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10 CFR 50.90

August 5, 2013

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

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

Subject: Extended Power Uprate License Amendment Request – Supplement 8
Response to Request for Additional Information - Extended Power Uprate

Reference:
1. Exelon letter to the NRC, "License Amendment Request - Extended Power Uprate," dated September 28, 2012 (ADAMS Accession No. ML122860201)
2. Exelon letter to the NRC, "Supplement 3 – Response to Request for Additional Information - Extended Power Uprate" dated May 24, 2013 (ADAMS Accession No. ML13149A145)

In accordance with 10 CFR 50.90, Exelon Generation Company, LLC (EGC) requested amendments to Facility Operating License Nos. DPR-44 and DPR-56 for Peach Bottom Atomic Power Station (PBAPS) Units 2 and 3, respectively (Reference 1). Specifically, the proposed changes would revise the Renewed Operating Licenses to implement an increase in rated thermal power from 3514 megawatts thermal (MWt) to 3951 MWt. During their technical review of the application, the NRC Staff identified the need for additional information. Reference 2 provided a response to Requests for Additional Information (RAI) from the Fire Protection (AFPB) and the Steam Generator Tube Integrity and Chemical Engineering (ESGB) Branches. During their review of that response, the NRC staff identified additional information that was needed to complete their review. The requests were provided in emails from Mr. Ennis of the NRC staff to EGC personnel on June 17 and 19, 2013. In a conference call between Mr. Ennis and Mr. Neff of EGC, conducted on July 23, 2013, it was agreed that EGC would provide a response to these requests by August 9, 2013.

This letter provides the requested information requested by the AFPB and ESGB reviewers. The clarification of the fire protection response is provided in Attachment 1. The clarification of the containment coatings response is provided in Attachment 2.

EGC has reviewed the information supporting a finding of no significant hazards consideration and the environmental consideration provided to the U. S. Nuclear Regulatory Commission in Reference 1. The supplemental information provided in this submittal does not affect the bases for concluding that the proposed license amendment does not involve a significant hazards consideration. Further, the additional information provided in this submittal does not affect the bases for concluding that neither an environmental impact statement nor an environmental assessment needs to be prepared in connection with the proposed amendment.

In accordance with 10 CFR 50.91, "Notice for public comment; State consultation," paragraph (b), EGC is notifying the Commonwealth of Pennsylvania and the State of Maryland of this application by transmitting a copy of this letter to the designated State Officials.

There are no regulatory commitments contained in this letter.

Should you have any questions concerning this letter, please contact Mr. David Neff at (610) 765-5631.

I declare under penalty of perjury that the foregoing is true and correct. Executed on the 5th day of August 2013.

Respectfully,

Kevin F. Borton
Manager, Licensing – Power Uprate
Exelon Generation Company, LLC

Attachments:
1. Response to Request for Additional Information for AFPB
2. Response to Request for Additional Information for ESGB

cc: USNRC Region I, Regional Administrator w/attachments
USNRC Senior Resident Inspector, PBAPS w/attachments
USNRC Project Manager, PBAPS w/attachments
R. R. Janati, Commonwealth of Pennsylvania w/attachments
S. T. Gray, State of Maryland w/attachments

Attachment 1

Peach Bottom Atomic Power Station Units 2 and 3

NRC Docket Nos. 50-277 and 50-278

Response to Request for Additional Information for AFPB

Response to Request for Additional Information

Fire Protection Branch

By letter dated September 28, 2012, Exelon Generation Company, LLC (EGC) submitted a license amendment request for Peach Bottom Atomic Power Station (PBAPS), Units 2 and 3. The proposed amendment would authorize an increase in the maximum power level from 3514 megawatts thermal (MWt) to 3951 MWt. The requested change, referred to as an extended power uprate (EPU), represents an increase of approximately 12.4 percent above the current licensed thermal power level.

The NRC staff requested additional information by letter dated April 26, 2013 (NRC Accession No. ML13106A126). EGC responded by letter May 24, 2013.

In addition, in an email from Mr. Ennis of the NRC Staff to Mr. Neff of EGC dated June 17, 2013, additional information for request AFPB-RAI-2 was requested. In a conference call between Mr. Ennis and Mr. Neff conducted on July 23, 2013, it was agreed that EGC would provide a response to the follow-up request by August 9, 2013. The response to this request is provided below following the original response to request AFPB-RAI-2.

