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

FOR RELEASE ON DELIVERY
EXPECTED AT 10:00 A.M.
SEPTEMBER 22, 1983

STATEMENT OF

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BEFORE THE

HOUSE COMMITTEE ON GOVERNMENT OPERATIONS
SUBCOMMITTEE ON ENVIRONMENT, ENERGY, AND NATURAL RESOURCES

ON

U.S. PARTICIPATION IN THE INTERNATIONAL ENERGY AGENCY'S FOURTH EMERGENCY SHARING SYSTEM TEST (AST-4)

Mr. Chairman and Members of the Subcommittee:

We are pleased to be here today to discuss with you our observations on the U.S. participation in the recently completed International Energy Agency (IEA) Emergency Sharing Allocation System Test (AST-4). Our AST-4 work is part of an ongoing effort in response to a request by Senator Howard Metzenbaum to evaluate U.S. involvement in the IEA.

We have been assessing the results of the test for indications of how well prepared the United States would be to meet its emergency oil sharing obligations under the IEA agreement, and what potential problems can be anticipated if the IEA Emergency Sharing System were activated in a crisis. We have not evaluated the performance of other member nations.

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BACKGROUND

The purpose of the IEA Emergency Sharing System is to facilitate efforts of the 21 member nations[1] to reduce the adverse consequences of a serious oil disruption and to promote balanced sharing of the shortfall among members. Accordingly, the members agree to maintain emergency reserves (equal to 90 days of net oil imports) and to establish measures for reducing oil demand by at least 7 to 10 percent during a serious disruption in the supply of oil. To balance the sharing of the shortfall, member countries agreed to procedures for determining the impact of the disruption on the supplies of each country and identifying which countries have allocation rights to receive or obligations to provide oil during a disruption. To enhance its readiness and efficiency, certain operational features of the system have been tested four times.

Preparations for the latest test, AST-4, began in December 1981, and continued for 17 months. The test was held in May and June 1983. The test involved data collection and processing, oil sharing calculations, and oil company and IEA member government cooperation in simulated oil allocations. The objectives of AST-4 were to:

--continue the training of personnel in the oil sharing system in member country governments, oil companies and the IEA Secretariat;

[1]Australia, Austria, Belgium, Canada, Denmark, Greece, Ireland, Italy, Japan, Luxembourg, Netherlands, New Zealand, Norway, Portugal, Spain, Sweden, Switzerland, Turkey, United Kingdom, United States, and West Germany.

--test modifications made to the system and procedures since the last test (AST-3) held in the fall of 1980; and

--place special emphasis on involving all elements of member countries' national domestic emergency systems within the overall IEA system.

AST-4, as with previous exercises, assumed political consensus among participating countries, did not involve any actual redirection of oil, and did not include the actual implementation of oil demand restraint or other program measures in member countries. The 8-week test which simulated events over several months of 1981 involved all 21 IEA member countries. Within the United States, the Department of Energy (DOE), the State Department, major oil importing companies, other smaller oil companies, firms in industries holding oil inventories, and representatives from 10 States were among the active participants.

The test was conducted in two parts or "cycles"--the first was a 5-week exercise that involved all parties in simulated oil sharing, while the second was an abridged 3-week exercise that did not include company voluntary offers. In addition, member countries were not expected to test their national emergency procedures through the second cycle, although they could do so.

The disruption scenario for the first part of the test began with historical data for the end of 1980 and hypothesized that a partial blockage occurred in the Straits of Hormuz in the Persian

Gulf. Sabotage was also assumed to have resulted in severe damage to Nigerian oil loading facilities. In addition, the scenario assumed that IEA countries helped offset the shortfall during the first quarter of 1981 by using 20 percent of their existing oil stocks. The test scenario assumed that the IEA emergency oil sharing system was activated in mid-February and was operational by March 1. For the March-July period, Persian Gulf supplies were assumed reduced by 50 percent and supplies from Nigeria by 75 percent. The net disruption to the IEA members' average monthly oil supply was 16 percent, about 4.9 million barrels per day (MMB/D), far exceeding the 7 percent minimum trigger level of the IEA Emergency Sharing System. This scenario represents a major international oil supply disruption--much larger than any ever experienced by oil consuming countries.

In response to this simulated crisis, each participating country was to employ its own mechanisms for restraining demand. In a disruption of this magnitude all IEA member countries initially are expected to use demand restraint measures and rely on emergency reserves to offset the shortfall. Individual country supply rights and allocation rights and obligations were calculated from past consumption patterns and how the disruption impacted on individual country supplies. Of the 21 members, 12 were expected to supply oil to the other 9. The United States had the largest allocation obligation. Japan, the member most dependent on imported oil, had the largest supply right.

