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September 17, 1993

The Honorable Mike Synar
Chairman, Environment, Energy,
and Natural Resources Subcommittee
Committee on Government Operations
House of Representatives

Dear Mr. Chairman:

This letter with enclosures responds to your May 1993 request that we summarize our work on the International Energy Agency (IEA). You asked that we include the results of other evaluations of U.S. participation in IEA by the National Security Council, the Department of State, the Department of Energy, and other relevant federal agencies.

To respond to your request, we searched GAO's automated data base to identify products on IEA issued from 1974--the year that IEA was created--to the present. From other GAO automated files, we retrieved, when available, documentation indicating whether and how IEA or other agencies had responded to any recommendation(s) made in these products. We reviewed each of the identified products for content and relevance. We then categorized the products according to their most substantive issues.

We also interviewed cognizant officials and gathered documents from the National Economic Council and the National Security Council in the Executive Office of the President, and the Departments of State, Energy, and the Treasury. These officials told us that, as far as they knew, no evaluation of U.S. participation in IEA had been performed by the Executive Office of the President or by their agencies.

We categorized the information contained in GAO's products under 10 different issues and have included an enclosure for each issue. We have also included within each of these enclosures a complete list of the relevant GAO products.

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The subjects of these enclosures are as follows:

Enclosure I	-	U.S. Participation in the International Energy Agency
Enclosure II	-	Emergency Sharing System
Enclosure III	-	Tests of Emergency Sharing System
Enclosure IV	-	U.S. Oil Companies' Participation in Emergency Sharing System: Fair Sharing
Enclosure V	-	U.S. Oil Companies' Participation in Emergency Sharing System: Antitrust Monitoring
Enclosure VI	-	Demand Restraint
Enclosure VII	-	Emergency Oil Stocks
Enclosure VIII	-	Coordinated Emergency Response Measures
Enclosure IX	-	Oil Market Information
Enclosure X	-	Long-Term Cooperation Programs

As agreed, we plan to meet with your office to discuss our assessment of any unresolved issues regarding U.S. participation in IEA so that you may determine which of these issues would be of the highest priority for the Subcommittee and could warrant further investigation.

As further agreed with your office, unless you publicly announce its contents earlier, we plan no further distribution of this correspondence until 10 days from the date of this letter. At that time, we will send copies to the National Economic Council and the National Security Council in the Executive Office of the President and the Departments of State, Energy, and the Treasury. We will also make copies available to others upon request.

If you have any questions, please contact me at (202) 512-3841.

Sincerely yours,

Victor S. Rezendes
Director, Energy and
Science Issues

ENCLOSURE I

U.S. PARTICIPATION IN THE INTERNATIONAL ENERGY AGENCY

BACKGROUND

The International Energy Agency (IEA), an organization of 23 oil-consuming industrialized nations,[1] was established under the 1974 Agreement on an International Energy Program (IEP) in the wake of the 1973-74 Arab oil embargo. The 1975 Energy Policy and Conservation Act (EPCA) provides for U.S. participation in IEA. Based in Paris, IEA is an autonomous agency within the framework of the Organization for Economic Cooperation and Development (OECD), an international organization developed after World War II as the primary forum for monitoring the economic trends of 24 free-market economies.[2]

When established in 1974, IEA was intended to (1) develop among its members, for use in an oil emergency, common levels of self-sufficiency in oil supplies and common measures to reduce the consumption of oil (demand restraint measures) and to share available oil; (2) develop and implement a long-term cooperation program to reduce dependence on imported oil; (3) develop a system of information on the international oil market and a framework for consultation with international oil companies; and (4) promote cooperative relations with oil-producing countries and other oil-consuming countries.

Although IEA's annual budget is part of OECD's budget, IEA's Governing Board, composed of delegates from each participating country, controls IEA's budget and overall operations. For fiscal year 1994, IEA's proposed budget was about $20 million. The United States contributes 25 percent of IEA's budget, or about $5 million for fiscal year 1994.

GAO WORK

GAO has issued a number of reports and has testified before the Congress several times on U.S. participation in IEA. Although we have identified various problems associated with the IEP, we

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[1]The 23 member countries of IEA are Australia, Austria, Belgium, Canada, Denmark, Finland, France, Germany, Greece, Ireland, Italy, Japan, Luxembourg, the Netherlands, New Zealand, Norway, Portugal, Spain, Sweden, Switzerland, Turkey, the United Kingdom, and the United States.

[2]OECD countries include the 23 member countries of IEA and Iceland.

have generally concluded that participation in IEA has benefited the United States.

U.S. Participation in IEA

In a 1978 report, we concluded that the United States should continue both to participate in IEA and to develop an effective national emergency oil-sharing organization and demand restraint programs, which are prescribed as part of the emergency oil-sharing system. We recommended that the Department of State and the Department of Energy (DOE), in consultation with other agencies, report to the Congress on initiatives for reducing U.S. reliance on foreign oil supplies, in part by exploring multilateral actions by consumer nations, and include an evaluation of IEA. The Department of the Treasury agreed that an evaluation of IEA would be timely and that the analysis should be developed by the Department of State and DOE in concert with the Office of Management and Budget. However, as discussed in the correspondence accompanying these enclosures, according to cognizant officials in the Executive Office of the President and in the relevant federal agencies, an evaluation of IEA or of U.S. participation in the agency has never been initiated.

On September 8, 1981, we issued a comprehensive report on U.S. participation in IEA. We stated that IEA had improved member countries' understanding of the oil market and of what needed to be done on an international and national level during a period of continuous uncertainty about oil supplies. We found, however, that several aspects of U.S. participation in IEA merited attention, as we discuss in later enclosures. We concluded that the success of IEA in a rapidly changing market environment depended greatly on the willingness of participating countries to support IEA's basic objectives of (1) sharing oil supplies in an emergency; (2) developing a comprehensive information system about the oil market; (3) establishing a long-term cooperation program emphasizing import controls, accelerated development, and the use of alternative fuels; and (4) improving relations between oil-consuming and oil-producing countries.

On September 29, 1981, we issued a two-volume report on U.S. preparedness for disruptions in oil imports. We concluded that much needed to be done to develop a more effective international energy emergency-preparedness program. We stated that IEA's multilateral emergency programs were characterized by various problems and were not strong enough to deal with a full range of disruptions and contingencies. We further stated that the United States had not effectively integrated its domestic and international contingency planning. We recommended that the Departments of Energy and State work within IEA to require that

member countries maintain usable emergency oil reserves equivalent to at least 90 days of net oil imports and consider requiring reserves of 120 days; develop better programs to cope with small but significant market disruptions; review the effectiveness of member countries' demand restraint, emergency oil reserve, and fair-sharing programs; upgrade or review the oil-sharing system's information system to resolve data discrepancies about oil flows; and establish a binding mechanism for reconciling the price of oil for emergency sharing. DOE and the Department of State agreed with our recommendations concerning oil stocks and the emergency oil data system and carried out actions to address these concerns. However, these agencies did not plan to implement any of our other recommendations concerning IEA and considered these matters to be closed.

In 1985, we assessed the status of U.S. participation in IEA's emergency oil-sharing system, as we discuss in more detail in enclosure II. We stated in this report that IEA had been the centerpiece of efforts by the United States to coordinate its international energy policy with the policies of other industrialized nations for more than a decade. We also concluded that IEA had provided an important vehicle for coordinating its members' national energy policies.

Reauthorization of Authorities for U.S. Participation in IEA

We have testified before the Congress on several occasions during hearings to reauthorize the authorities in EPCA that provide for U.S. participation in IEA. In October 1979, we found that U.S. participation in IEA had benefited the United States and that the United States had considerable informal influence within the organization. We also noted that although IEA was responsible overall for increasing cooperation among oil-consuming nations, it was primarily and most significantly responsible for allocating oil under emergency short-supply conditions. We concluded in this testimony that if IEA did not have this responsibility, practically all of its other responsibilities could be carried out within OECD's organizational setting.