AFPB RAI-2

Section 2.5.1.4.1, "Fire Protection Program," of Attachment 4 to the application dated September 28, 2012, states, in part, that:

> Modifications to the CST [condensate storage tank] will be implemented to ensure that sufficient inventory is available for the EPU Appendix R scenarios that credit the CST. Because the CST is credited as the exclusive HPCI [high-pressure coolant injection] and RCIC [reactor core isolation cooling] makeup water source to the RPV [reactor pressure vessel] for the EPU Appendix R analysis, additional modifications will be implemented to ensure the CST makeup flowpath to HPCI and RCIC is available for Appendix R scenarios that credit HPCI and RCIC. Except for the CST modifications that are required, other safe shutdown systems and equipment used to achieve and maintain cold shutdown conditions do not change, and are adequate for the EPU conditions.

The NRC staff notes that modifications associated with the CST, HPCI, and RCIC have not yet been completed to address the impact on the fire protection program. The staff requests that the licensee discuss how the results of modifications associated with the CST, HPCI, and RCIC would impact the fire protection program and the plant's compliance with the fire protection program licensing basis, 10 CFR 50.48 or applicable portions of 10 CFR 50, Appendix R. Also clarify how the licensee will ensure that, once developed and implemented, the modifications will not change this impact.

In addition, clarify whether this amendment request involves other plant modifications, or changes to the fire protection program planned at EPU conditions (e.g., adding new cable trays, re-routing of existing cables, increases in combustible loading affecting fire barrier ratings, or changes to administrative controls). If any, the NRC staff requests the licensee to

identify such proposed modifications and discuss their impact on the plant's compliance with the fire protection program licensing basis, 10 CFR 50.48, or applicable portions of Appendix A to Branch Technical Position (BTP) Auxiliary and Power Conversion Systems Branch (APCSB) 9.5-1, "Guidelines for Fire Protection for Nuclear Power Plants, Docketed Prior to July 1, 1976."

RESPONSE

Section 3.0 of Enclosure 9e of the PBAPS License Amendment Request provides additional details of the CST, HPCI and RCIC modifications planned for EPU. This enclosure also states that because the post-EPU design requirements place greater reliance on the CST and RWST, the post-EPU configuration will be evaluated to identify any potential circuits or equipment that are required to perform a safe shutdown function and could be affected by a design basis fire. Any identified components or circuits that require modification for continued compliance with the PBAPS Fire Protection Plan following EPU will be modified in accordance with PBAPS Fire Protection Plan Program requirements and will be developed through the EGC Configuration Change Process.

Attachment 9 of the PBAPS License Amendment Request provides a listing and discussion of the modifications planned for EPU. The impact of these modifications on the PBAPS Fire Protection Program will be evaluated in accordance with EGC's configuration change process. Per the process, these modifications will be evaluated to assure the changes do not impact the approved Fire Protection Program and will not adversely impact the ability to achieve and maintain safe shutdown in accordance with the current Peach Bottom license conditions and procedures.

AFPB RAI-2 Follow-up Request

How is this discussion applicable to modifications that impact exemptions, since a new exemption would be needed? Our question is about the extent of the change to the exemption to determine if we agree that a new exemption is not needed.

Are the transfer switches related to the breakers that are moving? If so, does the inclusion of the transfer switch into the circuit impact the safe shutdown manual actions (more steps, more reliable, etc.)? If so, does this impact the NRC staff evaluation in the exemption (NRC Exemption Approval March 30, 2011, ML102430566) and how has this been evaluated by the licensee?

Follow-up Response

The review of the modification to the Residual Heat Removal (RHR) cross-tie modification design concluded the proposed changes to the motor control center (MCC) breakers do not impact any of the technical justification provided for the feasibility criteria or the defense-in-depth features described in the docketed correspondence associated with the approved exemptions. The new panels and breakers will be located a short distance from the current location and in the same room and Fire Area as the current equipment. The estimated time to complete the Operator Manual Actions (OMAs) are unaffected by the design change that relocates the MCCs. There are no new OMAs requiring an exemption created by this modification.

The modifications also include transfer switches, which will be operated from the Main Control Room (MCR) and will be used by the operator to align the alternate power supply to the MCC when needed. These transfer switches are not needed to address any of the fire scenarios outlined in the PBAPS Fire Protection Program. Further, while the action to operate the switches is new, these actions are performed within the MCR; such actions are not subject to the need for an exemption to the requirements of 10 CFR 50, Appendix R.

