Appendix B

TECHNICAL REQUIREMENTS MANUAL (TRM)

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1.0 USE AND APPLICATION

1.1 Definitions

- NOTES -

1. Definitions are defined in Section 1.1 of the Technical Specifications and are applicable throughout the Technical Requirements Manual (TRM) and Bases. Only definitions specific to the TRM will be defined in this section.

2. The defined terms of this section and the Technical Specifications (TS) appear in capitalized type and are applicable throughout the TRM and the TRM Bases.

3. When a term is defined in both the TS and the TRM, TRM definition takes precedence within the TRM and the TRM Bases.

Term	Definition
ACTIONS	ACTIONS shall be that part of a Requirement that prescribes Required Actions to be taken under designated Conditions within specified Completion Times.
CHANNEL CALIBRATION	A CHANNEL CALIBRATION shall be the adjustment, as necessary, of the channel output such that it responds within the necessary range and accuracy to known values of the parameter that the channel monitors. The CHANNEL CALIBRATION shall encompass all devices in the channel required for channel FUNCTIONALITY. Calibration of instrument channels with resistance temperature detector (RTD) or thermocouple sensors may consist of an in-place qualitative assessment of sensor behavior and normal calibration of the remaining adjustable devices in the channel. The CHANNEL CALIBRATION may be performed by means of any series of sequential, overlapping, or total channel steps.
CHANNEL CHECK	A CHANNEL CHECK shall be the qualitative assessment, by observation, of channel behavior during operation. This determination shall include, where possible, comparison of the channel indication and status to other indications or status derived from independent instrument channels measuring the same parameter.

CHANNEL OPERATIONAL TEST (COT)	A COT shall be the injection of a simulated or actual signal into the channel as close to the sensor as practicable to verify FUNCTIONALITY of all devices in the channel required for channel FUNCTIONALITY. The COT shall include adjustments, as necessary, of the required alarm, interlock, and trip setpoints required for channel FUNCTIONALITY such that the setpoints are within the necessary range and accuracy. The COT may be performed by means of any series of sequential, overlapping, or total channel steps.
FUNCTIONAL - FUNCTIONALITY	From NRC Inspection Manual Chapter 0326, "[FUNCTIONALITY] is an attribute of an SSC(s) that is not controlled by TS. An SSC not controlled by TS is [FUNCTIONAL] or has [FUNCTIONALITY] when it is capable of performing its function(s) as set forth in the Current Licensing Basis (CLB). These CLB function(s) may include the capability to perform a necessary and related support function for an SSC(s) controlled by TS."

1.0 USE AND APPLICATION

1.2 Logical Connectors

Logical Connectors are discussed in Section 1.2 of the Technical Specifications and are applicable throughout the Technical Requirements Manual and Bases.

1.0 USE AND APPLICATION

1.3 Completion Times

Completion Times are discussed in Section 1.3 of the Technical Specifications and are applicable throughout the Technical Requirements Manual and Bases.

1.0 USE AND APPLICATION

1.4 Frequency

Frequency is discussed in Section 1.4 of the Technical Specifications and is applicable throughout the Technical Requirements Manual and Bases.

3.0 TECHNICAL REQUIREMENTS FOR OPERATION (TRO) APPLICABILITY

TRO 3.0.A

TROs shall be met during the MODES or other specified conditions in the Applicability, except as provided in TRO 3.0.B.

TRO 3.0.B

Upon discovery of a failure to meet a TRO, the Required Actions of the associated Conditions shall be met, except as provided in TRO 3.0.E.

If the TRO is met or is no longer applicable prior to expiration of the specified Completion Time(s), completion of the Required Action(s) is not required unless otherwise stated.

TRO 3.0.C

When a TRO is not met and the associated ACTIONS are not met, an associated ACTION is not provided, or if directed by the associated ACTIONS, action shall be initiated within 1 hour to:

a. Implement appropriate compensatory actions as needed;

b. Verify that the facility is not in an unanalyzed condition;

c. Verify that a required safety function is not compromised by the NON-FUNCTIONAL equipment; and

d. Within 12 hours, obtain the Plant Manager or Decomm Manager approval of the compensatory actions and the plan for exiting TRO 3.0.C.

Exceptions to this TRO are stated in the individual TROs.

Where corrective measures are completed that permit facility activities to continue in accordance with the TRO or ACTIONS, completion of the actions required by TRO 3.0.C is not required.

TRO 3.0.D

When a TRO is not met, entry into a specified condition in the Applicability shall only be made:

a. When the associated ACTIONS to be entered permit facility activities to continue in the MODE or other specified condition in the Applicability for an unlimited period of time; or

3.0 TR0 APPLICABILITY

TRO 3.0.D (continued)

b. When an allowance is stated in the individual value, parameter, or other requirement.

This requirement shall not prevent changes in specified conditions in the Applicability that are required to comply with ACTIONS.

TRO 3.0.E Equipment removed from service or declared NON-FUNCTIONAL to comply with ACTIONS may be returned to service under administrative control solely to perform testing required to demonstrate its FUNCTIONALITY or the FUNCTIONALITY of other equipment. This is an exception to TRO 3.0.B for the system returned to service under administrative control to perform the testing required to demonstrate FUNCTIONALITY.

3.0 TECHNICAL REQUIREMENTS SURVEILLANCE (TRS) APPLICABILITY

TRS 3.0.A

TRSs shall be met during the specified conditions in the Applicability for individual TROs, unless otherwise stated in the TRS. Failure to meet a TRS, whether such failure is experienced during the performance of the TRS or between performances of the TRS, shall be failure to meet the TRO. Failure to perform a TRS within the specified Frequency shall be failure to meet the TRO except as provided in TRS 3.0.C. TRSs do not have to be performed on NON-FUNCTIONAL equipment or variables outside specified limits.

TRS 3.0.B

The specified Frequency for each TRS is met if the TRS is performed within 1.25 times the interval specified in the Frequency, as measured from the previous performance or as measured from the time a specified condition of the Frequency is met.

For Frequencies specified as “once,” the above interval extension does not apply.

TRS 3.0.C

If it is discovered that a TRS was not performed within its specified Frequency, then compliance with the requirement to declare the TRO not met may be delayed, from the time of discovery, up to 24 hours or up to the limit of the specified Frequency, whichever is greater. This delay period is permitted to allow performance of the TRS.

If the TRS is not performed within the delay period, the TRO must immediately be declared not met, and the applicable Condition(s) must be entered.

When the TRS is performed within the delay period and the TRS is not met, the TRO must immediately be declared not met, and the applicable Condition(s) must be entered.

3.0 TRS APPLICABILITY

TRS 3.0.D Entry into a specified condition in the Applicability of a TRO shall only be made when the TRO's Surveillances have been met within their specified Frequency, except as provided by TRS 3.0.C. When a TRO is not met due to Surveillances not having been met, entry into a specified condition in the Applicability shall only be made in accordance with TRO 3.0.D.

This provision shall not prevent entry into specified conditions in the Applicability that are required to comply with ACTIONS.

B 3.0 TECHNICAL REQUIREMENTS FOR OPERATION (TRO) APPLICABILITY

BASES

TROs

TRO 3.0.A through TRO 3.0.E establish the general requirements applicable to all TROs in Section 3.3 and Sections 3.7 to 3.11 and apply at all times, unless otherwise stated.

TRO 3.0.A

TRO 3.0.A establishes the Applicability statement within each individual Requirement as the requirement for when the TRO is required to be met (i.e., when the facility is in the specified conditions of the Applicability statement of each Requirement).

TRO 3.0.B

TRO 3.0.B establishes that upon discovery of a failure to meet a TRO, the associated ACTIONS shall be met. The Completion Time of each Required Action for an ACTIONS Condition is applicable from the point in time that an ACTIONS Condition is entered. The Required Actions establish those remedial measures that must be taken within specified Completion Times when the requirements of a TRO are not met. This Requirement establishes that:

a. Completion of the Required Actions within the specified Completion Times constitute compliance with a Requirement; and

b. Completion of the Required Actions is not required when a TRO is met within the specified Completion Time, unless otherwise specified.

There are two basic types of Required Actions. The first type of Required Action specifies a time limit in which the TRO must be met. This time limit is the Completion Time to restore a NON-FUNCTIONAL system or component to FUNCTIONAL status or to restore variables to within specified limits. If this type of Required Action is not completed within the specified Completion Time, the facility must be placed in a condition in which the Requirement is not applicable. (Whether stated as a Required Action or not, correction of the entered Condition is an action that may always be considered upon entering ACTIONS.) The second type of Required Action specifies the remedial measures that permit the facility activity to continue that is not further restricted by the Completion Time. In this case, compliance with the Required Actions provides an acceptable justification for continued activity.

BASES

TRO 3.0.B (continued)

Completing the Required Actions is not required when a TRO is met or is no longer applicable, unless otherwise stated in the individual Requirement.

The nature of some Required Actions of some Conditions necessitates that, once the Condition is entered, the Required Actions must be completed even though the associated Conditions no longer exist. The individual TRO's ACTIONS specify the Required Actions where this is the case.

The Completion Times of the Required Actions are also applicable when a system or component is removed from service intentionally. The reasons for intentionally relying on the ACTIONS include, but are not limited to, performance of TRSs, preventive maintenance, corrective maintenance, or investigation of facility problems. Entering ACTIONS for these reasons must be done in a manner that does not compromise safety. Intentional entry into ACTIONS should not be made for convenience. Additionally, if intentional entry into ACTIONS would result in redundant equipment being NON-FUNCTIONAL, alternatives should be used instead. Doing so limits the time both subsystems/trains of a function are NON-FUNCTIONAL and limits the time conditions exist which may result in TRO 3.0.C being entered. Individual Requirements may specify a time limit for performing a TRS when equipment is removed from service or bypassed for testing. In this case, the Completion Times of the Required Actions are applicable when this time limit expires, if the equipment remains removed from service or bypassed.

When a change in specified condition is required to comply with Required Actions, the facility may enter a specified condition in which another Requirement becomes applicable. In this case, the Completion Times of the associated Required Actions would apply from the point in time that the new Requirement becomes applicable and the ACTIONS Condition(s) are entered.

TRO 3.0.C

TRO 3.0.C establishes the actions that must be implemented when a TRO is not met and:

a. An associated Required Action and Completion Time is not met and no other Condition applies; or

BASES

TRO 3.0.C (continued)

b. The condition of the facility is not specifically addressed by the associated ACTIONS. This means that no combination of Conditions stated in the ACTIONS can be made that exactly corresponds to the actual condition of the facility. Sometimes, possible combinations of Conditions are such that entering TRO 3.0.C is warranted; in such cases, the ACTIONS specifically state a Condition corresponding to such combinations and also that TRO 3.0.C be entered immediately.

This TRO delineates the time limits for placing the facility in a safe condition when the facility cannot be maintained within the limits as defined by the TRO and its action. It is not intended to be used as a convenience that permits routine voluntary removal of redundant systems or components from service in lieu of other alternatives that would not result in redundant systems or components being NON-FUNCTIONAL.