Under the disruption scenario, U.S. oil imports were initially reduced by 1.1 MMB/D and, with its obligation to share oil with other member countries, the United States was required to absorb an additional shortfall of 1.3 MMB/D relative to pre-disruption consumption of about 16 MMB/D. Thus the total U.S. shortfall was 2.4 MMB/D.

OVERALL GAO OBSERVATIONS

AST-4 provided useful training to government, industry and IEA Secretariat personnel, many of whom had not participated in the last IEA test. The test also showed that IEA's newly acquired computer system and associated programs can facilitate the processing of oil company voluntary offers in an emergency.

We have identified several concerns regarding U.S. participation in the test which we would like to bring to your attention. The test revealed a number of key problems which should be addressed if the IEA emergency sharing system is to make a significant contribution to reducing the costs and dislocations of an oil supply interruption. In particular, it focused attention on some of the difficulties the United States might face in relying exclusively on market forces to fulfill U.S. international obligations under the IEA Emergency Sharing System and cope with the economic impacts of a major oil shortage. On the operational level, the management of U.S. participation in AST-4 was marked by inadequate preparation, a lack of coordination and a failure to resolve disagreements within the executive branch on important

test-related issues. In addition, DOE made several assumptions and decisions which may have unduly reduced the U.S. allocation obligation and inclined companies to make much larger voluntary offers for testing purposes than they would in a real emergency situation, raising questions as to how seriously the United States views the sharing system. For example,

--There are substantial economic consequences of relying solely on price to restrain demand and AST-4 participants from the States strongly felt the Federal Government would have to establish and be ready to implement some revenue recycling measures to address the problem.

--DOE assumed certain behavior for the U.S. oil market that was critical to meeting the U.S. oil sharing responsibility under the test. However, the ability of the market to adjust as quickly and smoothly as DOE assumed does not reflect the realities experienced in prior emergencies.

--Most major U.S. companies have said that they would not volunteer oil supplies to the IEA emergency sharing system unless a program existed to assure that the burden would be shared equitably with their domestic competitors. Some form of a fair sharing program is probably necessary, although DOE did not use one during the test.

--Besides major oil companies that have been working directly with IEA, there are other U.S. companies that may be willing to voluntarily share oil with other IEA member nations, but the test did not convincingly demonstrate that these companies can make a significant contribution.

--The DOE decision not to use the Strategic Petroleum Reserve (SPR) and in fact to continue to fill it during a considerable part of the test may reflect the difficulty the U.S. Government might experience in deciding when and how to use the SPR in a real crisis.

--U.S. primary reliance on market forces to cope with the disruption and certain actions taken by the U.S. Government during the test have raised concerns within the IEA and with other IEA countries about the U.S. commitment to the IEA emergency system.

PRICES, OIL MARKET BEHAVIOR, AND ECONOMIC CONSEQUENCES

Our analysis indicates that DOE made certain assumptions about the behavior of the U.S. oil market that were central to the ability of the United States to meet its obligations in the test and which had serious economic consequences. The DOE assumed that there would be no price controls, regulation to curb consumption, nor the use of other emergency authorities. Necessary reductions in energy use would be effected by an increase in the price of oil. That price was assumed to go to $98 per barrel. At the same time, GNP was simulated to fall, inflation surged, and unemployment rose by approximately two million.

As part of this approach, DOE initially decided to:

--Avoid any use of allocation or price controls, even on a limited basis.

--Not employ any economic response mechanisms by which the Federal Government would provide financial assistance to States for such purposes as helping the poor and maintaining essential state and local services.

--Continue filling the SPR with oil previously contracted for rather than divert the oil to the market.[2]

--Not draw down the SPR.

--Not initiate surge production from the Naval Petroleum Reserves.

--Not encourage surge oil production in States having such capacity.

--Not establish State voluntary or mandatory conservation targets.

--Not institute conservation measures at Federal facilities.

--Not ease federal regulatory measures to increase electricity from nuclear and coal fired units.

Immediately following receipt of the IEA disruption scenario, DOE used its Petroleum Allocation Model to determine that the United States would have to reduce its consumption by 2.4 MMB/D to meet its IEA commitments. DOE used its Oil Market Simulation model to project that oil prices would have to rise to a market-clearing price of $98 per barrel in the United States (average price of crude oil landed in the United States) to achieve that reduction. In making this calculation, DOE made a number of simplifying assumptions.

First, DOE assumed that the $98 per barrel price would be realized within two months, from a base price of $38 per barrel.

