled paper in California. About 4.8 percent of California's total purchases of paper and paper products have been made under a statute that allows the State to pay up to a 5-percent premium for products meeting its recycled fiber requirements. These purchases have totaled $1.2 million in fiscal year 1978 at an additional cost of $15,000, or about 1 percent of the total expenditures for paper products. About 232,000 reams of bond paper were purchased under the program, or about 44 percent of the State's bond paper usage. Recycled towels, sanitary paper, and other miscellaneous paper products are also purchased under the program.

The use of a preference system in California is significant because it demonstrates that such a procurement program can be used to stimulate recycling. In general, less recycling is done in Western States because of available cheap land disposal for solid waste, yet California has been successful in making purchases.

A Federal preference system deserves serious consideration

While Federal procurement policy appears to have limited promise for stimulating resource recovery it is important that the Government do what it can to promote recycling and to set a positive example for other State and private institutions. However, the present program's potential is far from being realized.

The use of a preference system has been demonstrated and appears to have many advantages over what has been planned to implement the Government's procurement program given the limited resources available. By establishing a preference system for products with recovered materials, more products may initially be included in the program. The program would be relatively easy to implement without reliance on contractor services.

For example, procurement officials purchasing concrete could solicit bids and give preference to manufacturers with the most reclaimed material, say fly ash, in the concrete. The manufacturers would still have to meet performance specifications and assure the Government of an acceptable product.

Besides being more practical, a preference system has a number of other inherent advantages. It would allow full and open bidding by not excluding products manufactured solely from virgin materials, but at the same time would serve notice that

the Government encourages use of recovered materials, and in fact gives preference to goods containing recovered materials. This should stimulate any company interested in obtaining the Government's business to use or increase its use of recovered materials. It should also be more compatible with such other Federal policies as buying commercial, off-the-shelf items. The Government, by using a preference system, would encourage recycling and remain consistent with what industry could offer.

We were advised by an Office of Federal Procurement Policy official that because a preference system was not specifically authorized in the law, legislation is needed to amend RCRA in order to proceed with such a program. DOD officials told us, however, that a preference system may be easier to implement than product specifications.

A preference system, however, would not be cost-free. Direct costs to the Government may increase since bids or proposals offering virgin materials probably would be evaluated against those offering recycled or recovered materials by adding a factor (a predetermined percentage of the bid or proposal, for example) to the former. The Government will pay more if, under such a system, the recycled or recovered materials have the lowest evaluated--but not the lowest actual--price.

In addition, indirect costs will increase. A preference system would require new detailed procurement regulations and result in additional administrative burdens in evaluating bids and proposals. There would also be the likelihood of delays due to challenges of some contract awards.

Preferences are supposed to be addressed in the forthcoming EPA guidelines on a product-by-product basis. As long as this approach is used, however, only a limited number of products can be included in the program. We believe that a more flexible preference policy would be more appropriate and effective given the large number of products the Government buys and the limited resources that will probably be available for this program.

A Federal preference program should be part of a Federal resource recovery program

If the Nation is truly serious about recovering material and energy resources from wastestreams, a more centralized and coordinated Federal effort is needed.

Since our earlier reports on resource recovery (see p. 66), the Energy Security Act, passed in June 1980, assigned specific responsibility for energy recovery from urban wastes to DOE, and RCRA was amended to require the establishment of an interagency resource recovery committee. We believe that recycling efforts under any legislation including the procurement program should be under this committee's purview. We also believe that all resource recovery initiatives should be addressed in an overall plan or strategy directing Federal efforts toward enhancing resource recovery. EPA is preparing a plan for urban waste recovery and DOE, under the Energy Security Act, is also required to prepare a strategy for energy recovery from solid wastes.

CHAPTER 4

INDUSTRIAL TARGETS WILL NOT INCREASE RECYCLING

The 1978 National Energy Conservation and Policy Act (NECPA) required the Department of Energy (DOE) to set voluntary recycling targets for the paper, metals, rubber, and textiles industries. The targets were to be set at the maximum levels of recycling that could be expected to be achieved by January 1, 1987. DOE established targets for the four industries in February 1980 following industry evaluations by four contractors.

Because DOE evaluations heavily emphasized existing economic constraints, the targets were set at levels that most industries can rather easily meet if present conditions continue. In our opinion, they will not provide, at their established levels, an incentive or goal for industry recycling. However, we question whether voluntary recycling targets set at any level will encourage industry to increase recycling.

THE NATIONAL ENERGY CONSERVATION AND POLICY ACT

The Energy Policy and Conservation Act of 1975, NECPA's predecessor, specified a number of measures to promote increased energy efficiency by American industry and established voluntary energy efficiency improvement targets for major energy-consuming industries. 1/ NECPA, enacted in November 1978, amended the earlier industrial energy efficiency program, and included an additional requirement for recovered materials targets and reporting. DOE was directed to set recycling targets within 1 year for energy-saving recovered materials in the metals, paper, textile mill, and rubber industries. These targets were to be set at levels that represented the maximum feasible use of recovered materials achievable by January 1, 1987. NECPA also requires all major energy consumers (those consuming over 1 trillion Btus per year) in the four selected industries to report on the volume of energy-saving recovered materials they used.

In establishing the industrial recycling targets, DOE was to consult with EPA and industry representatives to determine industry's technological and economic capability

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1/Our June 30, 1978, report, "The Federal Government Should Establish and Meet Energy Conservation Goals" (EMD-78-38) commented that the DOE voluntary energy efficiency targets did not sufficiently challenge industry to conserve energy.

to use recovered materials. EPA officials participated in the initial planning for the targets program but did not comment when requested on the proposed targets or the supporting industry analyses prepared by the consultants. It should be noted, however, that the Department of Commerce did particpate in the development of the proposed targets, the public hearings, and the finalization of the targets.

SETTING THE TARGETS

The industrial targets program became the responsibility of DOE's Office of Industrial Programs within the Conservation and Solar Applications Division. To implement the target program, the division proceeded to

--conduct the required industry evaluations,

--publish proposed targets in the Federal Register (June 1979),

--hold public hearings (July 1979),

--review the public comments, and

--publish the final targets (February 1980).

Faced with the congressional requirement to establish the industrial targets in 1 year, and with limited staff available, DOE decided to use outside contractors to conduct the industry evaluations. One contract was awarded for each of the four industries to be studied. The total cost of the evaluations was about $662,000. (See chapter 5 for a complete discussion of the procedures used to select the contractors.)

In the interest of continuity and comparability, DOE requested and received proposed evaluation methodologies from the four contractors, reviewed and modified their input, and developed a methodology to be used by all four contractors in analyzing each industry. Using the methodology, the contractors were to define industry subdivisions, identify sources of recovered materials, analyze the technical feasibility of using recovered material, and propose recycling targets.

The contractors' analysis of technical feasibility included consideration of industry economics and recovered materials availability. The proposed targets were to be determined by the most limiting factor

--technology,

--industry economics, or

--recovered material availability.

In formulating the recycling targets, recovered material was defined to include post-consumer waste and prompt and obsolete scrap. The targets themselves were to be percentages representing the amount of recycled material contained in an industry's product. For example, DOE ultimately estimated that 77.7 million short tons of paper products containing 18 million short tons of waste paper would be produced in 1987. Thus the aggregate industry target was set at 23 percent.

Energy conservation and industry selection not adequately considered

Even though the stated objective of the targets' legislation was to promote industry's use of energy-saving recovered materials, DOE did not require an evaluation of the impact of increased recycling on energy consumption in any of the contracts. DOE did not require any of the contractors to

--evaluate the correlation between use of recovered materials and energy requirements,

--determine whether recycling incurs additional energy use over virgin material production, or

--determine whether recycling would require greater use of oil and gas although the total energy requirement might be reduced.

Although recycling materials normally saves energy, in some cases, the opposite may be true. In some of the large virgin paper mills that burn wood residue products for energy, the increased use of recovered waste paper may negatively affect energy consumption of fossil fuels. Also, there may be instances where increased scrap use in certain steel furnaces may reduce total energy demand but require increased amounts of oil.

In a related matter, an evaluation of industries that were appropriate for the targets program was not conducted because the program legislation specified the four industries to be targeted. The glass industry, for example, was not included in the industrial targets program. Glass represents roughly 10 percent of municipal solid waste and is routinely separated from the wastestream in some areas. Glassmaking is a major energy consumer, but requires less energy when waste glass is used. In contrast, the textiles industry was included in the program legislation even though DOE advised the Congress that only 9 percent of that industry has any foreseeable recycling potential.

Because the energy correlation issue arose in both the paper and ferrous metals studies, DOE now plans to award a $300,000 contract by October 1980 to study the question. This study, which will not be completed until late 1981, will evaluate the correlation between energy requirements and recovered materials used in various industries.

The targets are not goal oriented

NECPA required that the recycling targets be set at levels that would provide for the maximum, feasible, increased use of energy-saving recovered materials. In establishing the targets DOE was to consider the economic and technical ability of each industry to increase recycling, as well as all actions that could be taken by each industry, or by the Federal, State, or local government to increase that industry's recycling of energy intensive materials. The consultants who proposed draft targets were required to consider economic constraints, but, largely because of time constraints, did not fully consider proposed Government policies to alleviate these constraints. Consequently, in most cases, the targets were set at levels that technically could be met relatively easily, especially if existing public policies are changed. Except for the textiles and parts of the rubber industries, economic conditions, rather than available technology, limited anticipated recycling levels.

For example, A. D. Little found that the changing circumstances impacting on the steel industry are requiring many firms to close antiquated open hearth furnaces and install new electric or basic oxygen furnaces. Electric furnaces take up to 100 percent scrap input but the basic oxygen furnaces can use no more than an average of 28 percent scrap input without using additional oil or gas. Technically, the furnaces can handle a higher scrap input. This and other economic considerations led in part to a target for the ferrous industry of 41 percent, or only a 3-percent increase over the 1976 rate of recovered materials (scrap) utilization.

Little consideration was given to such proposed Government actions as tax incentives and scrap export controls that could increase recycling. In fairness, consideration of all such actions was not feasible, but even the recent 1979 Energy Tax Act, which may provide tax credits for recycling equipment, and forthcoming changes in freight rates were not fully considered. After the targets were established, DOE initiated a contract to examine a number of potential Federal incentives to recycling and their impact on recycling.

Largely limited by defined economic constraints, the contractors were obligated to propose 1987 targets that were seen by many resource recovery advocates as too low. The targets were set at levels below the rates in many existing European countries and Japan, and, in some cases, show little or no improvement from the base level year. For example:

--The aggregate paper and paper products target set at 23 percent is the same as the 1977 rate. This compares very unfavorably with several European countries which already top 40 percent according to a Congressional Research Service briefing paper.

--The 1987 ferrous industry target (41 percent), according to an Office of Technology Assessment technical memorandum, 1/ may have already been met in 1979 because of the increasing number of electric arc furnaces and the use of continuous casting, a process that reduces the amount of home scrap and increases the demand for obsolete scrap.

--Targets for 4 of the 5 metal industry segments show an increase of only 3 percent in 1987, while 4 of the 10 paper industry segments and 6 of 7 textile industry segments, stayed the same or dropped from the base year rates. (See p. 45.)

Public comments received on the proposed targets were mixed. On the one hand, industry, in general, was somewhat satisfied with the exception of the paper industry. The paper industry thought that no targets should be set for paper because, in their opinion, an energy savings had not been demonstrated. The Ferrous Scrap Consumers Coalition testified that the target for ferrous metal recovery could not be attained without export controls on ferrous scrap. On the other hand, recycling advocates were very concerned. For example:

--The Director and Executive Vice President of the National Association of Recycling Associations, Inc., stated that the targets should be goals--"a mark to shoot at." He stated that the supporting studies were "too narrow" and limited to the state of the

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1/Benefits of Increased Use of Continuous Casting by the U.S. Steel Industry, The Office of Technology Assessment, October 1979.

art and existing political constraints. He also maintained that the intent of NECPA had not been carried out.