Upon entering TRO 3.0.C, 1 hour is allowed to initiate action to implement appropriate compensatory actions, to verify the unit is not in an unanalyzed condition, and to verify that a required safety function is not compromised. Within 12 hours, the Plant Manager or Decomm Manager's approval of the compensatory actions and the plan for exiting TRO 3.0.C must be obtained. The use and interpretation of specific times to complete the actions of TRO 3.0.C are consistent with the discussion of Section 1.3, Completion Times.

The actions required in accordance with TRO 3.0.C may be terminated and TRO 3.0.C exited if any of the following occurs:

a. The TRO is now met;

b. A Condition exists for which the Required Actions have now been performed; or

c. ACTIONS exist that do not have expired Completion Times. These Completion Times are applicable from the point in time that the Condition is initially entered and not from the time TRO 3.0.C is exited.

Exceptions to TRO 3.0.C are addressed in the individual Requirements.

BASES

TRO 3.0.D

TRO 3.0.D establishes limitations on changes in specified conditions in the Applicability when a TRO is not met. It allows placing the facility in a specified condition stated in that Applicability (e.g., the Applicability desired to be entered) when facility conditions are such that the requirements of the TRO would not be met, in accordance with TRO 3.0.D.a or TRO 3.0.D.b.

TRO 3.0.D.a allows entry into a specified condition in the Applicability with the TRO not met when the associated ACTIONS to be entered following entry into the specified condition in the Applicability will permit continued action within the other specified condition for an unlimited period of time. Compliance with Required Actions that permit facility activities to continue for an unlimited period of time in a specified condition provides an acceptable level of safety. This is without regard to the status of the facility before or after the specified condition change. Therefore, in such cases, entry into a specified condition in the Applicability may be made in accordance with the provisions of the Required Actions.

TRO 3.0.D.b allows entry into a specified condition in the Applicability with the TRO not met based on a Note in the Requirement which states TRO 3.0.D.b is applicable. These specific allowances permit entry into specified conditions in the Applicability when the associated ACTIONS to be entered do not provide for facility activities to continue for an unlimited period of time. This allowance may apply to all the ACTIONS or to a specific Required Action of a Requirement. For this reason, TRO 3.0.D.b is typically applied to Requirements which describe values and parameters.

The provisions of this Requirement should not be interpreted as endorsing the failure to exercise the good practice of restoring systems or components to FUNCTIONAL status before entering an associated specified condition in the Applicability.

The provisions of TRO 3.0.D shall not prevent changes on specified conditions in the Applicability that are required to comply with ACTIONS.

Upon entry into a specified condition in the Applicability with the TRO not met, TRO 3.0.A and TRO 3.0.B require entry into the applicable Conditions and Required Actions until the Condition is resolved, until the TRO is met, or until the facility is not within the Applicability of the Technical Requirement.

Surveillances do not have to be performed on the associated NON-FUNCTIONAL equipment (or on variables outside the specified limits), as permitted by TRS 3.0.A. Therefore, utilizing TRO 3.0.D is not a violation of TRS 3.0.A or TRS 3.0.D for any surveillances that have not

BASES

TR0 3.0.D (continued)

been performed on NON-FUNCTIONAL equipment. However, TRSs must be met to ensure FUNCTIONALITY prior to declaring the associated equipment FUNCTIONAL (or variable within limits) and restoring compliance with the affected TRO.

TRO 3.0.E

TRO 3.0.E establishes the allowance for restoring equipment to service under administrative controls when it has been removed from service or declared NON-FUNCTIONAL to comply with ACTIONS. The sole purpose of this Requirement is to provide an exception to TRO 3.0.B (e.g., to not comply with the applicable Required Action(s)) to allow the performance of required testing to demonstrate:

a. The FUNCTIONALITY of the equipment being returned to service; or

b. The FUNCTIONALITY of other equipment.

The administrative controls ensure the time the equipment is returned to service in conflict with the requirements of the ACTIONS is limited to the time absolutely necessary to perform the required testing to demonstrate FUNCTIONALITY. This Requirement does not provide time to perform any other preventive or corrective maintenance.

B 3.0 TECHNICAL REQUIREMENTS SURVEILLANCE (TRS) APPLICABILITY

BASES

TRSs

TRS 3.0.A through TRS 3.0.D establish the general requirements applicable to all Surveillance Requirements in Section 3.3 and Sections 3.7 to 3.11 and apply at all times, unless otherwise stated.

TRS 3.0.A

TRS 3.0.A establishes the requirement that TRSs must be met during the specified conditions in the Applicability for which the requirements of the TROs apply, unless otherwise specified in the individual TRSs. This TRS is to ensure that TRSs are performed to verify the FUNCTIONALITY of systems and components, and that variables are within specified limits. Failure to meet a TRS within the specified Frequency, in accordance with TRS 3.0.B, constitutes a failure to meet a TRO.

Systems and components are assumed to be FUNCTIONAL when the associated TRSs have been met. Nothing in this TRS, however, is to be construed as implying that systems or components are FUNCTIONAL when:

a. The systems or components are known to be NON-FUNCTIONAL, although still meeting the TRS(s); or

b. The requirements of the TRS(s) are known not to be met between required TRS performances.

TRSs do not have to be performed when the facility is in a specified condition for which the requirements of the associated TRO are not applicable, unless otherwise specified.

Unplanned events may satisfy the requirements (including applicable acceptance criteria) for a given TRS. In this case, the unplanned event may be credited as fulfilling the performance of the TRS. This allowance includes those TRSs whose performance is normally precluded in a given specified condition.

TRSs, including TRSs invoked by Required Actions, do not have to be performed on NON-FUNCTIONAL equipment because the ACTIONS define the remedial measures that apply. TRSs have to be met and performed in accordance with TRS 3.0.B, prior to returning equipment to FUNCTIONAL status.

BASES

TRS 3.0.A (continued)

Upon completion of maintenance, appropriate post maintenance testing is required to declare equipment FUNCTIONAL. This includes ensuring applicable TRSs are not failed and their most recent performance is in accordance with TRS 3.0.B. Post maintenance testing may not be possible in the current specified conditions in the Applicability due to the necessary facility parameters not having been established. In these situations, the equipment may be considered FUNCTIONAL provided testing has been satisfactorily completed to the extent possible and the equipment is not otherwise believed to be incapable of performing its function. This will allow facility activities to proceed to a specified condition where other necessary post maintenance testing can be completed.

TRS 3.0.B

TRS 3.0.B permits a 25% extension of the interval specified in the Frequency. This extension facilitates TRS scheduling and considers facility conditions that may not be suitable for conducting the TRS (e.g., other ongoing TRS or maintenance activities).

The 25% extension does not significantly degrade the reliability that results from performing the TRS at its specified Frequency. This is based on the recognition that the most probable result of any particular TRS being performed is the verification of conformance with the TRSs. The requirements of regulations take precedence over the TRM. The TRM cannot in and of itself extend a test interval specified in the regulations.

The provisions of TRS 3.0.B are not intended to be used repeatedly merely as a convenience to extend TRS intervals beyond those specified.

TRS 3.0.C

TRS 3.0.C establishes the flexibility to defer declaring affected equipment NON-FUNCTIONAL or an affected variable outside the specified limits when a TRS has not been completed within the specified Frequency. A delay period of up to 24 hours or up to the limit of the specified Frequency, whichever is greater, applies from the point in time it is discovered that the TRS has not been performed in accordance with TRS 3.0.B, and not at the time that the specified frequency was not met.

This delay period provides adequate time to complete TRSs that have been missed. This delay period permits the completion of a TRS before complying with Required Actions or other remedial measures that might preclude completion of the TRS.

BASES

TRS 3.0.C (continued)

The basis for this delay period includes consideration of facility conditions, adequate planning, availability of personnel, the time required to perform the TRS, the safety significance of the delay in completing the required TRS, and the recognition that the most probable result of any particular TRS being performed is the verification of conformance with the requirements. When a TRS with a Frequency based not on time intervals, but upon specified conditions, is discovered not to have been performed when specified, TRS 3.0.C allows the full delay period of up to the specified frequency to perform the TRS. However, since there is not a time interval specified, the missed TRS should be performed at the first reasonable opportunity. TRS 3.0.C provides a time limit for and allowances for, the performance of, TRSs that become applicable as a consequence of specified condition changes imposed by Required Actions.

Failure to comply with specified Frequencies for TRSs is expected to be an infrequent occurrence. Use of the delay period established by TRS 3.0.C is a flexibility which is not intended to be used as a convenience to extend TRS intervals. While up to 24 hours or the limit of the specified Frequency is provided to perform the missed Surveillance, it is expected that the missed TRS will be performed at the first reasonable opportunity. The determination of the first reasonable opportunity should include consideration of the impact on facility risk (from delaying the TRS as well as any facility configuration changes required) and impact on any analysis assumptions, in addition to facility conditions, planning, availability of personnel, and the time required to perform the TRS. All missed TRSs will be placed in the licensee's Corrective Action Program.

If a TRS is not completed within the allowed delay period, then the equipment is considered NON-FUNCTIONAL or the variable then is considered outside the specified limits and the Completion Times of the Required Actions for the applicable TRO Conditions begin immediately upon expiration of the delay period. If a TRS is failed within the delay period, then the equipment is NON-FUNCTIONAL, or the variable is outside the specified limits and the Completion Times of the Required Actions for the applicable TRO Conditions begin immediately upon the failure of the TRS.

Completion of the TRS within the delay period allowed by this TRS, or within the Completion Time of the ACTIONS, restores compliance with TRS 3.0.A.

TRS 3.0.D

TRS 3.0.D establishes the requirement that all applicable TRSs must be met before entry into a specified condition in the Applicability.

BASES

TRS 3.0.D (continued)

This Requirement ensures that system and component FUNCTIONALITY requirements and variable limits are met before entry into specified conditions in the Applicability for which these system and components ensure safe continuation of facility activities. The provisions of this Requirement should not be interpreted as endorsing the failure to exercise the good practice of restoring systems or components to FUNCTIONAL status before entering an associated specified condition in the Applicability.

A provision is included to allow entry into a specified condition in the Applicability when a TRO is not met due to Surveillance not being met in accordance with TRO 3.0.D.

However, in certain circumstances, failing to meet a TRS will not result in TRS 3.0.D restricting a specified condition change. When a system, subsystem, division, component, device, or variable is NON-FUNCTIONAL or outside its specified limits, the associated TRS(s) are not required to be performed, per TRS 3.0.A, which states that TRSs do not have to be performed on NON-FUNCTIONAL equipment. When equipment is NON-FUNCTIONAL, TRS 3.0.D does not apply to the associated TRS(s) since the requirement for the TRS(s) to be performed is removed. Therefore, failing to perform the Surveillance(s) within the specified Frequency does not result in a TRS 3.0.D restriction to changing specified conditions of the Applicability. However, since the TRO is not met in this instance, TRO 3.0.D will govern any restrictions that may (or may not) apply to specified condition changes. TRS 3.0.D dose not restrict changing specified conditions of the Applicability when a Surveillance has not been performed within the specified Frequency, provided the requirement to declare the TRO not met has been delayed in accordance with TRS 3.0.C.

