

10 CFR 50.55a

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TMI-19-004

January 8, 2019

U.S. Nuclear Regulatory Commission
Attn: Document Control Desk
Washington, DC 20555-0001

Braidwood Station, Units 1 and 2
Renewed Facility Operating License Nos. NPF-72 and NPF-77
NRC Docket Nos. STN 50-456 and STN 50-457

Byron Station, Units 1 and 2
Renewed Facility Operating License Nos. NPF-37 and NPF-66
NRC Docket Nos. STN 50-454 and STN 50-455

Calvert Cliffs Nuclear Power Plant, Units 1 and 2
Renewed Facility Operating License Nos. DPR-53 and DPR-69
NRC Docket Nos. 50-317 and 50-318

Clinton Power Station, Unit 1
Facility Operating License No. NPF-62
NRC Docket No. 50-461

Dresden Nuclear Power Station, Units 2 and 3
Renewed Facility Operating License Nos. DPR-19 and DPR-25
NRC Docket Nos. 50-237 and 50-249

James A. FitzPatrick Nuclear Power Plant
Renewed Facility Operating License No. DPR-59
NRC Docket No. 50-333

LaSalle County Station, Units 1 and 2
Renewed Facility Operating License Nos. NPF-11 and NPF-18
NRC Docket Nos. 50-373 and 50-374

Limerick Generating Station, Units 1 and 2
Renewed Facility Operating License Nos. NPF-39 and NPF-85
NRC Docket Nos. 50-352 and 50-353

Nine Mile Point Nuclear Station, Units 1 and 2
Renewed Facility Operating License Nos. DPR-63 and NPF-69
NRC Docket Nos. 50-220 and 50-410

Peach Bottom Atomic Power Station, Units 2 and 3
Renewed Facility Operating License Nos. DPR-44 and DPR-56
NRC Docket Nos. 50-277 and 50-278

Quad Cities Nuclear Power Station, Units 1 and 2
Renewed Facility Operating License Nos. DPR-29 and DPR-30
NRC Docket Nos. 50-254 and 50-265

R. E. Ginna Nuclear Power Plant
Renewed Facility Operating License No. DPR-18
NRC Docket No. 50-244

Three Mile Island Nuclear Station, Unit 1
Renewed Facility Operating License No. DPR-50
NRC Docket No. 50-289

Subject: Response to Request for Additional Information - Proposed Alternative to Utilize Code Cases N-878 and N-880

- References:**
- 1) Letter from J. Barstow (Exelon Generation Company, LLC) to U.S. Nuclear Regulatory Commission, "Proposed Alternative to Utilize Code Cases N-878 and N-880," dated May 30, 2018
 - 2) Letter from B. Purnell (U.S. Nuclear Regulatory Commission) to B. Hanson (Exelon Generation Company, LLC), Supplemental Information Needed for Acceptance of Requests to Use ASME Code Cases N-878, N-879, and N-880, dated July 10, 2018
 - 3) Letter from J. Barstow (Exelon Generation Company, LLC) to U.S. Nuclear Regulatory Commission, "Proposed Alternative to Utilize Code Cases N-878, N-879, and N-880," dated July 26, 2018
 - 4) Email from B. Purnell (U.S. Nuclear Regulatory Commission) to T. Loomis (Exelon Generation Company, LLC), "Exelon Generation Company, LLC - Fleet Request to use ASME Code Cases N-878 and N-880 (EPID L-2018-LLR-0077)," dated December 11, 2018

In the Reference 1 letter, in accordance with 10 CFR 50.55a(z)(2), Exelon Generation Company, LLC (Exelon) requested proposed alternatives to the American Society of Mechanical Engineers (ASME) Boiler and Pressure Vessel Code, Section XI, "Rules for Inservice Inspection of Nuclear Power Plant Components," on the basis that compliance with the code results in hardship without a compensating increase in quality. Specifically, these proposed alternatives requested the use of Code Case N-878 ("Alternative to QA

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Program Requirements of IWA-4142 Section XI, Division 1") and N-880 ("Alternative to Procurement Requirements of IWA-4143 for Small Nonstandard Welded Fittings Section XI, Division 1"), which address the procurement of material from a material supplier that does not possess ASME accreditation as a Quality System Certificate Holder or an NPT Certificate Holder.