--The President of the National Recycling Coalition, Inc., testified that the targets are too low, should be more progressive, and should include year by year figures to allow for periodic adjustments. He also stated that the targets failed to include consideration of Government actions to increase use of recovered materials.

--A city official from Seattle's Recycling and Resource Recovery Program urged that the targets for aluminum, paper, and ferrous metal recovery be raised. He commented that DOE is forecasting how much waste will be recovered at current and forecasted conditions, when the real problem is that the conditions should be changed to increase demand for recovered materials.

--The Executive Director of the Institute of Scrap Iron and Steel testified that DOE failed to set a target for the ferrous industry at a level that represents the maximum feasible increase that could be achieved by 1987. He also criticized several assumptions concerning the use of scrap in the A. D. Little study supporting the proposed targets.

In response to these comments, DOE maintained that the proposed targets were set as required by law at levels that could be expected to be reached given expected technical and economic constraints. DOE saw little hard evidence submitted during the public comment period that warranted changing the proposed targets.

Only in three cases were the levels revised. Two were lowered and another category, construction paper, was separated into two segments, construction paper and insulating and hard pressed paper. The following table shows the proposed and final targets and the recycling level during the base year.

Recycling Industry Targets (note a)

Industry and subdivisions	Reference year actual recovered material utilization	Proposed targets January 1, 1987	Final targets January 1, 1987
Metals and Metal Products	(1976)		
Ferrous	38	41	41
Aluminum	32	35	35
Copper	47	50	50
Lead	51	60	60
Zinc	33	36	36
Paper and Allied Products	(1977)		
Newsprint	14	18	18
Tissue	28	38	30
Printing and writing paper	7	6	6
Packaging and industrial paper	4	4	4
Unbleached kraft paperboard	4	19	10
Semichemical paperboard	26	26	26
Solid bleached paperboard	-	-	-
Recycled paperboard	b/108	b/108	b/108
Construction paper	55		55
Insulating and hard pressed	22		17
Textile Mill Products	(1978)		
Broad woven fabric mills, wool	13	13	13
Yarn mills, wool	13	13	13
Felt goods, except woven felt hat	59	80	80
Padding and upholstery filling	93	93	93
Nonwoven fabrics	17	15	15
Cordage and twine	22	22	22
All other textile mill products	-	-	-
Rubber	(1977)		
Tires	2	5	5
Industrial products	3	5	5
Rubber footwear	-	15	15
Tire retreading and repair shops	9	12	12

a/Expressed as a percentage of industry output.

b/Recycled paperboard requires, on the average, 108 pounds of recycled paper to produce 100 pounds of paperboard. Hence, the target is greater than 100 percent.

The dispute between DOE and the recycling community seems to be one of interpretation of the law. Critics of DOE believe that the targets should be more goal oriented to provide incentives to recycle. They cite NECPA that says that the targets should be set at the level of maximum feasible increase. DOE emphasizes that according to the law, the targets need to consider what is technically and economically feasible. Many recycling advocates believe that DOE's emphasis on what is feasible under present conditions with little emphasis on possible political or economic changes, resulted in targets set at levels that could be expected to be met with little extra effort on the part of industry.

Because political, economic, and technical change is likely over the next 7 years, the targets may be rendered out of date and/or easily met. For example, a technological innovation in the textile industry allowing the introduction of recycled fiber into quality clothing could render the textile targets meaningless. Even if the targets could encourage recycling (see p. 50), at their present level they will hardly be an inducement to technical or policy changes.

INDUSTRY EVALUATIONS

The following sections briefly discuss the industry studies and major factors influencing recycling within each industry.

The paper industry

The paper and allied products contract was awarded to Resource Planning Associates. This firm subsequently awarded a subcontract to Franklin Associates, Ltd., to provide technical assistance and to prepare an energy analysis of virgin and recycled paper production.

Although Franklin Associates was a subcontractor, its input was limited to a review of the first draft. Upon reviewing the draft report, they were concerned about the limits of the prime contractor's economic analysis as well as numerous factual errors. Their concerns were such that they disassociated themselves from the paper study report. Later, Franklin Associates acknowledged that the errors were corrected in the final report.

The paper industry produces paper from virgin fiber (wood) and secondary fiber (waste fiber). In 1977, 61.8 million short tons of paper and allied products were manufactured with virgin fiber and 14.3 million short tons (23 percent) with secondary fiber. To facilitate the analysis of the industry, it

was segmented by the 10 major grades of paper and paperboard. All but one of these grades can be manufactured with at least some secondary fiber.

Increases in secondary fiber use are largely limited by levels of manufacturing capacity additions. Virgin fiber mills are usually located near forest sources and use very different equipment from secondary fiber mills. Therefore, it is not usually economical to convert a virgin mill to a secondary fiber mill even assuming secondary fiber is readily available.

Resource Planning Associates subsequently proposed only small incremental changes in the recycling rates in most of the paper industry segments. (See p. 45.) However, two of the proposed paper targets--tissue and unbleached kraft paperboard--were challenged by the paper industry as being set too high. Tissue had been proposed at 38 percent use in 1987. DOE subsequently reduced the target to 30 percent for 1987 based on limited high-grade secondary fiber availability. Unbleached kraft paperboard which used 4 percent secondary fiber in 1977 was also reduced from a 19-percent proposed target to a 10-percent target. DOE concluded that unannounced plant additions would continue at the 1977 to 1981 announced rate, which would limit the target to 10 percent in 1987.

A controversy that surrounded the paper industry targets centered on the correlation between energy requirements and secondary use. Because virgin fiber mills produce up to 65 percent of their energy needs from tree and process wastes, some industry sources maintained that an increased number of secondary fiber mills would increase the use of fossil fuel. Based on the available information DOE was unable to determine conclusively whether use of recovered waste paper does or does not save fossil fuel in every case. As mentioned on p. 42, DOE now plans to award a contract to study this area.

The final aggregated paper industry targets showed that 18 million short tons of secondary fiber will be used annually by 1987. Rather than an increase, this represents the same 23 percent industry-wide rate as in 1977. In contrast, the European Economic Community meets 41 percent of their fiber needs with waste paper. This is due in part to limited virgin fiber, higher energy costs, transportation economics, and a longer history of recycling.

Textiles

DOE awarded the textile industry contract to Booz-Allen & Hamilton, Inc. Their report showed that the textiles industry is decentralized with over 5,000 firms in the United

States. The textile companies process natural and artificial fibers into yarn and fabric. The industry is divided into 30 standard industrial codes that fall into two tiers. The first tier produces high quality, fashion-oriented products and the second produces such utility products as upholstery filling, cordage, and twine. In 1978 the textile industry processed 15,610 million pounds of material, 85 percent of which was high quality clothing material.

The primary constraint in the use of recovered material in textiles is the quality requirement, especially in the first tier products. For the foreseeable future, there are no technologies available to reduce yarn or fabric wastes to the fiber form needed to produce first-tier products with acceptable quality characteristics. Thus, Booz-Allen & Hamilton concluded that only 6 of the 30 standard industrial classification codes for textiles have any recycling potential through 1987. These six textile categories represented only 9 percent of the 1978 textile production. In addition, targets for all but one of the six remain constant or show a decrease through 1987.

The metals industries

A. D. Little, Inc., was awarded the metals contract, and used DOE's recommended methodology to evaluate each of the metals industries. Rather than devote equal emphasis to the five major U.S. metals industries, A. D. Little concentrated on the energy-intensive sectors. The proportionate total energy consumption among the metals industries is as follows

--iron and steel (83 percent),

--aluminum (11 percent),

--copper (3 percent),

--lead (1 percent), and

--zinc (1 percent).

Within each industry, there is generally a primary and secondary segment classified according to raw material sources. The primary metals industries are those that produce metals mainly from virgin raw materials or ores. Secondary metals industries, in contrast produce refined metals from scrap. While primary and secondary metals industries' raw material inputs differ, the products are usually perfect substitutes for one another.

In addressing the scrap supply aspects of recycling, A. D. Little concluded that only the supply of obsolete scrap varied significantly. (See p. 2.) The supply of prompt scrap, being a function of production factors in the metal-producing and metal fabrication industries, could not be affected by changes in scrap prices, and, in any event, is almost 100 percent recycled through normal industry channels.

A. D. Little concluded that economic considerations, including scrap availability and price, are the primary determinates of recycling. For example, within the ferrous industry the amount of recycling will be affected by such factors as

--the future technological mix of steelmaking capacity (see p. 51),

--the demand for domestic steel production, and

--the demand for scrap exports--increased demand for ferrous scrap by other countries tends to force up the price of ferrous scrap and hold down domestic recycling.

The factors affecting recycling in the aluminum, copper, lead, and zinc industries are similiar to the ferrous industry.

Based on its analysis, A. D. Little set the proposed metals and metal products targets 3 percentage points above the 1976 reference year rates for all but lead. The lead target was increased 9 percentage points because of an anticipated growth in the secondary lead industry, constant primary production, and an increasing demand for lead in batteries.

While there were criticisms of each of the metals targets, most of them were leveled at the ferrous industry targets. An Office of Technology Assessment steel industry expert challenged several of the assumptions used in setting the ferrous targets. He disagreed with the assumption that the use of continuous casting--the direct conversion of molten steel in semifinished form--would remain constant, maintaining instead that its use will increase. Further he disagreed with the report's suggestion that a basic oxygen furnace is limited to roughly 28 percent scrap input, because a higher percentage can be used although additional capital investment and energy are required.

Steel industry officials commenting on the proposed targets raised the possibility that increased use of scrap could result in increased consumption of oil and natural gas while reducing the consumption of coal. They also challenged the assumption that sufficient scrap will be available to meet the target without export controls on ferrous scrap.

The rubber industry

The contract to evaluate the recovered materials utilization targets for the rubber industry was awarded to Hittman Associates, Inc. Hittman's report stated that in 1977 the rubber industry, except for tire retreading, consumed 3.3 million long tons of rubber. Seventy-four percent of this total was synthetic, 24 percent was natural rubber, and 2 percent was recovered rubber.

Hittman concluded that recovered rubber availability should be more than adequate, and there were no economic constraints on its use. However, while it is technically feasible to increase the use of recovered rubber, there is a penalty in quality. Reduced quality is exhibited by diminished performance, product life, reliability, and safety.

Even with the quality considerations, Hittman Associates concluded that the technical limits still present a possibility for recycling rates that are higher than the present use of recovered rubber. The targets proposed by Hittman, although relatively small, represent substantial increases over the base year rates.

More than any of the other three industries the rubber targets represent a recycling "goal" rather than an extrapolation of past, present, and planned business expansions.

VOLUNTARY TARGETS WILL NOT ENCOURAGE RECYCLING

Although the industrial recycling targets were set with little emphasis on providing a goal or incentive to increased industrial recycling, our discussions with industry led us to question whether voluntary industry wide targets set at any level would encourage recycling.

One of the reasons we believe the program will have little effect is because the industrial targets are industry-wide averages. Some secondary metal and paper companies produce products wholly made from recovered materials, while other companies in all four industries use only virgin materials. Because the industrial targets are averages and do not reflect individual company situations, they cannot

be applied to a specific company to measure progress. Thus, an individual company will not be influenced by a target that cannot be reasonably applied to its performance.

