UNITED STATES
NUCLEAR REGULATORY COMMISSION
WASHINGTON, D. C. 20555

50-320

MAY 1 1979

MEMORANDUM FOR: Carlton C. Kammerer, Director, CA

THRU: Lee V. Gossick
Executive Director for Operations

FROM: Norman M. Haller, Director, MPA

SUBJECT: RESPONSE TO SENATOR HART'S QUESTIONS REGARDING FY 80 AUTHORIZATION AS A RESULT OF TMI

Attached are answers to the questions asked by Senator Hart regarding NRC's FY 80 authorization as a result of TMI.

Please note that these answers have been prepared quickly by staff offices (as noted on each question) in order to respond to the 1-day turnaround requirement. There has been no BRG or EDO review of any of the budget impact information that is being given to you. Consequently these answers do not necessarily represent policy or program recommendations by the BRG or the EDO and should not be construed as such.

I note especially the Controller's answer to Question 2 in which he indicates May 15 is too early for NRC to provide the Committee an estimate of resource impacts that exceed our FY 80 request.

If the attached information is given to the Committee in its present form, please make certain that the above caveats are understood.

Attachment:
As stated

cc: Leamred W. Barry, CON

CONTACT:
Gordon Fowler, MPA
49-27721

102 204

H

Inspection & Enforcement

QUESTION 1. Resident Inspectors - NRC currently plans to implement the resident inspector program by the end of FY 1981:

(a) Would NRC support speeding up this schedule in light of the Three Mile Island accident?

ANSWER

We would like to implement the program faster and have recently examined the possibility of doing so. Unfortunately, the rather lengthy recruitment and training lead time, the limited availability of qualified personnel coupled with the need to maintain an effective region-based inspection program, preclude implementing the program any earlier. In our judgment, the current implementation plan is proceeding as rapidly as possible. Resident inspectors for the first two years of implementation (FY 1978 and FY 1979) have for the most part, come from personnel already on-board before the resident program was approved and funded. The FY 1978 supplemental resources (approved for the resident program) have allowed us to recruit and train additional personnel who will be assigned to sites in FY 1980 and FY 1981.

QUESTION (b) Would it be useful to extend the program to include an inspector at every operating reactor?

ANSWER

Yes, providing the effort of these additional inspectors focuses on achieving a much higher level of independent verification aimed directly at the operation of safety related equipment. We would recommend one inspector at each reactor with an operating license as well as those reactors in the pre-operational testing phase. This would be in addition to the current resident program which will, in part, place a resident at each site having one or more operating reactors.

QUESTION (c) Would it be possible to train and place inspectors at each plant by the end of FY 1980?

ANSWER

No. The personnel needed to place an additional inspector at every reactor with an operating license and in the pre-operational testing phase could not be recruited, trained, and assigned before the end of FY 1981. Moreover, to meet an end of FY 1981 implementation schedule,

we would have to proceed almost immediately to expand our training capacity and concurrently recruit personnel with a reasonable amount of reactor operations experience. Under such a plan, we would assign some inspectors in FY 1980 with the balance to arrive onsite by the end of FY 1981. To do so we would need to start recruiting during July, 1979 against the expanded FY80 end-strength. Any delays beyond this point would make full implementation by the end of FY 1981 very difficult.

QUESTION (d) How much would this cost?

ANSWER

Following is a table showing the estimated costs for FY 1980-81 to implement the expanded program:

	FY 1980	FY 1981	FY 1982
(People)	(146)*	(163)	(172)
Dollars (000):			
Compensation and Benefits	3,504	5,216	5,504
Administrative Support	584	652	688
Travel	496	734	774
Program Support	100	250	--
	$4,684*	$6,852	$6,966

* Does not include other resources needed to fully establish new initiatives connected with the Three Mile Island incident. An additional $1,000,000 and 76 people are needed in FY 1980 to carry forward these initiatives. Details are available.

