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2CAN060303

June 30, 2003

U.S. Nuclear Regulatory Commission
Attn: Document Control Desk
Washington, DC 20555

SUBJECT: License Amendment Request
Revision of Section 6.0, Administrative Controls
Arkansas Nuclear One, Unit 2
Docket No. 50-368
License No. NPF-6

REFERENCES:

1. Letter dated January 31, 2002, License Amendment Request Revision of Section 6.0, Administrative Controls for Consistency with ANO-1 Improved Technical Specifications (2CAN010203)
2. Letter dated June 26, 2002, Revision of Section 6.0, Administrative Controls For Consistency with ANO-1 Improved Technical Specifications (2CAN060203)
3. Letter dated July 18, 2002, Supplement to Amendment Request to Revise Section 6.0, Administrative Controls (2CAN070204)

Dear Sir or Madam:

Pursuant to 10 CFR 50.90, Entergy Operations, Inc. (Entergy) hereby requests the following amendment for Arkansas Nuclear One, Unit 2 (ANO-2): 1) reorganization of the ANO-2 Technical Specifications (TS) Section 6.0, Administrative Controls; 2) modification of the actions and surveillance requirements (SRs) of various other TSs to support the reorganization of Section 6.0; 3) modification to several actions and SRs that are related to systems that are shared by ANO-2 and ANO, Unit 1 (ANO-1); and 4) changes to various TS bases as needed to support the above changes.

This letter supercedes the previous submittals related to the revision of TS Section 6.0 (References 1, 2, and 3). The license amendment request currently in review at the NRC for the extension of the ANO-2 Emergency Diesel Generator Allowable Outage Time affects pages in this submittal.

The proposed change has been evaluated in accordance with 10 CFR 50.91(a)(1) using criteria in 10 CFR 50.92(c) and it has been determined that this change involves no significant hazards considerations. The bases for these determinations are included in the attached submittal.

The proposed change includes new commitments as summarized in Attachment 4. The NRC has approved similar Technical Specification changes for Nine Mile Point Unit 1.

Entergy requests approval of the proposed amendment by October 15, 2003 in order to provide an implementation period between the ANO refueling outages. Once approved, the amendment shall be implemented within 120 days. Although this request is neither exigent nor emergency, your prompt review is requested.

If you have any questions or require additional information, please contact Dana Millar at 601-368-5445.

I declare under penalty of perjury that the foregoing is true and correct. Executed on June 30, 2003.

Sincerely,

CGA/dm

Attachments:
1. Analysis of Proposed Technical Specification Change
2. Proposed Technical Specification Changes (mark-up)
3. Changes to Technical Specification Bases Pages – For Information Only
4. List of Regulatory Commitments
5. Proposed Technical Specification Changes (clean pages)

cc: Mr. Thomas P. Gwynn
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Attachment 1

2CAN060303

Analysis of Proposed Technical Specification Change

1.0 DESCRIPTION

This letter is a request to amend Operating License NPF-6 for Arkansas Nuclear One, Unit 2 (ANO-2).

The proposed changes will revise Section 6.0, Administrative Controls, of the ANO-2 Technical Specifications (TSs). The revision to Section 6.0 requires changes to several other TSs as programs will be moved from their current TS (CTS) locations to the programs sub-section of Section 6.0. The changes are proposed so that the philosophy and location (i.e., logical order) of the specifications in Section 6.0 reflect the recently approved conversion of the Arkansas Nuclear One, Unit 1 (ANO-1) TSs to Improved Technical Specifications (ITS) and the subsequent amendments to the ANO-1 ITS. A discussion of the proposed change and of the differences between the proposed change and the ANO-1 ITS and NUREG-1432, *"Standard Technical Specifications Combustion Engineering"* is included.

Changes are also proposed to the specifications which address systems that are common to the ANO-1 and ANO-2 TSs, namely the control room ventilation system and the diesel generator fuel storage system. These changes are made to align the ANO-2 TSs with the ANO-1 ITS philosophy.

A format change to all the pages is also included, changing the font and margins. This change is considered editorial and will not be discussed.

The change in Section 6.0, only, will also result in the removal of the list of amendment numbers included at the bottom of each page. Since the proposed change will result in a significant reorganization of information, the current associations of the referenced amendment will no longer link to the information on the page. The header in Section 6.0 will include the title "Administrative Controls." This will be reflected in the clean pages only. These changes are considered editorial.

The proposed changes for each CTS requirement are separated into the following categories:

<u>Designator</u>	<u>Category</u>
A	ADMINISTRATIVE- Changes to the CTS that result in no additional or reduced restrictions or flexibility. These changes are supported in aggregate by a single No Significant Hazards Considerations (NSHC).
M	TECHNICAL CHANGES – MORE RESTRICTIVE – changes to the CTS that result in added restrictions or reduced flexibility. These changes are supported in aggregate by a single NSHC.
L	TECHNICAL CHANGES – LESS RESTRICTIVE – changes to the CTS that result in reduced restrictions or added flexibility. Each corresponding evaluation is supported by a corresponding evaluation supporting a finding of NSHC.
LA	TECHNICAL CHANGES – REMOVAL OF DETAILS – changes to the CTS that eliminate detail and relocate the detail to a licensee controlled document. Typically, this involves details of system design and function, or procedural detail on methods of conducting a surveillance. These changes are supported in aggregate by a single NSHC.

1.1 Facility Operating License (FOL) (FOL Pages 1, 2, and 6)

Discussion of Change

Editorial changes are proposed for the following errors identified in the FOL.

- Page 1, item E currently reads in part: "Entergy Operations, Inc. (EOI)* in technically and financially qualified…" The proposed change will revise the word "in" to "is."
- Page 2, item I currently references 70.23 as 70-23. The hyphen will be replaced with a period.
- Page 2, item 2 currently reads in part: "to read an follows:" The proposed change will replace the word "an" with the word "as."
- Page 2, item 2.A. the second sentence reads in part: "The facility is located in Pope County, Arkansas and in described…" The proposed change will replace the second use of the word "in" with "is."
- Page 6, the proposed change adds a close parenthesis to the end of item 3.15.

Administrative Changes

A1 The designated change represents a non-technical, non-intent change. Examples of this type of change include: wording preference; convention adoption; editorial, numbering and formatting changes; and hierarchy structure.

Technical Changes – More Restrictive

None

Technical Changes – Less Restrictive

None

Technical Changes – Removal of Details

None

Discussion of Differences

No comparison was made; this is a correction of typographical and/or grammatical errors.

1.2. Facility Operating License (FOL) 2.C.(3)(p), Secondary Water Chemistry Monitoring (FOL Page 7)

Discussion of Change

This FOL condition will be deleted and an equivalent programmatic requirement will be added as proposed TS (PTS) 6.5.10. The requirements of the condition will be retained with only minor non-technical administrative changes. The details of the proposed changes to this requirement are included later under the discussions of changes related to PTS 6.5.10.

Additionally, the page number is re-formatted and moved to the top of the page for consistency with the remaining FOL pages.

Administrative Changes

A1 The designated change represents a non-technical, non-intent change. Examples of this type of change include: wording preference; convention adoption; editorial, numbering and formatting changes; and hierarchy structure.

A3 The Secondary Water Chemistry Monitoring, Primary Coolant Sources Outside Containment, and Iodine Monitoring license conditions will be moved to equivalent programmatic requirements in PTS Section 6.5, Programs and Manuals. The PTS programmatic administrative controls specification is consistent with NUREG-1432 and current plant practice, and meets the intent of the existing license conditions. As such, this change in presentation of existing requirements is purely administrative.

Technical Changes – More Restrictive

None

Technical Changes – Less Restrictive

None

Technical Changes – Removal of Details

None

Discussion of Differences

ANO-1 Comparison

The proposed change is consistent with ANO-1 Specification 5.5.10.

NUREG-1432 Comparison

The relocation of this FOL condition to PTS 6.5.10 is consistent with the location of the program in NUREG-1432. The discussion of differences between the PTS 6.5.10 and the NUREG-1432 specification 5.5.10 are included in a section that follows.

1.3 FOL 2.C.(5), Program to Reduce Leakage From Systems Outside Containment (FOL Page 8)

Discussion of Changes

License condition 2.C.(5) will be deleted and an equivalent programmatic requirement will be added as PTS 6.5.2. A detailed discussion of the differences between the FOL and PTS 6.5.2 are contained in a later section.

Administrative Changes

A1 The designated change represents a non-technical, non-intent change. Examples of this type of change include: wording preference; convention adoption; editorial, numbering and formatting changes; and hierarchy structure.

A3 The Secondary Water Chemistry Monitoring, Primary Coolant Sources Outside Containment, and Iodine Monitoring license conditions will be moved to equivalent programmatic requirements in PTS Section 6.5, Programs and Manuals. The PTS programmatic administrative controls specification is consistent with NUREG-1432 and current plant practice, and meets the intent of the existing license conditions. As such, this change in presentation of existing requirements is purely administrative.

Technical Changes – More Restrictive

None

Technical Changes – Less Restrictive

None

Technical Changes – Removal of Details

None

Discussion of Differences

ANO-1 Comparison

The proposed change is consistent with the ANO-1 TS.

NUREG-1432 Comparison

The relocation of the license condition to specification 6.5.2 is consistent with the location of the requirement in NUREG-1432. The discussion of the differences of the proposed TS 6.5.2 is included in a later section of this letter.

1.4 FOL 2.C.(6), Program to Determine Airborne Iodine Concentration in Vital Areas under Accident Conditions and 2.D, Physical Protection. (FOL Page 8)

Discussion of Changes

License condition 2.C.(6) will be deleted and an equivalent programmatic requirement will be added as PTS 6.5.3.

A minor editorial change is proposed to item (D) Physical Protection; it should be designated as item D. without the parenthesis to be consistent with the format in the rest of the license.

Administrative Changes

A1 The designated change represents a non-technical, non-intent change. Examples of this type of change include: wording preference; convention adoption; editorial, numbering and formatting changes; and hierarchy structure.

A3 The Secondary Water Chemistry Monitoring, Primary Coolant Sources Outside Containment, and Iodine Monitoring license conditions will be moved to equivalent programmatic requirements in PTS Section 6.5, Programs and Manuals. The PTS programmatic administrative controls specification is consistent with NUREG-1432 and current plant practice, and meets the intent of the existing license conditions. As such, this change in presentation of existing requirements is purely administrative.

Technical Changes – More Restrictive

None

Technical Changes – Less Restrictive

None

Technical Changes – Removal of Details

None

Discussion of Differences

ANO-1 Comparison

The proposed change is consistent with ANO-1 ITS 5.5.3.

NUREG-1432 Comparison

The relocation of the license condition to specification 6.5.3 is consistent with the location of the requirement in NUREG-1432. The discussion of the differences of the proposed TS 6.5.3 is included in a later section of this letter.

1.5 Index Pages (Various)

Discussion of Changes

A review of the entire index was performed to update it with the correct titles and page numbers. The following changes were made:

- Page I – The chemical symbol for iodine in "Dose Equivalent 1-131" will be changed to the letter "I" vice the number "1."
- Page III – The sections that are listed as "Deleted" under 2.2 will be removed.
- Page VII – the words "and Relative Humidity" will be deleted and the title changed to "Internal Pressure and Air Temperature."
- Page VIII – References to TS 3/4.7.10 and 3/4.7.11 will be deleted. These sections are no longer included in the TSs. Reference to PTS 3.8.1.3, Stored Diesel Fuel Oil will be added.
- Page XI – Reference to TS 3/4.1.2 will be deleted. "-Tq" will be added to Azimuthal Power Tilt. "S (ESF)" will be added to "Engineered Safety Feature Instrumentation."
- Page XIII – sections 3/4.7.9 and 3/4.7.10 will be deleted, which are no longer included in the TSs.
- Pages XVI and XVII – revised the index for Administrative Controls section 6.0 based on the proposed reorganized sections.

Administrative Changes

A1 The designated change represents a non-technical, non-intent change. Examples of this type of change include: wording preference; convention adoption; editorial, numbering and formatting changes; and hierarchy structure.

Technical Changes – More Restrictive

None

Technical Changes – Less Restrictive

None

Technical Changes – Removal of Details

None

Discussion of Differences

None

1.6 Definitions (Pages 1-3 and 1-4)

Discussion of Changes

Definitions 1.14 a. and 1.15 include the words "CONTROLLED LEAKAGE" in capital letters as if it is a defined term. The proposed change will present the words in lower case letters since this is not a defined term.

Definition 1.18, Dose Equivalent I-131, has one typographical error that is being corrected. The second use of the term "I-131" in the 1st sentence incorrectly exchanges a numeral one (1) for the capital letter "I." This is being corrected.

"$\bar{E}$" will be added to the beginning of the wording in definition 1.19. A hyphen that exists in the CTS definition 1.19 between 1.19 and the text of the definition will be deleted as part of the format change.

Administrative Changes

A1 The designated change represents a non-technical, non-intent change. Examples of this type of change include: wording preference; convention adoption; editorial, numbering and formatting changes; and hierarchy structure.

Technical Changes – More Restrictive

None

Technical Changes – Less Restrictive

None

Technical Changes – Removal of Details

None

Discussion of Differences

<u>ANO-1 and NUREG-1432 Comparison</u>

No comparison was performed due to this being a correction in presentation only.

1.7 Definitions (Page 1-6)

Discussion of Changes

The reference to TS 6.9.5 in definition of Core Operating Limits Report (1.33) will be changed to TS 6.6.5. The current TS 6.9.5 will be relocated to PTS 6.6.5. A period will also be added at the end of the sentence that contains the reference.

Administrative Changes

A1 The designated change represents a non-technical, non-intent change. Examples of this type of change include: wording preference; convention adoption; editorial, numbering and formatting changes; and hierarchy structure.

Technical Changes – More Restrictive

None

Technical Changes – Less Restrictive

None

Technical Changes – Removal of Details

None

Discussion of Differences

ANO-1 and NUREG-1432 Comparison

As this is a reference change only, no attempt is made to change the definition to be consistent with the ANO-1 ITS or NUREG-1432 definition. The currently approved wording will be maintained with only the change to the referenced TS.

1.8 SR 4.1.1.3 Section Title (Page 3/4 1-4)

Discussion of Changes

The proposed change inserts the section title "SURVEILLANCE REQUIREMENTS." This is consistent with standard TS page format.

Administrative Changes

A1 The designated change represents a non-technical, non-intent change. Examples of this type of change include: wording preference; convention adoption; editorial, numbering and formatting changes; and hierarchy structure.

Technical Changes – More Restrictive

None

Technical Changes – Less Restrictive

None

Technical Changes – Removal of Details

None

Discussion of Differences

The proposed change modifies the page format only.

1.9 TS 3.2.2 Action b (Page 3/4 2-2)

Discussion of Changes

ACTION b reflects the acronym for the Core Operating Limit Supervisory System as “CLOSS.” The proposed change will correct the acronym to “COLSS.”

Administrative Changes

A1 The designated change represents a non-technical, non-intent change. Examples of this type of change include: wording preference; convention adoption; editorial, numbering and formatting changes; and hierarchy structure.

Technical Changes – More Restrictive

None

Technical Changes – Less Restrictive

None

Technical Changes – Removal of Details

None

Discussion of Differences

As this is a typographical correction, no attempt is made to be consistent with the ANO-1 ITS or NUREG-1432.

1.10 Table 3.3-1, Action 2 (Page 3/4 3-5)

Discussion of Changes

The current wording in ACTION 2 says in part "shall be reviewed at the next regularly scheduled PSC meeting in accordance with the QA Manual Operations." The wording will be changed to "shall be reviewed as soon as possible but no later than the next regularly scheduled OSRC meeting in accordance with the Quality Assurance Program Manual (QAPM)." As written it could be interpreted that a review of the desirability of maintaining a channel in the bypassed condition for greater than 48 hours is required at the next "scheduled" PSC meeting and could not be performed at a "called" meeting held before the next "scheduled" meeting. If this review is performed prior to the next "scheduled" meeting, the intent is still satisfied. As is reflected, the title "PSC" will be changed to "OSRC." The noun name of the PSC (plant safety committee) was renamed Onsite Safety Review Committee (OSRC) in recent changes to Entergy's organization. In addition the reference to the "QA Manual Operations" is being changed to the current title "Quality Assurance Program Manual (QAPM)."

Administrative Changes

A1 The designated change represents a non-technical, non-intent change. Examples of this type of change include: wording preference; convention adoption; editorial, numbering and formatting changes; and hierarchy structure.

Technical Changes – More Restrictive

None

Technical Changes – Less Restrictive

None

Technical Changes – Removal of Details

None

Discussion of Differences

This change modifies the wording and corrects the references. There is no attempt to make the action like the ANO-1 TS or NUREG-1432.

1.11 Table 3.3-3, Action 10 (Page 3/4 3-14)

Discussion of Changes

The current wording in Action 10 says in part “shall be reviewed at the next regularly scheduled PSC meeting in accordance with the QA Manual Operations.” The wording will be changed to “shall be reviewed as soon as possible but no later than the next regularly scheduled OSRC meeting in accordance with the Quality Assurance Program Manual (QAPM).” As written it could be interpreted that a review of the desirability of maintaining a channel in the bypassed condition for greater than 48 hours is required at the next “scheduled” PSC meeting and could not be performed at a “called” meeting held before the next “scheduled” meeting. If this review is performed prior to the next “scheduled” meeting, the intent is still satisfied. As is reflected, the title “PSC” will be changed to “OSRC.” The noun name of the PSC (plant safety committee) was renamed Onsite Safety Review Committee (OSRC) in recent changes to Entergy’s organization. In addition the reference to the “QA Manual Operations” is being changed to the current title “Quality Assurance Program Manual (QAPM).”

