



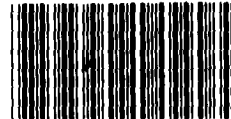
COMPTROLLER GENERAL OF THE UNITED STATES
WASHINGTON D.C. 20548

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MARCH 4, 1981

The Honorable Edward M. Kennedy
United States Senate



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The Honorable Charles H. Percy
Chairman, Subcommittee on Energy, Nuclear
Proliferation and Government Processes
Committee on Governmental Affairs
United States Senate

Subject: ~~The Department of Energy's~~ ^{DOE} Reorganization
of Energy Contingency Planning Holds
Promise--But Questions Remain (EMD-81-57)

U.S. oil imports have been disrupted twice in the past decade. Both events caused widespread hardship and confusion, and in neither case was the Federal Government able to mount an effective program to cope with the shortages. Indeed many analysts--ourselves included--have shown that various Federal efforts to alleviate the crises were ineffective and sometimes counterproductive. 1/

As you requested in your letters of July 1980, we are conducting a broad study of U.S. contingency planning designed to cope with an import disruption. That report will cover past and current contingency planning in detail, including our suggestions for improving both the organization for planning and the plans themselves. We also intend to suggest new approaches where these seem warranted.

Although our more comprehensive report will cover many additional topics, at your request we are providing our analysis of the adequacy of DOE's organization for energy contingency planning and crisis management. On February 24, 1981, the Secretary of Energy announced a major reorganization of the Department. One aspect was centralization of energy contingency planning in a new office of Assistant Secretary for Environmental Protection, Safety and Emergency Preparedness. While this was an improvement over the previous organization, the details have not been developed and it is unclear whether the reorganization will materially improve the Nation's ability to deal with oil import disruptions.

*5/17/81
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1/For example, see U.S. General Accounting Office, "Gasoline Allocation: A Chaotic Program in Need of Overhaul," EMD-80-34, Apr. 23, 1980; and U.S. General Accounting Office, "Iranian Oil Cutoff: Reduced Petroleum Supplies and Inadequate U.S. Government Response," EMD-79-97, Sept. 13, 1979.

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This letter details specific problems with DOE's current draft contingency plan and its organizational structure for managing oil disruption emergencies. Our broad conclusions, however, can be stated briefly:

- Preparation of adequate oil import contingency plans is so important to the Nation's security that it should be a top priority item on DOE's agenda.
- The Nation cannot cope with substantial oil import disruptions at present, largely because our contingency plans are not well developed.
- While some progress has been made in contingency planning, substantial organizational deficiencies have held back more rapid progress.
- Contingency planning has had low priority, been decentralized, been directed by a person without the authority to command adequate support from other DOE offices, and has not been sufficiently staffed. The current DOE reorganization only partly addresses these problems. Furthermore, it is questionable whether an adequate organizational structure exists which could effectively manage a crisis.

DOE ORGANIZATION FOR PLANNING

DOE inherited the fragmentary contingency planning and emergency management efforts of its predecessor agencies when it was established in October 1977. One year later the function was reorganized and lodged with DOE's Assistant Secretary for Policy and Evaluation. At about this time the Iranian oil export disruption was getting underway, and the Assistant Secretary created a special task force to develop a plan to respond to the subsequent shortage. A plan was prepared, but both our and DOE evaluations later documented the plan's failure to adequately address the disruption. ^{1/} Contingency planning was reorganized again in May 1980, when it was shifted to DOE's Economic Regulatory Administration under the Deputy Administrator for Operations and Emergency Management. A new office--the Office of Energy Contingency Planning (OECF)--was created and ostensibly became the Government's central energy contingency planning organ.

Prior to the reorganization of February 24, OECF was responsible for DOE contingency plans and, in the event of a crisis, for recommending specific emergency actions. OECF's mission statement charged the office with, among other things,

^{1/}U.S. General Accounting Office, Letter Report to Senator Jackson, EMD-79-88, August 27, 1979.

