

OPERABILITY ASSESSMENT AND EQUIPMENT CONTROL PROGRAM

REVISION SUMMARY

- Clarifies the required action in Exhibit 2 for the RFE/RFE Radiation Monitor inputs. This has been evaluated and is an editorial change. (70107164-0070)
- Adds additional clarification to HPCI/RCIC Jockey pumps on Exhibit 2.

IMPLEMENTATION REQUIREMENTS

Effective Date 4/9/10

None

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1. **PURPOSE**

- Administratively control entry and exit from Active and Tracking Technical Specification Action Statements for inoperable Technical Specification equipment. **[CD-026F, CD-536G, CD-537G, C0593]**
- Although the processes outlined in the body of this procedure do not specifically address their use, the following Exhibits are also provided for use:
- Exhibit 2 - Provide Licensee Controlled Allowable Outage Times (LAOTs) for certain equipment not specifically addressed in T/S.
- Exhibit 3 - Event Driven T/S / ODCM / UFSAR Surveillance Requirement Matrix
- Exhibit 5 - Secondary Containment Penetration Matrix

2. **SCOPE**

- This procedure applies to Conditions Adverse to Quality (CAQs), Scheduled Maintenance, Surveillance Activities, or following any plant transient(s) which could or have affected the operability of SSCs which are:
 - o Technical Specifications/LAOT related, or
 - o Safety Related, or
 - o Important to Safety/Q-Listed/Current Licensing Bases.
- This procedure describes the mechanisms used to assess SSC operability, including operability screenings for notifications (NOTF) using Operability Determinations (OD's) and Operability Evaluations (OPEVAL's),
- This procedure triggers the completion or review of Risk Assessments as part of the review of CAQs, and scheduled maintenance or surveillance testing activities that affect the availability of SSCs which are considered "Risk Significant" IAW OP-AA-101-112-1002, On-Line Risk Assessment.

3. **RESPONSIBILITIES**

3.1 **Shift Manager/Control Room Supervisor (SM/CRS):**

- Implements this procedure for Conditions Adverse to Quality (CAQs), Scheduled Maintenance, Surveillance Activities, or following any plant transient(s) which could or have affected the operability of SSCs which are related to Technical Specifications/LAOT/Safety Related/ Important to Safety/Q-Listed/Current Licensing Bases.
- Ensures reviews of new Significance Level 1, 2, and 3 (N1) Notifications are completed in a timely manner. To permit the SM/CRS to focus on plant operations this initial review and approval may be performed by any currently licensed SRO (SRO Screener).
- Prioritizes work activities, which support repair and return of inoperable SSCs.
- Classifies SSCs and screens SSCs for operability and reportability when performing Notification reviews.
- Ensures the Technical Specification Action Statement Log is maintained.
- Ensures Technical Specifications/LAOT LCO Action Statements are entered appropriately.
- Initiates actions to minimize the effects of CAQs on SSCs to ensure the plant is maintained in a safe condition.
- Ensures an Operability Determination is performed for applicable SSCs within 24 hours of problem identification, or, depending on the complexity, within a reasonable time consistent with the safety significance.
- Directs the performance and review of an Operability Evaluation (OPEVAL) for SSCs that are OPERABLE, but degraded or non-conforming.
- Notifies the Shift Operations Superintendent (SOS) that an Operability Evaluation has been initiated.
- Ensures appropriate Technical Specification requirements are met when a Technical Specification required SSC is declared INOPERABLE due to a CAQ.

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3.1 (continued)

- Ensures appropriate Technical Specification requirements are met prior to removing equipment from service for scheduled maintenance/surveillance. This includes a review of all applicable LCOs, verification of operability of redundant equipment or trains (to ensure the correct Technical Specification LCO Action Statements are being entered for the number of redundant equipment or trains that will be inoperable), and a check for any additional conditions that could impact the removal of the equipment from service.
- Implements any required compensatory actions for those SSCs declared INOPERABLE or are being removed from service for scheduled maintenance/surveillance that are not expressly identified in T/Ss to minimize the impact of the condition and ensure the plant is maintained in a safe condition.
- Initiates timely retest activities to ensure equipment is restored to an operable condition.

3.2 **Shift Operations Superintendent (SOS) or Designee:**

- Ensures periodic audits of the T/S Action Statement Log Index and Operability Evaluation Log are performed IAW Section 5.5. **[CD-536G]**
- Ensures all Operability Evaluations (OPEVAL) are reviewed by SORC within 72 hours if required.
- Ensures significant changes to an OPEVAL are re-presented to SORC, as required.

3.3 **SRO Screener:**

- Reviews new Significance Level (SL) 1, 2, & 3 (N1) NOTFs initiated in accordance with LS-AA-120 Issue Identification and Screening Process, to determine the classification of SSCs, to perform the screening of conditions related to SSCs for Operability, Reportability, and Risk as found in the SAP Functional Location.
- Immediately notifies the on-duty SM/CRS of a CAQ which requires an Operability Evaluation (OPEVAL), results in an SSC being inoperable, is reportable, or impacts the Risk Assessment.

3.4 **Nuclear Control Operator (NCO):**

- Complete HC.OP-DL.ZZ-0026(Q), Surveillance Log, Attachment 5 as required by Step 5.3.3.

3.5 **Individual Responsible for Securing Secondary Containment Penetration(s):**

- Ensuring penetration can be closed within 30 minutes in the event of a Fuel Handling Accident.
- Ensuring the CRS is provided with the name of a relief and a method of contact prior to rescinding responsibility and leaving site.

4. **PROCESS DESCRIPTION**

Two processes are defined in this Document:

4.1 **SSC Operability Assessment**

- The first process is described in OP-AA-108-115 Operability Determination.
- This document provides Site Specific information for Hope Creek and Salem stations

4.2 **Technical Specification LCO/LAOT Action Statement Tracking**

- The second process controls entry and exit from Active and Tracking Technical Specification LCO/LAOT Action Statements for inoperable equipment.
- This process addresses review and control of performance of planned activities including surveillance, in-service, and functional testing, corrective and preventive maintenance, implementation of Evolution or Troubleshooting Plans, and implementing Work Clearance that and assesses whether the performance of the planned activity will render the SSC INOPERABLE during performance. This review will result in one of the determinations described in the previous bulleted steps except that a determination of OPERABLE but degraded or non-conforming is not considered applicable for planned activities. In the event that the review results in an OPERABLE but degraded or non-conforming determination, the SSC will not be removed from service until further review and actions per WC-AA-101 are performed.

5. PROCEDURE

NOTE: Hardcopy reviews may be used when SAP is not available.

5.1 Performance of SSC Operability Screening for Conditions Adverse to Quality

5.1.1. For all SL 1, 2, and 3 (N1) NOTFs, documented IAW LS-AA-120
DETERMINE if the SSC described in the Notification meets one of the following
SSC Classifications: **[CD-504B]**

- SSC is related to Technical Specifications/LAOT
- SSC is Safety Related
- SSC is Important to Safety/Q-listed/Current Licensing Basis
- SSC is High Energy Line Break (HELB) Related.

ENSURE a thorough review of T/S, UFSAR, SAP Component Classifications Data, and other engineering and licensing documentation in making this determination.

This Screening and Operability Determination should be made within 24 hours, OR depending on the complexity, within a reasonable time consistent with its safety significance.

5.1.2. IF __ the SSC addressed in the NOTF does NOT meet any of the SSC Classifications of Step 5.1.1, THEN DOCUMENT this assessment by selecting 'Not Applicable' on the NOTF Operability Task. If the basis for this determination is not readily apparent (e.g., the effected component does not have a discrete SAP Functional Location and several engineering documents were used to make the determination), include a brief description for the basis in the documentation.

GO TO OP-AA-101-112-1002 to perform a Risk Assessment.

- 5.1.3. IF __ the SSC addressed in the NOTF MEETS any of the SSC Classifications in Step 5.1.1, THEN PERFORM an SSC operability screening. This screening should determine the impact of the condition documented in the NOTF on the capability of the SSC to perform its safety function(s), and, whether the SSC conforms to all aspects of its design and licensing basis. In making this determination, the screener should:
- **DETERMINE** the specific SSC that is affected by the condition.
 - **DETERMINE** the specific safety function(s) performed by the SSC and the effect of the condition on performance of the safety function(s).
 - IF __ the notification documents a condition where an SSC is inoperable, and has been for a period of time exceeding the associated T/S allowed outage time, document the need to evaluate LER reportability in the notification
 - **DETERMINE** if specific requirements or license commitments exist for the SSC and whether the requirement or commitment is still being met.
 - Base the determination on the best information available.
 - **IDENTIFY** the method used for making the determination including analysis, test, or partial test, operating experience, engineering judgment, or, any combination as appropriate.
 - When using engineering judgment to determine that the SSC is fully operable, **ENSURE** that there is a very high level of confidence in the determination. For example, if a leak occurs in a system that has a design allowable leakage, and a specific leak rate can be determined by measurement to be within the allowable leak rate, the system would be considered Operable.
 - **ASSIGN** a new NU-LCO task code for unplanned LCO's. **INDICATE** if the LCO is greater than or less than 72 hrs or whether the LCO was discovered when the equipment was already out of service for planned maintenance. **STATUS** the task complete.
 - **CONSIDER** the effect of the condition on BOTH, similar SSCs on the same Unit, and, like SSCs on the opposite Unit.
 - **INCLUDE** a review of other existing conditions for aggregate impact.
 - **REFER TO** Attachment 1, and, either Exhibit 2, T/S Implementation And Allowable Outage Times (LAOTs), as applicable, for additional guidance through case studies and established operability precedence for previously identified items that may be applicable, for a list of components that impact High Energy Line Break criteria.

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5.1.3 (continued)

- IF__ at any point in the review, a reasonable expectation of operability does not exist, or mounting evidence suggests that the final analysis will conclude that the SSC cannot perform its specified safety function(s), DO NOT delay declaring the SSC inoperable.
- The SSC is considered operable if it is capable of performing its safety function(s), and, conforms to all aspects of the current licensing basis, including regulations, codes and standards, design criteria, and commitments.

5.2 **Review of Planned Removal of SSCs from Service for Impact on Operability and Risk [CD-316D, CD-026F, CD-381X]**5.2.1. **REFER TO** Exhibit 1, Review of Planned Removal of SSCs from Service.5.2.2. **DETERMINE** if the SSC to be removed from service is a planned activity included in the current Work Week Implementation Schedule. Planned activities include but are not limited to surveillance, in-service, and functional testing, corrective and preventive maintenance, implementation of Evolution or Troubleshooting Plans developed per MA-AA-716-004, and implementing Work Clearance per OP-AA-109-115. This review is typically performed during review of 'Planned/Task Ready' Orders and Authorization of WCDs.5.2.3. IF __ activity is **NOT** included in the current Work Week Schedule, authorization to remove the SSC from service or perform the activity should not be granted until further review and actions per WC-AA-101 are performed. Refer to WC-AA-101 for further action.5.2.4. IF __ the activity **IS** included in the current Work Week Schedule, **DETERMINE** if the SSC impacted meets one of the following SSC Classifications:
[CD-214A, CD-375B, CD-056X, CD-360X]

- SSC is related to Technical Specifications/LAOT
- SSC is Safety Related
- SSC is Important to Safety/Q-listed/Current Licensing Basis

REFER to Section WC-AA-101 for further definitions.**ENSURE** a thorough review of Technical specifications, UFSAR, SAP Component Classifications Data, and other engineering and licensing documentation in making this determination.5.2.5. IF __ the SSC does **NOT** meet the SSC Classifications in Step 5.2.4, **THEN GO TO** Step 5.2.9 to perform a Risk Assessment.

NOTE: A determination of OPERABLE but degraded or non-conforming is not considered applicable for planned activities. In the event that the following review results in this determination, the SSC should not be removed from service until further review and actions per WC-AA-104 are performed

- 5.2.6. IF __ the SSC MEETS the SSC Classifications in Step 5.2.4, THEN DETERMINE whether the performance of the planned activity will render the SSC INOPERABLE during performance. Schedule logics, detailed fragnets, procedures, and, evolution or troubleshooting plans, that will be used for performance of the activity, and, boundaries defined by WCDs, and either Exhibit 2, T/S Implementation And Allowable Outage Times (LAOTs), as applicable, should be used in making this determination.
- 5.2.7. IF __ the SSC will remain OPERABLE during performance of the planned activity, no further action is required prior performing the planned activity.
- 5.2.8. IF __ the SSC will be rendered INOPERABLE during performance of the planned activity, **PERFORM** the following:
1. For those SSCs that will be rendered INOPERABLE that are T/S related, in parallel with completion of Section 5.2, **PROCEED** to Section 5.3 AND ENTER the appropriate T/S LCO AND ENSURE the required T/S actions are implemented. [CD-421Y]
 2. For Fire Protection Systems required by licensing conditions that are rendered INOPERABLE, **NOTIFY** the Fire Department AND ENSURE actions of HC.FP-AP.ZZ-0004(Q) are implemented
 3. For those SSCs that are rendered INOPERABLE that are not expressly identified in Technical Specifications, **ASSESS** the condition for reasonable assurance of safety IAW Attachment 4 AND ENSURE compensatory measures to minimize the impact of the condition and ensure the plant is maintained in a safe condition are implemented.

- 5.2.9. **PERFORM** an assessment of the impact of the planned activity on the Current Risk Assessment Evaluation as follows:
1. **DETERMINE** if the planned activity impacts an SSC that is "In Scope" for A(4) Risk Assessment utilizing OP-AA-101-112-1002. IF unsure, **CONTACT** the duty A(4) PRA Analyst for assistance.
 2. IF __ the SSC is in scope for A(4) risk assessment, **VALIDATE** that plant conditions are consistent with the Risk Assessment Evaluation prepared in support of the work week schedule. IF plant conditions differ due to emergent or unplanned activities, **VERIFY** that an updated Risk Assessment was performed to support continued planned activities prior to authorizing performance of the planned activity.
(**REFER TO** Section 5.1 for review of unplanned CAQs)
 3. IF __ the planned activity renders the in scope SSC "Unavailable" as defined by OP-AA-101-112-1002 (**REFER TO** the definition of "Unavailability - Maintenance Rule A(4) Risk Assessment"), **ENSURE** a Risk Assessment is completed IAW OP-AA-101-112-1002 AND **DOCUMENT** the results in the Control Room Log(s).
 4. **ENSURE** Maintenance Rule A(4) Compensatory Measures are implemented per the A(4) Risk Assessment.
 5. IF __ the SSC is not modeled in EOOS and is not necessary for the performance of a Risk Significant function in the SYSFUNC, then the SSC is not in scope and a Risk Assessment is not required.

5.3 **Entry into Active/Tracking Technical Specification (T/S) LCO/LAOT Action Statements**

NOTE: If the equipment is part of a system listed in OP-AA-108-101-1002 or the SM/CRS (Command and Control SRO) requires it for this piece of equipment, a second verification that the equipment is properly removed from service is required. [**CD-695A, CD-375B, CD-387B, CD-316D, CD-458D, CD-583D, CD-037F, CD-117Y, CD-424Y**]

- 5.3.1. Any time it is determined that a TECH SPECS/LAOT SSC is or will be INOPERABLE either due to a Condition Adverse to Quality identified via the NOTF process (Section 5.1), a planned activity (Section 5.2), or following a Plant Transient, the appropriate T/S LCO/LAOT Action Statement is entered.