In the Reference 4 email, the U.S. Nuclear Regulatory Commission requested additional information. Attached is our response.

There are no regulatory commitments contained in this letter.

If you have any questions, please contact Tom Loomis (610) 765-5510.

Respectfully,



James Barstow
Director - Licensing and Regulatory Affairs
Exelon Generation Company, LLC

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cc: Regional Administrator - NRC Region I
Regional Administrator - NRC Region III
NRC Senior Resident Inspector - Braidwood Station
NRC Senior Resident Inspector - Byron Station
NRC Senior Resident Inspector - Calvert Cliffs Nuclear Power Plant
NRC Senior Resident Inspector - Clinton Power Station
NRC Senior Resident Inspector - Dresden Nuclear Power Station
NRC Senior Resident Inspector - James A. FitzPatrick Nuclear Power Plant
NRC Senior Resident Inspector - LaSalle County Station
NRC Senior Resident Inspector - Limerick Generating Station
NRC Senior Resident Inspector - Nine Mile Point Nuclear Station
NRC Senior Resident Inspector - Peach Bottom Atomic Power Station
NRC Senior Resident Inspector - Quad Cities Nuclear Power Station
NRC Senior Resident Inspector - R. E. Ginna Nuclear Power Plant
NRC Senior Resident Inspector - Three Mile Island Nuclear Station, Unit 1
NRC Project Manager - Braidwood Station
NRC Project Manager - Byron Station
NRC Project Manager - Calvert Cliffs Nuclear Power Plant
NRC Project Manager - Clinton Power Station
NRC Project Manager - Dresden Nuclear Power Station
NRC Project Manager - James A. FitzPatrick Nuclear Power Plant
NRC Project Manager - LaSalle County Station
NRC Project Manager - Limerick Generating Station
NRC Project Manager - Nine Mile Point Nuclear Station
NRC Project Manager - Peach Bottom Atomic Power Station
NRC Project Manager - Quad Cities Nuclear Power Station
NRC Project Manager - R. E. Ginna Nuclear Power Plant
NRC Project Manager - Three Mile Island Nuclear Station, Unit 1
A. L. Peterson, NYSERDA
D. A. Tancabel, State of Maryland

Attachment

**Response to Request for Additional Information - Proposed Alternative to Utilize Code
Cases N-878 and N-880**

RAI1:

Question:

Explain how the QA program will ensure that:

- a. the repair/replacement organization has the capability to perform testing and certification of unqualified source material that meets NCA-3855.5, "Utilization of Unqualified Source Materials," subparagraphs (a)(1) through (a)(4), of the ASME BPV Code Section III;

Response:

Application of Case N-878 by Exelon will proceed via one of two paths:

1. Exelon will function as the Repair/Replacement Organization
2. Exelon will contract the functions of the Repair/Replacement Organization to an organization that maintains a quality program in compliance with 10 CFR 50 Appendix B, as required by Section XI, IWA-4142(a)(2), and that is on Exelon's Approved Supplier List.

In either case, Exelon will prepare procurement documents that impose the requirements of NCA-3855.5, if applicable. If the materials used in the manufacture of fittings under Case N-878 are procured from a holder of an ASME Certificate, including, but not limited to, a Quality System Certificate (Materials), the provisions of NCA-3855.5 will not be applicable. If, however, materials are procured from an organization (supplier) not in possession of an applicable ASME Certificate, NCA-3855.5 will be imposed by an Exelon Purchase Order on a contracted Repair/Replacement Organization, or by Exelon procedures on Exelon personnel, as applicable, and as further described below.

If Exelon functions as the Repair/Replacement Organization, Exelon will implement a procedure describing the process of utilization of unqualified source material in accordance with NCA-3855.5. If Exelon contracts this activity to a third party organization, Exelon will require that the third party organization is a 10 CFR 50, Appendix B Quality Assurance Program holder as audited and approved by Exelon. In either case, Exelon will assure that personnel implementing this activity are properly trained and qualified through the 10 CFR 50, Appendix B auditing. Exelon will provide instructions to the third party organization that no dedication of any materials or dedication of any welding activity is permitted. If Exelon contracts this activity to a third party organization, the third party organization will be considered the Repair/Replacement Organization, and Exelon will invoke the requirements of NCA-3855.5 under the third party supplier's Exelon-approved 10 CFR 50, Appendix B Quality Assurance Program. Exelon will also share responsibility in quality documentation review during receipt of the finished product to ensure compliance with the requirements of NCA-3855.5.