Administrative Changes

A1 The designated change represents a non-technical, non-intent change. Examples of this type of change include: wording preference; convention adoption; editorial, numbering and formatting changes; and hierarchy structure.

Technical Changes – More Restrictive

None

Technical Changes – Less Restrictive

None

Technical Changes – Removal of Details

None

Discussion of Differences

This change modifies the wording and corrects the references. There is no attempt to make the action like the ANO-1 TS or NUREG-1432.

1.12 Table 3.3-4, (Pages 3/4 3-16 and 3-17)

Discussion of Changes

TS Amendment 222 inadvertently deleted a reference to Note (1) associated with Item 1. c, Pressurizer Pressure – Low Trip Setpoint. The proposed change will again show reference to the note.

In functional units 2.a, 3.a and 5.a "(Trip Buttons" is listed without a closing parenthesis. The proposed change will add the closing parenthesis.

Administrative Changes

A1 The designated change represents a non-technical, non-intent change. Examples of this type of change include: wording preference; convention adoption; editorial, numbering and formatting changes; and hierarchy structure.

Technical Changes – More Restrictive

None

Technical Changes – Less Restrictive

None

Technical Changes – Removal of Details

None

Discussion of Differences

This corrects an administrative error made in a previous change and corrects typographical errors. There is no attempt to make the Table like the ANO-1 TS or NUREG-1432.

1.13 Table 3.3-4 (Page 3/4 3-18)

Discussion of Changes

For consistency with the rest of the table, the units “psi” associated with steam generator pressure items 8.c and 8.d will be added in the Allowable Values column. The units are already defined as “psi” in the associated Trip setpoint column.

Administrative Changes

A1 The designated change represents a non-technical, non-intent change. Examples of this type of change include: wording preference; convention adoption; editorial, numbering and formatting changes; and hierarchy structure.

Technical Changes – More Restrictive

None

Technical Changes – Less Restrictive

None

Technical Changes – Removal of Details

None

Discussion of Differences

This corrects administrative errors. There is no attempt to make the Table like the ANO-1 TS or NUREG-1432.

1.14 TS 3.3.3.1 (Page 3/4 3-24)

Discussion of Changes

In the third line of the header, the word “monitoring” is spelled incorrectly as “montioring.” The proposed change will correct the typographical error.

Administrative Changes

A1 The designated change represents a non-technical, non-intent change. Examples of this type of change include: wording preference; convention adoption; editorial, numbering and formatting changes; and hierarchy structure.

Technical Changes – More Restrictive

None

Technical Changes – Less Restrictive

None

Technical Changes – Removal of Details

None

Discussion of Differences

This corrects a typographical error. There is no attempt to review the associated ANO-1 TS or NUREG-1432.

1.15 Table 3-3.6, Radiation Monitoring Instrumentation (Page 3/4 3-25)

Discussion of Changes

A new action 21 will be annotated in the Action column for item 2.b, Control Room Ventilation Intake Duct Monitors.

Administrative Changes

None

Technical Changes – More Restrictive

M5 Per Note 2 on Table 3.3-6, the control room ventilation intake duct monitors are required to be operable in Modes 1, 2, 3, 4, and during handling of irradiated fuel. CTS Actions 17 and 20 provide guidance for each of these applicable modes. The proposed change will create a separate Action 21 to provide an appropriate Action if the LCO is not met during movement of irradiated fuel assemblies. The proposed change is considered more restrictive since less time is proposed in Action 21 than was allowed by Actions 17 and 20. The reduction in the allowable outage time associated with Action 21 does not create any safety concerns or challenges to the unit. The control room ventilation system can easily be placed in the recirculation mode immediately. In addition, handling of irradiated fuel can easily be suspended immediately if required.

Technical Changes – Less Restrictive

None

Technical Changes – Removal of Details

None

Discussion of Differences

This change adds the reference to the new action in the action column. The discussion of differences between the actions will follow.

1.16 Table 3.3-6, Actions 16 and 17 (Page 3/4 3-26)

Discussion of Changes

CTS Action 16 c. requires that the ACTIONS of 3.3.3.9 be completed or that the containment purge system be secured. TS 3.3.3.9 was relocated to the Offsite Dose Calculation Manual (ODCM) with the approval of ANO-2 TS Amendment 193 (NRC SER dated September 23, 1998). The proposed change will modify the reference to TS 3.3.3.9 to reflect the relocation of the required action, which is in the ODCM, Appendix 2, Table 2.2-1.

CTS Action 17 applies to the Control Room Ventilation Intake Duct Monitors. Per Note 2 on Table 3.3-6, these monitors are required to be operable in Modes 1, 2, 3, 4, and during handling of irradiated fuel. The proposed change will modify Action 17 to be applicable during Mode 1, 2, 3, or 4 and will add a new Action 21 which is applicable during the handling of irradiated fuel. The shutdown requirements will be modified as described below.

Administrative Changes

A1 The designated change represents a non-technical, non-intent change. Examples of this type of change include: wording preference; convention adoption; editorial, numbering and formatting changes; and hierarchy structure.

A28 The designated change results in the correction of a reference to TS 3.3.3.9 which was relocated to the ODCM with the approval of ANO-2 TS Amendment 193 (NRC SER dated September 23, 1998).

Technical Changes – More Restrictive

M4 A statement will be added to Actions 17 and 20 to provide the appropriate default condition to be in HOT STANDBY within the next 6 hours and COLD SHUTDOWN in the following 30 hours. Currently if the Action is not met, Limiting Condition for Operation (LCO) 3.0.3 is entered, which allows one hour to take actions to place the unit in a mode that is not applicable. The proposed change does not recognize the initial one hour allowed by LCO 3.0.3 and thus is considered a more restrictive change.

M5 Per Note 2 on Table 3.3-6, the control room ventilation intake duct monitors are required to be operable in Modes 1, 2, 3, 4, and during handling of irradiated fuel. CTS Actions 17 and 20 provide guidance for each of these applicable modes. The proposed change will create a separate Action 21 to provide an appropriate Action if the LCO is not met during movement of irradiated fuel assemblies. The proposed change is considered more restrictive since less time is proposed in Action 21 than was allowed by Actions 17 and 20. The reduction in the allowable outage time associated with Action 21 does not create any safety concerns or challenges to the unit. The control room ventilation system can easily be placed in the recirculation mode immediately. In addition, handling of irradiated fuel can easily be suspended immediately if required.

1.16 Table 3.3-6, Actions 16 and 17 (Page 3/4 3-26) (continued)

Discussion of Changes (continued)

Technical Changes – Less Restrictive

None

Technical Changes – Removal of Details

None

Discussion of Differences

ANO-1 Comparison

ANO-1 ITS 3.3.16 describes the Control Room Isolation – High Radiation function. Actions B and C of the ANO-1 specification address the inoperability of two channels in Modes 1, 2, 3 or 4. The proposed change is consistent with the allowable outage times contained in the ANO-1 ITS. However, due to the format of ITS vice the format of the ANO-2 CTS, wording differences exist. The intent of the proposed change is the same as the ANO-1 ITS.

NUREG-1432 Comparison

The following exceptions to NUREG-1432 are noted:

- NUREG-1432 LCO 3.3.9 requires the operability of only one control room isolation signal channel. The proposed change and the existing ANO-2 TSs require two control room ventilation intake duct monitors to be operable. The two units share the ANO control room ventilation system and isolation is provided by one channel primarily, but not completely, associated with each unit. The channel associated with each unit initiates the control room emergency ventilation system for that unit, but provides isolation for both units' control rooms since they are a shared facility. Since there are two channels, appropriate ACTIONS are included. Conditions A & B of NUREG-1432 3.3.9 address the required actions when in Modes 1, 2, 3, or 4. The proposed actions are similar to NUREG-1432 with the same completion times.

- NUREG-1432 3.3.9 includes a note related to the toxic gas protection mode. The ANO control room emergency recirculation mode is the same as a toxic gas protection mode. Therefore, the note in NUREG LCO 3.3.9 Required Action A. 1 is not required.

1.17 Table 3.3-6, Action 18 (Page 3/4 3-26)

Discussion of Changes

CTS Action 18, which is applicable to the Containment High Range Monitor, requires in part the submittal of a Special Report to the NRC pursuant to CTS 6.9.2 when less than the minimum number of channels is operable. The proposed change is described and classified below.

Administrative Changes

A6 Specification 6.9.2, which requires the submittal of a special report to the Commission if various systems cannot be restored, will be deleted and thus the reference to it in various specifications will be deleted. Written communication to the NRC is described in 10 CFR 50.4 and therefore, the proposed change will only reference that the report should be submitted to the NRC. Guidance in 10 CFR 50.4 adequately ensures that the regional office will receive a copy of the report.

Technical Changes – More Restrictive

None

Technical Changes – Less Restrictive

None

Technical Changes – Removal of Details

None

Discussion of Differences

ANO-1 ITS Comparison

ANO-1 ITS requires a special report when the reactor building high range radiation monitors are inoperable. The proposed change is consistent with the ANO-1 ITS.

NUREG-1432 Comparison

Specification 3.3.15 in NUREG-1432 includes a requirement for the containment building high range radiation monitors to be operable. If inoperability occurs, the NUREG requires that a special report be submitted within 14 days in accordance with NUREG-1432 specification 5.6.7. The proposed change to the ANO-2 TS retains the currently approved allowance for submittal of the special report within 30 days.

1.18 Table 3.3-6, Action 19 (Page 3/4 3-26)

Discussion of Changes

CTS Action 19, which is applicable to the Main Steam Line Radiation Monitors, requires in part the submittal of a Special Report to the NRC pursuant to CTS 6.9.2 when less than the minimum number of channels is operable. The proposed change is described and classified below.

Administrative Changes

A6 Specification 6.9.2, which requires the submittal of a special report to the Commission if various systems cannot be restored, will be deleted and thus the reference to it in various specifications will be deleted. Written communication to the NRC is described in 10 CFR 50.4 and therefore, the proposed change will only reference that the report should be submitted to the NRC. Guidance in 10 CFR 50.4 adequately ensures that the regional office will receive a copy of the report.

Technical Changes – More Restrictive

None

Technical Changes – Less Restrictive

None

Technical Changes – Removal of Details

None

Discussion of Differences

<u>ANO-1 ITS Comparison</u>

The main steam line radiation monitors were deleted from the ANO-1 TSs in the conversion to the ITS. The ANO-2 main steam line monitors are in the current licensing bases and will be retained at this time.

<u>NUREG-1432 Comparison</u>

NUREG-1432 does not include a specification for the main steam line radiation monitors. These monitors will be retained in the ANO-2 TSs at this time.

1.19 Table 3.3-6, Action 20 (Page 3/4 3-26)

Discussion of Changes

CTS Action 20 applies to the Control Room Ventilation Intake Duct Monitors. Per note 2 on Table 3.3-6, these monitors are required to be operable and the associated actions are applicable in Modes 1, 2, 3, 4, and during handling of irradiated fuel. The proposed change will modify action 20 to be applicable during Mode 1, 2, 3, or 4 and will add a new action 21 which is applicable during the handling of irradiated fuel. The shutdown requirements will be modified as described below.

Administrative Changes

A1 The designated change represents a non-technical, non-intent change. Examples of this type of change include: wording preference; convention adoption; editorial, numbering and formatting changes; and hierarchy structure.

Technical Changes – More Restrictive

M3 CTS Table 3.3-6, Action 20 provides actions for inoperability of one channel of control room isolation on high radiation. After 7 days of inoperability of one channel, the action allows an additional 6 hours to initiate and maintain operation of the Control Room Ventilation System (CREVS). This additional 6 hours is not included in the proposed change. This time period is excessive for initiation of CREVS; further, most problems can be restored within the initial 7 days. If the isolation instrumentation is not restored, the actuation of CREVS can easily be implemented within the initial 7 days.

M4 A statement will be added to Actions 17 and 20 to provide the appropriate default condition to be in HOT STANDBY within the next 6 hours and COLD SHUTDOWN in the following 30 hours. Currently if the Action is not met, Limiting Condition for Operation (LCO) 3.0.3 is entered, which allows one hour to take actions to place the unit in a mode that is not applicable. The proposed change does not recognize the initial one hour allowed by LCO 3.0.3 and thus is considered a more restrictive change.

M5 Per Note 2 on Table 3.3-6, the control room ventilation intake duct monitors are required to be operable in Modes 1, 2, 3, 4, and during handling of irradiated fuel. CTS Actions 17 and 20 provide guidance for each of these applicable modes. The proposed change will create a separate Action 21 to provide an appropriate Action if the LCO is not met during movement of irradiated fuel assemblies. The proposed change is considered more restrictive since less time is proposed in Action 21 than was allowed by Actions 17 and 20. The reduction in the allowable outage time associated with Action 21 does not create any safety concerns or challenges to the unit. The control room ventilation system can easily be placed in the recirculation mode immediately. In addition, handling of irradiated fuel can easily be suspended immediately if required.

Technical Changes – Less Restrictive

None

1.19 Table 3.3-6, Action 20 (Page 3/4 3-26) (continued)

Technical Changes – Removal of Details

None

Discussion of Differences

ANO-1 Comparison

ANO-1 ITS 3.3.16 describes the Control Room Isolation – High Radiation function. Actions B and C of the ANO-1 specification address the inoperability of two channels in Modes 1, 2, 3 or 4. The proposed change is consistent with the allowable outage times contained in the ANO-1 ITS. However, due to the format of ITS vice the format of the ANO-2 CTS, wording differences exist. The intent of the proposed change is the same as the ANO-1 ITS.

NUREG-1432 Comparison

The following exceptions to NUREG-1432 are noted:

- NUREG-1432 LCO 3.3.9 requires the operability of only one control room isolation signal channel. The proposed change and the existing ANO-2 TSs require two control room ventilation intake duct monitors to be operable. The two units share the ANO control room ventilation system and isolation is provided by one channel primarily, but not completely, associated with each unit. The channel associated with each unit initiates the control room emergency ventilation system for that unit, but provides isolation for both units' control rooms since they are a shared facility. Since there are two channels, appropriate ACTIONS are included. Conditions A & B of NUREG-1432 Specification 3.3.9 address the required actions when in Modes 1, 2, 3, or 4. The proposed actions are similar to NUREG-1432 with the same completion times.

- NUREG-1432 Specification 3.3.9 includes a note related to the toxic gas protection mode. The ANO control room emergency recirculation mode is the same as a toxic gas protection mode. Therefore, the note in NUREG LCO 3.3.9 Required Action A.1 is not required.

1.20 Table 3.3-6, Action 21 (Page 3/4 3-26)

Discussion of Changes

A new Action 21 associated with the control room ventilation intake duct monitors will be added. The action will be applicable during handling of irradiated fuel.

Administrative Changes

None

Technical Changes – More Restrictive

M5 Per Note 2 on Table 3.3-6, the control room ventilation intake duct monitors are required to be operable in Modes 1, 2, 3, 4, and during handling of irradiated fuel. CTS Actions 17 and 20 provide guidance for each of these applicable modes. The proposed change will create a separate Action 21 to provide an appropriate Action if the LCO is not met during movement of irradiated fuel assemblies. The proposed change is considered more restrictive since less time is proposed in Action 21 than was allowed by Actions 17 and 20. The reduction in the allowable outage time associated with Action 21 does not create any safety concerns or challenges to the unit. The control room ventilation system can easily be placed in the recirculation mode immediately. In addition, handling of irradiated fuel can easily be suspended immediately if required.

Technical Changes – Less Restrictive

None

Technical Changes – Removal of Details

None

Discussion of Differences

ANO-1 Comparison

ANO-1 ITS 3.3.16, Action D addresses the necessary actions related to one or two channels being inoperable during movement of irradiated fuel. The proposed change is consistent with this action. Although the wording of the proposed change for ANO-2 is not exactly the same as the wording contained in the ANO-1 ITS, the intent is the same.

NUREG-1432 Comparison

NUREG-1432 LCO 3.3.9 addresses the control room isolation signal and requires only one operable channel. Condition C addresses the required actions during movement of recently irradiated fuel assemblies. The proposed change is similar in that it requires immediate actions upon discovery of one or two inoperable channels.

1.21 Table 4.3-3, Note 6 (Page 3/4 3-27)

Discussion of Changes

A new Note 6 will be added to item 2.b. The addition of the reference to Note 6 in the Channel Functional Test column of item 2.b., Control Room Ventilation Intake Duct Monitors, and the text of Note 6 is a less restrictive change. Both are described below.

Administrative Changes

None

Technical Changes – More Restrictive

None

Technical Changes – Less Restrictive

L2 Note 6 will be added to CTS Table 4.3-3. The note provides a three (3) hour time period with the monitor inoperable to conduct the CHANNEL FUNCTIONAL TEST without entering the associated Actions. This note was first included NUREG-1432, revision 0 by the lead plant that converted to ITS. The time allowance was based on the historical average time frame for conducting the test and the need to conduct the test during conditions for which the monitor is normally required to be OPERABLE. The note was approved for inclusion in the ANO-1 ITS conversion and as such provides a precedence for this request. When performing the channel functional test on the radiation monitors, the monitors' intended function of isolating the control room and starting the appropriate emergency ventilation system is demonstrated. Therefore, it is necessary that while performing the test the control room not be in the emergency ventilation mode as might be required by actions associated with inoperable monitors.

Technical Changes – Removal of Details

None

Discussion of Differences

<u>ANO-1 and NUREG-1432 Comparison</u>

The adoption of the note related to the channel functional test into the ANO-2 TS is consistent with the note contained in the ANO-1 ITS SR 3.3.16.2. However, the noun name of the control room ventilation intake duct monitor was used in the ANO-2 TS which is consistent with the current noun name in the ANO-2 CTS.