Background and Additional Details

The EGC configuration change process includes a review for proposed changes to determine if the change requires prior NRC approval including changes that would adversely affect the ability to achieve and maintain safe shutdown in the event of a fire. The review is in accordance with the PBAPS Facility Operating License Condition 2.C(4), Fire Protection. If an exemption to 10 CFR 50, Appendix R is determined to be required, then prior NRC approval is sought prior to implementation of the proposed change.

A review of the proposed modification to the Residual Heat Removal (RHR) cross-tie design change to provide dual power supply capability was performed to determine if the ability to maintain safe shutdown in the event of a fire was adversely affected. This design change involves relocation of the MCC breakers for valves MO3-10-089A, MO2-10-089D and MO3-10-089D. The MCC breakers for these three valves are involved in the OMAs for which the NRC granted an exemption from 10 CFR 50, Appendix R requirements in a letter dated January 30, 2009 (Ref. 1). The operation of these breakers is also discussed in an EGC exemption request dated March 6, 2009 (Ref. 5) for other OMAs. That request and a supplement dated February 12, 2010 (Ref. 6), provided information on the estimated and allowable operator times for the three previously approved OMAs. The NRC granted the 10 CFR 50, Appendix R exemption for the additional OMAs in a letter dated March 30, 2011 (Ref. 4).

The review of the modification to the RHR cross-tie modification design concluded the proposed changes to the MCC breakers do not impact any of the technical justification provided for the feasibility criteria or the defense-in-depth features described in the docketed correspondence associated with the approved exemptions. The new panels and breakers will be located a short distance from the current location and in the same room and Fire Area as the current equipment. The estimated time to complete the OMAs are unaffected by the design change that relocates the MCCs. While the breaker and panel identification details are identified in the table attached to the exemption dated January 30, 2009 (Ref. 1), this table was included primarily to document a cross-reference between the operator actions as listed in the Fire Protection Program with the listing included in the October 5, 2007 Peach Bottom exemption request (Ref. 2). The breaker and panel identification details and the associated estimated and allowable operator action times are provided in the exemption request dated March 6, 2009 (Ref. 5). While this information was not specific to the new exemptions being requested, the additional information was provided to demonstrate that adequate time and staff are available to perform all the previously approved and the newly requested OMAs. The safety bases of the approved exemptions are not affected by the change in panel and breaker location and identification details for the affected valves. There are no new OMAs requiring an exemption created by this modification. The review concluded that NRC approvals of the proposed changes are not required.

Below are further specifics of the MCC relocation design change. Further details of the proposed changes to the MCCs are provided in Attachment 1 of Supplement No. 5 to the PBAPS EPU LAR (Ref. 3).

Currently, each of these three valves is powered from an MCC whose power is supplied from the emergency bus and emergency diesel generator (EDG) associated with its assigned train and division. Providing diverse power supplies for these valves is to be implemented by providing new MCC panels that can be supplied with power from the emergency buses and EDGs associated with both trains within the respective division. Thus, these valves will have new identification information for the feeder panel and breaker. While the new panels and breakers will be located a short distance from the current location and in the same room and Fire Area as the current equipment, the change requires new panel and breaker identification numbers. The details of the panel and breaker identification are specifically included in the current descriptions of the OMAs in the NRC-approved exemption to 10 CFR 50 Appendix R requirements.

The modifications also include transfer switches, which will be operated from the MCR and will be used by the operator to align the alternate power supply to the MCC when needed. This transfer switch is not needed to address any of the fire scenarios outlined in the PBAPS Fire Protection Program. Further, while the action to operate the switch is new, this action is performed within the MCR; such actions are not subject to the need for an exemption to the requirements of 10 CFR 50, Appendix R.

The listing of the OMA in the exemption identified the room, fire area, panel and breaker associated with the required actions. The breakers for these valves are part of the group that are being relocated from their current MCC panels to new panels. The panel and breaker identification details for these valves will, therefore, change but the locations (room and fire area) will remain the same.

References:

1. NRC letter, "Request for Exemption from Title 10 of the Code of Federal Regulations Part 50, Appendix R Requirements," (TAC Nos. MD7029 and MD7030), dated January 30, 2009. (NRC Accession No. ML090150419)
2. Exelon letter, "Request for Exemption from 10 CFR 50, Appendix R Section III.G.2, *Fire Protection of Safe Shutdown Capability*," dated October 5, 2007. (NRC Accession No. ML072820129)
3. Exelon Letter, "Supplemental Information Supporting Request for License Amendment Request – Extended Power Uprate – Supplement No. 5," dated June 27, 2013. (NRC Accession No. (NRC Accession No. ML13182A025)
4. NRC letter, "Exemption from Title CFR 50, Appendix R, for use of OMAs (TAC Nos. ME8055 and ME8056), dated March 30, 2011. (NRC Accession No. ML102430566)
5. Exelon Letter, "Request for Exemption from 10 CFR 50, Appendix R," dated March 6, 2009. (NRC Accession No. ML090680141)
6. Exelon Letter, "Response to RAI - Request for Exemption from 10 CFR 50, Appendix R," dated February 12, 2010. (NRC Accession No. ML100470774)

