# ENCLOSURE 2

# MFN 05-117

# Revised DCD Section 1.C,

# "Industry Operating Experience"

Conditional Release – pending closure of design verifications

# APPENDIX 1C INDUSTRY OPERATING EXPERIENCE

## 1C.1 EVALUATION

Industry operating experience information is routinely made available to and/or distributed by GE design and modifications personnel. The more important industry-wide issues are routinely addressed in NRC Generic Letters and Bulletins.

All of the Generic Letters and Bulletins covering January 1, 1980 through February 24, 2005 were reviewed. Of those, the Generic Letters and Bulletins that are potentially applicable to the ESBWR design or operations are addressed in Table 1C.1-1. For each of those Generic Letters and Bulletins, Table 1C.1-1 provides (a) the Tier 2 location(s) where the Generic Letter's or Bulletin's topic is addressed, (b) a summary conclusion of its effect on the ESBWR, or (c) notes that it is applicable to the COL applicant/holder. (See Subsection 1.9.4 for COL information.). Generic Letter and Bulletin topics deemed not applicable to the ESBWR design or operations (topics pertaining to other reactor types or BWR design features, e.g., a Reactor Recirculation Pump issue) are not included in Table 1C.1-1. Also, Generic Letter and Bulletin topics related to identified regulatory or industry developed resolutions are not included in Table 1C.1-1, to avoid repetition within Tier 2.

**Table 1C.1-1**

**Operating Experience Review Results Summary**

| No. | Issue Date | Title | Evaluation Result or Topic's Tier 2 Location(s) |
|---|---|---|---|
| **Type: Generic Letters** | | | |
| 80-06 | 4/25/80 | Clarification of NRC Requirement for Emergency Response Facilities at Each Site | |
| 80-30 | 12/15/80 | Periodic Updating of Final Safety Analysis Reports (FSARs) | COL Holder |
| 80-34 | 4/25/80 | Clarification of NRC Requirements for Emergency Response Facilities at Each Site | Subsection 18._._ |
| 80-113 | 12/22/80 | Control of Heavy Loads | Subsection 9.1.5 with COL Holder to supplement |
| 81-03 | 2/26/81 | Implementation of NUREG-0313m, Rev. 1 | Subsection 5.2.3 |
| 81-04 | 2/25/81 | Emergency Procedures and Training for Station Blackout Events | COL Holder |
| 81-07 | 2/3/81 | Control of Heavy Loads | Subsection 9.1.5 with COL Holder to supplement |
| 81-10 | 2/18/81 | Post-TMI Requirements for the Emergency Operations Facility | Appendix 1A and Subsection 18._._ |
| 81-11 | 2/22/81 | Comments on NUREG-0619 | |
| 81-20 | 4/1/81 | Safety Concerns Associated with Pipe Breaks in the BWR Scram System | |
| 81-37 | 12/29/81 | ODYN Code Reanalysis Requirements | Not applicable, ESBWR does not use the ODYN Code |
| 81-38 | 11/10/81 | Storage of Low-Level Radioactive Wastes at Power Reactor Sites | COL Applicant |
| 82-09 | 4/20/82 | Environmental Qualification of Safety-Related Electrical Equipment | Section 3.11 |
| 82-21 | 10/6/82 | Technical Specifications for Fire Protection Audits | Not applicable. No longer controlled by Technical Specifications. |

