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September 29, 1982  
5211-82-232

Office of Nuclear Reactor Regulation  
Attn: J. F. Stolz, Chief  
Operating Reactors Branch No. 4  
Division of Licensing  
U. S. Nuclear Regulatory Commission  
Washington, D.C. 20555

Dear Sir:

Three Mile Island Nuclear Station, Unit 1 (TMI-1)  
Operating License No. DPR-50  
Docket No. 50-289  
Phase 1 Ventilation Separation Program

The supply and exhaust ventilation system for TMI-1 Fuel Handling Building (FHB) are separate from those of TMI-2 except for the fuel handling floor which communicates directly with TMI-2. Because of the common FHB crane and other components, physical separation of the TMI-1 and TMI-2 fuel handling area was not feasible. To provide equivalent protection and meet the short term intent of Order Item 4, GPUN committed to modify the FHB as follows:

1. Isolate the TMI-1 fuel handling floor from the TMI-1 Auxiliary Building (AB) by an environmental barrier to eliminate potential uncontrolled leakage paths.
2. Install three leak tight isolation dampers in the FHB supply and exhaust ducts to prevent air leakage between the FHB Refueling Floor and Auxiliary Building via their respective ventilation systems. In the event of high radiation in the Fuel Handling Building, the TMI-1 FHB would be automatically isolated from the TMI-1 AB by stopping the FHB supply fan and closing the inlet and exhaust isolation dampers. However, subsequently these dampers could be opened and air flow re-established at the discretion of the plant operators.

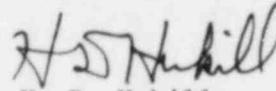
Further details concerning these modifications are discussed in the TMI-1 Restart Report Supplement 1, Part 2, Question 52.

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As discussed in paragraph 1267 of the Partial Initial Decision dated December 14, 1981 the ASLB agreed with the Commonwealth of Pennsylvania finding that a program should be designed to test the adequacy of the Phase 1 ventilation operation program. Attached is an outline of that program. The test program has been completed with satisfactory results and the system has been turned over to Plant Operations.

Sincerely,



H. D. Hukill  
Director, TMI-1

HDH:RAS:vjf  
Attachment  
cc: R. C. Haynes  
R. Jacobs

## Phase I Ventilation Separation Test Program

The Phase I ventilation separation test program is composed of a number of individual tests.

## I. Environmental Barrier Integrity Test

A. Purpose - To visually inspect the environmental barrier to ensure adequate integrity to minimize air flow between the AB and FHB.

B. Test - A quality control inspector has visually inspected the environmental barrier for any design deficiencies

C. Results - The visual inspection was completed on 7/30/82 with no major deficiencies noted.

## II. Auxiliary and Fuel Handling Building Ventilation Isolation Dampers - Cycling, Pressure Drop and Leak Tightness Test (Shop Tests).

A. Purpose - To demonstrate the leak tightness of the 3 dampers installed in the AB/FHB Ventilation System.

B. Test - Cycling tests of each damper from full open to full closed for a minimum of 25 times were conducted by the manufacturer.

Pressure drop test through the open damper in accordance with AMCA 500 requirements to show that a limit of 0.2 inches of water at 2500 ft/min air velocity through the damper is not exceeded.

The dampers were leak tested in the fully closed position in accordance with the requirements of ANSI N 509 Section 5.9.7 and Table 5 - for leakage Class II dampers.

C. Results - Following correction of a number of deficiencies associated with the dampers, the tests were satisfactorily completed on July 21, 1981.

## III. Auxiliary and Fuel Handling Building Ventilation Isolation Dampers - Control Logic Operability Test

A. Purpose - To demonstrate the operation of ventilation isolation dampers control logic circuitry.

B. Test - The test involved the development of a test procedure (TP 250/2.1) which outlines the various check points and details of these tests:

1. Damper isolation - local control station operations.

2. Damper isolation - Control Room operation
3. Damper isolation - dummy signal from RM-G9 and RM-A4 which automatically trips the supply fan AH-E-10 and closes dampers AH-D-120, 121 and 122.

C. Results - The test was completed on June 9, 1982 with satisfactory results.