The primary reason why we believe the voluntary targets program will have little effect is because such overriding economic and technical considerations as the relative price and availability of raw materials, and the technical flexibility of available equipment determine what proportion of a firm's raw material input is from virgin or recycled sources. Voluntary targets will not have any significant impact on these considerations. Furthermore, many major industries, for example steel, are composed of two segments. Large integrated mills are oriented towards production from virgin materials, and many small mills use scrap. The ratio of output between the two determines how much recycling the total industry does. Decisions to shift capacity between the two segments occur only over the long term because of changes in the cost of capital, energy, virgin materials, and scrap as well as technological innovation.

We believe that voluntary targets will have little influence on these capacity decisions, and thus on overall industry recycling rates. Federal mandatory targets, however, would unduly interfere and influence industrial decisions that are best left to be determined by private market forces.

Even if the recycling target were to have a positive impact, the existing reporting system is inadequate to measure any improvement. However, we don't believe efforts should be expended to improve the reporting system, because of the questionable impact of targets set at any level.

The reporting criteria for recovered materials utilization is the same as the NECPA energy use reporting: use of at least 1 trillion Btus per year. Because energy use and recycling normally are not directly related, many companies that use recovered materials will not be reporting because they do not reach the energy-use threshold. For example, only 35 of the roughly 5,000 textile firms are required to report recovered materials' use. In addition, only one rubber footwear company is required to report recycled materials' use, and even this rubber company will soon cease to report as it is terminating rubber footwear production. Also, some secondary metals producers that use up to 100 percent scrap will not be required to report because of limited energy consumption. Without adequate industry representation, reports on the use of recovered materials will be insufficient to verify actual progress.

CHAPTER 5

THE USE OF CONTRACTORS TO DEVELOP GUIDELINES AND TARGETS

Both EPA and DOE have relied heavily on contractors to implement the procurement guidelines and industrial targets programs. Recognizing the significant roles contractors have played in these programs, the Chairman of the House Subcommittee on Transportation and Commerce asked us to investigate

--the manner in which the contracts were awarded,

--the type of service performed and the appropriateness of these services,

--whether any conflicts of interest existed, and

--the effectiveness of the agency administration of these contracts.

This chapter examines the award and administration of these contracts, while chapters 2, 3, and 4 discussed the performance of the contractors.

While our review did not reveal improprieties in the award or administration of these contracts, some improvements need to be made. DOE, for example, needs to limit or modify its use of quick-response contracts that may restrict competition. Also, where a potential for a conflict of interest exists, as was the case for two of the contracts we reviewed, much more care needs to be taken to ensure that the Government's interests are protected. New DOE regulations, if properly implemented, should go a long way in correcting this problem within that agency. Also needed, however, is a Government-wide policy that defines the use of contractors with potential conflicts of interest.

OUR PRIOR CONTRACTING REPORTS

During the past 20 years, we have issued over 30 reports criticizing practically every major Federal agency for failing to manage its consultant services properly. (See app. I for a complete listing of these reports.) Recently, our March 1980 report, "Controls Over Consulting Services Contracts at Federal Agencies Need Tightening," (PSAD-80-35) found that many Federal contracts are still awarded unnecessarily with limited competition, contain many modifications, and often

overrun their deadlines. Our June 5, 1980, report, "Government Earns Low Marks On Proper Use of Consultants" (FPCD-80-48), summarizes the major issues related to the Federal Government's use of contracting services. The report recommended that the Congress and the Office of Management and Budget strengthen their oversight services.

In a July 2, 1979, letter report to Senator John Durkin (EMD-79-85) and in our November 2, 1979 report to Representative John Dingell, entitled "The Department of Energy's Practices for Awarding and Administering Contracts Need to Be Improved" (EMD-80-2) DOE contracts similar to those used in the industrial targets program were singled out for criticism. These contracts involve the award of a contract with specific tasks to be assigned at later dates. Although legal, these contracts tend to limit competition and may not be in the best interests of the Government.

Defining conflict of interest

Another ongoing GAO effort for the Subcommittee on Oversight and Investigations of the House Committee on Interstate and Foreign Commerce is examining potential conflicts of interest in contracts awarded for regulatory analysis. Of 156 contracts reviewed at 6 agencies, 101 showed at least a potential for an organizational or individual conflict of interest.

In this effort, we define an organizational conflict of interest as a situation where a prospective contractor has a financial interest in the regulated industry it is analyzing that could preclude the contractor from providing a totally objective work product. An individual conflict of interest includes situations where Government or private officers have a personal interest in the product or industry being regulated that could result in a nonobjective work product. A potential for a conflict of interest was defined as existing in a number of contractual situations including instances where

--the contractor has or is performing studies in related areas for the regulated industry or

--the principal investigators for the consulting firms have been recently employed by companies in the regulated industry.

While the contracts we examined under the targets and guidelines programs did not involve regulatory analyses, voluntary guidelines or targets were or are being established.

Because the industries studied are concerned about the possibility of these guidelines and/or targets becoming mandatory, they do have a vested interest in meeting the guidelines and/or targets established by the two programs. Thus we believe, an organizational conflict of interest would occur if the contractor intentionally suggested guidelines or targets with the objective of obtaining further business from its present or former industry clients. We also believe that a potential for a conflict of interest would exist where the situations noted above are present for the guidelines or targets contracts. Because one of these situations exists does not mean that a conflict of interest is present, but rather that the potential is apparent and that the agency should take steps to avoid the risk of a real conflict of interest.

To meet the Subcommittee's request on the adequacy of contracting procedures, we retraced the steps EPA and DOE took to award the contracts used to implement the guidelines and targets programs. The following sections describe in detail the procedures and regulations that were followed to award these contracts. The sections also discuss the safeguards that were taken to prevent conflicts of interest.

EPA CONTRACTS

Following an in-house study that determined the criteria and procedures EPA hopes to use to establish guidelines for the procurement of products containing recycled materials (see p. 14), EPA selected two products for initial study. Contracts were awarded in 1978 to Franklin Associates, Ltd., to study paper products, and to the Calspan Corporation to study construction materials. A third contract, again with Franklin Associates, to study road construction materials was awarded in February 1980.

Generally the contractors were asked to collect such data pertinent to the development of guidelines as

--the commercial availability and prices of products containing recycled products,

--the industrial capacities for producing these products,

--the Government demand for these products,

--a list of sources and production leadtimes for these products, and

--possible certification procedures that could be used.

The contractors were also to suggest guidelines in the form of a percentage or a percentage range representing the amount of recovered material in a product. We found no indication

that the contractors were retained to perform work of a policy, decisionmaking, or managerial nature.

In general, EPA appears to have complied with all legal requirements concerning the contract awards. EPA did not advertise the contracts because it could not adequately specify the contractors' actions. Instead, each of the EPA contracts was negotiated and awarded on a cost-plus-fixed-fee basis in accord with existing Federal regulations. No improprieties or conflicts of interest were documented although one contract was awarded to a recognized industry expert.

The following sections detail the individual contract awards.

Paper products

The contract to study paper products was awarded after solicitations were sent to 45 organizations in late 1977. Four proposals were received, evaluated, and ranked according to cost and technical capability.

Following the evaluation, negotiations were conducted with Franklin Associates and a cost-plus-fixed-fee contract for $61,618 was awarded to them on March 22, 1978. The contract was subsequently modified to extend the period of performance from 9 to 13 months effective March 20, 1979. Work under the contract was completed for the contracted amount. EPA has yet to release any guidelines using the collected data or accompanying analyses.

Construction materials

To study construction materials, EPA again negotiated a cost-plus-fixed-fee contract. In late 1977, solicitations were sent to 61 prospective contractors, resulting in 8 responses. Like the paper contract, these proposals were evaluated and ranked. After negotiations a contract was awarded for $80,814 to the Calspan Corporation on April 10, 1978. The work was completed a year later without cost overruns. As is the case with paper products, no guidelines incorporating Calspan's data or analyses have been issued.

Highway construction products

A contract to study road construction materials was recently awarded to Franklin Associates (with a subcontract awarded to Valley Forge Laboratories, Inc.) Like the other contracts, EPA decided formal advertising was impractical

and that a cost-plus-fixed-fee contract would be most appropriate. Only 4 of 84 organizations solicited for proposals responded. Four proposals were evaluated and ranked. After the technical evaluations, only two proposals were found to be acceptable. Negotiations were held and on February 12, 1980, a contract was signed with Franklin Associates for $111,307. Work is still in progress.

Potential for a conflict of interest: Franklin contract

EPA contract awards are governed by chapter 15 of title 41 of the Code of Federal Regulations. The EPA contracting office must insert an organizational conflict of interest clause in a contract if he or she discovers that a conflict exists between the work or services to be performed for the Government in an impartial manner and the company's own self-interest (chapter 15-1.5301). There is no provision concerning individual conflicts of interest.

Both Calspan's and Franklin's proposals contained conflict of interest certifications. However, neither of the final contracts contained conflict of interest clauses protecting the Government should a conflict became apparent. In our opinion EPA should have required such a clause in the Franklin contract because Franklin Associates had previous contractual ties to the paper industry. The clause should have required disclosure should a conflict have become apparent, and sanctions for failure to disclose.

EPA's regulations still only require organizational conflict of interest statements to be included in contracts where certain situations are noted by the contracting officer. The most recent EPA contract with Franklin Associates (February 12, 1980) does contain both an individual and an organizational conflict of interest clause. EPA also advised us in its comments on this report that it was revising its regulations to require conflict of interest clauses in all contracts over $10,000.

Since the issuance of Franklin's paper products report, the objectivity of the contractor in performing the study has been questioned. Conflict of interest allegations have been made by resource-recovery industry proponents who took issue with the accuracy and completeness of the data contained in the report. They also took note of the contractor's previous contractual ties with the American Paper Institute which is primarily supported by large, virgin-fiber paper companies.

Opponents of the study fear that relatively low guidelines suggested in the Franklin report will negatively influence the Federal procurement of products containing recovered paper materials.

EPA was made aware of the allegations and conducted its own in-house investigation. The investigation, concluded on March 5, 1980, failed to come up with conclusive evidence of any conflict of interest on the part of the contractor. In fact, Franklin's overall performance was rated excellent by the technical evaluator of the contract.

EPA, in fact, was very much aware of Franklin's experience in the area, and its known expertise contributed to its obtaining the contract award. The award of the contract under such circumstances was proper. In fact, a Comptroller General opinion has held that a firm should not be excluded from competition simply on the basis of a theoretical or potential conflict of interest (55 Comp. Gen. 60 (1975)). Precautions should be taken, however, to adequately protect the Government's interests should a real conflict occur.

Because Franklin had done previous work for the paper industry, its role in suggesting guidelines to EPA created the potential for a conflict of interest. As noted above, EPA should have included a conflict of interest clause in the contract. Our review failed to disclose, however, any evidence of an intent on Franklin's part to suggest guidelines at levels that might be viewed favorably by the virgin paper industry, so that it could remain in the good graces of its former client. In addition, the paper guidelines will probably not be issued for at least a year and it seems unlikely that Franklin's suggested guidelines, even if they become EPA's proposed guidelines, will remain unchanged as they go through the extensive planned public and interagency review. (See p. 16.)

In our opinion, the guidelines suggested in Franklin's report appear not so much to be influenced by its past association with industry but by the following language contained in RCRA.

> "As of October 21, 1978, every procuring agency must, for purchases over $10,000, buy products composed of the highest percentage of recovered materials practicable, so long as the products are reasonably available, meet reasonable performance standards, and are not unreasonable in price, and a satisfactory level of competition is maintained. EPA is to issue guidelines

for the use of procuring agencies in complying with requirements of this section." [Emphasis added.]