**Table 1C.1-1**

**Operating Experience Review Results Summary**

| No. | Issue Date | Title | Evaluation Result or Topic's Tier 2 Location(s) |
|---|---|---|---|
| 82-23 | 10/30/82 | Inconsistency Between Requirements of 10CFR73.40(d) and Standard Technical Specifications for Performing Audits of Safeguard Contingency Plans | Not applicable. No longer controlled by Technical Specifications. |
| 82-27 | 11/15/82 | Transmittal of NUREG-0763, "Guidelines for Confirmatory In-Plant Tests of Safety-Relief Valve Discharges for BWR Plants," and NUREG-0783, "Suppression Pool Temperature Limits for BWR Containments." | The suppression pool is provided with sufficient temperature instrumentation to monitor the temperature rise during testing that adds heat to the pool. The Tech Spec limits on pool temperature are established in accordance with the applicable design limits. |
| 82-33 | 12/17/82 | Supplement 1 to NUREG-0737 | Appendix 1A |
| 82-39 | 12/22/82 | Problems with the Submittals of 10 CFR 73.21 Safeguards Information Licensing Review | COL Applicant |
| 83-05 | 2/8/83 | Safety Evaluation of "Emergency Procedure Guidelines," Revision 2, NEDO-24934, June 1982 | Superseded, see Appendix 18A |
| 83-07 | 2/16/83 | The Nuclear Waste Policy Act of 1982 | COL Applicant |
| 83-13 | 3/2/83 | Clarification of Surveillance Requirements for HEPA Filters and Charcoal Absorber Units in Standard Technical Specifications on ESF Cleanup Systems | *Issue is being reviewed and if it is determined to be applicable the DCD will be revised to address this item.* |
| 83-28 | 7/8/83 | Required Actions Based on Generic Implications of Salem ATWS Events | Superseded by 10 CFR 50.62, see Section 15.5 for the ATWS event evaluation |
| 83-33 | 10/19/83 | NRC Positions on Certain Requirements of Appendix R to 10 CFR 50 | Subsection 9.5.1 and Appendices 9A & 9B |
| 84-15 | 7/2/84 | Proposed Staff Actions to Improve and Maintain Diesel Generator Reliability | Not applicable, the ESBWR does not have/need an emergency diesel generator |
| 84-23 | 10/26/84 | Reactor Vessel/Water Level Instrumentation in BWRs | Subsection 7.7.1 |
| 85-01 | 1/9/85 | Fire Protection Policy Steering Committee Report | Subsection 9.5.1 and Appendices 9A & 9B |

**Table 1C.1-1**

**Operating Experience Review Results Summary**

| No. | Issue Date | Title | Evaluation Result or Topic's Tier 2 Location(s) |
|---|---|---|---|
| 86-10 | 4/24/86 | Implementation of Fire Protection Requirements | Subsection 9.5.1 and Appendices 9A & 9B |
| 87-06 | 3/13/87 | Periodic Verification of Leak Tight Integrity of Pressure Isolation Valves | Not applicable, as defined Section B3.4.6 of NUREG-1434, the ESBWR does not need nor have pressure isolation valves. |
| 87-09 | 6/4-87 | Sections 3.0 and 4.0 of the Standard Technical Specifications (STS) on the Applicability of Limiting Conditions for Operations and Surveillance Requirements | DCD Chapter 16 TS Section 3.0, consistent with current Standard Technical Specifications (NUREG-1434, Rev. 3.0). |
| 88-01 | 1/25/88 | NRC Position on IGSCC in BWR Austenitic Stainless Steel Piping | Subsection 5.2.3.4 |
| 88-02 | 1/20/88 | Integrated Safety Assessment Program II (ISAP II) | |
| 88-14 | 8/8/88 | Instrument Air Supply System Problems Affecting Safety-Related Equipment<br>Past Related Correspondence:<br>IE Notice 87-28, Supp. 1 NUREG-1275, Volume 2 | |
| 88-15 | 9/12/88 | Electric Power Systems— Inadequate Control Over Design Process<br>Past Related Correspondence:<br>IE Notice 88-45 | The ESBWR design process fully complies with 10 CFR 50 Appendix B (see Chapter 17), COL Applicant to supplement, as needed |
| 88-16 | 10/4/88 | Removal of Cycle-Specific Parameter Limits from Technical Specifications | DCD Chapter 16 TS Section 5.6.3, consistent with current Standard Technical Specifications (NUREG-1434, Rev. 3.0). |
| 88-18 | 10/20/88 | Plant Record Storage on Optical Disks<br>Past Related Correspondence:<br>NUREG-0800 Reg. Guide 1.28, Rev. 3 | Subsection 17.1.17, COL Applicant and Holder to supplement |
| 88-20 | 11/23/88 | Individual Plant Examination for Severe Accident Vulnerabilities-10CFR Para. 50.54(f) | Section 19._ |

