UNITED STATES GENERAL ACCOUNTING OFFICE
WASHINGTON, D.C. 20548

FOR RELEASE ON DELIVERY
Expected at 9:30 a.m.
July 30, 1981

STATEMENT OF

J. DEXTER PEACH, DIRECTOR

ENERGY AND MINERALS DIVISION

BEFORE THE

SUBCOMMITTEE ON FORESTS, FAMILY FARMS, AND ENERGY

COMMITTEE ON AGRICULTURE

HOUSE OF REPRESENTATIVES

ON

THE NATION'S UNUSED WOOD RESOURCES

Mr. Chairman and members of the Subcommittee:

We appreciate the opportunity to testify on our recent report, "The Nation's Unused Wood Offers Vast Potential Energy and Product Benefits" (EMD-81-6), issued on March 3rd of this year. The reaction of the Congress to the report has been most gratifying, especially those expressions of support received from the Wood Energy Caucus.

Our report illustrates that immense quantities of wood, which might be used as fuel or products, are wasted each year and that Federal policies are contributing to this lost potential. We identified a wide range of such policies, and made recommendations to five different Federal agencies to help eliminate the

waste of potentially valuable wood resources. Our primary conclusions and recommendations address the need for the Federal Government to (1) resolve supply questions by verifying the amount and accessability of the wood residues, and (2) promote consumption by using the wood in Federal facilities, wherever feasible, and demonstrating other wood energy and product technologies.

As with most GAO reports, the five agencies had two opportunities to comment on our findings. They reviewed and commented on the report while it was in draft form. Their second opportunity came under Section 236 of the Legislative Reorganization Act of 1970 which requires that, within 60 days of the issuance of a GAO report, the head of a Federal agency must respond in writing to the House Government Operations Committee and the Senate Governmental Affairs Committee on actions the agency plans to take on GAO recommendations. We have received copies of these required letters from the five agencies.

I would like to summarize our report and then address the agency responses to our recommendations. The Congress can judge the likely future of the Federal efforts to promote the use of wood residues by examining the agencies' proposed actions based on our recommendations.

REPORT SUMMARY

Two facts stand at the forefront of the wood residues situation. First, there is an enormous amount of unused wood. Forest Service estimates, which by their own admission have not yet been satisfactorily verified, are that about 600 million dry

tons of unused wood residues are available each year, excluding stumps and roots. Just to put that gross potential into an energy perspective, beneficial consumption of that much wood for energy purposes could reduce our oil imports by about 59 percent, or 4.7 million barrels per day. Secondly, it must be kept in mind that simply because the wood is available does not mean that it can or will be economically recovered and used.

Everyone agrees that the physical potential is enormous, but it has yet to be determined what portion of the residues can actually be used for either energy or wood product purposes. Our report stressed that there are a number of economic, technological, and ecological barriers to increasing wood residues consumption. We identified four barriers appearing to have a significant effect on residue use nationwide. These barriers are

--inadequate data on the volume, location, accessibility, and availability of forest residues;

--lack of economical and effective equipment for harvesting and transporting residues;

--lack of investment capital needed for harvesting and using residues; and

--limited awareness and acceptance of wood energy and product technology among industrial firms, utilities, and State and local bodies.

Other obstacles may serve to discourage or prevent residue use in some areas around the country. They pertain to

--Federal forest management policies and programs,

--utility practices and regulations, and

--environmental concerns related to greater use of residues.

We believe that overcoming these obstacles requires that several issues be addressed simultaneously. First of all, it is necessary to get accurate and current estimates of how much residues are available, where they are located, and who owns them. It is necessary to know what kinds of equipment and how much are needed to gather the residues in preparation for transportation. It also is necessary to know how close the residues are to established transportation routes, or the feasibility of establishing such routes. Finally, it is necessary to identify existing and potential markets and their proximity to the wood residues. These potential markets would include new or expanded direct uses of the wood as fuel, substitution of the wood in products to displace more energy intensive materials (e.g. aluminum), or substitution of the wood for more expensive materials as an economic rather than energy-saving measure.

PILOT STUDIES AND TECHNOLOGY DEVELOPMENT

Given this situation, we believe that the first step toward greater use of wood residues must be a series of pilot studies. We recommended that the Forest Service and the Department of Energy make at least six of these studies in selected locations around the country which appear to offer significant opportunities for greater residue use.

These pilot studies should be made in areas near where potential end-use facilities for wood residues exist. In studying the areas, such factors as topographical features, transportation corridors, economic hauling distances, and landowner attitudes

should be reviewed. The mere existence of residues in a given area may mean little if landowners are unwilling to make them available.

We recommended that the Forest Service take the lead in the pilot studies because the studies must initially deal more with resource management problems than with the end-use technology matters that the Department of Energy is responsible for.

It may also be necessary for the Federal Government to promote markets for these wood residues by making potential customers aware of the resources and, more importantly, of existing and emerging technologies which make increased wood use feasible. This communication process may require that the Federal agencies demonstrate the use of wood residues and sponsor demonstration of new technologies. We recommended that DOE assist the Forest Service in accelerating the development and demonstration of residue handling equipment in cooperation with private industry, and, as part of the pilot studies, assist the Forest Service in encouraging private investment in new or modified facilities to use wood residues.