The ANO-1 CTS contained a note stating "Check functioning of self-checking feature on each detector," which was deleted during the conversion to ITS. The ANO-2 CTS does not have such a note and therefore no similar change is required. In addition, the note is not found in NUREG-1432.

NUREG-1432 SR 3.3.9.2 does not include a similar note that allows a three hour delay for entry into the LCO while performing the channel functional test.

1.22 Table 3.3-9 (Page 3/4 3-37)

Discussion of Changes

The following table enhancements are proposed.

- The actual range of the startup channel indication is 1 - 10^6 counts per second (cps) and therefore, the proposed change will modify the measurement range for the startup channel from the current value listed 1 - 10^5 cps to the actual instrument range.
- The Shutdown Cooling (SDC) Flow Rate measurement range is designated as 1 -100%. The actual instrument has a dual scale that reads out in percent and in gallons per minute (gpm). Operations procedures refer to the SDC flow rate in gpm. Therefore, a modification is proposed to the designated measurement range for the SDC flow rate on the remote shutdown panel, changing the currently designed range of 1 – 100% to 0-8000 gpm.

Administrative Changes

A29 The designated change results in the correction of the instrument measurement range for instruments located on the Remote Shutdown Monitoring panel. The change in instrument range is consistent with the actual plant instrumentation and does not result in a change to the existing TS requirements. The proposed change results in no additional or reduced restrictions nor does it add any flexibility.

Technical Changes – More Restrictive

None

Technical Changes – Less Restrictive

None

Technical Changes – Removal of Details

None

Discussion of Differences

The proposed change is an administrative clean up to the ANO-2 TS. No attempt is made to make the ANO-2 TSs similar to the ANO-1 TS or NUREG-1432.

1.23 Table 4.3-6 (Page 3/4 3-38)

Discussion of Changes

Item 5 is defined as “Pressurization Pressure” on Table 4.3-6. The proposed change will correct the word “Pressurization” to “Pressurizer.”

Administrative Changes

A1 The designated change represents a non-technical, non-intent change. Examples of this type of change include: wording preference; convention adoption; editorial, numbering and formatting changes; and hierarchy structure.

Technical Changes – More Restrictive

Technical Changes – Less Restrictive

None

Technical Changes – Removal of Details

None

Discussion of Differences

The proposed change is solely an administrative clean up to the ANO-2 TS. No attempt is made to make the ANO-2 TSs similar to the ANO-1 TS or NUREG-1432.

1.24 Table 3.3-10, Post-Accident Monitoring Instrumentation (Page 3/4 3-40)

Discussion of Changes

A format change is proposed to page 3/4 3-40. The page layout will be changed from landscape to portrait to be minimize the number of landscape pages. No revision bars will be used to reflect the change from landscape to portrait. In addition items 13 and 14, In Core Thermocouples (Core Exit Thermocouples) and Reactor Vessel Level Monitoring System (RVLMS), respectively, will be moved from page 3/4 3-40a to page 3/4 3-40 for human factors purposes. The content remains the same. A change is also proposed in the footer on the page, changing “ARKANSAS UNIT – 2” to “ARKANSAS – UNIT 2.” No revision bar will reflect this change.

Administrative Changes

A1 The designated change represents a non-technical, non-intent change. Examples of this type of change include: wording preference; convention adoption; editorial, numbering and formatting changes; and hierarchy structure.

Technical Changes – More Restrictive

None

Technical Changes – Less Restrictive

None

Technical Changes – Removal of Details

None

Discussion of Differences

None

1.25 Table 3.3-10, Actions 3b and 4b (Page 3/4 3-40a)

Discussion of Changes

The phrase “pursuant to specification 6.9.2” will be deleted from Actions 3b and 4b.

A format change is proposed to page 3/4 3-40a changing the page layout from landscape to portrait. No revision bars will be used to reflect the change from landscape to portrait. In addition items 13 and 14, In Core Thermocouples (Core Exit Thermocouples) and Reactor Vessel Level Monitoring System (RVLMS), respectively, will be moved from page 3/4 3-40a to page 3/4 3-40 for human factors purposes. The content remains the same.

Administrative Changes

A1 The designated change represents a non-technical, non-intent change. Examples of this type of change include: wording preference; convention adoption; editorial, numbering and formatting changes; and hierarchy structure.

A6 Specification 6.9.2, which requires the submittal of a special report to the Commission if various systems cannot be restored, will be deleted and thus the reference to it in various specifications will be deleted. Written communication to the NRC is described in 10 CFR 50.4 and therefore, the proposed change will only reference that the report should be submitted to the NRC. Guidance in 10 CFR 50.4 adequately ensures that the regional office will receive a copy of the report.

Technical Changes – More Restrictive

None

Technical Changes – Less Restrictive

None

Technical Changes – Removal of Details

None

Discussion of Differences

<u>ANO-1 Comparison</u>

The actions associated with Post Accident Monitoring Instrumentation contained in ANO-1 ITS 3.3.15 require a submittal of a special report when the instrumentation cannot be restored. Therefore, the proposed change is consistent with the requirement contained in the ANO-1 ITS.

<u>NUREG-1432 Comparison</u>

NUREG-1432 Specification 5.6.7 requires a Post Accident Monitoring Report. This specification will not be adopted. The ANO-2 current license basis allows reporting within 30 days, which differs from the 14-day reporting requirement in the NUREG. No change is proposed to the CTS 30-day allowance.

1.26 Steam Generator Surveillance Requirements 4.4.5.0, 4.4.5.1, 4.4.5.2, 4.4.5.3, 4.4.5.4, and Tables 4.4-1 and 4.4-2 (Pages 3/4 4-6, 4-7, 4-8, 4-9, 4-10, 4-11, & 4-12)

Discussion of Changes

The surveillance requirements associated with the Steam Generator (SG) tube inspections will be relocated to PTS 6.5.9 as the proposed Steam Generator Tube Surveillance Program.

The CTS note that states: "The requirements for inservice inspection do not apply during the steam generator replacement outage (2R14)." will be deleted. This outage has been completed.

See the markup of inserts and the associated discussion in the section describing PTS 6.5.9 for the changes made to these surveillance requirements.

Because several pages are proposed for deletion due to the above relocation of requirements, the footer of page 3/4 4-6 is modified to include a reference to the next TS page.

A change to the TS Bases is also proposed. The associated markup is included in Attachment 3 for information only.

Administrative Changes

A1 The designated change represents a non-technical, non-intent change. Examples of this type of change include: wording preference; convention adoption; editorial, numbering and formatting changes; and hierarchy structure.

A31 CTS SR 4.4.5.0 contains the following note: "The requirement for inservice inspection do not apply during the steam generator replacement outage (2R14)." The steam generator replacement outage is complete and the note is no longer applicable.

Technical Changes – More Restrictive

None

Technical Changes – Less Restrictive

None

Technical Changes – Removal of Details

None

1.26 Steam Generator Surveillance Requirements 4.4.5.0, 4.4.5.1, 4.4.5.2, 4.4.5.3, 4.4.5.4, and Tables 4.4-1 and 4.4-2 (Pages 3/4 4-6, 4-7, 4-8, 4-9, 4-10, 4-11, & 4-12) (continued)

Discussion of Differences

ANO-1 Comparison

ANO-1 relocated the steam generator tube surveillance program to Specification 5.5.9. Due to the two units being different, the current licensing basis varies slightly. ANO-2 is relocating the current licensing basis with changes in the referenced Tables and section numbers only. These changes are reflected in the markup of the insert pages.

NUREG-1432 Comparison

NUREG-1432 Specification 5.5.9 contains a reviewer's note specifying that the current licensing basis for the SG tube surveillance program should be relocated to this specification. ANO-2 is relocating the current licensing basis. This change is consistent with the NUREG reviewer's note.

1.27 Steam Generator Surveillance Requirement 4.4.5.5 (Page 3/4 4-10)

Discussion of Changes

The reporting requirements will be relocated to PTS 6.6.7. Refer to the discussion of the proposed change to 6.9.1.5.b for the changes made to the reporting requirements.

Administrative Changes

A1 The designated change represents a non-technical, non-intent change. Examples of this type of change include: wording preference; convention adoption; editorial, numbering and formatting changes; and hierarchy structure.

Technical Changes – More Restrictive

None

Technical Changes – Less Restrictive

None

Technical Changes – Removal of Details

None

Discussion of Differences

ANO-1 Comparison

ANO-1 ITS includes steam generator reporting requirements in Specification 5.6.7. The ANO-2 proposed change is consistent with the location of the special reporting requirement contained in the ANO-1 ITS conversion. The wording is different based on the current licensing basis for ANO-2.

NUREG-1432 Comparison

Steam generator reporting requirements are contained in NUREG-1432 Specification 5.6.9. The specification contains a reviewer's note that states: "Reports required by the Licensee's current licensing basis regarding steam generator tube surveillance requirements shall be included here." The proposed change is consistent with the guidance contained in the reviewer's note.

1.28 TS 3.5.2, ECCS Subsystems - Tavg ≥ 300°F, Action b (Page 3/4 5-3)

Discussion of Changes

The phrase in Action “b” stating “to the Commission pursuant to Specification 6.9.2” will be changed to “to the NRC.”

Administrative Changes

A6 Specification 6.9.2, which requires the submittal of a special report to the Commission if various systems cannot be restored, will be deleted and thus the reference to it in various specifications will be deleted. Written communication to the NRC is described in 10 CFR 50.4 and therefore, the proposed change will only reference that the report should be submitted to the NRC. Guidance in 10 CFR 50.4 adequately ensures that the regional office will receive a copy of the report.

Technical Changes – More Restrictive

None

Technical Changes – Less Restrictive

None

Technical Changes – Removal of Details

None

Discussion of Differences

ANO-1 Comparison

ANO-1 CTS did not require a special report in conjunction with ECCS actuations nor does the ANO-1 ITS conversion require a special report. Therefore, the ANO-1 TSs and ANO-2 current licensing basis differ. This is a requirement of the ANO-2 current licensing basis and will be retained.

NUREG-1432 Comparison

NUREG-1432 does not require a special report associated with ECCS actuations. The report is contained in the ANO-2 current licensing basis and will be retained.

1.29 TS 3.5.3, ECCS Subsystems – Tavg ≤ 300°F, Action b (Page 3/4 5-6)

Discussion of Changes

The phrase in Action "b" stating "to the Commission pursuant to Specification 6.9.2" will be changed to "to the NRC."

Administrative Changes

A6 Specification 6.9.2, which requires the submittal of a special report to the Commission if various systems cannot be restored, will be deleted and thus the reference to it in various specifications will be deleted. Written communication to the NRC is described in 10 CFR 50.4 and therefore, the proposed change will only reference that the report should be submitted to the NRC. Guidance in 10 CFR 50.4 adequately ensures that the regional office will receive a copy of the report.

Technical Changes – More Restrictive

None

Technical Changes – Less Restrictive

None

Technical Changes – Removal of Details

None

Discussion of Differences

ANO-1 Comparison

ANO-1 does not require a special report in conjunction with ECCS actuations nor did they require a special report prior to the conversion to ITS. Therefore, the ANO-1 TSs and ANO-2 current licensing basis differ. This is a requirement of the ANO-2 current licensing basis and will be retained.

NUREG-1432 Comparison

NUREG-1432 does not require a special report associated with ECCS actuations. The report is contained in the ANO-2 current licensing basis and will be retained.

1.30 Page 3/4 6-11

Discussion of Changes

The proposed change deletes the SR number 4.6.2.1 that is in the header of the page and changes the word “REQUIREMENT” to “REQUIREMENTS.” The proposed change is consistent with the format of the standard TSs.

Administrative Changes

A1 The designated change represents a non-technical, non-intent change. Examples of this type of change include: wording preference; convention adoption; editorial, numbering and formatting changes; and hierarchy structure.

Technical Changes – More Restrictive

None

Technical Changes – Less Restrictive

None

Technical Changes – Removal of Details

None

Discussion of Differences

This is a format correction. No attempt is made to make the associated TSs or SRs consistent with ANO-1 or NUREG-1432.

1.31 Page 3/4 6-16

Discussion of Changes

The proposed change will replace the "OF" in 'LIMITING CONDITION OF OPERATION" with "FOR." The proposed change is consistent with the format of the standard TSs.

Administrative Changes

A1 The designated change represents a non-technical, non-intent change. Examples of this type of change include: wording preference; convention adoption; editorial, numbering and formatting changes; and hierarchy structure.

Technical Changes – More Restrictive

None

Technical Changes – Less Restrictive

None

Technical Changes – Removal of Details

None

Discussion of Differences

This is a format correction. No attempt is made to make the associated TSs or SRs consistent with ANO-1 or NUREG-1432.

1.32 Surveillance Requirement 4.6.3.1.4 (Page 3/4 6-17)

Discussion of Changes

Surveillance Requirement (SR) 4.6.3.1.4 will be relocated to PTS 6.5.16, the Containment Leakage Rate Testing Program. Due to the relocation SR 4.6.3.1.4 will be changed to state: "The containment purge supply and exhaust isolation valves shall be demonstrated OPERABLE as specified in the Containment Leakage Rate Testing Program."

See the markup of changes and associated discussion related to the changes to CTS SR 4.6.3.1.4 in the proposed change to CTS 6.15.

Administrative Changes

A1 The designated change represents a non-technical, non-intent change. Examples of this type of change include: wording preference; convention adoption; editorial, numbering and formatting changes; and hierarchy structure.

Technical Changes – More Restrictive

None

Technical Changes – Less Restrictive

None

Technical Changes – Removal of Details

None

Discussion of Differences

<u>ANO-1 Comparison</u>

ANO-1 does not have a similar SR that directs the performance of the Containment Leakage Rate Testing Program.

<u>NUREG-1432 Comparison</u>

NUREG-1432 SR 3.6.3.6 requires that a leakage rate test for the containment purge valves with resilient seals be performed every 184 days and within 92 days after opening the valve. The ANO-2 CTS and PTS require leakage rate testing of the containment purge supply and exhaust valves prior to entering MODE 4 from MODE 5 if not performed within the previous 92 days. To be in compliance with ANO-2 TS 3.6.1.6, which requires that the containment purge supply and exhaust isolation valves be closed and the handswitch keys removed, a leakage rate test cannot be performed every 184 days as specified in NUREG-1432 SR 3.6.3.6. Therefore, the proposed change is consistent with the current license basis.

1.33 TS 3.7.6.1, Control Room Emergency Ventilation and Air Conditioning System, Actions d and e and Note 1 (Page 3/4 7-17 and 17a)

Discussion of Changes

The requirements of CTS 3.7.6.1 will be revised to specify that:

- The control room boundary can be opened intermittently under administrative controls (proposed Note 1).
- Both CREVS trains can be inoperable for 24 hours if due to a control room boundary inoperability (proposed Action d).
- Entry into Specification 3.0.3 will be required if both trains of CREVS are inoperable for reasons other than the control room boundary or if both trains of the control room emergency air conditioning system (CREACS) are inoperable (proposed Action e).
- The current Actions designated as Actions d, e, f, and g will be designated as f, g, h, and i, respectively.
- Commas will be inserted between the amendment numbers in the page footer.
- A new page 3/4 7-17a will be added to accommodate the addition of the new actions.

Also included is a proposed change to the associated TS bases.

Administrative Changes

A1 The designated change represents a non-technical, non-intent change. Examples of this type of change include: wording preference; convention adoption; editorial, numbering and formatting changes; and hierarchy structure.

A7 A new Action e will be added to TS 3.7.6.1 to direct entry into LCO 3.0.3 while in Modes 1, 2, 3, or 4 if both trains of CREVS are inoperable for reason other than an inoperable control room boundary or if both trains of the CREACS are inoperable. This is equivalent to the CTS requirements and is needed as an explicit condition due to the addition of Action d.

Technical Changes – More Restrictive

None

Technical Changes – Less Restrictive

L3 The requirements of CTS 3.7.6.1 will be revised to allow the control room boundary to be opened intermittently under administrative controls, and to allow both CREVS trains to be inoperable for 24 hours if the control room boundary is inoperable. This condition is not defined in the CTS and could result in entry into LCO 3.0.3. Requiring entry into LCO 3.0.3 for this condition is excessive, as it does not provide sufficient time to attempt a repair. Entry into the Action Statement is expected to be very infrequent and there is a low probability of a design basis accident during any given 24 hour period. Implementation of the administrative controls associated with opening the control room boundary intermittently will ensure that the control room boundary can be rapidly closed when a need for control room isolation is indicated.

1.33 TS 3.7.6.1, Control Room Emergency Ventilation and Air Conditioning System, Actions d and e and Note 1 (Page 3/4 7-17 and 17a) (continued)

Technical Changes – Removal of Details

None

Discussion of Differences

ANO-1 Comparison

The proposed change captures the intent of ANO-1 ITS 3.7.9, the associated actions and note 1. Format difference between ITS and CTS result in minor wording differences.

ANO-1 ITS 3.7.9 Action F (CREVS) and ITS 3.7.10 Action E (CREACS) require entry into TS 3.0.3. The proposed change to ANO-2 TS 3.7.6.1 Action e is consistent with the logic presented in these two ANO-1 actions.

ANO-1 ITS 3.7.9 contains a Note that states: "One CREVS train shall be capable of automatic actuation." This note will not be adopted in the ANO-2 TS. This note is allowed by the ANO-1 license bases, however, is not allowed by the ANO-2 license bases. This results in more conservative actions being taken by ANO-2 whenever one CREVS train is not capable of automatic actuation.

