



**GPU Nuclear**  
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 Writer's Direct Dial Number:

September 15, 1982  
 4410-82-L-0010

TMI Program Office  
 Attn: Mr. L. H. Barrett, Deputy Program Director  
 US Nuclear Regulatory Commission  
 c/o Three Mile Island Nuclear Station  
 Middletown, PA 17057-0191

Dear Sir:

Three Mile Island Nuclear Station, Unit 2 (TMI-2)  
 Operating License No. DPR-73  
 Docket No. 50-320  
 Reactor Building Airborne Monitoring

This letter summarizes recent discussions between TMI-2 and NRC staff regarding monitoring of airborne radioactive material in the TMI-2 containment. GPU intends to embark on a step-by-step program to ascertain and implement a system for continuous monitoring of containment airborne activity to detect system upsets, operational aberrations, or other changes in airborne activity which might be of concern for the operation of the plant or the radiological safety of workers within the containment. The system addressed in this letter is intended to provide trend information for monitoring and surveillance purposes and, therefore, perform a somewhat different function than the local personnel airborne monitoring system described in GPU letter 4400-82-L-0143 dated August 20, 1982.

The airborne monitoring system evaluation and implementation program will proceed as follows:

1. Install an AMS-3 continuous air monitor on the 305' elevation of containment (This step was accomplished on September 3, 1982.)
2. Evaluate the performance of the installed AMS-3 to confirm its capability to monitor airborne activity in the TMI-2 containment environment.
3. Assuming favorable results from Step 2 above, provide for continuous readout of the installed AMS-3 outside containment.
4. Perform an engineering evaluation of in-containment airflows and mixing to determine the number and location of in-containment constant air monitors required to adequately characterize trends in containment airborne activity on a continuous basis. This includes evaluation of CAM response to events occurring in the D-rings while the purge system is operating.

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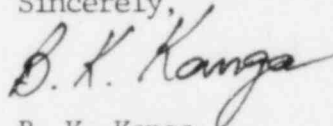
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5. Assuming favorable results from Step 3 and 4 above, implement the continuous air monitoring system. Depending on the results of Steps 1, 2, 3, and 4 above, and as a supplement or alternative to in-containment continuous air monitors, design and install a continuous air monitor in the purge exhaust upstream of the HEPA filters. This continuous air monitor would be designed to detect any significant trends from a baseline measurement, but would not necessarily represent an absolute measurement of the purge stream airborne activity. This is justifiable since there exists a calibrated continuous air monitor downstream of the HEPA filters, which serves the purpose of monitoring effluents to the environment.

It should be noted that engineering design and evaluation activities required to implement all the steps listed above have been initiated and are being pursued under the assumption that they will be ultimately required to achieve a satisfactory containment airborne activity monitoring system.

The results of the evaluation and experimental program described above will be integrated into a final containment airborne monitoring system design and presented to the NRC in the form of an amendment to the Recovery Operations Plan by late October, 1982. The implementation date for this amendment to the Recovery Operations Plan will be December 1, 1982.

Sincerely,



B. K. Kanga  
Director, TMI-2

BKK/JJB/jep

CC: Dr. B. J. Snyder, Program Director - TMI Program Office