

From: <Alison.MacKellar@exeloncorp.com>
To: <gfd@nrc.gov>
Date: 8/12/05 1:49PM
Subject: Draft Director's Decision (2.206 Petition)

George,

We have reviewed the Draft Director's Decision Regarding the Loop Stop Isolation Valve (2.206 Petition) and do agree that the items documented in the original 2.206 petition are fully addressed.

We have only minor comments that are discussed below and a pdf of which is attached.

1. Page 1, last sentence.....insert the words "could potentially" introduce debris into the reactor coolant system.
2. Page 4, 3rd paragraph.....insert the words "line/nozzle" directly after the wordspressurizer spray line/nozzle.
3. Page 6, item 4.....same comment as above, insert the words "line/nozzle" directly after the words pressurizer spray line/nozzle.

<<2206 comments.pdf>>

Alison Mackellar
Exelon Nuclear
Cantera
Licensing Engineer
(630) 657-2817
pgr (630) 307-3908
alison.mackellar@exeloncorp.com

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CC: <joseph.bauer@exeloncorp.com>, <william.grundmann@exeloncorp.com>

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From: <Alison.MacKellar@exeloncorp.com>

Created By: Alison.MacKellar@exeloncorp.com

Recipients

nrc.gov
owf4_po.OWFN_DO
GFD (George Dick)

exeloncorp.com
william.grundmann CC
joseph.bauer CC

Post Office
owf4_po.OWFN_DO

Route
nrc.gov
exeloncorp.com

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UNITED STATES OF AMERICA
NUCLEAR REGULATORY COMMISSION
OFFICE OF NUCLEAR REACTOR REGULATION

J. E. Dyer, Director

In the Matter of)	Docket No. STN 60-454
Exelon Generation Company, LLC)	License No. NPF-37
)	
(Byron Station, Unit 1))	
)	

PROPOSED DIRECTOR'S DECISION UNDER 10 CFR 2.206

1. Introduction

By electronic mail dated March 2, 2005, addressed to Mr. Luis A. Reyes, Executive Director for Operations at the U.S. Nuclear Regulatory Commission, Mr. Barry Quigley filed a petition pursuant to Title 10 of the *Code of Federal Regulations*, Section 2.206 (Agencywide Document Access and Management System (ADAMS) Accession No. ML050680255). The petitioner requests that the U.S. Nuclear Regulatory Commission (NRC) take enforcement action against Exelon Nuclear's (Exelon's, the licensee's) Byron Station for failure to comply with 10 CFR Part 50, Appendix B, Criterion XVI. Specifically, the petitioner stated that the 1C cold leg loop stop isolation valve (LSIV) (1RC8002C) has been broken for at least six years and has not been repaired. The basis for the request is that LSIV 1RC8002C can be difficult to close, to the point of protective features of the motor actuating. The petitioner indicated that the failure mechanism is metal-to-metal contact between the valve disc and a misaligned valve guide which introduces debris into the reactor coolant system.

could potentially

ENCLOSURE 1

removed. The licensee inspected for loose parts in the vessel and found no loose parts that may have come from the LSIV. As a result, NRC staff finds that the Byron Station, Unit 1 RCS cold leg LSIV 1RC8002C is unlikely to be degraded to a condition where the valve guide, or a portion of the valve guide, can loosen and migrate to the reactor vessel during normal plant operation. Nevertheless, the staff considered the potential for the release of loose parts into the RCS at Byron Station, Unit 1.

In its May 27, 2005, submittal, the licensee (1) discussed the detection and alerting system that would enable plant personnel to identify the presence of a large loose part and (2) the procedures to be used to identify and respond to a loose part. Based on a review of the information provided, the NRC staff concludes that the licensee's loose parts monitoring provision would detect, alarm, and help locate and identify large loose parts. Further, the staff considers it unlikely that a large loose part would be generated coincident with a loss of coolant accident of sufficient size to cause the loose part to become an aggravating factor.

Although small loose parts may be more difficult to detect, they are less likely to cause an immediate safety problem than large loose parts. While considering loose parts, NRC staff postulated two specific situations: (1) a loose part obstructing the chemical and volume control system letdown line from the RCS, and (2) a loose part obstructing the pressurizer spray. In its May 27, 2005, submittal, the licensee addressed these two situations through reference to Section 5.4 of the Byron UFSAR which discusses compliance with Reactor Systems Branch (RSB) Branch Technical Position RSB 5-1, "Design Requirements of the Residual Heat Removal System," attached to Section 5.4.7 of the NRC Standard Review Plan (NUREG-0800). RSB 5-1 specifies shutdown requirements for light water reactors. Section 5.4 of the Byron UFSAR shows that Byron has the capability to transition from normal operating conditions to a cold shutdown under a natural circulation scenario without pressurizer spray with limited

petition for review on the request for enforcement action for failure to comply with 10 CFR Part 50, Appendix B, Criterion XVI.

In addressing whether any safety concerns exist regarding operation of Byron Station, Unit 1 in light of the past performance of 1RC8002C, NRC staff considered the previous information provided by the licensee and the additional information in its submittal dated May 27, 2005. The staff concludes that the licensee adequately justified the structural integrity of the valve guides in 1RC8002C. With respect to the licensee's loose parts monitoring system and procedures, NRC staff concludes that:

1. Large loose parts from the Byron Station, Unit 1 cold leg LSIVs have an acceptably low potential of occurrence.
2. The licensee's loose parts monitoring provisions would detect, alarm, and help locate and identify large loose parts, including loose parts from LSIV guides.
3. The licensee has provisions to locate, identify, and respond to both large and small loose parts, including LSIV loose parts.
4. Because the licensee complies with NRC Staff Position RSB 5-1, NRC staff is assured that the two LSIV loose-part scenarios postulated for obstruction of the chemical and volume control system letdown line and for obstruction of the pressurizer spray will not prevent shutdown of Byron Station, Unit 1.

Exelon has taken actions to assess and develop corrective actions with respect to 1RC8002C performance. Development of long-term corrective actions are included in the Corrective Action Program at the Byron site. The NRC has concluded that in taking the actions as stated earlier, the licensee is in compliance with the regulations. The NRC does not have a basis for pursuing enforcement action for failure to comply with 10 CFR Part 50, Appendix B,