- developing emergency scenarios;
- developing comprehensive plans for responding to each scenario, including identifying specific implementation authorities, tasks and organizational assignments;
- coordinating specific plan segments with all affected parties to ensure that the total plan is comprehensive, feasible, efficient, and well understood and agreed to by those responsible for implementation;
- identifying requirements for rule-makings and legislation in support of comprehensive contingency plans;
- identifying impediments to plan implementation and coordinating activities with others to develop solutions;
- determining and analyzing the social, economic, supply and demand impacts of the various response possibilities;
- evaluating the probable consequences of planned responses on international, Federal and State governments, and individuals, and conducting post-emergency analyses where appropriate;
- determining the need for and arranging for necessary information, communication and logistical systems; and
- developing means to test and evaluate the usefulness of response plans and ensuring that tests are carried out periodically.

This set of responsibilities seemed to centralize contingency planning in OECP. However, contingency planning actually continued to be considerably decentralized, with major responsibilities located in other DOE offices. For example, the Office of Oil Supply Security, under the Assistant Secretary for Policy and Evaluation, analyzed various issues associated with oil supply interruptions and related threats to national security. The Energy Information Administration was responsible for developing the Energy Emergency Management Information System, which is to provide an energy data base for use in emergencies.

In addition, many program offices in DOE, having operational responsibilities for the various programs and measures which would be included in any comprehensive contingency plan, were playing a

larger, more independent role in developing contingency action plans than one would expect from reading OECF's mission statement. For example, the Office of Emergency Conservation Programs, under the Assistant Secretary for Conservation and Solar, was preparing emergency conservation measures. The Power and Reliability Division, under the Economic Regulatory Administration's Office of Utility Systems, was doing the primary planning for power wheeling, increased electricity production, and increased electricity imports.

Finally, OECF had no role in the contingency planning for international programs, Strategic Petroleum Reserve drawdown, improving the standby emergency crude oil and product allocation programs, or gasoline rationing.

DOE's February 24 reorganization appears to go far towards overcoming this lack of centralization. According to DOE's announcement, most of the offices and functions involving contingency planning and programs have now been transferred to the new Assistant Secretary for Environmental Protection, Safety and Emergency Preparedness. These include

- the energy emergency functions of the Economic Regulatory Administration,
- the Strategic Petroleum Reserve Program,
- the Naval Petroleum and Oil Shale Reserves Program,
- the Office of Oil Supply Security,
- the Energy Emergency Management Information System,
- the Office of Emergency Conservation Programs, and
- management oversight of the gasoline rationing preimplementation program.

However, the DOE organizational realignment document does not indicate that responsibility for contingency planning involving international programs and activities has been transferred to the new office. It is also not clear whether the contingency planning role of certain offices in the Economic Regulatory Administration that had other related duties and responsibilities have been transferred either.

DOE ORGANIZATION FOR ENERGY
EMERGENCY MANAGEMENT

In the event of an actual energy supply disruption, it is necessary that an organization exist for crisis management, which (1) brings key officials of both the public and private

sectors together to make important decisions in a timely, efficient and effective manner and (2) provides these officials with the necessary support staff and physical facilities. Because energy disruptions affect nearly all DOE major policy areas, Department-wide organization for crisis management is necessary. Of course, energy emergencies affect other departments as well as DOE. The organizations for coordinating contingency responses Government-wide are the Cabinet level Energy Coordinating Committee and the Federal Emergency Management Agency. The role of these organizations in an oil shortfall is by no means entirely clear. However, this lies outside the scope of this report on DOE emergency planning and management and will be covered in our next report.

As previously noted, DOE's OECP was responsible for developing contingency plans to respond to those emergencies that can be reasonably anticipated and for developing emergency action plans to use during an actual crisis. When OECP was created in May 1980, the Economic Regulatory Administration stated that it intended to establish a DOE Energy Management Emergency Group as the standing DOE organization to be used to recommend response actions to the Secretary during an emergency. OECP would provide appropriate staff support to the Energy Management Emergency Group and advise it on available response options contained in contingency plans. The Economic Regulatory Administration said it would prepare a paper as quickly as possible for the Deputy Secretary more fully describing the role of the Energy Management Emergency Group, its membership, and its relationship to OECP. However, as late as February 1981, 9 months after its formation, OECP apparently had not prepared such a paper.