Using the language contained in the law as a guide, the contractor attempted to suggest guideline specifications that are practical, reasonable, and satisfactory. But, at the same time, he expressed concern about their potential effectiveness. As we discussed in chapters 2 and 3, the procurement program still has a number of obstacles to overcome, and we believe that such obstacles prevented the contractor from making stronger suggestions for specifications to encourage recycling.

CONTRACTS FOR THE INDUSTRIAL TARGETS PROGRAM

DOE awarded four contracts to analyze the four selected industries and to propose recycling targets. DOE appears to have complied with all legal requirements concerning the contract awards. However, the contract with A. D. Little, Inc., to develop the metal industries' targets did, in our opinion, present the potential for a conflict of interest. DOE did not take sufficient steps during the award of the contract to ensure that a conflict did not develop. Furthermore, all four contracts were awarded with a minimum of competition under quick-response master contracts. DOE should ensure that more competition is obtained and that sufficient conflict of interest precautions are taken under this type of contract. Recent DOE regulations, if adhered to, and applied to ongoing contracts, may take care of this problem.

Selection of the contractors

In May 1977, almost a year before the targets program was enacted, the DOE Acting Assistant Administrator for Conservation initiated a procurement action to secure contract services that could on occasion quickly provide timely economic and technical analytical support for three DOE divisions. The San Francisco Operations Office (one of DOE's two main contracting offices) was authorized to procure or retain such standby support for the Divisions of Buildings and Community Systems, Conservation Research and Technology, and Industrial Energy Conservation.

An announcement was made in the July 18, 1977 Commerce Business Daily to solicit interest. A request for proposals was prepared by the San Francisco Operations Office and was distributed in response to 420 inquiries. Forty different contractors submitted proposals for contracts with one or

more divisions. Each of the proposals was evaluated by a selection panel for each division in which the contractor had expressed an interest.

Using evaluation scores and "relevant observations," the proposals were ranked. The selection panel recommended the top ranked organizations for contract negotiations for each division. Nine master contracts were negotiated and awarded to these firms on September 30, 1977. (Several contractors were retained by more than one division.)

Originally, $300,000 per year per division was established as the total funding level for the contracts; however, the authorization was later modified to extend the performance time to 3 years (to September 30, 1980) at an annual funding level of $1 million from each of the three divisions. The funds available for all contracts totaled $9 million--$1 million from each of the 3 divisions for 3 years.

Six firms were awarded quick-response master contracts to support the Division of Industrial Energy Conservation, which was later reorganized and renamed the Office of Industrial Programs. Thus, the following organizations were available on an as needed basis following the passage of NECPA

--Resource Planning Associates,

--Energy and Environmental Analysis, Inc.,

--Gordian Associates, Inc.,

--Hittman Associates, Inc.,

--A. D. Little, Inc., and

--Booz-Allen & Hamilton, Inc.

Quick-response contracts limit competition

In our November 1979 report to Representative Dingell (see p. 52), we criticized two kinds of DOE contracts--task order and quick-reaction-work-order contracts. Both kinds of contracts are long-term arrangements with individual tasks or assignments directed to the contractor as DOE identifies its needs.

Task order contracts normally contain very general and broad work statements. Such contracts specify the level of effort or a specific number of staff hours to be provided

at a given rate plus a prorated fee. The staff hours are subdivided into categories of expertise, i.e., clerical, technical, supervisory, and managerial. As a task is identified, the contractor submits a written proposal. If it is accepted, a task order is awarded with no further competition and work begins.

A quick-reaction-work-order master contract also contains a general statement of work. Master contracts are awarded to a number of firms. Specific work orders (for some type of end product rather than for staff days as in task order contracts) are formulated and proposals are solicited from firms holding master contracts. The work order is awarded to the best offeror, after price and other factors are considered.

We criticized DOE for awarding these contracts with limited competition and recommended that task order and quick-reaction-work-order master contracts be used only as exceptions to normal contracting practices.

The DOE industrial studies quick-response master contracts have some of the characteristics of both kinds of contracts. It appears that, in this case, like the task order contracts, broad master contracts were negotiated. Like the quick-reaction work-order contracts, several contractors were on standby to provide competition at the time of awarding individual tasks. However, there was no provision in the six individual master contracts to require the contractors to submit proposals for each task to be assigned under these contracts. This shortfall proved to limit responses to proposed tasks, and defeated the apparent original intent to encourage some "second level" competition.

Following the passage of NECPA, which called for targets to be set within 1 year, the Division of Industrial Energy Conservation requested separate proposals from all six contractors on each of the four industry areas to be studied--textiles, paper, rubber, and metals. Two of the contractors did not prepare a proposal because of funding and staffing problems. As described in detail in chapter 3 the contracts were to evaluate each industry according to an agreed upon methodology and to propose recycling target levels. We found no evidence that the contractors were retained to perform work of a public decisionmaking or managerial level, although several of the proposed targets did become the actual targets after public comments were solicited and evaluated by DOE.

Each of the four contractors who submitted a proposal received a contract. Three contractors prepared a proposal only in one area. Each took a different area.

Only one contractor prepared proposals for two areas. The proposals received were as follows:

Paper Products	:	Hittman Associates, Inc. Resource Planning Associates
Rubber Products	:	Hittman Associates, Inc.
Textile Products	:	Booz-Allen & Hamilton, Inc.
Metals	:	A. D. Little, Inc.

DOE established a three-member selection board to evaluate the two proposals received on the paper industry. The evaluation criteria consisted of knowledge and experience in the subject area and conceptual approach to the task. The board felt that Resources Planning Associates exhibited greater capability, better methodology, and generally, more experience in the paper industry. Consequently, they were awarded the contract.

Since only one proposal was received for the other tasks, awards were made to those companies who submitted the proposals. Modifications to all four master contracts for the individual assignments were made in August 1978.

Total amounts committed under the master contract and for the target studies are shown in the following table.

Industrial Target Contract Amounts

Contractor	Amount committed for the targets studies
Resource Planning Associates	$135,000
Hittman Associates	141,664
Booz-Allen & Hamilton	149,566
A. D. Little	235,721
Total cost	$661,951

Potential for conflict of interest: A. D. Little contract

Our review of DOE's contract files and our discussions with each of the contractors revealed no conflicts of interest. However, the circumstances surrounding the contract awards and the proposed targets gave one of the contracts the appearance of a potential for a conflict of interest. As was the case for the EPA Franklin contract, we found no evidence to suggest that the intent behind the level of the targets A. D. Little suggested was to remain in the good graces of its industry employers. DOE, however, should have taken steps to reduce the risk involved in contracting with a firm that has business ties to the industry it was evaluating.

The contractor that evaluated the metals industries--A. D. Little--has done and continues to do a large amount of business with the steel industry and other metal industries. This alone created the potential for a conflict of interest. In addition, although the contractors were retained to analyze the recycling potential of each industry, and to propose draft targets, very little modification of the proposed targets occurred. The situation suggests that the contractors, including A. D. Little, played a heavy hand in establishing the targets. (See the table on p. 45.) It can also be argued that for a number of reasons, including the possibility (however unlikely) of mandatory targets, it is in the best interest of each industry to meet the targets, and thus for the targets to have been set as low as possible. The targets A. D. Little proposed were only an average of 3 percent above present-day recycling rates. These circumstances further enhance the appearance of a conflict of interest.

In a case where the potential for a conflict of interest exists, the agency should take steps to minimize that risk. However, apparently little consideration was given to the potential for such a conflict by the DOE contracting officers and the Office of Industrial Programs during the award of the contract.

At the time of the original master contract awards in 1977, a statement of disclosure of organizational conflict of interest was required by the then in force Energy Research and Development's Temporary Regulation 29. The requests for proposals sent to prospective contractors required disclosure statements. DOE's San Francisco Procurement Office could only locate copies of two of the six contractor's proposals, both of which contained the disclosure statement. The individual master contracts that were subsequently negotiated included a required organizational conflict of interest clause and a package of representations and certifications that included individual conflict of interest certifications.

In our opinion, however, disclosure statements at that stage of a quick-response contract were of limited value, as there were no specific tasks on which to base potential conflict of interest statements. Rather, further disclosures should have been made when the tasks were identified to the contractors for a proposal. Only at that time, and not before, was the contractor in a position to identify any possible conflicts of interest.

Since 1977, when the initial contracts were awarded, two laws have been passed that tighten DOE contracting procedures. Under Public Laws 95-39, dated June 3, 1977 and 95-70, dated July 21, 1977, 1/ the Secretary of Energy is to require that a prospective contractor provide all information relative to whether that contractor has a possible conflict of interest. The successful contractor must ensure that consultants and subcontractors hired to participate in the work also comply with the laws. In accordance with the laws, DOE cannot enter into any contractual arrangement until it finds either that a conflict of interest is not likely to exist or that a condition can be written into the contract which will avoid or mitigate the conflict.

As stated in our reports to Senator Durkin and Representative Dingell (see p. 53), the new organizational conflict of interest regulations implementing these laws (title 41 of the Code of Federal Regulations, chapter 9-1.54), have significant improvements over the old regulations. The most significant changes, in our view, are those which relate to

--immediate disclosure by the contractor of a conflict discovered after the contract award,

--applicability of the regulation to contract modifications, and

--full disclosure by contractors of past interests that bear on the prospective contract.

Our review indicated that DOE failed to incorporate the new provisions in all four task awards and amendments for the industry targets evaluations.

1/Public Law 95-39 amends the Federal Non-Nuclear Energy Research and Development Act of 1974 and Public Law 95-70 amends the Federal Energy Administration Act of 1974.

The new DOE regulations, if properly implemented, should go a long way toward controlling potential conflicts of interest during DOE contracting procedures. However, we wish to reiterate our recommendation contained in our letter to Senator Durkin (EMD 79-85). In that letter, we suggested that numerous contracts awarded prior to the new regulations be brought under the new procedures. This was especially to apply to task order and quick-reaction-work-order contracts that are similar to the quick-response contracts used for the targets program, as new assignments were directed under those kinds of contracts. The industrial target contracts further illustrate the need for amending all "open" master contracts to bring them under the new conflict of interest regulations.

NEED FOR A FEDERAL CONFLICT OF INTEREST POLICY

The potential for a conflict of interest that was apparent in two of the contracts we examined and the differing contract procedures in effect at EPA and DOE illustrate the need for a Government-wide conflict of interest policy. For example, recent DOE conflict of interest regulations (see p. 63) are much more stringent than the regulations directed to EPA contracting. There is no all-encompassing legislation or Federal regulation addressing organizational conflicts of interest. Agencies that desire contractor services are given little direction on the selection and management of such contractors. At present, procuring agencies must very carefully balance, on their own, the need to obtain the best, most experienced contractor against the potential for conflict of interest.

The Office of Management and Budget, which is currently reviewing the use of consultants throughout the Government, hopes to issue comprehensive conflict of interest regulations sometime in 1981. In a related matter, S. 2880, a bill currently under consideration by the Congress, would establish rather strict controls over the use of consultants, especially those who have ongoing or previous contractual relationships with industry. While we cannot support S. 2880 in its present form, we do support the general objective of the bill to reform consultant practices. For more detailed comments on the bill, see the Comptroller General's August 19, 1980, statement on S. 2880 before the Senate Committee on Governmental Affairs.

As a means to avoid future conflicts of interests, the Congress could also consider on a case-by-case basis requiring regulatory analysis or similar studies to be conducted by the agency. This could be especially effective when

outside influence on such sensitive issues as policy or regulatory analysis could create the potential for conflicts of interest. Such requirements should be included in legislation only after the Government's capabilities and priorities are determined. If resources are not available for conducting the required studies in-house, reasonable legislated time constraints should be set so that the agency can competitively procure the needed services.