Comptroller QUESTION 2. What will be the budgetary impact of the Three Mile Island accident on the NRC FY 1980 authorization request? If NRC will need additional funding, can NRC provide the Subcommittee with an estimate before May 15? If not, will NRC be coming back to Congress with a supplemental appropriations request?

ANSWER

As a result of TMI, there will be an impact on the NRC FY 1980 budget request. Some reprogramming will be in order, but we believe there will be a substantial number of new requirements that will require resources that exceed our FY 1980 request. May 15 will be too early for the NRC to provide the Committee an estimate. However, we currently anticipate a supplemental request as soon as our investigation of TMI provides us sufficient information from which to submit such a request.

State Programs

QUESTION 3a. To what extent is NRC's Office of State Programs (OSP) involved in the development and review of State emergency plans?

ANSWER.

The NRC was assigned the "lead agency" role in a Federal Register notice of December 24, 1975 which outlined responsibilities of Federal agencies for assisting State and local governments in developing plans for responding to radiological emergencies. OSP is responsible for carrying out this charge to NRC. Three professionals and one administrative assistant are assigned to handle the function. In carrying out the NRC role, OSP prepares planning guidance, develops and conducts training courses, provides field assistance to State and local governments to develop and test radiological emergency response plans, evaluates and concurs in State and local plans, and determines instrumentation requirements for measuring the offsite consequences of radiological incidents.

Twelve State plans have received NRC concurrence. Federal Interagency Advisory Committees, composed of representatives of the eight agencies assigned responsibilities in the December 24, 1975 Federal Register notice and chaired by NRC personnel, have under active review an additional 13 State plans. This activity is expected to increase, along with the critique of exercises to test plans. In addition, a significant effort needs to be mounted to provide more assistance for local governments in their radiological emergency planning. Lack of personnel and funding have precluded this effort.

QUESTION 3b. What staff effort and funding are assigned in the FY 80 budget to carry out these activities?

ANSWER.

Staff:

- Three professionals
- One Administrative Assistant
- One additional professional requested

Budget:

- Emergency preparedness training	$770,000
- Preparation of instrumentation guidance	45,000
- Preparation of transportation accident guidance	30,000

QUESTION 3c. In the light of the Three Mile Island accident, does NRC anticipate increasing its State emergency training and review activities? If so, what budgetary and staff increases would be necessary in FY 80?

ANSWER.

Increased Activity

Review and push toward concurrence emergency plans of 18 States which have operating reactors but lack concurred-in plans; evaluate plan testing exercises.

Evaluate exercises of the 12 States having NRC concurrence, and push States to update emergency plans.

Work with 8 States where reactors are under construction to encourage early development of plans.

Complete action on NUREG-0553 (Funding Study for State and Local Plans) and submit staff recommendations to Commission.

Complete action on NUREG-0396 (NRC/EPA Task Force Report) recommendations and submit staff recommendations to Commission.

Determine how Atmospheric Release Advisory Capability (ARAC), developed by Lawrence Livermore Laboratory, can be effectively used and integrated into Federal, State, local and licensee emergency response efforts, including use by NRC Operations Center and staff.

Update NRC emergency planning guidance for State and local governments (NUREG-75/111).

Possible Supplemental Budget Increases

Provide off-site emergency instrumentation guidance for State and local governments	$135,000
Purchase specialized field equipment:	
(1) Radioiodine monitors for State and local governments	$200,000
(2) Mobile field testing station to generate scenarios for testing emergency plans, and to serve as an NRC on-site Command Center in the event of a nuclear emergency	$250,000
Provide for initial grant funds for State and local governments for emergency planning	$800,000
TOTAL	$1,385,000

QUESTION 3c., cont'd.

ANSWER.

Staff Increases

Eight additional people (3 at headquarters and 5 at regions).

QUESTION 4. Emergency Development

Under P.L. 95-601, the NRC authorization bill for FY 79, NRC and EPA are producing two reports, one, due April 1, identifies research needs of the agency in carrying out radiation protection responsibilities. The other, due September 30, will examine the desirability and feasibility of performing epidemiological research on radiation health effects, will identify optimal target populations, and will devise plans for federal research in this area.

