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

JAN 02 1986

MEMORANDUM FOR:

Chairman Palladino

FROM:

William J. Dircks

Executive Director for Orerations

SUBJECT:

DOE FUNDING RELATED TO 1M1-2 CLEANUP

This is provided in response to your December 18, 1985 memorandum which requested the staff to prepare a rough estimate of the impact of proposed Department of Energy (DOE) funding reductions on the TMI-2 cleanup program. In addition to the summary information presented here the staff is preparing a detailed review of the licensee's cleanup schedule and funding plan for submittal to the Commission in the Spring 1986.

The DOE has been funding research and development (R&D) related work at the TMI site and at national laboratories since shortly after the accident. The total multi-year DOE program is currently based on assumed expenditures of \$189 million (M). The Office of Management and Budget's (OMB) recently proposed elimination of \$20M from DOE's TMI-2 related FY 87 budget represents the last monies required to fully authorize the \$189M program. Through FY 85 DOE has expended approximately \$127M on TMI-2 related activities. Based on a total DOE program of \$189M it has been estimated that \$96M would offset costs which General Public Utilities Nuclear Corporation (GPUN) would have incurred in the cleanup.

There are two issues associated with the proposed cut of TMI-2 R&D funds from DOE's FY 87 budget: (1) the potential for significantly affecting GPUN's funding plan with a resulting delay in the cleanup schedule, and (2) the potential for adversely affecting the amount and quality (R&D information obtained from TMI-2.

Funding & Schedule Considerations

In information provided to the Commission in my memorandum dated October 25, 1984 and at meeting on November 7, 1984 the staff assessed, in detail, the licensee's funding plan and cleanup schedule. The staff's review of the licensee's capability to fund the cleanup pointed out that some assumed funding sources were not firmly committed. Specifically, the staff

CONTACT: W. D. Travers, NRR FTS 590-1120

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Chairman Palladino -7illustrated a potential shortfall of \$62M for total cleanup based primarily on conservative assumptions that; (1) DOE funds are not committed after 1985, and (?) State funds from Pennsyl ania and New Jersey are not committed after 1985. Assuming the estimated \$62M shortfall was realized the staff nevertheless concluded, based on a review of the licensee's financial health, that the cleanup could be conducted on the targeted schedule. This conclusion assumed licensee capability to make up a shortfall of this magnitude over the remaining years of the cleanup. The licensee's most recent estimate (9/23/85) puts the total cleanup cost at \$965M, some \$22M less than what the staff assumed in its October 25, 1984 review. Through CY 1985, it is projected that \$615M will have been spent on the cleanup. This leaves a total of \$350M needed in CY 86 and beyond. Accounting for both the cleanup cost estimate reduction and for state monies which have been committed since the staff's October 25, 1984 review, we now estimate a potential shortfall of about \$19M. This is substantially less than our previous \$62M shortfall estimate.

The staff concludes that the proposed OMB elimination of \$20M from DOE's FY 87 budget request for TM1-2 R&D should not have a significant impact on the cleanup schedule. It is likely that GPUN would have the financial means to offset such a reduction and carry out the cleanup as planned. As noted in my October 25, 1984 memorandum, GPUN's financial condition has improved substantially since the two or three years following the accident. During that financially critical period GPUN survived a number of cash flow crises which have not recurred. It is expected that other funding sources would meet their commitments through the remaining years of the cleanup (e.g., Japan \$3M per year for six years; New Jersey and Pennsylvania \$41M total). Although there is always a risk that uncommitted monies will not be realized, the staff has had no indication that a DOE reduction would trigger such action by other funding contributors.

R&D Considerations

As an argument against the OMB FY 87 cut it should be pointed out that such action could affect the amount and quality of valuable information obtained at TMI-2. As noted earlier the cuts represent the last \$20M of DOE's \$189M multi-year program. The cuts would come at a point in the cleanup where DOE R&D has the greatest potential payback for each dollar spent. Specifically, during the removal of the damaged fuel and the decontamination of the facility, the greatest bulk of valuable information should become available. In contrast, much of DOE's funding in earlier years was preparatory and involved designing equipment and techniques required to begin defueling.

