



GPU Nuclear Corporation
Post Office Box 480
Route 441 South
Middletown, Pennsylvania 17057-0191
717 844-7621
TELEX 84-2386
Writer's Direct Dial Number:

August 24, 1989
C311-89-2097

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

Dear Sir:

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

GPUN Response to NRC Bulletin 88-08

"Thermal Stresses in Piping Connected to Reactor Coolant Systems"

The purpose of this letter is to follow up in regard to our letter of July 31, 1989 and provide the final portion of our response to NRC Bulletin 88-08.

GPUN has completed its evaluation of the potential impact of unsuspected leakage through the Makeup and Purification - High Pressure Injection (HPI) System globe valves on the structural integrity of HPI nozzle assembly pressure boundary components. The results of our evaluation indicate that, even for very small leakage rates, leakage through the HPI check valves would be continuous and thermal stratification would not develop. At some point, leakage rates could be small enough that intermittent leakage could occur. Such intermittent leakage would be inconsequential because of the small volume involved. As a result of the conclusions reached in our evaluation, we do not believe that the conditions described in the NRC Bulletin 88-08 (including the three supplements) are applicable to TMI-1.

Our evaluation does not rule out the potential for thermal striping which was discussed in reference to the pressurizer surge line in NRC Bulletin 88-11. This concern would not be unique to TMI-1.

We understand that the structural impact of thermal striping is the subject of on-going industry investigation by the Electric Power Research Institute (EPRI) and a separate study is to be undertaken by the B&W Owners Group to address any residual concerns from Bulletin 88-08 related to thermal striping.

8908310217 890824
PDR ADDCK 05000289
Q PNU

JEIG
1/1

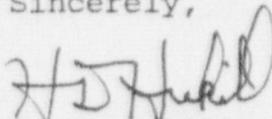
August 24, 1989

It should be noted that in addition to the ASME Section XI Code requirements, GPUN has in place an augmented Inservice Inspection (ISI) program for the HPI nozzle assembly. This program incorporates the enhanced IGSCC (Intergranular Stress Corrosion Cracking) techniques and a schedule with more frequent inspections than required by the Code. The results of these inspections to date indicate a satisfactory condition of the HPI thermal nozzle assembly.

GPUN is not aware of instrumentation currently available that could be used for the detection of thermal striping in this application. We expect to learn more about thermal striping from the efforts by industry groups. We will determine how the results from those studies relate to TMI-1.

We believe that no further action specific to TMI-1 in response to NRC Bulletin 88-08 is required at this time.

Sincerely,



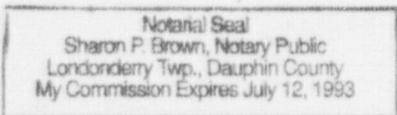
H. D. Hukill
Vice President and Director, TMI-1

HDH/MRK

cc: J. Stolz
R. Hernan
F. Young
W. Russell

Sworn and subscribed to
before me this 24th
day of August, 1989.

Sharon P. Brown



Member, Pennsylvania Association of Notaries