In March 1984, we testified that cognizant U.S. officials had concluded that the United States benefited from its participation in IEA and that, in their view, the existence of the IEA system could dampen the rise of oil prices in an emergency. These U.S. officials also believed that IEA helped member countries enhance their energy policies and programs both unilaterally and collectively. In our 1985 report on U.S. participation in IEA's oil-sharing system, we urged the Congress to extend the authorities contained in EPCA that provide for U.S. participation in IEA, which

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were to expire on June 30, 1985. In May 1988, we again testified that we believed that the Congress should extend the authorities allowing U.S. participation in IEA, which were to expire on June 30, 1988, and that we had not identified any circumstances invalidating the original and continuing justification for U.S. participation. Authorities allowing U.S. participation in IEA are currently set to expire on September 30, 1994.

ENCLOSURE I

GAO PRODUCTS

Renewal of Authorities for U.S. Participation in the International Energy Program (GAO/T-NSIAD-88-32, May 17, 1988).

Status of U.S. Participation in the International Energy Agency's Emergency Sharing System (GAO/NSIAD-85-99, June 13, 1985).

U.S. Participation in the International Energy Agency (GAO testimony, 123766, Mar. 30, 1984).

Analysis of the Comprehensive Energy Emergency Response Procedures Report (GAO/RCED-83-106, Feb. 17, 1983).

The Changing Structure of the International Oil Market (GAO/ID-82-11, Aug. 11, 1982).

The Effects of the Fiscal Year 1983 Budget, Energy Reorganization, and Program Changes on U.S. Energy Emergency Preparedness (117782, Mar. 9, 1982).

The United States Remains Unprepared for Oil Import Disruptions (EMD-81-117, Sept. 29, 1981).

Unresolved Issues Remain Concerning U.S. Participation in the International Energy Agency (ID-81-38, Sept. 8, 1981).

U.S. Participation in the IEA (GAO testimony, 110531, Oct. 3, 1979).

The United States and International Energy Issues (EMD-78-105, Dec. 18, 1978).

More Attention Should Be Paid to Making the U.S. Less Vulnerable to Foreign Oil Price and Supply Decisions (EMD-78-24, Jan. 3, 1978).

See also the lists of GAO products at the end of enclosures II through X for discussions of specific aspects of U.S. participation in IEA.

EMERGENCY SHARING SYSTEM

BACKGROUND

The 1974 Agreement on an International Energy Program (IEP), which created IEA, provides for an emergency oil-sharing system. Countries that are members of IEA are to (1) maintain emergency reserves sufficient to sustain their consumption for at least 90 days with no net imports and (2) establish measures for reducing oil consumption and sharing oil during disruptions in the supply of oil. It is important that the oil-sharing system not be evaluated in isolation. The sharing system is an integral part of an international agreement that provides for oil demand restraint, the creation of emergency oil reserves, the equitable sharing of oil, and the exchange of information.

The oil-sharing system is designed to ensure that available supplies are equitably distributed among member countries during an oil emergency. Key parts of the system include an emergency management organization in each participating country and an emergency data system. The basic principle for allocating oil during an emergency is as follows: If oil supplies to all participants are reduced by at least 7 percent of the daily rate of oil consumption, each participant must reduce its oil consumption by 7 percent; if oil supplies to all participants are reduced by 12 percent or more, each participant must reduce its oil consumption by 10 percent. The remaining oil supplies are to be shared on the basis of a formula.

GAO WORK

GAO has issued many products since the late 1970s on the viability of IEA's Emergency Sharing System. Although IEA has resolved some of the concerns we have raised, we are still uncertain whether the oil-sharing system will successfully function in an emergency because the system has never been activated during an oil shock.

Use of Sharing System

In a December 1978 report that identified the major international energy issues facing the United States and other oil-consuming nations, we said that it was not certain that IEA member nations would permit the emergency sharing mechanism to come into operation in the event of a future oil supply shortfall. We further stated that each member government would have to make a political decision as to whether the likely benefits of implementing the system exceeded the probable costs.

We issued a series of reports on the cutoff of Iranian oil in 1979. In a March 1979 report on the energy and economic effects of this shortfall, we disclosed that although the disruption was significant, it was not serious enough to trigger IEA's Emergency Sharing System. Nevertheless, IEA member countries agreed that they would reduce their demand for oil on the world market by about 5 percent of member countries' consumption. Of the 19 U.S.-based oil companies from which we obtained data for a September 1979 report on the Iranian oil shortage, 6 companies--all of them large multinational companies--reported that they had allocated crude oil supplies during the shortfall to their domestic and foreign affiliates in a manner similar to that provided for under the IEP agreement, an allocation that resulted in a loss of crude oil to the United States.

In our May 1988 testimony on the renewal of authorities for U.S. participation in IEA, we stated our belief that the sharing system had made a genuine contribution to U.S. energy security and had considerable value as a standby emergency response mechanism. We noted, however, that the system had never been activated; therefore, its effectiveness was uncertain. We also stated that the sharing system was essentially useful as a short-term response mechanism. Our 1992 report on IEA's responses during the Persian Gulf Crisis noted that IEA had determined that the amount restricted under the embargo on oil exports from Iraq and Kuwait was less than the amount needed to trigger the oil-sharing system.

Potential for Sharing Oil With IEA Partners

An important question for the United States is whether it would be obligated to share oil with its IEA partners or would have a right to receive oil from them if the oil-sharing system were triggered during a disruption in oil supplies. The work that we did on this issue for several reports suggests that the U.S. obligation to share oil or the U.S. right to receive oil would depend on the nature of the disruption and on how consumers, oil companies, and governments of the various IEA countries responded to the situation.

Since the early 1980s, DOE has stated on a number of occasions that the United States would have a right to receive oil in most disruptions that would trigger the sharing system. However, in our 1985 report on U.S. participation in IEA's Emergency Sharing System, we expressed the view that in most disruptions that would trigger the sharing system, the United States would initially be obligated to share oil because, relative to most other IEA countries, the United States imported a small proportion of its

total oil supply. In addition, we stated that U.S. oil imports were generally from more diversified and secure sources.

According to our analysis in this 1985 report, a U.S. obligation to share oil after the initial phase of a disruption or subsequently would depend importantly on whether oil companies, suppliers, and consumers in the United States and other IEA countries engaged in substantial oil buying and stock building for security and speculative reasons. In our 1987 report on U.S. participation in a test of IEA's oil-sharing system, we concluded that whether the United States would be obligated to share oil or have a right to receive oil in a disruption similar to that postulated by the test would depend on several difficult-to-predict, interdependent factors. These factors included (1) how long the disruption was expected to last, (2) how quickly oil prices rose and consumers reduced consumption in the United States and in other IEA countries, (3) whether certain IEA countries used price controls to hold domestic prices of oil products below prices on the world oil market, and (4) whether the U.S. government could persuade oil companies to divert their supplies voluntarily to other countries if market forces did not sufficiently reduce U.S. demand.

We recognized, in our 1985 report, that a substantial drawdown of the U.S. Strategic Petroleum Reserve's (SPR) oil early in a disruption could significantly affect the outcome by, for example, averting panic oil buying and encouraging oil companies to divert supplies to IEA countries short of oil. However, we determined that the outcome would still depend on whether oil companies chose to build stocks or to divert some oil to IEA countries short of oil. As we noted in our 1993 report analyzing oil prices during the Persian Gulf Crisis, although the SPR could have been used unilaterally, the U.S. government had stated that it was committed to using the reserve only in cooperation with its IEA partners, as it did during the Gulf Crisis. As we stated in our 1985 report, it was not clear, however, whether other IEA countries would be willing to substantially draw down their emergency oil stocks early in a major oil disruption.

