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Exelon Nuclear

October 25, 2002

LTR: BYRON 2002-0111
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United States Nuclear Regulatory Commission
Attn: Document Control Desk
11555 Rockville Pike
Rockville, MD 20852

Byron Station Unit 2
Facility Operating License No. NPF-66
NRC Docket No. STN 50-455

Subject: Byron Station Unit 2 Response to NRC Bulletin 2002-02, "Reactor Pressure Vessel Head and Vessel Head Penetration Nozzle Inspection Programs"

On August 9, 2002, the NRC issued NRC Bulletin 2002-02, "Reactor Pressure Vessel Head and Vessel Head Penetration Nozzle Inspection Programs". This bulletin requires that the following information be submitted to the NRC within 30 days after plant restart following the next inspection of the reactor pressure vessel head and vessel head penetration nozzles to identify any degradation:

- the inspection scope and results, including the location, size, and nature of any degradation detected, details of the NDE used, and criteria to determine whether an indication is acceptable or rejectable; and,

- the corrective actions taken and the root cause of the degradation.

Pursuant to 10 CFR 50.54, "Conditions of Licenses," paragraph (f), Attachment 1 to this letter provides the Byron Station Unit 2 30-day response. This response is due to the NRC by November 6, 2002.

A096

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/rah

Enclosures: Attachment 1, Byron Station Unit 2 Response to NRC Bulletin 2002-02

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 2) STN 50-455

SUBJECT: Byron Station Unit 2 Response to NRC Bulletin 2002-02, "Reactor Pressure Vessel Head and Vessel Head Penetration Nozzle Inspection Programs"

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 25 day of

October, 2002

Patricia Hayenga
Notary Public

"OFFICIAL SEAL"
Patricia Hayenga
Notary Public, State of Illinois
My Commission Expires 3/27/04

ATTACHMENT 1

Byron Station Unit 2

Response to NRC Bulletin 2002-02

**"Reactor Pressure Vessel Head and
Vessel Head Penetration Nozzle Inspection Programs "**

Attachment 1

Byron Station Unit 2

Response to NRC Bulletin 2002-02

On August 9, 2002, the NRC issued NRC Bulletin 2002-02, "Reactor Pressure Vessel Head and Vessel Head Penetration Nozzle Inspection Programs". This bulletin requires that the following information be submitted to the NRC within 30 days after plant restart following the next inspection of the reactor pressure vessel (RPV) head and vessel head penetration (VHP) nozzles to identify any degradation:

(2) Within 30 days after plant restart following the next inspection of the RPV head and VHP nozzles to identify the presence of any degradation, all PWR addressees are requested to provide:

A. the inspection scope and results, including the location, size, extent and nature of any degradation (e.g., cracking, leakage, and wastage) that was detected; details of the NDE used (i.e., method, number, type, and frequency of transducers or transducer packages, essential variables, equipment, procedure and personnel qualification requirements, including personnel pass/fail criteria); and criteria used to determine whether an indication, "shadow", or "backwall anomaly" is acceptable or rejectable.

B. the corrective actions taken and the root cause determinations for any degradation found.

Byron Station Unit 2 Response

A. *the inspection scope and results, including the location, size, extent, and nature of any degradation (e.g. cracking, leakage, and wastage) that was detected; details of the NDE used (i.e., method, number, type, and frequency of transducers or transducer packages, essential variables, equipment, procedure and personnel qualification requirements, including personnel pass/fail criteria); and criteria used to determine whether an indication, "shadow", or "backwall anomaly" is acceptable or rejectable.*

Response

The following inspections were performed on the reactor pressure vessel (RPV) during refueling outage B2R10 in Fall 2002:

- 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.

- A 100% bare metal RPV head examination was completed. This examination consisted of visual examinations (360°) of the RPV head vent penetration and all RPV head nozzles (78) at the annulus region to determine if any boric acid leakage was evident. In addition, the bare metal RPV head was visually examined for general condition and to ensure no RPV head wastage was present. These examinations found no evidence of boric acid leakage from the nozzles or degradation of the RPV head.

- Supplemental examinations (volumetric or surface) were not performed and are not required at this time since there was no evidence of boric acid leakage identified during the RPV examinations.

B. the corrective actions taken and the root cause determinations for any degradation found.

Response

There were no corrective actions taken or root cause investigations performed as no RPV degradation was identified.