**Table 1C.1-1**

**Operating Experience Review Results Summary**

| No. | Issue Date | Title | Evaluation Result or Topic's Tier 2 Location(s) |
|---|---|---|---|
| 88-20s1 | 8/29/89 | Initiation of the Individual Plant Examination for Severe Accident Vulnerabilities-10CFR Para. 50.54(f) | Section 19._ |
| 88-20s2 | 4/4/90 | Accident Management Strategies for Consideration in the Individual Plant Examination Process | Section 19._ |
| 88-20s3 | 7/6/90 | Completion of Containment Performance Improvement Program and Forwarding of Insights for Use in the Individual Plant Examination for Severe Accident Vulnerabilities | Section 19._ |
| 88-20s4 | 6/28/91 | Individual Plant Examination of External Events (IPEEE) for Severe Accident Vulnerabilities - 10 CFR 50.54(f) | Section 19._ |
| 88-20s5 | 9/8/95 | Individual Plant Examination of External Events for Severe Accident Vulnerabilities | Section 19._ |
| 89-01 | 1/31/89 | Implementation of programmatic Controls for Radiological Effluent Technical Specifications in the Administrative Controls Section of the Technical Specifications and the Relocation of Procedural Details of RETS to the Offsite Dose Calculation Manual or to the Process Control Program | DCD Chapter 16 TS Section 5.5.1 and 5.5.3, consistent with current Standard Technical Specifications (NUREG-1434, Rev. 3.0).<br>COL Applicant/Holder |
| 89-02 | 3/21/89 | Actions to Improve the Detection of Counterfeit and Fraudulently Marketed Products<br>Past Related Correspondence:<br>EPRI-NP-5652, "Guideline for the Utilization of Commercial-Grade Items in Nuclear Safety-Related Applications". Bulletins 87-02 and Supplements 1 and 2, 88-05 and Supplements 1 and 2, 88-10 IE Notices 87-66, 88-19, 88-35, 88-46 and Supplements 1 and 2, 88-48 and Supplement 1, 88-97 | COL Holder |
| 89-04 | 4/3/89 | Guidance on Developing Acceptable Inservice Testing Program | Addressed throughout Tier 2 (e.g., Subsections 3.9.6, 5.2.4 & 6.3.3.9 and Section 6.6), COL Holder to supplement |

**Table 1C.1-1**

**Operating Experience Review Results Summary**

| No. | Issue Date | Title | Evaluation Result or Topic's Tier 2 Location(s) |
|---|---|---|---|
| 89-04s1 | 4/4/95 | Guidance on Developing Acceptable Inservice Testing Programs | Subsection 5.2.4 and Section 6.6 |
| 89-06 | 4/12/89 | Task Action Plan Item I.D.2 – Safety Parameter Display System CFR 50.54(f) | Appendix 1A |
| 89-07 | 4/28/89 | Power Reactor Safeguards Contingency Planning for Surface Vehicle Bombs | COL Applicant |
| 89-07 Supp I | 4/21/89 | Power Reactor Safeguards Contingency Planning for Surface Vehicle Bombs | COL Applicant |
| 89-08 | 5/2/89 | Erosion/Corrosion-Induced Pipe Wall Thinning | |
| 89-10 | 6/28/89 | Safety-Related Motor-Operated Valve Testing and Surveillance | COL Applicant/Holder |
| 89-10s1 | 6/13/90 | Results of Public Workshop | COL Applicant |
| 89-10s3 | 10/25/90 | Consideration of the Results of NRC Sponsored Tests of Motor-Operated Valves | COL Applicant |
| 89-10s4 | 2/12/92 | Consideration of Valve Mispositioning in Boiling Water Reactors | COL Applicant |
| 89-10s5 | 6/28/93 | Inaccuracy of Motor-Operated Valve Diagnostic Equipment | COL Applicant |
| 89-10s6 | 3/8/94 | Information on Schedule and Grouping, and Staff Responses to Additional Public Questions | COL Applicant |
| 89-13 | 7/18/89 | Service Water System Problems Affecting Safety-Related Equipment | Not applicable, ESBWR has no safety-related service water |
| 89-13s1 | 4/4/90 | Service Water System Problems Affecting Safety-Related Equipment | Not applicable, ESBWR has no safety-related service water |