Although the proposed cuts are targeted for money requested in FY 87, it is likely that the practical effects would be realized beginning in FY 86. As a simplification, DOE expenditures on TM1-2 activities can be broken into two general categories; (1) those which offset GPUN cleanup expenses (e.g. development, procurement and operation of defueling equipment), and (2) those unrelated to directly carrying out the cleanup (e.g. examination and

characterization of core debris samples). In FY 86 DOE currently plans to fund approximately \$12M in TMI-2 site activities which offset GPUN cleanup costs. If the proposed FY 87 cuts are realized, however, it is likely that DOE will need to redirect the offsetting \$12M in FY 86 to assure adequate funding in FY 87 - FY 89 for DOE analysis programs away from the TMI site. Accordingly, GPUN would be forced to assume or acquire additional cleanup funding to cover this shortfall as early as FY 86. If this happened, it could also diminish DOE's ability to influence defueling operations sufficient to assure that adequate samples and data are collected. This results from the fact that, to a certain extent, the process of obtaining meaningful R&D information competes for resources and time with the goal of pushing on with the cleanup. As a funding contributor DOE retains significantly greater influence to assure TMI-2 information is not lost.

Conclusion & Recommendation

The FY 87 elimination of \$20M in TMI-2 R&D from the DOE budget should not have a significant impact on the cleanup schedule. The licensee should be in a position to fund the shortfall. Additionally, the staff has no basis to suspect that such a DOE cutback would prompt other funding contributors to default on their commitments.

The proposed cut could jeopardize DOE's multi-year plan to obtain and understand data related to the TMI-2 accident. The timing of the cut would be particularly harmful since it comes at a point where the most valuable information is about to be collected. Although the precise effect of cutting back on the last \$20M increment of DOE's ongoing \$189M program is not clear, it does not appear to be a cost-effective approach.

The staff is attempting to determine DOE reaction/strategy relative to the proposed cuts. We will inform the Commission if we determine that DOE will reclama the proposed cuts and if some form of support from the Commission could be effective in reestablishing the FY 87 funding. Aside from such a determination the staff suggests that, as informal opportunities present themselves, the Commissioners support the R&D value of completing the entire DOE program.

(Signed) Jack W. Poo

William J. Dircks Executive Director for Operations

cc: Commissioner Roberts
Commissioner Asselstine
Commissioner Bernthal
Commissioner Zech
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OPE
OGC

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NUCLEAR REGULATORY COMMISSION WASHINGTON, D. C. 20556

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Executive Director for Operations

SUBJECT: DOE FUNDING RELATED TO TM1-2 CLEANUP

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The DOE has been funding research and davelopment (350) related work at the TMI site and at national laboratories since shortly after the accident. The total multi-year DOE program is currently based on assumed expenditures of \$189 million (M). The Office of Management and Budget's (OMB) recently proposed elimination of \$20M from DOE's TMI-2 related FY 87 budget represents the last monies required to fully authorize the \$189M program. Through FY 85 DOE has expended approximately \$127M on TMI-2 related activities. Based on a total DOE program of \$189M it has been estimated that \$96M would offset costs which General Public Utilities Nuclear Corporation (GPUN) would have incurred in the cleanup.

There are two issues associated with the proposed cut of TM:-2 R&D funds from DOE's FY 87 budget: (1) the potential for significantly affecting GPUN's funding plan with a resulting delay in the cleanup schedule, and (2) the potential for adversely affecting the amount and quality of R&D information obtained from TMI-2.

Funding & Schedule Considerations

In information provided to the Commission in my memorandum dated October 25, 1984 and at meeting on November 7, 1984 the staff assessed, in detail, the licensee's funding plan and cleanup schedule. The staff's review of the licensee's canability to fund the cleanup pointed out that some assumed funding sources were not firmly committed. Specifically, the staff

CONTACT: W. D. Travers, HRR FTS 590-1120 illustrated a potential shortfall of \$62M for total cleanup based primarily on conservative assumptions that; (1) DOE funds are not committed after 1985, and (2) State funds from Pennsylvania and New Jersey are not committed after 1985.

Assuming the estimated \$62M shortfall was realized the staff nevertheless concluded, based on a review of the licensee's financial ? alth, that the cleanup could be conducted on the targeted schedule. This conclusion assumed licensee capability to make up a shortfall of this magnitude over the remaining years of the cleanup.