NOTE: The LCO Tracking Log may also be utilized to track “deficiencies” to Tech Spec and Important to Safety equipment at the discretion of the CRS or SM.
[70035985]

5.3.2. **DETERMINE** if the T/S LCO/LAOT Action Statement is ACTIVE or TRACKING based on the following criteria:

ACTIVE: An Active T/S LCO/LAOT Action Statement is entered for those conditions where the SSC is INOPERABLE and the SSC design function is specifically required to be OPERABLE in the current Operational Condition by Technical Specifications/LAOTs. An example of an Active T/S LCO/LAOT Action Statement is a failure of an Emergency Diesel Generator to satisfy its surveillance requirements in Operational Condition 1.

TRACKING: A Tracking T/S LCO/LAOT Action Statement is entered whenever any of the following conditions exists:

The SSC is INOPERABLE, but is not required by Technical Specifications/LAOTs to be OPERABLE in the current Operational Condition. An example of this type of Tracking T/S LCO/LAOT Action Statement is a failure of an Emergency Diesel Generator to satisfy surveillance requirements in Operational Condition 5. This includes refuel outage LCOs not required for the current operational condition.

OR

The SSC is INOPERABLE, but there is 100% redundant equipment that satisfies the Operability requirements of Technical Specifications/LOATs for the current Operational Condition. An example of this type of Tracking T/S LCO/LAOT Action Statement is the inoperability of one 1E 125 VDC battery charger in Operational Condition 1, provided the other battery charger is OPERABLE (100% redundant).

[CD-026F]

OR

The Inservice Testing (IST) valve, after exceeding its acceptance criteria following the second retest, shall have the condition analyzed within 96 hours of occurrence. This analysis period will be used to determine if the stroke time data represents acceptable valve operation, OR if the valve should be declared inoperable and the appropriate T/S action statement(s) taken. The requirement for analysis shall be documented in a Notification and noted in the Plan-of-the-Day.

5.3.3. IF ___ the cause of the SSC being INOPERABLE is a planned Operations, Maintenance, Radiation Protection, or Chemistry Evolution that satisfies the following criteria:
[CD-524G CD-538G CD-421Y]

- The equipment is NOT tagged out of service except where use of Worker's Blocking Tags have been approved IAW OP-AA-109-115 (e.g., use of WBTs to perform NPV & SPV weekly samples).
- The INOPERABLE condition is expected to last a relatively short time (closing a manual isolation valve to allow for a valve to be stroked tested, throttling manual valves to achieve required flow during pump testing, barring an EDG, performing a routine T/S instrument channel calibration or functional test, performing a required EQ relay replacement in conjunction with a scheduled channel calibration or functional test, initiating SLC sparging air for chemistry sample, removing NPV RMS from service for weekly samples, etc.).
- Restoration to OPERABLE upon completion of the evolution is likely to be successful.
- **COMPLETE** Attachment 5 of HC.OP-DL.ZZ-0026(Q), to track allowable outage times before actions (either by Operations or other departments) are required.

- 5.3.4. For activities that cause a TECH SPECS/LAOT SSC to be INOPERABLE that do not meet the criteria of Section 5.3.3, **DOCUMENT** the condition as follows:

NOTE: TS LCO/LAOT Action Statement Tracking may be accomplished using either the computerized SAP LCO Tracking System or Attachment 3-1 and Form 1. During Refueling Outages, use of the computerized SAP LCO Tracking System is preferred due to the high volume of activities associated with any given Action Statement except for tracking Inoperable Secondary Containment penetrations during Fuel Handling and CORE ALTERATIONS when Secondary Containment Integrity is not required. Under these conditions, Attachment 3-1 and Form 1 should be utilized to assure Control Room personnel are fully cognizant of active Contingency Plans (Attachment 5) to seal Secondary Containment penetrations within 30 minutes in the event of a Fuel Handling Accident. During normal operation, use of the computerized SAP LCO Tracking System or Attachments 6 and Form 1 is at the discretion of the operating shifts.

When an INOPERABLE TECH SPECS/LAOT SSC affects multiple LCO Action Statements, only one T/S Action Statement Log entry is required.

1. For SAP LCO tracking, **REFER TO** guidance provided in OP-AA-108-115-1001, SAP LCO Entry.

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NOTE: Preparation of Form 1 is not limited to the SM/CRS. Form 1 may be prepared by appropriate personnel in advance to support planned activities, or, after the fact during plant transients. During normal operations, the SM/CRS remains responsible for the accuracy of the information provided and authorizing entry into T/S LCO/LAOT Action Statements. During Refueling Outages, the SM/CRS may delegate authorization of entry into planned T/S LCO/LAOT Action Statements entered into the computerized SAP LCO Tracking System to an actively licensed and proficient SRO for efficiency. However, the SM/CRS should remain cognizant of the status of such T/S LCO/LAOT Action Statements.

2. For LCO tracking using Attachment 3-1 and Form 1, **PERFORM** the following:
 - A. **ASSIGN** the next consecutive LCO Index Number obtained from the Action Statement Log Index (Attachment 3-1) and LOG the T/S LCO/LAOT ACTION Statement on the Index.
 - B. **COMPLETE** Sections 1 and 2 of Form 1 by performing the following:
 - **RECORD** the LCO Index Number (from Attachment 3-1)
 - **RECORD** the LCO Status (Active / Tracking)
 - **RECORD** the applicable Technical Specification/LAOT LCO number. When an INOPERABLE TECH SPECS/LAOT SSC affects multiple LCO Action Statements, **RECORD** the LCO number with the most limiting Action Time.
 - **RECORD** the Date/Time Entered.
 - **RECORD** the Operational Condition Applicability for the LCO.
 - **RECORD** the Date/Time Action Required. When recording the date and time that Action is required for an LCO Action Statement that has multiple actions, use the most limiting Action time. For Tracking Action Statements, record 'N/A'.
 - **RECORD** Other Applicable T/S. List only active LCOs. Applicable tracking LCOs should be listed separately in the Summary Description of the Log Sheet.
 - **RECORD** the Equipment description.

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5.3.4.2.B (continued)

- Briefly **STATE** the reason for the SSC condition in the Summary Description section and include a brief summary of actions required, including submittal of any special reports to the NRC. NOTIFY the Shift Operations Superintendent of any reporting requirements.
- **INITIATE** Responsible Department Notifications for required compensatory actions and **DOCUMENT** Name of Department and Person Notified with the Notification Date/Time, as well as Name of Person Making Notification. (Include NOTIF # if applicable)
- The individual being notified will come to the Control Room and sign the NOTIF# box next to their name to indicate that they have received the information and they fully understand the action they have been directed to take. In the TSAS Description Addendum section they will list the procedure they will use to take the action to comply with the license.
- For recurring samples, analysis, hook-up of sample equipment, etc., the departmental individual performing this action will report to the Control Room and document in the description addendum of the TSAS each time an action is taken. This will be audited at a frequency determined by Licensed Operations Supervision.
- When actions are no longer required or an instrument is to be restored to the pre-LCO condition (example: OGPTRMS correction factor) the action taken will be documented and signed for by the departmental individual performing the action in the description addendum section of the TSAS.
- **ENSURE** all applicable Non-Conforming Component/Material (NCCM) Evaluations, Notifications/Orders, Work Clearance Documents (WCD) etc., are entered on the Order and WCD Addendum. **INCLUDE** any surveillances required to restore the equipment to operability as part of the Addendum. Surveillance tests should be reviewed to determine if the appropriate prerequisites would exist for the equipment scheduled restoration.
- **RECORD** Redundant Equipment Operable (Y/N).

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5.3.4.2 (continued)

C. IF_ the INOPERABLE SSC will impact Secondary Containment Integrity per T/S 3.6.5.1 - during Fuel Handling and CORE ALTERATIONS when Secondary Containment Integrity and FRVS actuation is not required, THEN COMPLETE Attachment 5, "Contingency Plan for Sealing Secondary Containment Penetrations During Fuel Handling and CORE ALTERATIONS" for EACH inoperable penetration. Attachment 5, Section 1 and 2 may be completed in advance as part of refueling outage preparations.

ATTACH the completed Attachment 5 to Form 1 for tracking Secondary Containment Integrity per Technical Specification 3.6.5.1.

(The individual listed in Section 3 of Attachment 5, is required to ensure penetration can be closed within 30 minutes in the event of a Fuel Handling Accident.)

(The individual listed in Section 3 of Attachment 5, is also required to ensure the CRS is provided with the name of a relief and a method of contact prior to rescinding responsibility and leaving site.)

NOTE: For a planned entry into an action statement, SRO/STA concurrence is required, but the signature on the Action Statement Log Sheet is not required prior to entering the action statement.

For an unplanned entry into an action statement, SRO/STA concurrence should be obtained as soon as practical after entering the action statement.

If the person who completed Sections 1 and 2 of Form 1 (Step 5.3.4.2.B) was not an actively licensed and proficient SRO, or a qualified and proficient STA, then the following step requires concurrence review from an actively licensed and proficient SRO, and/or a qualified and proficient STA. The actively licensed and proficient SRO, and/or the qualified and proficient STA completing the concurrence review shall not be the same person who authorizes entry into the TECH SPECS/LAOT Action Statement in 5.3.4.B.5.

D. **OBTAIN CONCURRENCE REVIEW** from an actively licensed and proficient SRO and/or a qualified and proficient STA of plant conditions, T/S, existing active and tracking action statements, and, the T/S Action Statement Log, to ensure the equipment can be, or, is properly removed from service (for unplanned entry into a T/S LCO/LAOT Action Statement) and, that redundant equipment is operable. For planned entry into a T/S LCO/LAOT Action Statement, this review should be performed within a reasonable time prior to removal of the equipment from service to ensure plant conditions are reflective of conditions when the SSC will be removed from service. **[CD-079A]**

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5.3.4.2 (continued)

- E. **OBTAIN** SM/CRS AUTHORIZATION for entry into the TECH SPECS/LAOT Action Statement. The SM/CRS should review plant conditions, T/S, existing active and tracking action statements, and the T/S Action Statement Log to ensure the equipment can be, or is properly removed from service (for unplanned entry into a TS LCO/LAOT Action Statement) and that redundant equipment is operable. **[CD-079A]**

NOTE: The “bypassed/out-of-service indications” are those indicating lights and/or overhead alarms in the main control room only, and does not extend to CRIDS or SPDS.

- F. WHEN equipment becomes unavailable, **ENSURE** bypassed/out-of-service indication in the Control Room activates/is activated to remind the operator of system, subsystem, or train status.
IF no bypassed/out-of-service indication is active to indicate system, subsystem or train status, THEN, **ACTIVATE** the associated manual bypass pushbutton to induce the bypassed/out-of-service indication. **[CD-390X, CD-621X, CD-967X]**
- G. **ENSURE** all Required Actions (either by Operations or other departments) are implemented within the Allowable Time. **DIRECT** or **REFERENCE** Attachment 3z of HC.OP-DL.ZZ-0026(Q).
- H. **IMPLEMENT** the Description Addendum (Form 1, Section 3.0) as a narrative log to capture all information relevant to the TECH SPECS/LAOT Action Statement.
- I. IF an LCO status is to be changed (Active/Tracking)
THEN **DOCUMENT** this in the Description Addendum.
This change requires two initials -
SM/CRS
AND
One actively licensed and proficient SRO, or a qualified and proficient STA.

- 5.3.5. Entry into an Operational Mode or Condition , or other specified condition , is permitted when following LAOTs for equipment that is outside of plant T/Ss provided the following conditions are met:
1. **If** the LAOT provides for indefinite operation then there is no mode change restriction (similar to 3.0.4.a).
 2. **If** the LAOT would require a plant shutdown (i.e. an inoperable TSC Chiller), then utilize the Tech Spec 3.0.4.b guidance IAW Exhibit 8.
 3. For systems which inoperability would directly result in the inoperability of one of the Tech Spec 3.0.4.b exempted systems (i.e. both HPCI room coolers being inoperable leading to declaring HPCI inoperable), mode change is not permitted."
- 5.3.6. Snubbers are designed to provide seismic, non-seismic (hydrodynamic, turbine trip, etc.), or a combination of seismic and non-seismic functions. Snubber operability requirements are provided in TRM 3.7.5 and actions for inoperable snubbers are determined based upon the affected system(s) LCO. Tech Spec LCO 3.0.8 provides an allowance to delay declaring an affected system inoperable when the seismic function of a snubber is nonfunctional. If the design function of a snubber includes non-seismic loads, LCO 3.0.8 cannot be applied. LCO 3.0.8 is an allowance, not a requirement, and as such when the seismic function of a snubber is nonfunctional the LCO for the affected may be entered instead of using LCO 3.0.8 if the requirements of LCO 3.0.8 cannot be met or are in question. Engineering procedure SH.RA-ST.ZZ-0105(Q) SNUBBER EXAMINATION AND TESTING, provides a matrix of all Hope Creek snubbers, their function, the impacted systems, and guidance on the applicability of LCO 3.0.8. This procedure may be used to assist in operability assessment and use of the LCO 3.0.8 allowances. Engineering should be contacted for additional assistance if required to determine the impact of a nonfunctional snubber. Tech Spec Bases provides additional details on the applicability requirements of LCO 3.0.8. Documentation of the plant status for meeting the conditions required for taking the allowance in LCO 3.0.8 should be provided on the applicable Technical Specification Action Statement Log. This documentation should include at a minimum the following:
- The design function of the snubber (i.e. seismic, non-seismic, combination).
 - System(s) or Subsystem(s) impacted.
 - Implementation of any plant restrictions (mode requirements, minimum system in service requirements).
 - Plant Configuration (i.e. no other ECCS systems out of service).
 - Current Plant Risk assessment.

5.4 Exit from Active/Tracking Technical Specification LCO Action Statements/LAOT's

NOTE: The following step applies to the implementation of T/S 3.0.5 and the administrative controls required to support its implementation. T/S 3.0.5, should only be implemented when testing is required to demonstrate OPERABILITY of an SSC. Troubleshooting and maintenance activities shall not be performed when T/S 3.0.5 is implemented.

5.4.1. WHEN implementing T/S 3.0.5, **ENSURE** the reason for implementation is clearly logged in the Control Room Narrative log.

NOTE: The following steps provide the specific requirements that must be satisfied to administratively reopen Primary Containment Isolation Valves that were closed to satisfy the requirements of Technical Specification 3.6.3. This guidance constitutes the administrative control required by the Tech Spec and should only be implemented for this specific purpose.

5.4.2. The Primary Containment Isolation Valves that were closed to satisfy the requirements of T/S 3.6.3 may be intermittently re-opened under administrative controls PROVIDED, the following requirements are implemented to provide consistent application and control of this condition:

- For Primary Containment penetrations with one inboard and outboard isolation valve, where both valves are INOPERABLE, the appropriate administrative control is to release one valve at a time and perform an operability retest prior to releasing the other isolation valve.
- The release of INOPERABLE Primary Containment Isolation valves under administrative control must be clearly noted in the Control Room Narrative Log.
- IF__ an isolation valve is opened which cannot be re-closed from the Control Room, then a dedicated individual, in continuous communication with the Control Room is stationed to rapidly isolate the valve if needed.
- The duration that a valve is opened under administrative control should be minimized.