Attachment 2

Peach Bottom Atomic Power Station Units 2 and 3

NRC Docket Nos. 50-277 and 50-278

Response to Request for Additional Information for ESGB

Response to Request for Additional Information

Steam Generator Tube Integrity and Chemical Engineering Branch

By letter dated September 28, 2012, Exelon Generation Company, LLC (Exelon) submitted a license amendment request for Peach Bottom Atomic Power Station (PBAPS), Units 2 and 3. The proposed amendment would authorize an increase in the maximum power level from 3514 megawatts thermal (MWt) to 3951 MWt. The requested change, referred to as an extended power uprate (EPU), represents an increase of approximately 12.4 percent above the current licensed thermal power level.

The NRC staff requested additional information by letter dated April 26, 2013 (NRC Accession No. ML13106A126). EGC responded by letter dated May 24, 2013.

In addition, in an email from Mr. Ennis of the NRC Staff to Mr. Neff of EGC dated June 19, 2013, additional information for request ESGB-RAI-1 was requested. In a conference call between Mr. Ennis and Mr. Neff conducted on July 23, 2013, it was agreed that EGC would provide a response to the follow-up request by August 9, 2013. The response to this request is provided below following the original response to request ESGB-RAI-1.

ESGB RAI-1

Based on review of Section 2.1.5, "Protective Coating Systems (Paints) - Organic Materials," of Attachment 4 to the application dated September 28, 2012, the NRC staff understands that the licensee does not have test documentation available for the Carboline Carbozinc 11 topcoated with Phenoline 368 (CZ11/368) coating system. It appears that the coating system has not been qualified to withstand a design-basis accident (DBA) and has not been tested to demonstrate that it will not adversely impact the emergency core cooling system (ECCS). In lieu of testing, the licensee performed an analysis to evaluate the acceptability of the coating system at EPU conditions. In order for the staff to complete its evaluation of the acceptability of the coating system at EPU conditions, please provide the following information:

a. Describe the current licensing basis with respect to the qualification testing for all safety-related coatings in containment.

b. For the coating system CZ11/368, please provide additional information to justify why this system will be able to endure EPU conditions, including how the CZ11/368 coating system was determined to be suitable to remain adhered to the wall in containment and the torus under post-accident conditions.

c. Discuss whether the CZ11/368 coating system has been repaired, remediated, or showed signs of degradation since being applied.

RESPONSE

a. The current PBAPS licensing basis with respect to the qualification testing for all safety-related coatings in containment is stated in the EGC Quality Assurance Topical Report (QATR), NO-AA-10, Appendix C, Section 1.3.1 item 3, as stated below.

"ASTM D3843-93, "Standard Practice for Quality Assurance for Protective Coatings applied to Nuclear Facilities."

PBAPS shall comply with ASTM D3843-93 for safety-related protective coating work in service level 1 areas during operation with the following additional clarification, exception, and requirement.

A. For coating formulations developed prior to issuance of ASTM D3843-93, service level 1 qualification based on ANSI N5.9 (Revised as ANSI N5.12-1974) and ANSI N101.2 remains valid.

B. Section 10.1, last sentence - instead of references to ANSI N45.2 and NQA-1, inspections will be documented for record purposes as required by 10 CFR 50, Appendix B, and by this QA program description.

C. Limitations on use of coatings and cleaning materials which contain elements which could contribute to corrosion, inter-granular cracking, or stress corrosion cracking of safety-related stainless steel will be followed as described in Section C.4 of Regulatory Guide 1.54, June 1973."

The commitment to this ASTM Standard and the associated discussion was stated in the November 11, 1998, PBAPS response to Generic Letter 98-04, "Potential for Degradation of the Emergency Core Cooling System and the Containment Spray System After a Loss-of-Coolant Accident Because of Construction and Protective Coating Deficiencies and Foreign Material in Containment." This response was accepted by the U. S. Nuclear Regulatory Commission in a letter to PBAPS dated December 1, 1999.

b. Justification for the continued acceptability of the Service Level 1 CZ11/368 coating system used at PBAPS is supported by three parameters. The coating is currently acceptable, EPU conditions are not significantly different from current conditions and the monitoring program ensures continuing acceptability.

