

10 CFR 50.4(b)(6) 10 CFR 50.71(e) 10 CFR 50.59(d)(2)

RS-16-196

October 24, 2016

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

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

Subject: Clinton Updated Safety Analysis Report (USAR), Revision 18

In accordance with the requirements of 10 CFR 50.71, "Maintenance of records, making of reports," paragraph (e)(4), Exelon Generation Company, (EGC), LLC submits Revision 18 to the Updated Safety Analysis Report (USAR) for Clinton Power Station.

The USAR is being submitted on Optical Storage Media (OSM) in its entirety, including documents incorporated by reference (e.g., Operational Requirements Manual (ORM)). USAR pages changed as a result of this update are delineated with "Rev. 18, October 2016" in the page footer.

Changes to the USAR and ORM have been made under the provisions of 10 CFR 50.59, "Changes, tests, and experiments." EGC has evaluated these changes in accordance with 10 CFR 50.59 and concluded that the changes do not require prior NRC approval.

Attachment A provides a brief summary of the changes incorporated into USAR Revision 18.

Attachment B provides the required summary report pursuant to 10 CFR 50.59(d)(2).

Attachment C contains a summary of regulatory commitment changes.

Attachment D summarizes the changes to the ORM.

Attachment E contains the directory path, filename, and size of each individual file.

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One OSM is included in this submission. The OSM labeled, "Exelon Generation, Clinton Power Station, USAR Revision 18, October 2016," contains the following components:

001 CPS USAR Rev. 18.pdf, 698 megabytes (MB), publicly available

002 CPS ORM.pdf, 924 kilobytes (KB), publicly available

As required by 10 CFR 50.71(e)(2)(i), I certify that to the best of my knowledge, the information contained in the enclosures and attachments to this letter accurately reflect information and analyses submitted to the NRC or prepared pursuant to NRC requirements, and changes made under the provisions of 10 CFR 50.59.

There are no commitments made in this document. Should you have any questions concerning this letter, please contact:

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Respectfully,

Dominic M. Imburgia

Manager - Licensing Programs

Enclosure:

OSM - Exelon Generation, Clinton Power Station, USAR Revision 18,

October 2016

Attachments:

Attachment A, "CPS USAR Revision 18 Change Summary Report"

Attachment B, "10 CFR 50.59 Summary Report"

Attachment C, "Summary of Regulatory Commitment Changes"

Attachment D, "Summary of Operational Requirements Manual Changes"

Attachment E, "OSM Directory Structure"

cc: Regional Administrator – NRC Region III

NRC Senior Resident Inspector – Clinton Power Station

Attachment A CPS USAR Revision 18 Change Summary Report Page 1 of 4

<u>USAR Change 2013-004</u>, Radwaste Building Elevation 737 Machine Shop Walls. USAR Appendix E Figures FP18a, FP18b, and 16 Cable Tray drawings are revised to include metal clad polystyrene walls to act as a partial barrier to separate the track bay from other areas containing staging material and machine shop equipment. EC 392025. Non-regulatory change in accordance with NEI 98-03 Guidance.

<u>USAR Change 2013-015</u>, <u>Fuel Building Crane Upgrades for ISFSI</u>. USAR Chapters 1, 3, 9, 12, 15 and Figures 3.8-35 and 9.1-22 are revised. Upgrade Fuel Building Crane to single failure proof design. Incorporate description of the new dry cask storage system. EC 392606. 50.59 Screening CL-2013-S-026.

<u>USAR Change 2014-005</u>, <u>Power Block Lighting Upgrades With LED</u>. USAR Section 9.5.3 is revised. The change addresses replacement of incandescent lighting in the containment building with Light Emitting Diode (LED) fixtures. Additionally, clarification that lights containing mercury are not used over the suppression pool or fuel pool. EC 397050. Non-regulatory change in accordance with NEI 98-03 Guidance.

USAR Change 2014-012, Pipe Gas Management Program Changes per TSTF 523. USAR Sections 5.4.6, 5.4.7, and 6.3.2 are revised. The change to reflect the requirement for a Gas Management Program for Shutdown Cooling, Emergency Core Cooling Systems, Reactor Core Isolation Cooling, Suppression Pool Cooling and Containment Spray piping. EC 373186, 50.59 Screening CL-2010-S-017, and CPS Tech Spec Amendment 205.