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[2]With one notable exception, DOE adhered to this approach throughout the test. During the test DOE made a major, simplifying assumption that many oil companies would break existing contracts to provide foreign produced oil to the SPR. This action, which is discussed later in my testimony, substantially reduced U.S. oil supplies and in turn the U.S. oil allocation obligation to other IEA countries. In a subsequent simulated policy decision, DOE discontinued solicitations for new SPR contracts, effective June 1, which resulted in eliminating virtually all additions to the SPR by July 1.

Oil purchasers were assumed to adjust their consumption downward in the aggregate by the exact amount (2.4 MMB/D) required to equal the U.S. supply right within the same two month period.

Second, DOE assumed that oil companies, oil suppliers, and oil consumers would not engage in substantial stock building--even though the IEA disruption scenario stipulated great uncertainty about future availabilty of oil supplies and oil inventories were assumed to have been heavily reduced by the end of March.

Third, DOE assumed that the $98 price would also clear the world market within the same two months. DOE postulated that other IEA countries would offset 1.7 MMB/D of their shortfall by successfully imposing regulatory (i.e., non-market) demand restraint measures and/or by drawing down emergency reserves. This assumption was necessary because DOE's analysis showed that $98 was not enough to balance total world supply and demand. However, under the IEA formula, other IEA countries were required to reduce consumption by 2.7 MMB/D. If they accomplished a 2.7 MMB/D reduction by regulatory demand restraint measures and the the use of emergency reserves, the world oil price would not have risen to $98 per barrel. In this case, DOE's market approach would not reduce U.S. consumption sufficiently for the U.S. to meet its IEA commitments.

DOE presented its results to U.S. reporting companies and to all other U.S. AST-4 participants before the companies had to

make any decisions about voluntary offers. In presenting its results, DOE did not describe the simplifying assumptions that it had made, with the exception of its assumption that stock building would not occur. In addition, DOE provided the companies with its forecast of prices and consumption through June. The forecast showed price leveling off at $98 per barrel from May through June, and consumption falling further in June. DOE told recipients that the information was "guidance" that may be considered an integral part of the disruption scenario.

DOE's assumption that the world, U.S. and other IEA country oil markets would make a rapid and smooth adjustment to a major world oil supply disruption is questionable. For example, the adjustment process evidenced during the 1973-74 Arab oil embargo and the 1978-79 Iranian oil supply interruption was not nearly as quick or smooth, and these disruptions were substantially smaller in size.

We recently reported,[3] based on a GAO model, that oil prices could continue rising during a severe disruption and for several months after it ended. We also found that private oil stock building is a key factor in the upward price spiral accompanying disruptions. However, as noted above, DOE assumed no substantial stock buildup. If stock build-up did occur, the build-

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[3]U.S. General Accounting Office, Oil Supply Disruptions: Their Price and Economic Effects (GAO/RCED-83-135, May 20, 1983), pp. 16, 19.

up could have equalled or exceeded the 1.3 MMB/D of surplus domestic oil supplies which DOE assumed would quickly result from falling U.S. demand. If this happened, surplus supplies would not be available to help the U.S. meet its allocation obligation.

A State Department analysis, provided to DOE less than one week before the test began also differed with DOE's assumptions of a smooth and rapid market adjustment. This analysis concluded there is no a priori reason that the oil market would make an almost instantaneous, smooth adjustment to sizeable, sudden shocks. In sum, there could be a significant lag between the advent of a disruption and the full adjustment of world oil trade flows to the price changes, delaying the moment when U.S. oil production and consumption would respond fully to the consequences of a shortfall. Several officials of major U.S. oil companies have expressed a similar view.

By relying solely on oil price increases to meet IEA demand restraint goals and emergency reserve drawdown obligations, DOE estimated that the price of gasoline would rise to $2.83 a gallon and the price of residual fuel would more than double within the first 2 months after the IEA Emergency Sharing System was activated. DOE also projected that at $98 a barrel, the demand for oil in the second half of the year would drop by 22 percent.

The economic consequences of using a strict market-oriented approach which minimized government involvement would be severe.

DOE forecasted substantial reductions in U.S. manufacturing activity and the Gross National Product (GNP), and significant increases in unemployment and consumer prices. For example, DOE estimated that GNP would be 5-6 percent lower for the balance of 1981 when compared to the undisrupted performance of the economy; the unemployment rate would be 2 percentage points higher by the third quarter; and the inflation rate would be higher than the pre-disruption case by 9.5, 8.1, and 3.6 percent for the second, third, and fourth quarters, respectively.

Although no projections were made by the U.S. Government concerning the international consequences of such a major increase in crude oil prices, less severe disruptions during the past decade clearly reflect that such rapidly rising crude oil prices would have serious destabilizing effects on the world economy.

