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December 21, 1984
5211-84-2297

Office of Nuclear Reactor Regulation
Attn: J. F. Stolz, Chief
Division of Licensing
U. S. Nuclear Regulatory Commission
Washington, DC 20555

Dear Sir:

Three Mile Island Nuclear Station, Unit 1 (TMI-1)
Operating License No. DPR-50
Docket No. 50-289
Control of Heavy Loads - Lifting Devices

As a result of discussions with Franklin Research Center, below is information describing specific reviews that have been performed to complete the evaluation of the Head and Internals Handling Fixture (tripod).

A consultant for GPU Nuclear performed stress analyses for the special lifting devices used in the TMI-1 reactor building. The analysis of the Head and Internals Handling Fixture (tripod) was performed using dimensional information from the vendor's design drawings and the analysis concluded that all members and welds satisfied the design safety factor criteria of ANSI N14.6-1978.

A comparison of as-built weld sizes to design sizes revealed that some of the welds were smaller than the design specification. An analysis by GPU Nuclear has been performed to determine safety factor compliance with ANSI N14.6.

GPU Nuclear performed an evaluation of welds of TMI-1 "Tripod" lifting device by comparing it to existing B&W calculations 32-1145001-00 for TMI-2 "Tripod", and found that the subject TMI-1 "Tripod" meets the safety factor of 3 (three) as required by NUREG-0612.

The above results are based on the following information:

1. One percent dynamic load factor was estimated for the crane design.
2. Actual TMI-1 "Tripod" weld sizes were used in evaluation.
3. TMI-1 and TMI-2 Tripods are identical in all aspects except for weld sizes.

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The stress analyses in conjunction with ongoing inspection and maintenance are judged to provide an adequate level of confidence in the reliability and integrity of the "tripod" lifting device.

Additionally, the Fuel Handling Building spent fuel cask pit gate lifting lugs have been modified as committed in item 2.2.3 of GPUN Response to NUREG-0612. GPUN procedure 1057-2, "Fuel Handling Building Crane Operation" will be modified to include instructions on the use of rigging components (slings, shackles), when lifting these gates, in January, 1985. Further by GPUN letter dated March 15, 1984 (5211-84-2072), GPUN projected revision of the electrical interlock system limits (including removal of the travel path to the decontamination pit at elevation 348') and associated procedures would be completed by December 15, 1984. However, GPUN now projects that this Item 5a & b will be completed in October 1985.

Sincerely,

R. J. Toole for

H. D. Hukill
Director, TMI-1

HDH/RAS/kds

cc: C. Bomberger (Westec)
R. Conte
J. Van Vliet