Workability of Sharing System

Several concerns have surfaced in our reports about certain elements of the oil-sharing system that could impede its workability. In particular, we have discussed the lack of consensus on how the price of oil was to be determined under the oil-sharing system. In a June 1979 report that looked at the factors influencing the optimal size of the SPR, we stated that although the United States maintained that the oil-sharing system would work, the program did not have a binding mechanism to settle

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price disputes among oil companies facing potential economic losses in allocating oil from countries with free-market prices to countries with price controls. In our 1981 review of U.S. participation in IEA, we found that the oil-sharing system was flawed and suffered from several problems--including the lack of a comprehensive mechanism for settling price disputes--all of which raised serious questions about the system's workability.

In 1982, we issued a report on determining the price of oil in the Emergency Sharing System. We found that IEA members agreed that oil prices would be determined within a market-oriented system in an oil emergency but disagreed about how this policy should be implemented. Underlying their disagreement was the concern of some IEA member countries--but not of the United States--that relying on market prices in an actual emergency would substantially raise their crude oil prices. In 1985, we assessed the status of U.S. participation in the Emergency Sharing System. We found that progress had been made in addressing the workability problems that we had reported in the early 1980s. For example, members had agreed on a flexible standard for pricing oil shared during an emergency, thereby increasing the likelihood of oil companies' participation. However, some problems continued to exist. For example, questions still remained about how to resolve price disputes that might arise in using the oil-sharing system.

In our May 1988 testimony on U.S. participation in IEA, we also reported that under IEP, the price for oil allocated under the Emergency Sharing System would be based on conditions prevailing for comparable commercial transactions. We believed that most, if not all, companies selling allocated oil would seek prevailing market prices, or "spot" prices, for their oil. Although we thought that most of the oil that IEA would allocate would probably be exchanged without a price dispute requiring IEA's involvement, we again pointed out that IEA still did not have a mechanism for resolving any potential disputes in a timely and effective manner.

GAO PRODUCTS

Renewal of Authorities for U.S. Participation in the International Energy Program (GAO/T-NSIAD-88-32, May 17, 1988).

International Energy Agency: Assessment of U.S. Participation in the Fifth Allocation System Test (GAO/NSIAD-87-159BR, May 29, 1987).

Status of U.S. Participation in the International Energy Agency's Emergency Sharing System (GAO/NSIAD-85-99, June 13, 1985).

U.S. Participation in the International Energy Agency (GAO testimony, 123766, Mar. 30, 1984).

Analysis of Justice Memorandum on President's Statutory Authorities in Oil Crises (OGC-83-6, Mar. 4, 1983).

Analysis of the Comprehensive Energy Emergency Response Procedures Report (GAO/RCED-83-106, Feb. 17, 1983).

Determination of Oil Price in the International Emergency Sharing System--An Unresolved Issue (GAO/ID-83-15, Nov. 12, 1982).

The Changing Structure of the International Oil Market (GAO/ID-82-11, Aug. 11, 1982).

U.S. Government Authority to Institute Oil Demand Restraints (B-206525, Apr. 6, 1982).

The Effects of the Fiscal Year 1983 Budget, Energy Reorganization, and Program Changes on U.S. Energy Emergency Preparedness (EMD-82-45, Mar. 9, 1982).

The United States Remains Unprepared for Oil Import Disruptions (EMD-81-117, Sept. 29, 1981).

Unresolved Issues Remain Concerning U.S. Participation in the International Energy Agency (ID-81-38, Sept. 8, 1981).

U.S. Participation in the IEA (GAO testimony, 110531, Oct. 3, 1979).

Iranian Oil Cutoff: Reduced Petroleum Supplies and Inadequate U.S. Government Response (EMD-79-97, Sept. 13, 1979).

Evaluation of Federal Actions in Response to the Iranian Oil Situation (EMD-79-88, Aug. 27, 1979).

Factors Influencing the Size of the U.S. Strategic Petroleum Reserve (ID-79-8, June 15, 1979).

Analysis of the Energy and Economic Effects of the Iranian Oil Shortfall (EMD-79-38, Mar. 5, 1979).

The United States and International Energy Issues (EMD-78-105, Dec. 18, 1978).

More Attention Should Be Paid to Making the U.S. Less Vulnerable to Foreign Oil Price and Supply Decisions (EMD-78-24, Jan. 3, 1978).

ENCLOSURE III

TESTS OF EMERGENCY SHARING SYSTEM

BACKGROUND

To enhance the readiness and efficiency of IEA's Emergency Sharing System, certain operational features of the system are tested periodically during IEA's Allocation System Tests (AST). To date, the system has been tested seven times.

GAO WORK

We have evaluated U.S. participation in several tests of IEA's oil sharing system. The first test of this system in 1976 was intended primarily to (1) assess certain aspects of its data system's procedures and rules relating to allocation and (2) evaluate the proposed emergency management organization with respect to the roles of IEA's Industry Supply Advisory Group, Secretariat, and Allocation Coordinator. In our 1979 report on the factors influencing the size of the U.S. Strategic Petroleum Reserve, we found that the first test of the sharing system, held in 1976, was generally successful. However, we believed that the test was not fully realistic because the national emergency-sharing organizations from each participating country--groups established to ensure that national needs are met within the terms of the International Energy Program--were not included. The need for participating oil companies to fairly share the burden imposed by allocation, discussed in enclosure IV, was identified as a serious potential problem during this test.

We also reported that IEA considered the second test of the sharing system, in 1978, an overall success. But this test did not address the prices to be received for oil transferred between companies--noted to be a critical factor in voluntary compliance by the oil industry. We address pricing issues in more detail in enclosure II.

We delivered testimony and issued a report on U.S. participation in IEA's fourth Allocation System Test (AST-4), which was held in 1983. We assessed the results of the fourth test to determine how well prepared the United States would be to meet its emergency oil-sharing obligations under the IEA agreement and what problems could be anticipated if the sharing system were activated in a crisis. In our September 1983 testimony and October 1983 report, we concluded that AST-4 provided useful training to government, industry, and IEA personnel. Yet we found that U.S. participation in the test was marked by inadequate preparation, lack of coordination, and failure to resolve disagreement on important test-related issues. Concerns cited by other major IEA participants included the lack of pricing in the test of the

process that participating oil companies can undertake to voluntarily offer oil during an emergency, the exclusive reliance of the United States on oil price increases to restrain demand, and the absence of a U.S. fair-sharing program. These assessments of the test focused attention on the importance of compatible national emergency systems to the successful operation of IEA's entire Emergency Sharing System.

In addition, DOE made several assumptions and decisions during the 1983 test that may have unduly reduced the U.S. obligation to supply oil and may have inclined companies to make much larger voluntary offers for testing purposes than they would have made in a real emergency. DOE's actions raised questions at the time about how seriously the United States viewed the sharing system.

We also reviewed U.S. participation in IEA's fifth Allocation System Test (AST-5), conducted in 1985. In our May 1987 report, we found that the United States had successfully advocated that the sole purpose of AST-5 would be to train participants in essential international procedures and in the mechanical aspects of the system. We noted that the U.S. decision to oppose policy and program reviews during this test of the system was, in part, a reaction to IEA criticism of the U.S. performance of simulated activities in AST-4, as we discuss above. In addition, the U.S. administration was concerned that any controversy in AST-5 might hurt the U.S. initiative to persuade other IEA countries to put more emphasis on building and less on allocating oil stocks as methods for coping with disruptions in oil supplies. The United States also persuaded IEA to realistically report its data-reporting capabilities for the first time. We concluded that AST-5 was considered a success and that nearly all participants had concluded that the test met its training objective. However, large, unexplained discrepancies remained in the supply data submitted by the individual trading partners. The United States had required its oil companies to "volunteer" an enormous volume of oil for redistribution. This action simplified IEA's reallocation task but did not accurately represent the conditions that would exist in an emergency.

ENCLOSURE III

GAO PRODUCTS

International Energy Agency: Assessment of U.S. Participation in the Fifth Allocation System Test (GAO/NSIAD-87-159BR, May 29, 1987).