NUREG-1432 Comparison

The proposed change captures the intent of Revision 2 of NUREG-1432 specification 3.7.11 and the associated actions and note. Due to the format difference between ITS and CTS minor wording differences are required.

NUREG-1432 Specification 3.7.11 Action F and NUREG-1432 Specification 3.7.12 Action E require entry into TS 3.0.3. The proposed change to ANO-2 TS 3.7.6.1 Action e captures the intent of these two NUREG-1432 actions.

1.34 Surveillance Requirements 4.7.6.1.2.a, 4.7.6.1.2.d.2, new 4.7.6.1.2.d, and new 4.7.6.1.2.e (Pages 3/4 7-18 and 7-19)

Discussion of Changes

SR 4.7.6.1.2.a requires that the control room emergency air filtration system be tested by initiating, from the control room, flow through the HEPA filters and charcoal adsorbers and verifying that the system operates for at least 15 minutes. The proposed change will reword the SR to require that each control room emergency air filtration system operate for at least 15 minutes. The specific details of how to perform the test will be relocated to the TS Bases.

SR 4.7.6.1.2.d.2 will be relocated to SR 4.7.6.1.2.b and the requirements modified such that the test can be performed using either an actual or a simulated signal. Various details of this SR will be relocated to the TS Bases.

A new SR 4.7.6.1.2.d will be added to require verification at least every 18 months of the VSF-9 system makeup flow rate when supplying the control room with outside air. The ANO-1 fan has a makeup charcoal filter, which has a minimum and maximum requirement for face velocity and other parameters that require the flow rate.

A SR 4.7.6.1.2.e will be added to require verification at least every 18 months of the 2VSF-9 system makeup flow rate when supplying the control room with outside air. The ANO-2 fan does not have a separate makeup filter.

In the proposed change, commas will be inserted in between the amendment numbers in the page footer and “(Continued)” will be deleted from the header. In addition, a note in the footer of page 3/4 7-19 stating “Next Page is 3/4 7-22” will be moved to page 3/4 7-18 with the deletion of page 3/4 7-19.

Administrative Changes

A1 The designated change represents a non-technical, non-intent change. Examples of this type of change include: wording preference; convention adoption; editorial, numbering and formatting changes; and hierarchy structure.

Technical Changes – More Restrictive

M11 New SRs will be added as SR 4.7.6.1.2.d and 4.7.6.1.2.e to require verification of the CREVS makeup flow rate when supplying the control room with outside air. Different acceptance requirements for the makeup flow rates are required for each fan due to design differences.

Technical Changes – Less Restrictive

L11 SR 4.7.6.1.2.d.2 will be relocated to SR 4.7.6.1.2.b and an option to verify the system automatically isolates by using either an actual or a simulated test signal. This allows satisfactory automatic system initiations for other than surveillance purposed to be used to fulfill the surveillance requirements. OPERABILITY is adequately demonstrated in either case since the system cannot discriminate between “actual” or “simulated” signals.

1.34 Surveillance Requirements 4.7.6.1.2.a, 4.7.6.1.2.d.2, new 4.7.6.1.2.d, and new 4.7.6.1.2.e (Pages 3/4 7-18 and 7-19) (continued)

Technical Changes – Removal of Details

LA2 This information will be moved to a license controlled document such as the Bases, Safety Analysis Report (SAR), QAPM, Technical Requirements Manual (TRM), etc. The information provides details of design or process which are not directly pertinent to the actual requirement, i.e., Definition, Limiting Condition for Operation, or Surveillance Requirement, but rather describe additional unnecessary details such as an acceptable method of compliance. Since these details are not necessary to adequately describe the actual regulatory requirement, they can be moved to a licensee controlled document without a significant impact on safety. Placing these details in controlled documents provides adequate assurance that they will be maintained. The Bases will be controlled by the Bases Control Process in Chapter 6 of the PTS.

CTS Location	New Location
4.7.6.1.2.a	Bases, SR 4.7.6.1.2.a
4.7.6.1.2.d.2	Bases, SR 4.7.6.1.2.b
6.9.1.1	TRM
6.9.1.2	TRM
6.9.1.3	TRM

Discussion of Differences

ANO-1 ITS Comparison

The proposed change is similar to the ANO-1 ITS considering the differences in format. ANO-1 ITS SR 3.7.9.1 is the same as the ANO-2 proposed change to SR 4.7.6.1.2.a and ANO-1 ITS SR 3.7.9.3 is the same as the ANO-2 PTS 4.7.6.1.2.b. ANO-1 SR 3.7.9.4 is the same as ANO-2 PTS 4.7.6.1.2.d

NUREG-1432 Comparison

The proposed change is similar to the NUREG-1432 SRs 3.7.11.1, 3.7.11.3, and 3.7.11.4 considering the differences in format and system design.

1.35 Surveillance Requirement 4.7.6.1.2.b, 4.7.6.1.2.c, 4.7.6.1.2.d.1, 4.7.6.1.2.e, and 4.7.6.1.2.f and new 4.7.6.1.2.c, Control Room Emergency Air Filtration System (Pages 3/4 7-18 and 7-19)

Discussion of Changes

These SRs describe the ventilation filtration program associated with the control room emergency filtration system. They will be relocated along with the fuel handling area ventilation filtration testing program (CTS SR 4.9.11.2) to PTS 6.5.11, the Ventilation Filter Testing Program (VFTP). A new SR 4.7.6.1.2.c will direct the performance of the VFTP. For additional information refer to the discussion of the proposed TS 6.5.11 and the Markup of Inserts.

The footer reference on Page 3/4 7-19, which states that the next page is 3/4 7-22, will be moved to Page 3/4 7-18. Page 3/4 7-19 will be deleted with the relocation of the filter testing requirements.

Administrative Changes

A1 The designated change represents a non-technical, non-intent change. Examples of this type of change include: wording preference; convention adoption; editorial, numbering and formatting changes; and hierarchy structure.

A8 PTS 4.7.6.1.2.c directs performance of Control Room Emergency Ventilation filter testing in accordance with the Ventilation Filter Testing Program (VFTP). This change is administrative. CTS 4.7.6.1.2.b, c, d.1, e, and f, which directed performance of filter testing, will be relocated to PTS 6.5.11, the VFTP. The PTS 4.7.6.1.2.c ensures the requirements of the VFTP are performed.

Technical Changes – More Restrictive

None

Technical Changes – Less Restrictive

None

Technical Changes – Removal of Details

None

Discussion of Differences

<u>ANO-1 Comparison</u>

The ANO-2 proposed VFTP will be similar to the ANO-1 ITS. The program will include only the Control Room Emergency Ventilation System and the Fuel Handling Area Ventilation System. The Penetration Ventilation System is not included as a Technical Specification system in the ANO-2 current licensing basis. The relocation of these SRs will reflect the intent of the ANO-1 ITS VFTP.

1.35 Surveillance Requirement 4.7.6.1.2.b, 4.7.6.1.2.c, 4.7.6.1.2.d.1, 4.7.6.1.2.e, and 4.7.6.1.2.f and new 4.7.6.1.2.c, Control Room Emergency Air Filtration System (Pages 3/4 7-18 and 7-19) (continued)

Discussion of Differences (continued)

NUREG-1432 Comparison

The relocation of the ventilation filter testing program from the control room emergency ventilation and air conditioning system is consistent with the philosophy set forth in the NUREG. The NUREG does not specifically define the systems or testing acceptance criteria, as these are plant specific. The relocation of these SRs will reflect the intent of the NUREG.

1.36 Shock Suppressors (Snubbers) (Page 3/4 7-23, 7-23b, 7-23c, and 7-23d)

Discussion of Changes

The proposed change will delete the reference to Specification 6.10.2 in SR 4.7.8.h. On several pages of this TS the word "INOPERABLE" is inappropriately capitalized. The term "inoperable" is not a defined term and therefore should not be reflected in upper case letters. The proposed change will replace "INOPERABLE" with "inoperable," lower case lettering.

Administrative Changes

A1 The designated change represents a non-technical, non-intent change. Examples of this type of change include: wording preference; convention adoption; editorial, numbering and formatting changes; and hierarchy structure.

A9 Surveillance Requirement 4.7.8.h refers to Specification 6.10.2, which was deleted from the ANO-2 TSs with Amendment 209 (SER dated August 26,1999). The reference to Specification 6.10.2 was inappropriately left in SR 4.7.8.h. The proposed change will delete the reference to Specification 6.10.2.

Technical Changes – More Restrictive

None

Technical Changes – Less Restrictive

None

Technical Changes – Removal of Details

None

Discussion of Differences

None

1.37 Spent Fuel Pool Structural Integrity, TS 3.7.12, Action a. (Page 3/4 7-38)

Discussion of Changes

This action requires submittal of a special report to the commission pursuant to Specification 6.9.2, which will be deleted. The requirement to submit a special report will be retained with minor wording changes proposed to delete reference to Specification 6.9.2 and state that the report should be submitted to the NRC.

Administrative Changes

A6 Specification 6.9.2, which requires the submittal of a special report to the Commission if various systems cannot be restored, will be deleted and thus the reference to it in various specifications will be deleted. Written communication to the NRC is described in 10 CFR 50.4 and therefore, the proposed change will only reference that the report should be submitted to the NRC. Guidance in 10 CFR 50.4 adequately ensures that the regional office will receive a copy of the report.

Technical Changes – More Restrictive

None

Technical Changes – Less Restrictive

None

Technical Changes – Removal of Details

None

Discussion of Differences

ANO-1 and NUREG-1432 Comparison

Neither ANO-1 ITS or NUREG-1432 have a similar specification. The current ANO-2 licensing basis requires the submittal of this special report and it will be retained.

1.38 TS 3.8.1.1 LCO Statement b. 1 and b.2 (Page 3/4 8-1)

Discussion of Changes

The proposed change will modify Limiting Condition for Operation (LCO) statement b.1 to delete the parenthetical information that states "equivalent to 50% of indicated tank volume." The fuel oil day tank level indicator at ANO-2 reads in gallons vice percent and therefore the parenthetical statement does not provide meaningful information. The actual maximum volume of an individual day tank is 550 gallons; therefore fifty percent is equivalent to 275 gallons. The current TS limit of 280 gallons for the minimum volume requirement is conservative when compared to the volume associated with 50% of the maximum tank capacity.

A change is also proposed to delete the specific volume requirements related to the separate fuel storage system in LCO statement b.2. PTS 3.8.1.3 is proposed that will address the fuel oil storage system volume requirements and sampling properties.

Administrative Changes

A30 The proposed change deletes confusing information. TS 3.8.1.1 LCO statement b.1 specifies that two separate and independent diesel generators must have, in part, a day fuel tank containing a minimum of 280 gallons of fuel (equivalent to 50% of indicated tank volume). The actual maximum tank volume is 550 gallons, 50% of which is 275 gallons. Therefore, the 50% volume and the 280 gallons specified in the action present conflicting information. The deletion of the parenthetical statement related to 50% of indicated tank volume will result in the more conservative volume remaining in the TS LCO. The proposed change does not result in additional or reduced restrictions nor does it result in added flexibility.

A34 This information will be relocated to PTS 3.8.1.3.

Technical Changes – More Restrictive

None

Technical Changes – Less Restrictive

None

Technical Changes – Removal of Details

None

Discussion of Differences

<u>ANO-1 and NUREG-1432 Comparison</u>

The deletion of the minimum volume requirements related to the fuel storage system are relocated to PTS 3.8.1.3 which is consistent with the ANO-1 ITS and NUREG-1432.

1.39 TS 3.8.1, Action b and Note 1 (Page 3/4 8-1 and new page 8-1a)

Discussion of Changes

Action b and Note 1 will be moved from page 3/4 8-1 to 3/4 8-1a.

Administrative Changes

A1 The designated change represents a non-technical, non-intent change. Examples of this type of change include: wording preference; convention adoption; editorial, numbering and formatting changes; and hierarchy structure.

Technical Changes – More Restrictive

None

Technical Changes – Less Restrictive

None

Technical Changes – Removal of Details

None

Discussion of Differences

ANO-1 and NUREG-1432 Comparison

None

1.40 TS 3.8.1, Actions c., d., and e. (Page 3/4 8-2 and new page 3/4 8-2a)

Discussion of Changes

The following changes are proposed:

- The header on page 3/4 8-2 is being changed to obtain a consistent format.
- A typographical error in Action d.3 will be corrected resulting in replacing "intiating" with "initiating."
- The font on page 3/4 8-2 and spacing is also being changed which results in creation of a new page 3/4 8-2a.
- Action e will be moved to the new page 3/4 8-2a.

Administrative Changes

A1 The designated change represents a non-technical, non-intent change. Examples of this type of change include: wording preference; convention adoption; editorial, numbering and formatting changes; and hierarchy structure.

Technical Changes – More Restrictive

None

Technical Changes – Less Restrictive

None

Technical Changes – Removal of Details

None

Discussion of Differences

<u>ANO-1 and NUREG-1432 Comparison</u>

No attempt is made to make the ANO-2 specifications similar to the ANO-1 ITS or NUREG. This change is format only.

1.41 Surveillance Requirements 4.8.1.1.1, 4.8.1.1.2 a.2 and b. (Current page 3/4 8-2a and new page 3/4 8-2b)

The following changes are proposed to these pages:

- SRs 4.8.1.1.1 and 4.8.1.1.2, as well as the associated notes contained on the current page 3/4 8-2a will be relocated to page 3/4 8-2b.
- SR 4.8.1.1.2.a.2 will be deleted. This SR will be relocated to PTS SR 4.8.1.3.
- SR 4.8.1.1.2.b will be deleted. Testing requirements will be specified in the PTS 6.5.13, Diesel Fuel Oil Testing Program.
- A typographical error in Note 1 regarding the term “surveillances” will be corrected.

Administrative Changes

A1 The designated change represents a non-technical, non-intent change. Examples of this type of change include: wording preference; convention adoption; editorial, numbering and formatting changes; and hierarchy structure.

A34 This information will be relocated to PTS 3.8.1.3.

Technical Changes – More Restrictive

None

Technical Changes – Less Restrictive

None

Technical Changes – Removal of Details

None

Discussion of Differences

ANO-1 and NUREG-1432 Comparison

Neither ANO-1 ITS or NUREG-1432 have a specific SR in TS 3.8.1 that requires that the testing of new and stored fuel oil in accordance with the Diesel Fuel Oil Testing Program. Therefore, the relocation of the testing SR is consistent with the ANO-1 ITS and NUREG-1432.

A separate specification exists in the ANO-1 ITS and the NUREG-1432 for the diesel fuel oil storage system. The surveillance requirement to verify fuel oil storage tank volume is contained in the separate specification. Therefore, the proposed change to delete the storage tank volume and relocate it to a new SR in PTS 3.8.1.3 is consistent with the ANO-1 ITS and NUREG-1432.

1.42 Page 3/4 8-3

Discussion of Changes

The proposed change is a minor editorial change for item 5.a). The closed parenthesis after the "a" will be replaced with a period for consistency with the format on the page.

Administrative Changes

A1 The designated change represents a non-technical, non-intent change. Examples of this type of change include: wording preference; convention adoption; editorial, numbering and formatting changes; and hierarchy structure.

Technical Changes – More Restrictive

None

Technical Changes – Less Restrictive

None

Technical Changes – Removal of Details

None

Discussion of Differences

The proposed change is editorial in nature. No attempt is made to make the SR similar to the ANO-1 TS or NUREG-1432.

1.43 TS 3.8.1.2, LCO b.2. (Page 3/4 8-5)

Discussion of Changes

A change is proposed to delete "equivalent to 50% of total tank volume" in LCO statement b.1 and the specific volume requirements related to the separate fuel storage system in LCO statement b.2. PTS 3.8.1.3 is proposed that will address the fuel oil storage system volume requirements and sampling properties.

Administrative Changes

A30 The proposed change deletes confusing information. TS 3.8.1.1 LCO statement b.1 specifies that two separate and independent diesel generators must have, in part, a day fuel tank containing a minimum of 280 gallons of fuel (equivalent to 50% of indicated tank volume). The actual maximum tank volume is 550 gallons, 50% of which is 275 gallons. Therefore, the 50% volume and the 280 gallons specified in the action present conflicting information. The deletion of the parenthetical statement related to 50% of indicated tank volume will result in the more conservative volume remaining in the TS LCO. The proposed change does not result in additional or reduced restrictions nor does it result in added flexibility.

A34 This information will be relocated to PTS 3.8.1.3.

Technical Changes – More Restrictive

None

Technical Changes – Less Restrictive

None

Technical Changes – Removal of Details

None

Discussion of Differences

The diesel day tanks are specific to ANO-2 and are not shared with ANO-1 and therefore no comparison is made to the ANO-1 TS or to NUREG-1432. The proposed change to create a new specification for the fuel oil system is consistent with the ANO-1 TS or NUREG-1432.

1.44 New TS 3.8.1.3, (New page 3/4 8-5a)

Discussion of Changes

A new TS will be added that addresses the diesel fuel oil system and the required action associated with fuel oil properties outside the limits of the Diesel Fuel Oil Testing Program (PTS 6.5.13). The proposed change relocates requirements from TS LCOs 3.8.1.1 b.2 and 3.8.1.2.b.2. The specification will be applicable when the associated emergency diesel generator (EDG) is required to be OPERABLE. A note is included which allows separate entry for each diesel generator. The note is acceptable because as shown in the discussion below, for 48 hours the total volume of both storage tanks is required to be greater than that need to run the EDGs for 6 days.