CHAPTER 6

CONCLUSIONS, RECOMMENDATIONS, AND AGENCY COMMENTS

Section 6002 of RCRA requires Federal agencies to procure products containing the highest percentage of recovered materials practical if their cumulative value exceeds $10,000. EPA and the Office of Federal Procurement Policy are required to prepare guidelines and to provide direction to agencies to help them comply with the congressional mandate. Under NECPA, the Congress required DOE to establish voluntary recycling targets for four industries.

The intent of the Congress in establishing these programs is clear, but Federal agencies have been unsuccessful to date in meeting their intended objectives. Both programs have suffered fates similar to other resource recovery initiatives. As demonstrated in this and earlier reports, 1/ Federal resource recovery efforts have generally been lacking in direction, coordination, resources, impact, and in most cases, assigned a low priority. In this report, we show that minimal resources have been available for the RCRA procurement program, and the DOE targets program would not likely promote recycling.

If the Nation is truly serious about recovering material and energy resources from wastestreams, a more centralized and coordinated Federal effort is needed. We recommended in our earlier reports that EPA lead Federal resource recovery efforts with the assistance of an interagency resource recovery committee. Since our earlier reports on resource recovery, the Energy Security Act passed in June 1980 assigned specific responsibility for energy recovery from urban wastes to DOE and RCRA was amended to require the establishment of an interagency resource recovery committee. We believe that recycling efforts under any legislation should be under its purview. We also believe that all resource recovery initiatives should be addressed in an overall plan or strategy directing Federal efforts toward enhancing resource recovery. EPA is

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1/"Conversion of Urban Waste to Energy: Developing and Introducing Alternate Fuels from Municipal Solid Waste" (EMD-79-7, Feb. 28, 1979), and "Industrial Wastes: An Unexplored Source of Valuable Minerals" (EMD-80-45, May 15, 1980).

preparing a plan for urban waste recovery and expects to have it completed by the end of 1980. DOE, under the Energy Security Act, is also required to prepare a strategy for energy recovery from solid wastes.

THE RCRA PROCUREMENT PROGRAM

While Federal procurement policy appears to have limited promise for stimulating resource recovery, it is important that the Government do what it can to promote recycling and to set a positive example for State and private institutions. However, the procurement program's potential is far from being realized. Basic implementing procurement-policy questions concerning product quality, competition, price, and potential conflicts with such existing procurement policies as the shift toward requiring commercial "off-the-shelf" purchases, have not been addressed.

Timely actions by EPA, the Office of Procurement Policy and other agencies are sorely needed to make the program effective. EPA has devoted few resources to the program and no guidelines are expected until 1981, although RCRA was passed in 1976. The Office of Federal Procurement Policy, which has primary oversight responsibility for the program, has not pursued its policy responsibilities. Procurement agencies, like GPO, which initially tried to implement the program, are waiting for direction. GSA and other agencies have been slow to review product specifications that discriminate against recycled products.

Given the expected level of resources available to this program, we do not believe that the procurement program as planned will have much effect. Rather, we believe serious consideration should be given to introducing a preference system based on the highest percentage of a specified recovered material contained in a particular product. A preference system has already been successfully demonstrated under the Buy American Act and by the State of California for its purchases of recycled paper products. Federal procurement officials have advised us that a shift toward this type of program may require an amendment to the current law.

INDUSTRIAL TARGETS WILL NOT ENCOURAGE RECYCLING

We doubt that voluntary industrial targets will encourage recycling. The established targets have been criticized for representing needlessly low rates of recycling that will be attainable by industries operating under present conditions. However, even if the targets were set at higher "goal" levels, the likelihood of the targets stimulating recycling still appears questionable. Such economic and technical considerations as the relative price and availability of raw materials rather than voluntary industry-wide targets determine recycling rates. Consequently, we believe that additional Federal resources should not be funneled into the NECPA targets program. Available resources could be more effectively used on other resource recovery efforts designed to impact positively on these technical and economic factors.

EPA AND DOE CONTRACTING EFFORTS

Both EPA and DOE relied heavily on contractors to collect data and to propose draft targets and guidelines. Our review revealed no illegalities in the procedures used to award the contracts. Some improvements, however, can be made. For example, EPA's regulations and its internal contracting procedures should be made consistent with regard to requiring conflict-of-interest clauses. DOE did not take adequate measures during the award of the contracts to ensure that an apparent potential conflict of interest did not develop under one of the targets contracts. New DOE regulations may go a long way toward eliminating this problem in the future. However, DOE needs to apply these regulations to current long-term task or quick-response contracts to ensure that conflicts of interest do not occur.

The lack of consistency in the EPA and DOE contracts points out the difference from agency to agency in the management of contracts with organizations or people whose expertise is needed by the Government, but who have or had contractual or other financial ties to the industry being analyzed or regulated. A Government-wide policy is needed to direct agencies' use of such contracts.

RECOMMENDATIONS TO THE ADMINISTRATOR, OFFICE OF FEDERAL PROCUREMENT POLICY

We recommend that the Office of Federal Procurement Policy implement its responsibilities under section 6002(g) of RCRA and direct Federal procuring agencies toward accomplishing its objectives. The Administrator should work with the Administrator of EPA and the Congress, if necessary, to develop a preference purchasing program. The Administrator should also more actively address the policy issues raised by introducing recycling considerations into the procurement process.

RECOMMENDATIONS TO THE ADMINISTRATOR, ENVIRONMENTAL PROTECTION AGENCY

We recommend that the Administrator of EPA work with the Office of Federal Procurement Policy, and the Congress, if necessary, to develop a preference program for the procurement of recycled products. EPA should increase efforts toward identifying uses for recycled materials. However, it should avoid long-term efforts to determine percentage specifications for the content of recovered materials in purchased products.

We also recommend that EPA's regulations be amended to require that conflict of interest clauses be included in all contracts.

RECOMMENDATIONS TO THE SECRETARY OF THE DEPARTMENT OF ENERGY

We recommend that the Secretary of DOE not pursue efforts to redefine the industrial targets as allowed by NECPA. DOE should continue to work with EPA to identify those recycled products and related programs that could have the most positive impact on the demand for this Nation's energy supplies.

We also recommend that long-term task-order or quick-response contracts of the type used in the industrial targets program contain language stating that competition is required where more than one of the available contractors have the expertise to complete a specific task. We also recommend that the Secretary, where possible, amend all current open master contracts to ensure that new tasks or assignments under these contracts are governed by the new DOE conflict of interest regulations.

RECOMMENDATIONS TO THE CONGRESS

We recommend that the Congress should consider enacting legislation establishing a preference program for recycled products in Federal agency procurements, taking into account the additional cost and administrative burden on the Federal procurement system. The Congress should also direct the Administrator of the Office of Federal Procurement Policy to take a more active role with EPA to implement the objectives of section 6002 of RCRA.

We recommend that the Congress not appropriate any more funds for the DOE industrial targets program under NECPA unless evidence is offered that the targets will increase recycling.

The Congress should also enact legislation establishing a Federal conflicts of interest contracting policy. In addition, the Congress should review Office of Management and Budget efforts to develop directives on the use of contractors especially to prevent conflicts of interest.

The findings in this report further support our recommendation in the report "Government Earns Low Marks on Proper Use of Consultants" (FPCD-80-48) that the Congress strengthen its oversight of contracting for consulting services.

AGENCY COMMENTS

Environmental Protection Agency

EPA believes that our report is an accurate assessment of the EPA and DOE guidelines and targets programs. It agrees with several of our recommendations, but questions the legality and practicality of implementing a Federal procurement preference system for recycled materials. Appendix II contains the complete text of EPA's comments.

EPA wholeheartedly supports our recommendation for a more active role to be played by the Office of Federal Procurement Policy toward accomplishing the objectives of section 6002 of RCRA. EPA points out that there are many policy issues on which that Office could give guidance or resolve.

EPA also believes that limited resources have been assigned to the procurement guidelines program; however, given the limited resources available for all of its Office of Solid Waste functions, EPA feels that this conscious channeling of resources is justified.

EPA also comments that there are no alternatives to the "stringent" rulemaking procedures it plans to use to develop the final procurement guidelines for each product. While we agree that public participation is necessary and is in fact required by RCRA (section 7004(b)), we question whether the process is as inflexible as EPA's comments portray. The process as described on p. 16 seems to involve internal paper shuffling in addition to the steps taken to allow public comment. It appears that some of the steps could be taken concurrently, rather than consecutively, especially in view of the fact that the guidelines are voluntary.

EPA's strongest criticism of our report focused on the practicality of developing a preference system that we recommended to overcome some of the present resource problems affecting the current program implementing section 6002. EPA agreed that a preference program would have certain advantages, including the fact that it could more easily be applied to a broad range of products. But, it maintains that such a program lacks statutory authority and would not overcome certain overriding issues.

As pointed out in the report on p. 38, we recognize that legislation would have to be initiated to pursue such a program. We recommend that the Office of Federal Procurement Policy and the EPA work to develop such a program. If a new law is needed, then both agencies should work together with the Congress to develop the needed legislation.

Further, EPA believes that a simple preference system would not have the ability to distinguish between differently priced products containing different levels of recycled materials. We believe that this could possibly be overcome by offering a price preference to the supplier (bidder) with the highest content of recycled materials. To reduce the arbitrary nature of such a system, suppliers with products within 5 percent of the top percentage could also be given the preference. Then of course all offerors would need to be evaluated objectively with necessary provisions for quality and technical reliability. This system would appear to eliminate the need for sophisticated sliding scales which would prove cumbersome to procurement officers.

We recognize, of course, that a preference system would present some administrative problems and that there are products

where a preference purchase system would not automatically encourage recycling. For example, EPA cites the problems of using fly ash in cement in its letter. (See app. II.) We continue to be impressed by the California program, however, and believe that a preference system would have an initial impact much greater than the limited program currently pursued. Problems presented by biased existing standards that do not objectively reflect performance or quality criteria should continue to be addressed under the direction of the Office of Federal Procurement Policy. Even if a preference system were initiated, it appears that EPA, the Office of Federal Procurement Policy, and the procuring agencies themselves under section 6002, and the Department of Commerce under section 5001, would be obligated to continue to pursue the elimination of specifications and standards that unfairly limit the prospect for use of recycled materials.

Concerning our recommendation to include conflict of interest clauses in all EPA contracts, EPA is currently in the process of amending its regulations to require a conflict of interest certification from all offerors and to require the inclusion of a conflict of interest clause in all contracts over $10,000.

EPA also commented that it agrees with our assessment of the NECPA targets programs.

The Office of Federal Procurement Policy

The Office of Federal Procurement Policy disagreed with our conclusion that the Government's procurement program under RCRA is uncoordinated and confused. It further believes that the findings presented in our report are an "over simplification of a very complex and technical requirement which is not amendable to quick and simple solutions." The Office's views, however, are somewhat contrary to those of EPA, DOD, and GPO--agencies that concur with the problems and issues presented in our report.

The Office of Federal Procurement Policy believes that some timely actions have been taken as the result of Policy Letter 77-1 which caused some existing Federal Procurement Regulations and military standards and specifications to be revised. In addition proposed Federal Acquisition Regulations will also be revised to help implement RCRA. As we point out in chapter 2, however, these actions by themselves will not make the program viable. We believe there is a clear need for the Office of Federal Procurement Policy to become more actively involved. As discussed on page 10 there are numerous conflicts to be addressed and the Office has done little to resolve them. For example, in its letter the Office cites the potential conflict of recycling initiatives with the existing Federal program to promote commercial product acquisitions.

Yet, the Office has not taken steps to resolve this policy question. The need for greater involvement by the Office of Federal Procurement Policy has also been illustrated by the independent actions taken by Federal agencies, who now believe RCRA's procurement provisions may be unworkable and have simply stopped trying to implement the program until more definitive guidance becomes available.