<u>USAR Change 2014-015, Spent Fuel Pool Jib Crane Removal.</u> USAR Section 9.1.4, Table 9.1-1, Table 9.1-2, Figure 9.1-12, and Figure 3.6-1 sheet 45 are revised. The change removes the jib crane that was mounted along the edge of the Fuel Building fuel storage pool. EC 392333. 50.59 Screening CL-2014-S-026.

<u>USAR Change 2014-018, New Connection to RHR C Injection Line for FLEX.</u> USAR Figure 3.6-1 sheet 64, Figure 6.2-147 and Section 5.4.7 are revised. A new tie-in connection is made in the Residual Heat Removal (RHR) C loop to provide a path for makeup water to the reactor vessel and/or suppression pool in response to NRC Order EA-12-049, Order to Modify Licenses with Regard to Requirements for Mitigation Strategies for Beyond Design Basis External Events. EC 392340. 50.59 Screening CL-2014-S-023.

<u>USAR Change 2014-019</u>, <u>New Connection to LPCS Injection Line for FLEX.</u> USAR Figure 3.6-1 sheet 60, Figure 6.2-143, and Section 6.3.1 are revised. A new tie-in connection is made in the Low Pressure Core Spray (LPCS) loop to provide a path for makeup water to the reactor vessel and/or suppression pool in response to NRC Order EA-12-049, Order to Modify Licenses with Regard to Requirements for Mitigation Strategies for Beyond Design Basis External Events. EC 392341. 50.59 Screening CL-2014-S-027.

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<u>USAR Change 2015-003</u>, New Fire Protection Lines for New FLEX DG. USAR Appendix E Sections 3.5.10, 4.0, and Figures FP-12a & -12b are updated. Also, USAR Appendix F Sections 3.4.10 and 4.2.4 are revised to reflect installation of a new wet-pipe fire protection sprinkler system in the area where a new FLEX diesel generator is located. EC 397718 and 50.59 CL-2015-S-010.

<u>USAR Change 2015-008, Turbine Test Bypass Switch.</u> USAR Section 10.2.2.7 is revised to add a keylock switch for the mechanical lockout solenoid valve to remain energized when Mechanical Trip Piston and Mechanical Overspeed Testing is performed while the generator is on-line. EC 402156 and 50.59 Screening CL-2015-S-049.

<u>USAR Change 2015-010</u>, Secondary Containment Drawdown Time Change and Update the <u>post-LOCA dose</u>. USAR Section 6.2, 6.5, Table 6.1-1, 15.6.5.5, Table 15.6.5-6, and Figure 15.6.5-1 are revised. In order to accommodate the increased heat from a loaded spent fuel cask in secondary containment due to dry cask storage activities at CPS, the licensee requested a revision to the post-LOCA drawdown time for secondary containment. The revision increased the drawdown time from the 12 minutes to 19 minutes. The increased drawdown time delays thetime at which the Standby Gas Treatment (SBGT) system can be credited to effectively limit the release of fission products to the environment from primary containment leakage. EC 395976 and CPS Tech Spec Amendment 210.

USAR Change 2015-012, BWRVIP Inspection Programs and use of CHECWORKS. IR 02223135 identified wording gaps between the USAR and SER Amendment 149. These gaps have been corrected by incorporating wording from the SER into the USAR to comply with 10 CFR 50.71(e) and make the USAR consistent with the SER. USAR Section 3.9.5.2.1 and Section 10.4.7.4 were revised as a result of this IR. This USAR change is in support of the use of BWRVIP inspection program and the use of the CHECWORKS code to monitor wall thinning by FAC as discussed in the SER for License Amendment 149, which allowed an increase in the licensed power from 2894 megawatts thermal (MWt) to 3473 MWt for Clinton Power Station (CPS), and is considered an extended power uprate (EPU).

<u>USAR Change 2015-013, Clarification of Seismic Qualifications of Switchgear.</u> USAR Section 3.10 is revised to remove the use of time dependent condition in seismic qualification activities of certain switchgear breaker configurations not included in the original qualification. IR 02505685 and 50.59 Screening CL-2015-S-063.