ANO-1 and ANO-2 share a common above ground fuel oil storage tank (T-25), which is not required by TSs. In addition each unit has separate fuel storage tanks (T-57A/B for ANO-1 and 2T-57A/B for ANO-2, both of which are required by unit specific TSs) that supply fuel oil to the day tanks associated with each EDG. A fuel oil sample is required for the fuel storage tanks (T-57A/B and 2T-57A/B). The above ground tank is typically aligned by gravity feed to the fuel storage tanks of both units.

Administrative Changes

A1 The designated change represents a non-technical, non-intent change. Examples of this type of change include: wording preference; convention adoption; editorial, numbering and formatting changes; and hierarchy structure.

A10 PTS 3.8.1.3 ACTION 4 provides the administrative direction associated with ACTIONS 1., 2., and 3.

Technical Changes – More Restrictive

M6 PTS 3.8.1.3 ACTION 3 will allow 30 days to restore stored fuel oil properties if the new fuel oil has been added to the storage tank and the new fuel oil sample results were outside the limits specified by the diesel fuel oil testing program. The sampling of new fuel oil prior to its addition to the storage tanks provides a means of determining whether the new fuel oil is of the appropriate grade and has not been contaminated with substances that would have an immediate detrimental impact on diesel engine operation. Additionally, these ACTIONS are included to provide a limited restoration time in the event new fuel oil is added and subsequent test of the new fuel oil are discovered to be out of limits. This is an additional restriction on operation consistent with NUREG-1432 and the ANO-1 TSs.

1.44 New TS 3.8.1.3 (New page 3/4 8-5a) (continued)

Technical Changes – Less Restrictive

L4 PTS 3.8.1.3 ACTION 1 will allow the fuel storage tanks to contain less than 22,500 gallons of fuel for up to 48 hours as long as the volume of the individual storage tank is greater than 17,446 gallons. When the volume is between 17,446 and 22,500 gallons, only the storage tank will be declared inoperable, the diesel generator will remain operable. The PTS will allow an additional 48 hours to restore the level prior to declaring the associated diesel generator inoperable. The lower value (17,446 gallons), when summed with the contents of the other storage tank (assuming the minimum allowed level of 17,446 gallons) results in a total of 34,982 gallons in both tanks and ensures six days of fuel oil is available. This value is calculated as follows:

Each fuel storage tank (2T-57) contains 22,500 gallons
Total useable volume in the two tanks is 45,000 gallons
Total useable volume in the day tank is 369.9 gallons

Unit 2 EDG
Fuel Oil consumption @ 3135 kW (110% load) = 263.4 gal/hr
Fuel Oil Consumption @ 2850 kW (100% load) = 244.6 gal/hr
Useable volume of day tank = 369.9 gallons

Fuel needed for six day run:
2 hours @ 3135 kW x 263.4 gal/hr = 526.8 gallons
6 days x 24 hours/day = 144 hours
142 hours @2850 kW x 244.6 gal/hr = 34,733.2 gallons

Total six day volume needed for one EDG at full load 526.8 + 34,733.2 = 35,260 gallons
Subtract useable volume of day tank = 369.9 gallons
2T-57 volume needed for six day run = 34,890.1 gallons (rounded up to 34,891 gallons)

Divide volume by two tanks = 17,445 gallons minimum needed in each 2T-57 tank to support six days.

The 48 hours will allow adequate time to get a tanker truck to the site, perform the required sampling, and restore the volume. During the proposed additional time associated with the reduced level, the diesel generator is capable of performing its intended function and is therefore not inoperable. The fuel oil volume may be less than desirable for this short period due to the low probability that an event would occur for which the diesel generator would be required.

1.44 New TS 3.8.1.3 (New page 3/4 8-5a) (continued)

L5 PTS 3.8.1.3 ACTION 2 will allow an additional seven (7) days to restore the stored fuel oil total particulates to within the required limits prior to declaring the associated diesel generator inoperable. Normally, trending of particulate levels allows sufficient time to correct high particulate levels prior to reaching the limit of acceptability. Poor sample procedures, contaminated sampling equipment, and errors in laboratory analysis can produce failures that do not follow a trend. Since the presence of particulates does not mean failure of the fuel oil to burn properly in the diesel engine, and because particulate concentration is unlikely to change significantly between surveillance intervals, and proper engine performance has been recently demonstrated (within 31 days), it is prudent to allow a brief period prior to declaring the associated diesel generator inoperable. The 7-day Action allows for further evaluation, re-sampling, and re-analysis of the diesel generator fuel oil.

Technical Changes – Removal of Details

None

Discussion of Differences

<u>ANO-1 Comparison</u>

The proposed changes result in the ANO-1 ITS and ANO-2 TSs being similar. The ANO-1 ITS has a separate TS 3.8.3 for Diesel Fuel Oil and Starting Air which the proposed change creates in part.

<u>NUREG-1432 Comparison</u>

NUREG-1432 has separate TSs for the diesel generator and the diesel generator fuel oil, lube oil and starting air systems. The proposed change adopts the actions associated with the fuel oil system that are addressed in NUREG-1432 TS 3.8.3 as PTS 3.8.1.3, however does not adopt the entire TS. The intent of the actions for fuel oil contained in the NUREG is met by the proposed change.

1.45 TS 3.9.1, Refueling Operations Boron Requirements, Action (Page 3/4 9-1)

Discussion of Changes

The current action wording in part states: “and continue boration at ≥ 40 gpm of $K_{eff.}$” The current wording does not adequately describe what is required. This portion of the wording will be changed to state: “and continue boration at ≥ 40 gpm of ≥ 2500 ppm boric acid solution until K_{eff}.” The proposed change is consistent with the wording that exists in the action statements of TS 3.10.1, 3.1.1.1, and 3.1.1.2.

Administrative Changes

A1 The designated change represents a non-technical, non-intent change. Examples of this type of change include: wording preference; convention adoption; editorial, numbering and formatting changes; and hierarchy structure.

Technical Changes – More Restrictive

None

Technical Changes – Less Restrictive

None

Technical Changes – Removal of Details

None

Discussion of Differences

The proposed change is an administrative change and no attempt is made to make the ANO-2 specification similar to the ANO-1 TS or NUREG-1432.

1.46 SR 4.9.11.2, Fuel Handling Area Ventilation (Pages 3/4 9-12 and 9-13)

Discussion of Changes

The current SR provides the testing criteria for the fuel handling area filtration system. The filter testing program will be relocated to PTS 6.5.11. The current SR will be revised to direct testing of the fuel handling area ventilation filtration system in accordance with PTS 6.5.11. Several deletions are proposed to the current SR in order to accommodate the relocation to PTS 6.5.11. For more detail see the section that follows and describes the proposed changes to add the new Ventilation Filter Testing Program (PTS 6.5.11). Due to the deletion of a page in the TSs, the footer will be changed to designate that the next page is page 3/4 9-14.

Administrative Changes

A1 The designated change represents a non-technical, non-intent change. Examples of this type of change include: wording preference; convention adoption; editorial, numbering and formatting changes; and hierarchy structure.

Technical Changes – More Restrictive

None

Technical Changes – Less Restrictive

None

Technical Changes – Removal of Details

None

Discussion of Differences

ANO-1 and NUREG-1432 Comparison

ANO-1 ITS (SR 3.7.12.2) and NUREG-1432 (SR 3.7.14.2) have a similar SR as PTS SR 4.9.11.2. Due to the format differences between ITS and CTS minor differences exist.

1.47 TS 3.10.2, Special Test Exceptions – Group Height, Insertion and Power Distribution Limits (Page 3/4 10-2)

Discussion of Changes

The LCO for TS 3.10.2 says in part “Functional Unit 15 of Table 3.3-1.” The proposed change will modify the Functional Unit number that is listed in LCO of TS 3.10.2 to “Functional Unit 14 of Table 3.3-1.” TS Amendment 216 (NRC SER dated May 18, 2000) deleted functional unit 11 from TS Table 3.3-1 and renumbered the remaining functional units (12-15) on the table to 11-14, thereby making the reference to Functional Unit 15 in TS 3.10.2 inaccurate.

Administrative Changes

A1 The designated change represents a non-technical, non-intent change. Examples of this type of change include: wording preference; convention adoption; editorial, numbering and formatting changes; and hierarchy structure.

Technical Changes – More Restrictive

None

Technical Changes – Less Restrictive

None

Technical Changes – Removal of Details

None

Discussion of Differences

The proposed change is an administrative change. The change is not intended to be similar to the ANO-1 TS or NUREG-1432.

1.48 Administrative Controls Section 6.1, Responsibility (Page 6-1)

Discussion of Changes

The proposed change to CTS 6.1.1 and CTS 6.1.2 will eliminate the reference to ANO-2 and make other minor administrative changes.

Administrative Changes

A1 The designated change represents a non-technical, non-intent change. Examples of this type of change include: wording preference; convention adoption; editorial, numbering and formatting changes; and hierarchy structure.

A13 The change modified the title of "ANO-2 plant manager" to "Plant Manager Operations." This change is an organization change at ANO that resulted in one plant manager between the two units.

Technical Changes – More Restrictive

None

Technical Changes – Less Restrictive

None

Technical Changes – Removal of Details

None

Discussion of Differences

<u>ANO-1 Comparison</u>

The proposed change is consistent with the words contained in the ANO-1 ITS taking into account the changes proposed in a letter to the NRC dated March 13, 2002 (Proposed Changes to Support Implementation of ANO-1 Improved Technical Specifications (ITS) (1CAN020301)) and approved on June 10, 2002 (NRC Safety Evaluation Related to ANO-1 Amendment 218).

<u>NUREG-1432</u>

NUREG-1432 includes a requirement for the plant manager or his designee to approve, prior to implementation, each proposed test, experiment or modification to systems or equipment that affect nuclear safety. This will not be adopted. ANO-2 TS Amendment 160 dated April 25, 1995 eliminated this detail. Approval requirements for such procedures and modifications are delineated in the QAPM as discussed in the request for and approval of Amendment 160. This change is consistent with the current license basis.

1.48 Administrative Controls Section 6.1, Responsibility (Page 6-1) (continued)

Discussion of Differences NUREG-1432 (continued)

NUREG 5.1.2 identifies the “Shift Supervisor” as being responsible for the control room command function. This is not consistent with the current practice at ANO and will not be adopted. The “command and control” functions are currently assigned to a Control Room Supervisor who is not limited to the area of the control room envelope. A Shift Manager is also provided who implements many of the functions of the NUREG “Shift Supervisor” and who typically remains in the control room. Further, the command structure is adequately controlled by procedures and the “turnover” requirements are unnecessary. The proposed changes are consistent with the current license basis.

1.49 Administrative Controls Section 6.2.1, Offsite and Onsite Organizations (Page 6-1)

Discussion of Changes

The changes to 6.2.1 delete the specific reference to ANO-2 and make other preferred wording changes.

Administrative Changes

A1 The designated change represents a non-technical, non-intent change. Examples of this type of change include: wording preference; convention adoption; editorial, numbering and formatting changes; and hierarchy structure.

A13 The change modified the title of "ANO-2 plant manager" to "Plant Manager Operations." This change is an organization change at ANO that resulted in one plant manager between the two units.

Technical Changes – More Restrictive

None

Technical Changes – Less Restrictive

None

Technical Changes – Removal of Details

None

Discussion of Differences

ANO-1 Comparison

The ANO-2 proposed TS is consistent with the wording in ANO-1 ITS. The proposed change to PTS 6.2.1.b is consistent with the wording contained in the ANO-1 ITS conversion taking into account a proposed change included in a letter dated March 13, 2002 (Proposed Changes to Support Implementation of ANO-1 Improved Technical Specifications (ITS) (1CAN030201)) and approved by the NRC on June 10, 2002 (NRC Safety Evaluation Related to ANO-1 Amendment 218).

1.49 Administrative Controls Section 6.2.1, Offsite and Onsite Organizations (Page 6-1) (continued)

NUREG-1432 Comparison

The ANO-2 proposed change is inconsistent with the wording contained in NUREG-1432. NUREG-1432 refers to “nuclear power plant.” This difference is acceptable as “unit” more appropriately reflects separation of ANO-1 and ANO-2.

NUREG-1432 5.2.1.a refers to “plant-specific” titles while the proposed change (PTS 6.2.1.a) refers to “unit specific” titles. This is a minor editorial difference. With the two units at the ANO location, it is appropriate to designate them as “units” and the entire facility as the “plant.”

Only minor differences exist between the proposed change to TS 6.2.1.b and NUREG 5.2.1.b. The title of “plant manager” is “Plant Manager Operations” at ANO. The reference to “unit” rather than “plant” is more appropriate for ANO since it is a dual unit site.

PTS 6.2.1.c uses the word “unit” instead of the word “plant,” which is used in NUREG-1432 5.2.1.c. This is acceptable, as ANO is a two-unit site.

The proposed change to TS 6.2.1.c includes “The specified corporate executive shall be documented in the SAR, and,” which is not included in NUREG-1432. This sentence is in the current TS and is consistent with the ANO-1 ITS. No change is proposed to the CTS as related to this sentence.

The proposed change to TS 6.2.1.d is consistent with NUREG-1432.

1.50 Administrative Controls Section 6.2.2, Unit Staff (Pages 6-1 and 6-2)

Discussion of Changes

The proposed changes reorganize the section and provide clarity for the ANO site. In addition, many of the requirements are being removed because they duplicate requirements provided in the Code of Federal Regulations (CFR).

Administrative Changes

A1 The designated change represents a non-technical, non-intent change. Examples of this type of change include: wording preference; convention adoption; editorial, numbering and formatting changes; and hierarchy structure.

A11 This information will be removed from the PTS since it duplicates requirements provided in the regulations. Such duplication is unnecessary and results in additional administrative burden to revise the duplicate TS when these regulations are revised. Since removal of the information results in no actual change in the requirements, removal of the duplicative information is considered an administrative change. Further, change to the requirements will be controlled by the NRC.

CTS Table 6.2-1	10 CFR 50.54(m)(2)(i)
CTS Table 6.2-1 Note *	10 CFR 50.54(m)(2)(iv)
CTS 6.2.2.a	10 CFR 50.54(m)(2)(i)
CTS 6.2.2.b	10 CFR 50.54(m)(2)(iii) and 50.54(k)
CTS 6.2.2.c	10 CFR 50.54(m)(1) and (m)(2)(iii)
CTS 6.2.2.e	10 CFR 50.54(m)(2)(iv)
CTS 6.7.1.c	10 CFR 50.36, 10 CFR 50.72, and 10 CFR 50.73
CTS 6.9.1	10 CFR 50.4
CTS 6.9.2	10 CFR 50.4
CTS 6.9.5.3	10 CFR 50.4

A12 CTS Table 6.2-1 currently contains requirements associated with the non-licensed operator that are proposed to be located at PTS 6.2.2.a. This is an administrative change that simply relocates the CTS information. Otherwise no change is proposed.

Technical Changes – More Restrictive

None

Technical Changes – Less Restrictive

L6 PTS 6.2.2.d will allow the radiation protection position to be vacant for not more than 2 hours in order to provide for an unexpected absence. The proposed change is reasonable. A similar allowance is granted to licensed operators and is included in the CTS as the # Note associated with Table 6.2-1.

L7 PTS 6.2.2.g will allow the Shift Technical Advisor (STA) to support the shift crew instead of only the shift supervisor. The change provides more flexibility to the STA and the crew and is consistent with the actual practice of the STA.

1.50 Administrative Controls Section 6.2.2, Unit Staff (Pages 6-1 and 6-2)(continued)

Technical Changes – Less Restrictive (continued)

L8 PTS 6.2.2.c will allow the STA position to be vacant for up to two hours in order to provide for an unexpected absence. This will allow needed staffing flexibility. Prior to the approval of TS Amendment 209 (Safety Evaluation Report (SER) dated August 26, 1999), the requirement to have an STA was included in Table 6.2-1 and the associated # note that allowed for unexpected vacancies applied. The two hour allowance for vacancy was inappropriately disassociated from the STA in Amendment 209.

Technical Changes – Removal of Details

None

Discussion of Differences

ANO-1 Comparison (CTS 6.2.2.a and PTS 6.2.2.b)

The proposed change is consistent with ANO-1 ITS 5.2.2.a and 5.2.2.b taking into account the proposed change submitted to the NRC dated March 13, 2002 (Proposed Changes to Support Implementation of ANO-1 Improved Technical Specifications (ITS) (1CAN030201)) and approved by the NRC on June 10, 2002 (NRC SER to ANO-1 Amendment 218).

NUREG-1432 Comparison (CTS 6.2.2.a and PTS 6.2.2.b)

The proposed changes to TS 6.2.2.a and 6.2.2.b differ slightly from NUREG-1432 due to the need to identify shift manning requirements for “one unit, one control room.” In addition, ANO-2 currently requires three non-licensed operators when the reactor is operating in MODES 1, 2, 3, or 4. ANO-2 desires to retain the current licensing bases.

ANO-1 Comparison (CTS 6.2.2.b)

A similar requirement was deleted from the ANO-1 TS during conversion based on being redundant to the regulations. The proposed change is consistent with ANO-1’s ITS conversion.

NUREG-1432 Comparison (CTS 6.2.2.b)

NUREG-1432 does not contain a requirement to maintain at least one licensed Operator in the control room when fuel is in the reactor. The proposed change is consistent with NUREG-1432.

ANO-1 Comparison (CTS 6.2.2.c)

A similar requirement was deleted from the ANO-1 TS during conversion based on being redundant to the regulations. The proposed change is consistent with ANO-1’s ITS conversion.

NUREG-1432 Comparison (CTS 6.2.2.c)

The NUREG does not contain a requirement similar to ANO-2 CTS.

1.50 Administrative Controls Section 6.2.2, Unit Staff (Pages 6-1 and 6-2) (continued)

Discussion of Differences (continued)

ANO-1 Comparison (PTS 6.2.2.c)

The proposed change is consistent with the ANO-1 ITS conversion specification 5.2.2.c.

