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C311-88-2059
June 7, 1988

U. S. Nuclear Regulatory Commission
Attn: Document Control Desk
Washington, DC 20555

Dear Sir:

Three Mile Island Nuclear Station, Unit 1 (TMI-1)
Operating Licensing No. DPR-50
Docket No. 50-289
Inservice Testing (IST) of Pumps and Valves

The NRC's Supplemental Safety Evaluation (SSER), dated March 31, 1988 requested GPUN to add four valves to the IST program (EG-V10A/A, A/B, B/A, and B/B) and denied GPUN's request to extend the frequency of valve disassembly for four sets of valves (DH-V14A/B, BS-V30A/B, BS-V52A/B, and MS-V9A/B). The purpose of this letter is to provide justification for not adding the four EG-V10 valves to the IST program and to request that NRC reconsider the determination of disassembly frequency for DH-V14A/B, BS-V30A/B, BS-V52A/B, and MS-V9A/B. We believe that the disassembly frequency for these valves can be extended and we intend to submit the results of the valve inspections scheduled for the cycle 7R refueling outage to provide additional justification.

EG-V10 VALVES

The NRC's March 3, 1986 SER for the IST program applicable to the second ten year IST interval requested GPUN to add to the IST program the appropriate valves in the diesel generator air start system from the air receivers to the engine. Our letter of December 24, 1986 provided the commitment to add the diesel generator air start solenoid valves EG-V16's to the IST program. The NRC's SER dated March 19, 1986 approved the IST program for the air start system but requested that in addition, we add the solenoid operated vent valves EG-V17A/B to the program unless it could be determined that their failure would not cause degradation of diesel generator performance. Your letter of March 31, 1988 accepted our justification for not adding the EG-V17 valves but required that we add the EG-V10 valves to the program by July 31, 1988.

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This issue resulted from an inspection by NRC Region I personnel. Inspection Report 87-10* stated that the addition of the EG-V10 valves to the IST program was being referred to the NRC staff for follow-up review in accordance with 10 CFR 50.109. CPUN requested the backfit review of this issue at the NRC inspection exit meeting because the IST SER dated March 19, 1986 had confirmed the adequacy of TMI-1's IST Program following a detailed review that specifically addressed the Diesel Generator Air Start System. Therefore, NRC requirements to add these valves to the program would be a backfit.

EG-V10 valves are located on the inlet to each of the four air receivers (two receivers for each emergency diesel) that are used to start the diesel. Both receivers for each diesel are charged by a single air compressor. A common discharge line runs from the air receivers to the starting mechanism of the diesel. There are not two separate discharge lines from the air receivers. A failure of one line leads to the loss of both air receivers. However, redundancy is provided by the other diesel generator.

The Secondary Auxiliary Operator's Log provides for daily recording and verification of receiver air pressure (225-250 psig). Air compressor run times are reviewed by the operators to determine unusual trends that may indicate piping leaks. In addition, low air pressure (<150 psig) is alarmed; therefore, the air receivers and piping are under constant test. The instrument that provides the low air pressure signal for the air receivers (EG-PS-534A/B) is calibrated annually in accordance with Surveillance Procedure 1301-8.2, Diesel Generator Annual Inspection.

On April 27, 1988 a test was performed on the "B" Emergency Diesel Generator. The test removed the internals of EG-V10A/B and EG-V10B/B. It was shown that the air receivers remained at 250 psig for 15 minutes. This verifies that the design of the compressor discharge to the compressor air receiver does not allow a vented path to atmosphere. Therefore, it is concluded that EG-V10's have no required safety function. Even though it is our conclusion that EG-V10 is not safety related, we believe that these valves provide an operational convenience and we would not choose to remove them from the system.

*It should be pointed out that the inspection report incorrectly states that the piping upstream of EG-V10 is depressurized when the air compressor unloads following a recharging cycle.

The correct receiver air pressure is verified and alarmed. EG-V10 provides only an additional level of redundancy beyond that which is required (e.g., the individual diesel generators are not required to be single failure proof).

GPUN believes that the function provided by the EG-V10 valves is adequately monitored. Furthermore, we believe that whether or not EG-V10 is considered to be safety related, there would be no safety benefit to adding the EG-V10 valves to the IST Program and we would like to review the staff's backfit analysis for requiring tests of these valves.

DH-V14 VALVES

Our letter of November 3, 1987 requested that the disassembly frequency for DH-V14A/B be extended to one valve each 10 years rather than one valve each refueling (approximately one valve each year). Disassembly of DH-V14 requires approximately two (2) shifts during which the affected train of the Decay Heat Removal System must remain out of service. We feel that placing a DHR train out of service unnecessarily at a time when the operability of redundant trains is particularly desirable is counterproductive to optimum safe plant operation. We further believe this is contrary to the NRC's safety objectives as was the subject in IE Bulletin 80-12 and as stated in the NRC's Safety Evaluation for TMI-1 Technical Specification Amendment 119.

As stated in our letter, GPUN believes the safety benefit provided by the amount of additional information gained from disassembling one of these valves each refueling is negligible compared to the detriment caused by disassembly at that frequency (e.g., unnecessary radwaste, personnel exposure, equipment downtime, wear and tear on the parts during disassembly, and the additional opportunity for technician error or operator error while performing the tasks).

DH-V14 valve internals are in a chemically controlled environment. The only service the valve experiences is during testing. Clearly, the failures of check valves as seen in the industry (INPO Significant Operating Experience Report No. 86-03) do not apply to low usage valves like DH-V14.

GPUN believes that there is no credible failure mechanism for DH-V14 and that the refueling interval-3000 gpm flowrate test continues to demonstrate its operability. As a result of the information we have gained through over 15 years of

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experience with these valves (the very substantial flow rate of approximately 3000 gpm which is 2/3 of full accident flow rate is required to be demonstrated each refueling), we continue to believe that there would be a safety benefit to extending the current disassembly frequency.

We request that the NRC address the safety concerns that GPUN has expressed in regard to disassembling DH-V14 each refueling because this aspect was not addressed in the March 31, 1988 SSER.

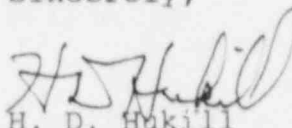
As a result of our conference call with the NRC on May 16, 1988, GPUN will notify the NRC through the NRC Project Manager, Ron Hernan, prior to disassembling the subject valves during the 7R outage in order that the NRC Staff may witness these inspections as requested. Additional copies of the photographs taken during previous inspections of the subject valves were sent to Ron Hernan by overnight mail on May 16, 1988.

Also, as agreed to in the conference call, our submittal of the 7R inspection results will include the following additional information:

- 1) A review of the history of the same type of valves as those involved in our request that may be used at TMI-1.
- 2) A review of any industry experience (as documented in NPRDS) regarding the same type of valves that are involved in our request as may be used in similar service at other plants.
- 3) A review of the valve installations addressing the Applications Guide for problematic locations.

Because of the 90 day implementation schedule required by the March 31, 1988 SSER, we request your help in expediting the staff's review of this transmittal.

Sincerely,



H. D. Hukill
Vice President and Director, TMI-1

HDH/MRK

cc: J. Stolz
R. Hernan
R. Conte