<u>USAR Change 2015-014, On-line Noble Chem Clarification.</u> USAR Sections 5.4.8, 5.4.15, and 10.4.7.2 are revised. The USAR change adds additional detail of On-Line Noble Chem. EC 389558 and 50.59 Screening CL-2016-S-002.

<u>USAR Change 2015-016, EBOP/ESOP Circuit Wiring.</u> USAR Appendix F Section 1.5 is revised. IR 1626006 and IR 1581135 were OPEX reviews concerning unprotected DC ammeter circuits and control circuit wiring for the turbine lube oil emergency DC pumps. For CPS, two turbine auxiliary emergency DC pumps were identified as having a similar vulnerability; 1TO08P: Emergency Seal Oil Pump (ESOP) and 1TO05P: Emergency Bearing Oil Pump (EBOP). IR 1626006, IR 1581135 and Fire Protection Change Regulatory Review.

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<u>USAR Change 2016-002</u>, <u>Reanalysis of Offgas Accident</u>. USAR Section 15.7.1, several 15.7.1 Tables, and Section 15A.6.5.3 to provide revised numbers for Gaseous Radwaste System Failure Activity Release. A re-analysis of the Main Condenser Offgas Treatment System failure accident was performed without taking credit for time critical operator actions. This was in response to a WANO Area For Improvement initiative (IR 2543179). EC 404553 and 50.59 Evaluation CL-2016-E-008.

<u>USAR Change 2016-003, Incorporate 2010 version of ANSI B30.9.</u> USAR Section 9.1.5.4.1 is revised to add the year "2010" for ANSI B30.9 to allow the use of an additional type/style of sling that has been developed since the issuance of the 1971 Standard. IR 02554037 and 50.59 Evaluation CL-2016-E-010.

<u>USAR Change 2016-004, ISFSI.</u> USAR Section 9.1.3.2 and 9.1.4.3 is revised to add clarifications to support dry cask storage activities, outside of the spent fuel pool, including a revision to the calculation for the Fuel Building crane girder. EC 396199 and 50.59 Screening CL-2015-S-064.

<u>USAR Change 2016-006, ISFSI Stability Analysis.</u> USAR Section 9.1.2.2 and Figure 9.1-24 are revised. Implements an Independent Spent Fuel Storage Installation (ISFSI) at Clinton Power Station (CPS). EC 394724 and 50.59 Evaluation CL-2015-E-015.

<u>USAR Change 2016-007, Editorial changes.</u> USAR Chapter 2 Table of Contents are revised. Non-regulatory change in accordance with NEI 98-03 Guidance.

<u>USAR Change 2016-008, Table 1.6-1 ANSI Standards Reference Index.</u> USAR Table 1.6-1 updated to add references included in other sections of the USAR. IR 02598045 and Non-regulatory change in accordance with NEI 98-03 Guidance.

<u>USAR Change 2016-012, Cycle 17 GNF2 Fuel.</u> USAR Section 15.2, 15D, and 15F are revised to address changes to the core configuration, reload fuel, core neutronic and hydraulic design, mechanical characteristics of reload fuel thermal limits and safety limits, and core monitoring system update. EC 402313 and 50.59 Screening CL-2016-S-024.

<u>USAR Change 2016-014, Clarification of Peak Suppression Pool Temperature.</u> USAR Section A3.8.3.1 is revised to reflect a value for the Peak Suppression Pool Temperature due to changes from Extended Power Uprate. This provides consistency throughout the USAR. Issue Report 02664276. Non-regulatory change in accordance with NEI 98-03 Guidance.

<u>USAR Change 2016-015</u>, <u>Appendix E Pagination</u>. USAR Appendix E Table of Contents revised to be consistent with internal Appendix E sub-Table of Contents. Issue Report 02527844. Non-regulatory change in accordance with NEI 98-03 Guidance.

<u>USAR Change 2016-016, EPU Corrections.</u> USAR Table 3.6-8, Chapter 10 Table of Contents, Sections 15A.6 and Figures 15A.6-25, -26, -27, -30, and -31 are revised. Consistency with Extended Power Uprate on the power level threshold at which the main turbine bypass system can reject steam into the main condenser. IR 02664276 and EC 374190. Non-regulatory change in accordance with NEI 98-03 Guidance.

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<u>USAR Change 2016-017, Steam Dryer Inspection Details.</u> USAR Section 3.9.5 and Section 3.9.7 to clarify the basis for inspections to ensure steam dryer structural integrity. IR 02671281 and 50.59 Screening CL-2014-S-048.