- The CZ11/368 coating system as installed in the wetwell airspace of Unit 2 and drywell of Units 2 and 3 at PBAPS currently meets the definition of an "acceptable" Service Level 1 coating system as defined in Electric Power Research Institute (EPRI) document 1019157, Guideline on Nuclear Safety-Related Coatings, Revision 2 (Formerly TR-109937 and 1003102) as detailed in EPU LAR Attachments 4 and 6.
- EPU conditions are not significantly different from current conditions (reference Sections 2.6 and 2.10 of EPU LAR Attachments 4 or 6).
    - Peak drywell pressure increases from 49.5 psig to 50.4 psig
    - Peak drywell temperature remains at 340 degrees F
    - Peak wetwell pressure increases from 32.3 to 32.4 psig
    - Peak wetwell temperature increases from 175 to 181 degrees F
    - Section 2.10.1.2, Post-Accident Radiation Levels, of EPU LAR Attachments 4 and 6 states: "Post-operation radiation levels in most areas of the plant increase by no more than the percentage increase in

power level. ... The increased post-accident radiation levels have no adverse effect on safety-related plant equipment."

- Post accident drywell dose rates increase from 1.87E+8 to 2.14E+8 RAD
- Post accident suppression chamber dose rates increase from 3.30E+7 to 3.77E+7 RAD

- The PBAPS Maintenance Rule Coatings Monitoring Program provides for periodic assessment and visual inspection of Service Level 1 coatings to ensure the coatings will continue to adhere to their drywell and wetwell airspace locations. EPRI report 1014883, "Plant Support Engineering: Adhesion Testing of Nuclear Coating Service Level I Coatings", supports the use of visual inspections to determine coating adhesion remains adequate. U. S. Nuclear Regulatory Commission letter, "NRC Staff Review Guidance Regarding Generic Letter 2004-02, Closure in the Area of Coatings Evaluation", dated March 2008, endorses the coating assessment method addressed in EPRI Report 1014883.

Reasonable justification is provided above that demonstrates the existing coating will remain adhered to the containment and torus following implementation of the proposed EPU under DBA LOCA conditions.

c. The CZ11/368 coating system at PBAPS has been appropriately inspected for signs of degradation per EGC procedure requirements. The CZ11/368 coating system has been repaired and remediated in accordance with the QATR commitment. Degraded and unqualified coatings are identified and evaluated in the PB unqualified coatings logs (UCLs) in accordance with EGC procedures. Conservative estimates of degraded coatings are incorporated in the UCLs to demonstrate continuing margin to ECCS NPSH limits.

Follow-up Request ESGB RAI-1.a

The staff notes that ANSI N101.2 is an industry guidance document on DBA qualification testing and is a current licensing basis document for PBAPS. It is not clear to the staff how PBAPS is meeting the definition of acceptable coating found in EPRI 1019157, when CZ11/368 is not DBA qualified at Peach Bottom; and therefore, does not conform to ANSI N101.2. Please provide additional information on temperature, pressure, and radiation testing for Carboline Carbozinc 11 and Phenoline 368 coating systems at EPU conditions that provides reasonable assurance that the coating system will remain adhered during a DBA event.

Follow-up Response

EGC provided the current licensing basis applicable to the qualification testing of safety-related coating systems in the original response to RAI Item 1a. What was not made clear in that response is the distinction of the licensing basis for qualified safety-related coating systems and non-qualified coating systems. Coatings that are qualified meet the current licensing basis for qualification testing as stipulated in EGC Quality Assurance Topical Report (QATR), NO-AA-10, Appendix C, Section 1.3.1 Item 3, including Standard ANSI N101.2-1972 for coating formulations developed prior to issuance of ASTM D3843-1993. The CZ11/368 coating system in containment was installed prior to the issuance of standards ANSI N5.12-1974 and ANSI N101.2-1972 and is non-qualified. The continued use of CZ11/368 coating system as a safety-

related Service Level 1 coating is based on a demonstration of its acceptability per EPRI 1019157. This aspect was described in the response to ESGB RAI-1b. There are no qualification requirements applicable to the CZ11/368 coating system and there has been no DBA testing. Consequently, there is no temperature, pressure, and radiation testing information available.