**Table 1C.1-1**

**Operating Experience Review Results Summary**

| No. | Issue Date | Title | Evaluation Result or Topic's Tier 2 Location(s) |
|---|---|---|---|
| 89-14 | 8/21/89 | Line Item Improvements in Technical Specifications Removal of the 3.25 Limit on Extending Surveillance Intervals | DCD Chapter 16 TS Section 3.0, consistent with current Standard Technical Specifications (NUREG-1434, Rev. 3.0) |
| 89-15 | 8/21/89 | Emergency Response Data System | COL Applicant |
| 89-16 | 9/1/89 | Installation of a Hardened Wetwell Vent | The ESBWR does not need a dedicated Hardened Wetwell Vent, as discussed in Subsection 6.2.5.4 |
| 89-18 | 9/6/89 | Resolution of USI A-17, Systems Interactions | |
| 89-19 | 9/20/89 | Request for Action Related to Resolution of Unresolved Safety Issue A-47, "Safety Implication of Control Systems in LWR Nuclear Power Plants", Pursuant to 10 CFR 50.54(f) | |
| 89-22 | 10/19/89 | Potential for Increased Roof Loads and Plant Area Flood Runoff Depth at Licensed Nuclear Power Plants Due to Recent Change in Probable Maximum Precipitation Criteria Developed By The National Weather Service | Section 2.3 |
| 90-09 | 12/11/90 | Alternative Requirements for Snubber Visual Inspection Intervals and Corrective Actions | COL Holder |
| 91-03 | 03/06/91 | Reporting of Safeguards Events | COL Applicant/Holder |
| 91-04 | 04/02/91 | Changes in Technical Specification Surveillance Intervals to Accommodate a 24-Month Fuel Cycle | DCD Chapter 16 TS Sections 3.1-3.9, COL Holder scope |
| 91-05 | 04/04/91 | Licensee Commercial Grade Procurement and Dedication Programs | COL Holder |
| 91-06 | 04/29/91 | Resolution of Generic Issue A-30, "Adequacy of Safety-Related DC Power Supplies", Pursuant to 10 CFR 50.54(f) | Subsection 8.3.2 |

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**Operating Experience Review Results Summary**

| No. | Issue Date | Title | Evaluation Result or Topic's Tier 2 Location(s) |
|---|---|---|---|
| 91-10 | 07/08/91 | Explosive Searches at Protected Area Portals | COL Holder |
| 91-11 | 07/19/91 | Resolution of Generic Issue 48, "LCOs for Class 1E Tie Breakers", Pursuant to 10 CFR 50.54(f) | COL Holder |
| 91-14 | 09/23/91 | Emergency Telecommunications | COL Applicant |
| 91-15 | 09/23/91 | Operating Experience Feedback, Solenoid-Operated Valve Problems at U.S. Reactors | COL Holder |
| 91-16 | 10/03/91 | Licensed Operators' and Other Nuclear Facility Personnel Fitness for Duty | COL Applicant |
| 91-17 | 10/17/91 | Generic Safety Issue 29, "Bolting Degradation or Failure in Nuclear Power Plants" | COL Holder |
| 92-01r1 | | Reactor Vessel Structural Integrity | See Section 5.3.2 and 5.3.3 |
| 92-04 | 8/19/92 | Resolution of the Issues Related to Reactor Vessel Level Instrumentation in BWRs Pursuant to 10 CFR 50.54(f) | The ESBWR includes a continuous purge of water to the reference leg to prevent the buildup of non-condensable gases. The CRD Hydraulics provides this flow. See Sections 4.6.1.2.4 and 7.7.1.2 |
| 92-08 | 12/17/92 | Thermo-Lag 330-1 Fire Barriers | Not Applicable. The ESBWR provides strict physical separation between the redundant safety-related divisions. There is no need to use Thermo-Lag 330. See Section 9.5.1 |
| 93-05 | 9/27/93 | Line-Item Technical Specifications Improvements to Reduce Surveillance Requirements for Testing During Power Operation | Not Applicable. Is an administrative communication. Lessons from the Tech Spec Improvement programs have been factored into the proposed ESBWR Tech Specs in DCD Chapter 16. |

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**Operating Experience Review Results Summary**