<u>USAR Change 2016-019</u>, <u>Remove Turbine Bypass Valve Surveillance Frequency</u>. USAR Section 10.2.3.6 to remove reference to the 31 day frequency for testing the Main Turbine steam bypass valves. The frequency is controlled by the Technical Specifications Surveillance Frequency Control Program. IR 02662437 and 50.59 Screening CL-2016-S-037.

Attachment B 10 CFR 50.59 Summary Report Page 1 of 5

This attachment contains 50.59 evaluation summaries performed for Clinton Power Station (CPS) during this reporting period.

Activity Number / Title

CL-2015-E-015: Engineering Change (EC) 394724, ISFSI Stability Analysis and Structural Impacts From Spent Fuel Casks in the Fuel Building.

Description of Activity

This EC (394724) implements an Independent Spent Fuel Storage Installation (ISFSI) at Clinton Power Station (CPS). This EC (394724) includes the following:

- Evaluate and qualify the cask loading pool liner and reinforced concrete floor slab supported on grade for the loading imposed by a loaded MPC within the HI-TRAC cask. This includes a stability analysis of the HI-TRAC in the cask loading pool.
- Evaluate and qualify the Fuel Building reinforced concrete slabs and beams for the loading imposed by the stack-up in the rail road bay. This includes a stability analysis of the stack-up.
- Evaluate the Fuel Building structural components for the loading imposed while the HI-STORM is transported in the area between the stack-up location and the door in the south wall along the egress path.

Reason for Activity

Exelon Corporation LLC has made the decision to implement an ISFSI at CPS using a Holtec dry cask storage system. Without the ISFSI, CPS will lose full core offload capability in 2016. Cask loading operations are performed in the Fuel Building. In order to move spent fuel from the spent fuel pool into a storage cask and out of the Fuel Building, the spent fuel cask is moved throughout the building and imposes loading on the building. Calculations issued under this EC evaluate and qualify the Fuel Building for the imposed loading.

Bases for Not Requiring Prior NRC Approval

Calculations issued under this EC evaluate the impacts of the loading on the Fuel Building structure due to movement of spent fuel casks throughout the Fuel Building. The impacts have been analyzed and shown to be acceptable. The function of the Fuel Building to support refueling operations, spent fuel storage and cask loading operations is not impacted by this EC. The function of cask loading pool to provide an area for loading/storing spent fuel casks which is isolated from the spent fuel storage pool is not impacted by this EC. This change performs analyses and evaluations that have no impact on how the USAR described functions are performed or controlled. This change is not a test or experiment and does not impact station Technical Specifications.

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Activity Number / Title

CL-2015-E-059: Engineering Change (EC) 401581, EC 402193, and EC 402194, OpEval and Procedurally Controlled - Temporary configuration change (PC-TCC) for opening doors and installation of VX Temporary fans

Description of Activity

Operability Evaluation EC 401581 and PC-TCC EC 402193 and EC 402194 specify compensatory actions to monitor temperature, open doors, and install exhaust fans and temporary power supply for Division 1/2 Switchgear Room HVAC (VX) system. Doors in the Control, Auxiliary, and Turbine buildings will be opened to allow outside air to maintain the ambient temperatures within the safety related switchgear rooms, battery rooms, inverter rooms and divisional cable spreading areas. If the temperatures continue to rise with the doors open, then temporary fans are deployed to ensure the ambient temperatures stay within equipment qualification limits. The specifics for deployment of the compensatory measures are described in procedures 3412.01C001 and 3412.01C002.

Reason for Activity

Change to Switchgear Room HVAC (VX) system outages to enter Tech Spec actions in addition to Operational Requirements Manual (ORM) actions. A removal of the Division 1 or 2 VX subsystem from service now requires entry into Tech Specs 3.8.4, DC Sources – Operating, and 3.8.9, Distribution Systems – Operating.

Calculation VX-49 shows that upon loss or unavailability of safety and non-safety VX HVAC sub-system, design limit temperatures in the safety related switchgear rooms, battery rooms, inverter rooms, and divisional cable spreading areas cannot be maintained. Compensatory measures described in the Operability Evaluation and PC-TCC ECs will allow temperature monitoring, opening doors and installation of temporary fans to ensure ambient temperatures are maintained within equipment qualification limits.