Reasonable assurance that the CZ11/368 coating system will remain adhered during a DBA event is provided through periodic inspections of this Service Level 1 coating system applied in the PBAPS containment. As stated in the original response to ESGB RAI-1.b, the justification for the continued acceptability of the Service Level 1 CZ11/368 coating system used at PBAPS following EPU is supported by three parameters. The coating is acceptable per the guidance in EPRI 1019157, EPU conditions are not significantly different from current conditions and the monitoring program ensures continuing acceptability. The results of the last two periodic assessments of the CZ11/368 coating system are provided in the supplemental response to ESGB RAI-1.c as stated below. The assessment results support the conclusion that the current CZ11/368 coating system remains acceptable and provide reasonable assurance that the coating system will remain adhered during a DBA event.

Follow-up Request ESGB RAI-1.c

Please provide the results of the last two periodic assessments of the CZ11/368 coating system. Discuss the industry guidance documents/standards used to evaluate whether the coatings will continue to adhere to their drywell and wetwell locations. In addition, provide specific maintenance activities performed to repair or remediate degraded Service Level I coating.

Follow-up response

The CZ11/368 coating system was evaluated during the refueling outages conducted in the fall of 2010 and 2012 for Unit 2 and the fall of 2007 and 2009 for Unit 3 per the Coatings Program inspection frequency requirements. The evaluations were performed per the PBAPS procedure for the Peach Bottom Maintenance Rule Coatings Monitoring Program. Acceptance criteria are based upon ASTM standards as noted in the following table. The inspection of the CZ11/368 coating system is performed by qualified inspectors knowledgeable in coating inspection.

Failure Mechanism	Threshold Limit	Source
Blistering	> Size No. 6 MD	ASTM D-714
Checking	> Size No. 2	ASTM D-660
Cracking	> Size No. 6	ASTM D-661
Flaking	> Size No. 6	ASTM D-772
Rusting	> Rust Grade No. 4	ASTM D-610
Mechanical Damage	In excess of occasional dings, scratches or scrapes	Exelon Coatings Program
Color Embrittlement (in high temperature areas)	Uneven	Exelon Coatings Program
Tiger Striping	In excess of moderate rusting in anodic areas	Exelon Coatings Program

The PBAPS Maintenance Rule Coatings Monitoring Program provides for periodic assessment and visual inspection of Service Level 1 coatings to ensure the coatings will continue to adhere to their drywell and wetwell airspace locations. EPRI report 1014883, "Plant Support Engineering: Adhesion Testing of Nuclear Coating Service Level I Coatings", supports the use of visual inspections to determine coating adhesion remains adequate. U. S. Nuclear Regulatory Commission letter, "NRC Staff Review Guidance Regarding Generic Letter 2004-02, Closure in the Area of Coatings Evaluation", dated March 2008, endorses the coating assessment method addressed in EPRI Report 1014883.

Results of the two most recent inspections are summarized below:

- Unit 2:
  - 2012, No additional degradation of the CZ11/368 material requiring remediation or repair was identified and no degraded material was added to the Unqualified Coatings Log (UCL).
  - 2010, A minor amount of degraded material was identified amounting to 0.007 lbs of CZ11/368 was added to the UCL after inspection of the Bio Shield wall near the N4B nozzle. This degraded material did not require remediation or repair.
  - The total amount of unqualified CZ11/368 coating material is tracked and documented in the Unit 2 unqualified coating log (UCL) (currently 32.4 lbs total).
- Unit 3:
  - 2009, No additional degradation of the CZ11/368 material requiring remediation or repair was identified and no degraded material was added to the UCL.
  - 2007, No additional degradation of the CZ11/368 material requiring remediation or repair was identified and no degraded material was added to the UCL.
  - The total amount of unqualified CZ11/368 coating material is tracked and documented in the Unit 3 unqualified coating log (UCL) (currently 2.2 lbs total).

Service Level 1 coating system repair or remediation conducted during recent outages:

- Unit 2:
  - 2012: The torus lining was recoated below the waterline with BioDur 560BLUE as a replacement for previous CZ11 coating.
  - 2010: 12.63 square feet of BioDur 561 was applied to the Unit 2 torus over 55 locations as remediation of previously identified surfaces with minor corrosion.
- Unit 3:
  - 2013: Recoat of torus lining below the waterline with BioDur 560BLUE is planned for the fall 2013 Refueling outage.
  - 2011: Remediation was performed utilizing BioDur 561 to address surface corrosion in the Unit 3 torus below the water line.
  - 2009: No remediation of the Unit 3 Service Level 1 coatings was performed.