U.S. Participation in the International Energy Agency (GAO testimony, 123766, Mar. 30, 1984).

Assessment of U.S. Participation in the International Energy Agency's Fourth Test of Its Emergency Sharing Allocation System (GAO/NSIAD-84-4, Oct. 13, 1984).

U.S. Participation in the International Energy Agency's Fourth Emergency Sharing System Test (GAO testimony, 122384, Sept. 22, 1983).

Factors Influencing the Size of the U.S. Strategic Petroleum Reserve (ID-79-8, June 15, 1979).

U.S. Oil Companies' Involvement in the International Energy Program (HRD-77-154, Oct. 21, 1977).

U.S. OIL COMPANIES' PARTICIPATION IN EMERGENCY SHARING SYSTEM: FAIR SHARING

BACKGROUND

To increase the likelihood that member countries can satisfy obligations to share oil during a severe oil emergency without government intervention, IEA has long held that its member countries should establish a fair-sharing program to ensure that the burden of oil sharing is borne proportionately by all oil companies that voluntarily participate in IEA. When IEA was created, the international oil companies indicated that they would not volunteer oil supplies to the IEA system unless they were assured that the burden would be shared fairly with their domestic competitors.

When the United States joined IEA in 1975, fair sharing was to be carried out under the broader system for allocating domestic crude oil then in place. In 1981, the United States eliminated its oil allocation system and lifted its controls on the price of oil. At that time, the oil industry generally believed that a limited standby program for emergency oil distribution should be available for use in severe emergencies. The industry considered such a program necessary if international companies were to be encouraged to voluntarily share oil supplies during an emergency. DOE then informed the Congress that it planned to develop a contingency plan for activating a limited crude oil fair-sharing system should the President deem such a system necessary to meet IEA obligations during a crisis. However, for reasons discussed below, the United States never developed a domestic fair-sharing system.

GAO WORK

In many of our reports on IEA, we have cautioned that IEA's international oil allocation may not work or work well in a severe oil emergency if the United States does not have a fair-sharing system. We have also questioned whether the President has clear legal authority to ensure fair sharing by U.S. oil companies that participate in IEA.

Need for Fair-Sharing Program

In an April 1982 report on the U.S. government's authority to institute mechanisms for oil demand restraint and fair sharing of oil in the United States during an emergency, we argued that it was doubtful that the oil-sharing system would work without a fair-sharing system within the United States. We further reported that the designers of the sharing system, by building oil company voluntarism into the system, hoped to obviate the need for

governments to duplicate the resources of the international oil companies as well as minimize government intervention in the private international petroleum market. We concluded that the absence of effective fair-sharing programs would conflict with these objectives and would tend to undermine the whole oil-sharing system. We believed that a fair-sharing system among companies operating within the United States was particularly crucial to the system because five of the seven largest international oil companies at the time and many of the oil companies participating in IEA were U.S. companies. If these U.S. companies did not actively volunteer and participate in the implementation of the sharing system, we believed that the voluntary aspect of the system would likely collapse.

In our reviews of U.S. participation in the fourth test of the oil-sharing system, contained in testimony and a report issued in September 1983 and October 1983, we found that when the test got under way in 1983, DOE had still not established a fair-sharing program. We reported that DOE had assumed during this test that its market-based approach to energy emergencies might preclude the need for a fair-sharing program or that other options, such as drawing down the U.S. Strategic Petroleum Reserve (SPR), could be relied upon if that assumption proved false. We did not agree with DOE's conclusions and believed that this test indicated that a fair-sharing system would probably be required to secure substantial voluntary offers from reporting companies. In fact, most of the major U.S. oil companies we interviewed for our report said that they would not volunteer oil supplies to IEA's Emergency Sharing System unless some form of fair-sharing program existed to ensure that the burden would be shared equitably with their domestic competitors.

In a February 1985 report containing the results of a survey of U.S. oil companies' views on fair sharing, we found that a majority of the companies believed that the government should assume or be prepared to assume a role in ensuring that voluntary oil sharing did not impose an unfair burden on participating companies; however, the companies did not support the establishment of a domestic fair-sharing program to meet this objective. Many companies indicated that the following factors influenced their current views: (1) the growing size of the SPR and the administration's policy to sell oil from the reserve in large amounts early in a crisis, (2) the administration's reliance on a market approach to determine the distribution of supplies during an emergency, and (3) the probability that oil allocated among IEA countries during an emergency would be priced according to comparable commercial transactions. In our 1992 report on IEA's actions during the Gulf Crisis, we found that DOE had subsequently

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solicited industry proposals for developing a fair-sharing program but had received negligible responses.

In our June 1985 report assessing U.S. participation in IEA's Emergency Sharing System, as well as in our 1987 evaluation of the fifth test of the oil-sharing system, held in 1985, we discussed the U.S. position on fair sharing. We noted that in 1984, the Secretary of Energy told the Congress that he did not think a fair-sharing program was needed because, in his view, the United States was not likely to incur an IEA allocation obligation. However, if it should do so, he felt that oil companies would voluntarily provide enough oil to meet any U.S. obligations to IEA. In our 1985 report, we described several reasons offered by the Secretary of Energy to explain why U.S. oil companies were likely to volunteer enough oil if the need arose. Some of these reasons were related to the availability of SPR oil and the ability of companies to purchase replacement oil in the spot market.

In our 1985 report, we noted several weaknesses in DOE's fair-sharing rationale. For example, the U.S. administration had not guaranteed that the SPR oil would be drawn down when voluntary offers were needed, and oil could be replaced on the spot market only if sufficient quantities were available for sale. We also pointed out that many U.S. oil companies that did not regularly participate in IEA and that account for a substantial proportion of U.S. oil production might not make voluntary offers. The reluctance of these companies to participate could, in turn, affect the willingness of other companies to make such offers.

In our 1992 report, we stated that the U.S. position on fair sharing had not changed since early 1984. The United States did not believe that it needed a fair-sharing program and had advised IEA that it would encourage its oil companies to voluntarily share their oil with other IEA countries. This report also stated that in November 1990, the Secretary of Energy had told the Congress that if the Emergency Sharing System were triggered, the United States would ordinarily have a right to receive oil rather than an obligation to share oil, as we discuss in enclosure II. Therefore, the Secretary concluded that fair sharing would not be an issue. For this 1992 report, we surveyed eight major U.S. oil-refining companies and found that four companies believed that a domestic fair-sharing program was needed, three did not, and one had no opinion.

Legal Authority to Impose a Fair-Sharing Program

Several of our reports and testimonies on IEA have analyzed the legal authority of the President to institute a fair-sharing program in the United States. Our April 1982 report found that the fair sharing of oil was not an explicit legal requirement of the International Energy Program (IEP) but was set forth as an objective of the program when the oil-sharing system is used.

In a March 1983 letter to the Congress, we interpreted a Department of Justice memorandum on the legal authorities available to the President to respond to an oil crisis. We found that section 251 of the Energy Policy and Conservation Act (EPCA) authorized the President to order the international allocation of petroleum products by companies participating in the IEP after IEA's oil-sharing system had been activated. The Departments of Justice and Energy contended, however, that section 251 of EPCA also provided authority for limited domestic allocation of petroleum to facilitate voluntary industry participation in the international allocation system by ensuring "fair sharing" of the allocation burden among participating oil companies. We reported that there was considerable opposition within the oil industry to the use of this section of EPCA as authority for any fair-sharing program and that litigation would probably result if this section of EPCA were used for this purpose. We reiterated these concerns during our May 1988 testimony on IEA and concluded that it was still questionable whether EPCA authorized the development of a fair-sharing or a limited-allocation system in the United States. We suggested that the Congress clarify this authority.

GAO PRODUCTS

International Energy Agency: Response to the Oil Supply Disruption Caused by the Persian Gulf Crisis (GAO/NSIAD-92-93, Jan. 21, 1992).

Renewal of Authorities for U.S. Participation in the International Energy Program (GAO-T-NSIAD-88-32, May 17, 1988).