EXCLUSION OF PRICE FROM AST-4

Although price was used domestically by the United States, price was not included in the simulated international allocation of oil internationally under the IEA sharing system. Member country governments and participating oil companies failed to reach agreement on a method for determining the price at which oil would be exchanged in AST-4. After AST-3, all IEA members agreed to consider the feasibility of integrating price into AST-4 to (1) assess the nature and extent of any delays in the reallocation process due to pricing negotiations between buyers

and sellers, (2) ascertain the extent to which voluntary offers of oil were not made or accepted because of price disagreements, and (3) assess the extent to which pricing considerations hindered oil allocations between countries.

During the 17 months of preparations that preceded the test, discussion among governments and companies on how to include price in the test was the dominant issue, but agreement on an acceptable approach was never reached.[4] The United States, West Germany and several major U.S. and foreign oil companies eventually opposed including price in AST-4. For example, they indicated that price behavior in a test would provide no useful information or experience applicable to an actual energy emergency. The U.S. delegation stated that testing of price in an artificial environment could establish false pricing standards that might compromise the effectiveness of the Emergency Sharing System in an actual energy emergency . It also contended that technical problems in simulating price negotiations would seriously impede the test. More recently, U.S. Government officials and representatives of several U.S. oil companies have emphasized that unless IEA members agreed on pricing principles for use in an actual emergency, consideration of price in a test would not be appropriate or useful.

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[4]U.S. General Accounting Office, Determinational of Oil Price in the International Emergency Sharing System--An Unresolved Issue (GAO/ID-83-15, November 12, 1982).

Other IEA participating governments and those oil companies that supported inclusion of pricing in the IEA test argued that integrating price into the exercise was as realistic as the testing of other Emergency Sharing System elements. They asked why company behavior would be more questionable in resolving pricing matters than other aspects of the test.

ALLOCATION OBLIGATIONS, FAIR SHARING, AND VOLUNTARY OFFERS

Under the IEA emergency oil sharing system, the majority of international oil allocations are expected to be achieved via a continuation of normal commercial transactions by the oil industry and voluntary offers by oil companies to share oil through the IEA process. That is, member governments would not generally mandate redirection of oil to meet IEA obligations. If allocation imbalances remain, the IEA can notify member governments with unfulfilled obligations that they must order a company or companies in their country to ship oil to countries with allocation rights. To increase the likelihood that member countries can satisfy allocation obligations without government intervention, the IEA has long held that member countries should establish a fair sharing program to ensure that the burden of sharing is borne proportionately by all oil companies. 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 with their domestic competitors in a fair manner. When the United States joined the

IEA, fair sharing was to be carried out under the broader domestic crude oil allocation system then in place.

In early 1981 the United States abolished oil allocation and price controls. While this action was generally well received by the oil industry, the industry said that a limited standby program for emergency oil distribution should be available for use in severe emergencies. The industry said this was necessary if international companies are to be encouraged to make voluntary international reallocations.

In July 1981 DOE informed the Congress that it planned to develop a contingency plan for a limited crude oil fair sharing system to backstop voluntary offers, for activation should the President deem it necessary to meet U.S. IEA obligations. DOE subsequently planned to examine options for a fair sharing program, prepare interim action plans, and to complete final action plans by September 1982. Their plans were also to be available for use in AST-4. However, when AST-4 got underway in May 1983, DOE had still not established a fair sharing program. Moreover, during the test DOE decided against using any fair sharing program unless it became absolutely necessary. DOE assumed that its market-based approach for coping with emergencies might preclude any need to employ a fair sharing program or that other options, i.e., drawdown of the SPR and a system of direct supply orders to various companies, might be relied on should that assumption prove false.

During AST-4, U.S. companies offered to share far more oil than the amount required by the test. For the first part of the test the U.S. had an allocation obligation of 3.1 million metric tons (MMT) and net voluntary offers received for that period totaled 8.1 MMT, or more than double the U.S. obligation. A company makes a net voluntary offer when the oil it is willing to share exceeds any oil it receives under the IEA sharing system. Nearly two-thirds of the offers were made by non-reporting companies,[5] including industrial energy consumers. Please see attachment I for the specific numbers.

A matched offer occurs when a company's offer to give a particular kind and amount of oil is matched by the IEA with another company's request for oil. Net voluntary offers from U.S. companies totaling 4.1 MMT were matched with other IEA countries' requests for oil. This amount was well above the U.S. allocation obligation of 3.1 MMT.

