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Exelon Nuclear

April 26, 2002

LTR: BYRON 2002-0050
File: 1.10.0101

United States Nuclear Regulatory Commission
Attn: Document Control Desk
Washington, DC 20555-0001

Byron Station Unit 1
Facility Operating License No. NPF-37
NRC Docket No. STN 50-454

Subject: Byron Station Unit 1 Response to NRC Bulletin 2001-01, "Circumferential Cracking of Reactor Pressure Vessel Head Penetration Nozzles"

On August 3, 2001, the NRC issued NRC Bulletin 2001-01, "Circumferential Cracking of Reactor Pressure Vessel Head Penetration Nozzles." This bulletin requires that the following information be submitted to the NRC within 30 days after plant restart following the next refueling outage:

- a description of the extent of reactor pressure vessel head penetration nozzle leakage and cracking detected, including the number, location, size, and nature of each crack detected; and

- if cracking is identified, a description of the inspections, repairs, and other corrective actions taken to satisfy applicable regulatory requirements.

Pursuant to 10 CFR 50.54, "Conditions of Licenses," paragraph (f), Attachment 1 to this letter provides the Byron Station Unit 1 30-day response. This response is due to the NRC by April 29, 2002.

A086

If you have any questions or desire additional information regarding this letter, please contact William Grundmann, Regulatory Assurance Manager, at (815) 406-2800.

Respectfully,

Richard P. Lopriore
Site Vice President
Byron Nuclear Generating Station

RPL/MR/dpk

Enclosures: Attachment 1, Byron Station Unit 1 Response to NRC Bulletin 2001-01

cc: Regional Administrator – NRC Region III
NRC Senior Resident Inspector – Byron Station
NRC Project Manager – NRR – Byron Station
Office of Nuclear Facility Safety – Illinois Department of Nuclear Safety

STATE OF ILLINOIS	)	
COUNTY OF OGLE	)	
IN THE MATTER OF	)	
EXELON GENERATION COMPANY, LLC	)	**Docket Numbers**
BYRON STATION UNIT 1	)	**STN 50-454**

SUBJECT: Byron Station Unit 1 Response to NRC Bulletin 2001-01, "Circumferential Cracking of Reactor Pressure Vessel Head Penetration Nozzles"

AFFIDAVIT

I affirm that the content of this transmittal is true and correct to the best of my knowledge, information and belief.

Richard P. Lopriore
Site Vice President
Byron Nuclear Generating Station

Subscribed and sworn to before me, a Notary Public in and for the State above named, this 26th day of April, 20 02

Notary Public

OFFICIAL SEAL
TRACEY L. FLUCK
NOTARY PUBLIC - STATE OF ILLINOIS
MY COMMISSION EXPIRES 01/04

ATTACHMENT 1

Byron Station Unit 1

Response to NRC Bulletin 2001-01

"Circumferential Cracking of Reactor Pressure Vessel Head Penetration Nozzles"

Attachment 1

Byron Station Unit 1

Response to NRC Bulletin 2001-01

On August 3, 2001, the NRC issued NRC Bulletin 2001-01, "Circumferential Cracking of Reactor Pressure Vessel Head Penetration Nozzles." This bulletin requires that the following information be submitted to the NRC within 30 days after plant restart following the next refueling outage:

5. *Addressees are requested to provide the following information within 30 days after plant restart following the next refueling outage:*

   a. *a description of the extent of vessel head penetration (VHP) nozzle leakage and cracking detected at your plant, including the number, location, size, and nature of each crack detected;*

   b. *if cracking is identified, a description of the inspections (type, scope, qualification requirements, and acceptance criteria), repairs, and other corrective actions you have taken to satisfy applicable regulatory requirements. This information is requested only if there are any changes from prior information submitted in accordance with this bulletin.*

Byron Station Unit 1 Response

a. *a description of the extent of VHP nozzle leakage and cracking detected at your plant, including the number, location, size, and nature of each crack detected;*

<u>Response</u>

No VHP nozzle leakage or cracking was detected during refueling outage B1R11 in March 2002. The following inspections were performed on the reactor pressure vessel (RPV) head during refueling outage B1R11:

- Pre and post-outage VT-2 examinations of the accessible areas on top of the RPV head (i.e., control rod drive mechanism housings) were performed at normal reactor coolant system pressure. No evidence of leakage, boric acid residue, or degradation of material due to corrosion was identified during these inspections.

- VT-1 examinations were performed on the core exit thermocouple clamp assemblies. There was no evidence of erosion, corrosion, or wear of the bolting material, and there were no instances of bolting material degradation due to corrosion. These connections, which are disassembled each refueling outage, were specifically examined for leakage by VT-2 qualified personnel during unit startup and no abnormal conditions were identified.

- Approximately 20% of the bare metal RPV surface was visually inspected to confirm the inspection results of a previous leak on the reactor head vent valve discovered during refueling outage B1R03 in 1990; no boric acid accumulation or head wastage was observed.

b. *if cracking is identified, a description of the inspections (type, scope, qualification requirements, and acceptance criteria), repairs, and other corrective actions you have taken to satisfy applicable regulatory requirements. This information is requested only if there are any changes from prior information submitted in accordance with this bulletin.*

Response

No VHP nozzle leakage or cracking was identified during refueling outage B1R11; therefore, no inspections, repairs, or other corrective actions were required.