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

B-178205

March 29, 1974



The Honorable William E. Simon
Administrator, Federal Energy Office

Dear Mr. Simon:

The General Accounting Office recently completed a survey of efforts being made in the Federal Government to conserve fuel in the movement of men and materials. Our work was performed at the headquarters level of the Office of Energy Conservation, Federal Energy Office, and several major fuel-using agencies and their subordinate offices. These agencies included the Departments of Defense, Transportation, Agriculture, Interior, and Justice; the General Services Administration; the U.S. Postal Service; the National Aeronautics and Space Administration; and the Environmental Protection Agency.

During fiscal year 1973, the Defense Fuel Supply Center expended \$1.5 billion to purchase 333 million barrels of petroleum products for both military and civil agencies. Although the Federal Government consumes only a small percentage of the petroleum products consumed by the entire nation, it plays a major role in fuel conservation. The Government's efforts to reduce its own demand for fuel impacts on its ability to provide necessary leadership to influence other users to conserve fuel.

Our survey indicated that genuine efforts are being made to conserve fuel in the movement of men and materials. We have several observations, however, on management aspects of the fuel conservation program which require attention or where improvements are possible. These aspects concern the adequacy of the data used to measure the success of the conservation actions, the information system for collecting this data, the role of the individual agencies' energy conservation officers, and the efforts to reduce motor vehicle fuel consumption.

While we recognize the recency of efforts to conserve fuel, we are reporting our observations and recommendations to you at this time in the hope that they may be of some use in making early improvements in the Federal Government's total efforts to improve fuel conservation.

Details of our observations follow.

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SUCCESS OF THE FUEL CONSERVATION PROGRAM
DIFFICULT TO MEASURE--IMPROVED MANAGEMENT
INFORMATION SYSTEM NEEDED

An improved management information system is needed to accurately measure the success of the various actions taken to conserve fuel in the Federal Government. Our survey indicated that genuine efforts are being made to conserve fuel in the movement of men and materials; however, the lack of an adequate information system hinders quantification of the results of these efforts.

In June 1973, the President directed all Federal agencies to reduce their energy consumption by 7 percent and subsequently directed that additional actions be taken to reduce energy consumption still further. The Office of Energy Conservation (OEC) was assigned the responsibility of coordinating, monitoring, and reporting on the progress of the energy conservation program in the Federal Government. OEC has adopted a quarterly reporting format which compares fiscal year 1974 actual consumption with a baseline of fiscal year 1973 actual consumption adjusted for subsequent program changes.

OEC reported a 23-percent savings in total energy during the first half of fiscal year 1974, including an 11-percent savings in building and facility operations and a 30-percent savings in vehicle and equipment operations. We believe, however, that the preciseness implied in such figures is overstated at the present time because very few agencies have information systems which would enable them to accurately develop baseline data and determine actual consumption.

Our survey was primarily concerned with what OEC terms vehicle and equipment operations. Our problems with the baseline and actual consumption data for these operations relate to the nonavailability, incompleteness, inconsistency, incompatibility, and unavailability of some of the data. Some of the problems we considered are discussed in greater detail below.

Although all agencies were required to submit conservation data, OEC bases its quarterly report on the submissions of the 11 departments and 5 large independent agencies--General Services Administration (GSA), National Aeronautics and Space Administration (NASA), Atomic Energy Commission, Veterans Administration, and Environmental Protection Agency. The report therefore excludes the numerous smaller agencies plus some of the larger fuel-consuming agencies such as the Postal Service, Panama Canal Company, and Tennessee Valley Authority.

Many of the agencies did not submit data. For example, the Postal Service stated that the existing accounting system did not provide the

type of detail needed to accumulate energy information. However, the Postal Service is developing a computer-based energy consumption measurement system which will collect this information by unit of measurement as well as dollars spent.

Some of the agencies that did submit data did not include information on their entire organization. The Department of the Interior reported on 10 of its 28 bureaus and offices. Only selected units were included in the portion of the Department of Transportation submission that related to the Coast Guard. In addition, the Department of Transportation included data on only the Federal Aviation Administration and the Coast Guard in its initial submission to OEC but later submissions were expanded to include other offices. Gasoline consumption for the Department of Justice originally was confined to the Federal Bureau of Investigation. OEC officials told us that initially they instructed the agencies to concentrate on the large users but that they are now working to expand the coverage.

Many of the agencies, including the Departments of Defense, Interior, and Transportation, made extensive use of estimates. For example, the Department of Defense internal reporting schedules did not coincide with OEC reporting deadlines; therefore, in order to meet the OEC deadlines, information available at the time was adjusted by means of projections, approximations, and estimates to arrive at the baseline and actual consumption data. Other agencies used estimates because their existing information systems did not accumulate actual data. One bureau of the Department of the Interior designated four control facilities and projected the results to the entire 300 facilities.