The Office further believes adequate progress has been accomplished as evidenced by GSA's efforts to recover precious metals, retread tires, and to collect and sell waste paper. While these efforts are undoubtedly beneficial they fall outside the scope of section 6002 of RCRA, which pertains specifically to Government purchases over $10,000.

Like EPA, the Office is opposed to a preference system for practical reasons. It believes the procurement process is already encumbered with enough preferences, and that a recycling preference would be insufficient to motivate industry to make greater use of recycled materials. As mentioned in our response to EPA's comments, we recognize that a preference system would not automatically encourage industry to increase their recycling; however, in our opinion, it offers the best potential for implementing the program, taking into consideration the vast quantity of products the Government buys and the conflicts and problems now stalling the program.

The Department of Energy

DOE agrees with our conclusion that industrial targets will not encourage recycling and supports our recommendations regarding the lack of further work on the targets program and the accompanying reporting system. (See app. III for DOE's comments.)

Concerning our discussion of the contracts used to support the targets program, DOE argues that the NECPA requirement to establish the targets created the type of situation that the quick-response contracts were designed to accommodate. Specifically, there was (1) a requirement for a rapid response. (2) a requirement for special expertise; and (3) a substantial level of effort was required for only a short period of time. DOE maintains that the award of a competitive contract would have taken over a year, and that the two "rounds" of competition in the quick-response contract--one for the master contract and another for the assignments--were adequate.

We would point out that there are other contractual alternatives besides competitive awards. A request for proposals could have been sent to qualified contractors in hopes of several

responses, and a negotiated contract could have been awarded in much less than a year.

We do not question that the targets legislation presented the situation anticipated by the quick-response master contracts. We continue to be concerned, however, about the adequacy of the competition. In this case, the master contracts were awarded without knowledge of specific tasks, and the "second round" of competition resulted in only four contractors submitting five proposals for four projects. Hence our recommendations to limit the use of this type of contract and to ensure competition during the second round of this type of contract when it is used.

On a related matter, DOE stresses that it adequately monitored the targets contracts for conflicts of interest. We acknowledge that the program manager closely monitored the progress of the contractors' performance. As stated in our report, we found no evidence to suggest that a conflict compromised the target proposing effort of any contractor. We point out, however, that the possibility of such a conflict was not adequately addressed during the assignment of the work under the master contracts, although recent DOE regulations may rectify this occurrence in the future.

This observation, along with our other recent work on the Government's use of consultants leads us to believe in the need for an overall contract policy, including the use of expert consultants where an organizational conflict of interest could be expected to develop. Ideally, regulatory policy, of which the targets setting work was similar, should be done in-house. In the face of resource or time constraints, as was the case in the targets program, the use of consultants should be governed by a Government-wide policy. OMB is addressing the area, but a legislated policy is also needed.

APPENDIX I

GAO REPORTS RELATED TO CONSULTING SERVICES

DATE	AGENCY	PRINCIPAL FINDINGS RELATED TO CONSULTING SERVICES	REPORT #
Jan. 10, 1961	Govt.-Wide	– Failure to obtain adequate competition in awarding contracts for consulting services – Failure to write and administer contracts for consulting services properly – Inconsistent or excessive rates of pay for consultants – Use of consultants to perform work that could be performed by govt. employees – Failure to use the consultant's advice – Lack of information on the number and cost of consultants	B-143330
Mar. 25, 1968	U.S. Army	– Failure to write and administer contracts for consulting services properly – Failure to use the consultant's advice	B-133209
June 30, 1970	HEW	– Subcontract consultant fees are not limited – No standard reporting requirements for documenting the subcontract consultants' work	B-164031 (1)
Feb. 23, 1971	DOD	– Possible duplication of consultant studies	B-163074
Apr. 1, 1971	HEW	– Appointed consultants were used to perform work that should be performed by regular HEW employees	B-164031 (1)
Apr. 13, 1971	DOD	– Consultants under contract received higher rates of pay than they would have if appointed to the Civil Service	B-168457
Aug. 16, 1971	HEW	– Five out of fourteen consultant studies were not used because contracts were written and administered improperly	B-164031 (1)
Dec. 28, 1971	Office of Economic Opportunity	– Ten out of fourteen consultant reports were not used – Consulting contracts were not written or administered properly – Possible organizational conflict of interest by consultants	B-130515
Mar. 24, 1972	Dept. of Labor	– Lack of adequate competition in the award of consulting contracts – Excessive fees paid to contract consultants – Failure to administer contracts properly resulted in consultant reports not being used	No Number
Oct. 27, 1972	DOD	– Possible duplication of consultant studies – DOD consultants under contract were conducting studies with little or no relevance to defense or military matters	B-163074
Dec. 11, 1972	U.S. Army	– Eight out of seventeen reports prepared by contract consultants were not used	B-177372
Aug. 31, 1973	Appalachian Regional Comm.	– Inadequate justification for awarding sole-source contracts for consulting services	B-164031 (4)
Sept. 6, 1973	OEO	– Appointed consultants were used to perform work that should be performed by OEO regular employees	B-130515
Sept. 21, 1973	HEW	– Appointed consultants were used to perform work that should be performed by HEW regular employees – Appointed consultants improperly influenced the award of contracts for consulting services to friends and associates	B-164031 (1)
Mar. 15, 1974	Veterans Administration	– Six out of seven contracts for consulting services were awarded without adequate competition	B-114859
Nov. 7, 1974	HEW	– Lack of adequate competition in the award of consulting service contracts – Consultants under contract were performing work that should be done by HEW	B-164031 (1)
Jan. 17, 1975	Fed. Energy Adm.	– Questionable procurement procedures were used to award consulting service contracts	OSP-75-8
Aug. 19, 1975	Law Enforc. Assis. Admin.	– Appointed consultants were used to perform work that should be performed by regular LEAA employees	FPCD-75-159
Aug. 28, 1975	HEW	– Consulting service contracts may have been administered in such a way as to create an improper employee-employer relationship	MWD-76-11
Sept. 18, 1975	Multi-Agency	– Federal agencies do not identify in their budgets the amount of funds requested for consulting services	PSAD-76-12
Mar. 19, 1976	Dept. of Commerce	– Federal agencies are not submitting their consultant reports to the Commerce Clearinghouse for possible use by other agencies to avoid duplication	GGD-76-66
Sept. 21, 1976	Energy Res. & Dev. Admin.	– Possible organizational conflict of interest in a consulting contract award – Contract consultant performed work that should be performed by ERDA	EMD-76-11
Dec. 27, 1976	AID	– Appointed consultants were paid excessive fees – Retired government employees working as appointed consultants were permitted by law to "Double-Dip"	ID-76-82
Sept. 15, 1977	5 Agencies	– Many agencies were awarding contracts, including some for consulting services, without obtaining adequate competition	PSAD-77-152
Sept. 22, 1977	HEW	– Controls over payments to experts and consultants were inadequate resulting in excessive payments	FGMSD-77-61
Nov. 29, 1977	Govt.-Wide	– Federal Government does not know how many consultants are used, at what cost, or for what purposes – There is no accepted government-wide definition of consultant or single authority to regulate their use	FPCD-78-5
Feb. 12, 1979	AID	– Information on the number and cost of consulting contracts not maintained – Possible duplication of consultant studies – Consulting contracts were awarded for work that could be done by AID	ID-79-13
Mar. 7, 1979	Nuclear Regulatory Commission	– Contracts for consulting services were awarded without adequate competition and administered improperly – Justifications for hiring consultants and controls over their payments were inadequate	EMD-79-37
Mar. 13, 1979	DOE	– DOE plans to award a consulting contract to perform a study that should have been performed by DOE employees	EMD-79-26
July 2, 1979	DOE	– DOE did not have sufficient information to determine if there were organizational conflicts of interest for $80 million in consulting contracts	EMD-79-85
Nov. 2, 1979	DOE	– Contracts for consulting services were awarded without adequate competition and were not administered properly – Consulting contracts were awarded to carry out DOE's mission and perform work that should have been performed by DOE employees – The type of contract used limited competition	EMD-80-2
March 20, 1980	6 Agencies	– Contracts for consulting services are being awarded without adequate competition – Consultants under contract performed work that could be performed by Agency employees – Consultants' reports were not delivered on time – Inaccurate reporting of consulting services contracts – Consultant's reports were not used – Year-end spending for consulting contracts	PSAD-80-35
Aug. 12, 1980	DOD	– DOD is not centrally managing its studies and analysis program, many of which are done by consultants – DOD does not know the total costs of the program and has no assurance that the results are effectively used	LCD-80-97
Aug. 19, 1980	7 Agencies	– Consulting services were used to meet over 40 percent of the agencies congressionally mandated reporting requirements during fiscal years 1977 - 1979 – Approximately 60 percent of the reports either did not disclose consultants' involvement	FPCD-80-76

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UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
WASHINGTON, D.C. 20460

AUG 25 1980

OFFICE OF
PLANNING AND MANAGEMENT

Mr. Henry Eschwege
Director, Community & Economic Development Division
United States General Accounting Office
Washington, D.C. 20548

Dear Mr. Eschwege:

The Environmental Protection Agency (EPA) has reviewed in detail the General Accounting Office (GAO) draft report entitled "Federal Recycling Targets And Guidelines Programs: Contract Problems And Limited Impact."

In general, we feel the draft report is an accurate assessment of the current status of the EPA procurement guidelines program and the Department of Energy (DOE) recycling targets program. We agree with several of the recommendations which GAO makes. However, the legal and practical ability to implement some of the recommendations is questionable. We discuss the major issues in detail in this letter. In addition, there are several technical errors in the report which should be changed prior to publication. In Enclosure 1, we offer revisions which would contribute to the technical accuracy of the report.

1. More active involvement for the Office of Federal Procurement Policy (OFPP). We wholeheartedly support GAO's recommendation that OFPP assume a more active role in directing Federal procuring agencies toward accomplishing the objectives of section 6002 of the Resource Conservation and Recovery Act of 1976 (RCRA). It is true that there are many policy issues on which OFPP could give guidance or even resolve. For example, as the report points out, an acceptable interpretation of reasonable price as it relates to the purchase of recycled products would be useful in making future procurement decisions. Although EPA feels that the term "reasonable" would allow a slight price increase to be acceptable for recycled products purchasing, procuring agencies feel they lack authority to take such a position. While OFPP does have limited staff, a conscious decision and commitment to take a leadership role in such policy matters should be made. EPA would be happy to work with OFPP in developing such policy.

2. Inadequate staffing and overly stringent rulemaking procedures. It is entirely true that limited resources, both in terms of manpower and funding, have been assigned to the procurement guidelines program. Of necessity, higher priority has been assigned to those programs related to the treatment, storage, and disposal of hazardous and industrial wastes. Given the limited resources available for all the Office of Solid Waste (OSW) functions, EPA feels this conscious channeling of resources is justified. The health and environmental consequences of continued improper management of hazardous waste must be of highest concern at the present time, although resource recovery may be the most desirable, long-range, solid waste management alternative.

With regard to our use of "overly stringent rulemaking procedures," GAO fails to note that there are no alternatives to this approach. Section 7004(b) of RCRA specifically states:

> "Public participation in the development, revision, implementation, and enforcement of any regulation, guideline, information, or program under this Act shall be provided for, encouraged, and assisted by the Administrator..."

Also as required by section 7002(b) EPA has published public participation regulations under RCRA (see 40 CFR Part 25, February 16, 1979).