Based on these results, DOE concluded that the test demonstrated that government and private industry can respond quickly and effectively to oil supply interruptions through voluntary, market-based programs and that a fair sharing program was not needed during the test. DOE also said that it did not encounter any significant problems in seeking voluntary offers.

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[5]"Non-reporting companies" refers to companies operating in IEA countries which are engaged in oil production, import or export of oil or holding certain kinds of oil inventories but do not regularly participate in IEA activities and do not report directly to the IEA during an emergency.

We do not agree with DOE's conclusions, and believe that the test indicates that a fair sharing system would probably be required to secure substantial voluntary offers from reporting companies. Concerning the non-reporting companies, we found that DOE did not correctly follow the IEA's long-established and well documented procedures for securing voluntary company offers. Some of the non-reporting companies' offers appear to be unrealistic. Guidance which these companies received from DOE may have influenced them to make offers that would not be made in a real disruption. Consequently, we believe that the conclusions one can draw about the future role of non-reporting companies are limited.

Reporting Company Offers

Of 19 U.S. reporting companies,[6] 14 made voluntary offers and 10 of those made net voluntary offers. Reporting company net voluntary offers totalled 2.9 MMT,[7] or an amount slightly less than the U.S. allocation obligation. Their net matched voluntary offers equalled 1.8 MMT, or less than two-thirds of the allocation obligation.

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[6]Reporting companies are major oil companies invited by the IEA and approved by their respective governments to actively participate in IEA activities. They agree to report to the IEA directly about their volume and flow of oil in an emergency.

[7]During AST-4 reporting companies offered an additional 1.9 MMT of oil that was contingent upon receiving a comparable amount of oil from U.S. non-reporting companies. These swaps were arranged at the initiative of the IEA and do not represent net voluntary offers for the reporting companies.

Of the 14 reporting companies that made voluntary offers, 10 either told DOE well before the test that fair sharing would be necessary to induce them to make voluntary offers through the IEA system and/or specifically assumed during the test that a fair sharing system was in place. The combined offers of these companies accounted for 88 percent of net reporting company voluntary offers and 95 percent of their net matched voluntary offers.

The other 4 reporting companies have said that a fair sharing system is not needed for them to make voluntary offers within the IEA system. Together, these companies accounted for only 12 percent of reporting company net voluntary offers and only 5 percent of reporting company net matched offers.

Non-reporting company offers

AST-4 was the first IEA test to involve U.S. non-reporting companies. Shortly before the test, DOE identified about 30 of the largest oil importing companies that were not reporting companies, and about 40 industrial companies that use large amounts of oil, including firms in motor vehicle production, metal refining, and pulp and paper production, and invited them to participate in the test exercise.

Total net voluntary offers made by these non-reporting companies during the test were 5.2 MMT, or about 1.7 times greater than the cumulative U.S. allocation obligation of 3.1 MMT. The offers of the non-reporting companies were also substantially

greater than the reporting companies' total net offers of 2.9 MMT. This response was surprising, since non-reporting companies accounted for less than one-third of U.S. oil imports and less than two-fifths of total U.S. oil supplies. The amount of non-reporting company offers that was successfully matched with foreign requests was about 2.1 MMT, which seemed to indicate that non-reporting companies could make an important contribution to the IEA emergency oil sharing system. However, our examination of these voluntary offers and how they were made raises a number of questions about their credibility.

In soliciting offers from non-reporting companies, DOE did not request certain important information needed to determine whether companies could realistically make offers within the prescribed time period and whether specific offers could be successfully matched with companies in other countries in need of oil. More importantly, DOE did not instruct the non-reporting companies that before deciding whether and how much they could offer, they should first reduce their stock levels by the assumed inventory drawndown of 22 percent and calculate whether and how their supply positions had been reduced by the simulated disruption of oil in specific producing countries. Such adjustments could have critically affected a company's willingness and ability to make voluntary offers and the size of its offers.

According to various DOE records, 26 or 27 non-reporting companies made 52 voluntary offers which were then submitted by

DOE to the IEA (9 companies made multiple offers). However, in terms of the total volume of oil offered, a handful of companies accounted for the large majority of the oil.

Our analysis showed:

--Significant information was missing for three-quarters of the 52 offers made by non-reporting companies. Before forwarding the offers to the IEA, DOE made estimates, based upon DOE staff expertise, of what might be realistic information for the missing data.

--Some of the non-reporting companies' offers submitted to the IEA, with data added by DOE, were quickly recognized as improbable or erroneous by IEA industry experts who were checking the offers.