Based upon information released by DOE on February 24, it is not evident whether the new assistant secretary will assume responsibility for establishing an energy emergency management group to recommend response actions in the event of oil (or other energy) supply disruptions. We believe that an in-place organizational structure for handling these kinds of emergencies is critical, that this should be the responsibility of the new assistant secretary, and that it should be a priority item on his agenda.

CURRENT STATUS OF DOE'S PLAN FOR RESPONDING TO AN OIL DISRUPTION

The confusing and overlapping set of responsibilities and authorities has been a prime reason why OECP had made so little progress. In early July 1980 we were advised by the Deputy Administrator for Operations and Emergency Management that OECP was beginning to carry out its mission by designing a plan to cope with an oil disruption ranging between 1 and 2.4 million barrels per day (MMBD). The Deputy Administrator stated that drawing up a comprehensive plan for this scenario would be much easier and quicker than simultaneously planning for the entire range of potential shortfalls. He stated that it would take OECP 1 year

to complete a plan for dealing with this interruption scenario, but that a first draft of the plan would be prepared by October 1980.

This past January we received nine documents from OECF which represent the planning products to date. The draft documents covered

- management of private oil stocks,
- oil to natural gas switching,
- oil to coal switching,
- burning high sulfur fuel oil in selected areas,
- emergency oil import fee and rebate,
- public information programs,
- gasoline odd/even and minimum purchase,
- 55 mph speed limit enforcement, and
- development of state emergency conservation plans.

Based on our ongoing review and our analysis of the nine drafts received from OECF, we found that DOE's planning effort is seriously behind schedule, and is characterized by other deficiencies as well. The prospects for having an adequate plan in the near future are poor. A brief summary of the most significant deficiencies follows, along with a discussion of how organizational remedies could help address these problems.

PLAN DEFICIENCIES

In our view, the documents made available to us are not even draft action plans in five of nine cases. Rather, they are essentially theoretical analyses which could be used as a foundation for an action plan or are progress reports on the early stages of plan development. They are not action-oriented, and have not been tested for practicability.

The nine drafts cover only a few subjects which could be incorporated in a truly comprehensive plan. Among program areas not covered in the draft plans but for which planning has been underway or considered are

- increased production from the Naval Petroleum Reserve;
- increased electricity and natural gas imports;
- increased nuclear electricity production;

- power wheeling;
- Federal standby demand restraint measures, including
 - o 4-day work week;
 - o speed limit reduction;
 - o emergency building temperature restrictions;
 - o employer-organized commuting;
 - o vehicle use stickers; and
 - o emergency conservation information;
- coordination of U.S. contingency plans with International Energy Agency obligations;
- international programs to
 - o prevent excessive spot oil market purchases, and
 - o coordinate stock drawdowns of International Energy Agency member countries;
- a plan for imposing an emergency excise tax on oil products without a rebate; and
- tax/rebate schemes to reduce oil demand and restrain world oil price increases.

The absence of draft action response plans for these areas at this late date is particularly unfortunate because some of these have been recognized as important elements of a comprehensive plan by OECF and other DOE offices.

Attached to this letter is a table showing the extent to which DOE's draft plans address components that DOE itself considers essential to a sound plan. In discussions with us, OECF stated that individual program plans would be ready for implementation only after the office adequately addressed each component and identified how any implementation obstacles revealed by this process would be overcome. The components which DOE identified include relevant regulations and laws, implementation schedules, organizations in charge, anticipated results, costs and benefits of implementation, etc. Our table reveals that many of these elements are either not identified or only inadequately addressed in the nine draft reports. Please notice that this table merely indicates whether each component is identified and discussed in the draft. It does not address

the likely workability of each program or the extent each can help to offset an oil supply disruption. We will cover the potential utility of these and other programs in our subsequent report.