NUREG-1432 Comparison (PTS 6.2.2.c)

The NUREG does not include the phrase "for one unit, one control room." The phrase is needed to designate the appropriate table in 10 CFR 50.54(m)(2)(i).

ANO-1 Comparison (CTS 6.2.2.d)

The proposed change is consistent with the approved ANO-1 ITS conversion.

NUREG-1432 Comparison (CTS 6.2.2.d)

PTS 6.2.2.d will be retained as "an individual qualified in radiation protection procedures." NUREG-1432 5.2.2.c states, "A radiation protection technician shall be on site when fuel is in the reactor." The current license bases will be retained to continue to allow the greater flexibility provided by the CTS for fulfilling this position requirement.

ANO-1 Comparison (CTS 6.2.2.e)

The ANO-1 ITS does not include a requirement similar to the ANO-2 CTS. Therefore, the change is consistent with ANO-1 ITS.

NUREG-1432 Comparison (CTS 6.2.2.e)

NUREG-1432 does not contain a requirement similar to CTS 6.2.2.e. Therefore, the change is consistent with NUREG-1432.

ANO-1 Comparison (CTS 6.2.2.f and PTS 6.2.2.g)

The proposed change is consistent with the ANO-1 approved ITS wording.

NUREG-1432 Comparison (CTS 6.2.2.f and PTS 6.2.2g)

Minor wording differences exist between the NUREG and the proposed change. The ANO-2 current licensing basis specifies that the position is only required during MODES 1, 2, 3, and 4, which will be retained in the proposed change.

ANO-1 Comparison (CTS 6.2.2.g and PTS 6.2.2.e)

The proposed change is consistent with the ANO-1 ITS.

1.50 Administrative Controls Section 6.2.2, Unit Staff (Pages 6-1 and 6-2) (continued)

Discussion of Differences (continued)

NUREG-1432 Comparison (CTS 6.2.2.g and PTS 6.2.2.e)

The current licensing basis and proposed change reference Generic Letter (GL) 82-12, which contains the requirements set forth in NUREG-1432 specification 5.2.2.d. Therefore, the proposed change is consistent with the intent of NUREG-1432.

ANO-1 and NUREG-1432 Comparison (CTS 6.2.2.h and PTS 6.2.2.f)

The wording is consistent with the ANO-1 ITS and NUREG-1432 wording.

1.51 Administrative Controls Section (Page 6-3)

Discussion of Changes

The current information “This page intentionally left blank” listed on page 6-3 will be deleted.

Administrative Changes

A1 The designated change represents a non-technical, non-intent change. Examples of this type of change include: wording preference; convention adoption; editorial, numbering and formatting changes; and hierarchy structure.

Technical Changes – More Restrictive

None

Technical Changes – Less Restrictive

None

Technical Changes – Removal of Details

None

Discussion of Differences

None

1.52 Administrative Controls Table 6.2-1, Minimum Shift Crew Composition (Page 6-4)

Discussion of Changes

This table and the associated * note will be deleted. The # note will be relocated to PTS 6.2.2.c. See previous section for the discussion of changes associated with the # note.

Administrative Changes

A11 This information will be removed from the PTS since it duplicates requirements provided in the regulations. Such duplication is unnecessary and results in additional administrative burden to revise the duplicate TS when these regulations are revised. Since removal of the information results in no actual change in the requirements, removal of the duplicative information is considered an administrative change. Further, change to the requirements will be controlled by the NRC.

CTS Table 6.2-1	10 CFR 50.54(m)(2)(i)
CTS Table 6.2-1 Note *	10 CFR 50.54(m)(2)(iv)
CTS 6.2.2.a	10 CFR 50.54(m)(2)(i)
CTS 6.2.2.b	10 CFR 50.54(m)(2)(iii) and 50.54(k)
CTS 6.2.2.c	10 CFR 50.54(m)(1) and (m)(2)(iii)
CTS 6.2.2.e	10 CFR 50.54(m)(2)(iv)
CTS 6.7.1.c	10 CFR 50.36, 10 CFR 50.72, and 10 CFR 50.73
CTS 6.9.1	10 CFR 50.4
CTS 6.9.2	10 CFR 50.4
CTS 6.9.5.3	10 CFR 50.4

A12 CTS Table 6.2-1 currently contains requirements associated with the non-licensed operator that are proposed to be located at PTS 6.2.2.a. This is an administrative change that simply relocates the CTS information. Otherwise no change is proposed.

Technical Changes – More Restrictive

None

Technical Changes – Less Restrictive

None

Technical Changes – Removal of Details

None

1.52 Administrative Controls Table 6.2-1, Minimum Shift Crew Composition (Page 6-4) (continued)

Discussion of Differences

ANO-1 Comparison (CTS Table 6.2-1)

The proposed change is consistent with ANO-1 ITS. See previous discussion under CTS 6.2.2.a.

NUREG-1432 Comparison (CTS Table 6.2-1)

See previous discussion under CTS 6.2.2.a.

ANO-1 and NUREG-1432 Comparison (CTS Table 6.2-1 * note)

The proposed change is consistent with the ANO-1 ITS and NUREG-1432.

ANO-1 Comparison (CTS Table 6.2-1 # note)

The proposed change is consistent with the ANO-1 ITS.

NUREG-1432 Comparison (CTS Table 6.2-1 # note)

The proposed change is consistent with the intent of NUREG-1432, although specifically references the requirements 10 CFR 50.54(m)(2)(i) for one unit, one control room. See previous discussion related to CTS 6.2.2.a.

1.53 Administrative Controls Section 6.3, Unit Staff Qualifications (Page 6-5)

Discussion of Changes

The requirement to meet the minimum qualifications of ANSI N18.1, 1971 for unit staff qualifications will be changed to ANS 3.1-1978. Other minor changes are also made.

Administrative Changes

A1 The designated change represents a non-technical, non-intent change. Examples of this type of change include: wording preference; convention adoption; editorial, numbering and formatting changes; and hierarchy structure.

Technical Changes – More Restrictive

M7 PTS 6.3.1 will be updated to reflect the latest changes to the Quality Assurance Program Manual (QAPM) approved by the NRC on November 6, 1998 (TAC No. M97893). Unit staff qualifications are revised to reflect commitments to ANSI ANS 3.1-1978 (in lieu of ANSI N18.1-1971). Additional experience and education requirements are imposed for certain positions due to this change. This change is an additional restriction on unit operation.

Technical Changes – Less Restrictive

None

Technical Changes – Removal of Details

None

Discussion of Differences

<u>ANO-1 Comparison</u>

The proposed change is consistent with the ANO-1 ITS.

<u>NUREG-1432 Comparison</u>

The proposed change is consistent with the intent of NUREG-1432, Specification 5.3.1.

NUREG-1432 also includes Specification 5.3.2 as follows:

> "For the purpose of 10 CFR 55.4, a licensed Senior Reactor Operator (SRO) and a licensed reactor operator (RO) are those individuals who, in addition to meeting the requirements of TS 5.3.1, perform the functions described in 10 CFR 50.54(m)."

Proposed TS 6.2.2.b describes the shift composition for licensed operators and references 10 CFR 50.54(m). Due to this reference it is clear that ANO-2 licensed operators must perform the functions of 10 CFR 50.54(m). Therefore, this NUREG-1432 specification is not adopted.

1.54 Administrative Controls Section, Page 6-5

Discussion of Changes

The markup of this page includes in part the changes to Section 6.3, Unit Staff Qualifications which were previously discussed.

The markup page also includes section title additions for section 6.4, Procedures, 6.5, Programs and Manuals, 6.5.1, Offsite Dose Calculation Manual (ODCM), 6.5.2, Primary Coolant Sources Outside Containment, 6.5.3, Iodine Monitoring, 6.5.4 Radioactive Effluent Controls Program, 6.5.5, Component Cyclic or Transient Limit Program, 6.5.6, not used, 6.5.9, Steam Generator (SG) Tube Surveillance Program, 6.5.10, Secondary Water Chemistry, 6.5.11, Ventilation Filter Testing Program (VFTP), 6.5.12, later, and 6.5.13 Diesel Fuel Oil Testing Program. These changes are place holders and the discussion of changes associated with each will follow.

A minor administrative change is made to the header of the table in CTS 6.5.8 that reflects the testing frequencies specified in Section XI of the ASME Boiler and Pressure Vessel Code. The change is preferred wording.

Administrative Changes

A1 The designated change represents a non-technical, non-intent change. Examples of this type of change include: wording preference; convention adoption; editorial, numbering and formatting changes; and hierarchy structure.

Technical Changes – More Restrictive

None

Technical Changes – Less Restrictive

None

Technical Changes – Removal of Details

None

Discussion of Differences

<u>ANO-1 ITS and NUREG-1432 Comparison</u>

The proposed change to the table header in CTS 6.5.8 is consistent with the wording in ANO-1 ITS 5.5.8. The words differ from the header in NUREG-1432; however, the intent is the same.

1.55 Administrative Controls Section, Page 6-12a

Discussion of Changes

Section 6.6 which is listed as "DELETED" will be permanently deleted. Sections 6.5.15 and 6.5.16 are added as place keepers and will be discussed later.

Administrative Changes

A1 The designated change represents a non-technical, non-intent change. Examples of this type of change include: wording preference; convention adoption; editorial, numbering and formatting changes; and hierarchy structure.

Technical Changes – More Restrictive

None

Technical Changes – Less Restrictive

None

Technical Changes – Removal of Details

None

Discussion of Differences

None

1.56 Administrative Controls Section 6.7 – Safety Limit Violation (Page 6-13)

Discussion of Changes

Section 6.7, Safety Limit Violation will be permanently deleted.

Administrative Changes

A11 This information will be removed from the PTS since it duplicates requirements provided in the regulations. Such duplication is unnecessary and results in additional administrative burden to revise the duplicate TS when these regulations are revised. Since removal of the information results in no actual change in the requirements, removal of the duplicative information is considered an administrative change. Further, change to the requirements will be controlled by the NRC.

CTS Table 6.2-1	10 CFR 50.54(m)(2)(i)
CTS Table 6.2-1 Note *	10 CFR 50.54(m)(2)(iv)
CTS 6.2.2.a	10 CFR 50.54(m)(2)(i)
CTS 6.2.2.b	10 CFR 50.54(m)(2)(iii) and 50.54(k)
CTS 6.2.2.c	10 CFR 50.54(m)(1) and (m)(2)(iii)
CTS 6.2.2.e	10 CFR 50.54(m)(2)(iv)
CTS 6.7.1.c	10 CFR 50.36, 10 CFR 50.72, and 10 CFR 50.73
CTS 6.9.1	10 CFR 50.4
CTS 6.9.2	10 CFR 50.4
CTS 6.9.5.3	10 CFR 50.4

A14 CTS 6.7 will be deleted. CTS 6.7.1.a is redundant to information included in Section 2.1, Safety Limits.

Technical Changes – More Restrictive

None

Technical Changes – Less Restrictive

L12 CTS 6.7.1.b requires notification of the Vice President, Operations ANO within 24 hours of violating a safety limit. This notification is administratively controlled as part of the ANO corrective action process and will be deleted. This notification is not required to ensure any of the four criteria listed in 10 CFR 50.36. The administrative controls section of Technical Specifications is described in 10 CFR 50.36 as reporting what is necessary to assure operation of the facility in a safe manner. Although this notification will continue to be performed as part of the standard practices for notification, it does not assure the facility is operated in a safe manner. Actions taken in the control room by the control room operators assure the safety of the facility.

Technical Changes – Removal of Details

None

1.56 Administrative Controls Section 6.7 – Safety Limit Violation (Page 6-13) (continued)

Discussion of Differences

ANO-1 and NUREG-1432 Comparison

The proposed change is consistent with the ANO-1 ITS and NUREG-1432.

1.57 Administrative Controls Section 6.8, Procedures and Programs (Page 6-13)

Discussion of Changes

The TS will be renumbered and renamed as PTS 6.4, Procedures. Several procedure types will be deleted as they are required by Regulatory Guide (RG) 1.33. The current TS 6.8.1.a requires that applicable procedures recommended in Appendix A of RG 1.33 shall be established, implemented, and maintained, therefore, listing specific procedure types that are contained in RG 1.33 is unnecessary.

CTS 6.8.2 which states “Deleted” will be permanently removed.

Administrative Changes

A1 The designated change represents a non-technical, non-intent change. Examples of this type of change include: wording preference; convention adoption; editorial, numbering and formatting changes; and hierarchy structure.

A22 CTS 6.8.1.a requires that written procedures shall be established, implemented, and maintained for the applicable procedures recommended in RG 1.33, Revision 2, Appendix A. This requirement will be retained as PTS 6.4.1.a. CTS 6.8.1.b, 6.8.1.c, and 6.8.1.h require that procedures for refueling operations, surveillance and test activities of safety related equipment, and new and spent fuel storage be established, implemented, and maintained. These procedures are included in RG 1.33 and therefore duplicate the requirements of PTS 6.4.1.a. CTS 6.8.1.b, 6.8.1.c, and 6.8.1.h will be deleted.

Technical Changes – More Restrictive

M8 PTS 6.4.1.d – Requirements will be included to provide procedures for each of the programs identified in PTS 6.5. The proposed change is consistent with the NUREGs and is an additional restriction on unit operation. CTS 6.8.1.i, ODCM and PCP implementation will be relocated to the Programs section. Written procedures for the ODCM will be required by PTS 6.4.d. Therefore, the ODCM and PCP do not need to be listed separately in section 6.4.

M9 PTS 6.4.1.b – This is a new requirement to maintain the emergency operating procedures in accordance with the requirements in NUREG-0737 and NUREG-0737, Supplement 1, as stated in Section 7.1 of Generic Letter 82-33. ANO-2 currently maintains these procedures as required by these documents.

Technical Changes – Less Restrictive

None

Technical Changes – Removal of Details

None

1.57 Administrative Controls Section 6.8, Procedures and Programs (Page 6-13) (continued)

Discussion of Differences

ANO-1 and NUREG-1432 Comparison (CTS 6.8.1.a)

The proposed re-ordering of the words is consistent with the ANO-1 ITS 5.4.1.a and NUREG-1432 5.4.1.a.

ANO-1 Comparison (CTS 6.8.1.b, 6.8.1.c, and 6.8.1.h)

The proposed change is consistent with the ANO-1 ITS. None of these activities are described in the ANO-1 ITS, other than as required by RG 1.33.

NUREG-1432 Comparison (CTS 6.8.1.b, 6.8.1.c, and 6.8.1.h)

The proposed change is consistent with NUREG-1432 which does not include separate requirements for written procedures for refueling operations, surveillance and test activities of safety related equipment, or new and spent fuel storage, except as required by RG 1.33.

ANO-1 and NUREG-1432 Comparison (CTS 6.8.1.f)

ANO-1 ITS 5.4.1.c and NUREG-1432 specification 5.4.1.d are the same as the proposed change.

ANO-1 Comparison (CTS 6.8.1.g)

ANO-1 does not have a core protection calculator and therefore does not require a similar TS.

NUREG-1432 Comparison (CTS 6.8.1.g)

The proposed change with the minor editorial changes is consistent with the wording of NUREG-1432 specification 5.4.1.f.

ANO-1 and NUREG-1432 Comparison (CTS 6.8.1.i)

The requirement to maintain procedures for ODCM and PCP implementation is captured in PTS 6.4.1.d which is consistent with the wording in ANO-1 ITS 5.4.1.d and NUREG-1432, specification 5.4.1.e.

ANO-1 and NUREG-1432 Comparison (PTS 6.4.1.b)

The proposed change to add PTS 6.4.1.b is consistent with the wording in ANO-1 ITS 5.4.1.b. A reference to Section 7.1 of Generic Letter 82-33 is included in the PTS which is not included in NUREG-1432. Section 7.0 is the only portion of the Generic Letter that requires upgrades to the emergency operating procedures. The reference to Section 7.1 provides an editorial clarification to prevent possible misinterpretation of requirements to provide emergency operating procedures for all items identified in the Generic Letter.

1.57 Administrative Controls Section 6.8, Procedures and Programs (Page 6-13) (continued)

Discussion of Differences

ANO-1 Comparison (CTS 6.8.1.i)

The ANO-1 ITS do not include a reference to written procedures related to the ODCM or the PCP other than as delineated in specification 5.4.1.d, which requires written procedures for all the programs included in Section 5.5. Therefore, this change is consistent with the ANO-1 ITS.

NUREG-1432 Comparison (CTS 6.8.1.i)

NUREG-1432 does not include a reference to written procedures related to the ODCM or the PCP other than as delineated in specification 5.4.1.e, which requires written procedures for all the programs included in Section 5.5. Therefore, this change is consistent with NUREG-1432.

NUREG-1432 5.4.1.c

NUREG-1432 specification 5.4.1.c requires the establishment, implementation, and maintenance of written procedures covering “quality assurance for effluent and environmental monitoring.” This will not be adopted. 10 CFR 50 and Appendix I of Part 50 require procedures for effluent and environmental monitoring. The Quality Assurance Program Manual (QAPM) is considered applicable to the implementation procedures for effluent and environmental monitoring for the station. A periodic audit of the radiological environmental monitoring program is implemented through the current QAPM Section c.2.a.f. These controls are considered sufficient since they are not directly pertinent to obviate the possibility of an abnormal situation or event that might result in an immediate threat to public health and safety. Since these details are also not necessary to adequately describe the pertinent regulatory requirement, they are not mandated by 10 CFR 50.36, and they do not meet the criteria in 10 CFR 50.36, they can be appropriately retained in licensee controlled documents without a significant impact on safety. Retaining these requirements in controlled documents also provides adequate assurance that they will be maintained. Changes to the QAPM are controlled by 10 CFR 50.54. Since the controls are consistent with the QA controls for other activities, the specific listing for effluent and environmental monitoring is unnecessary.