NOTE: Performing the initial review that conditions will support exit from a T/S LCO/LAOT Action Statement is not limited to the SM/CRS. During normal operations, the SM/CRS remains responsible for the accuracy of the information provided and Authorizing exit from T/S LCO/LAOT Action Statements. During Refueling Outages, the SM/CRS may delegate Authorization of entry into planned T/S LCO/LAOT Action Statements entered into the computerized SAP LCO Tracking System to an actively licensed and proficient SRO for efficiency. However, the SM/CRS should remain cognizant of the status of such T/S LCO/LAOT Action Statements.

5.4.3. To exit a T/S LCO/LAOT Action Statement tracked using the computerized SAP LCO Tracking System; **REFER TO** guidance provided in OP-AA-108-115-1001.

5.4.4. To exit a T/S LCO/LAOT Action Statement using Attachments 6 and Form 1, **PERFORM** the following:

NOTE: If the equipment is part of a system listed in OP-AA-108-101-1002, or the SM/CRS (Command and Control SRO) requires it for this piece of equipment, a second verification that the equipment is properly restored to service is required. **[CD-601A CD-695A, CD-373B, CD-375B, CD-387B, CD-316D, CD-458D, CD-583D, CD-927E, CD-037F, CD-117Y, CD-424Y]**

1. **REVIEW** all applicable Non-Conforming Component/Material (NCCM) Evaluations, Notifications, Orders, WCDs, etc., that are entered on the Order and WCD Addendum to verify that all activities affecting OPERABILITY of the SSC are complete. This includes, but is not limited to the following: **[CD-316D, CD-079A, CD-373B, CD-390X, CD-621X]**
 - Maintenance activities are completed and associated NOTFs and Orders are appropriately statused in SAP.
 - Blocking tags have been released and associated WCDs are closed in SAP.
 - An appropriate system line-up and fill and vent have been performed. **[CD-525B, CD-206A, CD-695A, CD-358D, CD-895E, CD-601A]**
 - Retests have been performed satisfactorily, reviewed by appropriate personnel (such as in the case of performance of an in-service test on a pump that requires re-base lining), and updated in SAP.
 - Energizing equipment that had been removed from service by racking out a rack-out type breaker.
2. **INITIATE** required departmental notifications for cancellation of compensatory actions and document person contacted with time and date. **[CD-624E]**

(continued on next page)

5.4.4 (continued)

NOTE: The SRO/STA in Step 5.4.4.3 and the SM/CRS in Step 5.4.4.4 shall not be the same person.

3. **OBTAIN** REVIEW and CONCURRENCE from an actively licensed and proficient SRO or a qualified and proficient STA of the T/S Action Statement Log for completeness, to ensure that re-testing and lineup verifications have been completed as necessary, and, that the SSC is in a condition to be declared OPERABLE.
[CD-079A]
4. **OBTAIN** SM/CRS AUTHORIZATION for exit from the T/S LCO/LAOT Action Statement. In granting this authorization, the SM/CRS should review the T/S Action Statement Log for completeness, ensure that re-testing and lineup verifications have been completed as necessary, and, that the SSC is in a condition to be declared OPERABLE. **[CD-079A]**
5. **UPDATE** the Action Statement Log Index with the time that authorization for exit was granted.
6. As equipment is returned to service, IF the bypassed/out-of-service indication in the Control Room activated/was activated to remind the operator of system, subsystem, or train status when the equipment was removed from service, THEN ENSURE the bypassed/out-of-service indication is OFF. IF provided, **ENSURE** the system level bypassed and inoperable status indication (manual out-of-service switches and indicators, power failure lights, etc.) has been deactivated either automatically or by pushbutton.
[CD-390X, CD-621X, CD-967X]

5.5 **Periodic Audits [CD-536G]**

5.5.1. **PERFORM** a periodic review of the Action Statement Log Index and the individual log sheets. This review will normally be performed on a weekly basis by a WCCS/STA in Work Control, and ensures that:

- Active/Tracking LCOs are correct for existing plant conditions
- All required documentation and signatures are complete
- The Action Statement Log Index is consistent with the individual log sheets, including a review of Non-Conforming Component/Material (NCCM) Evaluations, Notifications/Orders, WCDs for the associated LCO.

The WCCS/STA should **CONFIRM** that the review is complete by dating and signing Attachment 3-1 under the last entry. The review should consist of a check between the index and the individual log sheets, including a review of Non-Conforming Component/Material (NCCM) Evaluations, Notifications/ Orders, WCDs for proper status and validity.

5.5.2. **PERFORM** a periodic review of open OpEval. This review will normally be performed on a monthly basis by an AOM or his designee. The review should ensure that:

- Compensatory actions are being performed for OpEval which are required in the current Operational Condition.
- Corrective actions are being performed in a timely manner.
- All required signatures have been obtained.

5.5.3. **PERFORM** a review to ensure that proper justification exists to allow for all open OpEval s to extend past the refuel outage. [GL 91-18] This review will normally be performed on a monthly basis by an AOM or his designee.

5.5.4. **FORWARD** Completed Action Statement Log Sheets and OpEval to the operations staff for retention/archiving.

6. RECORDS

- 6.1 All records should be maintained in SAP as described in the body of the procedure. When SAP is not available, and attachments are used, then process the attachments with control room records.

7. REFERENCES

- 7.1 LS-AA-120, Notification Process
- 7.2 WC-AA-101, Work Management process
- 7.3 LS-AA-125, Performance Improvement Process
- 7.4 WC-AA-111, Predefine Process
- 7.5 AD-AA-101, Nuclear Procedure Program
- 7.6 OP-AA-109-115, Safety Tagging Operations
- 7.7 HC.FP-AP.ZZ-0004(Q), Actions for Inoperable Fire Protection - Hope Creek Station
- 7.8 OP-AA-108-115-1001 LCO Entry/Exit & Operability Determination SAP Guidance
- 7.9 ANS - 3.2/ANSI N18.7-1976 Administrative Controls and Quality Assurance for the Operational Phase of Nuclear Power Plants **[CD-147Y CD-145Y CD-372Y**
- 7.10 NRC Inspection Manual, Part 9900 Technical Guidance Operable/Operability: Ensuring the Functional Capability of a System or Component Resolution of Degraded and Non-conforming Condition
- 7.11 NRC Generic Letter 91-18, dated November 7, 1991, "Information to Licensees Regarding two NRC Inspection Manual Sections on Resolution of Degraded and Non-conforming Conditions and on Operability."
- 7.12 NUREG 0737, Clarification of TMI Action Plan Requirements, Section I.A.1.2, I.C.2, I.C.3, and I.C.6.
- 7.13 PSE & G letter from R.L. Mittle, General Manager - Nuclear Assurance and Regulation, to Mr. Albert Schwenser, Chief Licensing Branch 2, Division of Licensing, Sept. 13, 1984, and its Attachments
- 7.14 Hope Creek Generating Station Technical Specifications
- 7.15 Hope Creek Generating Station SER
- 7.16 Hope Creek Generating Station UFSAR
- 7.17 Hope Creek Generating Station Event Classification Guide
- 7.18 ANSI/ANS - 58.9-1981 (Single Failure Criteria for Light Water Reactor Safety-Related Fluid Systems)
- 7.19 S-C-ZZ-MER-0013, Protection Against Steam Flooding
- 7.20 H-1-BCXX-MSE-0687, NRC INFO 87-10: Potential for Water Hammer during restart of RHR Pumps following a Loss of Offsite Power

7.21 **Closing Documents**

- CD-079A NRC BULL 79-08
- CD-206A NRC IE Information Notice No. 79-26
- CD-214A NRC I.E. Information Notice No. 79-35
- CD-495A INPO SER 09-82
- CD-601A INPO O&MR 022
- CD-695A INPO SOER 82-04
- CD-185B INPO SOER 83-05
- CD-373B NRC I.E. Information Notice No. 84-37
- CD-375B NRC I.E. Information Notice No. 84-39
- CD-387B NRC I.E. Information Notice No. 84-51
- CD-504B NRC I.E. Information Notice No. 83-56
- CD-525B NRC I.E. Information Notice No. 83-77
- CD-316D NRC Information Notice No. 84-58
- CD-358D INPO SER 56-84
- CD-458D INPO Good Practices GP-84.14 OP.3-4
- CD-583D INPO SER 80-84
- CD-861D NRC GL-04-10-08
- CD-605E NHO INCI 354/86-130
- CD-624E NHO INCI 354/86-165
- CD-895E INPO SER 04-87
- CD-900E INPO SER 07-87
- CD-927E NRC INFO 87-25
- CD-026F NHO INCI 354/87-110
- CD-037F NRC INFO 87-38
- CD-524G NHO INCI 354/93-105
- CD-536G NRC OPEN 354/86-52
- CD-537G NRC OPEN 354/86-30-02
- CD-538G NRC OPEN 354/92-80-14
- CD-834G NHO INCI 354/94-240
- CD-056X NHO HSAR F05-0055-00 (FSAR 5.4.6.1.2.1)
- CD-360X NHO HSAR F07-0116-00 (FSAR 7.3.2.1.1)
- CD-381X NHO HSAR F07-0141-00 (FSAR 7.4.2.2.3)
- CD-390X NHO HSAR F07-0153-00 (FSAR 7.5.1.3.2)
- CD-621X NHO HSAR F01-0023-00 (FSAR 1.8.1.22 Reg. Guide 1.22 Rev. 0)
- CD-967X NHO HSAR Q421.2 (NRC Question 421.2)
- CD-117Y NHO HSAR F13-0007-00 (UFSAR 13.1.2.2.3)
- CD-145Y NHO SRP S13-0031-00 (SRP 13.5.1.II.A.1-7 Administrative Procedures)
- CD-147Y NHO HSAR S13-0031-00 (SRP 13.5.1.II.A.1-7 Administrative Procedures)
- CD-372Y NHO HSAR F01-024A-04 (FSAR 1.8.1.33)
- CD-421Y NHO HSAR F01-050H-08 (UFSAR 1.10.2.I.C.2)
- CD-424Y NHO HSAR F01-050K-08 (FSAR 1.10.2.I.C.6)
- CD-428Y NHO HSAR F01-050Z-08 (FSAR 1.10.2.II.K.1.10)

(continued on next page)

7.21 (continued)

- NRC Letter/SER, D.V. Pickett to G. G. Campbell, .Application of Generic Letter 80-30 Guidance to an Inoperable Non-Technical Specification Support Subsystem, dated 4/5/02.
- CD-450A, INPO SER 067-81

7.22 **Cross References**

- LS-AA-120 Notification Process
- OP-AA-108-101 Control of Equipment Status
- OP-AA-108-101-1001, Component Configuration Control
- CC-AA-103 Configuration Change Control
- LS-AA-104 - 10CFR50.59 Reviews and Safety Evaluations
- HC.OP-AP.ZZ-0109(Q), Equipment Operational Control
- HC.ER-DG .ZZ-0002(Z), Maintenance Rule System Functional Failure & Risk Significance Guide
- LS-AA-125 Corrective Action Process
- Reference PSEG actions in response to NRC concerns regarding 'B' Reactor Recirculation Pump, Hope Creek Generating Station, Docket No. 50-354 and LR-N05-0017, January 9, 2005

7.23 **Corrective Actions**

- PR 980623173 - UHS Amendment 120
- PR 990519182 - SLCS Status During Air Sparging
- PR 990112196 - Vacuum Breaker DCP 4HE-0390
- 70033716 - CVCS Pipe Supports Not IAW UFSAR
- 70035985 - Use of the LCO Tracking Log to track "deficiencies" to Tech Spec and Important to Safety, equipment at the discretion of the CRS or SM.
- 70036482 - evaluating length of inoperability for reportability
- 70069669 – T/S 3/4.1.4 Basis Change

7.24 **NUREGs**

- NUREG-0696, Sections 2.6, 2.7 and 2.8
- NUREG-0800, Section 6.4
- NUREG-0654, Part II, Section H.1, E and F
- NUREG-0737, Supplement 1, Section 8, Action Item III.A.1.2

7.25 **Code of Federal Regulations**

- 10CFR73.55(e)
- 10CFR50.47(b)
- 10CFR50.47(b)(8) and (d)(4)
- 10CFR50, Appendix E, Section IV.E.9
- 10CFR50.47(b)(6) and (d)(2), (3)
- 10CFR50, Appendix E, Section IV.E.8

(Last Page of Procedure)

**ATTACHMENT 1
CASE STUDIES IN OPERABILITY
(Page 1 of 3)**

1. The following are case studies of selected topics concerning assessment of operability:

1.1 **Missing or Deficient Documentation**

Missing or deficient documentation that could affect SSC Operability should be considered a loss of Full Qualification. An Operability Determination should be performed to cover the period of time until missing documentation is replaced or the documentation deficiency is resolved.

Qualification Documentation Errors

IF a review indicates an error or omission exists in the qualification documentation, an Operability Determination should be performed. It should be determined whether this situation questions the actual ability of equipment to perform its design function.

1.2 **Environmental Qualification**

IF a potential deficiency has been identified in the Environmental Qualification (EQ) of equipment, an Operability Determination should be performed. The SSC may be demonstrated operable using analysis or partial test data. In addition subsequent failure of the SSC, if likely under accident conditions, will not result in significant degradation of any Specified Safety Function or provide misleading information to the operator.

EQ installation and maintenance requirements are defined in the Qualification Information and Documentation files (QID). If it is apparent after evaluation the SSC would not perform its Specified Safety Function(s) under all postulated service conditions, the SSC should be declared inoperable.

For SSCs covered by the Technical Specifications, the appropriate action statement must be followed. For inoperable equipment that is not covered by the Technical Specifications, operation may continue if:

- 1.2.1. Specified Safety Function can be accomplished by another qualified SSC OR
- 1.2.2. Limited administrative controls ensure the Specified Safety Function is performed.

Additional guidance regarding environmental qualification is discussed in Generic Letter 88-07, Modified Enforcement Policy Relating to 10CFR50.49, "Environmental Qualification of Electrical Equipment Important to Safety for Nuclear Power Plants."

**ATTACHMENT 1
CASE STUDIES IN OPERABILITY
(Page 2 of 3)**

1.3 Fire Protection

Fire protection equipment is considered operable when it is capable of performing its Specified Safety Function. This capability is satisfied when:

- 1.3.1. It satisfies the applicable operability requirements of UFSAR (Section 9.5).
- 1.3.2. It has been tested periodically IAW requirements of the Fire Protection Program.
- 1.3.3. Its required auxiliaries are capable of performing their intended function.

The FSAR defines the compensatory measures to be taken if fire protection equipment is found to not be operable.

(Refer to SC.FP-AP.ZZ-0003(Q) or HC.FP-AP.ZZ-0004(Q))

1.4 Structural Requirements

Category I structures and supports subject to periodic surveillance and inspection should be considered operable if the limits stipulated in the Technical Specification are met. If these limits are not met, the LCOs are to be entered for the affected structure.

Degradations identified in Category I structures which are not subject to periodic surveillance and inspection, should be assessed to determine the capability of these structures to perform their specified function.

Significant degradation exceeding acceptance limits must be promptly reported IAW the requirements in 10CFR50.72 and evaluated for operability.

Any system which depends upon the degraded structure for required support should also be examined for operability if the degradation or nonconformance calls into question the performance of the system.