| No. | Issue Date | Title | Evaluation Result or Topic's Tier 2 Location(s) |
|---|---|---|---|
| 93-06 | 10/25/93 | Research Results on Generic Safety Issue 106, "Piping and the Use of Highly Combustible Gases in Vital Areas" | The ESBWR only uses highly combustible gases in any safety-related area for reference gas in the H2/O2 monitors. This calibration gas is only used periodically and normally valved out of service. The H2 bottles are located in a non-safety structure. The lines to the H2 monitors are very small and would limit the flow in the event of a break. |
| 93-08 | 12/29/93 | Relocation of Technical Specification Tables Of Instrument Response Time Limits | Not Applicable. Is an administrative communication. |
| 94-01 | 5/31/94 | Removal of Accelerated Testing and Special Reporting Requirements for Emergency Diesel Generators | The ESBWR does not have safety-related emergency diesel generators. There are no surveillance requirements for the non-safety diesel generators. |
| 94-02 | 7/11/94 | Long-Term Solutions and Upgrade of Interim Operating Recommendations for Thermal-Hydraulic Instabilities in BWRs | The ESBWR addresses the concerns of Thermal-Hydraulic Instability. See Section 4.4 and Appendix 4D |
| 94-03 | 7/25/94 | Intergranular Stress Corrosion Cracking of Core Shrouds in Boiling Water Reactors | Controls on material properties and welding parameters are placed on all stainless material used in the RPV including the shroud. See Subsection 5.2.3.4.1. |
| 95-07 | 8/17/95 | Pressure Locking and Thermal Binding of Safety-Related Power-Operated Gate Valves | The number of safety-related valves in the ESBWR is much smaller than previous designs. The safety-related valves that need to open to perform their function are even smaller. Many of the safety-related valves that need to open are squib actuated and not subject to this phenomenon. Globe valves are generally used in the other applications. In any case, GL 89-10 Supplement 6 now cover this issue and the ESBWR complies with the guidance of this document. See Section 3.9.6 |

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**Operating Experience Review Results Summary**

| No. | Issue Date | Title | Evaluation Result or Topic's Tier 2 Location(s) |
|---|---|---|---|
| 96-01 | 1/10/96 | Testing of Safety-Related Circuits | The passive systems utilize safety-related electrical busses that are designed as un-interruptible power sources. There is no load shedding and sequencing in the safety-related electrical systems. |
| 96-03 | 1/31/96 | NRC Generic Letter 96-03: Relocation of The Pressure Temperature Limit Curves And Low Temperature Overpressure Protection System Limits | DCD Chapter 16 TS Section 5.6.4, consistent with current Standard Technical Specifications (NUREG-1434, Rev. 3.0), COL Holder scope. |
| 96-04 | 6/26/96 | Boraflex Degradation in Spent Fuel Pool Storage Racks | The equipment specification for the racks at the time of the order will be consistent with the latest regulatory guidance. See Subsection 9.1.2 |
| 96-05 | 9/18/96 | Periodic Verification of Design-Basis Capability of Safety-Related Power-Operated Valves | See Subsection 3.9.6 with COL Holder to supplement |
| 96-06 | 9/30/96 | Assurance of Equipment Operability And Containment Integrity During Design-Basis Accident Conditions | See Subsection 6.2.1, 6.2.2 and 6.2.4 |
| 96-06s1 | 11/13/97 | NRC Generic Letter 96-06, Supplement 1: Assurance of Equipment Operability and Containment Integrity During Design-Basis Accident Conditions | See Subsection 6.2.1, 6.2.2 and 6.2.4 |
| 97-04 | 10/7/97 | NRC Generic Letter 97-04: Assurance of Sufficient Net Positive Suction Head for Emergency Core Cooling and Containment Heat Removal Pumps | Not applicable, the ESBWR does not have ECCS nor safety-related containment cooling pumps |
| 98-01 | 5/11/98 | NRC Generic Letter No. 98-01: Year 2000 Readiness of Computer Systems at Nuclear Power Plants | Outdated concern |
| 98-01s1 | 1/14/99 | NRC Generic Letter No. 98-01 Supplement 1: Year 2000 Readiness of Computer Systems at Nuclear Power Plants | Outdated concern |