Bases for Not Requiring Prior NRC Approval

Calculation VX-49 analysis determined the expected ambient temperatures within the affected safety related switchgear rooms, battery rooms, inverter rooms, and divisional cable spreading areas with a loss of VX and implementation of compensatory measures to open doors and install fans will maintain ambient temperatures within equipment qualification limits.

The compensatory measures do not introduce the possibility of a new accident as no new failure modes are introduced since ambient temperatures are maintained within equipment qualification limits. There is no adverse impact to USAR described evaluation methodology used in establishing design bases or safety analyses. There is not more than minimal increase in the likelihood of occurrence of a malfunction of an SSC important to safety or in the consequences of an accident previously evaluated in the USAR. The compensatory measures do not create a possibility for a malfunction of an SSC important to safety with a different result and do not result in a departure from a method of evaluation.

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Activity Number / Title

CL-2016-E-008: Engineering Change (EC) 404553, Reanalysis of Failure of Offgas Accident.

Description of Activity

Re-analysis of the Main Condenser Offgas Treatment System failure accident without taking credit for the time critical operator actions currently described in USAR Section 15.7.1.1.2. The re-analysis allows the USAR and station operating procedures to be revised to remove the requirement for time critical operator actions.

Reason for Activity

The re-analysis is in response to a WANO Area For Improvement (AFI), where operators may be unable to validate the ability to complete time critical actions required to mitigate effects of the Main Condenser Offgas Treatment System failure accident.

Bases for Not Requiring Prior NRC Approval

The results of the analysis show that dose remains acceptable without performance of the currently prescribed actions. The re-analysis considers the Steam Jet Air Ejectors (SJAE) to continue processing gas for 60 minutes after the postulated system failure which is increased from 30 minutes. The re-analysis of the accident results in increased dose, but is not more than minimal and remains within the applicable regulatory limits. There are no changes that could result in an increase in the frequency of an accident or malfunction as described in the USAR. The consequences are no more than a minimal increase because they are less than 10% of the difference between the current value and the regulatory limit and because they do not exceed SRP guidelines in terms of critical organ or TEDE approach. The revised analysis does not create the possibility of an accident of a different type or a malfunction with a different result than previously evaluated in the USAR and does not impact fission product barriers. This change is not a departure from a method of evaluation because the use of TEDE has been approved for CPS for the intended application and because the revised offgas calculation demonstrates that the use of TEDE for the limit is conservative.

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Activity Number / Title

CL-2016-E-010: AR 02554037-02, Allowance of Synthetic Roundslings for NUREG-0612 Heavy Load Lifts.

Description of Activity

The proposed activity allows use of Twin-Path Extra TPXC Synthetic Roundslings constructed with K-Spec fiber used in combination with engineered softeners and abrasion protection devices. The proposed activity is limited to slings used for NUREG-0612 Heavy Load Lifts.

Reason for Activity

The change allows the use of an additional type/style of sling that has been developed since the issuance of the 1971 Standard.

Bases for Not Requiring Prior NRC Approval

The evaluation determined that neither the frequency of occurrence of an USAR evaluated accident or the likelihood of a malfunction of and SSC important to safety is more than minimally increased due to approval and use of additional type/style of slings that have been developed since issuance of the 1971 Standard. The consequences of an accident or malfunction as a result of use of a new style sling are bounded by the previous evaluation. An accident of a different type than has been previously evaluated or with a different result will not be introduced. The installation of this upgrade will not impact fission product barriers. Therefore this EC can be implemented without prior NRC approval.

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Activity Number / Title

CL-2016-E-029: Engineering Change (EC) 405797, INSTALL JUMPER TO PREVENT INADVERTENT ISOLATION OF SJAE B.

Description of Activity

Installation of a jumper into the circuitry which monitors steam flow for the SJAE B second stage ejector. Currently, the circuit monitors 2^{nd} stage SJAE steam flow and would cause SJAE suction valve 1CA002B to automatically close on low steam flow through the system. During normal operations, steam flow is maintained at 7600 lb_m/hr. The low flow isolation causes closure of the suction valve at 76% steam flow, which isolates off gas flow and can lead to a plant shutdown. Due to fluctuating steam flow indication and concerns regarding spurious isolation during power reductions, a jumper is to be installed.

