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MEMO FOR: Jim McKnight, DMB
FROM: P. Larkins, TIDC —
J. Resner, TIDC
SUBJECT: Transmittal of Speeches

Attached are two copies of a speech to be sent to the PDR and TERA. We have filed the NRC Form 426. *PRC*

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REGULATORY ASPECTS OF TMI CLEANUP

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ABSTRACT Cleanup operations at TMI present a number of unique regulatory concerns which are distinctive from operating power reactors. The NRC has formed a special contingent to focus on regulatory issues related to the cleanup. Regulatory policy pertaining to the review, approval and oversight of cleanup proposals and operations has been established. There are a number of examples which illustrate the unique regulatory issues and NRC actions responsive to the special needs at TMI.

Cleanup operations at TMI began soon after the accident on March 29, 1979. Initially, the efforts were concentrated in gaining personnel access for the operation and maintenance of critical plant systems and equipment vital in keeping the reactor in a long-term safe shutdown condition. Having achieved those immediate objectives, the NRC and the licensee began planning for the full decontamination of the TMI facility. It became obvious that full cleanup of the facility, including the removal of the radioactive wastes and damaged fuel from the site, is necessary to eliminate the threat to the health and safety of the public. Although the probability of an uncontrolled release of radioactivity to the environment is, at present, very small, such a threat will persist as long as the radioactive contamination remains at the site.

The cleanup operations at TMI present a number of unique regulatory concerns that are distinctive from those the NRC experiences with undamaged reactors. Apart from the scale and technical complexity of anticipated decontamination and defueling operations, the cleanup is also unique in the following respects:

1. The benefit of cleanup is realized in the maintenance of public health and safety, not in the quantity of power generated. Thus, while the underlying radiological health principle of regulations governing the operating reactors remains the same, the application of those regulations to TMI-2 cleanup operations may, in some instances, require specific policy decisions by the NRC. For example, releases of radioactive effluents from TMI-2 are now limited by technical specifications to values which are only design objectives for operating power reactor radwaste systems. Since they are now being applied at TMI-2 as limits instead of objectives, these regulatory restrictions are more stringent than those applicable to operating reactors. In addition, TMI-2 is under a specific Commission Order not to release any of the accident generated water (processed or otherwise), although this water may have been processed such that the concentrations of radionuclides remaining in the water are not higher than those allowed to be routinely released at other plants under operating reactor regulations.

2. The TMI facility was never intended nor designed to store large quantities of radioactive wastes and contaminants of the nature of those which resulted from the accident. Significant portions of these radioactive

wastes are of higher activity levels and different isotopic mixes than those routinely generated by undamaged power reactors. This, together with the severely damaged fuel materials, presents an unprecedented array of handling, storage and disposal problems and, a concomitant number of regulatory considerations.

3. - The accident, and subsequent cleanup activities, have been the focus of extensive public attention, anxiety and concern. This focus has continued in varying degrees over the three years since the accident, although cleanup activities have not resulted, nor are they expected to result, in radiological environmental impacts more severe than those from operating power reactors. Public and governmental concerns have resulted in studies being conducted by the NRC and the State of Maryland on potential socioeconomic impacts of the various alternatives available for disposal of the contaminated water. Of course, any regulatory decisions must take these concerns into consideration per 10 CFR Part 20.

Because of the many unique facets of the cleanup, the NRC has established a special contingent within the Office of Nuclear Reactor Regulation, the TMI Program Office (TMIPO) to focus on those regulatory issues specifically related to the cleanup.

The TMIPO consists of technical and management staff located both at the NRC Headquarters and on-site at TMI to provide an intensive and continuous interface with the licensee who is responsible for conducting cleanup operations. In general, the TMIPO has the following regulatory responsibilities:

1. Planning and managing all NRC involvement in TMI-2 cleanup activities,
2. Obtaining information and evaluating current facility status,
3. Analyzing and reviewing the licensee's proposed action and procedures,
4. Preparing technical review documents on the safety and environmental impacts of proposed licensee cleanup actions,
5. Approving or disapproving the licensee's proposed actions and procedures,
6. Advising the Commission on major cleanup actions ("Commission" means the five members of the NRC, as provided by Section 201 of the Energy Reorganization Act of 1974, as amended),
7. Coordinating NRC's TMI-2 cleanup activities with other governmental agencies as necessary,
8. Informing State and local governments and the public on the status and plans for cleanup activities,
9. Overseeing day-to-day licensee activities to ensure that operations are implemented in accordance with the facility's operating license and relevant orders and plans, ensuring activities are carried out in compliance with approved NRC limits and procedures, and

10. Coordinating with the NRC Office of Inspection and Enforcement on its TMI-2 inspection activities.

In March 1981, the TMIPO issued a Programmatic Environmental Impact Statement (PEIS) which evaluates the potential environmental impacts of all viable cleanup alternatives. This unique, programmatic treatment, was conducted in order to minimize anticipated regulatory barriers which could impede an expeditious cleanup by analyzing viable alternatives and assessing their impacts in accordance with NEPA and the guidelines of the Council on Environmental Quality. One of the major conclusions of the PEIS is that the cleanup can be implemented safely by suitable adaptation of existing technology and can be accomplished without significant impact to the public or the environment. In fact, the only environmental impact of any significance is expected to result from the radiation exposure to the cleanup workers during decontamination activities at the facility.