--One non-reporting company accounted for more than two-thirds of all non-reporting company offers. The company provided DOE with minimal information on its offers. When the IEA raised questions, DOE sought to secure additional information from the company. However, a company official indicated that they did not have sufficient time to examine their historical records. To deal with this problem, the original offers were rejected and the IEA and its Industry Supply Advisory Group simulated new offers by making their own best estimates about the missing data.

--Doubts remain about the realism of the offers made by the company discussed above. For example, the company offered more oil than the entire U.S. allocation obligation for the test period, and more oil than the combined net voluntary offers of all reporting companies. Moreover, the total oil offered by this company was greater than all the oil it imported into the United States during 1981. According to a company official, they did not adjust their stocks downward by 22 percent, as required by the IEA disruption scenario procedures, before deciding whether and what offers to make. And, the company did not reduce its supplies to account for oil lost from countries whose oil production had

been disrupted. Finally, a company official told us that its offers were predicated solely on the assumption that it could get a better price through the voluntary offers. If it could have gotten a better price in the United States, it would have done so.

--In at least 7 cases DOE combined offers by two or more companies and/or offers of products in a variety of locations (frequently widely separated), and represented the result as a single offer available at a particular port.

SPR NOT USED IN TEST OF MAJOR DISRUPTION

During the period for which a U.S. response was simulated, the SPR contained approximately 135 million barrels of crude oil with a maximum drawdown capability of 1.6 MMB/D for 45 days followed by 1 MMB/D for 20 days.

DOE's initial decision during the test was to continue to fill the SPR at levels of about 155 thousand barrels per day for March 1981, 445 thousand barrels per day for April, and 510 thousand barrels per day for May 1981. This decision was based on:

--the unknown duration of the disruption and the possibility it might worsen made it prudent to be cautious in the initiation of any action to draw down or stop filling the SPR;

--that any decision to stop filling the SPR would not be immediately effective and would take considerable time to have an impact on the U.S. market;

--that the SPR was not large enough to use at an early stage of the disruption;

--the assumption that market forces alone were adequate to reduce U.S. demand to the level required for the United States to meet its international commitments;

--that AST-4 was primarily an international allocation test and not a test of the SPR and, therefore, reliance on the SPR would reduce benefits of testing the international system; and

--that a separate test of SPR drawdown procedures was scheduled to get underway shortly after the conclusion of AST-4.

Following the U.S. announcement that the SPR would continue to be filled, criticism was directed at the U.S. Government for not using the SPR. Several State Government and Congressional participants were particularly critical of the U.S. failure to act. They contended that despite arguments put forth by the administration, DOE should have taken one or more of the following actions: stop filling the SPR, cut the rate at which the SPR was being filled, or use oil from the SPR. Although critics acknowledged that these actions might have only a minimal impact on the disruption, they hoped that SPR use would at least moderate the severe oil price increases and associated economic effects. They noted that while AST-4 was a test of the international allocations system, it was also a test of national emergency response systems.

Two weeks into the test, DOE took a major action by assuming that most oil imported into the United States under contract for the SPR was cut off as a result of suppliers invoking force

majeure.[8] Under this assumption, the involved companies (all non-reporting companies) maintained that the petroleum supply interruption was an event beyond their control and they were unable to fulfill their contracts. In announcing the action, DOE said that the decision was based upon actual experience during the 1979 Iranian oil supply interruptions, and the purpose of the action was to simulate the real world.

According to the DOE Deputy Assistant Secretary for Energy Emergencies, a principal reason for making the force majeure assumption was that it provided a quick means, for test purposes, to stop filling the SPR. DOE's Office of General Counsel had advised that cancellation of deliveries to the SPR for which contracts had already been completed might require a Presidential SPR draw down decision, particularly if they were in transit, and if they were loaded f.o.b., meaning the United States took title at the time of the loading. Deliveries possibly could have been rescheduled, but that would also involve difficulties.

While it is possible that some companies selling foreign oil to the United States might have cause to invoke force majeure, the assumption that this would happen to most of the oil being imported for the historical period defined by the test was questionable. The large majority of oil affected by the force

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[8]A term of law referring to an irresistible force or act of God that may justify the discharge or nonperformance of a party's contract obligations.

majeure assumption was coming from countries whose oil production was not disrupted. Over two-thirds of the oil originated in the United Kingdom, a major U.S. ally and IEA member country.

The force majeure decision created problems in the test. It disrupted allocation rights and obligations. The decision implied that the British Government might cut off or sanction a cut-off of supplies in an international energy crisis. The decision was not coordinated with the United Kingdom and the British Government refused to accept the U.S. assumption and thus would not modify its oil data submitted to the IEA to show a commensurate decrease in its exports to the United States.