It is EPA's policy to encourage full presentation of issues at an early stage so that they can be resolved and timely decisions can be made. The Agency provides access to the decision-making process by seeking input from and conducting dialogue with the public, assimilating public viewpoints and preferences, and demonstrating that those viewpoints have been considered. The means for accomplishing this include the convening of work group meetings, distributing pre-proposal drafts, presenting formal proposals, conducting public hearings, and redrafting based on comments and analyses, all prior to final issuance of a guideline. While the process is recognized as being time consuming, it nevertheless results in far superior guidelines and regulations which have a more realistic chance for success. The discussion of "stringent rule-making procedures" on page 23 of the draft report should reflect a statement of this policy.

3. Recommendation for a simple preference system. While GAO indicates that the EPA procurement guidelines program is "logical and comprehensive," the report states that it will be ineffective because it is "too demanding and rigorous given the limited managerial resources available to pursue it." The report further states that "... Federal implementation of RCRA can best be served by instilling a sense of competition among suppliers to increase the amount of recovered materials used, with the Government's business being offered as a reward." It suggests the establishment of "some sort of simple preference system," such as the one used for the "Buy American Act" where the bids of foreign products are evaluated only after penalizing the bid price by adding a certain percentage to the bid price (for evaluation purposes only).

We agree that for some products, a preference system would definitely make sense. As the report states, it would allow full and open bidding by not excluding products manufactured solely from virgin materials, it should be more compatible with such other Federal policies as buying commercial off-the-shelf items, and a preference system could more easily be applied to a broad range of products not currently scheduled for guideline promulgation. However, there are two major impediments to this approach which prevent the ability to use it, at least under present circumstances.

First, as noted in the GAO report, there is no statutory authority under RCRA for such a preference system. Procuring agencies have stated that without such statutory authority, they would not be able to provide preferences, which in effect allow payment of premiums, of the type described by GAO. Even if EPA guidelines under section 6002 suggested such a system, procuring agencies indicate they would be obliged to ignore such a suggestion, as they are responsible to more fundamental Federal Government procurement laws, which in general require that award be made to the lowest-priced, responsible bidder. The Congress could take positive action to remedy this situation, by amending RCRA to provide for a price preference system.

However, a more critical problem than lack of statutory authority for a preference system is the design and implementation of a system which is practical and which accomplishes the goal of increased recovery of waste materials, i.e., change. EPA has

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received many suggestions that a "simple" preference system is the solution to the implementation of section 6002. Without exception, no person suggesting a preference system, including GAO, has been able to address certain overriding issues which argue against a preference system. Among the major problems are:

- Where a simple preference is given for recycled products (or a penalty assigned to virgin product bids), how does a procurement officer make award where recycled products are offered at different prices and contain different levels of recovered material? For example, it would seem desirable to make award to a 100% recycled product priced at $1.50 per unit rather than a 5% recycled product priced at $1.49 per unit. However, a simple preference system would not allow for this. It would only distinguish between virgin products and recycled products, no matter what the level of recovered material content.

- A more sophisticated preference system could involve some type of "sliding scale" approach, where a different amount of credit (or penalty) is allowed for various levels of recovered material content. This system would be very cumbersome for procuring agencies to implement. It would require the calculation of preferences for various ranges of recovered material for each bid, such as for the 0-9% range, 10%-19%, 20%-29%, and so on. The merits of awarding a contract to a supplier of a product containing 20% recovered material at a higher price than for one containing 19% recovered material is highly questionable, and would likely result in numerous protests on the part of losing bidders.

- The establishment of a simple preference system with minimum requirements for recovered material levels in order to qualify for a preference has been suggested. This approach has some merit, but different minimums would have to be established for various products in order to create additional waste utilization. For example, while a 20% level of fly ash in cement may be the desired incentive level, a similar 20% level would create no change for iron and steel products, which typically contain at least 30% scrap. This implies a need for something similar to the proposed EPA guidelines program, and could prove simpler and less time-consuming, although rulemaking would still be required.

However, EPA maintains that for many products a preference system, such as those described here, would not accomplish the change which is possible with the individual product guideline approach we are currently pursuing. The procurement process involves a great deal more than just purchasing from the lowest-priced responsible bidder. It also includes the identification of technical needs, development and use of specifications to satisfy those needs, and quality assurance measures, among others. The EPA guidelines program addresses all of these factors -- a preference system does not.

For example, the soon to be proposed guideline for Federal procurement of cement and concrete containing fly ash requires a conscious decision on the part of the architect/engineer who is designing a facility to allow fly ash to be used (in come cases the use could be technically inappropriate). The solicitations must specifically include specifications or standards which apply to fly ash (these have already been developed). If a solicitation merely contained a requirement for standard portland cement and a recovered material preference clause, fly ash could not be supplied. Even though the specification for portland cement does not require virgin materials or restrict recovered materials, per se, a cement containing fly ash does not meet the technical parameters of that specification. Many suppliers of concrete containing fly ash are currently precluded from using that product on Government construction projects, even though it could result in cost savings. An affirmative procurement action is thus needed on the part of procuring agencies to even allow fly ash to be used. A similar situation exists for other products which are the subject of EPA guidelines/studies, including composted sewage sludge and cement kiln dust.

4. DOE Industrial Recycling Targets Program. We generally agree with the GAO recommendation that DOE not pursue efforts to redefine the industrial recycling targets, as allowed by the National Energy Conservation Policy Act (NECPA). EPA agrees with GAO that voluntary, industry-wide recycling targets will have no effect on increasing the utilization of waste materials. Had hearings been held on this particular provision of NECPA, prior to passage of the law, EPA would have testified against such a program. The legislation reflects a lack of understanding of the extent to which resource recovery can be used as a solid waste management tool to solve national solid waste problems.

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5. Conflict Of Interest Statements. GAO has recommended that EPA's regulations be amended to require that conflict of interest clauses be included in all contracts. We are currently in the process of amending the Environmental Protection Agency Procurement Regulations (EPPR) to require a conflict of interest certification from all offerors and to require the inclusion of a conflict of interest clause in all contracts over $10,000. The text of the required certification and clause will appear in the EPPR. If the Contracting Officer determines that a potential conflict of interest exists which is not covered by the standard EPPR clause, the EPPR will require the Contracting Officer to prepare an appropriate clause or take other appropriate action.

The certification and clause which will appear in the EPPR will include several revisions to the certification and clause that we are currently using. An offeror presently must certify whether award of a contract to it would involve an organizational conflict of interest (OCI). A contractor is also required by the contract to notify the Contracting Officer if, after award, it discovers an OCI with respect to the contract. An OCI is defined as a relationship whereby the offeror or contractor (including its chief executives, directors, consultants, or subcontractors) has interests which: may either deminish its capacity to give impartial, technically sound, objective assistance and advice, resulting in a biased work product; or may afford it an unfair competitive advantage. Several interests of the offeror or contractor, such as present or proposed manufacture or sale of any item or substance to be studied, are defined to be OCIs. The following revisions will be made to these requirements:

- The definition of OCI will be expanded to include situations where either the offeror/contractor or its affiliates have conflicting interests.

- Past interests of the offeror will also be considered in determining if an OCI exists. The offeror will be required to list in its proposal: situations where it has, within a three year period preceding submission of its proposal, taken a point of view (in a report, speech, etc.) regarding the subject matter to be studied under the contract; and any contractual or client relationships which have existed during the past three years involving the industry to be studied.

In addition to the above, EPA is taking other steps to strengther its system for avoiding conflicts of interest. Specifically, program officials will be made responsible for identifying and

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addressing potential conflicts of interest when the procurement request/requisition is submitted and when the results of the technical evaluation are submitted. The Office of General Counsel will have the responsibility for reviewing potential or apparent conflicts of interest and for advising the Contracting Officer on the appropriate action to be taken. Finally, all personnel will be alerted to the importance of procedures for avoiding conflicts of interest, and training courses or seminars will be conducted to educate personnel on these procedures. The details and schedule for implementing these procedures. The details and schedule for implementing these steps to strengthen EPA's system for avoiding conflicts of interest are set forth in the enclosed management plan for controlling consulting services and for improving Agency procurement practices. This plan was submitted to OMB in response to its memorandum of July 2, 1980.

The Agency also has a few technical comments regarding the section of the report which addresses EPA contracts:

> The report includes a discussion of the technical scores received and the costs proposed by offerors who responded to several solicitations. This information, including the identities of the unsuccessful offerors, should be deleted as the report, once published, will be available to the general public. EPA releases to the public the name of the successful offeror and the dollar amount of the contract award. In some cases, the technical score of the successful offeror is also disclosed. EPA does not normally release information relating to the names of the unsuccessful offerors, their technical scores, and their proposed costs. Since GAO has indicated that there were no improprieties in the award of the contracts for the guidelines program, I feel that the names of the unsuccessful offerors and references to the proposed costs and technical scores can be deleted without detracting from the purpose of the report.
>
> On page 87 of the report, GAO states that at the time the Franklin contract to study paper products and the Calspan contract to study construction materials were negotiated, the Contracts Management Manual (CMM) required conflict of interest representations and certifications. Our investigation indicates that this

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statement by GAO is incorrect. These two contracts were awarded prior to the amendment to the CMM which required a conflict of interest certification from offerors and a conflict of interest clause for contracts. These requirements, as well as the appropriate language for the certification and clause, were first published as an amendment to the CMM in a Procurement Information Notice dated April 20, 1978. The Franklin contract was awarded on March 22, 1978, and the Calspan contract was awarded on April 19, 1978.

EPA appreciates the opportunity to review the draft GAO report. Several recommendations, if implemented, should certainly result in more favorable conditions under which Federal recycling efforts can procede. However, unless and until a comprehensive policy is established with regard to the problems created by other recommendations of the GAO report, particularly the preference system, EPA intends to proceed with its Federal procurement guidelines program as currently planned.

Sincerely yours,

for William Drayton, Jr.
Assistant Administrator for
Planning and Management

Enclosure

APPENDIX III

EXECUTIVE OFFICE OF THE PRESIDENT
OFFICE OF MANAGEMENT AND BUDGET
WASHINGTON, D.C. 20503

OFFICE OF FEDERAL
PROCUREMENT POLICY

September 26, 1980

Mr. William Anderson
Director
General Government Division
U.S. General Accounting Office
Washington, D.C. 20548

Dear Mr. Anderson:

This is in response to a GAO draft report entitled "Federal Recycling Targets and Guidelines Programs: Contracting Problems and Limited Impact", which was furnished to OMB for comment prior to final issuance. The effort of your Energy and Minerals Division in preparing this report is appreciated. The data and information developed is evidence of the complexity of the implementation process involving P.L. 94-580, the Resource Conservation and Recovery Act of 1976 (RCRA).

The findings in the report appear to be an over-simplification of a very complex and technical requirement which is not amenable to quick and simple solutions. The Office of Federal Procurement Policy took action by its issuance of Policy Letter 77-1 dated February 2, 1977. It emphasized the importance of using recovered materials in the procurement of goods by agencies in carrying out the spirit and intent of the law. Uniform guidance and procedures called for in the policy letter were finalized in the Defense Acquisition Regulation (DAR) and the Federal Procurement Regulations (FPR) in November 1978. The policy guidance was restated in DAR Circular 76-18 which was promulgated March 12, 1979. OFPP's efforts and those of the agencies have not been uncoordinated and confused as GAO alleges.

Agencies have responded to Policy Letter 77-1 by reviewing their specifications to remove, where feasible, the use of virgin or new materials where recycled or recovered materials could otherwise be employed. For example, under DOD's Five Year Overage Review Program, a total of 5548 documents were examined for technical sufficiency. Of these, 3184 were validated as current and in compliance with RCRA, 547 were cancelled, and 1817 were identified for revision or further review. In addition, the proposed Federal Acquisition Regulation (FAR), which will be a significant element of the Uniform Procurement System (UPS) currently under development, will address those issues necessary to a more effective implementation of P.L. 94-580. Particular reference is made to this in the FAR under:

Part 10 - Specifications, Standards, and Other Product Description.

