

**Nuclear**

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May 13, 1986

TMI-2 Cleanup Project Directorate  
Attn: Dr. W. D. Travers  
Director  
US Nuclear Regulatory Commission  
c/o Three Mile Island Nuclear Station  
Middletown, PA 17057

Dear Dr. Travers:

Three Mile Island Nuclear Station, Unit 2 (TMI-2)  
Operating License No. DPR-73  
Docket No. 50-320  
Safety Evaluation Report for  
Core Stratification Sample Acquisition, Revision 3

Attached are responses to your comments on the Safety Evaluation Report (SER) for Core Stratification Sample Acquisition, Revision 3, as transmitted by NRC/TMI-86-038, dated April 23, 1986. Note that changing conditions in the Reactor Vessel require a modification to the GPU Nuclear plan for controlling drill string lengths in containment, as presented in GPU Nuclear letter 4410-85-L-0248, dated December 31, 1985. A discussion of the revised plan is included in the response to Comment 1.

Sincerely,



F. R. Standerfer  
Vice President/Director, TMI-2

FRS/RBS/eml

Attachment

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P PDR

COMMENT 1:

Describe your program to measure and control the length and reference position of the drill string, such that adequate clearance to the reactor vessel wall is maintained.

GPU NUCLEAR RESPONSE:

The use of drill rod (pipe) is controlled by an operating procedure approved pursuant to Technical Specification 6.8.2. The procedure limits the amount and type of drill pipe available on the defueling work platform (DWP) at any time; thus, only authorized drill string configurations are possible. The procedure also requires each pipe handling step in a hole drilling evolution to be verified by the defueling SRO.

Each piece of drill rod and casing is inspected and will have its length verified by QC to a tolerance of  $\pm 1/2$  inch. Each piece of drill rod and casing will have its length etched on the upper end so that the equipment operators can clearly identify the length of the piece being handled. The drill rod and casing necessary for each individual sample (i.e., including extra "set-up" pieces) will be staged into the containment building via a Unit Work Instruction (UWI). This UWI requires QC verification of the length of each piece of drill rod and casing being staged into containment and stored on elevation 347'. This UWI will allow additional "set-up" pieces of pipe, required to adjust for unevenness in the core debris bed, to be staged onto the DWP. These pieces will be removed from the DWP and will be staged on elevation 347' prior to taking the core sample unless retention of these pieces is necessary to reach the target depth.

In summary, the UWI and core bore procedures administratively limit the amount of drill string and casing available on the DWP to a length which precludes contacting the reactor vessel lower head.

COMMENT 2:

Describe how you will insure full thread engagement of the drill string.

GPU NUCLEAR RESPONSE:

Drill string pipe joints are made manually at the top of the drilling machine where the pipe joint is visible. The operating procedure requires visual verification that no more than one thread (i.e., approximately  $1/4$  inch) is exposed at each joint. Manual joining of the pipe also allows operators to feel the engagement of the thread; thus, proper thread engagement is assured visually and manually. Operators will have undergone training and will be qualified on the pipe assembly and disassembly operations.