1.58 Administrative Controls Section 6.8.3 and 6.8.4.a, Radioactive Effluent Controls Program (Pages 6-14 and 6-14a)

Discussion of Changes

CTS 6.8.3 which states “Deleted” will be permanently removed.

CTS 6.8.4.a, Radioactive Effluent Controls Program, will be retained as Specification 6.5.4. Minor changes are proposed which are considered editorial. “Beyond site boundary” will be added to CTS 6.8.4.a.10) and is consistent with the definition of “member of the public” included in 40 CFR 190. An allowance to apply SR 4.0.2 and 4.0.3 will be added.

Administrative Changes

A1 The designated change represents a non-technical, non-intent change. Examples of this type of change include: wording preference; convention adoption; editorial, numbering and formatting changes; and hierarchy structure.

A16 PTS 6.5.4 – A statement regarding the applicability of SR 4.0.2 and 4.0.3 will be added. This statement is consistent with the intent of performing periodic surveillances. Since no change to regulatory requirements is made this change is considered administrative.

A33 PTS 6.5.4.j is modified to state that the limitations on the annual dose or dose commitment to any MEMBER OF THE PUBLIC are only applicable to those individuals who are beyond site boundary. This is an administrative change consistent with the referenced 40 CFR 190. 40 CFR 190, *Environmental Radiation Protection Standards for Nuclear Power Operations,* is applicable ”to radiation doses received by members of the public in the general environment and to radioactive materials introduced into the general environment as the result of operations which are part of a nuclear fuel cycle.” The definition for member of the public contained in 40 CFR 190 states: “Member of the public means any individual that can receive a radiation dose in the general environment, whether he may or may not also be exposed to radiation in an occupation associated with a nuclear fuel cycle. However, an individual is not considered a member of the public during any period in which he is engaged in carrying out any operation which is part of a nuclear fuel cycle.” Therefore, the proposed change conforms to the current regulations.

A35 The proposed change is consistent with NRC approved Technical Specification Task Force (TSTF)–308, *Determination of Cumulative and Projected Contributions in RECP.*

Technical Changes – More Restrictive

None

Technical Changes – Less Restrictive

None

1.58 Administrative Controls Section 6.8.3 and 6.8.4.a, Radioactive Effluent Controls Program (Pages 6-14 and 6-14a) (continued)

Discussion of Changes continued

Technical Changes – Removal of Details

None

Discussion of Differences

ANO-1 Comparison (CTS 6.8.4.a.2 and 6.8.4.a.7)

The ANO-2 proposed change is consistent with ANO-1 ITS 5.5.4 based on the inclusion of the ANO-1 proposed changes to this specification which were submitted to the NRC (Letter dated March 13, 2002, Proposed Changes to Support Implementation of ANO-1 Improved Technical Specifications (ITS) (1CAN030201)) and approved by the NRC on June 10, 2002 (NRC Safety Evaluation Related to ANO-1 Amendment 218).

NUREG-1432 Comparison (CTS 6.8.4.a.2 and 6.8.4.a.7)

NUREG-1432 references Appendix B, Table 2, Column 2 of 10 CFR 20.1001-20.2402, which will not be adopted with the ANO-2 change. The ANO-2 CTS references 10 CFR 20.1302 and 10 CFR 20, Appendix B, Table II, Column 1 and 2. The existing software available at ANO does not support conversion to the revised 10 CFR 20 requirements. The cost of fabrication and installation of new software is expected to reach as much as $300,000. Therefore, Entergy is requesting that the limitation requirements of the CTS be retained in lieu of the revised 10 CFR 20 requirements of the NUREG.

1.59 Administrative Controls Section 6.8.4.b, Component Cyclic or Transient Limit Program (Page 6-14a)

Discussion of Changes

The Component Cyclic or Transient Limit Program (CTS 6.8.4.b) will be retained as PTS 6.5.5 and includes minor punctuation and preferred wording changes which are classified as editorial.

Administrative Changes

A1 The designated change represents a non-technical, non-intent change. Examples of this type of change include: wording preference; convention adoption; editorial, numbering and formatting changes; and hierarchy structure.

Technical Changes – More Restrictive

None

Technical Changes – Less Restrictive

None

Technical Changes – Removal of Details

None

Discussion of Differences

ANO-1 Comparison

The ANO-1 ITS does not include this requirement.

NUREG-1432 Comparison

CTS 6.8.4.b is consistent with the wording contained Specification 5.5.5 of NUREG-1432.

1.60 Administrative Controls Section 6.9.1, Routine Reports (Page 6-14a)

Discussion of Changes

The introductory paragraph contained in Section 6.9.1 will be deleted as it is redundant to existing regulations.

Administrative Changes

A11 This information will be removed from the PTS since it duplicates requirements provided in the regulations. Such duplication is unnecessary and results in additional administrative burden to revise the duplicate TS when these regulations are revised. Since removal of the information results in no actual change in the requirements, removal of the duplicative information is considered an administrative change. Further, change to the requirements will be controlled by the NRC.

CTS Table 6.2-1	10 CFR 50.54(m)(2)(i)
CTS Table 6.2-1 Note *	10 CFR 50.54(m)(2)(iv)
CTS 6.2.2.a	10 CFR 50.54(m)(2)(i)
CTS 6.2.2.b	10 CFR 50.54(m)(2)(iii) and 50.54(k)
CTS 6.2.2.c	10 CFR 50.54(m)(1) and (m)(2)(iii)
CTS 6.2.2.e	10 CFR 50.54(m)(2)(iv)
CTS 6.7.1.c	10 CFR 50.36, 10 CFR 50.72, and 10 CFR 50.73
CTS 6.9.1	10 CFR 50.4
CTS 6.9.2	10 CFR 50.4
CTS 6.9.5.3	10 CFR 50.4

Technical Changes – More Restrictive

None

Technical Changes – Less Restrictive

None

Technical Changes – Removal of Details

None

Discussion of Differences

<u>ANO-1 and NUREG-1432 Comparison</u>

The proposed change is consistent with the ANO-1 ITS and NUREG-1432.

1.61 Administrative Controls Section 6.9.1.1, 6.9.1.2, and 6.9.1.3, Startup Report (Page 6-14a)

Discussion of Changes

The details related to the Startup Reports will be deleted.

Administrative Changes

None

Technical Changes – More Restrictive

None

Technical Changes – Less Restrictive

None

Technical Changes – Removal of Details

LA2 This information will be moved to a license controlled document such as the Bases, Safety Analysis Report (SAR), QAPM, Technical Requirements Manual (TRM), etc. The information provides details of design or process which are not directly pertinent to the actual requirement, i.e., Definition, Limiting Condition for Operation, or Surveillance Requirement, but rather describe additional unnecessary details such as an acceptable method of compliance. Since these details are not necessary to adequately describe the actual regulatory requirement, they can be moved to a licensee controlled document without a significant impact on safety. Placing these details in controlled documents provides adequate assurance that they will be maintained. The Bases will be controlled by the Bases Control Process in Chapter 6 of the PTS.

CTS Location	New Location
4.7.6.1.2.a	Bases, SR 4.7.6.1.2.a
4.7.6.1.2.d.2	Bases, SR 4.7.6.1.2.b
6.9.1.1	TRM
6.9.1.2	TRM
6.9.1.3	TRM

Discussion of Differences

ANO-1 and NUREG-1432 Comparison

The proposed change is consistent with the ANO-1 ITS and NUREG-1432.

1.62 Administrative Controls Section 6.9.1.4, Annual Reports (Page 6-15)

Discussion of Changes

This introductory paragraph related to the Annual Report will be deleted.

Administrative Changes

A1 The designated change represents a non-technical, non-intent change. Examples of this type of change include: wording preference; convention adoption; editorial, numbering and formatting changes; and hierarchy structure.

A17 CTS 6.9.1.4 – This section provides an introductory paragraph into CTS 6.9.1.5, which includes a listing of the required annual reports. The paragraph will be deleted with the submittal date moved to the individual report. The individual reporting criteria adequately describe the required data and therefore this paragraph serves no purpose.

Technical Changes – More Restrictive

None

Technical Changes – Less Restrictive

None

Technical Changes – Removal of Details

None

Discussion of Differences

<u>ANO-1 ITS Comparison</u>

There is no introductory paragraph in the ANO-1 ITS Reporting Requirements. The submittal date is included in each reporting requirement. This is consistent with the proposed deletion of CTS subsection 6.9.1.4.

<u>NUREG-1432 Comparison</u>

NUREG-1432 includes an introductory sentence, which will not be included in the proposed change. Per NUREG-1432, the reports listed in section 5.6 are submitted in accordance with 10 CFR 50.4. The reports identified in this section are governed in part by 10 CFR 50.4 but also by other regulations. Therefore, this introductory sentence will not be included, as the individual reporting requirements provide adequate guidance.

1.63 Administrative Controls Section 6.9.1.5.a, Occupational Radiation Exposure Report (Page 6-15)

Discussion of Changes

This CTS provides guidance related to the Occupational Radiation Exposure Report. This specification will be relocated to proposed Section 6.6.1.

The report is currently submitted annually prior to March 1. This date will be changed to April 30 of each calendar year.

The CTS will be revised to reflect the correct 10 CFR 20 terminology for the units of occupational exposure.

The current Note 1, which defines the allowance for a common submittal to be made, will be added to the appropriate annual reports.

The current Note 2 will be modified to reflect the current regulation and included within the specification rather than as a separate note.

Administrative Changes

A1 The designated change represents a non-technical, non-intent change. Examples of this type of change include: wording preference; convention adoption; editorial, numbering and formatting changes; and hierarchy structure.

A18 PTS 6.6.1 – The proposed change will reflect the correct 10 CFR 20 terminology for the units of occupational exposure. A statement limiting the report scope to those persons monitored will be added as a statement of the obvious. Lastly, the pocket dosimeter will be revised to refer to a pocket ionization chamber and the electronic dosimeter will be specified as an additional means of collecting the exposure data. These changes are considered purely administrative since they result in no relaxation of requirements, result in compliance with 10 CFR 20, more accurately reflect the principal of operation of the pocket dosimeter, and acknowledge industry usage of advanced dosimetry devices. These changes are consistent with 10 CFR 20 and NUREG-1432.

1.63 Administrative Controls Section 6.9.1.5.a, Occupational Radiation Exposure Report (Page 6-15) (continued)

Technical Changes – More Restrictive

None

Technical Changes – Less Restrictive

L9 CTS 6.9.1.5.a defines the requirements for Occupational Radiation Exposure Report. The submittal date for this report will be revised such that the report is submitted by April 30 of each calendar year. This change is consistent with the comprehensive revisions to 10 CFR 20. The date of submittal for the Annual Occupational Exposure Report is revised from March 1 to April 30. This report is provided to supplement the information required by 10 CFR 20.2206(b) which is filed on or before April 30 in accordance with 10 CFR 20.2206 (c). The supplemental information report submittal date is therefore revised to correspond to the required submittal date of the report being supplemented.

Technical Changes – Removal of Details

None

Discussion of Differences

<u>ANO-1 ITS and NUREG-1432 Comparison</u>

The proposed wording is consistent with the ANO-1 ITS and NUREG-1432.

1.64 Administrative Controls Section 6.9.1.5.b, Steam Generator Tube Inservice Inspections (Page 6-15)

Discussion of Changes

This reporting requirement will be retained as proposed TS 6.6.7 and renamed as Steam Generator Tube Surveillance Reports. The details of the report are contained in CTS 4.4.5.5 and will also be relocated to proposed TS 6.6.7.

CTS 4.4.5.5.c of the Steam Generator (SG) Tube Inservice Inspection Report requires submittal of a Special Report pursuant to specification 6.9.2. Specification 6.9.2 will be deleted and reference to this special report will be replaced with a simple instruction to submit the report to the Commission.

Administrative Changes

A1 The designated change represents a non-technical, non-intent change. Examples of this type of change include: wording preference; convention adoption; editorial, numbering and formatting changes; and hierarchy structure.

A6 Specification 6.9.2, which requires the submittal of a special report to the Commission if various systems cannot be restored, will be deleted and thus the reference to it in various specifications will be deleted. Written communication to the NRC is described in 10 CFR 50.4 and therefore, the proposed change will only reference that the report should be submitted to the NRC. Guidance in 10 CFR 50.4 adequately ensures that the regional office will receive a copy of the report.

A20 CTS 4.4.5.5 will be moved to PTS 6.6.7 and will replace the wording in CTS 6.9.1.5.b, which requires that the criteria specified in CTS 4.4.5.5 be included in the report. The relocation results in no change to the reporting requirements.

Technical Changes – More Restrictive

None

Technical Changes – Less Restrictive

None

Technical Changes – Removal of Details

None

1.64 Administrative Controls Section 6.9.1.5.b, Steam Generator Tube Inservice Inspections (Page 6-15)(continued)

Discussion of Differences

ANO-1 ITS Comparison

ANO-1 ITS 5.6.7 describes this reporting requirement. The ANO-2 proposed change differs from the ANO-1 ITS, but is consistent with the currently approved ANO-2 license basis and consistent with the reviewer's note that is contained in NUREG-1432.

NUREG-1432 Comparison

NUREG-1432 Specification 5.6.9 describes the SG Tube Inspection Report. A reviewer's note states: "Reports required by the Licensee's current licensing basis regarding steam generator tube surveillance requirements shall be included here. An appropriate administrative controls format should be used." The proposed change to the ANO-2 TS is consistent with the current licensing basis and is, therefore, consistent with the reviewer's note contained in NUREG-1432.

1.65 Administrative Controls Section 6.9.1.5.c, Documentation of Pressurizer Safety Valve Challenges (Page 6-15)

Discussion of Changes

This specification requires documentation of all challenges to pressurizer safety valves. It was added as a result of recommendations articulated in Appendix C.2 (Item C.3.3) of NUREG-0660, Volume 1, *NRC Action Plan Developed As A result of the TMI-2 Accident.* This will be deleted.

Administrative Changes

None

Technical Changes – More Restrictive

None

Technical Changes – Less Restrictive

None

1.65 Administrative Controls Section 6.9.1.5.c, Documentation of Pressurizer Safety Valve Challenges (Page 6-15) (continued)

Technical Changes – Removal of Details

LA3 CTS 6.9.1.5.c – The reporting of these challenges was incorporated into the CTS in response to Three Mile Island (TMI) Action Item II.K.3.3. This action plan was originally implemented only to provide a venue for data gathering. There is no plant specific safety basis for submitting routine information on the operations of this particular equipment. Technical Specification Task Force (TSTF) Traveler-258 removed this reporting requirement based on Generic Letter 97-02, *"Revised Content of Monthly Operating Report"* and discussions related to the NRC Performance Indicator Program. The conclusion was that this information was not needed in the assessment of NRC Performance Indicators and as such the requirement to include information related to challenges of the pressurizer safety valves in the monthly operating report was not needed. The NUREG does not require reporting pressurizer safety valve challenges annually. Although the NUREG previously required a monthly report of any pressurizer safety valve challenges, Entergy took exception to the monthly reporting requirement in a February 1999 request for additional information related to the administrative controls of the ANO-1 and ANO-2 TSs (letter dated February 22, 1999, Additional Information Concerning Proposed Administrative Controls Technical Specifications Changes (0CAN029902)). Entergy continued to require the annual report. It is proposed that the reporting requirement for the pressurizer safety valves be deleted. The reason for deletion is consistent with the logic used in the above referenced traveler even though the reporting frequencies differ.

In 1997 with the issuance of ANO-2 TS Amendment 180 (letter dated March 7, 1997, Issuance of Amendment No. 180 to Facility Operating License No. NPF-6 – Arkansas Nuclear One, Unit 2, Addition of Low Temperature Overpressure Protection (LTOP) Requirements (TAC NO. M77399) ANO committed to include within the report of challenges to the pressurizer safety valves a report of any challenges to the LTOP valves. ANO has deleted this commitment using the allowances of the Commitment Management Program.

Discussion of Differences

<u>ANO-1 ITS and NUREG-1432 Comparison</u>

This reporting requirement is not described in the ANO-1 ITS or in NUREG-1432, therefore, the proposed change is consistent with the ANO-1 ITS and NUREG-1432.

1.66 Administrative Controls Section 6.9.1.5.d and 6.9.1.5.e, Specific Activity (Page 6-15)

Discussion of Changes

Specification 6.9.1.5.d which currently states “Deleted” will be permanently deleted.

Specification 6.9.1.5.e requires submittals of reports for specific activity analysis in which the primary coolant exceeds the limits of specification 3.4.8. This will be relocated to Specification 6.6.8 with no proposed changes other than the relocation.

Administrative Changes

A1 The designated change represents a non-technical, non-intent change. Examples of this type of change include: wording preference; convention adoption; editorial, numbering and formatting changes; and hierarchy structure.

Technical Changes – More Restrictive

None

Technical Changes – Less Restrictive

None

Technical Changes – Removal of Details

None

Discussion of Differences

ANO-1 ITS Comparison

This reporting requirement is not described in the ANO-1 ITS. It is part of the ANO-2 current licensing basis and as such will be retained.

NUREG-1432 Comparison

This reporting requirement is not described in NUREG-1432. It is part of the ANO-2 current licensing basis and as such will be retained.

1.67 Administrative Controls Section 6.9.1.6, Monthly Operating Report (Page 6-16)

Discussion of Changes

This section will be relocated to Section 6.6.4.