Of the nine draft programs provided by OECP, only two can be considered nearly ready to go and can be evaluated for their potential to offset a shortfall. These are programs for oil to gas switching and waiving clean air standards to allow burning high sulfur residual oil. DOE's analysis indicates that the clean air waivers could only be in effect for 4 months, based on present law and would at best only save 14 thousand barrels a day (MBD) for that limited period. Estimates for the oil to gas switching program are very uncertain, partly because of significant information gaps. However, DOE estimates that the amount of oil demand which could be offset by switching to gas during the first 3 months would probably be negligible. By the end of 12 months, it could possibly be in the range of 290 to 435 MBD. In the event of a serious disruption, these two programs could at best offset less than half of even a small--1 MMBD--shortfall, and the bulk of savings would take months to achieve.

Small shortfalls are by no means the only likely possibilities. For example, our broader study will analyze programs to deal with a shortfall of 3 MMBD. This scenario corresponds to the loss of exports from Saudi Arabia or several of the remaining large oil exporters. That is by no means a worst case. Most likely, the worst case would be a loss of all Persian Gulf oil which could amount to a net shortfall to the United States of as much as 6 MMBD.

The program which would offer the most and quickest potential to replace lost oil is private oil stock drawdown. OECP's planning for private stock drawdown suggests that the Government could require private companies to draw down stocks. The experience during the two previous shortfalls indicates that the companies' perceived interest ran counter to the public interest. When faced with the uncertainty of how long the shortfall would last, instead of drawing down their stocks the companies built them up. But the Government's ability to manage such a program is in doubt, and in any case the necessary information gathering system is not fully developed. Furthermore, drawdown authority is scheduled to expire on October 1 of this year.

In summary, DOE's draft contingency plans evidence significant problems in areas of timeliness, data and information, compliance and testing--all of which are needed for sound action plans. Examples of some of these problems have been briefly referred to above. They will be analyzed in detail in our subsequent report.

RELATION OF PLANNING DEFICIENCIES
TO ORGANIZATIONAL WEAKNESSES

DOE's contingency planning deficiencies reflect continuing organizational problems. The fact that no comprehensive or individual action plans are finished and that many areas are not covered indicates that the subject has not been given sufficiently high DOE priority.

OCEP's failure to complete a comprehensive plan is partly due to lack of adequate staff and other resources--a fact which demonstrates that emergency planning is not a top DOE priority. For example, shortly after OCEP was created in May 1980, it stated a need for 26 positions. In early June the Deputy Secretary authorized a ceiling of 17 positions, and stipulated that once the office was up to that strength the requirement for the additional 9 would be re-evaluated. As late as mid-October, OCEP was still not fully staffed even for the 17 positions, and not until early 1981 did OCEP's staff level approach 26 positions.

These problems were exacerbated by the fact that full responsibility for contingency planning did not reside in a single office with adequate authority and that adequate coordination was lacking in many areas. Whether the new DOE structure will supply that priority is unclear since the new office is still being organized. For example, we question the merging of emergency planning with environment and safety, and the apparent failure to transfer the international aspects of contingency planning to the new office.

ORGANIZATIONAL REMEDIES

Contingency planning and crisis management require far more emphasis and attention than DOE has been giving them to ensure that the job gets done fast and gets done right. Organizational changes can contribute importantly to these objectives. This is not to say that organizational change can solve all problems. However, good organization is an essential prerequisite of good planning, which itself is a prerequisite to effective crisis management. Whether DOE's reorganization will be equal to the task remains to be seen.

Several organizational changes can improve the contingency planning process. These are centralization, increased authority, and better staffing.

Centralization of contingency planning in a single office helps ensure that the required plans are developed, that they are complementary, and that in the aggregate, they are adequate to deal with the energy emergency contingencies which must be faced. Centralization promotes timeliness and quality control by eliminating dependence on other offices which may see contingency planning as a lower priority than their ongoing programs.

At the same time, it clearly establishes just where responsibility lies for success in contingency planning and crisis management.

Increased authority is needed to attract the best people to the task and to direct that other offices contribute staff, resources and whatever else is needed to get the job done. Responsibility for contingency planning in DOE has never been at a level of authority that permitted mobilizing the staff and resources required.

Better staffing for contingency planning is required simply because of the many program areas that need to be covered and because of the complexities involved in preparing useful plans and programs that can be counted on in times of emergency. Centralization of the planning function and higher authority for directing it should result in more and better staff being attracted to the function.