**ATTACHMENT 1
CASE STUDIES IN OPERABILITY
(Page 3 of 3)**

1.5 **Conditions Adverse to Quality that Involve Non-Conforming Component/Material (NCCM) Evaluations (Reference NC.CA-TM.ZZ-0001(Z), Nonconforming Component/Material Evaluation Template)**

For those CAQs that involve NCCM Evaluations expected to result in a “Use-as-is” or “accept” (i.e. conforming) disposition, the SSC Operability status should be “OPERABLE.” The SSC Operability Screening should include the basis for the OPERABILITY, including the expectation that the NCCM disposition will be “Use-as-is,” or “accept” with reasonable assurance from the responsible Engineer. For this condition, a OPEVAL and CRFA may still be required. The responsible Engineer should be notified to contact the on-duty SM/CRS if the NCCM disposition is subsequently determined to be other than ‘Use-as-is” or “accept”. The timeliness of the NCCM completion is controlled by LS-AA-125, Corrective Action Program (CAP) Procedure.

NCCM and OPEVAL/CRFA Evaluations may overlap, but are unique in purpose. NCCMs address conformity and control of material to the requirements of 10CFR50 Appendix B, Criterion XV, and may not fully address “non-conformance” as defined in GL 91-18.

1.6 **Missed Technical Specification Surveillances**

REFER TO Exhibit 7 - Actions for Missed Surveillance Activities.

1.7 **Steam Leaks**

For rooms that contain safety related equipment (i.e., HPCI room) consider steam leaks when making an operability determination (e.g., impact on ability to deliver required design flows and potential environmental qualification issues caused by the leak including the HVAC systems). Attempt to quantify the size of the leak and **CONTACT** Design Engineering for assistance in determining operability. **[70040333]**

**-ATTACHMENT 2
INOPERABILITY OF SSCs THAT ARE
SAFETY-RELATED, OR IMPORTANT TO SAFETY
(Page 1 of 1)**

Structures, Systems and Components (SSCs) that are not expressly subject to Technical Specifications, but are Safety-Related or Important to Safety and that are determined to be inoperable or render a portion of the SSC inoperable, should be assessed for reasonable assurance of safety by the SM/CRS. (Note: Some SSCs have Licensee Allowable Outage Time requirements - **REFER TO** Exhibit 2). This assessment should include the following:

- Availability and material condition of redundant or backup equipment (e.g., the accumulated affect of degraded equipment).
- Compensatory measures including limited administrative controls
- Safety function and events protected against
- Conservatism and margins
- Probability of needing the safety function
- ECG requirements

IF the assessment determines there is reasonable assurance of safety, then operation may continue while prompt corrective action is taken.

IF the assessment determines that reasonable assurance of safety cannot be ensured, then implementation of compensatory measures are required to minimize the impact of the condition and to ensure the plant is maintained in a safe condition.

**ATTACHMENT 5
CONTINGENCY PLAN FOR SEALING SECONDARY CONTAINMENT PENETRATIONS
DURING FUEL HANDLING AND CORE ALTERATIONS
(Page 1 of 2)**

Order # _____

Section 1 - DESCRIPTION OF PENETRATION

(REFER TO Exhibit 5 and HC.OP-AB.CONT-0003(Q), as necessary, to clearly describe the Penetration)

Section 2 - CONTINGENCY PLAN

(Provide a detailed description of actions required to close the penetration.
REFER TO Attachment 5, Page 2 for typical examples of acceptable contingency plans.)

Section 3 - INDIVIDUAL RESPONSIBLE FOR SECURING PENETRATION

(Log Individuals Name for each Shift penetration is Open. Use Additional Sheets as necessary)

<u>Date</u>	<u>Shift</u>	<u>Name</u>	<u>Method of Contact</u>	<u>CRS</u>	<u>Inits</u>
_____	_____	_____	_____	_____	_____
_____	_____	_____	_____	_____	_____
_____	_____	_____	_____	_____	_____
_____	_____	_____	_____	_____	_____
_____	_____	_____	_____	_____	_____
_____	_____	_____	_____	_____	_____
_____	_____	_____	_____	_____	_____
_____	_____	_____	_____	_____	_____
_____	_____	_____	_____	_____	_____
_____	_____	_____	_____	_____	_____

Section 4 - PENETRATION RESTORATION

(Record **Date** and **Time** that Penetration was restored to Operable)

Date/Time Initials

ATTACHMENT 5
CONTINGENCY PLAN FOR SEALING SECONDARY CONTAINMENT PENETRATIONS
DURING FUEL HANDLING AND CORE ALTERATIONS
(Page 2 of 2)

Examples of Contingency Plans - These actions do not require that the penetration be fully restored to its original design. They need to be sufficient to assure that the ventilation system will be capable of drawing air into the building and exhausting it through a monitored pathway. In addition, they need to be able to be accomplished within 30 minutes.

Doors - One door in air lock remains capable of being closed. Cables, hoses, or other materials routed through the air lock are capable of being rapidly disconnected by a Nuclear Equipment Operator with little or no notice to users of the equipment. For example, an air hose supplying breathing air to a worker would not meet this condition in that if it were rapidly disconnected it could jeopardize worker's safety.

Hatches – Similar to doors, the hatch is capable of being closed. Closing the hatch does not require any special lifting or rigging equipment not normally operated by a Nuclear Equipment Operator. Cables, hoses, or other materials routed through the air lock are capable of being rapidly disconnected by a Nuclear Equipment Operator with little or no notice to users of the equipment.

Open Penetrations – Material such as Herculite and Tape or other material that require minimal effort to install are at the work location to cover the opening. Any time the opening is left unattended by the responsible work group, the opening is covered. Any time the penetration is open; the Control Room is provided with a contact for closing the penetration if required. These actions do not require that the penetration be fully restored to its original design. They need to be sufficient to assure that the ventilation system will be capable of drawing air into the building and exhausting it through a monitored pathway.

EXHIBIT 1
PLANNED REMOVAL OF EQUIPMENT FOR SERVICE FLOWCHART
(Page 1 of 1)

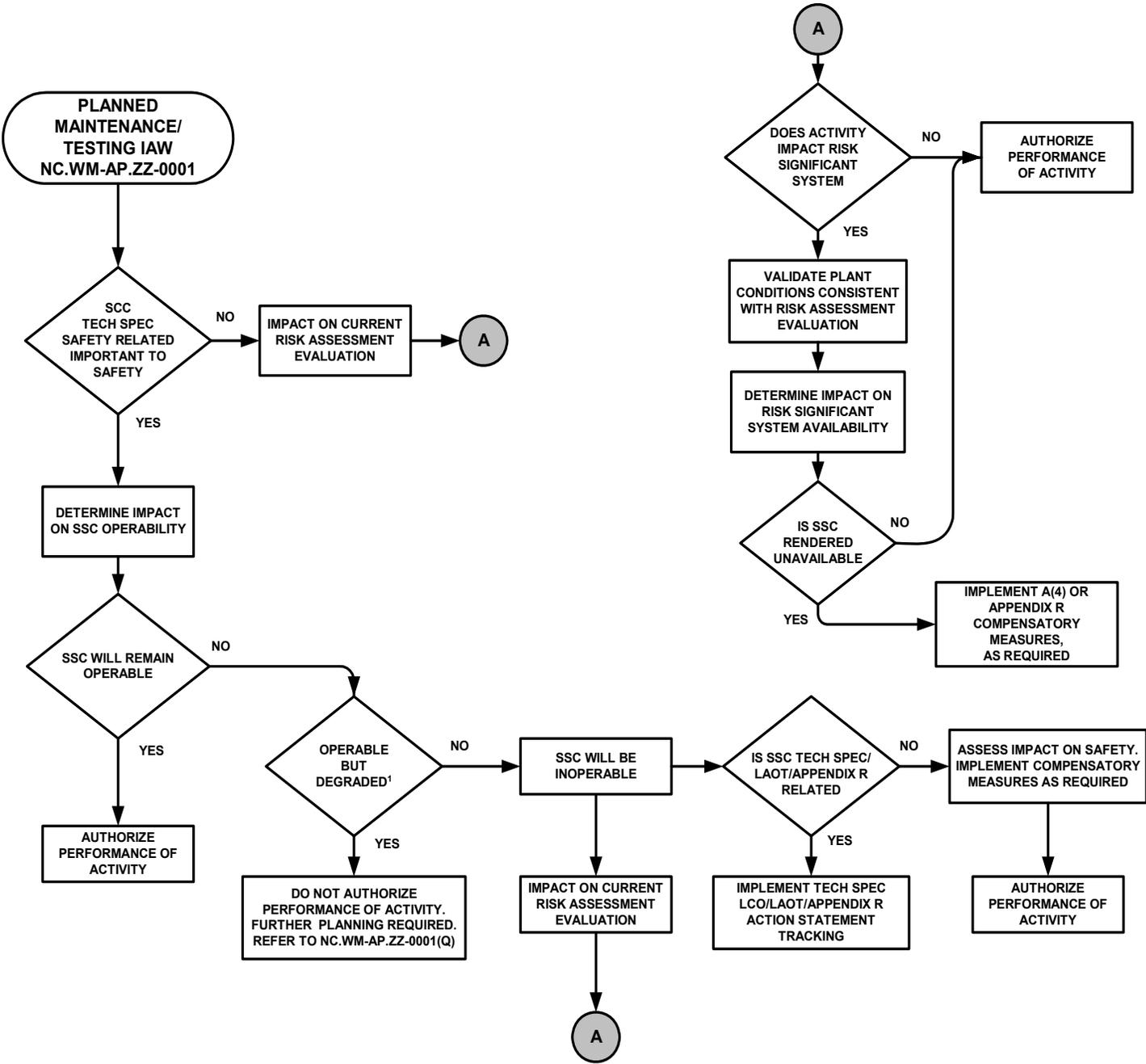


EXHIBIT 2
T/S IMPLEMENTATION AND ALLOWABLE OUTAGE TIMES (LAOTs)
(Page 1 of 24)

Hope Creek Station has implemented Licensee Controlled Allowable Outage Times (LAOTs) for certain equipment not specifically addressed in T/S. These AOTs have been developed as the result of various reviews of the existing licensing basis and have been developed as corrective actions to ensure compliance with the requirements of the existing licensing basis. The following tables include all existing LAOTs, a description, bases, and required actions for each, as well as reference to any commitment associated with the LAOT. Note that the 'Required Actions' are based on an assumed set of plant conditions. If the 'Required Actions' cannot be complied with, the Screening SRO can evaluate other system or plant conditions to determine if extenuating circumstances associated with the conditions renders the system as either Operable, Operable but Degraded, or Non-Conforming.

The annotation **** [TSI] **** indicates that this item was carried over from previous T/S Interpretations and the Required Action is related to T/S required action. This exhibit additionally provides guidance on determining the OPERABILITY of various plant equipment based upon technical evaluations and provides for consistency for actions taken for inoperable equipment.

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EXHIBIT 2
T/S IMPLEMENTATION AND ALLOWABLE OUTAGE TIMES (LAOTs)
(Page 2 of 24)

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<p>1-BH-V013 SLC TANK 10-T-204 AIR SPARGER SUPPLY VALVE</p>	<p>Running the SLC pumps with sparging air in-service has the potential to reduce SLC pumping capacity below the minimum required for system operability. [PR 990519182]</p>	<p>Whenever sparging air is aligned to the SLC Tank TAKE the required actions IAW Technical Specifications for both SLC trains being INOPERABLE. [PR 990519182] However, the SLC System may still be considered AVAILABLE for Maintenance Rule purposes. [80024759]</p>
<p>WHEN a support or supported system is declared INOPERABLE in one train.</p>	<p>If the redundant train is not OPERABLE (i.e., complete capability to perform the specified safety function has been lost. This includes on-site emergency power sources regardless of their T/S status.). (For example, when a single EDG is declared INOPERABLE, evaluate whether other EDG supported equipment on the redundant electrical busses are capable of fulfilling their specified safety function(s) under design-basis accident conditions. If the redundant components can not be relied upon to fully satisfy their intended safety function then appropriate conservative action must be taken up to and including entry into T/S 3.0.3, as appropriate.) (Reference Generic Letter 91-18)</p>	<p>TAKE the required actions IAW Technical Specifications for both trains INOPERABLE.</p>

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Affected Equipment	Description /Regulatory Basis	Required Action
<p>TSC Chillers (1A-K-403/1B-K-403)</p> <p>(Continued)</p>	<p>Due to concerns regarding adequate ventilation for critical components and operability of the Class 1E Switchgear, a LAOT has been established for the inoperability of 1 or 2 TSC Chilled Water subsystems. (CR 980409079, CRCA 03)</p>	<p>With 1 TSC Chilled Water subsystem INOPERABLE, RESTORE the subsystem to an OPERABLE status within 30 days <u>OR</u> be in at least HOT SHUTDOWN within the next 12 hours <u>AND</u> COLD SHUTDOWN within the following 24 hours.</p> <p>With 2 TSC Chilled Water subsystems INOPERABLE, RESTORE at least 1 subsystem to OPERABLE status within 18 hours <u>OR</u> be in at least HOT SHUTDOWN within the next 12 hours <u>AND</u> COLD SHUTDOWN within the following 24 hours.</p> <p>In addition, <u>IF</u> any room listed in Figure 1 of HC.OP-AB.HVAC-0001(Q) exceeds an average ambient temperature of 100°F during the 18 hour period, be in at least HOT SHUTDOWN within the next 12 hours <u>AND</u> COLD SHUTDOWN within the following 24 hours.</p>

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T/S IMPLEMENTATION AND ALLOWABLE OUTAGE TIMES (LAOTs)
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Affected Equipment	Description /Regulatory Basis	Required Action
<p>TSC Chillers (1A-K-403/ 1B-K-403)</p>	<p>Provides guidance for chiller operable when back-up air supply bottle(s) for the SACS Pressure Control Valve PCV-2393A(B) indicates less then the required pressure. [CR 980409175]</p> <p>Provides guidance for chiller operability when the purge and pump out unit are energized (breaker/disconnect closed)</p>	<p><u>IF ONE</u> back-up air supply bottle for the SACS Pressure Control Valve PCV-2393A(B) indicates < 1400 psi, <u>THEN</u> the bottle must be replaced with 2 hours <u>OR DECLARE</u> the associated chiller inoperable</p> <p><u>IF BOTH</u> air supply bottles for the SACS Pressure Control Valve PCV-2393A(B) indicates < 1400 psi, <u>THEN DECLARE</u> the associated chiller inoperable.</p> <p><u>WHEN</u> the breaker or disconnect is closed for the purge and pump out unit <u>THEN DECLARE</u> associated chiller inoperable. [70017250]</p>
<p>Control Room Chiller (1A-K-400/ 1B-K-400)</p>	<p>Provides guidance for chiller operable when back-up air supply bottle(s) for the SACS Pressure Control Valve PCV-2499A(B) indicates less then the required pressure. [CR 980409175]</p> <p>Provides guidance for chiller operability when the purge and pump out unit is energized (breaker/disconnect closed)</p> <p>Provides guidance for chiller operability when A(B)K400 Chiller is "OFF" not in "ON/AUTO"</p>	<p><u>IF ONE</u> back-up air supply bottle for the SACS Pressure Control Valve PCV-2499A(B) indicates < 1400 psi, <u>THEN</u> the bottle must be replaced with 2 hours <u>OR DECLARE</u> the associated chiller inoperable</p> <p><u>IF BOTH</u> air supply bottles for the SACS Pressure Control Valve PCV-2499A(B) indicates < 1400 psi, <u>THEN DECLARE</u> the associated chiller inoperable.</p> <p><u>WHEN</u> the breaker or disconnect is closed for the purge and pump <u>THEN DECLARE</u> associated chiller inoperable. [70017250]</p> <p>Placing A(B)K400 Chiller to "OFF" not in "ON/AUTO" does not make its associated CREF unit inoperable since the chiller will still start on a LOP/LOCA sequencer signal if in manual. Automatic start on Intake High Rad is defeated, however, CREF remains operable based on manual action to place the train in-service following a High Rad start signal being permissible in accordance with the plant-licensing basis. [70006639, 70037054]</p>