**Table 1C.1-1**

**Operating Experience Review Results Summary**

| No. | Issue Date | Title | Evaluation Result or Topic's Tier 2 Location(s) |
|---|---|---|---|
| 98-04 | 7/14/98 | 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 | Not applicable to the ESBWR GDCS. The GDCS pools do not have the debris transport mechanisms that the Suppression Pool is subject to. The PCCS pools are not subject to LOCA debris. There is no safety-related containment spray. |
| 99-02 | 6/3/99 | NRC Generic Letter 99-02: Laboratory Testing of Nuclear-Grade Activated Charcoal | *Issue is being reviewed and if it is determined to be applicable the DCD will be revised to address this item.* |
| 03-01 | 6/12/03 | Control Room Habitability | The verification requirements are in accordance with the applicable regulatory guidance and standards. See Subsection 6.4 |
| **Type: Bulletins** | | | |
| 79-02r2 | 3/8/79 | Pipe Support Base Plate Designs Using Concrete Expansion Anchor Bolts | |
| 79-08 | 4/14/79 | Events Relevant to BWR Identified During TMI Incident | See DCD Appendix 1A |
| 80-01 | 1/11/80 | ADS Valve Pneumatic Supply | The design of the pneumatic supply to the ADS valves addresses the concerns with the potential loss of loss of pneumatic pressure. In addition the ESBWR has diverse means of depressurizing the RPV using the DPVs. |
| 80-03 | 2/6/80 | Loss of Charcoal from Absorber Cells | |
| 80-05 | 3/10/80 | Vacuum Condition Resulting in Damage to Chemical and Volume Control System (CVCS) Holdup Tanks | COL Applicant |
| 80-06 | 3/13/80 | ESF Reset Controls | Section 7.3 |
| 80-08 | 4/7/80 | Containment Lines Penetration Welds | COL Applicant |
| 80-10 | 5/6/80 | Non-Radioactive System – Potential for Unmonitored Release | COL Applicant |

**Table 1C.1-1**

**Operating Experience Review Results Summary**

| No. | Issue Date | Title | Evaluation Result or Topic's Tier 2 Location(s) |
|---|---|---|---|
| 80-12 | 5/9/80 | Decay Heat Removal System Operability | COL Applicant |
| 80-13 | 5/12/80 | Cracking in Core Spray Spargers | Not Applicable. The ESBWR does not have a core spray sparger. |
| 80-15 | 6/18/80 | Possible Loss of Emergency Notification System with Loss of Offsite Power | COL Applicant |
| 80-20 | 7/31/80 | Westinghouse Type W-2 Switch Failures | COL Applicant/Holder |
| 80-21 | 11/6/80 | Valve Yokes Supplied by Mole | COL Applicant |
| 80-22 | 9/11/80 | Automatic Industries, Model 200-500-008 Sealed Source Containers | COL Applicant |
| 80-24 | 11/21/80 | Prevention of Damage due to H2O Leakage Inside Containment | Not applicable, the ESBWR Containment is cooled using the Chilled Water System (HCW) which is closed loop system. |
| 80-25 | 12/19/80 | Operating Problems with Target Rock SRVs at BWRs | Not applicable to the ESBWR design. Different valve type to be used. |
| 81-01 | 1/27/81 | Surveillance of Mechanical Snubbers | COL Holder |
| 81-02 | 4/9/81 | Failure of Gate Type Valves to Close | COL Holder |
| 81-02, Supp 1 | 8/19/81 | Failure of Gate Type Valves to Close Against Differential Pressure | COL Holder |
| 81-03 | 4/10/81 | Flow Blockage of Cooling Water to Safety System | COL Holder |
| 82-04 | 12/3/82 | Deficiencies in Primary Containment Electrical Penetration Assemblies | COL Holder |

**Table 1C.1-1**

**Operating Experience Review Results Summary**

| No. | Issue Date | Title | Evaluation Result or Topic's Tier 2 Location(s) |
|---|---|---|---|
| 83-06 | 7/22/83 | Non-Conforming Materials Supplied by Tube-Line Corp. | COL Applicant |
| 84-01 | 2/3/84 | Cracks in Boiling Water Reactor Mark 1 Containment Vent Headers | Not applicable to the ESBWR containment design |
| 84-03 | 8/24/84 | Refueling Cavity Water Seal | The ESBWR will utilize permanently installed flexible bellows between the RPV and the refueling cavity. |
| 85-03 | 11/15/85 | Motor-Operated Valve Common Mode Failures During Plant Transients Due to Improper Switch Settings | COL Applicant |
| 85-03, Supp 1 | 4/27/88 | Motor-Operated Valve Common Mode Failure During Plant Transients Due to Improper Switch Settings<br>Past Related Correspondence:<br>IE Bulletin 85-03, IE Notice 86-29, and IE Notice 87-01 | COL Applicant |
| 86-01 | 5/23/86 | Minimum Flow Logic Problems That Could Disable RHR Pumps | Not Applicable. The ESBWR does not have safety-related RHR pumps |
| 86-03 | 10/8/86 | Potential Failure of Multiple ECCS Pumps Due to Single Failure of Air-Operated Valve in Minimum Flow Recirculation Line | Not Applicable. The ESBWR does not have ECCS pumps |
| 87-01 | 7/9/87 | Thinning of Pipe Walls in Nuclear Power Plants | COL Applicant |
| 87-02 | 11/6/87 | Fastener Testing to Determine Conformance with Applicable Material Specifications | COL Applicant |
| 87-02, Supp 1 | 4/22/88 | Fastener Testing to Determine Conformance with Applicable Material Specifications<br>Past Related Correspondence:<br>IE Notice 88-17 | COL Applicant |
| 87-02, Supp 2 | 6/10/88 | Fastener Testing to Determine Conformance with Applicable Material Specifications | COL Applicant |