The provisions of TRS 3.0.D shall not prevent entry into specified conditions in the Applicability that are required to comply with ACTIONS.

The precise requirements for performance of TRSs are specified such that exceptions to TRS 3.0.D are not necessary. The specific time frames and conditions necessary for meeting the TRSs are specified in the Frequency, in the Surveillance, or both. This allows performance of Surveillances when the prerequisite condition(s) specified in a TRS procedure require entry into the specified condition in the Applicability of the associated TRO prior to the performance or completion of a Surveillance. A Surveillance that could not be performed until after entering the TRO Applicability would have its Frequency specified such that it is not “due” until the specific conditions needed are met. Alternately, the TRS may be stated in the form of a Note as not required (to be met or performed) until a particular event, condition, or time has been reached. Further discussion of the specific formats of TRSs’ annotation is found in Section 1.4, Frequency.

3.3 INSTRUMENTATION

3.3.A Meteorological Monitoring Instrumentation

TRO 3.3.A The meteorological monitoring instrumentation in Table 3.3.A-1 shall be FUNCTIONAL with indication of the tabulated parameters available in the control room.

APPLICABILITY: At all times.

ACTIONS

- NOTE -
Separate Condition entry is allowed for each channel.

CONDITION	REQUIRED ACTION	COMPLETION TIME
A. One or more of the required meteorological monitoring channels NON-FUNCTIONAL.	A.1 Restore to FUNCTIONAL status.	7 days
B. Required Action and associated Completion Time not met.	B.1 Prepare a corrective action report outlining the cause of the malfunction(s) and the plans for restoring the channel(s) to FUNCTIONAL status.	10 days

SURVEILLANCE REQUIREMENTS

- NOTE -

TRS 3.3.A.1 and TRS 3.3.A.2 apply to each Meteorological Monitoring Instrumentation Function in Table 3.3.A-1.

SURVEILLANCE		FREQUENCY
TRS 3.3.A.1	Perform CHANNEL CHECK.	24 hours
TRS 3.3.A.2	Perform CHANNEL CALIBRATION.	184 days

Table 3.3.A-1 (page 1 of 1)
Meteorological Monitoring Instrumentation

INSTRUMENT	MINIMUM REQUIRED FUNCTIONAL	INSTRUMENT ACCURACY
1. Wind Speed		
a. Nominal Elevation 10m[(a)]	1	± 0.5 mph[(b)]
b. Nominal Elevation 60m	1	± 0.5 mph[(b)]
c. Nominal Elevation 122m	1	± 0.5 mph[(b)]
2. Wind Direction		
a. Nominal Elevation 10m	1	± 5°
b. Nominal Elevation 60m	1	± 5°
c. Nominal Elevation 122m	1	± 5°
3. Air Temperature Differential (Delta T)		
a. Nominal Elevation 60 – 10m	1	± 0.1°C
b. Nominal Elevation 122 – 10m	1	± 0.1°C

(a) 10 m as measured by the primary or backup meteorological tower.

(b) Starting speed of anemometer shall be < 1 mph.

3.3 INSTRUMENTATION

B 3.3.A Meteorological Monitoring Instrumentation

BASES

FUNCTIONALITY of the meteorological monitoring system instrumentation ensures that sufficient meteorological data at the site is available for estimating potential radiation doses to the public as a result of routine or accidental releases of radioactive materials to the atmosphere. This capability is required to evaluate the need for initiating protective measures to protect the health and safety of the public and is consistent with the recommendations of Regulatory Guide 1.23, Rev. 0.

This specification ensures the FUNCTIONALITY of the meteorological monitoring instrumentation and the collection of meteorological data at the plant site. This data is used for estimating potential radiation doses to the public resulting from routine or accidental releases of radioactive materials to the atmosphere. A meteorological data collection program, as described in this specification, is necessary to meet the requirements of 10 CFR 50.36.a (a) (2), Appendix E to 10 CFR 50 and 10 CFR 51.

Meteorological data shall be summarized and reported as required for inclusion in the Radioactive Effluent Release Report pursuant to Technical Specification 5.6.3.

3.3 INSTRUMENTATION

3.3.D Spent Fuel Storage Area Radiation Monitoring

TRO 3.3.D Radiation levels in the spent fuel storage area shall be monitored continuously.

APPLICABILITY: When irradiated fuel movement is taking place in the spent fuel storage area.

ACTIONS

CONDITION	REQUIRED ACTION		COMPLETION TIME
A. Spent fuel storage area radiation monitor NON-FUNCTIONAL.	A.1	---------- **- NOTE -** Suspension of fuel movement shall not preclude completion of movement to a safe position. ---------- Stop irradiated fuel movement in the spent fuel storage area. <u>OR</u>	Immediately
	A.2	Establish alternate radiation monitoring capability in the spent fuel storage area.	Immediately

SURVEILLANCE REQUIREMENTS

SURVEILLANCE		FREQUENCY
TRS 3.3.D.1	Perform CHANNEL CHECK.	24 hours
TRS 3.3.D.2	Perform COT.	31 days

SURVEILLANCE REQUIREMENTS (continued)

SURVEILLANCE		FREQUENCY
TRS 3.3.D.3	Perform CHANNEL CALIBRATION.	24 months

3.3 INSTRUMENTATION

B 3.3.D Spent Fuel Storage Area Radiation Monitoring

BASES

Radiation levels in the spent fuel storage area are monitored by radiation monitor R-5.

3.3 INSTRUMENTATION

3.3.G Post Accident Monitoring (PAM) Instrumentation

TRO 3.3.G PAM Instrumentation for the Function in Table 3.3.G-1 shall be FUNCTIONAL.

APPLICABILITY: At all times.

ACTIONS

CONDITION	REQUIRED ACTION		COMPLETION TIME
A. Function with required channels NON-FUNCTIONAL.	A.1	Restore required channel to FUNCTIONAL status.	7 days
B. Not Used.	B.1	Not Used.	Not Used
C. Required Action and associated Completion Time not met.	C.1	Initiate alternative method of monitoring the appropriate parameter(s).	Immediately
	AND		
	C.2	Prepare a Corrective Action Program report.	14 days

SURVEILLANCE REQUIREMENTS

- NOTE -

Refer to Table 3.3.G-1 to determine which TRSs apply for each Post Accident Monitoring Instrumentation Function.

SURVEILLANCE		FREQUENCY
TRS 3.3.G.1	Perform CHANNEL CHECK.	12 hours
TRS 3.3.G.2	Not Used.	Not Used
TRS 3.3.G.3	Perform CHANNEL CALIBRATION.	24 months

Table 3.3.G-1 (page 1 of 1)
Post Accident Monitoring

	FUNCTION	REQUIRED CHANNELS	SURVEILLANCE REQUIREMENTS
1	Plant Vent Noble Gas Effluent Monitor (R-27)	1[(a)]	TRS 3.3.G.1 TRS 3.3.G.3

(a) Encompass the entire channel from sensor to display where either an indicator, recorder, or alarm is acceptable.

3.3 INSTRUMENTATION

B 3.3.G Post Accident Monitoring (PAM) Instrumentation

BASES

No bases information is provided.

3.3 INSTRUMENTATION

3.3.I Process Radiation Monitoring

TRO 3.3.I Process radiation monitors shall be FUNCTIONAL.

APPLICABILITY: When the associated system is in operation.

ACTIONS

CONDITION	REQUIRED ACTION	COMPLETION TIME
A. One or more process radiation monitors NON-FUNCTIONAL	A.1 Initiate action to establish alternate method for monitoring affected process. AND A.2 Initiate action to restore to FUNCTIONAL status.	Immediately Immediately

SURVEILLANCE REQUIREMENTS

SURVEILLANCE		FREQUENCY
TRS 3.3.I.1	Perform CHANNEL CHECK.	24 hours
TRS 3.3.I.2	Perform COT.	31 days
TRS 3.3.I.3	Perform CHANNEL CALIBRATION.	24 months

3.3 INSTRUMENTATION

B 3.3.I Process Radiation Monitoring

BASES

Process radiation monitoring includes the following monitors for the associated system:

R-39: Service Water from Component Cooling Heat Exchangers

R-40: Service Water from Component Cooling Heat Exchangers

R-47: Component Cooling Radiation

3.3 INSTRUMENTATION

3.3.J Area Radiation Monitoring

TRO 3.3.J Area radiation monitors shall be FUNCTIONAL.

APPLICABILITY: At all times.

ACTIONS

CONDITION	REQUIRED ACTION		COMPLETION TIME
A. Radiation monitor NON-FUNCTIONAL.	A.1	Establish compensatory measures to ensure radiation protection for personnel in the area of the NON-FUNCTIONAL monitor.	Immediately
	AND		
	A.2	Initiate action to restore to FUNCTIONAL status.	Immediately

SURVEILLANCE REQUIREMENTS

SURVEILLANCE		FREQUENCY
TRS 3.3.J.1	Perform CHANNEL CHECK of area radiation monitoring.	24 hours
TRS 3.3.J.2	Perform COT of area radiation monitoring.	31 days
TRS 3.3.J.3	Perform CHANNEL CALIBRATION of area radiation monitoring.	24 months

3.3 INSTRUMENTATION

B 3.3.J Area Radiation Monitoring

BASES

Area Radiation monitoring includes the following monitors for the associated system:

R-1: Control Room

REFERENCES 1. DSAR Table 4.2-3, “Radiation Monitoring Channel Data”

3.7 FACILITY SYSTEMS

3.7.B Explosive Gas Monitoring

TRO 3.7.B The concentration of oxygen in the waste gas holdup system shall be limited to ≤ 2% by volume when the hydrogen concentration is > 4%.

AND

Hydrogen and oxygen shall be continuously monitored.

APPLICABILITY: Whenever waste gas holdup system is required to be in operation.

ACTIONS

- NOTE -

Separate Condition entry is allowed for each required channel.

CONDITION	REQUIRED ACTION	COMPLETION TIME
A. Concentration of oxygen in the waste gas holdup system > 2% and ≤ 4% by volume.	A.1 Reduce oxygen concentration to within limits.	48 hours
B. Concentration of oxygen in the waste gas holdup system > 4% by volume. AND Concentration of hydrogen in the waste gas holdup system is > 2%.	B.1 Suspend all additions of waste gas to the system. AND B.2 Reduce oxygen concentration to ≤ 2% by volume.	Immediately Immediately

ACTIONS (continued)

CONDITION	REQUIRED ACTION	COMPLETION TIME
C. Required hydrogen monitor(s) NON-FUNCTIONAL. OR Required oxygen monitor(s) NON-FUNCTIONAL.	C.1 ---------- **- NOTE -** Only applicable during degassing operations. ---------- Obtain and analyze grab sample. AND C.2 ---------- **- NOTE -** Not applicable during degassing operations. ---------- Obtain and analyze grab sample.	 4 hours 24 hours

SURVEILLANCE REQUIREMENTS

- NOTE -

TRS 3.7.B.1, TRS 3.7.B.2, and TRS 3.7.B.3 apply to each Explosive Gas Monitoring Function in Table 3.7.B-1.