Staffing policy should take into account the distinction between subject matter expertise and knowledge of how to construct contingency plans and manage energy emergencies. Contingency plans must be clear, simple and quickly implementable during a crisis. Experts in energy systems may not fully appreciate how crucial these factors are. One good way to assure workability is to have substantial contributions made by professional crisis managers who can work alongside energy experts. Crisis managers exist both in and outside Government. Private industry sources should be included in order to mobilize the experience business managers have gained during past disruptions.

Although the Nation has been through two significant oil import disruptions in the past eight years, contingency planning in this area has been haphazard. Neither DOE nor other agencies have given contingency planning the emphasis it deserves. The latest reorganization of the function is an improvement in at least one area; but only time and subsequent developments will tell if it is sufficient. Our broader study will include a more thorough evaluation of the new structure, since its actual responsibilities, operations and accomplishments should become clearer over the next few months.

At this point, however, we can note ambiguities concerning the ability of the new organization to develop timely, effective contingency plans. These concerns are whether contingency planning has been adequately centralized, been placed at an appropriate level in the authority structure of DOE, and been accorded the high priority we believe it deserves.

While clear progress has been made in centralizing the function, we question whether this movement has gone far enough. Specifically, we note that the new assistant secretary has apparently not been given the function of planning for the international aspects of import disruptions. In the event that the International Energy Agency's emergency oil sharing agreement is activated by a shortfall, domestic and international programs will have to be closely coordinated. How this will happen under the new structure is not clear.

It is difficult to judge the priority a program has until it has operated for a while and carved out a niche in the bureaucratic landscape. We believe that contingency planning should have a very high priority within DOE. Combining this function with those of DOE's Assistant Secretary for Environment raises a doubt concerning priorities, since we have previously found that the office of the Assistant Secretary for Environment has not played an important role in DOE's decision-making. 1/ Furthermore, the two functions are not directly related.

The issue of authority arises in two ways--whether the level of authority of the head of the program is adequate and whether the authority structure within the office of the assistant secretary will foster an efficient planning process. On the issue of the level of authority, we note that the person heading the new contingency planning operation will be at roughly the same authority level as was the head of the OECF. While in theory there is nothing inherently wrong with this arrangement, contingency planning has never been carried out successfully at this level in the past. The fact that contingency planning cuts across so many policy and functional lines suggests to us that a higher level of authority may be desirable. One way to facilitate department-wide cooperation, more visible priority, and possibly more centralization would be to have the Under Secretary of Energy assume direct responsibility for contingency planning and crisis management. Such a reorganization could well result in quicker mobilization of the Department's resources.

The other authority issue--whether the authority structure within the new assistant secretary's office is appropriate--is unclear at this time. Though planning offices and operating programs have been transferred, DOE has not yet decided precisely how these will be organized. While there are many possibilities, we would urge that one person be put in charge of all aspects of contingency planning. It would be confusing and inefficient to combine operating programs and contingency planning under the

1/See U.S. General Accounting Office, "The Department's Office of Environment Does Not Have a Large Role in Decision-Making," EMD-80-50, January 29, 1980.

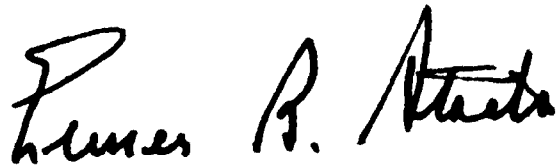
same people, since experience has shown that planning often takes a back seat when put in competition with the demands of ongoing programs.

A related problem is that the process of actually organizing the new office of the assistant secretary--including the organizational sub-structure, selection of office heads, location of appropriate physical facilities, and so forth--is bound to take much time. There is a real danger that these matters may further set back the creation of sound contingency plans for dealing with oil supply disruptions. As noted earlier in this report, the Nation cannot afford additional delays. We believe it is essential that the assistant secretary move quickly to select his top planning officials and that they take care that contingency planning progress at the fastest practicable rate.

Clearly, the present reorganization has gone some way toward rationalizing the contingency planning process. The record of past performance demonstrated that contingency planning needed to be centralized, and given more authority, and better support. It is not clear whether the February 24th reorganization will fully accomplish this; questions and abiguities remain.