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Affected Equipment	Description /Regulatory Basis	Required Action
<p>HPCI/RCIC Jockey Pumps (1A-P-228/ 1B-P-228)</p> <p align="center">** [TSI] **</p>	<p>Post LOCA feedwater line sealing is described in the UFSAR Section 6.2.3.2.3, "Containment Bypass leakage". The system is manually aligned to establish flow from the HPCI/RCIC Jockey Pumps, through the injection lines to the feedwater headers. <u>IF</u> either Jockey Pump becomes non functional, feedwater line sealing is accomplished by opening the crosstie valve (T/S Interpretation)</p>	<p><u>WITH</u> either HPCI <u>OR</u> RCIC Jockey Pump not functional, provided the crosstie valve 1AEHV-4144 is functional, RESTORE the non functional Jockey Pump to functional status within 38 days <u>OR</u> be in at least HOT SHUTDOWN within the next 12 hours <u>AND</u> COLD SHUTDOWN within the following 24 hours.</p> <p><u>WITH</u> 1AEHV-4144 not functional, provided both Jockey Pumps are functional, RESTORE the not functional valve to functional status within 38 days <u>OR</u> be in at least HOT SHUTDOWN within the next 12 hours <u>AND</u> COLD SHUTDOWN within the following 24 hours.</p> <p><u>OTHERWISE</u>, RESTORE feed water sealing functionality within 4 hrs <u>OR</u> be in at least HOT SHUTDOWN within the next 12 hours <u>AND</u> COLD SHUTDOWN within the following 24 hours.</p>
<p>ECCS Jockey Pumps *</p> <p>[PR 980115182] BPCA 02</p>	<p>With an ECCS Jockey Pump de-energized or tripped</p>	<p><u>IF</u> the loop low pressure alarm is received, DECLARE the associated ECCS loop(s) INOP.</p> <p>RESTORE keep fill <u>OR</u> PLACE Alternate Keep Fill in service <u>AND</u> PERFORM Loop Fill and Vent.</p> <p><u>IF</u> the Fill and Vent renders no air, <u>THEN</u> the Loop is considered to have been OPERABLE.</p>

* Regarding preventive or corrective maintenance or periodic testing of the jockey pumps, UFSAR Section 6.3.2.2 states: "Under these conditions, the jockey pump is removed from service in accordance with station administrative controls which ensure that the impact on system operability is assessed and appropriate compensatory actions are considered and implemented. Additionally, only a single jockey pump, associated with an operable ECCS or RCIC system is removed from service at a time."

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Affected Equipment	Description /Regulatory Basis	Required Action
<p>“C” and “D” Emergency Diesel Generators (1C-G-400/ 1D-G-400)</p>	<p>Prior to entering a planned extended outage (14 day) of the “C” or “D” EDG, ENSURE the following items are satisfied. (CR 970130256)</p>	<ol style="list-style-type: none"> 1. ENSURE all other systems, trains or components required for accident mitigation are OPERABLE. This does not preclude testing or operation of components in the same train / channel as the inoperable Emergency Diesel Generator. 2. MINIMIZE the removal from service other safety systems, important to safety systems <u>OR</u> any offsite power systems from service. 3. The intent of the planned, extended entry into the AOT is for required modifications <u>OR</u> CM/PM activities. 4. ENSURE overall unavailability will not exceed greater than 720 hrs. per rolling 12 month period, (System Manager). 5. Component testing or maintenance that increases the likelihood of a plant transient should be avoided. This does not preclude testing or operation of components in the same train / channel as the inoperable Emergency Diesel Generator. No production risk activities should be scheduled, with the exception of the weekly manual scram surveillance. Emergent production risk activities that arise during the extended AOT period may be performed but should be evaluated for risk to determine if they should be postponed until the return of DG availability. If power maneuvers are not classified as production risk, then power can be moved using normal plant operating procedures. 6. ENTRY into the extended AOT should not occur <u>IF</u> adverse weather conditions are expected.

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Affected Equipment	Description /Regulatory Basis	Required Action
RHR Pumps 1A-P-202, 1B-P-202, 1C-P-202, and 1D-P-202	While in a secondary mode of operation with its respective test return valve open, the time lag for the repositioning of the test return valve will prevent rated injection into the Reactor Vessel upon pump re-start beyond UFSAR acceptance limitations (test return valves stroke times exceed the required LPCI injection time).	For operability purposes, while in a secondary mode of operation with an RHR Test Return valve open, DECLARE the associated LPCI mode INOPERABLE. [70040545] 'B' RHR pump 1B-P-202 should be declared INOPERABLE for LPCI mode when it is used in let-down mode.

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Affected Equipment	Description /Regulatory Basis	Required Action
RCIC Room Coolers (1AVH-208/ 1BVH-208)	The RCIC Room Coolers, which are 100% redundant, are required to be operable to maintain adequate ventilation for safety related plant equipment.	<p>WITH 1 RCIC Room Cooler INOPERABLE, ENTER a Tracking LCO</p> <p>WITH both RCIC Room Coolers INOPERABLE, DECLARE the RCIC System INOPERABLE AND RESTORE at least 1 Room Cooler to OPERABLE status within 14 days OR be in at least HOT SHUTDOWN within the next 12 hours AND REDUCE Reactor steam dome pressure to less than or equal to 150 psig within the following 24 hours.</p>
HPCI Room Coolers (1AVH-209/ 1BVH-209)	The HPCI Room Coolers, which are 100% redundant, are required to be operable to maintain adequate ventilation for safety related plant equipment.	<p>With 1 HPCI Room Cooler INOPERABLE, ENTER a Tracking LCO,</p> <p>WITH both HPCI Room Coolers INOPERABLE, DECLARE the HPCI System INOPERABLE.</p>
Core Spray Pumps 1A-P-206, 1B-P-206, 1C-P-206, and 1D-P-206	While in a secondary mode of operation with its respective test return valve open, the time lag for the repositioning of the test return valve will prevent rated injection into the Reactor Vessel upon pump re-start beyond UFSAR acceptance limitations (test return valves stroke times exceed the required CS injection time).	While in a secondary mode of operation WITH its respective test return valve open, DECLARE the affected loop of Core Spray INOPERABLE. [70040545]

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Affected Equipment	Description /Regulatory Basis	Required Action
RHR Room Coolers (1AVH-210/ 1EVH-210) (1BVH-210/ 1FVH-210) (1CVH-210/ 1GVH-210) (1DVH-210/ 1HVH-210)	The RHR Room Coolers, which are 100% redundant, are required to be operable to maintain adequate ventilation for safety related plant equipment.	With 1 RHR Pump Room Cooler per RHR Pump Room INOPERABLE, ENTER a Tracking LCO, <u>WITH</u> both RHR Pump Room Coolers INOPERABLE, DECLARE the RHR Pump INOPERABLE.
Core Spray Room Coolers (1AVH-211/ 1EVH-211) (1BVH-211/ 1FVH-211) (1CVH-211/ 1GVH-211) (1DVH-211/ 1HVH-211)	The Core Spray Pump Room Coolers, which are 100% redundant, are required to be operable to maintain adequate ventilation for safety related plant equipment.	<u>WITH 1</u> Core Spray Pump Room Cooler per Core Spray Room INOPERABLE, ENTER a Tracking LCO, <u>WITH</u> both Core Spray Pump Room Coolers INOPERABLE, DECLARE the Core Spray Pump INOPERABLE.
SACS Room Coolers (1AVH-214/ 1CVH-214) (1BVH-214/ 1DVH-214)	The SACS Room Coolers, which are 100% redundant, are required to be operable to maintain adequate ventilation for safety related plant equipment.	<u>WITH 1</u> SACS Pump Room Cooler per SACS Room INOPERABLE, ENTER a Tracking LCO, <u>WITH</u> both SACS Pump Room Coolers INOPERABLE, DECLARE the SACS Loop INOPERABLE.
TSC Emergency Filter Unit 00-VH313	Due to concerns regarding adequate ventilation for critical components and habitability of the TSC, a LAOT has been established for the inoperability of the TSC Emergency Filter Unit.	<u>WITH</u> the TSC Emergency Filter Unit INOPERABLE, RESTORE the unit to an OPERABLE status within 35 days <u>OR</u> be in at least HOT SHUTDOWN within the next 12 hours <u>AND</u> COLD SHUTDOWN within the following 24 hours

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Affected Equipment	Description /Regulatory Basis	Required Action
TSC Supply Unit 00-VH314	Due to concerns regarding adequate ventilation for critical components and habitability of the TSC, a LAOT has been established for the inoperability of the TSC Supply Unit	<u>WITH</u> the TSC Supply Unit INOPERABLE, RESTORE the unit to an OPERABLE status within 35 days <u>OR</u> be in at least HOT SHUTDOWN within the next 12 hours <u>AND</u> COLD SHUTDOWN within the following 24 hours
Remote Shutdown Panel Cooler 00-VH316	Due to concerns regarding adequate ventilation for critical components and habitability of the Remote Shutdown Panel, a LAOT has been established for the inoperability of the RSP Cooler.	<u>WITH</u> the Remote Shutdown Panel Cooler INOPERABLE, RESTORE the unit to an OPERABLE status within 35 days <u>OR</u> be in at least HOT SHUTDOWN within the next 12 hours <u>AND</u> COLD SHUTDOWN within the following 24 hours
Control Area Battery Room Exhaust Fan (1A-V-410/ 1B-V-410)	Due to concerns regarding adequate exhaust ventilation for the battery rooms, a LAOT has been established for the inoperability of the Control Area Battery Room Exhaust Fan.	<u>WITH</u> 1 Control Area Battery Room Exhaust Fan INOPERABLE, RESTORE the subsystem to OPERABLE status within 35 days <u>OR</u> be in at least HOT SHUTDOWN within the next 12 hours <u>AND</u> COLD SHUTDOWN within the following 24 hours.

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Affected Equipment	Description /Regulatory Basis	Required Action
EDG Room Recirc Units (1A-V-412/ 1E-V-412) (1B-V-412/ 1F-V-412) (1C-V-412/ 1G-V-412) (1D-V-412/ 1H-V-412)	Due to concerns regarding adequate ventilation for the EDG rooms, a LAOT has been established for the inoperability of the 100% redundant EDG Room Recirc Units.	<p><u>WITH</u> 1 EDG Room Recirc Unit INOPERABLE,</p> <p>1) REALIGN the remaining recirc fan for single fan operation IAW HC.OP-SO.GM-0001 <u>ONLY</u> if river temperature is above <u>OR</u> expected to rise above 80°F.</p> <p>2) <u>IF</u> river temperature is greater than 80°F, <u>AND</u> the SACS to RHR HX outlet valve (HV-2512) is open on the same SACS loop as the failed EDG cooler <u>AND</u> the required realignment has not been completed, DECLARE the affected EDG inoperable.</p>
Battery Room Exhaust Fan (1A-V-416/ 1B-V-416)	Due to concerns regarding adequate exhaust ventilation for the battery rooms, a LAOT has been established for the inoperability of the Battery Room Exhaust Fan.	<p><u>WITH</u> 1 Battery Room Exhaust Fan INOPERABLE, RESTORE the subsystem to OPERABLE status within 35 days</p> <p><u>OR</u> be in at least HOT SHUTDOWN within the next 12 hours</p> <p><u>AND</u> COLD SHUTDOWN within the following 24 hours.</p>
SWIS Supply Fans (1A-V-503/ 1C-V-503/ 1B-V-503/ 1D-V-503) AND SWIS Exhaust Fans (1A-V-504/ 1C-V-504/ 1B-V-504/ 1D-V-504)	Provide guidance during the inoperability of SWIS Supply and Exhaust fans.	<p><u>WITH</u> any SWIS Ventilation Train INOPERABLE ENTER a Tracking LCO, against the SSW Loop. ESTABLISH appropriate temperature monitoring, as required.</p> <p>In any fan alignment, <u>WITH</u> the average ambient temperature in the associated areas >104°F THEN:</p> <ol style="list-style-type: none"> 1) INITIATE a Notification. 2) DECLARE the associated SSW Loop Operable but NON-CONFORMING. 3) ASSIGN a CRFA to Engineering to confirm within 72 hrs. 4) CONTINUE to assess SSW Loop Operability. <p><u>IF</u> SSW Loop component performance does not support continued operability, <u>OR</u> new information suggests the SSW system will not perform it's design function, <u>THEN</u> declare the associated SSW Loop INOPERABLE.</p>

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Affected Equipment	Description /Regulatory Basis	Required Action
<p>Main Steam Line Monitor Setpoint Adjustment Requirements</p> <p align="center">** [TSI] **</p>	<p>Provides guidance as to when the steam line monitor setpoints must be adjusted to lower values following a HWCI trip OR removal from service. (CR 960402321) (CR 970912142)</p>	<p>After reaching 20% of RATED THERMAL POWER, the normal full power background radiation level and associated trip setpoints will be increased within 24 hours to levels previously measured during full power operation with hydrogen injection. Prior to decreasing below 20% of RATED THERMAL POWER, the background level and associated setpoint shall be returned to the normal full power values.</p> <p>Additionally, Table 3.3.2-1 note (b) “Also trips and isolates the mechanical vacuum pumps” is an informational note and is not to be interpreted as a Tech Spec requirement.</p>
<p>Clarification of Containment Isolation Valve Requirements</p> <p align="center">** [TSI] **</p>	<p>Clarifications of actions required in T/S 3.6.3 regarding isolation of a penetration versus isolation of a flow path.</p>	<p>Clarification of 3.6.3 isolation of affected penetration flow path. The intention is to eliminate the possibility of a single active failure, which would result in an un-isolatable flow path. INOPERABLE Containment isolation valves may be utilized to isolate the affected penetration flow path as long as there is reasonable assurance that the valve is fully seated.</p>

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Affected Equipment	Description /Regulatory Basis	Required Action
<p>SW Pumps (1A-P-502, 1B-P-502, 1C-P-502 & 1D-P-502)</p> <p align="center">** [TSI] **</p>	<p>When SW Pumps are placed in MANUAL the following auto start signals are defeated: Non-Emergency Start, High-High Radiation in the Reactor Building, High-High Radiation on the Refuel Floor and Level 2 in the Reactor Vessel. Auto LOP/LOCA sequencer starts are not affected. (CR 970603128 CRCA #06)</p>	<p>Service Water Pumps left out of service in MANUAL are to be declared INOPERABLE during Modes 1, 2, 3, & *.</p> <p>* <u>WHEN</u> handling recently irradiated fuel in the Secondary Containment.</p>
<p>SACS Heat Exchanger SW Outlet Valves (1EAHV-2355A, 1EAHV-2355B, 1EAHV-2371A & 1EAHV-2371B)</p> <p align="center">** [TSI] **</p>	<p>When Valves are placed in MANUAL all auto open signals are defeated except LOP/LOCA sequencer signals (CR 970603128 CRCA #06)</p>	<p><u>WHEN</u> Service Water Valves 1EAHV-2355A, 1EAHV-2355B, 1EAHV-2371A & 1EAHV-2371B are left closed in MANUAL , the associated heat exchanger is to be declared INOPERABLE during Modes 1, 2, 3, & *.</p>