Part 11 - Acquisition and Distribution of Commercial Products.

Part 23 - Environmental Protection (23-103)

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Early on, the Department of Defense (DOD) revised MIL-STD-961 and 962 to conform to Section 6002 (d)(2) of the Act. These two standards form the basis for the development of all specifications issued by DOD. DOD has made additional progress with its procurement regulatory coverage, energy conservation, specification review and guidelines. The new Part 25 - Recovered Material - to Section I of the DAR, sets forth background information, basic policy, and a definition of recovered material. It further requires that solicitations which incorporate Government specifications requiring utilization of recovered materials include a certification clause.

Annual reports covering agency activities for CY 1977 and CY 1978 have been furnished to the Congress as required by Section 6002 of the Act. OFPP is preparing the third report for CY 1979 and it should be transmitted to Congress during September 1980. A review of the chronology of events shown in these reports illustrates that OFPP and the agencies have taken timely action to maximize the use of recovered materials within the limitations imposed. No adverse comments have been received from Congress on these reports. In fact, expressions of appreciation as to their potential usefulness have been made by the recipients.

Regulations, by their very nature, place a disproportionately heavy burden on the smaller companies in an industry. The result of this is a reduction of competition, in direct contradiction to other Government policies which attempt to promote competition. Not only do regulations place the smaller company at an economic disadvantage because it has fewer units over which to spread the cost, but the smaller company is also forced to commit a larger share of its resources to meeting Government standards. This leaves little room for developing the unique competitive edge so vital to success and growth. Senator Chiles' Bill, S.841, attempts to address this aspect of RCRA and future EPA guidelines should do so as well.

There are some indications that RCRA conceivably might run counter to the OFPP initiative on Acquisition and Distribution of Commercial Products (ADCoP). ADCoP has its core in market research and analysis, product description refinement and management controls, and the development of acquisition strategies. Many of the RCRA procuring guideline considerations will also involve these same elements and, depending on how they are defined, could conflict to some degree. To date GSA advises that it has developed 494 Commercial Item Descriptions (CIDs), 446 of which require the use of recovered materials. As further evidence that progress is being made, the Federal Property Resources Service (FPRS) of GSA includes in its major recycling program the precious metals recovery program, retreading of tires, and the collection and sale of wastepaper. Pending legislation may clarify some of these areas as well as address needed timing considerations. The full procurement and technical ramifications of these mutual interests will be explored by cognizant agencies. The Quiet Communities Act of 1978, mentioned by GAO, essentially slowed down the generation of

guidelines to a more orderly market research and analysis approach which should prove helpful in the long run.

The principal agencies charged with responsibilities under the Act have taken initial action during the period 1977-79 to meet the Act's requirements. Actions continue to complete implementation through the procurement regulatory process and through the development and issuance of draft guidelines by EPA. There are complex technical and administrative considerations involved, and the key to success lies in the specification scrubdown and industry awareness and cooperation with this new thrust in product development. Ways must be found to: (1) avoid unnecessary paperwork that does not contribute to the purposes of the Act; (2) permit Section 6002 to be more effective in achieving its goals without sacrificing the integrity of the Federal procurement process; and, (3) tie in revisions to Federal specifications as related to recovered materials with the EPA guidelines as the latter are developed. (Recent proposed legislation addresses some of these concerns.) Let me assure you that there has not been an arbitrary disregard of the provisions of Section 6002 of the Act nor a disposition to lend little assistance in carrying out the obligations spelled out therein. OFPP fully intends to implement any guidelines when issued by EPA and will continue to share oversight responsibility with EPA.

With respect to energy conservation, OFPP has reinforced the view that there are numerous acquisition related energy conservation opportunities that the Government can pursue in carrying out its day-to-day activities. In its recent Supplement No. 1 to Policy Letter 76-1, it references products made with recycled materials as requiring less energy to produce and adequate to fill the Government's need. The DOD has maintained an energy goal to require that 10 percent of installation energy in 1985 be obtained from abundant and renewable solid fuels such as coal, solid waste, or biomass.

As to the GAO recommendation for a single preference system for Federal purchases using recovered materials, we would not support or encourage legislation to that effect. The procurement process is encumbered already with enough of these kinds of preferences. The incentive would not be sufficient, in our opinion, to motivate industry to a higher use of recycled materials. Many firms believe that recycling is already being used to the extent feasible considering economic and technical limits and the Government market. The trade-offs between costs, paperwork burden, and conflict with other socio-economic objectives and goals would not augur well for the success of such a preference system. Conceptually it would raise more problems than it would solve. Better results might be obtained through tax adjustments or credits, loan guarantees, or other historically proven initiatives.

As to the Chapter 5 comments on the award and administration of consulting service contracts, OMB has taken action to improve the use of consulting services by executive branch agencies. This action reflects the concerns you have

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identified,such as conflict of interest aspects. Final regulations on organizational conflicts of interest are anticipated to be issued by OFPP by January 1981.

Thank you for the opportunity to review the draft report. We look forward to receiving a copy of the final report.

Sincerely,

Karen Hastie Williams

Karen Hastie Williams
Administrator

APPENDIX IV

Department of Energy
Washington, D.C. 20585

SEP 19, 1980

Mr. J. Dexter Peach
Director
Energy and Minerals Division
U. S. General Accounting Office
Washington, D. C. 20548

Dear Mr. Peach:

We appreciate the opportunity to review and comment on the GAO draft report entitled "Federal Recycling Targets and Guidelines Programs: Contract Problems and Limited Impact." The Department of Energy (DOE) believes that a sound Federal program to encourage the use of increased amounts of recovered materials can contribute significantly to the achievement of national energy conservation objectives. We agree with the conclusion reached by GAO, however, that the establishment of targets for the increased use of recovered materials by industry will not encourage recycling. We also believe that the report should be revised to distinguish more clearly between the quality of the target program concept and DOE's implementation of its Congressionally-mandated responsibilities with respect to that concept.

DOE finds the recommendation to the Congress and the Secretary of Energy, that further work on the targets not be pursued, consistent with the conclusion reached by GAO on the impact of the targets. DOE supports that recommendation.

The draft GAO report indicates an understanding regarding the basic determinants of the level of recovered materials used in industry. We agree with GAO's conclusion that these determinants are independent of any targets established by the Federal government. The text of the draft report, however, is ambiguous and inconsistent in attempting to isolate the cause of the ineffectiveness of the targets. For example, the statements by GAO that, "It is doubtful that the targets, as issued, will serve as an incentive...", and that, "The targets at their present level ... will hardly be inducement...", imply that targets at different levels would provide such inducement. Such statements in the text should be revised to remove any ambiguity and to be consistent with GAO's conclusion that, "...targets will not encourage recycling."

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DOE agrees with GAO's finding, and its underlying rationale, that the reporting program required under the National Energy Conservation Policy Act is inadequate to completely and accurately measure overall improvements in recovered materials use. While the recovered materials section of the reporting program could accurately assemble recovered materials use by large manufacturing corporations, many of the most significant current and potential users of recovered materials are not included in the reporting population.

In discussing DOE's use of contractors for technical support in developing the targets, GAO focused on the type of contract, the competition involved, and precautions against conflicts of interest. The draft report states that quick-reaction work-order master contracts should be used only as exceptions to normal contracting practices. We strongly agree, but believe the requirement to establish recovered materials targets is an excellent example of the type of situation anticipated in awarding the master contract. The following elements were present in this case:

Requirement for rapid response. The legislation mandated that the targets be completed in final form within one year of signing. To allow time for publishing proposed targets, providing a public comment period and analyzing comments received, most of the analytical effort had to be completed within a period of four to five months from signing of the legislation.

Requirement for specialized technical expertise, background and knowledge. The topic of resource recovery had been studied and analyzed intensively - within and outside government - for a decade, and the complexities involved were clearly defying attempts to define and implement constructive policies. It was readily apparent that the background required, and the understanding of previous work, did not exist within DOE, and that knowledgeable personnel in other agencies - specifically the Environmental Protection Agency and the Department of Commerce - could not be detailed for such an intense and time-consuming assignment.

A substantial level of effort was required over a short period of time - the first four months. There was an immediate need for economists, engineers, industrial process experts and research assistants, all of whom would quickly become excess to Office of Industrial Programs needs after a relatively short period of time.

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The preferred method of obtaining the required expertise would have been competitive award. However, experience indicated that the contract award itself would have taken most of the year allowed to DOE. In addition, funds would have had to be diverted from other planned projects to support the effort. Recognizing this, the decision was immediately made to utilize the master contract. Because of the availability of the quick-reaction contract, DOE was able to make awards within three weeks after the legislation was signed.

GAO states in the draft report that DOE should insure that more competition is obtained under quick-reaction work-order master contracts. It should be noted that the contractual instruments discussed in the draft report are not the "quick-reaction work-order system" discussed in GAO Report 80-2, dated November 2, 1979 and in GAO Opinion B-196489, dated February 15, 1980. The instruments referred to in the draft report are called "quick response contracts" by the San Francisco Operations Office and are similar to, or perhaps a mixture of, the quick-reaction work-order system used by DOE's Office of Procurement Operations and task assignment contracts, also used by that office. It is suggested, therefore, that references to the "quick-reaction work-order system" be deleted.

There were in fact two rounds of competition involved in the program reviewed by GAO - one for the master contract in 1977 and another for the target setting effort in 1978. Each of the five contractors with sufficient remaining contract funds was requested to submit proposals on the targets work. Four contractors submitted proposals. The competition resulted in the selection of four contractors to assist DOE in developing targets for the four industries. DOE believes this indicates the adequacy of competition rather than the need for more competition, as suggested by the draft GAO report.

The draft report by GAO indicates that DOE did not take sufficient steps to monitor one of the contracts to insure that a conflict did not develop. Although GAO's review revealed no conflicts of interest the report cites "the appearance of a potential for a conflict of interest" in one of the contracts. This finding was based on the fact that the contractor (Arthur D. Little, Inc.) "has done and continues to do a large amount of business with the steel industry and other metal industries." DOE is aware of the previous work done by the contractor, and in fact took it into consideration in evaluating the relevant expertise of the contractor for the task. DOE monitored the contract very closely and, as evidenced by GAO's finding of no conflict, ensured that no conflict of interest developed. GAO should be more specific in its evaluation of DOE's

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monitoring of this contract, identifying any elements of the task that were inadequately monitored by DOE during the effort. Also, with respect to conflict of interest prevention, DOE is constantly striving to implement its current vigorous policies by improving internal procedures and increasing personnel awareness. DOE Notice 2030.1, dated July 3, 1980, is an example of recent efforts to improve contracting procedures.

There is no basis for a belief that the target-setting effort was in any way compromised by the contracting procedures involved. On the contrary, most of the proposed targets - while angrily and emotionally criticized during the public comment process - could not be attacked on the basis of better analysis, in large part because of the excellent analytical support provided to DOE by its contractors.

The contract costs associated with the targets work, as presented in the GAO draft, are not correct. The figures appear to be the total expenditures associated with the four quick-response contracts, and have no meaning in terms of the targets-related work.

It is stated in the draft report that the scope of the GAO review included a determination of the role and appropriateness of using consultants to help set targets, and whether or not the contract work should have been done in-house. We found no conclusive determination in the report regarding this matter.

DOE did not review, and has no comment on, those sections of the draft report relating to resource recovery programs which are the responsibility of the Environmental Protection Agency.

Other, more specific, comments have been provided directly to your staff. We appreciate the opportunity to comment on this draft report and look forward to issuance of the final report.

Sincerely,

P. Marshall Ryan
Acting Controller

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