SURVEILLANCE		FREQUENCY
TRS 3.7.B.1	Perform CHANNEL CHECK.	24 hours
TRS 3.7.B.2	Perform COT.	31 days
TRS 3.7.B.3	Perform CHANNEL CALIBRATION.	92 days

Table 3.7.B-1 (page 1 of 1)
Explosive Gas Mixture

INSTRUMENT	REQUIRED CHANNELS
1. Hydrogen Monitor[(a)]	1
2. Oxygen Monitor[(b)]	1

(a) Standard gas samples shall be less than or equal to two volume percent hydrogen and greater than or equal to four volume percent hydrogen.

(b) Standard gas samples shall be less than or equal to two volume percent oxygen and greater than or equal to two volume percent oxygen.

3.7 FACILITY SYSTEMS

B 3.7.B Explosive Gas Monitoring

BASES

No Bases information provided.

3.7 FACILITY SYSTEMS

3.7.E City Water Supply

TRO 3.7.E City water shall be FUNCTIONAL.

APPLICABILITY: At all times.

ACTIONS

CONDITION	REQUIRED ACTION	COMPLETION TIME
A. City Water Storage Tank NON-FUNCTIONAL.	A.1 Restore City Water Storage Tank to FUNCTIONAL status.	12 hours
B. Required Action and associated Completion Time of Condition A not met.	B.1 Declare the SBO / Appendix R Diesel NON-FUNCTIONAL.	Immediately

SURVEILLANCE REQUIREMENTS

SURVEILLANCE		FREQUENCY
TRS 3.7.E.1	Verify City Water Storage Tank maintains a water level of >655,000 gallons	12 hours
TRS 3.7.E.2	Verify City Water Storage Tank valves to required loads are FUNCTIONAL	90 days
TRS 3.7.E.3	Verify altitude valve and city water makeup valves are FUNCTIONAL	90 days
TRS 3.7.E.4	Perform channel Calibration of City Water Storage Tank level monitoring instruments	24 months

3.7 FACILITY SYSTEMS

B 3.7.E City Water Supply

BASES

BACKGROUND

Two City water supply headers provide a water supply for both Unit 2 and Unit 3. One city water header supplies the City Water Storage Tank (CWST) through a fill valve, meter and a second fill valve. A second City water supply header provides water to the Unit 3 fire water storage tank. The CWST provides a protected water inventory because the continued supply of city water from offsite can not be guaranteed.

APPLICABLE SAFETY ANALYSES

The CWST is 42' high and is continually providing a water supply for normal facility uses while maintaining a reserve of water for postulated events. The CWST serves as an alternate source of water for Unit 2 fire fighting, and the Unit 3 CST in the event of its loss (e.g., due to a Tornado missile). The following events are considered simultaneously and their requirements constitute the need for a bounding reserve that is conservatively addressed by the minimum volume requirement of 655,000 gallons:

1. Cooling of the Unit 2 SBO / Appendix R diesel – The Appendix R / SBO diesel is a water cooled engine. The engine cooling water requirement is 205 gpm. The CWST provides the engine cooling water for a minimum of 4 hours supply of cooling water to the engine (this requires 50,000 gallons of reserve). Engine cooling can be transferred to Service Water supply, as required (see TRM for SBO / App. R diesel).

2. Fire Fighting Water Supply – The facility is committed to having a dedicated water inventory of 300,000 gallons for fire fighting.

3. Coincident users assumed to be provided water at 500 gpm for two hours. This requires 60,000 gallons of protected inventory.

The CWST provides for a redundant water supply of 360,000 gallons for the Unit 3 CST (See requirements of Unit 3 TS 3.7.7). A tornado missile was not postulated to result in a loss of the Unit 3 CST as well as the event that requires the Unit 2 SBO / Appendix R diesel generator to run, but the reserve of 655,000 is adequate to meet this event since the 655,000 gallons includes 300,000 gallons of Unit 2 fire water. The CWST provides the backup water supply for Unit 3 for a fire induced opening of CST drain valves while fire fighting is provided for by the Unit 3 fire water tanks.

TRO

The CSWT must contain a reserve of >655,000 gallons to assure that Unit 2 and 3 postulated events are certain to have an adequate protected inventory of water.

APPLICABILITY

At all times.

BASES

ACTIONS

A.1

With the CWST <655,000 gallons the CWST is considered NON-FUNCTIONAL and there are 12 hours to restore the water level. This is a reasonable period of time given that restoration involves the isolation of non essential water usage to allow the city water fill line to restore the required level.

B.1 and B.2

With the CWST not restored to the required water level in 12 hours, the potential exists for the inability to provide the necessary water for Unit 2 & 3 licensing basis events. The declaration of the SBO / Appendix R diesel NON-FUNCTIONAL initiates the actions in TRM 3.8.B. The declaration of the CWST tank NON-FUNCTIONAL initiates the actions of Unit 3 TS 3.7.7.

SURVEILLANCE REQUIREMENTS

TRS 3.7.E.1

This SR verifies that the CWST level requirements are met. The time frame is considered reasonable to assure that an adequate protected water inventory is maintained, and is on the same periodicity as the Unit 3 TS 3.7.7 surveillance of water pressure.

TRS 3.7.E.2

The CWST supplies water to the Unit 2 Appendix R / SBO diesel heat exchangers, and the fire header. The supply to the fire header is a preexisting requirement of the fire protection system and valves are tested as required by that program. The supply valves to the Appendix R / SBO diesel are required to be verified FUNCTIONAL to ensure they function when required.

TRS 3.7.E.3

Testing of the function of the altitude valves is verification that the valves all work as intended to assure continued water makeup. This can be by observation of the refill function.

TRS 3.7.E.4

The instrumentation necessary for operations to verify the CWST level is within the required value must be calibrated to assure sufficient accuracy.

3.8 ELECTRICAL POWER

3.8.B SBO / Appendix R Diesel Generator and Electrical Distribution System

TRO 3.8.B The SBO / Appendix R Diesel Generator and Electrical Distribution System shall be FUNCTIONAL

APPLICABILITY: At all times.

ACTIONS

CONDITION	REQUIRED ACTION	COMPLETION TIME
A. SBO / Appendix R diesel generator is NON-FUNCTIONAL.	A.1 Restore the SBO / Appendix R diesel generator to FUNCTIONAL status.	30 days

SURVEILLANCE REQUIREMENTS

	SURVEILLANCE	FREQUENCY
TRS 3.8.B.1	Verify the fuel oil storage tank contains $\geq$ 12,500 gallons of usable fuel oil reserved for the diesel.	7 days
TRS 3.8.B.2	Visually inspect the SBO / Appendix R diesel generator support systems, including check of the diesel fuel oil level, the closed cooling water system temperature, battery and battery charger.	7 days
TRS 3.8.B.3	Verify individual battery voltage >= 12V	31 days
TRS 3.8.B.4	Verify the battery charger output voltage >= 24V and output current <= 2Amps	31 days

SURVEILLANCE REQUIREMENTS (continued)

	SURVEILLANCE	FREQUENCY
TRS 3.8.B.5	Start and run the SBO / Appendix R diesel generator for a period of time sufficient to reach stable operating temperatures. Demonstrate proper operation of the output breaker.	92 days
TRS 3.8.B.6	Sample and analyze fuel oil for the SBO / Appendix R Diesel to ensure applicable standards are met.	184 days
TRS 3.8.B.7	Start the SBO / Appendix R diesel generator, load it between 2335 to 2435 kW, and run for at least 2 hours.	24 months
TRS 3.8.B.8	DEMONSTRATE the ability to line up and provide power from the SBO / Appendix R diesel to the Unit 2 Bus loads, and to Unit 3 Appendix R / SBO diesel bus loads within 60 minutes. Validate the ability to transfer SBO /Appendix R EDG cooling from City Water to Service Water within 2 hours.	24 months
TRS 3.8.B.9	DEMONSTRATE the governor circuitry operates properly in unit.	24 months

3.8 ELECTRICAL POWER

B 3.8.B SBO / Appendix R Diesel Generator and Electrical Distribution System

BASES

BACKGROUND After the 10 CFR 50.82(a)(1) and (2) certifications are docketed by the NRC, 10 CFR 50, Appendix R and 10 CFR 50.63 no longer apply, because the facility is permanently shut down and defueled. The SBO / Appendix R diesel generator will remain as a reliable and independent standby power source.

TRO The SBO / Appendix R diesel generator must be FUNCTIONAL to provide an independent source of power to Unit 2 during a loss of off-site power and to serve as a back-up for the Unit 3 SBO / Appendix R diesel generator. A FUNCTIONAL SBO / Appendix R diesel generator consists of the diesel generator, support equipment such as starting batteries, fuel oil, cooling water, as well as the electrical distribution system.

APPLICABILITY The SBO / Appendix R diesel generator must be functional at all times.

ACTIONS A. With the Appendix R diesel and/or the associated equipment required line-up to the 13.8 kV Bus NON-FUNCTIONAL, these systems must be restored to FUNCTIONAL status within 30 days. TRS 3.8.B.8 demonstrate the ability to perform the required lineups in the required time frames so that functionality is assured.

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SURVEILLANCE REQUIREMENTS

TRS 3.8.B.1

The Appendix R diesel uses 172 gallons of fuel per hour when loaded at peak capacity. The Appendix R Diesel is assumed to be run for 72 hours. Therefore, there must be $\geq$ 12,500 gallons of usable fuel in the tank dedicated to the diesel. This fuel is normally supplied from the storage tank in Unit 1 Turbine Building. Other fuel oil may be credited where adequate time to refuel exists.

BASES

SURVEILLANCE REQUIREMENTS (continued)

TRS 3.8.B.2

Inspect the SBO / Appendix R diesel generator support systems, including check of the diesel fuel oil level, the closed cooling water system temperature, battery and battery charger. This surveillance is consistent with industry practice. When the battery is checked it should be looked at for unacceptable signs such as cracking, bulging, corrosion, leakage, or an electrolyte level not above the plates.

TRS 3.8.B.3

This Surveillance verifies the batteries are maintained at 12 V. The capability of the batteries to perform a function is established when they are used to start the SBO / Appendix R diesel every quarter.

TRS 3.8.B.4

This surveillance establishes that the battery charger is operating at the required parameters to support the battery.

TRS 3.8.B.5

Start and run the SBO / Appendix R diesel generator for a period of time sufficient to reach stable operating temperatures. DEMONSTRATE the proper operation of the output breaker. Starting and bringing the SBO / Appendix R diesel to operating conditions on a quarterly frequency is consistent with the Alternate AC Power Criteria identified in Appendix B section of NUMARC 87-00, "Guidelines and Technical Bases For NUMARC Initiatives."