International Energy Agency: Assessment of U.S. Participation in the Fifth Allocation System Test (GAO/NSIAD-87-159BR, May 29, 1987).

Status of U.S. Participation in the International Energy Agency's Emergency Sharing System (GAO/NSIAD-85-99, June 13, 1985).

Survey of Oil Company Views on Fair Sharing in an International Oil Supply Disruption (NSIAD-85-45, Feb. 5, 1985).

Assessment of U.S. Participation in the International Energy Agency's Fourth Test of Its Emergency Sharing Allocation System (GAO/NSIAD-84-4, Oct. 13, 1984).

U.S. Participation in the International Energy Agency (GAO testimony, 123766, Mar. 30, 1984).

U.S. Participation in the International Energy Agency's Fourth Emergency Sharing System Test (GAO testimony, 122384, Sept. 22, 1983).

Analysis of Justice Memorandum on President's Statutory Authorities in Oil Crises (OGC-83-6, Mar. 4, 1983).

U.S. Government Authority to Institute Oil Demand Restraints (B-206525, Apr. 6, 1982).

The Effects of the Fiscal Year 1983 Budget, Energy Reorganization, and Program Changes on U.S. Energy Emergency Preparedness (EMD-82-45, Mar. 9, 1982).

The United States Remains Unprepared for Oil Import Disruptions (EMD-81-117, Sept. 29, 1981).

Factors Influencing the Size of the U.S. Strategic Petroleum Reserve (ID-79-8, June 15, 1979).

U.S. OIL COMPANIES' PARTICIPATION IN EMERGENCY SHARING SYSTEM: ANTITRUST MONITORING

BACKGROUND

The U.S. government and IEA consider the voluntary participation of U.S. oil companies as vital to the successful operation of IEA's oil-sharing system. However, participation could have anticompetitive consequences and, under U.S. antitrust laws, could result in suits against U.S. companies.

To obtain and authorize oil companies' assistance in carrying out U.S. obligations under the International Energy Program (IEP), the 1975 Energy Policy and Conservation Act (EPCA) authorized the development and implementation of a voluntary agreement. This agreement, administered by DOE, sets forth the circumstances under which industry can participate in IEA activities and provides participating oil companies with defenses against antitrust suits for actions they take to carry out the agreement. Although DOE administers the agreement and the State Department has related responsibilities, the Department of Justice (Justice) and the Federal Trade Commission (FTC) are primarily responsible for monitoring the participation of U.S. oil companies in IEA for antitrust purposes.

GAO WORK

Over the years, we have identified several administrative and other problems with the government's monitoring of U.S. oil companies' activities in IEA. In a 1977 report, we studied the role of FTC and Justice in monitoring oil companies' activities under the IEP. During the 1976 test of the Emergency Sharing System, we determined that future problems with the U.S. government's monitoring of the system were (1) the potential anticompetitive impact of exchanges of confidential and proprietary data; (2) the need to clarify the roles of FTC, Justice, DOE, and the State Department in monitoring the tests and other oil company activities in IEP; and (3) burdensome federal record-keeping requirements. We found that all these potential problems could affect the ability of FTC and Justice to monitor U.S. oil companies' participation in the IEP to minimize anticompetitive effects. We recommended that the Congress consider the anticompetitive impact of exchanging confidential and proprietary data and clarify the monitoring responsibilities of FTC and Justice.

In our October 1979 testimony and in our 1981 report on U.S. participation in IEA, we reviewed the antitrust safeguards provided to the U.S. oil companies that participated in IEA. We testified

that the U.S. oil companies generally perceived their participation in IEA as beneficial to their own interests because they saw IEA, in the event of an emergency short-supply allocation, as responsible for the multilateral allocation of oil supplies among IEA member countries.

However, we identified concerns associated with the antitrust safeguards. First, there were uncertainties because there was no U.S. plan of action detailing the actions that U.S. oil companies could take when helping IEA plan for supply disruptions and when participating in IEA's information and emergency oil-sharing systems. We determined that the U.S. plan of action, which had not been completed, would provide rules more appropriate for an international energy emergency than the existing voluntary agreement with the oil companies. Second, we found that substantial portions of the public transcripts of the meetings of IEA's oil industry advisory boards were classified, regardless of their content, and were therefore unavailable to the public. U.S. oil companies are authorized to participate in IEA's advisory bodies as long as a full and complete record is kept of these meetings. There were also substantial delays in making the unclassified portions of the transcripts available to the public. Third, certain oil companies advised us that they did not always receive timely clearances from the U.S. government before meetings of IEA's Industry Advisory Board or other meetings. Without these clearances, U.S. oil companies could not participate and meetings could not be held.

In our 1981 report, we also noted that antitrust considerations had increasingly intruded upon the energy and foreign policy objectives of U.S. representation in IEA. We found that foreign governments and oil companies had reacted negatively to the extension of U.S. antitrust law into a multilateral organization. Moreover, some uncertainties existed over whether the antitrust procedures prevented all anticompetitive impacts. We concluded, nevertheless, that the existing antitrust system, accompanied by strict monitoring of oil companies' activities, appeared far preferable to unilateral oil company allocation decisions and that the antitrust provisions should not be fundamentally changed.

In a 1988 report, we provided additional information on efforts that were being made during the drafting of a second plan of action to expand antitrust and breach-of-contract defenses to protect U.S. oil companies from possible legal suits for participating in IEA's Emergency Sharing System and to remove foreign statutes blocking information critical to the U.S. government's antitrust review of oil transactions with foreign affiliates of U.S. oil companies. In this report, we found that

oil companies, relevant government agencies, and IEA had eventually agreed to a second plan of action that would allow companies to engage in certain types of supply transactions during a crisis. Under the second plan, companies would also have to persuade foreign countries to remove their foreign blocking statutes, which prohibit the companies from providing information on their foreign affiliates.

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GAO PRODUCTS

International Energy Agency: Plan to Provide Legal Defenses to Participating U.S. Oil Companies (GAO/NSIAD-88-89BR, Feb. 8, 1988).

Status of U.S. Participation in the International Energy Agency's Emergency Sharing System (GAO/NSIAD-85-99, June 13, 1985).

U.S. Participation in the International Energy Agency (GAO testimony, 123766, Mar. 30, 1984).

Unresolved Issues Remain Concerning U.S. Participation in the International Energy Agency (ID-81-38, Sept. 8, 1981).

U.S. Participation in the IEA (GAO testimony, 110531, Oct. 3, 1979).

U.S. Oil Companies' Involvement in the International Energy Program (HRD-77-154, Oct. 21, 1977).

ENCLOSURE VI

DEMAND RESTRAINT

BACKGROUND

The International Energy Program's (IEP) system for dealing with disruptions in the supply of oil is based on the understanding that, in addition to an emergency oil-sharing system and emergency oil stocks, participating countries will have ready a program of oil demand restraint measures that will enable each country to reduce oil consumption by at least 7 percent and as much as 10 percent, depending on the size of the disruption.

To meet their commitment to IEA to restrain oil demand, member countries can use a wide range of approaches, including voluntary and mandatory actions. A country can also rely on market forces to increase oil prices and reduce demand. In addition, countries can draw from oil stocks held in excess of the 90-day reserve required by IEA rather than reduce oil consumption.

GAO WORK

We have issued a number of reports critical of the United States' reluctance to develop a domestic demand restraint program. At the same time, we have questioned whether the demand restraint measures of other countries can be counted on to work effectively in a disruption. We also found problems in comparing the cost-effectiveness of demand restraint measures with that of establishing additional emergency oil stocks to be used in lieu of demand restraint measures.

We noted, in a 1978 report, that the United States had not yet completed its demand restraint program, a fact that had caused some concern among IEA members and had been the subject of several IEA meetings. Under the IEP, crude oil held in the Strategic Petroleum Reserve (SPR) can be used instead of demand restraint, but the reserve program was still in its infancy at that time and could not be considered a feasible substitute.

