

NJK-75-110

February 25, 1975

Mr. John F. O'Leary, Director  
Directorate of Licensing Regulation  
U. S. Nuclear Regulatory Commission  
Washington, D. C. 20545

REFERENCE: Quad-Cities Nuclear Power Station  
Docket No. 50-254, DPR-29  
Appendix A. Section 6.6.B.2.b

Dear Mr. O'Leary:

The purpose of this letter is to report to you the details of an unusual event that was discovered on February 12, 1975. This report is submitted to you in accordance with the requirements of Technical Specification 6.6.B.2.b.

On February 11, 1975, Unit 1 was in cold shutdown with the pressure vessel head, the steam dryer and the steam separator removed; and the reactor core was being verified. The next day, during the nuclear engineers' review of the video tape of the verification, it was noticed that mixed-oxide fuel assembly GED 160A had its identification number stamped in the wrong orientation. In the correct orientation, the bottom of the letters and numbers on the assembly handle should point toward the corner of the assembly to which the spring clip is attached. In this case, however, the letters and numbers faced the opposite way. The fuel assembly itself was observed to be in the correct orientation in the core by observing the location of the spring clip, the location of the orientation lug on the assembly handle, the pattern of the gadolinium rods in the assembly, and the position of the channel spacers. The cause of this identification number misorientation was a manufacturing error.

The safety implications of this event are minimized by the fact that the assembly was oriented correctly in spite of the mis-stamped identification number. Therefore there was no increase of the probability of fuel integrity breakdown; and the health and safety of the public were not affected. As this was the first case of a misoriented identification number occurring at Quad-Cities, there were no safety implications based on cumulative experience.

The Safety Analysis Report states in Section 3.4-2 that the number orientation is one means of determining the fuel assembly orientation. Therefore it would be possible to misorient this assembly if the identification number was the only method used. Because this bundle is a mixed-oxide test assembly, it is especially important to have it oriented correctly, not only to prevent fuel rod failure, but also to obtain reliable test data.

8306270481 750225  
PDR ADDCK 05000254  
S PDR

*50-254  
incident*

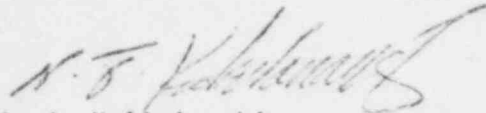
2719

COPY SENT REGION III

Because of this event the orientation of all the other assemblies in the core were verified by both the number orientation and the spring clip location. A note of assembly GEB 160Δ's number orientation was included in the core verification records for reference in future fuel movements and verifications. All future core verifications will include verification of orientation by both number orientation and spring clip location. The new fuel inspection procedure will be changed to contain a step to verify the identification number orientation as being correct.

Very truly yours,

COMMONWEALTH EDISON COMPANY  
QUAD-CITIES NUCLEAR POWER STATION



N. J. Kalivianakis  
Station Superintendent

NJK/EAS/vmm

cc: Region III, Directorate of Regulatory Operations  
J. S. Abel