TRS 3.8.B.6

The surveillance to sample and analyze fuel oil from dedicated bulk storage according to applicable standards meets the Alternate AC Power Criteria identified in Appendix B section B8(c) of NUMARC 87-00, "Guidelines and Technical Bases For NUMARC Initiatives." The frequency of once per 6 months is deemed sufficient.

TRS 3.8.B.7

Start the SBO / Appendix R diesel generator, line it up and load it between 2335 to 2435 kW, and run for at least 2 hours. Starting and loading the Appendix R diesel to rated capacity on a 24 month frequency is consistent with the Alternate AC Power Criteria identified in Appendix B section B10 of NUMARC 87-00, "Guidelines and Technical Bases For NUMARC Initiatives."

TRS 3.8.B.8

DEMONSTRATE the ability to line up and provide power within 60 minutes from the IP2 SBO / Appendix R diesel to 6.9 kV Bus 5 and Bus 6 and to IP3 Appendix R SBO diesel bus loads. Validate lineup through either the ASS breaker to the 12 FD3 and 12 RW3 switchgear or the SBOH breaker to the SBO 13.8kV – 6.9kV transformer to breaker SBOL and GT25 for Bus 5 and to GT26 for Bus 6. These demonstrations may be made through a combination of tests and simulated actions. The time to identify the necessity for the SBO / Appendix R

BASES

SURVEILLANCE REQUIREMENTS (continued)

diesel must be estimated and then the time to initiate actions to line up and provide power must be demonstrated. The demonstration must include the ability to transfer from the cooling water of the CWST to the service water cooling. This transfer must be demonstrated to be made within two hours to assure adequate city water (see Reference 3). DEMONSTRATE the ability to line up and provide power to the Unit 3 Appendix R diesel loads. This demonstrates the ability to provide backup power. This demonstration may be made through a combination of tests and simulated actions.

TRS 3.8.B.9 Start the SBO / Appendix R diesel and operate in unit to test the circuitry of the governor and its ability to control the SBO / Appendix R diesel. This recognizes the separate circuitry in this mode.

REFERENCES

1. EC 5000033794, “IP2 Station Blackout and Appendix R Diesel Generator Set”

2. Risk Assessment for Extending the Proposed IP2 Appendix R Diesel Generator (ARDG) AOT

3.8 ELECTRICAL POWER

3.8.C Technical Support Center (TSC) Diesel Generator and TSC Plant Computer Uninterruptible Power Supply (UPS)

TRO 3.8.C The TSC Diesel Generator and TSC Plant Computer UPS shall be FUNCTIONAL.

APPLICABILITY: At all times.

- NOTE -

TRO 3.0.C is not applicable.

ACTIONS

CONDITION	REQUIRED ACTION	COMPLETION TIME
A. TSC Diesel Generator or TSC Plant Computer UPS NON-FUNCTIONAL.	A.1 Restore TSC Diesel Generator and TSC Plant Computer UPS to FUNCTIONAL.	6 days
B. Required Action and associated Completion Time of Condition A not met.	B.1 Issue a CR and, in response to a CA, prepare a corrective action report outlining the cause of the NON-FUNCTIONAL required equipment, the extent of condition, and the plans and schedule for restoring the NON-FUNCTIONAL equipment to FUNCTIONAL status.	7 days

SURVEILLANCE REQUIREMENTS

SURVEILLANCE		FREQUENCY
TRS 3.8.C.1	Inspect TSC Diesel Generator Battery. Battery Bank Voltage ≥ 24 VDC Electrolyte level between Min & Max Physical Condition Satisfactory.	31 days
TRS 3.8.C.2	Verify TSC Diesel Generator starts.	92 days
TRS 3.8.C.3	Verify TSC Diesel Generator starts and accepts load.	12 months
TRS 3.8.C.4	≥ 2500 Gallons of Fuel Oil in Ignition Tank #11 Reserved for the TSC Diesel Operation.	7 days

3.8 ELECTRICAL POWER

B 3.8.C Technical Support Center (TSC) Diesel Generator and TSC Plant Computer Uninterruptible Power Supply (UPS)

BASES

BACKGROUND

NUREG-0696, "Functional Criteria for Emergency Response Facilities" (Reference 1) describes the facilities and systems to be used to improve responses to emergency situations. The facilities include the Control Room, onsite Technical Support Center (TSC), onsite Operational Support Center (OSC), and nearsite Emergency Operations Facility (EOF). Data systems are the safety parameter display system (SPDS) and nuclear data link (NDL). Together, these facilities and systems make up the total Emergency Response Facilities (ERFs).

NUREG-0696 provides the following guidance: "Sufficient alternate or backup power sources shall be provided to maintain continuity of TSC functions and to immediately resume data acquisition, storage, and display of TSC data if loss of the primary TSC power sources occurs." The TSC Diesel Generator and TSC Plant Computer Battery UPS serve as these backup power sources.

The requirement to have a TSC comes from NUREG-0654 (Reference 2) and Article IV.E.8 of 10 CFR 50, Appendix E, "Emergency Planning and Preparedness for Production and Utilization Facilities" (Reference 3). NUREG-0654 requires that each licensee establishes a Technical Support Center and an onsite Operations Support Center (assembly area) in accordance with NUREG-0696, Revision 1. Article IV.E of 10 CFR 50, Appendix E requires that adequate provisions are made and described for emergency facilities and equipment. Item 8 of article IV.E requires, "A licensee onsite technical support center and a licensee near-site emergency operations facility from which effective direction can be given and effective control can be exercised during an emergency."

TRO

The TSC Diesel Generator and TSC Plant Computer Battery must be FUNCTIONAL to provide backup power to the TSC facility if loss of the primary TSC power source occurs.

APPLICABILITY

The TSC Diesel Generator and TSC Plant Computer UPS are required to be FUNCTIONAL at all times.

BASES

ACTIONS A.1

A NON-FUNCTIONAL TSC Diesel Generator or TSC Plant Computer UPS does not constitute a major loss of emergency assessment capability, and does not require notifying the NRC Operations Center via the Emergency Notification System in accordance with 10CFR50.72 (b)(1)(v). As noted in NUREG-0696, the TSC is one of the facilities that make up the total emergency response facilities (ERFs). Code of Federal Regulations 10CFR50.72 (b)(3)(xiii) requires an eight hour report for any event that results in a major loss of emergency assessment capability, or communications capability (e.g., significant portion of control room indication, Emergency Notification System, or offsite notification system). There is no corresponding Part 50.73 requirement. Therefore, no Licensee Event Report is required.

B.1

Operations tracks equipment FUNCTIONALITY and action statements. When Condition B is entered, a CR must be written and a CA issued to evaluate return to FUNCTIONALITY. The 7 day completion time was chosen because it is assumed that for the first 6 days, efforts were concentrated on returning the equipment to FUNCTIONAL. Seven additional days is sufficient time to issue the CR and CA. At the end of the additional seven days, the availability goal for the TSC data system has been exceeded by two times. The CA should address the impact that the NON-FUNCTIONAL condition has had upon the availability goal.

SURVEILLANCE REQUIREMENTS TRS 3.8.C.1

A check of battery bank float voltage, cell electrolyte level, and battery physical condition is performed to ensure overall battery condition is adequate to support the TSC Diesel Generator. This program is implemented in accordance with PT-M67. Battery Bank voltage $\geq$ 24 VDC Electrolyte level Between Min & Max Physical Condition Satisfactory.

TRS 3.8.C.2

The TSC Diesel Generator is started and run unloaded for a minimum time to inspect diesel systems to ensure engine will start for availability. This requirement is implemented in accordance with PT-M67.

BASES

SURVEILLANCE REQUIREMENTS (continued)

TRS 3.8.C.3

The TSC Diesel Generator is started and run under load to verify generator operation and output breaker operation. This requirement is implemented in accordance with 2-PT-A046.

TRS 3.8.C.4

≥2500 Gallons of Fuel Oil in Ignition Tank #11 is reserved for the TSC Diesel Operation. This TRS is satisfied by the Operator rover rounds which verifies there is > 4250 gallons of fuel oil in ignition tank #11, 2500 gallons of which is reserved for operation of the TSC diesel for 48 hours. The 48 hrs. of operating time that 2500 gallons of fuel affords is sufficient time to bring in an alternate supply of fuel oil by tanker truck as required ref. SOP 29.19.

REFERENCES

1. NUREG-0696, "Functional Criteria for Emergency Response Facilities," Published February 1981.

2. NUREG-0654, "Criteria for Preparation and Evaluation of Radiological Emergency Response Plans and Preparedness in Support of Nuclear Power Plants."

3. Code of Federal Regulations 10 CFR 50, Appendix E, "Emergency Planning and Preparedness for Production and Utilization Facilities."

4. NUREG-1022, "Event Reporting Guidelines 10 CFR 50.72 and 50.73."

3.9 SPENT FUEL PIT OPERATIONS

3.9.C Fuel Storage and Operations With Irradiated Fuel in the Spent Fuel Pit

TRO 3.9.C Spent Fuel Pit water level shall be ≥ 23 ft over the top of irradiated fuel assemblies seated in the storage racks.

APPLICABILITY: Anytime the spent fuel pit contains irradiated fuel.

ACTIONS

CONDITION	REQUIRED ACTION		COMPLETION TIME
A. Spent fuel water level less than required.	A.1	Suspend all movement of fuel assemblies in the spent fuel storage pit.	Immediately
	AND		
	A.2	Suspend crane operations with loads over the spent fuel in the spent fuel pit.	Immediately
	AND		
	A.3	Restore water level to within limit.	4 hours

SURVEILLANCE REQUIREMENTS

SURVEILLANCE		FREQUENCY
TRS 3.9.C.1	Verify spent fuel pit level ≥ 23 ft above the top of irradiated fuel.	30 days

3.9 SPENT FUEL PIT OPERATIONS

B 3.9.C Fuel Storage and Operations With Irradiated Fuel in the Spent Fuel Pit

BASES

The spent fuel cask shall only be moved over the spent fuel pit using the Ederer 110 ton single failure proof gantry crane approved by the NRC under License Amendment #224. Any load in excess of the nominal weight of a spent fuel storage rack and associated handling tool shall not be moved on or above El. 95' in the Fuel Storage Building unless handled by the single failure proof 110 ton gantry crane. Loads in excess of the nominal weight of a fuel and control rod assembly and associated handling tool shall not be moved over spent fuel in the spent fuel pit. The weight of installed crane systems shall not be considered part of these loads.

SURVEILLANCE REQUIREMENTS

TRS 3.9.C.1

Verifying spent fuel pit level every 30 days is acceptable based on observation of the Control Room annunciators. The spent fuel pit Control Room alarm is set greater than 24 feet above the top of the fuel assemblies. Therefore, the absence of the alarm provides assurance the spent fuel pit level is adequate, and the additional foot of level provides time to increase level to meet the 23 feet requirement.