In our March 1979 report on the Iranian oil shortfall, we noted that IEA members had agreed to reduce consumption voluntarily by up to 5 percent during the Iranian cutoff. We pointed out that there was a direct connection between demand restraint in the United States and world oil prices, since the United States purchased about 25 percent of the world's internationally traded oil. We concluded that an effective program of demand restraint would have gone a long way to creating the slack in the world oil market that would have lowered the rate of increases in oil prices during the Iranian cutoff. We further questioned whether DOE's

existing programs to reduce the shortfall would be effective in the short run.

As a part of our evaluation of the federal response to the Iranian oil cutoff, we again discussed, in an August 1979 report, the commitment of the United States and other IEA members to reduce petroleum consumption by up to 5 percent. To achieve this IEA commitment, the United States developed an Iranian Response Plan that included measures to increase domestic petroleum production, switch from petroleum to other fuels, and reduce petroleum use through voluntary conservation measures. We reviewed these measures to determine whether they could reasonably be expected to achieve the desired reduction in consumption within the stated time frames. The United States had agreed to reduce its consumption of oil imports by up to 1 million barrels a day (mmbd) by the end of 1979. While DOE had stated that the 1-mmbd reduction goal had already been met, we determined that the reduction was due mainly to shortages rather than to the response plan. We concluded that the response plan had not had much effect on reducing the need for U.S. imports and rebuilding certain petroleum stocks and that its uncertain success did not speak well for the probable success of future voluntary sharing agreements among oil-consuming nations.

In our 1981 report on U.S. preparedness for disruptions in oil imports, we stated that IEA member countries did not lower their consumption by 5 percent during the 1979 disruption, a fact that raised serious questions about the adequacy of their demand restraint programs. We argued that U.S. planning for demand restraint needed a complete overhaul. We also believed that the IEA countries needed to reexamine their commitment to the demand restraint component of the sharing system and decide whether they wanted it. We recognized that demand restraint programs had significant economic costs and imposed personal sacrifices but that building up emergency oil stocks was also costly. Hence, we believed demand restraint measures were needed.

As discussed in enclosure IV, in an April 1982 report, we examined whether IEP required the U.S. government to have the authority to institute mechanisms--other than price--both for domestic demand restraint and fair sharing. With respect to demand restraint, the IEP and its supplemental Emergency Management Manual require the United States to have a program of oil demand restraint to be achieved within 21 days of a declaration of an emergency. We concluded that this short time frame virtually demanded that the instruments for implementing petroleum demand restraint be available on a standby basis in the event of an emergency. Although IEP's demand restraint provisions are couched in mandatory terms, we determined that the failure of a participating country to implement effective oil demand restraint measures would have, as a

practical matter, no impact on its allocation rights in the event of an emergency.

In our 1985 report on the status of U.S. participation in IEA's Emergency Sharing System, we stated that, to meet their demand restraint commitment to IEA, member countries used a number of approaches, including relying on market forces to increase prices and reduce demand. IEA had not prescribed the extent to which member countries should rely on each approach; however, many IEA countries had indicated that relying solely on market forces was inappropriate. We reported that other IEA members had become more confident in the ability and willingness of the United States to meet its commitments when the United States announced in 1984 that it would not rely solely on higher prices to achieve demand restraint but would generally supplement its free-market approach by drawing down oil from the SPR early in a severe disruption.

In our May 1988 testimony on the renewal of authorities for U.S. participation in IEA, we testified that drawing down emergency stocks and reducing oil consumption through demand restraint were the most important measures that IEA member countries could take to limit excessive price increases during short-term disruptions.

In a 1989 report, we examined IEA members' demand restraint measures and their effectiveness during oil supply disruptions. A large majority of IEA members indicated that they would rely on demand restraint as their principal response to an oil supply disruption. However, IEA noted that this situation was changing, and that many IEA members had contemplated using a mix of withdrawals from reserve stocks and demand restraint measures in responding to an oil supply disruption. The primary U.S. approach to restraining demand was to rely on market forces to raise oil prices enough to reduce oil consumption. This approach was to be supplemented by rapidly drawing down large amounts of SPR oil early in a crisis--as a partial substitute for demand restraint. We concluded that uncertainties remained concerning (1) the extent to which reductions would be achieved through demand restraint measures rather than through price increases, (2) the time it would take for the various restraint measures to become fully operational, and (3) the relative cost-effectiveness of using emergency stocks or implementing demand restraint measures.

In our 1992 report discussing IEA's response during the Persian Gulf Crisis, we found that the United States relied primarily on market forces to restrain demand during the crisis and used the SPR as a partial supplement.

ENCLOSURE VI

GAO PRODUCTS

International Energy Agency: Response to the Oil Supply Disruption Caused by the Persian Gulf Crisis (GAO/NSIAD-92-93, Jan. 21, 1992).

International Energy Agency: Effectiveness of Members' Oil Stocks and Demand Restraint Measures (GAO/NSIAD-89-42, Feb. 6, 1989).

Renewal of Authorities for U.S. Participation in the International Energy Program (GAO-T-NSIAD-88-32, May 17, 1988).

International Energy Agency: Assessment of U.S. Participation in the Fifth Allocation System Test (GAO/NSIAD-87-159BR, May 29, 1987).

Status of U.S. Participation in the International Energy Agency's Emergency Sharing System (GAO/NSIAD-85-99, June 13, 1985).

Analysis of Justice Memorandum on President's Statutory Authorities in Oil Crises (OGC-83-6, Mar. 4, 1983).

U.S. Government Authority to Institute Oil Demand Restraints (B-206525, Apr. 6, 1982).

The Effects of the Fiscal Year 1983 Budget, Energy Reorganization, and Program Changes on U.S. Energy Emergency Preparedness (EMD-82-45, Mar. 9, 1982).

The United States Remains Unprepared for Oil Import Disruptions (EMD-81-117, Sept. 29, 1981).

Unresolved Issues Remain Concerning U.S. Participation in the International Energy Agency (ID-81-38, Sept. 8, 1981).

Iranian Oil Cutoff: Reduced Petroleum Supplies and Inadequate U.S. Government Response (EMD-79-97, Sept. 13, 1979).

Evaluation of Federal Actions in Response to the Iranian Oil Situation (EMD-79-88, Aug. 27, 1979).

Factors Influencing the Size of the U.S. Strategic Petroleum Reserve (ID-79-8, June 15, 1979).

Analysis of the Energy and Economic Effects of the Iranian Oil Shortfall (EMD-79-38, Mar. 5, 1979).

More Attention Should Be Paid to Making the U.S. Less Vulnerable to Foreign Oil Price and Supply Decisions (EMD-78-24, Jan. 3, 1978).

EMERGENCY OIL STOCKS

BACKGROUND

Countries participating in the International Energy Program (IEP) agree to have emergency reserves equal to at least 90 days' worth of net oil imports. In computing emergency reserves, IEA permits member countries to include oil stocks held by oil companies, large consumers, and governments. The emergency reserve commitment may also be satisfied by an ability to switch fuels or implement standby oil production.

The United States meets its IEP emergency reserve commitment solely by reporting oil-industry stocks. DOE officials have argued that the U.S. Strategic Petroleum Reserve (SPR) is a domestic program that does not increase U.S. oil-sharing obligations or reserve commitments under the IEP and that no oil from the SPR will ever leave the United States during an oil supply emergency.

GAO WORK

IEA's Definition of Emergency Reserves

In many reports, we have criticized IEA's definition of emergency reserves, which we consider to be misleading. We have questioned whether the emergency reserves reported to IEA by its member countries represent a realistic assessment of stocks that would be available for use during an oil supply disruption. As early as 1978, we reported that the United States had maintained that a significant proportion of stocks of crude oil held by U.S. oil companies were required just to keep their distribution systems functioning and should not be classified as reserves even though these stocks met IEA's definition of emergency reserves. In our 1979 report on the factors influencing the optimal size of the SPR, as well as in our 1981 report on U.S. participation in IEA, we further criticized IEA's inadequate definition of emergency reserve stocks, which resulted in overstatements of available reserves. Although the United States had attempted within IEA to revise the definition of reserves to be more stringent, other countries had objected because of the high cost of increasing real reserves, among other issues.