These are matters which Congress may wish to pursue with DOE. Our ongoing work in this area should also shed additional light on these questions and we will be making constructive suggestions concerning contingency planning and crisis management in the coming months.

As requested by your offices, we did not solicit agency comments on this report. As also arranged with your offices, we are sending copies of this letter to the Secretary of Energy and the chairmen of other energy-related committees. Copies will also be available to other interested parties who request them.



Comptroller General
of the United States

Enclosure

OECP PROGRESS IN PREPARING COMPREHENSIVE PLAN SEGMENTS FOR
DEALING WITH A 1 TO 2.4 MMBD OIL SUPPLY DISRUPTION

ACTION PLAN SEGMENTS	DOES OECP HAVE DRAFT ACTION PLAN WHICH ADEQUATELY ADDRESSES								
	Relevant Regulations and/or Legal Authorities	Implementation Schedule and Sequence for Response Action	Office Responsible and Person in Charge	Results Anticipated and Time Frame for Achievement	Costs and Benefits of Implementation	Data and Information Required to Support Implementation	Consuming Sectors Which Would Be Affected	Interdependencies Which May Exist With Other Response Actions	Compliance/ Enforcement Mechanisms
1. Inventory Management of Private Oil Stocks	YES	YES	NO	PARTLY	PARTLY	YES	PARTLY	NO	YES
2. Fuel Oil to Natural Gas Switching	YES	YES	YES	YES	NO	YES	NO	NO	PARTLY
3. Fuel Oil to Coal Switching	YES	PARTLY	YES	YES	NO	YES	NO	NO	NO
4. Burning High Sulphur Fuel Oil in Selected Areas	YES	PARTLY	YES	PARTLY	PARTLY	YES	PARTLY	NO	YES
5. Emergency Oil Import Fee and Rebate	PARTLY	NO	NO	PARTLY	NO	PARTLY	YES	PARTLY	NO
6. Public Information Programs	NO	NO	NO	NO	NO	NO	NO	PARTLY	NOT APPLICABLE
7. Gasoline Odd/Even and Minimum Purchase Measures	YES	NO	NO	PARTLY	NO	NO	NO	NO	NO
8. 55 MPH Speed Limit Enforcement	YES	NO	NO	PARTLY	PARTLY	PARTLY	NO	PARTLY	YES
9. Development State Emergency Conservation Plans	YES	NO	NO	NO	NO	NO	NO	NO	NO
10. Strategic Petroleum Reserves Drawdown	NO	NO	NO	NO	NO	NO	NO	NO	NO
11. Increased Naval Petroleum Reserves Production	NO	NO	NO	NO	NO	NO	NO	NO	NO
12. Increased Nuclear Electricity Production	NO	NO	NO	NO	NO	NO	NO	NO	NO
13. Power Wheeling	NO	NO	NO	NO	NO	NO	NO	NO	NO
14. Increased Natural Gas Imports	NO	NO	NO	NO	NO	NO	NO	NO	NO
15. Increased Electricity Imports	NO	NO	NO	NO	NO	NO	NO	NO	NO
16. Emergency Excise Tax on Oil Products	NO	NO	NO	NO	NO	NO	NO	NO	NO
17. Tax on Oil Products and Rebate	NO	NO	NO	NO	NO	NO	NO	NO	NO
18. Speed Limit Reduction	NO	NO	NO	NO	NO	NO	NO	NO	NO
19. Increased Emergency Building Temperature Reductions	NO	NO	NO	NO	NO	NO	NO	NO	NO
20. Employer Organized Commuting	NO	NO	NO	NO	NO	NO	NO	NO	NO
21. Vehicle Use Stickers	NO	NO	NO	NO	NO	NO	NO	NO	NO
22. Coordination of U.S. Contingency Plans with IEA Emergency Sharing	NO	NO	NO	NO	NO	NO	NO	NO	NO
23. Program to Prevent Excessive Spot Oil Market Purchases	NO	NO	NO	NO	NO	NO	NO	NO	NO
24. Program to Coordinate Oil Stocks Drawdown by IEA Member Nations	NO	NO	NO	NO	NO	NO	NO	NO	NO