The licensee's most recent estimate (9/23/85) puts the total cleanup cost at \$965M, some \$22M less than what the staff assumed in its October 25, 1984 review. Through CY 1985, it is projected that \$615M will have been spent on the cleanup. This leaves a total of \$350M needed in CY 86 and beyond. Accounting for both the cleanup cost estimate reduction and for state monies which have been committed since the staff's October 25, 1984 review, we now estimate a potential shortfall of about \$19M. This is substantially less than our previous \$62M shortfall estimate.

The staff concludes that the proposed OMB elimination of \$20M from DOE's FY 87 budget request for TMI-2 R&D should not have a significant impact on the cleanup schedule. It is likely that GPUN would have the financial means to offset such a reduction and carry out the cleanup as planned. As noted in my October 25, 1984 memorandum, GPUN's financial condition has improved substantially since the two or three years following the accident. Ouring that financially critical period GPUN survived a number of cash flow crises which have not recurred. It is expected that other funding sources would meet their commitments through the remaining years of the cleanup (e.g., Japan \$3M per year for six years, New Jersey and Pennsylvania \$41M total). Although there is always a risk that uncommitted monies will not be realized, the staff has had no indication that a DOE reduction would trigger such action by other funding contributors.

RaD Considerations

As an argument against the OMB FY 87 cut it should be pointed out that such action could affect the amount and quality of valuable information of tained at IMI-2. As noted earlier the cuts represent the last \$20M of DOE's \$1.9M multi-year program. The cuts would come at a point in the cleanup where DOE R&D has the greatest potential payback for each dollar spent. Specifically, during the removal of the damaged fuel and the decontamination of the facility, the greatest bulk of valuable information should become available. In contrast, much of DOE's funding in earlier years was preparatory and involved designing equipment and techniques required to begin defueling.

Although the proposed cuts are targeted for money requested in FY 87, it is likely that the practical effects would be realized beginning in FY 86. As a simplification, DOE expenditures on TMI-2 activities can be broken into two general categories; (1) those which offset GPUN cleanup expenses (e.g. development, procurement and operation of defueling equipment), and (2) those unrelated to directly carrying out the cleanup (e.g. examination and characterization of core debris samples). In FY 86 DOE currently plans to fund approximately \$12M in TMI-2 site activities which offset GPUN cleanup costs. If the proposed FY 87 cuts are realized, however, it is likely that DOE will need to redirect the offsetting \$12M in FY 86 to assure adequate funding in FY 87 - FY 89 for DOE analysis programs away from the TMI site. Accordingly, GPUN would be forced to assume or acquire additional cleanup funding to cover this shortfall as early as FY 86. If this haspened, it could also diminish DOE's ability to influence defueling operations sufficient to assure that adequate samples and data are collected. This results from the fact that, to a certain extent, the process of obtaining meaningful R&D information competes for resources and time with the goal of pushing on with the cleanup. As a funding contributor DOE retains significantly greater influence to assure TMI-2 information is not lost.

Conclusion & Recommendation

The FY 87 elimination of \$20M in TMI-2 R&D from the DDE budget should not have a significant impact on the cleanup schedule. The licensee should be in a position to fund the shortfall. Additionally, the staff has no basis to seet that such a DDE cutback would prompt other funding contributors to default on their commitments.

The proposed cut could jeopardize DOE's multi-year plan to obtain and understand data related to the TMI-2 accident. The timing of the cut would be particularly harmful since it comes at a point where the most valuable information is about to be collected. Although the precise effect of cutting back on the last \$20M increment of DJE's ongoing \$189M program is relear, it does not appear to be a cost-effective approach.

The staff recommends that the Commission take no formal action (e.g. letters to OMB, DOE) at this time regarding this issue. The staff is attempting to determine DOE reaction/strategy relative to the proposed cuts. We will inform the Commission if we determine that DOE will reclama the proposed cuts and if some form of support from the Commission could be effective in reestablishing

the FY 87 funding. Aside from such a determination the staff suggests that, as informal opportunities present themselves, the Commissioners support the R&D value of completing the entire DOE program.

William J. Dircks Executive Director for Operations

cc: Commissioner Roberts
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