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Affected Equipment	Description /Regulatory Basis	Required Action
SACS Pumps (1A-P-210, 1B-P-210, 1C-P-210, & 1D-P-210) ** [TSI] **	When SACS Pumps are placed in MANUAL the following auto start signals are defeated for A & B: High-High Radiation in the Reactor Building, High-High Radiation on the Refuel Floor and Level 2 in the Reactor Vessel. The following auto start signal is defeated for C & D: Auto start from the associated CW loop. Auto LOP/LOCA sequencer starts are not affected. (CR 970603128 CRCA #06)	SACS Pumps left out of service in MANUAL are to be declared INOPERABLE during Modes 1, 2, 3, & **. ** WHEN handling recently irradiated fuel in the Secondary Containment.
FRVS Vent Fans (1A-V-206 & 1B-V-206) ** [TSI] **	When FRVS Vent Fans are placed in Manual, all auto start signals are defeated, including LOCA sequencer starts.	FRVS Vent Fans placed in MANUAL are to be declared INOPERABLE in all Modes.
FRVS Radiation Monitoring System	When FRVS RMS is INOPERABLE.	ACTIVE T/S 3.3.7.5 is entered, 72 hrs to restore. Tracking ODCM 3.3.7.11 is entered, no samples required unless FRVS is in service.
Control Room Emergency Filter Unit 1A(B)-V400	Placing a A(B)P400 Control Area Chilled Water pump in MAN or a A(B)K400 Chiller to "OFF" not in "ON/AUTO" does not make its associated CREF unit inoperable since the pump and chiller will still start on a LOP/LOCA sequencer signal if in manual. Automatic start on Intake High Radiation is defeated, however, CREF remains operable based on manual action to place the train in-service following a High Radiation start signal being permissible in accordance with the plant licensing basis. [70006639]	None

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Affected Equipment	Description /Regulatory Basis	Required Action
<p>SACS TO TACS ISOLATION VLV EG-HV-2522A-D, EG-HV-2496A-D [PR 990112136]</p>	<p>If the INOP valve <u>AND</u> redundant valve are open</p> <p>If the redundant valve is closed,</p>	<p>DECLARE the associated SACS loop INOP, CLOSE AND DEACTIVATE EITHER the INOP valve <u>OR</u> its redundant valve within 2 hours. The LCO may then be taken to tracking status (Primary T/S 3.7.1.1)</p> <p>DEACTIVATE the redundant valve <u>OR</u> CLOSE AND DEACTIVATE the INOP valve AND ENTER a tracking LCO for the affected SACS loop (Primary T/S 3.7.1.1) (SACS TO TACS ISOLATION VLVS may be considered deactivated by selecting LOCKOUT.)</p>
<p>SSWS TO RACS ISOLATION VLV EA-HV-2203, 2204, 2207, 2346 [PR 990112136] [70035190]</p>	<p>If EA-HV-2203 <u>OR</u> EA-HV-2204 are INOP</p> <p>If EA-HV-2207 <u>AND/OR</u> EA-HV-2346 are INOP:</p>	<p>DECLARE the associated Service Water loop INOP (Primary T/S 3.7.1.2) <u>AND</u> CLOSE AND DEACTIVATE the affected valve in the closed position. The LCO may then be taken to tracking status (Primary T/S 3.7.1.2)</p> <p>PRESERVE the operability of one Service Water loop by closing either 2203 or 2204. The loop then supplying the RACS heat exchangers will be rendered INOP due to the lack of redundant isolation capability considering a single active failure (Primary T/S 3.7.1.2)</p>
<p>Reactor Auxiliaries Cooling and Safety Auxiliaries Cooling Radiation Monitoring</p>	<p>Removal of a RACS or a SACS loop from service does not cause the associated radiation monitor to become incapable of performing its specified function.</p>	<p>None T/S Table 3.3.7.1-1 requires no action when a RACS or a SACS loop is removed from service. [80059526]</p>

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Affected Equipment	Description /Regulatory Basis	Required Action
LOSS OF 1E 4160/480 VAC BUS [PR980115182] BPCA 05	If a 4160 or 480 VAC bus is lost:	ENTER Tech Spec 3.8.1 <u>AND</u> CONSIDER Exhibit 3 item: "WHEN a support or supported system is declared INOPERABLE in one train."
T/S 3.3.2 and Bases as it applies to: RWCU RCIC HPCI RHR SDC	If Note (e) applies to the Minimum Operable Channels per Trip System in Table 3.3.2-1.	Action 3.3.2.b applies for all cases in which less than the minimum required number of channels are OPERABLE. <u>WHEN</u> NEITHER isolation logic (inboard or outboard) Meets the minimum OPERABLE channels requirement, IMPLEMENT Action 3.3.2.b.1.a.
T/S 3.3.2 and Bases as it applies to: RBE/RFE Radiation Monitors	RBE/RFE Radiation Monitor inputs to PCIS consist of three sensors feeding four separate two-out-of-three logics (one two of three logic per PCIS Channel)	For one channel INOPERABLE, IMPLEMENT Action 3.3.2.b.1.c <u>OR TAKE</u> the Action in Table 3.3.2-1. For two or more channels INOPERABLE IMPLEMENT Action 3.3.2.b.1.a For ALL inoperable channels <u>OR</u> within one hour, TAKE the Action in Table 3.3.2-1.
1AP168 or 1BP168 Turbine Bldg Circ Water Dewatering Sump Pumps (TBCWDS)	ODCM Table 4.3.7.10-1 Instrument 1b - Channel Check for the Turbine Building Circulating Water Dewatering Sump Radioactivity Monitor System includes a verification of sample flow through the radiation monitor 1SPRE-4557 during sump pump operation.	ENTER tracking LCO for TBCWDS Radiation Monitor 1SPRE-4557 <u>WHEN</u> a TBCWDS pump(s) is removed from service to ensure surveillance requirements of HC.OP-DL.ZZ-0026(Q), Surveillance Log, Attachment 1d are met when pump(s) is returned to service. [70041891]

EXHIBIT 2
T/S IMPLEMENTATION AND ALLOWABLE OUTAGE TIMES (LAOTs)
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Affected Equipment	Description /Regulatory Basis	Required Action
Reactor Building Back Draft Dampers PD-9428A1, A2 PD-9428B1, B2 PD-9429A1, A2 PD-9432A1, A2 PD-9432B1, B2 PD-9433A1, A2 PD-9433B1, B2 PD-9434A1, A2 PD-9434B1, B2 PD-9435A1, A2 PD-9435B1, B2 PD-9436A1, A2 PD-9436B1, B2 PD-9437A1, A2 PD-9437B1, B2 PD-9438A1, A2 PD-9438B1, B2 PD-9438C1, C2 PD-9438D1, D2 PD-9438E1, E2 PD-9438F1, F2 PD-9439A1, A2 PD-9439B1, B2 PD-9457A1, A2	Steam flooding isolation (back draft) dampers have an active, safety related function to contain the steam resulting from a pipe break within the compartment, and to prevent the spread of steam through HVAC openings or ductwork to adjacent areas. (UFSAR 9.4.2.3)	<u>WITH</u> one or more in series back draft dampers INOPERABLE in an open duct, RESTORE the damper(s) to an OPERABLE status within 7 days, <u>OR CLOSE</u> a damper in the affected duct <u>OR ISOLATE</u> the high-energy line into the compartment (room) protected by the INOPERABLE damper(s). [80005604, 70000420]
Control Rods	Excessive friction between a control rod and the fuel bundles surrounding the control rod may impact scram function, fuel bundle lift, and Safety Limit MCPR. Operability criteria are specified in HC.RE-RA.BF-0002(Q), Fuel Channel Distortion Monitoring, and are consistent with SC06-12, Surveillance Program for Channel-Control Blade Interference Monitoring.	Declare the affected control rod inoperable IAW T/S 3.1.3.1.

**EXHIBIT 2
T/S IMPLEMENTATION AND ALLOWABLE OUTAGE TIMES (LAOTs)
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Affected Equipment	Description /Regulatory Basis	Required Action
<p>Main Condenser Offgas Treatment Monitoring Instrumentation</p>	<p>Explosive Gas Monitoring program provides controls for potentially explosive gas mixtures contained in the Main Condenser Offgas Treatment System. [T/S 6.8.4.d]</p>	<p>The hydrogen monitor shall have a minimum of one (1) channel operable during operation of the main condenser air ejector. [CD-450A] Otherwise, <u>IF</u> neither channel is operable, operation of the main condenser offgas treatment system may continue provided grab samples are collected at least once per four (4) hours and analyzed within the following four (4) hours. Otherwise, with the monitors out of service in excess of 30 days, continue the four (4) hour sampling and analysis intervals and have senior management consider alternate options, including unit shutdown. NOTE - The off gas system is considered "in-service" when the SJAE is taking suction from the main condenser and sending the gas flow to the off gas system. (i.e., when the HV-1968 valves are open).</p>

**EXHIBIT 2
T/S IMPLEMENTATION AND ALLOWABLE OUTAGE TIMES (LAOTs)
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Affected Equipment	Description /Regulatory Basis	Required Action
<p>Refuel Floor Polar Crane (10H200)</p>	<p>UFSAR Section 9.1.4.2.12.4 states: With fuel assemblies in the spent fuel storage pool racks, loads in excess of 1200 pounds shall be prohibited from travel over fuel assemblies in the spent fuel storage pool racks unless handled by a single failure proof handling system. With the above requirements not satisfied, place the polar crane load in a safe condition.</p>	<p><u>WITH</u> the Polar Crane Surveillances not current or polar crane otherwise known to be inoperable, DECLARE the Crane INOP IAW Section 5.3 <u>AND PREVENT</u> crane operation IAW OP-AA-109-115.</p>
<p>Refueling Platform</p>	<p>UFSAR Section 9.1.4.2.12.3 states: During handling of fuel assemblies or control rods within the reactor pressure vessel, the refueling platform shall be operable with the main hoist to be used for handling fuel assemblies or control rods within the reactor pressure vessel and the frame-mounted or monorail-mounted auxiliary hoists to be used for handling control rods within the reactor pressure vessel. With the requirements for refueling platform operability not satisfied, suspend use of any inoperable refueling platform equipment from operations involving the handling of control rods and fuel assemblies within the reactor pressure vessel after placing the load in a safe condition.</p>	<p><u>WITH</u> the Refueling Platform Surveillances not current or otherwise known to be inoperable, DECLARE the Refueling Platform Hoist INOP IAW Sec 5.3 <u>AND PREVENT</u> Refueling Platform Hoist operation IAW OP-AA-109-115.</p>

**EXHIBIT 2
T/S IMPLEMENTATION AND ALLOWABLE OUTAGE TIMES (LAOTs)
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Affected Equipment	Description /Regulatory Basis	Required Action
<p>During Handling of Fuel and Core Alterations when Secondary Containment and FRVS Actuation is NOT Required, the Following Conditions SHALL BE MET:</p>		
<p>Building Ventilation (for Secondary Containment)</p>	<p>Will be operating and will be capable of drawing air into the building and exhausting through a monitored pathway. [T/S 3/4.6.5, Secondary Containment Bases]</p>	<p><u>IF</u> not operating and capable of drawing air into the building and exhausting through a monitored pathway THEN, SUSPEND Fuel Handling and CORE ALTERATIONS.</p>
<p>Contingency Plans (For Secondary Containment)</p>	<p>Contingency Plan(s) are required to be in place to promptly close at least one door in each airlock and cover all Secondary Containment breaches (within 30-minutes), in the event of a fuel handling accident. Contingency Plan(s) assure that building ventilation will draw air into the building and exhaust through a monitored pathway. A Contingency Plan for each Secondary Containment Breach is documented using Attachment 5, and, placed with Form 1, Technical Specification Action Statement Log.</p>	<p><u>IF</u> conditions develop that would prevent implementation of any active Contingency Plan THEN, SUSPEND Fuel Handling and CORE ALTERATIONS.</p>

**EXHIBIT 2
T/S IMPLEMENTATION AND ALLOWABLE OUTAGE TIMES (LAOTs)
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Affected Equipment		Description /Regulatory Basis	Required Action
APRM Deviation >2% (absolute value) from RATED THERMAL POWER During Planned Operations Evolution (Power Maneuver) (after approx. five min. of steady-state operation)			
# APRMs Inoperable on primary (A or B) channel	# APRMs Inoperable on alternate channel	Required Action	
1	0	LOG RE-ST.SE-0002 on to DL-26 Att. 5 for the APRM (T/S 3.3.1, TRACKING status, unlimited action time) BYPASS the INOP APRM	
1	1	LOG RE-ST.SE-0002 on to DL-26 Att. 5 for the APRMs (T/S 3.3.1, TRACKING status, unlimited action time) BYPASS the INOP APRMs	
2 or more	0	LOG RE-ST.SE-0002 on to DL-26 Att. 5 for the APRMs (T/S 3.3.1, ACTIVE status, action time = time the second APRM declared INOP + 12 hrs.) ENSURE the first APRM declared INOP is bypassed. CONSULT REs and identify the appropriate APRM adjustment window (bypass APRMs as required during adjustment)(See Note **)	
2 or more	1	LOG RE-ST.SE-0002 on to DL-26 Att. 5 for the APRMs (T/S 3.3.1, ACTIVE status, action time = time the second primary channel APRM declared INOP + 12 hrs.) ENSURE the first APRM declared INOP in each channel is bypassed. CONSULT REs and identify the appropriate APRM adjustment window (bypass APRMs as required during adjustment)(See Note **)	
2 or more	2 or more	LOG RE-ST.SE-0002 on to DL-26 Att. 5 for the APRMs (T/S 3.3.1, ACTIVE status, action time = time the last APRM was declared inoperable + 1 hr.) ENSURE the first APRM declared INOP in each channel is bypassed. ADJUST APRMs within 1 hr. (bypass APRMs as required during adjustment)	

Note ** To maintain consistency with other required action time responses (such as required samples), APRM adjustment should occur within 6 hrs (1/2 of the required action time).