Department of Agriculture Comments

In its comments both on our draft report and in the required Section 236 response, the Department of Agriculture viewed our report as "positive" and said it could provide "an impetus for greater and more effective use of unutilized wood fiber." Acting through the Forest Service, the Department said it would assume the lead agency role in planning and conducting local wood pilot

Department of Energy Comments

In its comments on our draft report, the Energy Department agreed that wood residues were important, and that the Forest Service should lead in conducting the pilot studies. However, DOE did not wish to assist in funding them. The other specific information that we recommended be developed through the pilot studies involves energy matters within DOE's own lead agency responsibility. DOE said it intended to continue working with the Department of Agriculture and other agencies on these problems, but did not indicate its willingness to undertake a concerted effort on these aspects of the recommended pilot studies.

In its required response under Section 236, DOE indicated that the only action it will take on these recommendations is to assist the Forest Service in planning the pilot studies. DOE believes that free market forces can be counted on to stimulate wood use and that a national wood residues plan is unnecessary, as evidenced by the fact that the private sector has already responded to wood use opportunities in the residential sector and increasingly in the industrial sector. However, the Department does state that a Forest Service residues plan is needed to assure increased use of wood residues from Federal lands and that the pilot studies conducted by the Forest Service should provide data to support such a plan.

We continue to believe that these pilot studies are a necessary first step in promoting increased use of wood residues, and that DOE should participate in the studies and assist in funding them. While wood fuels have recently gained wider use in

residences and the forest products industry, they have made only limited inroads in other potentially important consuming areas. It may be that in some cases free market forces can be relied on to overcome barriers to residue use in a given geographic area, industry, or other segment of the potential user community. However, we believe it might prove unwise to assume that free market forces will overcome all demand barriers in the absence of Federal technological and information promotion.

As stated previously, we believe that the Federal Government can set an example by using wood in its own facilities and by demonstrating wood-fuel technologies. We recommended that DOE convert all its facilities to wood fuels, where cost-effective, and also identify and evaluate additional opportunities to demonstrate wood-energy technologies at Department facilities. DOE states that conversion to wood fuel would have to be the most cost-effective retrofit and should be subject to overall budget priorities, but does not state whether it will take action to evaluate all facilities under its control and make all feasible conversions within cost effectiveness and budgeting constraints. The Subcommittee may want to have the Department clarify the intended scope of its actions since, at the time of our review, it was evaluating fuel conversions at only a few of its facilities.

The Department does not specifically respond to our recommendation to evaluate additional facility conversion opportunities which, while not fully cost effective, could demonstrate wood fuel technologies and enhance their future economic feasibility. However, the Department's general comments make it clear that

it will not support demonstration of what it considers to be near-term wood fuel technologies.

OTHER RECOMMENDATIONS

We make a number of other recommendations in the report, and I would like to touch on a few of them.

Department of Defense and General Services Administration

In implementing existing policies to convert oil and natural gas heating and power systems to alternative fuels, we recommended that the Department of Defense and the General Services Administration assure that wood be given equal consideration with coal in forested regions of the country. We also recommended that DOD and GSA make a canvass of wood conversion opportunities at all facilities with such heating and power systems. Finally, we recommended that DOD and GSA issue procurement guidelines which point out the value of residue based wood products in meeting national energy goals and require their careful consideration as alternative materials for construction and related applications.

With respect to assuring that wood is given equal consideration with coal in evaluating fuel conversions, DOD maintains that under its overall policy all alternate fuels are given equal priority and are only ranked for individual projects based on their ability to meet several established criteria. GSA did not specifically address this recommendation in its statement. Our report notes that while DOD and GSA policies call for conversion to alternate fuels and list coal, wood, and others without

preference, in practice, coal is considered a primary fuel while wood is considered a secondary or minor fuel and is seldom evaluated in depth.

Our recommendation was aimed at eliminating the possibility of built-in biases against wood fuel whether they involve policy or practice. We continue to believe that DOD and GSA should issue appropriate directives emphasizing the overall equal consideration policy, and then monitor the policies and practices of military departments, field units, and others involved in administering conversion programs and making project evaluations to assure equal consideration for wood fuels in accordance with our recommendation.

Environmental Protection Agency

We recommended that the Environmental Protection Agency seek an amendment to the Clean Air Act to allow use of less than the best available pollution control technology in a wood energy plant when justified by the reduced burning of residues on nearby forest lands which would result from the plant. EPA disagrees with our recommendation because it does not consider best available control technology requirements to be a major obstacle to construction of wood-burning plants. To support its view, EPA notes that at least four such plants have recently received construction permits in the Pacific Northwest.

Our recommendation was based largely on the fact that, in general, high capital costs of wood-burning facilities are a major barrier to wider use of wood residues, and that costs for best

available pollution control equipment are part of the problem. Such costs would be unnecessary and inequitable in situations where a plant without such control equipment would not produce an increase in emissions beyond levels that would otherwise result from forest residue burning in the area. While these unnecessary pollution control costs may not represent a major obstacle in themselves, they could combine with other barriers to effectively prevent construction of wood energy facilities in a given location.

* * * * *

In closing, I would like to restate our belief that full and beneficial development and use of our vast wood residues resources can only be accomplished through a systematic approach under the sponsorship of the Federal Government. The most important steps are (1) conducting the wood residues pilot studies that we have recommended, and (2) sponsoring new or improved technologies to use the residues.

Mr. Chairman, this concludes my prepared remarks. I will be happy to respond to any questions you may have.