



**UNITED STATES
NUCLEAR REGULATORY COMMISSION**

REGION III
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LISLE, IL 60532-4352

January 14, 2010

EA-09-247

Mr. Charles G. Pardee
Senior Vice President, Exelon Generation Company, LLC
President and Chief Nuclear Officer (CNO), Exelon Nuclear
4300 Winfield Road
Warrenville IL 60555

**SUBJECT: RESPONSE TO DISAGREEMENT REGARDING CROSS-CUTTING ASPECT
 ASSOCIATED WITH NON-CITED VIOLATION, BYRON STATION, UNIT 2,
 INSPECTION REPORT 05000455/2009003**

Dear Mr. Pardee:

On December 18, 2009, Mr. Daniel J. Enright, Exelon Generation Company, LLC (Exelon), Byron Station, Unit 2, provided a response to an NRC Inspection Report issued on August 7, 2009, concerning activities conducted at your facility. Specifically, the Exelon letter disagreed with the cross-cutting aspect associated with a non-cited violation (NCV) contained in the inspection report, namely NCV 05000455/2009003-01, regarding the "Failure to comply with Technical Specification (TS) 3.4.13.B reactor coolant system (RCS) pressure boundary leakage." In our inspection report, we determined that the primary cause for this finding was related to the cross-cutting area of Human Performance and its associated component for Decision Making (H.1(b)), because licensee management personnel concluded that the leak did not represent reactor coolant pressure boundary leakage due to the closure of an isolation valve. The Exelon letter indicated that the cross-cutting aspect for the NCV was more closely associated with a Human Performance component of Resources (H.2(c)).

The Exelon letter indicated that the decision on leak classification was based on available resources including the site procedures, processes, and training with respect to isolating the line to eliminate the pressure boundary leakage condition. Exelon's position is that the plant was placed in a safe and conservative configuration as a result of actions to verify that a valve (2PS9350B) upstream from the leak was closed. Although the valve was closed, valve seat leakage allowed reactor coolant to continue leaking, albeit at a small rate, through the piping fault. The licensee indicated that the violation was attributed to the TS not being clear with regard to the definition of pressure boundary leakage associated with a "non-isolable" reactor coolant system leakage through a fault. Exelon contends that the TS was applied as understood at the time by "isolating" the fault condition without making an assumption in its decision making. Therefore, Exelon disagreed with the characterization of the cross-cutting aspect being classified as Human Performance with an associated component of Decision Making (H.1(b)). Furthermore, Exelon contends that a more accurate classification and characterization of the cause for the violation would be the cross-cutting area of Human Performance with an associated component of Resources (H.2(c)).

The NRC staff, independent of the original inspectors and approvers, reviewed Exelon's basis for disagreeing with the characterization of the cross-cutting aspect associated with the violation. From the description of the violation in the associated inspection report, it appears that:

1. The licensee identified pressure boundary leakage on June 24, 2009, as a pinhole leak (one drop every 5 minutes) on a welded connection inside the Unit 2 containment. The welded connection is on line 2PS01BB and the line is 3/8 inch in diameter. This line is a pressurizer liquid sample line and is a non-safety related non-American Society of Mechanical Engineer code, Class D pipe.
2. The licensee verified that valve 2PS9350B upstream of the leak was closed and that both containment isolation valves downstream of the leak were closed.
3. Despite the fact that the upstream valve was closed, the leak continued.
4. The Shift Manager made a decision that the leak did not constitute reactor pressure boundary leakage.
5. Based on that decision, the licensee failed to take the required TS action (be in Mode 3 within 6 hours), resulting in the violation.

Based on this description, it appears that a non-conservative decision was made that had a direct bearing on the violation. In Appendix A, Components within the Cross-Cutting Areas, to NRC Inspection Manual Chapter 0305, Operating Reactor Assessment Process, the description of H.1(b) is as follows:

The licensee uses conservative assumptions in decision making and adopts a requirement to demonstrate that the proposed action is safe in order to proceed rather than a requirement to demonstrate that it is unsafe in order to disapprove the action. The licensee conducts effectiveness reviews of safety-significant decisions to verify the validity of the underlying assumptions, identify possible unintended consequences, and determine how to improve future decisions.

Regardless of the perceived adequacy or inadequacy of licensee available resources, including site procedures, processes, and training with respect to isolating the line to eliminate the pressure boundary leakage, and in the face of uncertainty (continued leakage), site management had the option of making a more conservative decision, including affecting repairs within the TS action time to eliminate the pressure boundary leakage or complying with the action requirement to be in Mode 3 within 6 hours.

Therefore, after careful consideration of the information you provided, we have concluded that the characterization of the cross-cutting aspect associated with the violation is as stated in the inspection report. We consider this matter closed.

C. Pardee

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In accordance with 10 CFR 2.390 of the NRC's "Rules of Practice," a copy of this letter and your December 18, 2009, response will be available electronically for public inspection in the NRC Public Document Room or from the NRC's document system (ADAMS), accessible from the NRC Web site at <http://www.nrc.gov/reading-rm/adams.html>.

Sincerely,

/RA/

Steven West, Director
Division of Reactor Projects

Docket No. 50-455
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Sincerely,

/RA/

Steven West, Director
Division of Reactor Projects

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Letter to C. Pardee from S. West dated January 14, 2010.

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ASSOCIATED WITH NON-CITED VIOLATION, BYRON STATION, UNIT 2,
INSPECTION REPORT 05000455/2009003

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