Reason for Activity

During control rod line pattern adjustments after refueling outage C1R16, Off Gas System recorder B, 1N66R602B, identified that the dilution steam flow from input SJAE TRAIN B PROCESS FLOW TRANSMITTER, 1N66N070B, would cycle between 76% and 111% (reference IR 2675712). To prevent the dilution steam flow from dropping to the trip setpoint of 76% during power manipulations, an installed jumper prevents closure of the SJAE inlet valve 1CA002B by bypassing redundant flow switches 1B21N545 and 1B21N549 and keep SJAE B suction valve solenoid 1FSVCA002 energized.

Bases for Not Requiring Prior NRC Approval

Steam flow to the SJAE 2nd stage inter-condenser will no longer be automatically isolated on low flow. Manual operator action (closure of the isolation valve via Main Control Room handswitch) will be required to isolate steam flow, if needed. The steam flow to SJAE isolation function is addressed in USAR Section 7.7.1.10 and Section 10.4.2 and the rationale for the isolation function identifies hydrogen accumulation and subsequent detonation as the basis for the function. However, this description is not considered a Design Basis function as described in the 50.59 Resource Manual (reference Exelon procedure LS-AA-106-1000), as there is not regulatory basis for the function and it is not credited in an safety analyses to meet NRC requirements. The over-riding design bases criteria is provided in USAR Chapter 15, which indicates that the Main Condenser Offgas Treatment System "equipment and piping are designed to contain any hydrogen-oxygen detonation which has a reasonable probability of occurring. A detonation is not considered as a possible failure mode." The 50.59 evaluation concludes that the change is acceptable and may be performed without prior NRC approval.

Attachment C Summary of Regulatory Commitment Changes Page 1 of 1

Existing Commitment Description

Commitment Change Tracking # 2016-001

Commitment 400803-01-00:

Develop Preventative Maintenance tasks to assist in maintaining 1FW004 Motor Driven Reactor Feed Pump Regulating valve. Implementing Documents PMIDs 156929-01, 156929-02, 156929-03, 156929-04, and 156929-06.

Reference: Letter U-601474 CCT 0511180

Revised Commitment Description

Develop Preventative Maintenance tasks to assist in maintaining 1FW004 valve. Implementing Documents PMIDs 156929-02, 156929-04, 156929-06, 180908-02.

Justification

New 1FW004 valve has no nitrogen charging system. PMID 156929-01, retired due to PMRQ is obsolete by a plant design modification, and this PMID is no longer applicable.

PMID 156929-03, retired. 1) Checking the hydraulic fluid reservoir desiccant breather and replace if required has been added to PMRQ 180908-02 scope. PMRQ 180908-06 is revised to a COM type PM. 2) Replacement of the high pressure fluid filter is not recommended by the vendor or by Maintenance except during actuator rebuild. The actuator was replaced by a plant design modification and PMID is no longer applicable.

Reference:

Confirmatory Action Letter CAL-RIII-89-016

Attachment D Summary of Operational Requirements Manual Changes Page 1 of 1

The following revision to the Clinton Power Station (CPS) Operational Requirements Manual (ORM) has been made in accordance with approved station procedures. Changes to the ORM are reviewed per 10 CFR 50.59.

Revision Number	Scope of Revision
Revision 79	Y-219281 4/18/16. Section 2.2, Instrumentation. TR 4.2.12.4 extending the Operational Requirements Manual (ORM) testing interval for the Logic System Functional Test of the Feedwater System/Main Turbine Trip of the Reactor Vessel Level 8 (high water level) from 24 to 48 months. This test is used to provide equipment protection of the main turbine due to moisture carry-over from the reactor vessel into the main steam lines by anticipating a vessel overfill event and it provides no safety related function. Reference 50.59 screening CL-2016-S-011.
Revision 80	Y-219289 7/22/16. Section 2.4, Plant Systems and Section 2.6, Refueling Operations. EC 396199. Assessment to support the operation of the Independent Spent Fuel Storage Initiative (ISFSI) and inclusion of the dry cask system in the ORM. Operation of the ISFSI for the storage of spent fuel will be addressed separately in CPS's 10CFR72.212 Licensing Report. Reference 50.59 screening CL-2015-S-064.