In an August 1982 report describing structural changes in the oil market, we again discussed whether IEA's definition of emergency stocks was realistic. DOE, U.S. oil companies, and some IEA officials believed that the definition was too broad and that working stocks held by industry and large consumers did not reflect real reserves that could be used in an emergency. Officials from several oil companies we had contacted contended that none of their

stocks were available or set aside for IEA's purposes. They said they had assumed that the SPR was meant to meet U.S. obligations under the IEP.

90-Day Reserve Commitment

We have also discussed, in a number of reports, whether all IEA members were meeting their reserve commitment. We noted, in our 1979 report on the SPR, that the United States satisfied its IEA 90-day reserve requirement entirely with industry-owned stocks, but did not require the U.S. petroleum industry to maintain excess inventories.

Our 1979 report also revealed that the United States' 1-billion barrel strategic reserve--a goal established in 1975 under the Energy Policy and Conservation Act--was disproportionately larger than any other IEA member's reserve. In addition, of the 20 countries that were members of IEA at the time, only 5 were building government-owned reserves. Germany and Japan held the largest reserves outside of the United States, but their reserves were proportionally much smaller than the U.S. SPR. We stated that industry was not required to be involved in the U.S. strategic reserve program, as it was in other countries' programs. We believed that the German and Japanese programs, which required industry and consumers to share the costs of their reserves, warranted consideration by the United States.

In our 1985 report assessing the status of U.S. participation in IEA's Emergency Sharing System, we noted that several IEA members had not met the 90-day oil reserve requirement for 2 years or longer. However, most had reserves equivalent to more than 90 days, and, in the aggregate, IEA oil stocks well exceeded the 90-day requirement. We nevertheless remained concerned that the actual volume of emergency oil reserves readily available in an emergency was not clear because IEA's definition of emergency reserves included industry oil stocks that were needed to maintain normal operations and varied widely across companies and countries. In addition, it was not clear whether some IEA members had sufficient control of the oil stocks in their countries to use the oil in an emergency.

In 1989, we examined IEA members' compliance with the 90-day reserve requirement. We found that although most of the member countries technically complied with the 90-day oil stock requirement, many lacked accessible emergency oil stocks equivalent to 90 days' net imports. We pointed out that the oil stocks IEA counted to determine compliance included a substantial portion of oil companies' minimum operating inventories, which would normally not be available for consumption. We also noted that many member

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countries commingled mandatory emergency stocks with their commercial inventories. We concluded that emergency oil stocks could not be counted on for effective use if member countries' governments did not exercise adequate control over them, through legal authority and standby and tested mechanisms and procedures for drawing them down.

GAO PRODUCTS

Energy Security and Policy: Analysis of the Pricing of Crude Oil and Petroleum Products (GAO/RCED-93-17, Mar. 19, 1993).

International Energy Agency: Response to the Oil Supply Disruption Caused by the Persian Gulf Crisis (GAO/NSIAD-92-93, Jan. 21, 1992).

International Energy Agency: Effectiveness of Members' Oil Stocks and Demand Restraint Measures (GAO/NSIAD-89-42, Feb. 6, 1989).

Renewal of Authorities for U.S. Participation in the International Energy Program (GAO-T-NSIAD-88-32, May 17, 1988).

Status of U.S. Participation in the International Energy Agency's Emergency Sharing System (GAO/NSIAD-85-99, June 13, 1985).

The Changing Structure of the International Oil Market (GAO/ID-82-11, Aug. 11, 1982).

Unresolved Issues Remain Concerning U.S. Participation in the International Energy Agency (ID-81-38, Sept. 8, 1981).

Factors Influencing the Size of the Strategic Petroleum Reserve (ID-79-8, June 15, 1979).

More Attention Should Be Paid to Making the U.S. Less Vulnerable to Foreign Oil Price and Supply Decisions (EMD-78-24, Jan. 3, 1978).

COORDINATED EMERGENCY RESPONSE MEASURES

BACKGROUND

IEA's Emergency Sharing System does not cover disruptions that reduce world oil supplies by less than 7 percent. However, because smaller disruptions can cause considerable damage to the economy, IEA members agreed in 1984 to develop a coordinated response to any disruption that they determine threatens to cause severe economic harm. These actions could include drawing down members' emergency oil stocks in excess of the 90-day supply minimum early in the disruption, or comparable actions, such as implementing demand restraint measures or switching to alternative fuels.

GAO WORK

We have issued only a few reports on IEA's development of coordinated responses to supply disruptions, since this approach, which is best illustrated by IEA's actions during the 1990-91 Persian Gulf Crisis, is relatively recent. In our August 1982 report, we discussed IEA's system for handling disruptions that create less than a 7-percent shortfall. We noted that the U.S. government did not support a mandatory informal subcrisis allocation of oil supplies; it favored a reactive and ad hoc approach over developed standby measures and planned to rely on market forces to mitigate the effect of small disruptions. However, IEA defended the need for a planned, multilateral standby response to minor crises. Many private energy consultants, IEA members, and U.S. oil industry officials agreed that advance planning was essential.

We told the Congress, in a March 1984 testimony, that following the fourth test of the Emergency Sharing System (AST-4) in 1983, the executive branch had begun to restudy U.S. international emergency preparedness. U.S. officials had advised IEA that the United States intended to rely principally on market forces during a major supply interruption and draw down the U.S. Strategic Petroleum Reserve (SPR) early and in large amounts as (1) a partial substitute for restraining demand, as required under the International Energy Program; (2) a possible means of meeting U.S. overseas supply obligations under IEA; (3) a way of reducing the need for a fair-sharing program; (4) a means of dampening price escalation in an emergency; and (5) a source of supply for priority domestic customers.

In our May 1988 testimony on U.S. participation in IEA, we stated that if the United States decided to draw down the SPR during an emergency, we believed that it should encourage other IEA members to live up to their IEA commitments. However, if the

United States drew down the SPR, other countries would not necessarily, in our view, also have to draw down emergency oil stocks to make a fair contribution. Other emergency response measures, such as demand restraint and fuel switching, could also restrain oil price increases for all users. But it was critical that these other measures work effectively.

Our January 1992 report on IEA's actions during the Persian Gulf Crisis and our March 1993 report that analyzed oil prices during the crisis found that the disruption did not trigger IEA's Emergency Sharing System but that IEA eventually decided to take a more voluntary coordinated approach to managing the crisis. On January 11, 1991, the IEA members implemented a contingency plan to increase the supply of oil on the world market, in anticipation of additional shortfalls that could result from the outbreak of war in the Gulf. The world's oil supply was to be increased by having participating countries supply 2 million barrels a day (mmbd) from governmental and commercial inventories, and by saving 0.5 mmbd by adopting measures to restrain demand and to encourage utilities and businesses to switch to alternative fuels. The plan was particularly important because (1) it represented the first time that IEA member countries had responded in concert--successfully they believed--to an oil supply disruption, and (2) there were no current shortages of oil supplies.

We further stated that IEA's decision not to draw down emergency oil stocks after Iraq's invasion of Kuwait in August 1990 raised questions about whether such actions, if implemented during the early stages of the disruption, would have helped to offset the subsequent adverse economic effects from the initial high increases in oil prices.

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GAO PRODUCTS

Energy Security and Policy: Analysis of the Pricing of Crude Oil and Petroleum Products (GAO/RCED-93-17, Mar. 19, 1993).

International Energy Agency: Response to the Oil Supply Disruption Caused by the Persian Gulf Crisis (GAO/NSIAD-92-93, Jan. 21, 1992).