(a) Does NRC anticipate any additional tasks in this area to develop as a result of the decontamination and/or decommissioning of the Three Mile Island plant?

ANSWER

In anticipation of the relatively high cumulative radiation exposures that will be experienced by licensee and contractor personnel if the decontamination recovery option is selected, we will instruct the contractor chosen to perform the epidemiology feasibility study (arising from P.L. 95-601) to include the TMI occupational population in the exposed populations to be considered as part of the study.

Although decontamination/decommissioning of TMI should involve lower radiation exposures than decontamination/recovery, examination of the feasibility of studying the occupationally exposed population during decontamination/decommissioning also may be worthwhile. Thus we will instruct the contractor also to include this option in the epidemiology feasibility study. No decision has been made on decontamination and recovery or decontamination and decommissioning of the Three Mile Island unit.

(b) To what extent does the NRC (the Commission, the staff and/or the ACRS) expect to be involved in reviewing the utility's plan for the future of the TMI plant to assure minimization of occupational and public exposure?

ANSWER

Whether the follow-on action involves decontamination to permit eventual resumption of operation, or involves decommissioning of the plant, there is no question that the activity will be determined to involve an "unreviewed safety question" (10 CFR 50.59) and, as such, will be subjected to rigorous review by the NRC to assure, among other things, that radiation exposures, both to workers and to the general public, are maintained as low as reasonably achievable.

The NRC staff already has been involved in evaluating the licensee plans for clean-up of auxiliary building airborne effluents and liquid wastes currently existing in the building.

102 211

(c) What level of effort (staff work and funding) would be required for such activity?

ANSWER

Since the licensee has not as yet informed the Commission of a decision to clean up the TMI plant or plan for such an action it is extremely to difficult to estimate what resources the NRC will require to respond to his plans. Assuming that he will want to decontaminate the facility and restore it to operations, a rough estimate of the NRC level of effort to review the plans to assure minimization of occupational and public exposure is 2 man years.

(d) Does the clean-up of TMI plant involve unusually high occupational exposure risks?

ANSWER

The utility has not informed the Commission of a decision to clean up the TMI plant or a plan for such action. Because of the many different approches and as yet undetermined degree of difficulty associated with clean-up, it is impossible at this time to accurately estimate the amount of radiation exposure that may result from such a clean-up. However, whatever and however plant clean-up is performed, it will have to be done within the constraints of Commission regulations, license requirements, and the "as low as is reasonably achievable" concept. However, since individual worker's doses would be limited by the Commission regulations, a relatively large number of workers would be required compared to the number of workers normally associated with power reactor operation and maintenance. Therefore, although the individual worker's radiation dose would be at or below the usual limits, the total or collective man-rem dose could be large relative to more routine maintenance at a nuclear power plant. Since risk is correlated with total radiation dose, the risk could also be relatively high. Any plan for clean-up of the TMI plant will be evaluated to assure that occupational exposures will be as low as is reasonably achievable.

(e) Does NRC see any benefit in carrying out health follow-up studies on this worker group? If so, what agencies should be involved and to what extent? Would NRC need any increase in funding over the FY 80 request to participate in such studies?

ANSWER

As previously discussed, this population will be considered in the epidemiology feasibility study. We cannot at this time estimate the scientific value of studying this population because of the problems inherent in performing low-level radiation epidemiology studies on small populations. The consideration of these

QUESTION 4

ANSWER (e) (Con't)

problems and recommendations as to the suitability of studying this population will be part of the September 30, 1979 report to the Congress.

As discussed in the attached enclosure A, which was submitted to the subcommittee staff in the late January, we considered several options for agencies that might be involved in a large scale epidemiology study. NRC would have a range of possible responsibilites for such a study, depending on the extent of the HEW involvement in this area. If the TMI worker population is to be studied, then it will probably fall under the large scale epidemiology study. Because of the experience of agencies within HEW in performing epidemiology studies, we believe that HEW should be the lead agency in such an effort.