3.9 SPENT FUEL PIT OPERATIONS

3.9.D Operations In The Spent Fuel Storage Area

TRO 3.9.D The spent fuel bridge refueling crane shall be FUNCTIONAL.

APPLICABILITY: When fuel or heavy loads are being moved in the spent fuel storage area.

ACTIONS

CONDITION	REQUIRED ACTION	COMPLETION TIME
A. The spent fuel bridge refueling crane is NON-FUNCTIONAL.	--- **- NOTE -** Suspension of operations shall not preclude completion of movement of components to a safe conservative position. --- A.1 Suspend all operations.	Immediately

SURVEILLANCE REQUIREMENTS

SURVEILLANCE		FREQUENCY
TRS 3.9.D.1	Perform dead-load test with a load equal to or greater than the maximum load to be assumed, on the spent fuel pit bridge refueling crane.	Once prior to movement of fuel or heavy loads.
TRS 3.9.D.2	--- **- NOTE -** To be performed after TRS 3.9.D.1 is complete. --- Visually inspect the spent fuel pit bridge refueling crane.	Once prior to movement of fuel or heavy loads.

3.9 SPENT FUEL PIT OPERATIONS

B 3.9.D Operations In The Spent Fuel Storage Area

BASES

SURVEILLANCE REQUIREMENTS

TRS 3.9.D.1

The load assumed by the refueling crane for this test must be equal to or greater then the maximum load to be assumed by the crane during the refueling operation.

3.9 SPENT FUEL PIT OPERATIONS

3.9.E Ederer Gantry Crane

TRO 3.9.E The 110 ton Ederer Gantry Crane shall be FUNCTIONAL.

APPLICABILITY: When moving spent fuel casks up to 110 tons into and out of the spent fuel pit in the fuel storage building.

ACTIONS

CONDITION	REQUIRED ACTION	COMPLETION TIME
A. 110 ton Ederer gantry crane is NON-FUNCTIONAL	A.1 NO dry cask storage cask handling can proceed.	Immediately

SURVEILLANCE REQUIREMENTS

SURVEILLANCE	FREQUENCY
TRS 3.9.E.1 Perform maintenance, testing and inspection activities in accordance with Chapter 2-2 of ANSI B30.2-1976.	As required by the ANSI Standard modified by NUREG 612 Section 5.1.1(6).

3.9 SPENT FUEL PIT OPERATIONS

B 3.9.E Ederer Gantry Crane

BASES

BACKGROUND

License Amendment #244 allowed the use of a new single-failure-proof crane for moving spent fuel casks up to 110 tons in weight (when fully loaded with fuel) into and out of the spent fuel pit. These are to allow transfer of spent fuel to the independent spent fuel storage installation (ISFSI). The Holtec HI-STORM® 100 cask system has been selected for use at the ISFSI. The HI-STORM® cask system utilizes the HI-TRAC®100 transfer cask for transporting a multi-purpose canister (MPC) from the spent fuel pit, and for inter-cask MPC transfers required for on-site storage.

The amendment allows the use of the 110-ton design rated gantry crane to move spent fuel casks up to 110 tons into and out of the spent fuel pit by lifting a fully loaded Holtec HI-TRAC® 100 spent fuel transfer cask and its associated components. The existing 40-ton non-single-failure-proof overhead crane, located in the IP2 fuel storage building (FSB), does not have the capacity to handle the HI-TRAC® 100 transfer cask and its associated components, but will remain in place after the installation of the new crane. However, this crane is restricted from handling casks over spent fuel in the spent fuel pit and will only be utilized for other loading activities in the FSB.

The gantry crane main hoist has a capacity of 110 tons maximum critical load (MCL) to handle the HI-TRAC100®transfer cask, while an auxiliary hoist rated at 45 tons MCL will be used to handle ancillary components associated with the HI-STORM® 100 cask system. The crane will not be inadvertently used for unintended purposes (e.g. lifting fuel elements from the spent fuel racks.) The new gantry crane was specifically designed to handle the Holtec HI-TRAC® 100D and MPC-32, and both the 110-ton and the 45-ton hoists were designed to mate only with the HI-TRAC® trunnions and MPC lift cleats, respectively.

TRO

The Ederer Gantry Crane is FUNCTIONAL when the licensing bases are met. The Ederer Crane will only be moved on safe load paths. Gantry crane operating procedures utilized for cask and cask component lifts will be prepared to include: the steps and proper sequence to be followed in handling the load; defining the safe load path; and other precautions. A specific cask loading and handling procedure will provide additional details for controlled movement during cask handling operations. Crane operators will receive

BASES
TRO (continued)

training that includes provisions of Chapter 2-3 of American National Standards Institute (ANSI) standard B30.2-1976. In addition, completion of a crane specific on-the-job training qualification card is required.

ACTIONS

Before any heavy load is lifted the Ederer Crane should be FUNCTIONAL. If at any time the crane becomes NON-FUNCTIONAL, the lifting should cease immediately after the load is in a safe condition.

SURVEILLANCE

TRS 3.9.E.1

Performance of maintenance, testing and inspection activities in accordance with Chapter 2-2 of ANSI B30.2-1976 assures that the Ederer crane maintains the required capability and level of safety. NUREG-0612 Section 6.1.1(6) requires that test and inspections be performed prior to use where it is not practical to meet the frequencies of ANSI B30.2 for periodic inspection or test or where frequency of crane use is less than the specified inspection and test frequency (e.g., the polar crane inside a PWR containment may only be used every 12 to 18 months during refueling operations, and is generally not accessible during power operations. ANSI B30.2, however, calls for certain inspections to be performed daily or monthly. For such cranes having limited usage, the inspections, test, and maintenance should only be performed prior to their use.)

3.10 BEYOND DESIGN BASES COMPONENTS

3.10.A Diverse and Flexible Coping Strategies (FLEX) Equipment

TRO 3.10.A The FLEX equipment specified in TRM Table 3.10.A-1 shall be FUNCTIONAL:

APPLICABILITY: At all times.

ACTIONS

CONDITION	REQUIRED ACTION	COMPLETION TIME
A. FLEX component specified in TRM Table 3.10.A-1 does not meet the Column 2 FUNCTIONAL requirements.	A.1 Restore the FLEX component to Column 2 FUNCTIONAL status AND A.2 If not restored within 15 days, present a report to OSRC giving why out of service and plan to repair	90 days 14 days
B. Action A.1 completion time not met. <u>OR</u> FLEX component specified in TRM Table 3.10.A-1 does not meet the Column 2 FUNCTIONAL requirements during a forecast site specific external event.	B.1 Initiate actions to supplement the FLEX component with alternate suitable equipment	Immediately
C. FLEX component specified in TRM Table 3.10.A-1 does not meet the Column 1 FUNCTIONAL requirements.	C.1 Restore site FLEX capability to Column 1 FUNCTIONAL status	24 hours
D. Required Action and associated Completion Time of Condition C not met	D.1 Initiate actions to Implement compensatory measures	Immediately

SURVEILLANCE REQUIREMENTS

SURVEILLANCE	FREQUENCY
Not Controlled per TRM	

TRM Table 3.10.A-1

FLEX EQUIPMENT THAT DIRECTLY PERFORMS A FLEX MITIGATION STRATEGY FOR THE KEY SAFETY FUNCTIONS

COMPONENT	NUMBER REQUIRED TO SUPPORT FLEX STRATEGIES (Column 1)	NUMBER TO MEET FLEX SPARE REQUIREMENTS (Column 2)
SFP Makeup Pump (FLEX-P-2C / FLEX-P-2B)	1	2

3.10 BEYOND DESIGN BASES COMPONENTS

B 3.10.A Diverse and Flexible Coping Strategies (FLEX) Equipment

BASES

BACKGROUND

NRC Order EA-12-049, "Issuance of Order to Modify Licenses with Regard to Requirements for Mitigation Strategies for beyond-Design-Basis External Events," required plants to provide mitigating strategies and associated equipment for an extended loss of power following design basis events or conditions. This was in partial response to the March 2011 Fukushima accident. NRC endorsed NEI 12-06, "Diverse and Flexible Coping Strategies (FLEX) Implementation Guide" as an acceptable approach for satisfying the requirements of Order EA-12-049. TRM Section 3.10.A directly implements the requirements contained in Section 11.5 of NEI 12-05 for portions of the FLEX equipment listed in Table 3.10.A-1.

Letter NL-19-073 to the NRC requested relaxation of requirements of Order EA-12-049 that were imposed on IP2 to maintain or restore core cooling and containment capabilities following a BDEE. The removal of these requirements became effective on May 20, 2020 when the NRC withdrew Order EA-12-049 (RA-20-050)

TRO

The equipment to meet Column 2 requirements are required to be FUNCTIONAL at all times to assure redundancy of function. This meets the FLEX N+1 requirements with spare (+1) equipment which is shared with IP3 (i.e., one spare component meets the +1 requirement for both units). Loss of any piece of equipment would be treated as loss of the spare equipment (neither unit would meet N+1) and would require both units to enter an action. The connection to the CST is a spool piece. Required actions would meet the requirements for both units.

APPLICABILITY

A beyond design basis event could occur regardless of specified condition and there will be a need for the equipment as defined in procedures.

BASES

ACTIONS

The Conditions, Required Actions, and Completion Times are in accordance with Section 11.5 of NEI 12-06. Potential compensatory measures which may be considered include use of suitable alternate equipment rented from offsite. When installed facility equipment which supports FLEX strategies becomes unavailable, then the FLEX strategy affected by this unavailability does not need to be maintained during the unavailability. However, if the FLEX strategy uses specific FLEX equipment, then TRM Conditions for that equipment needs to be entered since the support function is lost.

A.1 and A.2

The equipment to meet Column 2 FUNCTIONAL requirements can be out of service for up to 90 days provided the redundant equipment is FUNCTIONAL. An additional action is added to report to OSRC in two weeks if corrective action is not completed within 15 days. This provides added management of oversight of the restoration process.

B.1

Compensatory actions must be taken if the equipment to meet Column 2 FUNCTIONAL requirements is not expected to be restored or is not restored within 90 days. Action is required to be initiated immediately since adequate time exists to determine the scope of the compensatory action and completion should be practical within a limited time. If the potential for a site-specific external event is identified, action should be initiated to restore redundancy immediately.

C.1

If the equipment to meet Column 1 FUNCTIONAL requirements become non-functioning then initiate actions to restore one of the redundant pieces of equipment within 24 hours.

D.1

If the equipment to meet Column 1 FUNCTIONAL requirements cannot be restored in 24 hours after the redundant components become non-functioning, then initiate actions immediately to implement compensatory actions. The completion of this activity should reflect the need to quickly restore the function.

BASES

SURVEILLANCE REQUIREMENTS

In accordance with NEI 12-06, Section 11.5 Periodic testing and frequency should be determined based on equipment type and expected use. Testing should be done to verify design requirements and/or basis. The basis should be documented and deviations from vendor recommendations and applicable standards should be justified. This activity is not controlled by the TRM.