International Energy Agency: Effectiveness of Members' Oil Stocks and Demand Restraint Measures (GAO/NSIAD-89-42, Feb. 6, 1989).

Renewal of Authorities for U.S. Participation in the International Energy Program (GAO-T-NSIAD-88-32, May 17, 1988).

U.S. Participation in the International Energy Agency (GAO testimony, 123766, Mar. 30, 1984).

The Changing Structure of the International Oil Market (GAO/ID-82-11, Aug. 11, 1982).

Unresolved Issues Remain Concerning U.S. Participation in the International Energy Agency (ID-81-38, Sept. 8, 1981).

OIL MARKET INFORMATION

BACKGROUND

IEA's mandate calls for an oil market information system that will improve users' understanding of the international oil market and of the oil companies' activities. With the cooperation and assistance of the oil companies, IEA countries have developed information systems on crude oil costs, crude oil import prices, and the financial operations of international oil companies. To operate the emergency oil-sharing system efficiently, IEA also developed a special information system that permits the agency to determine total quantities of available supplies during emergencies.

In the United States, oil companies send the information required of them, through a series of IEA questionnaires, to DOE, which aggregates the company data to protect proprietary information and transmits the aggregated data to the IEA Secretariat through the State Department. At IEA, the country data submissions are further aggregated and compiled into tables that are given to IEA delegates and member countries.

GAO WORK

We have discussed the accuracy and reliability of IEA's oil market information system and emergency data system in several reports. In our 1978 report on the United States' vulnerability to foreign oil price and supply decisions, we examined information supplied to IEA by five major U.S. oil companies. We concluded that the companies were generally reporting accurate information and that the data fairly represented the price and volume of the crude oil they had acquired during the period studied in the report. We restated these findings in our 1979 testimony to the Congress on U.S. participation in IEA.

In our 1981 review of U.S. participation in IEA, we concluded that IEA had installed the first and only worldwide oil market information system. This system allowed the IEA countries, particularly the smaller ones, to improve their understanding of the oil market, but it fell far short of being a comprehensive global system capable of describing the market's total operation and structure. Complete knowledge of the market, IEA asserted, was inhibited by the oil companies' concerns about confidentiality and the difficulty of monitoring spot market transactions.

In our 1981 report, we also noted that accurate and timely information on available and projected oil supplies was critical to the successful operation of IEA's Emergency Sharing System. We

found that the sharing system was flawed and contained inaccurate data, among other problems discussed in enclosure II. We recognized, in this report, that IEA had tried to improve the quality of the data submitted to it but that IEA did not seem to know what constituted an acceptable margin of error. We concluded that the known data problems might contribute to an overall reluctance to activate the system except during clearly defined and severe shortages. Later, in our 1985 report on the status of U.S. participation in the sharing system, we identified the lack of accurate data on major oil-trading countries' available supplies of oil as a continuing problem that might delay the implementation of the sharing system in a crisis. We pointed out that discrepancies in trade data had always been a major limitation of the sharing system.

GAO PRODUCTS

Status of U.S. Participation in the International Energy Agency's Emergency Sharing System (GAO/NSIAD-85-99, June 13, 1985).

Unresolved Issues Remain Concerning U.S. Participation in the International Energy Agency (ID-81-38, Sept. 8, 1981).

U.S. Participation in the IEA (GAO testimony, 110531, Oct. 3, 1979).

More Attention Should Be Paid to Making the U.S. Less Vulnerable to Foreign Oil Price and Supply Decisions (EMD-78-24, Jan. 3, 1978).

LONG-TERM COOPERATION PROGRAMS

BACKGROUND

In 1976, IEA members agreed to undertake programs to promote energy conservation and efficiency, accelerate the development of alternative sources of energy, and encourage and promote new energy technologies. To achieve these programs' long-term goals, the IEA countries agreed to periodically establish medium- and long-term objectives for reducing their dependence on imported oil. In 1977, IEA adopted 12 guiding principles for the energy policies of its member countries. These principles include a commitment to reduce oil imports by conserving energy, expanding domestic supplies, and finding substitutes for oil. During a meeting of IEA's Governing Board, in June 1993, IEA's ministers issued the first formal statement of their shared goals for energy policy since the adoption of these guiding principles in 1977. Primary among these shared goals is the encouragement and development of environmentally acceptable and efficient energy sources.

IEA annually reviews the effectiveness of its members' energy policies and programs. These annual reviews were established to provide a regular check on the progress of individual countries and of the group towards reducing dependence on imported oil.

GAO WORK

Most of our work on IEA has focused on the agency's systems for responding to disruptions in the oil supply rather than on its long-term programs for reducing member countries' dependence on oil. However, we have discussed IEA's long-term conservation and research and development (R&D) programs in several reports. Following the issuance of a report in 1976 in which IEA found that U.S. conservation programs lagged behind those of other IEA members, we issued a report, in January 1978, in which we identified successful energy conservation policies and practices in four European countries--the United Kingdom, West Germany, Sweden, and Denmark--and developed information on those measures that seemed applicable to U.S. efforts.

In this 1978 report, we found that cognizant U.S. officials generally agreed that other countries had more energy-efficient concepts, products, systems, and operations than the United States. Some U.S. agencies had begun to devise programs to evaluate foreign energy conservation technologies, although, as we stated, these efforts were extremely modest. We recommended that the Secretary of Energy, in consultation with the Secretary of State, evaluate the applicability of foreign conservation measures to U.S. conservation efforts and consider how best to (1) develop a foreign

conservation data base, (2) assess the potential for using such a data base in the United States, (3) identify potential U.S. users of such information, and (4) distribute the information as quickly as possible to those concerned.

In our 1979 report on federal responses to the Iranian oil shortage, we again advocated a strong national energy conservation program. We pointed out that the U.S. plan for responding to the Iranian shortage was short term in nature and was not intended to achieve any continuing conservation savings or discover any new energy sources.

One of IEA's 1977 guiding principles for energy policy was to encourage member countries to reduce dependence on imported oil by emphasizing alternative fuels and energy R&D, and to increase international collaboration on R&D projects. In a February 1980 report on the management of U.S. international energy R&D programs, we noted that although IEA officials claimed that considerable progress had been made in cooperative energy R&D arrangements, they--and DOE officials--generally maintained that it was too early to fully assess the technological benefits of such R&D. DOE also believed that efforts in international R&D might not have always optimally benefited the United States. We reported that IEA also believed that more could and should be done in cooperative energy R&D programs.

We also stated in our 1980 report that although the United States was a primary force in the establishment of IEA and had emphasized the importance of cooperative international energy R&D efforts, DOE had developed no overall strategy for identifying potential international energy R&D programs, either bilaterally or through IEA, to complement its domestic R&D efforts. We recommended that DOE, in coordination with the Department of State, develop a clear policy statement and establish guidelines for U.S. participation in cooperative bilateral and multilateral energy R&D arrangements. These guidelines should identify (1) potential cooperative international energy projects, (2) cost-sharing arrangements, (3) private sector competition opportunities, and (4) controls over the status of R&D payments.

We took a more comprehensive look at IEA's long-term programs in our 1981 review of U.S. participation in IEA. Although IEA countries agreed to long-term principles, the performance of individual countries has not always reflected these commitments because of differing national energy policies, programs, and procedures, as well as levels of implementation. We concluded that member countries had improved energy supply and demand management since IEA was created but that no one, including the U.S. delegates, could precisely relate the degree to which IEA had

ENCLOSURE X

influenced these achievements of participating countries through the annual member country review process or through other means. Nevertheless, we found that IEA seemed to have heightened member countries' awareness of the effects of oil dependence and encouraged these countries to establish target goals and coordination. IEA officials also told us that IEA countries had set out fairly common energy strategies.

GAO PRODUCTS

Unresolved Issues Remain Concerning U.S. Participation in the International Energy Agency (ID-81-38, Sept. 8, 1981).

U.S. International Energy Research and Development Program Management (ID-80-14, Feb. 5, 1980).

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