Attachment E OSM Directory Structure Page 1 of 1

All files listed below are publicly available			
Directory Path	File Name	Size	
001 CPS USAR Rev 18	000 USAR Cover and LOEP.pdf	431 KB	
001 CPS USAR Rev 18	001 CH 01 Intro and General Desc.pdf	768 KB	
001 CPS USAR Rev 18	002 CH 02 Site Characteristics.pdf	1664 KB	
001 CPS USAR Rev 18	003 CH 02 Figures Part 1 of 3.pdf	45834 KB	
001 CPS USAR Rev 18	004 CH 02 Figures Part 2 of 3.pdf	41138 KB	
001 CPS USAR Rev 18	005 CH 02 Figures Part 3 of 3.pdf	43315 KB	
001 CPS USAR Rev 18	006 CH 03 Design of Struct Comp Equip.pdf	2609 KB	
001 CPS USAR Rev 18	007 CH 03 Figures Part 1 of 11.pdf	1995 KB	
001 CPS USAR Rev 18	008 CH 03 Figures Part 2 of 11.pdf	39745 KB	
001 CPS USAR Rev 18	009 CH 03 Figures Part 3 of 11.pdf	32117 KB	
001 CPS USAR Rev 18	010 CH 03 Figures Part 4 of 11.pdf	45495 KB	
001 CPS USAR Rev 18	011 CH 03 Figures Part 5 of 11.pdf	35080 KB	
001 CPS USAR Rev 18	012 CH 03 Figures Part 6 of 11.pdf	43294 KB	
001 CPS USAR Rev 18	013 CH 03 Figures Part 7 of 11.pdf	29364 KB	
001 CPS USAR Rev 18	014 CH 03 Figures Part 8 of 11.pdf	39129 KB	
001 CPS USAR Rev 18	015 CH 03 Figures Part 9 of 11.pdf	30180 KB	
001 CPS USAR Rev 18	016 CH 03 Figures Part 10 of 11.pdf	37779 KB	
001 CPS USAR Rev 18	017 CH 03 Figures Part 11 of 11.pdf	46765 KB	
001 CPS USAR Rev 18	018 CH 04 Reactor.pdf	2353 KB	
001 CPS USAR Rev 18	019 CH 05 RCS and Connect Systems.pdf	2968 KB	
001 CPS USAR Rev 18	020 CH 06 Engineered Safety Features.pdf	17840 KB	
001 CPS USAR Rev 18	021 CH 07 Instrument and Control Sys.pdf	5172 KB	
001 CPS USAR Rev 18	022 CH 08 Electric Power.pdf	1171 KB	
001 CPS USAR Rev 18	023 CH 09 Auxiliary Systems.pdf	4975 KB	
001 CPS USAR Rev 18	024 CH 10 Steam and Power Conv.pdf	738 KB	
001 CPS USAR Rev 18	025 CH 11 Radioactive Waste Mgmt.pdf	2296 KB	
001 CPS USAR Rev 18	026 CH 12 Radiation Protection.pdf	2484 KB	
001 CPS USAR Rev 18	027 CH 13 Conduct of Operations.pdf	196 KB	
001 CPS USAR Rev 18	028 CH 14 Initial Test Program.pdf	924 KB	
001 CPS USAR Rev 18	029 CH 15 Accident Analysis.pdf	10795 KB	
001 CPS USAR Rev 18	030 CH 16 Technical Specifications.pdf	43 KB	
001 CPS USAR Rev 18	031 CH 17 Quality Assurance.pdf	42 KB	
001 CPS USAR Rev 18	032 APP A Glossary.pdf	94 KB	
001 CPS USAR Rev 18	033 APP B Const Matl Stds and QC.pdf	151 KB	
001 CPS USAR Rev 18	034 APP C Computer Programs.pdf	6657 KB	
001 CPS USAR Rev 18	035 APP D TMI Requirements.pdf	1932 KB	
001 CPS USAR Rev 18	036 APP E Fire Protection Report.pdf	49007 KB	
001 CPS USAR Rev 18	037 APP E Cable Tray Drawings.pdf	46399 KB	
001 CPS USAR Rev 18	038 APP F Safe Shutdown.pdf	42700 KB	
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002 CPS ORM	001 CPS ORM.pdf	924 KB	