3.10 BEYOND DESIGN BASES COMPONENTS

3.10.B FLEX Fluid Connections

TRO 3.10.B The FLEX Fluid Connection Components Required to Implement the FLEX Strategy when the FLEX Equipment is connected at the point specified in TRM Table 3.10.B-1 shall be FUNCTIONAL:

APPLICABILITY: At all times.

----------NOTE----------
Separate Condition entry is allowed for each component.

ACTIONS

CONDITION	REQUIRED ACTION	COMPLETION TIME
A. The Primary OR Secondary Connection Point or one or more Safety Functions / FLEX components specified in TRM Table 3.10.B-1 is not FUNCTIONAL.	A.1 Restore the FLEX Connection Point to FUNCTIONAL status. AND A.2 If not restored within 15 days, present a report to OSRC giving why out of service and plan to repair	90 days 14 days
B. Action A.1 completion time not met. <u>OR</u> One or more FLEX connection components specified in TRM Table 3.10.B-1 is not FUNCTIONAL during a forecast site specific external event.	B.1 Initiate actions to supplement the FLEX Connection Point with an additional Connection Point that meets the requirements of NEI 12-06 including diversity.	Immediately
C. The Primary and Secondary Connection Points for one or more Safety Functions/FLEX components specified in TRM Table 3.10.B-1 are not FUNCTIONAL.	C.1 Initiate actions to restore site FLEX capability	24 hours

ACTIONS (continued)

CONDITION	REQUIRED ACTION	COMPLETION TIME
D. Required Action and associated Completion Time of Condition C not met	D.1 Initiate action to implement compensatory measures	Immediately

SURVEILLANCE REQUIREMENTS

SURVEILLANCE	FREQUENCY
Not Controlled per TRM	

TRM Table 3.10.B-1

FLEX CONNECTIONS THAT DIRECTLY PERFORM A FLEX MITIGATION STRATEGY FOR THE KEY SAFETY FUNCTIONS

SAFETY FUNCTION/FLEX COMPONENT	PRIMARY CONNECTION POINT	SECONDARY CONNECTION POINT
Maintain RCS Inventory Control / RCS Inventory Makeup Pump Suction(1)	RWST FLEX Connections	Unit 3 RWST FLEX Connections
Maintain SFP Cooling / SFP Makeup Pump Suction	RWST FLEX Connections	CST FLEX Connections
Maintain SFP Cooling / SFP Makeup Pump Discharge	SFPC-1	5” SFP FLEX Connection

(1) FLEX Connection FUNTIONALITY is NOT required if IP3 reactor pressure vessel is defueled.

3.10 BEYOND DESIGN BASES COMPONENTS

B 3.10.B FLEX Fluid Connections

BASES

BACKGROUND

NRC Order EA-12-049, “Issuance of Order to Modify Licenses with Regard to Requirements for Mitigation Strategies for beyond-Design-Basis External Events,” required plants to provide mitigating strategies and associated equipment for an extended loss of power following design basis events or conditions. This was in partial response to the March 2011 Fukushima accident. NRC endorsed NEI 12-06, “Diverse and Flexible Coping Strategies (FLEX) Implementation Guide” as an acceptable approach for satisfying the requirements of Order EA-12-049. TRM Section 3.10.B directly implements the requirements contained in Section 11.5 of NEI 12-05 for portions of the FLEX equipment connections listed in Table 3.10.B-1.

Letter NL-19-073 to the NRC requested relaxation of requirements of Order EA-12-049 that were imposed on IP2 to maintain or restore core cooling and containment capabilities following a BDEE. The removal of these requirements became effective on May 20, 2020 when the NRC withdrew Order EA-12-049 (RA-20-050).

TRO

The equipment and primary and secondary equipment connections in Table 3.10.B-1 are required to be FUNCTIONAL at all times to assure redundancy of function.

APPLICABILITY

A beyond design basis event could occur regardless of specified condition and there will be a need for the equipment as defined in procedures.

ACTIONS

The Conditions, Required Actions, and Completion Times are in accordance with Section 11.5 of NEI 12-06. When installed facility equipment which supports FLEX strategies becomes unavailable, then the FLEX strategy affected by this unavailability does not need to be maintained during the unavailability. However, if the FLEX strategy uses specific FLEX equipment, then TRM Conditions for that equipment needs to be entered since the support function is lost.

BASES

ACTIONS (continued)

A.1 and A.2

The primary or secondary equipment connections can be out of service for up to 90 days provided the redundant equipment is FUNCTIONAL. An additional action is added to report to OSRC in 14 days if corrective action is not completed within 15 days. This provides added management of oversight of the restoration process.

B.1

Compensatory actions must be taken if the required equipment connection is not expected to be restored or is not restored within 90 days. Action is required to be initiated immediately since adequate time exists to determine the scope of the compensatory action and completion should be practical within a limited time. If the potential for a site specific external event is identified, action should be initiated to restore redundancy immediately.

C.1

If both primary and secondary connections become non-functioning then initiate actions to restore one of the connections within 24 hours.

D.1

If one connection cannot be restored in 24 hours after both connections become non-functioning, then initiate actions immediately to implement compensatory actions. The completion of this activity should reflect the need to quickly restore the function.

SURVEILLANCE REQUIREMENTS

In accordance with NEI 12-06, Section 11.5 Periodic testing and frequency should be determined based on equipment type and expected use. Testing should be done to verify design requirements and/or basis. The basis should be documented and deviations from vendor recommendations and applicable standards should be justified. This activity is not controlled by the TRM. Failed surveillances render components NON-FUNCTIONAL.

3.10 BEYOND DESIGN BASES COMPONENTS

3.10.C Spent Fuel Pool Level Instrumentation

TRO 3.10.C The primary and back-up spent fuel pool level instruments shall be FUNCTIONAL.

APPLICABILITY: At all times.

ACTIONS

CONDITION	REQUIRED ACTION	COMPLETION TIME
A. The primary OR back-up spent fuel pool level instrument does not meet the FUNCTIONAL requirements.	A. Restore spent fuel pool level instrument to FUNCTIONAL status	14 days
B. Action A. completion time not met.	B. Present a report to OSRC on why out of service with plan to repair and plans for compensatory measures	14 days
C. The primary OR back-up spent fuel pool level instrument does not meet the FUNCTIONAL requirements.	C. Initiate actions to implement compensatory measures such as use of alternate suitable equipment or supplemental personnel	90 days
D. The primary AND back-up spent fuel pool level instruments do not meet the FUNCTIONAL requirements.	D. Restore one of the channels of instrumentation.	24 hours
E. Required Action and associated Completion Time of Condition D not met	E. Initiate actions to Implement compensatory measures such as use of alternate suitable equipment or supplemental personnel	Immediately

SURVEILLANCE REQUIREMENTS

SURVEILLANCE	FREQUENCY
TRS 3.10.C.1 Perform a CHANNEL CHECK	Quarterly

3.10 BEYOND DESIGN BASES COMPONENTS

B 3.10.C Spent Fuel Pool Level Instrumentation

BASES

BACKGROUND

NRC Order EA-12-051, “Issuance of Order to Modify Licenses with regard to Reliable Spent Fuel Pool Instrumentation,” required plants to provide reliable SFP instrumentation in partial response to the March 2011 Fukushima accident. NRC interim staff guidance JLD-ISG-2012-03 endorsed NEI 12-02, “Industry Guidance for Compliance with NRC Order EA-12-051,” as an acceptable approach for satisfying the requirements of Order EA-12-051. TRM Section 3.10.C directly implements the requirements contained in Section 4.3 of NEI 12-02. Primary and backup SFP level instruments (LI-6500-A and LI-6500-B) have been installed which output in the Fan Room. The level instruments aid in the monitoring and maintenance of SFP level to support operation of the SFP cooling system, provide radiation shielding for personnel on the SFP operating deck, and to ensure the fuel remains covered.

The instruments are powered as follows:

- Channel A 120 VAC from Distribution Panel 1, Circuit 6 .
- Channel B 120 VAC from Distribution Panel 2, Circuit 6 .
- Local backup battery power is provided for both level instruments.

TRO

Both primary and backup SFP level instruments are required to be FUNCTIONAL at all times to assure redundancy of function. Function is when they provide an accurate indication of spent fuel pool level.

APPLICABILITY

A beyond design basis event could occur at any time. There will be spent fuel in the spent fuel pool at all times. Beyond design basis events (seismic, flood, tornado) have been identified by NRC to date and other events may be evaluated, if identified and required as part of regulatory requirements.

BASES

ACTIONS

The Conditions, Required Actions, and Completion Times are in accordance with Section 4.3 of NEI 12-02. Potential compensatory measures which may be considered include use of suitable alternate equipment or supplemental personnel stationed at the SFP.

A.

The primary or back-up instrument channel can be not FUNCTIONAL, including out of service for testing, maintenance and/or calibration, for up to 14 days provided the other channel is FUNCTIONAL. An additional action is added to report to OSRC if corrective action is not completed within two weeks. This provides added management of oversight of the restoration process.

B.

An action is added to report to OSRC if corrective action A is not completed within two weeks. Two weeks is provided to make this report which provides management of oversight of the restoration process and any expectations of corrective actions.

C.

This condition is entered when Condition A is entered. It initiates immediate action requirements if the primary or backup instrument channel is not repaired. Compensatory actions must be taken if the instrumentation channel is not expected to be restored or is not restored within 90 days. Action is required immediately since adequate time exists to determine the scope of the compensatory action.

D.

If both channels become non-functioning then initiate actions to restore one of the channels of instrumentation within 24 hours.

E.

If either channel cannot be restored in 24 hours after both channels become non-functioning, then initiate actions immediately to implement compensatory actions (e.g., use of alternate suitable equipment or supplemental personnel). The completion of this activity should reflect the need to quickly restore the function.

BASES

SURVEILLANCE REQUIREMENTS

In accordance with NEI 12-02, Section 4.3 processes shall be established and maintained for scheduling and implementing necessary testing and calibration of the primary and backup SFP level instrument channels to maintain the instrument channels at the design accuracy. The testing and calibration of the instrumentation shall be consistent with vendor recommendations or other documented basis. Calibration shall be specific to the mounted instrument and the monitor.

TRS 3.10.1.1

A CHANNEL CHECK shall be performed by verifying that redundant instrument channels are reading consistently and that these levels are consistent with in the reading on the ruler on the side of the Spent Fuel Pool that will indicate where the level is. The check will also verify that there is a blinking green light that indicates the unit is calibrating.

Since the Channel Check verifies that the instrument is reading correctly and that it continues to self-calibrate, there is no TRM requirement for calibration surveillance.

3.11 B.5.b MITIGATING STRATEGIES

3.11.A B.5.b Equipment

TRO 3.11.A The B.5.b equipment specified in TRM Table 3.11.A-1 shall be FUNCTIONAL.

APPLICABILITY: At all times.