In the transportation area, OEC requires that consumption be reported in gallons. Most of the agencies used conversion techniques to compute gallons. The information systems of many of the agencies, including GSA and the Department of Agriculture, only provided mileage data. The agencies used various average-miles-per-gallon-of-fuel criteria to convert the mileage to gallons. One bureau of the Department of the Interior converted available fuel cost data to gallons by using an average-cost-per-gallon figure. The Coast Guard converted hours of cutter operations to gallons by using an average-gallons-per-hour figure.

There were inconsistencies and duplications in the data reported within and between various agencies. GSA reported on its interagency motor pool vehicles. Other agencies, such as the Department of Agriculture, also included data on the motor pool vehicles they were leasing from GSA. Still other agencies, such as NASA, correctly excluded the GSA vehicles from their data. In the Department of the Interior, one bureau included data on both agency-owned and GSA-owned

vehicles; another bureau included GSA-owned vehicles and excluded agency-owned vehicles; a third bureau included agency-owned vehicles and excluded GSA-owned vehicles. The Department of Agriculture included data on privately owned vehicles used in Government business; other agencies did not.

In some cases, the baseline and actual consumption data were not comparable. For example, the Department of Defense included petroleum product sales to non-DOD organizations in the baseline data but excluded these sales from first quarter 1974 actual consumption data. In another instance, the Department of Defense divided distillate fuel consumption between facility operations and vehicle operations in developing the baseline but, for the Army and the Air Force, included the entire distillate consumption in vehicle operations when developing the actual consumption data.

The OEC reporting format required the submission of 1973 actual consumption data, the adjusted base, and the 1974 actual consumption data. The Department of Defense submitted adjusted baseline and 1974 actual consumption data but did not submit 1973 actual consumption data.

OEC established fiscal year 1973 actual consumption as the baseline for comparison with fiscal year 1974 actual consumption. OEC provided, however, that the baseline could be adjusted for subsequent program changes and that the changes should be explained. We noted that the explanations were very general, such as expanded programs or improved data compilations. We noted also that several of the agencies, including the Departments of Interior and Agriculture and the Environmental Protection Agency, included baseline data in the first quarter 1974 performance report which was different from that previously reported and that the changes were not explained in detail.

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The above examples illustrate the need for agencies to develop information systems to quantify fuel usage so that the volume of fuel consumed can be known and the effect of the various conservation actions can be measured. In our discussions with energy conservation officers of various agencies, they acknowledged that such a system presently was not available and that much of the data currently being reported was not reliable. For example, a Defense energy task group concluded that the Department of Defense baseline data could be inaccurate by as much as 10 percent.

In an interim report dated September 1973, OEC recognized that agencies were not accustomed to quantifying energy usage and stated that, in part, the success of the Federal energy conservation program

would be in developing an energy accounting system that would provide a capability throughout the Government to achieve and maintain a high efficiency of energy use. OEC stated that if the Government was unable to determine what it had used in energy in the past, it could not reasonably be expected to know how much it was using now and effect demonstrable energy reductions in the future. OEC concluded that the development of an energy accounting system and baseline data constituted an important investment for future energy conservation activities and results.

Some of the agencies are taking action to develop information systems to quantify energy consumption. For example, the Department of Defense is implementing the Defense Energy Information System which is intended to provide worldwide asset and usage data on a weekly basis for selected types of fuel. As noted previously, the Postal Service is also developing an energy consumption measurement system.

Other agencies do not appear, however, to be making concerted efforts to develop systems which will provide complete and accurate data on fuel consumption. While OEC has recognized the need for Federal agency development of energy use information systems, we believe that it should become more actively involved in both their development and implementation.

Recommendation

We recommend that the Administrator, Federal Energy Office, issue guidelines for use by Federal agencies in the development of energy-use information systems and monitor closely the agencies' progress in the development of their systems. Improved OEC guidance and involvement should provide a means for ensuring that consumption information is compiled on a systematic and reasonably comparable basis within the Federal Government. Such guidelines should be developed giving full consideration to the best features of the information systems which some agencies already have under development. In developing such guidelines, we also believe it important to keep in mind that allowable changes in the baseline data are subjective and can be manipulated to give a brighter picture of the conservation achievements than is actually the case. Accordingly, provision should be made for close monitoring of all such changes in order to ensure that they are kept to an absolute minimum and fully explained.