Some IEA officials and test observers perceived the U.S. decision as designed to further reduce the U.S. allocation obligation rather than being responsive to calls to use the SPR. A major effect of the assumption was to reduce U.S. oil imports by 3.7 MMT for the simulated May-July period, reducing the U.S. allocation obligation by 54 percent. Without the force majeure assumption, the obligation would have been 6.8 MMT. Although total U.S. net company voluntary offers of 8.1 MMT were greater, given the problems which I previously discussed, there is a real question whether the IEA could have made sufficient additional matches to meet the higher obligation.

In a simulated announcement on June 1, the Secretary of Energy announced the suspension of new purchases of oil for filling the SPR. That decision eliminated most SPR fill as of July 1

and made available to the market an additional 88,000 barrels of oil per day. The Secretary of Energy took the action in part as an effort to reduce the upward pressure on world oil prices and to make more oil available on the market. However, in taking this action, the Secretary said the SPR itself would not be drawn down, stating that market forces and stopping the SPR fill were adequate responses to the situation.

The experience of the United States in deciding whether, how, and when to use the SPR in AST-4 may reflect the difficulties that would be encountered in a real emergency. The decision to cease new solicitations for the SPR had little effect during the first part of the test.

VIEWS OF THE STATES

DOE asked 10 States to participate actively in the simulation exercise. These were California, Florida, Kansas, Maine, Mississippi, New York, Texas, Vermont, Wisconsin, and Wyoming. It also secured the involvement of the National Governors' Association (NGA), which would play an important role during a real disruption in articulating State interests for the Congress and the Executive. The comments of the States highlighted an important problem not considered in the test, but likely to arise in a real crisis.

Several States indicated their willingness to give the administration's free market approach an opportunity to work--provided that certain measures were taken to reduce or mitigate

the effects of the disruption. However, the majority of States disputed DOE's assumption that the free market would work quickly and smoothly. For example, California, New York, and Maine simulated product imbalances in their respective states or regions. Several states supported enactment of standby price and allocation controls, and several critized DOE for not providing them with adequate information to evaluate their petroleum supply situation.

The States concluded that the Federal Government was best situated to deal with the economic consequences associated with the free market approach, i.e, unemployment, declining state revenues, and the social costs of high energy prices, since Federal revenues from the crude oil windfall profits tax would increase significantly due to higher oil prices. They indicated their desire to work with the administration in the development and support of an initiative in this area. However, according to DOE officials, the agency was not responsive because (1) the administration was working on a legislatively-mandated analysis of the impact on the domestic economy of reliance on market allocation and pricing during any substantial reduction in the amount of petroleum products available to the United States, and (2) high level economic policymakers in the administration, but outside DOE, were unable to participate actively in the test. However, it should be pointed out that by November 1982, five months before the AST-4 simulation began, DOE had completed operations manuals for the use of two alternative economic response measures--block grants to States and temporary tax reductions.

The States were virtually unanimous that a Federal economic response package was necessary. Working along with the NGA, they simulated Congressional passage of a bill to provide financial assistance to the States. As the test drew to a close, the bill was sent to the President.

MANAGEMENT PROBLEMS

Normally, management of U.S. participation in the IEA is shared between the Departments of State and Energy, with the Interagency Group on International Energy Policy reviewing significant IEA matters and making policy recommendations. For the purposes of AST-4, the Department of State, with assistance from DOE's Office of International Affairs, had the primary role for international involvement, while DOE's Office of Energy Emergencies was principally charged with domestic test management responsibilities.

Although the United States committed a large number of people to the test (for example, over 80 persons from DOE were involved part- or full-time during the test) and began preparations 17 months in advance, the U.S. was not ready for the test in a number of areas. DOE decided to integrate the non-reporting companies into the test at the last moment. DOE sent letters to non-reporting companies soliciting their participation less than two weeks before the test began, and then during the test, obtained insufficient information from these companies on their

voluntary offers to the IEA. Given the absence of past involvement of non-reporting companies in such tests, DOE should have developed procedures for managing their participation much earlier. The failure to do so resulted in distorted non-reporting company voluntary offers, which created problems in the test.

Another example of shortcomings in the U.S. preparation was the fact that a comprehensive management manual delineating organizational responsibilities and procedures for carrying out U.S.emergency management responsibilities in an IEA test or in an actual crisis was never finalized. Only draft manuals with incomplete information were produced, and a final National Emergency Sharing Organization (NESO) Management manual is still unavailable.