ACTIONS

CONDITION	REQUIRED ACTION	COMPLETION TIME
A. B.5.b component specified in TRM Table 3.11.A-1 does not meet the Column 2 FUNCTIONAL requirements.	A.1 Ensure B.5.b component specified in TRM Table 3.11.A-1 Column 1 staged at Primary B.5.b location AND A.2 Restore the B.5.b component to Column 2 FUNCTIONAL status AND A.3 If not restored within 15 days, present a report to OSRC giving why out of service and plan to repair	Immediately 90 days 14 days
B. B.5.b component specified in TRM Table 3.11.A-1 does not meet the Column 1 FUNCTIONAL requirements.	B.1 Restore site B.5.b capability to Column 1 FUNCTIONAL status	24 hours
C. B.5.b component specified in TRM Table 3.11.A-1 does not meet the Column 1 FUNCTIONAL requirements during a forecast site specific external event.	C.1 Initiate actions to supplement the B.5.b component with alternate suitable equipment	Immediately

ACTIONS (Continued

CONDITION	REQUIRED ACTION	COMPLETION TIME
D. Required Action and associated Completion Time of Condition B not met	D.1 Initiate actions to Implement compensatory measures	Immediately

SURVEILLANCE REQUIREMENTS

SURVEILLANCE	FREQUENCY
Not Controlled per TRM	

TRM Table 3.11.A-1

B.5.b EQUIPMENT THAT DIRECTLY PERFORMS A B.5.b MITIGATION STRATEGY FOR THE KEY SAFETY FUNCTIONS

COMPONENT	NUMBER REQUIRED TO SUPPORT B.5.b STRATEGIES (Column 1)	NUMBER TO MEET B.5.b SPARE REQUIREMENTS (Column 2)
Diesel-Driven Pump w/ Battery and Trailer	1	2

BASES

3.11 B.5.b MITIGATING STRATEGIES

B 3.11.A B.5.b Equipment

BASES

BACKGROUND As a result of the terrorist events of September 11, 2001, the NRC issued EA-02-026, "Order for Interim Safeguards and Security Compensatory Measures" (the ICM Order) dated February 25, 2002. The ICM Order, which is designated as Safeguards Information (SGI), modified then-operating licenses for commercial power reactor facilities to require compliance with specified interim safeguards and security compensatory measures. Section B.5.b of the ICM Order requires licensees to adopt mitigation strategies using readily available resources to maintain or restore core cooling, containment, and SFP cooling capabilities to cope with the loss of large areas of the facility due to large fires and explosions from any cause, including beyond-design-basis aircraft impacts.

Events at the Fukushima – Daiichi Nuclear Power Station following the March 11, 2011, earthquake and tsunami highlight the potential importance of B.5.b mitigating strategies in responding to beyond design basis events.

TRO The existing guidance on the implementation of the strategies, which was adopted by all licensees to meet the regulatory requirements for mitigating strategies, does not describe in detail the practices necessary for maintenance and testing of the B.5.b equipment. In accordance with NEI 06-12 guidelines for FLEX equipment, B.5.b equipment associated with external mitigation strategies shall meet standard industry practices for procuring and maintaining commercial equipment. For a multiple unit site, B.5.b assumes only one unit is affected by the event. The equipment to meet Column 2 requirements are required to be FUNCTIONAL at all times to assure redundancy of function. An additional spare diesel-driven pump is maintained in order to ensure continuity should one pump become unavailable.

APPLICABILITY A B.5.b event could occur regardless of specified condition and there will be a need for the equipment as defined in procedures.

ACTIONS

The Conditions, Required Actions, and Completion Times are in accordance with the guidelines discussed in Section 11.5 of NEI 12-06 for FLEX equipment. Potential compensatory measures which may be considered include use of suitable FLEX equipment or alternate equipment rented from offsite.

A.1, A.2 and A.3

The equipment to meet Column 2 FUNCTIONAL requirements can be out of service for up to 90 days provided the redundant equipment is FUNCTIONAL and immediately staged at the Primary B.5.b location. The requirement to move the redundant pump to the Primary B.5.b location is to ensure that it is located outside the potential impact zone and will be available during the event. An additional action is added to report to OSRC in two weeks if corrective action is not completed within 15 days. This provides added management of oversight of the restoration process.

B.1

If the equipment to meet Column 1 FUNCTIONAL requirements becomes non-functioning then initiate actions to restore one of the redundant pieces of equipment within 24 hours. Compensatory actions must be taken if the equipment to meet Column 1 FUNCTIONAL requirements is not expected to be restored or is not restored within 24 hours. Action is required to be initiated immediately since adequate time exists to determine the scope of the compensatory action and completion should be practical within a limited time.

C.1

If the equipment to meet Column 1 FUNCTIONAL requirements becomes non-functioning and potential for a site specific external event is identified, action should be initiated immediately to supplement the equipment with alternate suitable equipment.

D.1

If the equipment to meet Column 1 FUNCTIONAL requirements cannot be restored in 24 hours after the redundant components become non-functioning, then initiate actions immediately to implement compensatory actions. The completion of this activity should reflect the need to quickly restore the function.

BASES

SURVEILLANCE REQUIREMENTS

Periodic testing and frequency should be determined based on equipment type and expected use. Testing should be done to verify design requirements and/or basis. The basis should be documented and deviations from vendor recommendations and applicable standards should be justified. This activity is not controlled by the TRM.

5.0 ADMINISTRATIVE CONTROLS

5.1 Responsibilities

5.1.A The Plant Manager or Decomm Director shall be responsible for overall facility operation in accordance with the Technical Requirements Manual.

5.1.B The Shift Manager shall be responsible for ensuring facility operations are in accordance with the Technical Requirements Manual.

Example: Technical Requirements for Operation (TRO) are met or Required Actions are met within associated Completion Time(s).

5.1.C Department Managers shall be responsible for ensuring work activities are performed in accordance with the Technical Requirements Manual.

Example: Technical Requirement Surveillance (TRS) are met, Technical Requirements for Operations (TRO) are met.

5.0 ADMINISTRATIVE CONTROLS

5.2 Not Used

5.0 ADMINISTRATIVE CONTROLS

5.3 Procedures

5.3.A Written procedures shall be established, implemented, and maintained covering the Technical Requirements Manual activities.

5.3.B Each procedure of Requirement 5.3.A, and changes thereto, shall be reviewed and approved in accordance with an approved process that meets the requirements of the IPEC Quality Assurance Program Manual (QAPM) prior to implementation.

5.0 ADMINISTRATIVE CONTROLS

5.4 Reporting Requirements

5.4.A Hurricane Alert

a. If the National Weather Service issues a Hurricane Warning for a hurricane with wind in excess of 87 knots (approximately 100 mph) within 500 nautical miles of the facility, a prompt report shall be made to the NRC Incident Response Center within 1 hour of receipt of that Hurricane Warning. This notification is in lieu of the reporting requirements of 10 CFR 50.73.

b. Not Used.

c. Upon receipt of Hurricane Warnings for the mid-Atlantic coast of the United States, reports issued by the National Weather Service and the National Hurricane Center shall be monitored at least every hour.

5.0 ADMINISTRATIVE CONTROLS

5.5 Programs

5.5.A Offsite Dose Calculation Manual (ODCM)

PURPOSE:

Technical Specification 5.5.1, “Offsite Dose Calculation Manual” contains the methodology and parameters used in the calculation of offsite doses resulting from radioactive gaseous and liquid effluents, in the calculation of gaseous and liquid effluent monitoring alarm and trip setpoints, and in the conduct of the radiological environmental monitoring program.

The ODCM shall also contain the radioactive effluent controls and radiological environmental monitoring activities, and descriptions of the information that should be included in the Annual Radiological Environmental Operating, and Radioactive Effluent Release Reports required by Technical Specification 5.6.2 and 5.6.3.

PROCEDURE SECTION:

The ODCM is implemented by the ODCM Part 2: Calculational Methodologies

REFERENCE:

Technical Specification 5.5.1, “Offsite Dose Calculation Manual (ODCM)”

5.5.B Not Used

5.5 Programs

5.5.C Radioactive Effluent Control Program

PURPOSE:

Technical Specification 5.5.3, “Radioactive Control Program” provides a program to conform with 10 CFR 50.36a for control of radioactive effluents and for maintaining doses to members of the public from radioactive effluents as low as reasonably achievable.

PROCEDURE SECTION:

The Radioactive Effluent Controls Program is implemented by the ODCM Part 1: “Radiological Effluent Controls.”

REFERENCE:

Technical Specification 5.5.3, “Radioactive Effluent Controls Program”

5.5.D through 5.5.I Not Used

5.5.J Explosive Gas and Storage Tank Radioactive Monitoring Program

PURPOSE:

This program provides controls for potentially explosive gas mixtures contained in the Waste Gas Holdup System, the quantity of radioactivity contained in gas storage tanks, and the quantity of radioactivity contained in unprotected outdoor liquid storage tanks. The gaseous radioactivity quantities shall be determined following the methodology in Branch Technical Position (BTP) ETSB 11-5, "Postulated Radioactive Release due to Waste Gas System Leak or Failure.” The liquid radwaste quantities shall be determined in accordance with Standard Review Plan, Section 15.7.3, "Postulated Radioactive Release due to Tank Failures."

PROCEDURE SECTION:

The Explosive Gas and Storage Tank Radioactivity Monitoring Program is implemented through the following procedures:

TRM, TRO 3.7B “Explosive Gas Monitoring”
ODCM, D 3.1.4 “Liquid Holdup Tanks”
ODCM, D 3.2.6 “Gas Storage Tanks”

5.5 Programs

5.5.J Explosive Gas and Storage Tank Radioactive Monitoring Program (continued)

REFERENCE:

Technical Specification 5.5.10, “Explosive Gas and Storage Tank Radioactivity Monitoring Program”

5.5.K Not Used

5.5.L Technical Specification (TS) Bases Control Program

PURPOSE:

Technical Specification 5.5.12, “Technical Specification (TS) Bases Control Program” provides a program to processing changes to the Bases of the Technical Specifications.

PROCEDURE SECTION:

The Technical Specification (TS) Bases Control Program is implemented by EN-LI-113, “Licensing Basis Document Change Process”.

REFERENCE:

Technical Specification 5.5.12, “Technical Specification (TS) Bases Control Program”

5.0 ADMINISTRATIVE CONTROLS

5.6 Record Retention

In addition to the applicable record retention requirements of Title 10, Code of Federal Regulations, the following records shall be retained for at least the minimum period indicated.

5.6.A The following records shall be retained for at least 5 years:

a. Records of changes made to the procedures required by Technical Requirements Manual.

b. Records and logs of principal maintenance activities, inspections, repair, and replacement of principal items of equipment related to Technical Requirements Manual.

c. Records of surveillance activities, inspections, and calibrations required by the Technical Requirements Manual.

5.6.B The following records shall be retained for the duration of the 10 CFR 50 Facility License:

a. Records of reviews performed for changes made to procedures or equipment or reviews of tests and experiments required by the Technical Requirements Manual and pursuant to 10 CFR 50.59.

b. Records of reviews and audits required by the Technical Requirements Manual.