ROLE OF AGENCY ENERGY CONSERVATION OFFICERS SHOULD BE BROADENED

Energy conservation officers should take a broader role in energy matters. They currently are primarily concerned with the consolidation of data furnished by bureaus and offices and the transmittal of

instructions and regulations prepared by the Federal Energy Office and GSA. It appears to us that, in addition to these tasks, the officers should review, understand, and go behind the data furnished by the bureaus and offices; disseminate identified conservation actions across bureau lines; and make reviews to ascertain that bureaus and offices are implementing stated actions and to identify additional conservation measures.

After the President's June 1973 directive calling for a 7-percent reduction in the Federal Government's energy consumption, OEC requested each agency to designate an energy conservation officer to develop and coordinate his agency's energy conservation program. Although agencies have designated energy conservation officers, only the Department of Defense, the Department of the Interior, and the GSA officers are involved in energy matters full time. At other agencies, the energy conservation officers also have non-energy-related duties. Often this is also true at the bureau and field office level.

As noted previously, both the full-time and part-time energy conservation officers generally concern themselves with consolidating data furnished by bureaus and offices and preparing memoranda implementing instructions emanating from the Federal Energy Office and GSA. Occasionally, they hold meetings of bureau and office or field conservation personnel. Also, their work is sometimes supplemented by task groups.

In many cases, the headquarters and bureau energy conservation officers did not know the source of the energy consumption data furnished them nor could they account for differences or inconsistencies in this data. Further, they did not know exactly what the field installations were doing to conserve fuel. In fact, the instructions to the field offices often were vague. For example, they were told to reduce mileage or cut back official travel, but no guidelines were provided as to specifically what functions were to be curtailed in order to accomplish these objectives.

Our objective is not to be hypercritical of the energy conservation officers. The program is relatively new and the resources assigned by some of the agencies have been limited. However, in view of the long term nature of the energy problem and the potential for Government leadership in fostering the desired development of a national energy conservation ethic, we believe that there should be expanded and more centralized control of energy matters. It would seem that as a minimum there should be full-time energy conservation officers.

One of the energy conservation officer's functions should be to collect and disseminate information on identified conservation actions

to the entire organizational structure so that all organizations can benefit from the experiences of others. NASA is a good illustration of the type of information that can be disseminated. In January 1974, the NASA energy conservation officer sent field center energy reduction coordinators several documents, including the fiscal year 1974 first quarter consumption report to OEC; the first quarter narrative report to OEC, which outlined some of the energy conservation actions being taken; some of the individual field center narratives; the results of a contingency study of the impact of a 10-, 25-, and 50-percent reduction in energy resources; a bibliography of messages and letters relating to the energy and energy allocations; and copies of energy awareness posters and other material.

It also would be beneficial for the energy conservation officer to review energy conservation activities at the field level, perhaps with the assistance of internal audit or another independent group. Our discussions indicated that many of the officers planned to monitor these activities through review of the baseline and actual consumption reports submitted periodically. As discussed earlier, this information does not provide an adequate barometer of the success of the energy conservation program because of the extensive use of estimates and problems in obtaining accurate and complete data.

Our discussions indicated also that many of the energy conservation officers were of the view that the program offices should monitor the conservation activities and determine what specific measures should be taken. Some of the program offices, in turn, felt that the field offices should do this monitoring. It should be expected that the program and/or field offices with their intimate knowledge of operations should have primary responsibility for their specific conservation activities.

However, independent reviews would enable the energy conservation officers to understand and verify the reported consumption data and ascertain that stated conservation actions were actually being taken. They would also be in a position to identify additional ways to conserve energy and make program and field offices aware of conservation measures adopted by other offices which can be applied to their operations.

Recommendations

We recommend that the Administrator, Federal Energy Office, issue guidelines regarding the role of energy conservation officers. The guidelines should take into consideration the matters discussed in this letter and recognize those worthwhile activities now being conducted by energy conservation officers of which OEC is aware. We also

recommend that the Federal Energy Office make periodic inspection visits to Federal agencies to observe the manner in which the appointed energy conservation officers are fulfilling their responsibilities and make such recommendations for improvement as may be appropriate.

REDUCTIONS IN MOTOR VEHICLE FUEL CONSUMPTION
NEED CONTINUING ATTENTION

In the past several months, numerous instructions have been issued to bring about reductions in motor vehicle fuel consumption by Federal agencies. These instructions primarily concern purchasing compact vehicles and decreasing miles driven. Implementation of these instructions needs continuing attention.

Most of the agencies issued general instructions for conserving fuel such as traveling at reduced speeds, tuning vehicles, avoiding unnecessary trips, combining trips, and renting compact cars. Some of the instructions were more specific.