In addition, Exelon or the third party organization will provide an opportunity for an Authorized Nuclear Inservice Inspector (ANII) to provide oversight of these activities.

Question:

- b. the repair/replacement organization will furnish materials that meet the requirements of paragraphs NCA-3856, "Identification, Marking, and Material Control," and NCA-3862, "Certification of Material," of the ASME BPV Code Section III; and
- c. the procurement of proprietary pipe fittings NPS-2 (DN 50) and smaller are furnished in accordance with the material specification and the applicable requirements of the ASME BPV Code, Section III, and the owner's requirements.

Response:

Exelon Purchase Orders for fittings subject to Case N-878 will be executed in the same manner as any other procurement for Section III materials. The Purchase Orders will specify the requirements of the applicable Edition and Addenda of Section III, as required by Section XI, IWA-4200. The Purchase Orders will also specify the applicable requirements of the Owner's Section III Design Specification. They will identify Code Class, permissible material, testing, and nondestructive examination, as applicable to the Code Class. They will reference applicable part numbers or product descriptions to obtain compliance with Section III design-related requirements. They will specify quality requirements and, directly or by reference, required certification and documentation, including a requirement for Certified Material Test Reports, in accordance with NCA-3862.1, and marking of heat numbers or traceability codes as required by NCA-3856.3. Exelon or its contracted Repair/Replacement Organization will provide direct oversight of these activities in the fitting manufacturer's shop.

RAI-2:

Questions:

Describe the actions Exelon will take to ensure that:

- a. the weld material procured by the owner or repair/replacement organization is from an approved material organization having a QA program that meets ASME BPV Code, Section III, Subsection NCA, or Appendix B, "Quality Assurance Criteria for Nuclear Power Plants and Fuel Reprocessing Facilities," to 10 CFR Part 50;
- b. the weld material is not procured as a commercial-grade item and qualified as a basic component under a commercial-grade dedication program;

Response:

All welding material will be procured by Exelon, or Exelon's Purchase Orders will specify that welding materials procured by its contracted Repair/Replacement Organization or the fitting manufacturer shall be purchased from an ASME-accredited welding material manufacturer possessing the applicable ASME Certificate. This requirement will ensure that welding materials are not accepted by commercial grade dedication or other form of testing, such as NCA-3855.5.

Question:

c. the weld material meets all the chemical and physical properties of ASME BPV Code, Sections II and III; and

Response:

The welding material Purchase Order will specify that the material shall be certified in compliance with the specification and grade of material from Section II, Part C, selected and specified by the fitting manufacturer in accordance with the applicable Welding Procedure Specification. The Purchase Order will require compliance with Section III, NCA-3800/4200, NB/NC/ND-2400, and certification of compliance with these requirements.

Question:

d. the nondestructive examination inspectors are qualified and certified for the appropriate process and to the level required by ASME BPV Code, Sections III and V.

Response:

Exelon or its contracted Repair/Replacement Organization will perform or subcontract nondestructive examination (NDE) required by Section III (NB-2551(a)(1) or NB/NC/ND-5222). Procurement documents will require the examination to be conducted to meet the requirements of Section III NDE (NB-2550 or NB/NC-5300, as applicable) by personnel meeting the qualification requirements per Section III, NB/NC-5500 or Section XI, IWA-4511. Additionally, all NDE will meet the requirements of ASME Section V.

The facility performing the NDE activities can be subcontracted by Exelon or the third party organization. The NDE activities shall meet the requirements of ASME Section III, NB-2550 or NB/NC-5300, and the Exelon or third party organization shall ensure the NDE activities meet the ASME Section III requirements under the Exelon or the third party organization's 10 CFR 50, Appendix B Quality Assurance Program. The facility performing the NDE activities will not necessarily hold an ASME certification, because Section III does not require certification or accreditation of NDE organizations.

Exelon or the third party organization will provide an opportunity for an ANII to provide oversight of all welding and NDE activities.