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January 8, 1988
 NRC/TMI 88-003

Docket No. 50-320

Mr. F. R. Standerfer
 Vice President/Director, TMI-2
 GPU Nuclear Corporation
 P. O. Box 460
 Middletown, PA 17057

Dear Mr. Standerfer:

The Nuclear Regulatory Commission (NRC) staff has reviewed your December 3 and December 20, 1987, submittals regarding use of the core bore machine for dismantling the Lower Core Support Assembly (LCSA).

As stated in the enclosed safety evaluation issued by the staff, we conclude that the proposed activities can be accomplished without significant risk to the health and safety of the public provided that they are in accordance with the limitations stated in your submittal. This activity falls within the scope of activities previously considered in the Programmatic Environmental Impact Statement.

We therefore approve using the core bore machine to dismantle the LCSA contingent upon incorporating the following limitations in your operating procedures:

- The elevation of the drill unit chuck shall be determined and independently verified within a tolerance of one inch.
- The length of each section of drill string shall be measured, independently verified to be within 0.125 inch, and marked on the drill string.
- Full thread engagement at assembly joints shall be observed and independently verified within 0.125 inch.
- The top casing section (step casing) shall be independently verified to have been correctly selected for the drilling location prior to drilling in each radius.

Sincerely,

ORIGINAL SIGNED BY:

William D. Travers

William D. Travers, Director
 TMI-2 Cleanup Project Directorate

cc: T. F. Derritt
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- b. The length of each section of drill string shall be measured, independently verified to be within 0.125 inch, and marked on the drill string.
- c. Full thread engagement at assembly joints be observed and independently verified within 0.125 inch.
- d. The top casing section (stop casing) be independently verified to have been correctly selected for the drilling location prior to drilling in each radius.

These limitations when coupled with the welded collar on the top casing section preclude the drill bit from reaching the incore instrument penetrations and provide a margin in excess of six inches to the reactor vessel lower head.

CONCLUSIONS

The staff has examined and evaluated the potential risks associated with using the core bore machine to aid in dismantling the LCSA. Safety issues associated with pyrophoricity, criticality, and mechanical forces regarding the reactor vessel and internals do not significantly differ from those previously reviewed and approved.

The staff has also concluded that the drilling operation will not cause significant risk of a failure of the incore instrument penetrations and that the licensee has the capability to detect and mitigate a failure if it did occur. Provisions to preclude the drill bit from contacting the reactor vessel lower head have been incorporated into the staff's approval letter. We, therefore, conclude that using the core bore machine to aid in dismantling the LCSA can be implemented without significant risk to the health and safety of the public.

REFERENCES

1. GPUN letter with attached SER from F. R. Standerfer, 4410-85-L-0147, to B. J. Snyder, dated August 30, 1985.
2. GPUN letter with attached SER from F. R. Standerfer, 4410-85-L-0248, to W. D. Travers, dated December 31, 1985.
3. GPUN letter with attached SER from F. R. Standerfer, 4410-86-L00101, to W. D. Travers, dated June 11, 1986.
4. GPUN letter with attached SER from F. R. Standerfer, 4410-86-L-0091, to W. D. Travers, dated June 23, 1986.
5. GPUN letter from F. R. Standerfer, 4410-86-L-0122, to W. D. Travers, dated July 11, 1986.
6. NRC letter with attached Safety Evaluation, NRC/TMI 86-041, W. D. Travers to F. R. Standerfer, dated May 5, 1986.
7. NRC letter with attached Safety Evaluation, NRC/TMI 86-052, W. D. Travers to F. R. Standerfer, dated May 28, 1986.
8. NRC letter with attached Safety Evaluation, NRC/TMI 86-058, W. D. Travers to F. R. Standerfer, dated June 19, 1986.
9. NRC letter with attached Safety Evaluation, NRC/TMI 86-070, W. D. Travers to F. R. Standerfer, dated July 16, 1986.
10. GPUN letter re "Use of Core Stratification Sample Acquisition Tool for Defueling" from F. R. Standerfer to W. D. Travers, dated July 23, 1986.
11. GPUN letter with attached evaluations from F. R. Standerfer, 4410-86-L-0162, to W. D. Travers, dated September 19, 1986.
12. NRC letter with attached Safety Evaluation NRC/TMI 86-072, W. D. Travers to F. R. Standerfer, dated July 24, 1986.
13. NRC letter with attached Safety Evaluation NRC/TMI 86-101, W. D. Travers to F. R. Standerfer, dated October 16, 1986.
14. GPUN letter re "Use of Core Bore Machine for Dismantling the Lower Core Support Assembly" from F. R. Standerfer to NRC, dated December 3, 1987.
15. GPUN letter re "Use of Core Bore Machine for Dismantling the Lower Core Support Assembly" from F. R. Standerfer to NRC, dated December 28, 1987.
16. NRC letter with attached Safety Evaluation, B. J. Snyder to F. R. Standerfer, dated May 2, 1985.

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