In August 1973, GSA issued a Federal Property Management Regulation (FPMR) Bulletin asking Federal agencies to acquire sedans, station wagons, and trucks equipped with engines and accessories which provide the greatest fuel economy while fulfilling the intended use. The Department of the Interior emphasized this bulletin to the heads of bureaus and offices and stated that special attention should be given to the purchase of compact vehicles in lieu of intermediate and standard sedans. NASA asked its installations to review previously planned acquisitions on the basis of the guidance in the GSA bulletin. The Department of Agriculture told the heads of its offices to purchase compact sedans and station wagons wherever practical.

Despite the instructions and emphasis placed on the acquisition of smaller vehicles, in actual practice, only GSA has purchased compact vehicles to any degree. According to GSA records, during the 6-month period ending December 31, 1973, GSA purchased 5,034 compact sedans for its interagency motor pools. GSA also purchased 222 sedans and station wagons for other agencies but only two were compacts--one for the Department of State and the other for the Department of Agriculture. Procurement requests received by GSA as of January 23, 1974, for 2,318 additional sedans and station wagons included requests for only 16 compacts.

The largest owner of Government motor vehicles, the Department of Defense, was only making minimal efforts to acquire compact vehicles as part of the planned procurement of 5,000 sedans and station wagons for fiscal year 1974. The Air Force planned to acquire 30 compact and 30 subcompact sedans as a test to determine if some of their

requirements could be satisfied with this type of vehicle. The Army and the Navy did not plan to acquire compact vehicles for domestic use.

Subsequently, the House Committee on Appropriations deleted fiscal year 1974 funds requested for the procurement of passenger motor vehicles for all components of the Department of Defense. The Committee took this action in order to reduce overall expenditures and conserve fuel. The Committee also directed that the vehicles which were to be replaced by the new vehicles be deleted from the inventory as scheduled and that the total inventory be reduced.

Specific instructions to reduce fuel consumption by reducing the number of miles operated by motor vehicles also have been issued. In November 1973, NASA called for a 15-percent reduction in fuel usage for all NASA-owned, GSA-furnished, or contractor-leased vehicles. Also in November 1973, GSA, after finding that fuel consumption increased rather than decreased during the first quarter of fiscal year 1974, issued an FPMR temporary regulation directing a 15-percent reduction in miles driven by interagency sedans, station wagons, and trucks. In December 1973 the percentage was increased to 20 percent.

In January 1974, the Federal Energy Office and GSA issued even more far-reaching instructions. All executive agencies were directed to achieve a 20-percent reduction in miles operated by all agency-owned, commercially leased or rented, and privately owned sedans, station wagons, and trucks used for official Government business.

The instructions also restricted the purchase or rental of sedans and station wagons to compacts and subcompacts to the extent practicable and the acquisition of light trucks with the minimum capacity/performance needed to satisfy requirements. In addition, the instructions called for the elimination of most limousines and heavy and medium sedans.

Further, the instructions contained guidelines for achieving mileage reductions and fuel savings. The guidelines covered annual tuneups; the use of public transportation whenever possible; the review of shuttle or group movement operations to ensure that passenger carrying vehicles are utilized to rated capacity; and the review of truck assignments to determine whether smaller size vehicles can be used with emphasis on replacement of pickups and other light trucks used for passenger carrying operations.

The above instructions provide the means to bring about reductions in fuel consumption. However, continuing attention is needed by the Federal Energy Office, GSA, and the various agencies to ensure that the instructions are carried out in actual practice.

The instructions provide the machinery for granting exceptions. We are aware of two large agencies--the Departments of Defense and Agriculture--which already have requested complete or partial exemption from the requirement for a 20-percent reduction in miles driven. There may be legitimate grounds for exception; however, they must be kept to an absolute minimum or the impact of the instructions will be negligible.

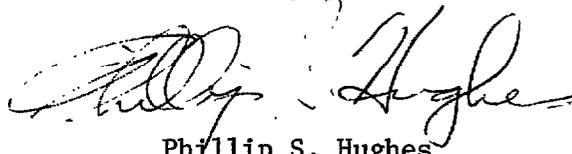
We also noted that the life of the instructions is relatively short. The requirement for acquisition of compacts expires on June 30, 1974, and the requirement for a 20-percent reduction in miles driven expires on December 31, 1974. Although we are not making a specific recommendation, it appears to us that most of the requirements reiterate prudent management principles and thus should not be subject to expiration. Some examples are the acquisition of the smallest sedans, station wagons, and trucks that can do the job; not using trucks for passenger carrying duties; and using available public transportation and shuttle service where practicable.

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We appreciate the cooperation received during our survey, and we will be glad to discuss these matters in greater detail with you or your staff.

Copies of this report are being sent to the Director, Office of Management and Budget; the heads of the Federal departments and agencies visited during our survey; and the appropriate congressional committees.

Sincerely yours,



Phillip S. Hughes
Assistant Comptroller General