Furthermore, DOE's Office of Energy Emergencies was not adequately familiar with IEA test procedures. The Deputy Assistant Secretary for Energy Emergencies, the day-to-day operational head of the U.S. NESO, has acknowledged that he had not read the test guide until after the test began. He said that his staff was generally not well acquainted with the details of the IEA system and therefore had difficulties in complying with specifics of the system, particularly as it related to processing of non-reporting company voluntary offers. Despite this general lack of preparations, several members of his staff did participate extensively in preparation of the IEA's AST-4 test guide.

During and after the test, DOE's Office of Energy Emergencies was criticized by DOE's Office of International Affairs and the State Department for inadequately understanding the IEA Test Guide procedures on reporting energy information, making voluntary offers, and conforming to test assumptions and conditions.

From the onset of test preparations, disagreements surfaced between the Department of Energy's Office of Energy Emergencies, and its Office of International Affairs and the State Department's International Energy Policy Group. Part of these differences emerged because

--responsibility for U.S. domestic and international involvement in AST-4 was divided between agencies and sub-agencies and there was a lack of adequate communication and coordination among them, and

--differing interpretations concerning the nature of the U.S. commitment under the International Energy Program (the international agreement under which the IEA was established), and the differing ways the commitment can be met were not resolved in a higher level interagency forum.

Decisions during the test on the issues of fair sharing, demand restraint, and use of the Strategic Petroleum Reserve were made without adequate coordination. In each of these cases, the DOE's Office of Energy Emergencies had ample advance opportunity to seek a government-wide consensus on a series of acceptable options before the test, but chose not to do so.

Despite the obvious disagreements on key assumptions and decisions, no efforts were made to resolve them through the

established interagency process. These disagreements helped foster the impression among other IEA members, the Secretariat, and participating oil companies of a confused and somewhat contradictory U.S. approach to AST-4.

OTHER ASSESSMENTS OF AST-4

Following the AST-4 test, major IEA participants including the Secretariat, a Government/Industry Test Design Group, the IEA Standing Group on Emergency Questions (composed of senior representatives of participating country governments), oil companies, and an independent group of oil market experts, completed individual assessments of the test. Overall, these groups concluded that the test had been a useful training exercise, but they raised several concerns about the viability of the system in a real crisis.

Many of these concerns were tied to U.S. participation in the test. Areas of principal concern cited included the lack of pricing in the test of the voluntary offer process, the impact of the United States relying exclusively on oil price increases to achieve demand restraint objectives, the absence of a U.S. fair sharing program, and the problems that arose with the U.S. non-reporting company offers.

The international assessments indicated a need for participating countries to have appropriate demand restraint and fair sharing programs in place if the IEA voluntary offer system is to work effectively in a real emergency. These assessments focused

attention on the importance of compatible national emergency systems to the successful operation of the entire IEA international emergency sharing system. Several groups concluded that reliance on unrestrained price escalation would not be in keeping with each nation's commitment to the IEA. They indicated that a U.S. approach that relies on price increases as its principal, if not exclusive, response to a major oil supply disruption presents serious problems for the IEA sharing system.

The above concerns about U.S. participation in AST-4, in addition to being raised in a multilateral context, were also expressed by delegates of IEA member governments and the IEA Secretariat on a bilateral basis with representatives of the U.S. Government in Washington and abroad.

In the final analysis, the major contribution of a test such as AST-4 is to identify shortcomings that may cause problems in a real emergency. To the extent that evaluations of AST-4 identify problem areas and prompt corrective action, the test will have served a useful purpose.

To this end, the United States at a recent meeting of the IEA, has agreed to participate in the IEA review of selected national government emergency response mechanisms. The U.S. Government agreed to be one of the first countries to be reviewed.

Mr. Chairman, this concludes my statement. We will be pleased to try to answer any questions you may have.

ATTACHMENT I

COMPANY OFFERS TO MEET U.S. ALLOCATION OBLIGATION DURING AST-4 TEST

(Thousand Metric Tons)

	Net[1] Voluntary Offers	Net Offers Matched by the IEA
Reporting Companies	2,951[2]	1,821[2]
Non-reporting Companies	5,166	2,273
Total	8,117	4,094

[1] A company has net voluntary offers when the total oil it gives exceeds the oil, if any, it receives through the IEA emergency oil sharing system. During AST-4 reporting companies offered an additional amount of 1.9 MMT of oil that was contingent upon receiving a comparable amount of oil from U.S. non-reporting companies. These swaps were arranged at the initative of the IEA and based upon voluntary offers by non-reporting companies.

[2] As discussed in the text, most of these offers were made by companies which told DOE before the test that fair sharing would be necessary to induce them to make voluntary offers through the IEA system or which specifically assumed a fair sharing system was in place when they made their offers.

Source: Based on DOE statistics, which have not been fully reconciled with IEA statistics.