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Mr. Harold Denton, Director
Office of Nuclear Reactor Regulation
U. S. Nuclear Regulatory Commission
Washington, D.C. 20555

June 30, 1980
TLL 315

Dear Mr. Denton:

Three Mile Island Nuclear Station, Unit II (TMI-2)
Operating License No. DPR-73
Docket No. 50-320
Submerged Demineralizer System

This is in response to your letter of May 28 to Mr. Dieckamp and myself.

Our review of your letter and the basic issue of the contaminated water which exists in the Unit II containment building leads us to the conclusion that it would be helpful to clarify the Company's position on several of the items addressed in that letter.

Submerged Demineralizer System

The SDS was selected by the Company after review of several alternatives and after obtaining technical assistance and input from a number of sources. The objectives for the system included that it provide a reliable, well-developed method for accomplishing a major reduction in the mobility of the fission products dispersed within the plant by capturing at least 99.999% of the radioactive material in the containment building water, that it meet all existing codes and standards, and that it not preclude further processing of the water. During the system design development, your staff was apprised routinely of our efforts.

A Technical Advisory Group (TAG), made available by the Department of Energy, functioned as a technical oversight group during the design development. Oak Ridge National Laboratory conducted laboratory tests and evaluations to verify the efficacy of the system design. Recently, the TAG, after careful review of the design development work and the ORNL test results, recommended that:

"GPU proceed with deliberate speed to complete the SDS hardware and put the system into operation.

- The objective of reconcentrating the dispersed fission products into a secure and more manageable form as soon as possible is important to add confidence in protecting the public's health and safety.

- The improvement in public protection that can be obtained is important enough to proceed even though further optimization and later criteria may require some reprocessing or adjustments.

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Reconcentration of the fission products will improve access to plant equipment for maintenance thus enhancing the reliability of remaining operational functions and minimizing in-plant personnel exposure."

We strongly support the TAG's recommendation.

We believe treatment of the highly contaminated water in the containment building represents a very high priority activity and the next objective to reduce both actual and perceived threat to public health and safety. Hence, it is our judgment that providing timely capability to process the water is in the best interest of the public health and safety. Even for the longer term, the water is of safety concern because it is an adverse environment for plant equipment and it impedes building access and activities necessary for removal of the core. For these reasons, we have since the accident placed great emphasis on getting into place a capability to expeditiously immobilize the fission products dissolved in that water.

As a result of our best efforts, an adequate system for treating the highly contaminated water will not be available until about eighteen months after the accident. While we recognize this effort has been undertaken at our own risk in that NRC has not completed its review of the system, we believe that the containment building water posed the potential for developing into an emergency situation. We are of the opinion that our responsibility for protection of public health and safety demanded that we proceed.

In short, the proposed and required action is not only treatment of the containment building water, but treatment at the earliest possible opportunity. Time, we believe, is an essential ingredient and your NEPA review should reflect that fact.

Based upon our work to date, we still believe the SDS represents an excellent approach to treatment of the highly contaminated water and use of the SDS should not be delayed to conduct research for better alternatives. Use of the SDS does not preclude subsequent additional treatment, if experience with the performance of the SDS indicates that additional treatment is necessary.

We would reemphasize that the primary rationale for proceeding with SDS has been to provide an opportunity as quickly as possible for addressing by an acceptable method a public health and safety issue of potentially major proportions.

Your May 28 letter does not reflect the importance we attach to the prompt clean-up of contaminated water in the containment structure. It can, in fact, be read as requiring both completion of the entire PEIS and extensive consideration of all alternative treatment systems, regardless of their availability or state of development, before a decision is reached on operation of the SDS. This would not, in our view, be consistent with the Commission's policy statement of November 21, 1979, which recognized that the public interest in decontamination of the containment water might require early action in advance of the completion of the PEIS. In fact, deliberate delay would foreclose the action we propose--namely, acceptable treatment of the containment water as quickly as possible.

Accordingly, we request that NRC take the steps necessary to permit approval of the operation of the SDS consistent with the availability of the system for operation.

Solid Waste Disposal

Criteria which have been applied to all activities associated with the cleanup effort have included packaging of radioactive waste so that it can be transported to, and accepted by, waste disposal sites in compliance with existing regulations. We recognize the concerns which exits as to the form, content and ultimate disposal of the material collected by the proposed operation of the SDS. We are also aware of the various proposals to modify the existing regulations. Because of these circumstances, we have made provision, in the design of the SDS and the availability of interim on-site storage for contaminated resins, to permit proceeding with the immobilization of the fission products without foreclosing future options for treatment to improve their suitability for long-term off-site storage or disposal. These features of our planning are key elements in our rationale for proceeding with the design, procurement and installation of the SDS.

Your letter indicates "further guidance" will be available concerning solid waste disposal as work is pursued on the PEIS. We urge that resolution of these issues be given very high priority through an interagency task force with representation from all the concerned federal agencies.

Contingency Plan for Transfer of Untreated Water

Your letter states that we are "developing a contingency plan for transfer of the water from the containment building to suitably shielded on-site tanks." In our submittal of the SDS Technical Evaluation Report dated April 10, 1980, we discussed on Pages 1-3 the implications of installing shielded storage tanks. We concluded that it is not feasible to provide long-term on-site storage for the highly contaminated water. Of particular note is that installation time for such tanks would exceed two years. Pursuing such an effort would require the definition of criteria to be applied to design of such a facility and thus may also be dependent upon completion of the PEIS.

I was requested by Mr. John Collins to review the options available for removal of the water from the containment building in the event that became absolutely necessary. Such a review is in progress. In general, storage volume is available in Unit 2 tanks and spent fuel pools equivalent to the estimated 600,000 gallons presently flooding the lower level of the containment building. However, transfer of the water to such storage poses significant radiological problems and can only be justified on the basis of relieving an immediate emergency situation such as leakage from the building.

Our review is directed at calculating the radiation levels that would exist within the plant, if that water were placed in the various tanks or pools. The results of this review would be used to minimize the adverse impact of implementing such a contingency plan. We must emphasize that even at this stage and without the detailed results of a completed review, expeditious cleanup of the water to minimize reliance on such a contingency plan is very clearly preferable.

We believe that the TMI cleanup requires substantially greater coordination of federal, state and Company activities. Mr. Dieckamp's letter of March 4, 1980 to Chairman Ahearne, included a recommendation for formation of a senior oversight and coordination group with representatives from the responsible organizations. I urge you to consider this recommendation and whether or not you could support his proposal or an alternate one.

We accept that we have the lead responsibility for initiating actions which accomplish the cleanup as expeditiously as possible and recognize the responsibilities residing with other organizations for regulating and monitoring those activities. Fulfilling our responsibilities requires that we have defined criteria. The continued absence of clearly delineated criteria is extending the cleanup which, in our judgment, is inimical to overall safety and is introducing an inefficiency in the expenditure of our resources that we can ill afford. Nevertheless, we will continue to work to ensure our activities are mutually supportive of achieving our common goals.

Sincerely,

R. C. Arnold
Senior Vice President

RCA:clb

cc: H. Dieckamp
B. Snyder, NRC
J. T. Collins, NRC