



UNITED STATES
NUCLEAR REGULATORY COMMISSION
ADVISORY COMMITTEE ON REACTOR SAFEGUARDS
WASHINGTON, D. C. 20555

March 21, 1984

Mr. William J. Dircks
Executive Director for Operations
U.S. Nuclear Regulatory Commission
Washington, DC 20555

Dear Mr. Dircks:

SUBJECT: REVIEW OF GPU NUCLEAR CORPORATION'S CLEANUP PLAN FOR TMI-2 AND
THE NRC STAFF'S DRAFT SUPPLEMENT TO THE CLEANUP PROGRAMMATIC
ENVIRONMENTAL IMPACT STATEMENT

During its 287th meeting, March 15-17, 1984, the ACRS considered the recommendations of its Subcommittee on Reactor Radiological Effects regarding the TMI-2 cleanup. The Subcommittee had the benefit of the presentations by the NRC's TMI Program Office and by GPU Nuclear Corporation personnel during meetings on January 24 and February 24, 1984, respectively.

The ACRS approved forwarding the Subcommittee comments to you for your consideration.

Sincerely,

A handwritten signature in black ink, appearing to read "Jesse C. Ebersole".

Jesse C. Ebersole
Chairman

Enclosure:
Feb. 24, 1984 Subcommittee Comments on TMI-2
Cleanup and Related Issues

Reference:
Programmatic Environmental Impact Statement Related to Decontamination
and Disposal of Radioactive Wastes Resulting from March 28, 1979
Accident, Three Mile Island Nuclear Station, Unit 2 (Draft Supplement
Dealing with Occupational Radiation Dose) NUREG-0683, Supp. No. 1, Draft
Report, 12/83

cc: B. Snyder, TMIPO
L. Barrett, TMIPO
H. Denton, NRR
R. Minogue, RES

COMMENTS ON
GPU NUCLEAR CORPORATION'S CLEANUP PLAN FOR TMI-2 AND
ON THE NRC STAFF'S DRAFT SUPPLEMENT TO THE CLEANUP
PROGRAMMATIC ENVIRONMENTAL IMPACT STATEMENT (PEIS)

ACRS SUBCOMMITTEE ON REACTOR RADIOLOGICAL EFFECTS
FEBRUARY 24, 1984

During a meeting on January 24, 1984, the Subcommittee heard presentations by representatives of the NRC's TMI Program Office on the Staff's draft supplement to the Programmatic Environmental Impact Statement (PEIS) Related to Decontamination and Disposal of Radioactive Wastes Resulting from March 28, 1979 Accident, Three Mile Island Nuclear Station, Unit 2. This supplement was issued for comment in December, 1983 and deals with occupational radiation doses associated with the cleanup effort. On February 24, 1984, the Subcommittee met again and was briefed by GPU Nuclear Corporation on its detailed cleanup plan for TMI-2. Based on the above, we offer the following comments:

1. The TMI-2 GPU Recovery Staff appeared to be professional in their approach, and they were thorough in their presentations. However, they do not appear to have on their staff (or serving as consultants to them) an adequate number of people who have had previous direct experience in nuclear facility cleanup operations. The Subcommittee believes that the provision of such expertise would be helpful.
2. The discussions of the cleanup at TMI-2 clearly indicated that Cs-137 accounts for a major part of the external exposures that are occurring, and those that are projected in terms of the collective occupational doses for the total cleanup operation.

Accordingly, the Subcommittee urges that GPU obtain the services of professional personnel expert in the chemical behavior of cesium so that they can effectively address the problems represented by this radionuclide. They apparently do not now have such expertise.

3. There appear to be several aspects of the recovery operations wherein a better understanding of the radiation protection problems and a better knowledge of more effective control measures would be helpful. These aspects include:
 - a. Nature of Airborne Radionuclides

In connection with potential internal exposures of workers within TMI-2 containment, there is a need to specify the radionuclide composition of the various airborne particulates according to particle size. This has not apparently been done, yet it is essential to the assessment of the accompanying potential health hazard. The Subcommittee believes that

studies should be undertaken to more clearly delineate the nature of the airborne radionuclides.

b. Internal Versus External Exposures

Workers entering containment for decontamination and recovery operations are currently required to wear full-scale protective equipment, including respirators. Closer examination of the increased external exposures, because of the impediments caused by the utilization of protective equipment, might show that it would be better to alter this approach (such as working faster without protective equipment). This needs further evaluation.