**EXHIBIT 2
T/S IMPLEMENTATION AND ALLOWABLE OUTAGE TIMES (LAOTs)
(Page 23 of 24)**

Affected Equipment	Description /Regulatory Basis	Required Action
SSW EMERGENCY MAKE-UP	<p>The SSWS is designed to supply a connection to add trucked in fresh water or supply an Emergency Back-Up source of water, via an inter-tie between the SSWS and the Residual Heat Removal (RHR) System to flood the Reactor Containment during post-LOCA conditions and supply water to the Fuel Pool Cooling and Cleanup System. [70045241]</p>	<p>WITH 1 loop of Emergency Make-Up from SSW INOPERABLE,</p> <ul style="list-style-type: none"> - ENTER an LCO against T.S 4.0.5. - CONTACT Work Management to defer (excluding Surveillance Testing) all planned maintenance on the operable loop of Emergency Make-Up from SSW. <p>WITH 2 loops of Emergency Make-Up from SSW INOPERABLE,</p> <ul style="list-style-type: none"> - ENTER an LCO against T.S 4.0.5. - CONTACT Work Management to initiate immediate corrective maintenance to restore operability to one loop of Emergency Make-Up from SSW. - IF Emergency Make-Up from SSW is being credited via a OPEVAL due to excessive leakage from SACS or FPCC THEN, ENSURE the Diesel Driven Fire Pump or Salem Fire Header X-tie is available.
H₂O₂ ANALYZERS	<p>The Hydrogen/Oxygen Analyzer System (HOAS) is to measure the percentage of hydrogen and oxygen in the primary containment atmosphere. The operability of the accident monitoring instrumentation ensures that sufficient information is available on selected plant parameters to monitor and assess important variables following an accident</p>	<p>WITH 1 H₂O₂ Analyzer INOPERABLE ENTER a Tracking LCO. (with no reporting requirements) WITH 2 H₂O₂ Analyzers INOPERABLE RESTORE at least one inoperable H₂O₂ Analyzer to OPERABLE status, OR INITIATE alternate method of monitoring the appropriate parameters within 72 hours. OR If alternate monitoring or restoration of one analyzer has not be accomplished within 72 hours, actions must continue until one analyzer is restored to OPERABLE status or an acceptable alternate method of monitoring is established, and a notification written to evaluate the impact of the delayed restoration of monitoring capability. [UFSAR 6.2.5.2.5]</p>

**EXHIBIT 2
T/S IMPLEMENTATION AND ALLOWABLE OUTAGE TIMES (LAOTs)
(Page 24 of 24)**

Affected Equipment	Description /Regulatory Basis	Required Action
ECCS System AP check valves (including RCIC) that supply keepfill	When one or both check valves is (are) declared INOPERABLE (i.e. Valve IST), entry into T/S 3.6.1 is required. The AP check valves supplying keepfill to ECCS systems are part of the extended containment boundary defined in the UFSAR.	<p>CLOSE the manual valve that isolates the check valve(s) and apply a White Caution Tag (WCT). APPLY a WCT to the applicable jockey pump. WCT text to require SM/CRS permission prior to operation.</p> <p><u>IF</u> keepfill is required, and the manual isolation valve is opened, entry into T/S 3.6.1 is required and the one-hour action time is applicable. Work should be preplanned and briefed to minimize the time the LCO is active and in all cases will be less than one hour. It is not appropriate to allow keepfill to be lost and declare the system unavailable. This also would require a fill and vent to restore operability / availability.</p>
PCIG Receivers	Low pressure in the PCIG receivers precludes successful operation of ads valves.	<p>With one PCIG accumulator depressurized, or one receiver low pressure alarm inoperable, ENTER a tracking LCO against LCO 3.5.1.d for ADS.</p> <p>With both PCIG receivers below 85 psig, ENTER active LCO for TS 3.5.1.d for ADS.</p>

EXHIBIT 3
EVENT DRIVEN T/S / ODCM / UFSAR SURVEILLANCE
REQUIREMENT MATRIX
 (Page 1 of 4)

[PR 981115086]

Event	Time/Action Requirement	T/S / ODCM / UFSAR	Procedure
POWER MANEUVERING			
Prior to Criticality & during system heat-up	Coolant temperature and pressure shall be determined to be to the right of the criticality limit line on Figure 3.4.6.1-3 prior to criticality and at least once per 30 minutes during system heat-up	4.4.6.1.2	OP-DL.ZZ-0026 OP-IO.ZZ-0003 OP-IO.ZZ-0007
Reactor Power exceeds 15% of Rated	Drywell and Suppression Chamber Oxygen Concentrations shall be verified to be in specification within 24 hours	4.6.6.2	OP-ST.GS-0001 OP-DL.ZZ-0026
Complete a power change of at least 15% RTP in one hour	NOTIFY Rad Pro and Chemistry to perform required samples.	Table 4.4.5-1 4(b) ODCM Table 4.11.2.1.2-1(c) & (f)	OP-IO.ZZ-0003
Reactor Power exceeds 24% of Rated	VERIFY all APLHGRs \leq limits within COLR report within 12 hours & once per 24 hours thereafter.	4.2.1.a	RE-ST.ZZ-0001 OP-DL.ZZ-0026
Reactor Power exceeds 24% of Rated	VERIFY MCPR \leq applicable MCPR limit within COLR report within 12 hours & once per 24 hours thereafter.	4.2.3.a	RE-ST.ZZ-0001 OP-DL.ZZ-0026
Reactor Power exceeds 24% of Rated	VERIFY all LHGRs \leq limit within COLR report once 12 hours & once per 24 hours thereafter.	4.2.4.a	RE-ST.ZZ-0001 OP-DL.ZZ-0026
Plant Shutdown <u>OR</u> Startup	NOTIFY Chemistry to perform required sample	ODCM Table 4.11.2.1.2-1(c)	CH-TI.ZZ-0012

EXHIBIT 3
EVENT DRIVEN T/S / ODCM / UFSAR SURVEILLANCE
REQUIREMENT MATRIX
 (Page 2 of 4)

Event	Time/Action Requirement	T/S / ODCM / UFSAR	Procedure
POWER MANEUVERING continued			
Operating on a Limiting Control Rod Pattern	VERIFY all APLHGRs \leq limits within COLR report initially & once per 12 hours thereafter	4.2.1. b 4.1.4.3.b	RE-ST.ZZ-0001 OP-DL.ZZ-0026
Operating on a Limiting Control Rod Pattern	VERIFY MCPR \leq applicable MCPR limit within COLR report initially & once per 12 hours thereafter	4.2.3. b 4.1.4.3.b	RE-ST.ZZ-0001 OP-DL.ZZ-0026
Operating on a Limiting Control Rod Pattern	VERIFY all LHGRs \leq limit within COLR report initially & once per 12 hours thereafter	4.2.4. b 4.1.4.3.b	RE-ST.ZZ-0001 OP-DL.ZZ-0026
Plant taken to Cold Shutdown for more than 24 hours	PERFORM a channel functional test on the RPS MG set and alternate power supply EPA's unless performed in the previous six months	4.8.4.4.a	MD-ST.SB-0005
Plant taken to Cold Shutdown for more than 24 hours	PERFORM a channel functional test on the NMS EPA's unless performed in the previous six months	4.8.4.6.a	MD-ST.SB-0003
STUCK CONTROL ROD			
Detection of a withdrawn immovable control rod	Within 12 hours of detection of the immovable rod, DETERMINE the new Shutdown Margin	4.1.1.c	RE-ST.ZZ-0007
Detection of a withdrawn immovable control rod	MOVE each control rod one notch within 24 hours	4.1.3.1.2.b	OP-ST.BF-0001 OP-AB.IC-0001

EXHIBIT 3
EVENT DRIVEN T/S / ODCM / UFSAR SURVEILLANCE
REQUIREMENT MATRIX
 (Page 3 of 4)

Event	Time/Action Requirement	T/S / ODCM / UFSAR	Procedure
SLC			
SBLC Tank Temperature Drops below 70°F	DETERMINE the weight and concentration of the Sodium Pentaborate	4.1.5.b.2 *	CH-TI.ZZ-0012 OP-DL.ZZ-0026 OP-SO.BH-0001
Both SBLC Heat Tracing Circuits have been found Inoperable	DEMONSTRATE that all piping between the storage tank and the injection pumps is unblocked.	4.1.5.d.2**	OP-IS.BH-0001 OP-IS.BH-0002 OP-IS.BH-0003 OP-DL.ZZ-0026
CHEMISTRY			
Chlorides or pH are out of limit per UFSAR Table 5.2-8	INCREASE sampling frequency from every 72 hours to every 8 hours.	UFSAR Section 5.2.3.2.2.2 / Table 5.2-8	CH-TI.ZZ-0012
Conductivity recording capability is inoperable	OBTAIN in-line conductivity measurements every 4 hours in Mode 1,2 or 3 <u>OR</u> every 24 hours at all other times.	UFSAR Section 5.2.3.2.2.2 / Table 5.2-8	CH-TI.ZZ-0012
SRV LIFT AND SUPPRESSION POOL TEMPERATURE			
Any SRV lifts	Within 12 hours CYCLE each Torus to Drywell Vacuum Breaker (The 12 hour clock begins when the last SRV closes or is closed following the plant transient or evolution which required the opening of the SRVs.)	4.6.4.1.b.1	OP-ST.GS-0004
Any SRV lifts and Torus Water temperature exceeds 177°F & RPV pressure is > 100 psig	PERFORM an external inspection of the Torus	4.6.2.1.D	RA-IS.ZZ-0004
Testing in progress which adds heat to the Torus	VERIFY Torus temperature to be $\leq 105^{\circ}\text{F}$ at least once per five minutes	4.6.2.1.b.1	OP-DL.ZZ-0026
Torus temperature is > 95°F	At least once per hour, VERIFY that Torus temperature is < 110°F	4.6.2.1.b.2.a	OP-DL.ZZ-0026
Following a scram in OPCON 3 with torus temperature > 95°F	At least once per 30 minutes, VERIFY Torus temperature is $\leq 120^{\circ}\text{F}$.	4.6.2.1.b.2.c	OP-DL.ZZ-0026

EXHIBIT 3
EVENT DRIVEN T/S / ODCM / UFSAR SURVEILLANCE
REQUIREMENT MATRIX
 (Page 4 of 4)

Event	Time/Action Requirement	T/S / ODCM / UFSAR	Procedure
CONTAINMENT VENT AND PURGE			
Before Venting or Purging	Before opening the drywell and suppression chamber purge supply and exhaust, and nitrogen supply butterfly isolation valves shall be verified not to have been open for more than 500 hours in the previous 365 days.	4.6.1.8.1	OP-AP.ZZ-0104
Within 4 hours prior to venting & at least once per 12 hours during venting or purging of the drywell	The containment shall be determined to be aligned for venting or purging through the RBVS, the FRVS or the hardened Torus vent	ODCM 4.11.2.8	OP-SO.GS-0001
ACTS OF NATURE			
River Water Temperature exceeds 82°F	VERIFY at least every two hours that river water is within limits	4.7.1.3.b.2	OP-DL.ZZ-0026
Severe Storm Warnings from the National Weather Service are forecast for Artificial Island	At least every 4 hours DETERMINE river water level at the service water intake structure	4.7.3.b	OP-DL.ZZ-0026
OFFGAS RADIATION MONITOR			
Increase (as indicated by the off-gas pre-treatment radiation monitors) of > 50%, after factoring out increases due to changes in Thermal Power level, in nominal steady-state fission gas release from the primary coolant	The radioactivity rate of noble gases from the Recombiner after-condenser discharge shall be determined to be within the limits of specification 3.11.2.7 by performing an isotopic analysis of a representative sample of gases taken near the discharge of the Main Condenser Air Ejector.	4.11.2.7.2.b	CH-TI.ZZ-0012

EXHIBIT 4
SINGLE FAILURE CRITERIA FOR SAFETY-RELATED
SYSTEMS FLOWCHART
(Page 1 of 1)

One hundred percent redundancy of equipment that is related to Technical Specifications, Safety Related, or Important to Safety, does not necessitate the fulfillment of Single Failure Criteria. Any active failure of the remaining SSCs within the INOPERABLE SSC's system, which would render the system inoperable, indicates a failure of adherence to the Single Failure Criteria. Deviations from the Single Failure Criteria are allowed as long as compliance is re-established within the allowed outage time specified by Technical Specifications and Licensee Controlled Allowable Outage Times (Exhibit 2).

The following flow chart shall be used to determine the applicability of single failure criteria to INOPERABLE SSCs and the related Allowable Outage Times:

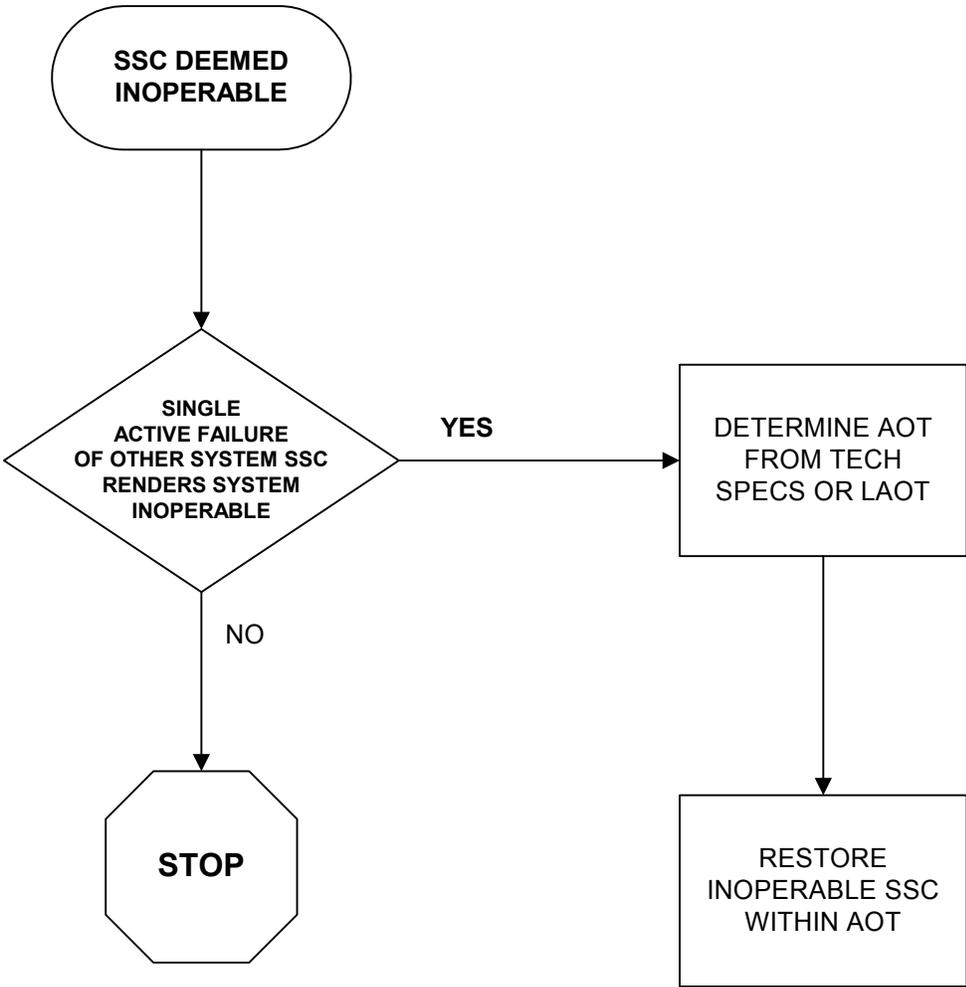


EXHIBIT 5
SECONDARY CONTAINMENT PENETRATION MATRIX
 (Page 1 of 3)

The following matrixes identify all secondary containment penetrations.