**Table 1C.1-1**

**Operating Experience Review Results Summary**

| No. | Issue Date | Title | Evaluation Result or Topic's Tier 2 Location(s) |
|---|---|---|---|
| 88-04 | 5/5/88 | Potential Safety-Related Pump Loss | Not applicable, the ESBWR does not have safety-related pumps |
| 88-07 | 6/15/88 | Power Oscillations in Boiling Water Reactors (BWRs)<br>Past Related Correspondence:<br>IE Notice 88-39 | Sections 4.4 and 4B.7 |
| 88-07, Supp 1 | 12/30/88 | Power Oscillations in Boiling Water Reactors (BWRs) | Sections 4.4 and 4B.7 |
| 90-01 | 03/09/90 | Loss of Fill-Oil in Transmitters Manufactured by Rosemount | Not applicable, the vendor has corrected the problem and new transmitters have been changed to correct the problem. |
| 90-02 | 03/20/90 | Loss of Thermal Margin Caused by Channel Box Bow | |
| 91-01 | 10/18/91 | Reporting Loss of Criticality Safety Controls | COL Holder |
| 91-01s1 | 7/27/93 | Reporting Loss of Criticality Safety Controls | COL Holder |
| 92-01 | 6/24/92 | Failure of Thermo-Lag 330 Fire Barrier System to Maintain Cabling in Wide Cable Trays and Small Conduits Free from Fire Damage | Not Applicable. The ESBWR provides strict physical separation between the redundant safety-related divisions. There is no need to use Thermo-Lag 330. |
| 92-01s1 | 8/28/92 | Failure of Thermo-Lag 330 Fire Barrier System to Perform its Specified Fire Endurance Function | Not Applicable. See above. |
| 93-02 | 5/11/93 | Debris Plugging of Emergency Core Cooling Suction Strainers | Not applicable to the ESBWR GDCS. The GDCS pools do not have the debris transport mechanisms that the Suppression Pool is subject to. |
| 93-02s1 | 2/18/94 | Debris Plugging of Emergency Core Cooling Suction Strainers | Not applicable to the ESBWR GDCS. See above. |

**Table 1C.1-1**

**Operating Experience Review Results Summary**

| No. | Issue Date | Title | Evaluation Result or Topic's Tier 2 Location(s) |
|---|---|---|---|
| 93-03 | 5/28/93 | Resolution of Issues Related to Reactor Vessel Water Level Instrumentation in BWRs | The ESBWR includes a continuous purge of water to the reference leg to prevent the buildup of non-condensable gases. The CRD Hydraulics provides this flow. See DCD 4.6.1.2.4 and 7.7.1.2 |
| 94-01 | 4/14/94 | Potential Fuel Pool Draindown Caused by Inadequate Maintenance Practices at Dresden Unit 1 | COL Holder. The FAPCS is designed to prevent the possibility of draining water from the Spent Fuel Storage Pool. |
| 95-02 | 10/17/95 | Unexpected Clogging of a Residual Heat Removal Pump Strainer While Operating in Suppression Pool Cooling Mode | Not Applicable. The ESBWR does not have a safety-related suppression pool cooling system. |
| 96-02 | 4/11/96 | Movement of Heavy Loads Over Spent Fuel, Over Fuel in the Reactor Core, or Over Safety-Related Equipment | See DCD 9.1.5 COL Holder to supplement |
| 96-03 | 5/6/96 | Potential Plugging of Emergency Core Cooling Suction Strainers by Debris in Boiling-Water Reactors | Not applicable to the ESBWR GDCS. See response to BL 93-02 |
| 96-04 | 7/5/96 | Chemical, Galvanic, or Other Reactions in Spent Fuel Storage and Transportation Casks | Related to dry cask storage, which is not part of the ESBWR design. COL Holder will address if applicable. |
| 2005-02 | 7/18/05 | Emergency Preparedness and Response Actions for Security-Based Events | COL Holder will provide response. |