In its Policy Statement accompanying the PEIS, the Commission directed the staff to determine whether specific licensee cleanup proposals and the associated potential impacts fall within the scope of those already assessed in the PEIS. If the proposed actions are within the PEIS scope, the Director, TMIPO, has been delegated approval authority, while keeping the Commission informed of the staff's actions on each major proposal. Action on proposals which are outside the scope of the PEIS will be taken by the Commission itself. Also, the Commission has reserved to itself any NRC action on licensee proposals with regard to the disposition of processed accident generated water.

Any action proposed by the licensee will be reviewed by TMIPO to determine whether the action can be undertaken with reasonable assurance that it will not endanger the health and safety of the public and is environmentally acceptable. Cleanup actions proposed by the licensee and the appropriate level of TMIPO review of these actions fall into two categories:

1. If the proposed action involves a request for a license amendment or an unreviewed safety question, the TMIPO staff will first determine if it is within the scope of the PEIS. A proposed cleanup activity would be considered to be within the scope of those already addressed in the PEIS if the following conditions are satisfied:

- a. The proposed method is similar to the general type of activities discussed in the PEIS for the cleanup and/or disposal of radioactive wastes from the TMI facility.
- b. Its potential environmental impacts are not significantly different (qualitatively and quantitatively) from those environmental impacts associated with this type of activity as assessed in the PEIS.

In addition to the PEIS scope review, a significant hazards determination will be performed by the TMIPO staff and a safety evaluation will be prepared. If significant hazards are found to exist, an opportunity will be given for a public hearing prior to approval of the proposed action. In accordance with NRC Regulations, if no significant hazard exists, a notice for an opportunity of a hearing prior to approval and implementation of the proposed

action, will not be given. For either case, TMIPO review of the proposal would be accompanied by review and approval of the procedures to implement the proposed activity. NRC staff review and approval of procedures is generally not required for other operating reactors. However, in the case of TMI, because of the hazardous condition the plant is in, the staff believes that such precautions are prudent.

If it is determined that any major activity or predicted environmental impacts fall outside the scope of those already assessed in the PEIS, the TMIPO staff will complete necessary reviews in accordance with the National Environmental Policy Act (NEPA) and NRC requirements. If it is determined that a supplement to the PEIS is appropriate, the supplemental environmental statement will be prepared under the direction of the TMIPO. In the event a proposed activity falls outside of the scope of the PEIS, but does not require the preparation of a supplemental environmental impact statement, the TMIPO staff will publish a negative declaration to that effect and provide an Environmental Impact Appraisal in support of the negative declaration.

2. If the action, although major, does not involve the need for a license amendment and the action does not involve an unreviewed safety question, the TMIPO performs a safety review of the licensee's proposal and approves detailed implementation procedures prior to implementation. In this case, the TMIPO review must also determine the proposed action and its potential environmental consequences are within the scope of that discussed in the PEIS. If they are outside of the scope of activities evaluated in the PEIS, the TMIPO will proceed with the review in accordance with NEPA and NRC requirements as outlined above.

In many instances, the TMI cleanup has led to several unique regulatory issues and actions different from those experienced by operating reactors. The following are a few examples to illustrate some of the NRC actions resulting from circumstances special to TMI cleanup:

1. Significant quantities of radioactive wastes and damaged fuel materials at TMI are unsuitable for disposal or storage by conventional methods employed routinely by operating reactors. The NRC and the DOE initiated a Memorandum of Understanding (MOU) to set forth the roles of the two agencies with regard to areas of mutual interest, the radioactive wastes and fuel from TMI-2. By the MOU, DOE is to take possession, for research and development purposes at DOE facilities, those radioactive wastes and fuel from TMI-2 which are unsuitable for disposal at commercial shallow land burial sites.

2. The NRC took extra actions to inform and discuss with the public on the cleanup of the reactor building atmosphere. Prior to the controlled purging of Kr-85 from the reactor building in July 1980, the NRC issued a draft Environmental Assessment (EA) analyzing the various feasible atmosphere clean-up alternatives. Nearly 50 public meetings were held with local officials, organizations and members of the public to discuss the issue. Approximately 800 comments were received from the public in response to the circulation of the draft EA. The Commission's decision on the purge was made only after considerations were given to the responses from the public. During the purging operation, extensive monitoring of the air around the site was carried

out by the licensee, the NRC and the EPA through the coordination of the EPA office onsite at TMI. In addition, a team of trained, local citizens participated in the monitoring and provided a verification independent of the utility or any government agencies.

3. The Commission has established an Advisory Panel for the Decontamination of TMI-2 to provide to the Commission recommendations on issues related to the cleanup. Panel membership is made up of citizens from the vicinity of the TMI site, local and State government officials and members of the scientific community. This panel holds periodic public meetings and makes recommendations directly to the Commission. In arriving at decisions on cleanup operations, the Commission will take into consideration those recommendations made by the Advisory Panel.

The main factor constraining the pace of the cleanup has been the licensee's limitation on resources. The NRC recognizes that an expeditious cleanup is vital for the long term assurance of public health and safety and NRC approvals since the issuance of the PEIS have not been on the critical path for the cleanup. It is our intention that the NRC will continue to be responsive to the unique regulatory aspects of TMI, especially during the upcoming critical phases of the cleanup, i.e., core removal, reactor building decontamination and the disposal of high-specific-activity waste and fuel materials.