If the TMI worker population is to be studied, then the NRC may have to request additional funds, depending on the NRC's responsibilities in the study. For example, additional contract monies would be required to examine data on licensee employees in support of the large scale epidemiology study. It is estimated that, as a minimum, such an effort would require an additional appropriation of $100,000.

(f) After the September 30 report has been submitted, what are NRC's plans to follow up this effort in FY 80?

ANSWER

Our plans for FY 80 are to manage the completion of the feasibility planning study contract. The September 30 report will be an interim report, since the feasibility planning study will run into FY 80. However, we anticipate that it will contain sufficiently substantive preliminary information to provide a sound basis for Congressional budget decisions related to this effort in the FY 80 budget.

NRC will be responsive to the Congress' requirements in this area. We believe that there are other Federal agencies better qualified than NRC to conduct major epidemiological studies, and we will cooperate to the fullest extent with HEW or any other agency having the lead responsibility to perform any health effects studies as deemed necessary.

QUESTION 8. What additions to the Office of Contracts Administration would be required to eliminate the backlog of contract management actions, and correct deficiencies in contract administration identified in the GAO report?

ANSWER.

Additional Manpower Requirements for the
Division of Contracts
(Office of Contracts Administration)

	Current	FY 1980		FY 1981	
		Increment Over Current	Total for Office	Increment Over Current	Total for Office
Professional	31	(11)	42	(14)	45
Clerical	12	(5)	17	(6)	18
TOTAL	43	(16)	59	(20)	63

Management
& Program
Analysis

QUESTION 6. Please bring the Committee up to date on the Commission's activities in INFCE and NASAP. What level of activity is expected for FY 80? Please include a description of your activities with respect to alternative fuel cycle facilities as well as reactors.

ANSWER.

NRC has continued to participate in the U.S. support groups for the International Nuclear Fuel Cycle Evaluation (INFCE) and to monitor the alternative fission reactor and fuel cycle technologies described in the Nonproliferation Alternative Systems Assessment Program (NASAP). NRC staff member comments on the drafts of the INFCE Working Group final reports will be provided to the U.S. Support Group lead members over the next several months. Likewise, comments have been and will be sent to DOE on NASAP reports. NRC has reviewed and commented on a draft GAO report on NASAP and has reviewed a Congressional Research Service Report on Alternative Breeders.

NRC has agreed to provide a staff report to the President and Congress on preliminary findings of known or suspected licensing issues or problems with alternative technologies under serious consideration by DOE. To the extent possible, the alternative reactor and fuel cycles evaluated by NRC will be ranked from a licensing standpoint.

The authorizing appropriation of FY 79 funds for NRC contained a requirement for Semiannual Reports to Congress through CY 80 and Annual Reports through CY 82 on the status of domestic and international evaluations of nuclear fuel cycle systems. The first report in this series is scheduled for mid 1979. NRC will devote about 5.0 manyears of effort to INFCE and NASAP activities in FY 79 and a like amount in FY 80.

During NRC testimony before this Subcommittee on April 10, 1978, concern was expressed that NRC was not doing sufficient research on alternative reactor and fuel cycle concepts. This concern was also subsequently identified in the Congressional Report on the NRC FY 79 Authorization Act.

The NRC Office of Nuclear Regulatory Research has been working closely with the Office of Nuclear Reactor Regulation and the Office of Nuclear Material Safety and Safeguards to develop short-range research and technical assistance programs to help identify the safety, safeguards and environmental issues associated with alternative reactor and fuel cycle concepts. The proposed work will be performed as a part of ongoing programs at several National Laboratories and is limited to the concepts identified by DOE in NASAP. The results of this work will be included in NRC Reports to Congress on Alternative Technologies.

POOR ORIGINAL

102 215