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January 17, 1985 NRC/TMI-84-005

Docket No. 50-320

GPU Nuclear Corporation

ATTN: Mr. F. R. Standerfer

Vice President/Director, TMI-2

P. O. Box 480

Middletown, PA 17057

Dear Str:

Three Mile Island Nuclear Station Unit 2

Operating License No. DPR-73

Docket No. 50-320

Recovery Operations Plan Change No. 24

Reference: Letter from F. R. Standerfer to W. D. Travers, 4410-84-L-0223

dated December 20, 1984 (ROP change request 26)

The referenced letter proposed changes to the Recovery Operations Plan requirements regarding exhaust flowrate requirements for the fuel handling building ventilation system. The change was submitted to support opening of the fuel transfer tubes for fuel transfer system alignment.

Based on our enclosed safety evaluation we have concluded that the proposed changes will not present an undue risk to the health and safety of the public. We therefore approve the proposed changes and are enclosing the amended pages for Recovery Operations Plan change No.24.

-5-

William D. Travers Deputy Program Director TMI Program Office

Attachments: As stated

cc: R. Rogan

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#### Attachment Safety Evaluation

# Introduction

The Fuel Handling Building (FHB) Ventilation Exhaust System which takes suction on a network of ducts, passes the air through a series high efficiency particulate absolute (HEPA) filters and exhausts via the penthouse to the unit-II vent stack. The HEPA filters are tested prior to installation, after installation, and periodically thereafter to assure that any effluents are minimized. The exhaust system maintains the pressure within the FHB negative with respect to the environment to assure leakage is inward. The current flowrate requirement of 36,000 cfm provides for a changeover of building air on an approximately hourly basis. This provides for prompt recovery after an event which could cause airborne activity in the building.

# Discussion

The proposed change to the surveillance requirement affects only the exhaust flowrate while the fuel transfer tube(s) are open. The surveillance requirement regarding negative pressure remains unchanged thereby assuring that leakage is inward also remains unchanged.

The system flowrate requirements for monthly surveillance tests will remain unchanged. When the fuel transfer tubes are open a portion of the airflow from the FHB will pass thru the tubes into the Reactor Building (RB) and be processed by the RB Purge Exhaust System. The flowrate requirement will be changed to 26,000 cfm to allow for up to 10,000 cfm being processed through the RB purge system. The rate of changeover of building (FHB) air will not be adversely affected due to a portion of the air being exhausted through the reactor building pathway. The filtration efficiency and test requirements for the RB Purge Exhaust Filters are the same as the FHB Exhaust Filters. Thus, any effluents will be maintained ALARA (as-low-as-reasonably-achievable).

# Conclusion

The proposed change does not have an adverse effect on maintenance of negative pressure, building turnover rate or filtration efficiency. Thus it does not reduce safety margins or result in increased effluents to the environment. The proposed change in the FHB Exhaust flowrate will only be implemented during periods when one or both fuel transfer tubes are open for transfer system alignment. The impact of the proposed activity falls within the scope of consequence previously considered in the PEIS.

# 4.9 LIQUID RADWASTE STORAGE

# FUEL HANDLING BUILDING/AUXILIARY BUILDING AIR CLEANUP SYSTEMS

- 4.9.12.1 The Fuel Handling Building Air Cleanup Exhaust System shall be demonstrated OPERABLE:
- A. At least once per 31 days by verifying that the Air Cleanup Exhaust System in the normal operating mode meets the following conditions:
- \*\* 1. Exhaust Flow Rate: With two filter trains and two exhaust fans in operation in the Fuel Handling Building, flow rate shall be within the 36.000 cfm to 54.000 cfm operating band.
  - Filter Pressure Drop: While operating within the flow rate specified in 4.9.12.1.A.1 above, the d/p across the combined HEPA filters and charcoal adsorbers shall not exceed 6 inches water gauge.
  - 3. Fuel Handling Building Pressure: Demonstrate that the system is capable of achieving a negative pressure within the building equal to or greater (more negative) than 1/8" water gauge with respect to atmospheric. It may be necessary to close doors and other building openings to achieve the required value.
- B. At least once per 18 months by verifying that the ventilation system meets the following conditions:
  - Visually inspect each filter train and associated components in accordance with Section 5 of ANSI N510-1980, as required by Regulatory Position C.5.a of Regulatory Guide 1.52, Revision 2, March 1978. The inspection should be performed prior to the flow and DOP tests of this section.
  - 2. Flow Test: Exhaust flow rate shall be within 18,000 cfm to 27,000 cfm operating band for each filter train with one filter train and one exhaust fan operating. Testing shall be in accordance with ANSI N510-1980, Section 8.3.1, Paragraphs 3 and 4.
  - 3. DOP Test: Each filter train shall be tested in accordance with Section 10 of ANSI N510-1980, as required by Regulatory Position C.5.c of Regulatory Guide 1.52, Revision 2, March 1978. Flow through the filter train being tested shall be as prescribed for the flow test in Section 4.9.12.1.B.2 above.

NOTE: Installed system flow instrumentation is adequate for the test described in 4.9.12.1.B.3 above.

\*\* With the fuel transfer tubes open and the Fuel Pool not flooded in accordance with NRC approved procedures, the FHB exhaust flowrate shall be maintained between 26,000 cfm and 54,000 cfm. This condition applies only during system operation (not during system surveillance testing) performed to the criteria of Tech Spec 4.9.12.1.A.

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