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January 11, 1983  
 NRC/TMI-83-003

Docket No. 50-320

Mr. B. K. Kanga  
 Director, TMI-2  
 GPU Nuclear Corporation  
 P.O. Box 480  
 Middletown, PA 17057

Gentlemen:

Subject: TMI Unit 2 Radiation Protection Plan

We have reviewed your Radiation Protection Plan, Revision 0, submitted to us by letter 4410-82-L-0060, dated December 6, 1982. We conclude that minor clarification is required prior to our approval. Our comments have been discussed and resolved with your staff. These comments and their resolutions are presented below.

Articles 1, 2, 3, 4, 5, 6, 8, and 9 of the plan are acceptable as submitted.

Article 7

Comment:

The release limit for total (fixed and smearable) alpha surface contamination should be stated in units of disintegrations per minute (dpm) vice counts per minute (cpm).

Resolution:

Your staff has agreed to state in the Radiation Protection Plan the release limit for total alpha surface contamination in units of disintegrations per minute (dpm) vice counts per minute (cpm).

Our evaluation, based on incorporation of our comments as agreed to by your staff, is enclosed. With the incorporation of the above resolutions, we conclude that your Radiation Protection Plan is acceptable.

**Original signed by**  
**Lake H. Barrett**

Lake H. Barrett  
 Deputy Program Director  
 TMI Program Office

Enclosure: As Stated

cc w/encl: J. Barton  
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THREE MILE ISLAND, UNIT 2  
EVALUATION OF RADIATION PROTECTION PLAN

RADIATION PROTECTION

GPU Nuclear's submittal with regard to the Three Mile Island, Unit 2, "Radiation Protection Plan," describes the proposed radiation protection program.

The staff has reviewed the Radiation Protection Plan, and has used the acceptance criteria of Section 12 of NUREG-75/087, "Standard Review Plan for the Review of Safety Analysis Reports for Nuclear Power Plants" to judge the acceptability of the applicant's radiation protection program. Where other or additional criteria were used, those criteria are presented in our evaluation.

Article 1 Foundation for the TMI-2 Radiological Controls Program

Article 1 sets forth GPU Nuclear philosophies and basic policies concerning radiological controls program. We conclude that these policy considerations are consistent with the guidance of Regulatory Guide 8.8, "Information Relevant to Insuring that Occupational Radiation Exposures at Nuclear Power Stations Will Be As Low As Is Reasonably Achievable" and the acceptance criteria of Section 12.1 and 12.5 of NUREG-75/087. Regulatory Guides 8.2, 8.4, and 8.9 are referenced for additional regulatory guidance. Therefore, we conclude that the policy considerations are acceptable.

## Article 2 Responsibilities of Workers

Article 2 identifies specific rules to be followed by individuals working in restricted areas, in order to minimize radiological problems. We conclude that these provisions of the Plan are consistent with Regulatory Guide 8.8 and the acceptance criteria of NUREG-75/087. Therefore, we conclude that the responsibilities described in Article 2 are acceptable.

## Article 3 Audits, Reviews and Reports on the TMI-2 Radiological Control Program

Article 3 identifies nine levels of audits, reviews and reports to assure that individuals and supervisors responsible for maintaining occupational radiation exposures as low as is reasonably achievable are meeting that requirement, and assisting others in understanding and complying with that requirement. Since the proposed review and audit procedures incorporate criteria for timely and appropriate action for those functions specified in the plan, we conclude that this article provides methods capable of verifying that this requirement will be met, and are therefore acceptable.

## Article 4 Radiological Control Training

Article 4 describes the GPU Nuclear radiological control training program, to assure that each person understands radiation risks, radiological conditions to be encountered, personal responsibility to maintain exposure as low as is

reasonably achievable and to comply with radiological control procedures. We conclude that the training program described is consistent with the requirements of 10 CFR Part 19.12 and the draft guidance in the NRC draft Regulatory Guide, "Radiation Protection Training for Light-Water Cooled Nuclear Power Plant Personnel." Therefore, the training program described in Article 4 is acceptable.

#### Article 5 Control of External Exposure

Article 5 reaffirms GPU Nuclear's commitment to maintain occupational radiation exposures as low as is reasonably achievable, and describes exposure control policies and requirements addressed to that goal. We conclude that the policies and requirements are consistent with the guidance of Regulatory Guide 8.8 and the requirements of 10 CFR Part 20, "Standards for Protection Against Radiation." Therefore, the exposure control program described in Article 5 is acceptable.

#### Article 6 Control of Internal Exposures

Article 6 describes an internal exposure control program intended to prevent any significant internal exposure to personnel by limiting internal exposure to one tenth of the exposure to airborne radioactive materials that 10 CFR Part 20 would allow. We conclude that the internal exposure control program described is consistent with the requirements of 10 CFR Part 20.103, Regulatory Guide 8.15, "Acceptable Programs for Respiratory Protection," and Standard Review Plan, Section 12.5.

#### Article 7 Control of Radioactive Contamination

Article 7 states an intent to minimize possible inhalation or ingestion of radioactivity and buildup of radioactivity in the environment, in order to minimize personnel radiation exposure, to simplify subsequent decontamination, and to minimize the need to rely on anticontamination clothing, and emphasizes the importance of training in assuring success of this aspect of the program. We conclude that the licensee's plan for control of radioactive contamination is acceptable.

#### Article 8 Control of Radioactive Materials

Article 8 describes a program for a radioactive material control system to assure that such material is not lost or misplaced so as to cause inadvertent occupational exposures, and to prevent uncontrolled spread of such materials to areas where the public might be affected. Surveys for contamination will be provided for sampling of items to assure that contamination limits are not exceeded. We have concluded that the program for control of radioactive materials described in Article 8 is consistent with the guidance in Regulatory Guide 8.8 and the provisions of 10 CFR Part 20. Therefore, we conclude that the radioactive materials control program is acceptable.

Article 9 Organization for Radiological Controls

Article 9 describes the organization for Radiological Controls Department. We have concluded that the organization described is consistent with the guidance in Regulatory Guides 8.8 and 1.8, "Personnel Selection and Training." Therefore, the organization of the Radiological Controls Department is acceptable.