Penetrations With Motor-Operated Valve Isolations

ISOLATION VALVE - FUNCTION	ISOLATION VALVE - FUNCTION
AB-HV-3631A - "A" Main Steam Line	EG-HV-2496B & D - TACS Rtn to "B" SACS
AB-HV-3631B - "B" Main Steam Line	EE-HV-4656 - TWCU to Filters
AB-HV-3631C - "C" Main Steam Line	EE-HV-4663 - Filters to TWCU
AB-HV-3631D - "D" Main Steam Line	FC-HV-F026 - RCIC Drain to Main Condenser
AE-HV-F032A - "A" Feedwater Line	FD-HV-F029 - HPCI Drain to Main Condenser
AE-HV-F032B - "B" Feedwater Line	GB-HV-9532-1 - Chilled Water Return
AE-HV-3625 - Long Path Recirc Rtn to Cndsr	GB-HV-9532-2 - Chilled Water Supply
AN-HV-2600 - Demin Water to Rx Bldg.	GH-HV-5543 - RWCU Backwash Tank Vent
AP-HV-2072 - Condo. Far to Rx Bldg.	GS-HV-5741A - H2 Sample Gas to "A" H2O2
AP-HV-2073 - Cond. Xfer to Rx Bldg.	GS-HV-5741B - H2 Sample Gas to "B" H2O2
BC-HV-4439 - RHR to RW	GS-HV-11541 - Hard Torus Vent
BF-HV-4005 - CRD Pump Suction	HB-HV-5262 - Disch to Floor Drn Collector Tank
BG-HV-F034 - RWCU to Condenser	HB-HV-5275 - Disch to Equip. Drn Collector Tank
BG-HV-F035 - RWCU to Radwaste	HC-HV-5551 - RWCU Bkwsh Tank Disch to RW
BG-HV-3980 - RWCU to Chem. Wst Tank	KB-HV-7629 - Inst. Air to Rx Bldg.
BN-HV-2069 - Cond. Xfer to Refuel Floor	KC-HV-3408M - Fire Water Isolation
EA-HV-2346 - SSW from RACS	KG-HV-7801 - Breathing Air to Rx Bldg.
EA-HV-2356A - SSW from "A" SACS	KH-HV-5035 - Nitrogen Supply To Containment
EA-HV-2356B - SSW from "B" SACS	RC-SV-0732 - PASS Sample Line
EA-HV-2357A - SSW "A" Yard Dump	RC-SV-0733 - PASS Sample Line
EA-HV-2357B - SSW "B" Yard Dump	RC-SV-0730B - PASS Sample Line
EC-HV-4678 - Filters to Fuel Pool System	RC-SV-0731B - PASS Sample Line
EC-HV-4676B - Fuel Pool Pumps to Filters	RC-SV-0707B - PASS Sample Line
ED-HV-2599 - RACS to Rx Bldg.	RC-SV-0728B - PASS Sample Line
ED-HV-2598 - RACS From Rx Bldg.	RC-SV-8903B - PASS Sample Line
EG-HV-2522A & C - "A" SACS Loop To TACS	RC-SV-0645B - PASS Sample Line
EG-HV-2522B & D - "B" SACS Loop To TACS	RC-SV-0646B - PASS Sample Line
EG-HV-2496A & C - TACS Rtn to "A" SACS	RC-SV-0643B - PASS Sample Line

EXHIBIT 5
SECONDARY CONTAINMENT PENETRATION MATRIX
 (Page 2 of 3)

Dampers Affecting Secondary Containment

DAMPER	FUNCTION
GU-HD-9370A & B	RBVS Supply Dampers
GU-FD-9525A3	FRVS Exhaust Damper
GU-HD-9414A & B	RBVS Exhaust Dampers
GU-FD-9525B3	FRVS Exhaust Damper
PASS – FPD (M-76-1, A-5)	PASS Panel Ventilation

Secondary Containment Penetrations With Manual Isolations

VALVE	FUNCTION
1-BC-V426	Fire Hose Fill to RHR
1-EA-V559	Fire Hose Fill to SSW
1-KC-V077	Fire Header to Rx Bldg.
1-KC-V038	Fire Header to Rx Bldg.
1-KC-V078	Fire Header to Rx Bldg.
1-KC-V068	Fire Header to Rx Bldg.
1-GS-V203	HTV Condensate Drain
0-RC-V015	SACS to PASS
0-RC-V014	PASS to SACS

EXHIBIT 5
SECONDARY CONTAINMENT PENETRATION MATRIX
(Page 3 of 3)

Secondary Containment Penetrations Not Isolable Or Isolable Only With Multiple Components

SYSTEM	FUNCTION	LINE ID	P & ID
AB	Main Steam drains	1-AB-4"-DBD-028	M-41-1, Sht. 1
AP	CST level inst.	1-AP-2"-HCC-012	M-08-0, Sht. 1
AP	HPCI/RCIC return	1-AP-10"-HCC-004	M-08-0, Sht. 2
AP	CST to ECCS/RCIC	1-AP-20"-HCB-002	M-08-0, Sht. 2
EA	"A" SSW supply	EA-36"-HXC-019	M-10-1, Sht. 2
EA	"B" SSW supply	EA-36"-HXC-074	M-10-1, Sht. 2
EG	"A" SACS return	EG-20"-HBC-104	M-12-1
EG	"A" SACS supply	EG-20"-HBC-153	M-12-1
EG	"B" SACS supply	EG-20"-HBC-154	M-12-1
EG	"B" SACS return	EG-20"-HBC-105	M-12-1
GS	H2O2 sample gas	GS-1"-CCB-055	M-57-1
GS	H2O2 sample gas	GS-1"-CCB-056	M-57-1
GS	H2O2 sample gas	GS-1"-CCB-057	M-57-1
GS	H2O2 sample gas	GS-1"-CCB-058	M-57-1
GS	H2O2 sample gas	GS-1"-CCB-059	M-57-1
GS	H2O2 sample gas	GS-1"-CCB-060	M-57-1
GJ	AK400 to SACS	GJ-4"-HBC-003	M-90-1, Sht. 1
GJ	AK400 from SACS	GJ-4"-HBC-016	M-90-1, Sht. 1
GJ	BK400 to SACS	GJ-4"-HBC-010	M-90-1, Sht. 2
GJ	BK400 from SACS	GJ-4"-HBC-014	M-90-1, Sht. 2

EXHIBIT 6
STAGGERED TEST BASES POSITION
(Page 1 of 1)

STAGGERED TEST BASIS is defined in T/S 1.46 to consist of:

- A test schedule for n systems, subsystems, trains or other designated components obtained by dividing the specified test interval into n equal subintervals.
- The testing of one system, subsystem, train or other designated component at the beginning of each subinterval.

When a surveillance requirement is not performed within its specified interval, T/S 4.0.2 allows up to a 25 percent extension of the specified surveillance interval. This permits an extension of the normal surveillance interval to facilitate surveillance scheduling and consideration of plant operating conditions that may not be suitable for conducting the surveillance; e.g., transient conditions or other ongoing surveillance or maintenance activities. It is not intended that this provision be used repeatedly as a convenience to extend surveillance intervals beyond that specified for surveillances that are not performed during refueling outages.

The T/S requirement to perform designated testing on a staggered test basis does not take precedence over system specific surveillance requirements to test all channels within the specified interval. The extension permitted by T/S 4.0.2 is based on the surveillance interval. The staggered test basis subinterval deals with how the beginnings of the surveillance intervals for different subsystems are arranged.

Since T/S 4.0.2 is not intended to be used repeatedly, a surveillance test on a particular channel conducted subsequent to the application of T/S 4.0.2 is required to be performed in the next subinterval as previously scheduled. As an example, for a two channel system with a surveillance test required to be performed once per 28 days on a staggered test basis:

Day Channel

0	'A' completed (per normal schedule)
14	'B' completed (per normal schedule)
28	'A' scheduled, not completed, T/S 4.0.2 invoked
35	'A' completed (includes 25 percent extension per T/S 4.0.2)
42	'B' completed (per normal schedule)
56	'A' completed (return to normal schedule)
70	'B' completed (per normal schedule)

In this example, channel 'A' remains operable because the surveillance test performed on day 35 was completed within the specified surveillance interval (28 days) plus the 25 percent extension of the specified interval (7 days) allowed by T/S 4.0.2 from the last performance of the test for channel 'A.'

[70021204]

EXHIBIT 7
ACTIONS FOR MISSED SURVEILLANCE ACTIVITIES
(Page 1 of 1)

PSEG is expected to perform a missed surveillance test at the first reasonable opportunity, taking into account appropriate considerations such as the impact on plant risk and accident analysis assumptions, unit conditions, planning, availability of personnel and time required to perform the surveillance.

The risk evaluation may use quantitative, qualitative, or blended methods. The degree of depth and rigor of the evaluation should be commensurate with the importance of the component. Missed surveillances for important components should be analyzed quantitatively. If the results of the risk evaluation determine the risk increase is significant, this evaluation should be used to determine the safest course of action.

The relaxed time allowed to perform a missed surveillance does not result in a significant reduction in the margin of safety. As supported by the historical data, the likely outcome of any surveillance is verification that the LCO is met. Failure to perform a surveillance within the prescribed frequency does not cause equipment to become inoperable. The only effect of the additional time allowed to perform a missed surveillance on the margin of safety is the extension of the time until inoperable equipment is discovered to be inoperable by the missed surveillance. However, given the rare occurrence of inoperable equipment, and the rare occurrence of a missed surveillance, a missed surveillance on inoperable equipment would be very unlikely. This must be balanced against the real risk of manipulating the plant equipment or condition to perform the missed surveillance. In addition, parallel trains and alternate equipment are typically available to perform the safety function of the equipment not tested.

1. When it is determined that entry into technical specification 4.0.3 is required due to a missed surveillance requirement, the following actions should be taken:
2. A notification (SL-2) shall be initiated to document the missed surveillance.
3. An Active Action Statement shall be entered under T/S 4.0.3, against the surveillance activity, with the Date/Time of Action Required designated to be the maximum delay approved by the AOM-Shift.
4. An evaluation and assessment for the missed surveillance should be initiated IAW OP-AA-108-115-1001. This process is utilized only where the surveillance frequency is greater than 24 hours and the missed surveillance will not be completed within 24 hours from the time of the discovery of the missed surveillance. (Ref. T/S 4.0.3)
5. For surveillances with a frequency of 24 hours or less, 24 hours is the maximum delay period permitted.
6. The delay period should be determined IAW OP-AA-108-115-1001. This period shall not be greater than the surveillance frequency period.
7. The SM should review all data on the assessments and provide a recommendation to the AOM-Shift for the maximum permissible delay to perform the surveillance.
8. The evaluation and assessments for approving a delay of the surveillance interval is expected to occur within one day. This timeline may be relaxed or accelerated commensurate with the safety significance of the SSC function affected.

EXHIBIT 8
Actions For Implementation of Technical Specification 3.0.4.b
(Page 1 of 1)

1. Technical Specification LCO 3.0.4.b and the associated bases provides allowances to place the unit in an OPERATIONAL CONDITION or other specified condition when the requirements of a Tech Spec LCO requiring a plant shutdown are not met, provided certain actions are taken to assess the risk associated with the inoperable equipment. This allowance should be taken only in cases of unanticipated inoperability. Certain systems (HPCI, RCIC, and EDG's) are exempted from LCO 3.0.4.b allowances. Hope Creek implements these requirements as follows:
 - 1.1 Write a notification detailing the inoperable equipment, the cause of the inoperability, the estimated duration of the inoperability, the OPGON change(s) desired and all other currently inoperable Tech Spec equipment. This notification should reference any open notifications or work orders currently open to correct the inoperability of the system/component for which 3.0.4.b is being implemented.
 - 1.2 Direct Outage Management to implement the requirements of OU-AA-103 Shutdown Safety Approval of the condition.
 - 1.3 Direct Work Management to implement the requirements of WC-AA-101 for approval of the Maintenance efforts required to return the equipment to an operable condition.
 - 1.4 Direct Engineering to initiate a Risk Assessment IAW ER-AA-600-1042 to assess overall plant risk associated with making the mode change with inoperable equipment.
 - 1.5 Direct Engineering to create an NUCR Order from the above notification with an operation in which to document the results of the above risk assessment, the acceptability of entering the mode or other specified condition, the establishment of any appropriate risk management actions (i.e. protected equipment, compensatory measures, etc), and the reasonable probability of completing restoration of the inoperable equipment within the applicable Tech Spec AOT. The SM/CRS final confirms this operation indicating acceptance of the risk assessment. This documentation does not have to be completed prior to making the desired mode change.
 - 1.6 SM/CRS reviews the above risk assessment, ensures that any recommended risk management actions are assessed and implemented, documents this review in the Control Room Narrative Log, and places the unit in the desired OPERATIONAL CONDITION or other specified condition IAW with the applicable Integrated Operating Procedure.

FORM 1
TECHNICAL SPECIFICATION ACTION STATEMENT LOG
(Page 1 of 4)

1.0 ACTION STATEMENT LOG SHEET

LCO INDEX NUMBER: LCO STATUS (ACTIVE/TRACKING):
TECH SPEC NUMBER: DATE/TIME ENTERED:
APPLICABILITY: DATE/TIME ACTION REQUIRED:
OTHER APPLICABLE T/S:
EQUIPMENT:

SUMMARY DESCRIPTION (Include Summary of Actions Required)

Summary description lines

RESPONSIBLE DEPARTMENT NOTIFICATION(S)

SPECIAL REPORT REQUIRED YES [] NO [] REPORT INITIATION DUE DATE

NOTIFICATIONS FOR COMPENSATORY ACTIONS OR SURVEILLANCES *

Table with 4 columns: NAME of DEPARTMENT and PERSON NOTIFIED, NOTIFICATION (DATE/TIME) ENTRY / EXIT, NAME of PERSON MAKING NOTIFICATION, NOTIF# (If applicable)

* IF entry into an Action Statement or failure to meet an Action Statement time limitation requires the submittal of a special report to the NRC, THEN: ENSURE the responsible department is notified of the reporting requirements, AND, NOTIFY the SOS or other Operations Management within one hour, AND, ENSURE the Licensing Department is notified of the reporting requirements, AND, INITIATE a Notification IAW LS-AA-120, Notification Process.

REDUNDANT EQUIPMENT OPERABLE (Y/N) :

APPROVAL TO REMOVE FROM SERVICE, VERIFICATION OF REDUNDANT EQUIPMENT

CONCURRENCE AUT and HORIZATION approval section with signature and date/time lines for SRO/STA and SM/CRS.

FORM 1
TECHNICAL SPECIFICATION ACTION STATEMENT LOG
(Page 2 of 4)

2.0 ORDER AND WCD ADDENDUM

DR / NOTF / ORDER WCD NUMBER	DESCRIPTION	SYSTEM	TASK/ TYPE	RESP. DEPT/ GROUP	STATUS

(Continue on Page 3)

RETURN TO SERVICE (SM/CRS INITIAL OR N/A ALL BOXES)

TAGS RELEASED, SYSTEM/EQUIPMENT FILLED & VENTED,
RESTORED FOR OPERATION : _____

SURVEILLANCE RETESTS & SPECIAL TEST/ACTIONS COMPLETE : _____

RESPONSIBLE DEPARTMENTS - INFORMED : _____

DCP TURNOVER CHECKLIST COMPLETED : _____

ACTION STATEMENT LOG INDEX UPDATED : _____

VERIFICATION OF OPERABILITY REQUIREMENTS AND SYSTEM RESTORATION

CONCURRENCE AUTH		ORIZATION	
_____	_____	_____	_____
SRO/STA (print name)		SM/CRS (print name)	
_____	_____	_____	_____
SRO/STA (signature)	DATE/TIME	SM/CRS (signature)	DATE/TIME