Administrative Changes

A1 The designated change represents a non-technical, non-intent change. Examples of this type of change include: wording preference; convention adoption; editorial, numbering and formatting changes; and hierarchy structure.

Technical Changes – More Restrictive

None

Technical Changes – Less Restrictive

None

Technical Changes – Removal of Details

None

Discussion of Differences

ANO-1 and NUREG-1432 Comparison

The wording in the proposed change is consistent with the wording in ANO-1 ITS and NUREG-1432 Specification 5.6.4.

1.68 Administrative Controls Section 6.9.2, Special Reports (Pages 6-16 & 6-17)

Discussion of Changes

This section requires submittal of a special report to the Administrator of the Regional Office within the time period specified for each of the following:

- ECCS Actuations, Specifications 3.5.2 and 3.5.3
- Inoperable Containment Radiation Monitors, Specification 3.3.3.1
- Steam Generator Tubing Surveillance – Category C-3 Results, Specification 4.4.5.5
- Maintenance of Spent Fuel Pool Structural Integrity, Specification 3.7.12
- Inoperable Reactor Vessel Level Monitoring System (RVLMS), Specification 3.3.3.6, Table 3.3-10 Item 14
- Inoperable Main Steam Line Radiation Monitors, Specification 3.3.3.1, Table 3.3-6

The individual specifications will be changed to remove the reference to CTS 6.9.2, which will be deleted. CTS 6.9.2 states that the special reports shall be submitted to the Administrator of the Regional Office. The individual specifications will be changed to state that the reports shall be submitted to the NRC.

Administrative Changes

A1 The designated change represents a non-technical, non-intent change. Examples of this type of change include: wording preference; convention adoption; editorial, numbering and formatting changes; and hierarchy structure.

A11 This information will be removed from the PTS since it duplicates requirements provided in the regulations. Such duplication is unnecessary and results in additional administrative burden to revise the duplicate TS when these regulations are revised. Since removal of the information results in no actual change in the requirements, removal of the duplicative information is considered an administrative change. Further, change to the requirements will be controlled by the NRC.

CTS Table 6.2-1	10 CFR 50.54(m)(2)(i)
CTS Table 6.2-1 Note *	10 CFR 50.54(m)(2)(iv)
CTS 6.2.2.a	10 CFR 50.54(m)(2)(i)
CTS 6.2.2.b	10 CFR 50.54(m)(2)(iii) and 50.54(k)
CTS 6.2.2.c	10 CFR 50.54(m)(1) and (m)(2)(iii)
CTS 6.2.2.e	10 CFR 50.54(m)(2)(iv)
CTS 6.7.1.c	10 CFR 50.36, 10 CFR 50.72, and 10 CFR 50.73
CTS 6.9.1	10 CFR 50.4
CTS 6.9.2	10 CFR 50.4
CTS 6.9.5.3	10 CFR 50.4

A26 Written communication to the NRC is described in 10 CFR 50.4. Although the CTS requires that the reports be submitted to the Administrator of the Regional Office only, 10 CFR 50.4 provides distribution requirements for written communications. Therefore, reference to the Administrator of the Regional Office will be deleted. This is an administrative change.

1.68 Administrative Controls Section 6.9.2, Special Reports (Pages 6-16 & 6-17) (continued)

Technical Changes – More Restrictive

None

Technical Changes – Less Restrictive

None

Technical Changes – Removal of Details

None

Discussion of Differences

ANO-1 Comparison

A similar change was made to the ANO-1 ITS. The Special Reporting section was deleted. The wording in the individual specification differs slightly. The ANO-2 proposed change will state that the reports shall be submitted to the NRC which is understood in the ANO-1 ITS.

NUREG-1432 Comparison

NUREG-1432 does not contain a section describing the need for special reports in section 5.0. The special reports required by CTS 6.9.2 are ANO-2's current licensing bases and will be included in the individual specifications. Thus, the deletion of CTS 6.9.2 is consistent with NUREG-1432.

1.69 Administrative Controls Section 6.9.3, Radioactive Effluent Release Report (Page 6-18)

Discussion of Changes

CTS 6.9.3 will be relocated to proposed TS 6.6.3. Minor changes are proposed which include the following:

- The CTS note states in part that "The submittal should combine those sections that are common to both units." In the proposed change, the "should" will be changed to a "shall."

- CTS 6.9.1.4 required submittal of the annual reports covering activities of the unit for the previous calendar year prior to March 1 of each year. The submittal date will be changed to May 1 in the proposed change.

Administrative Changes

A1 The designated change represents a non-technical, non-intent change. Examples of this type of change include: wording preference; convention adoption; editorial, numbering and formatting changes; and hierarchy structure.

A21 CTS 6.9.3 will be revised to reflect the reporting requirements consistent with 10 CFR 20 and minor editorial changes. These changes are considered purely administrative since they result in no relaxation of requirements and result in compliance with 10 CFR 20. These changes are consistent with 10 CFR 20 and NUREG-1432, Rev. 2.

Technical Changes – More Restrictive

None

Technical Changes – Less Restrictive

L13 CTS 6.9.1.4 requires the submittal of any annual reports described in CTS 6.9 prior to March 1 of each year. Therefore, the submittal of the annual report associated with CTS 6.9.3 is due prior to March 1 of each year. The proposed change revises the submittal date to prior to May 1 each year. 10 CFR 50.36a does not specify a date each year for the report; it only specifies submittal of the report annually. May 1 is selected as a convenience to allow the submittal of a single report for the ANO site.

Technical Changes – Removal of Details

None

Discussion of Differences

ANO-1 and NUREG-1432 Comparison

The proposed change is consistent with the wording in the ANO-1 ITS and in NUREG-1432.

1.70 Administrative Controls Section Page 6-19

Discussion of Changes

The wording on this page: ”This page intentionally left blank” will be deleted.

Administrative Changes

A1 The designated change represents a non-technical, non-intent change. Examples of this type of change include: wording preference; convention adoption; editorial, numbering and formatting changes; and hierarchy structure.

Technical Changes – More Restrictive

None

Technical Changes – Less Restrictive

None

Technical Changes – Removal of Details

None

Discussion of Differences

None

1.71 Administrative Controls Section 6.9.4, Annual Radioactive Environmental Operating Report (Page 6-20)

Discussion of Changes

The proposed change will relocate the Annual Radioactive Environmental Operating Report from CTS 6.9.4 to PTS 6.6.2 and change the title of the report to "Annual Radiological Environmental Operating Report."

Administrative Changes

A1 The designated change represents a non-technical, non-intent change. Examples of this type of change include: wording preference; convention adoption; editorial, numbering and formatting changes; and hierarchy structure.

Technical Changes – More Restrictive

None

Technical Changes – Less Restrictive

None

Technical Changes – Removal of Details

None

Discussion of Differences

ANO-1 and NUREG-1432 Comparison

The wording in the current TS is consistent with the wording contained in the ANO-1 ITS and in NUREG-1432.

1.72 Administrative Controls Section 6.9.5, Core Operating Limits Report (Pages 6-21 & 6-21a)

Discussion of Changes

This section will be relocated to Section 6.6.5. Minor administrative changes are proposed.

Administrative Changes

A1 The designated change represents a non-technical, non-intent change. Examples of this type of change include: wording preference; convention adoption; editorial, numbering and formatting changes; and hierarchy structure.

A11 This information will be removed from the PTS since it duplicates requirements provided in the regulations. Such duplication is unnecessary and results in additional administrative burden to revise the duplicate TS when these regulations are revised. Since removal of the information results in no actual change in the requirements, removal of the duplicative information is considered an administrative change. Further, change to the requirements will be controlled by the NRC.

CTS Table 6.2-1	10 CFR 50.54(m)(2)(i)
CTS Table 6.2-1 Note *	10 CFR 50.54(m)(2)(iv)
CTS 6.2.2.a	10 CFR 50.54(m)(2)(i)
CTS 6.2.2.b	10 CFR 50.54(m)(2)(iii) and 50.54(k)
CTS 6.2.2.c	10 CFR 50.54(m)(1) and (m)(2)(iii)
CTS 6.2.2.e	10 CFR 50.54(m)(2)(iv)
CTS 6.7.1.c	10 CFR 50.36, 10 CFR 50.72, and 10 CFR 50.73
CTS 6.9.1	10 CFR 50.4
CTS 6.9.2	10 CFR 50.4
CTS 6.9.5.3	10 CFR 50.4

Technical Changes – More Restrictive

None

Technical Changes – Less Restrictive

None

Technical Changes – Removal of Details

None

Discussion of Differences

The proposed change is consistent with both the ANO-1 ITS and NUREG-1432. The specifications listed in the proposed 6.6.5.a and the analytical methods listed in PTS 6.6.5.b are explicit to ANO-2.

1.73 Administrative Controls Section Page 6-22

Discussion of Changes

The words stating "6.10 DELETED" will be deleted from the page.

Administrative Changes

A1 The designated change represents a non-technical, non-intent change. Examples of this type of change include: wording preference; convention adoption; editorial, numbering and formatting changes; and hierarchy structure.

Technical Changes – More Restrictive

None

Technical Changes – Less Restrictive

None

Technical Changes – Removal of Details

None

Discussion of Differences

None

1.74 Administrative Controls Section 6.11, Radiation Protection Program (Page 6-23)

Discussion of Changes

The current TS 6.11 will be deleted because the requirement to maintain procedures for the radiation protection program is included in Regulatory Guide (RG) 1.33. Compliance with the RG is addressed in PTS 6.4.1.a.

Administrative Changes

A27 CTS 6.8.1.a requires that procedures recommended in Appendix “A” of RG 1.33 be established, implemented, and maintained. CTS 6.8.1.a will be retained as PTS 6.4.1 a. The requirement of CTS 6.11 will be deleted as it is redundant to the requirements of PTS 6.4.1.a.

Technical Changes – More Restrictive

None

Technical Changes – Less Restrictive

None

Technical Changes – Removal of Details

None

Discussion of Differences

<u>ANO-1 and NUREG-1432 Comparison</u>

Neither the ANO-1 TS nor NUREG-1432 includes a separate requirement for procedures associated with the radiation protection program.

1.75 Administrative Controls Section 6.12 (Page 6-23 and 6-24)

Discussion of Changes

CTS 6.12 and CTS 6.12.2 which state “(DELETED)” will be permanently removed.

Administrative Changes

A1 The designated change represents a non-technical, non-intent change. Examples of this type of change include: wording preference; convention adoption; editorial, numbering and formatting changes; and hierarchy structure.

Technical Changes – More Restrictive

None

Technical Changes – Less Restrictive

None

Technical Changes – Removal of Details

None

Discussion of Differences

None

1.76 Administrative Controls Section 6.13, High Radiation Area (Page 6-24)

Discussion of Changes

The proposed change to CTS 6.13 will update the requirements to the current 10 CFR 20 requirements and relocate the specification to Section 6.7. The PTS will also include additional, previously approved, methods for implementation of alternatives to the “control device” or “alarm signal” requirements of 10 CFR 20.

Administrative Changes

A1 The designated change represents a non-technical, non-intent change. Examples of this type of change include: wording preference; convention adoption; editorial, numbering and formatting changes; and hierarchy structure.

Technical Changes – More Restrictive

None

Technical Changes – Less Restrictive

L10 CTS 6.13 – The requirements for high radiation areas will be revised to include additional previously approved methods for implementation of alternates to the “control device” or “alarm signal” requirements of 10 CFR 20. These alternatives provide adequate control of personnel in high radiation areas as evidenced by NRC issuance of NUREG-1432.

Technical Changes – Removal of Details

None

Discussion of Differences

<u>ANO-1 Comparison</u>

ANO-2 is adopting the same wording as is contained in the current ANO-1 TSs. Changes have been made to this specification since the ITS conversion (letter dated March 13, 2002, Proposed Changes to Support Implementation of ANO-1 Improved Technical Specifications (ITS) (1CAN030201) and subsequent NRC Safety Evaluation Related to ANO-1 Amendment 218 dated June 10, 2002 (TAC NO. MB4750)).

<u>NUREG-1432 Comparison</u>

The proposed change is very similar to NUREG-1432 with only minor administrative word differences.

1.77 Administrative Controls Section 6.14, Offsite Dose Calculation Manual (Page 6-25)

Discussion of Changes

This specification will be relocated to PTS 6.5.1 with only minor wording changes and organizational title changes.

Administrative Changes

A1 The designated change represents a non-technical, non-intent change. Examples of this type of change include: wording preference; convention adoption; editorial, numbering and formatting changes; and hierarchy structure.

Technical Changes – More Restrictive

None

Technical Changes – Less Restrictive

None

Technical Changes – Removal of Details

LA4 Where possible, plant specific management position titles in the CTS will be replaced with generic titles as provided in ANSI/ANS 3.1. Personnel who fulfill these positions are still required to meet the qualifications detailed in the proposed Specification 5.3. In addition, compliance details relating to the plant specific management position titles fulfilling the duties of these generic positions will continue to be defined, established, documented and updated in the ANO-2 Safety Analysis Report (SAR). This approach is consistent with the intent of Generic Letter 88-06 which recommended, as a line item improvement, relocation of the corporate and unit organization charts to licensee controlled documents. The intent of the Generic Letter, and of this proposed change, is to reduce the unnecessary burden on NRC and licensee resources being used to process changes due solely to personnel title changes during reorganizations. Since this change does not eliminate any of the qualifications, responsibilities or requirements for these personnel or the positions, the change is considered to be a change in presentation only and is therefore administrative.

Discussion of Differences

<u>ANO-1 Comparison</u>

The proposed change is consistent with the ANO-1 ITS.

<u>NUREG-1432 Comparison</u>

The proposed change has only minor wording differences with NUREG-1432 and does not follow the format of NUREG-1432. However, neither the wording nor format differences change the intent of the specification.

1.78 Administrative Controls Section 6.15, Containment Leakage Rate Testing Program (Page 6-26)

Discussion of Changes

The containment leakage program will be relocated to PTS 6.5.16. Leak testing of the containment purge supply and exhaust isolation valves will be relocated from TS surveillance requirement (SR) 4.6.3.1.4 to PTS 6.5.16 also. This action consolidates requirements for leak testing in one location.

CTS SR 4.6.3.1.4 requires verification of leakage rates of the containment purge supply and exhaust isolation valves “prior to exceeding conditions which require establishment of reactor building integrity per TS 3.6.1.1.” In the proposed change, this is reflected by the words, “prior to entering MODE 4 from MODE 5.” CTS 3.6.1.1, “Containment Integrity” is applicable in MODES 1, 2, 3, and 4 which requires establishing OPERABILITY of containment prior to entry into MODE 4. The preferred wording is consistent with the current TS.

Administrative Changes

A1 The designated change represents a non-technical, non-intent change. Examples of this type of change include: wording preference; convention adoption; editorial, numbering and formatting changes; and hierarchy structure.

A19 PTS 6.5.16 – The “$\leq$0.60 L_a” limits for acceptable reactor building leakage will be revised to “<0. 60 L_a” for consistency with the acceptance criteria provided in 10 CFR 50, Appendix J. Therefore, this change has no impact on application of the regulations and is considered administrative.

Technical Changes – More Restrictive

None

Technical Changes – Less Restrictive

None

Technical Changes – Removal of Details

None

1.78 Administrative Controls Section 6.15, Containment Leakage Rate Testing Program (Page 6-26) (continued)

Discussion of Differences

ANO-1 Comparison

The ANO-2 proposed change will be modified to be similar to the ANO-1 ITS with the following exceptions:

- The proposed change does not replace the word “containment” with “reactor building.” The title Containment Leakage Rate Testing Program and reference to “containment” instead of “reactor building” is consistent with NUREG-1432. This does not present a change to the current wording contained in the ANO-2 TSs.

- The peak calculated containment internal pressure for the design basis loss of coolant accident for ANO-2 is 58 psig.

- The ANO-2 CTS requires that the maximum allowable containment leakage rate, L_a, shall be 0.1% of containment air weight per day at P_a. This is the current ANO-2 licensing basis and no change is proposed.

- Air lock acceptance criteria is included in the ANO-2 CTS. This is consistent with the currently approved ANO-2 TS and no change is proposed.

NUREG-1432 Comparison

Minor wording differences exist between the ANO-2 proposed TS and NUREG-1432. These differences, however, do not modify the intent of the words contained in NUREG-1432.

NUREG-1432 Specification 5.5.16 [OPTION B] does not include the testing requirements related to the containment purge supply and exhaust isolation valves. Relocation of this requirement from CTS 4.6.3.1.4 does not change the intent of the NUREG section. It consolidates the testing requirements in one location.

NUREG-1432 Specification 5.5.16.e states, “Nothing in these Technical Specifications shall be construed to modify the testing Frequencies required by 10 CFR 50, Appendix J.” The ANO-2 CTS states, “The provisions of Specification 4.0.2 do not apply to the test frequencies specified in the Containment Leakage Rate Testing Program.” The CTS words, which are consistent with the wording in the ANO-1 ITS, reflect the intent of NUREG-1432. No change is proposed to the CTS words.

1.79 Administrative Controls Section New 6.5.10, Secondary Water Chemistry Monitoring (Inserts)

Discussion of Changes

The Secondary Water Chemistry Monitoring program will be deleted as an FOL condition and added as a PTS 6.5.10. The introductory paragraph will be modified and other minor wording changes are proposed. The FOL condition requires the definition of the monitoring program in plant specific procedures. This requirement will be deleted.

Administrative Changes

A1 The designated change represents a non-technical, non-intent change. Examples of this type of change include: wording preference; convention adoption; editorial, numbering and formatting changes; and hierarchy structure.

A3 The Secondary Water Chemistry Monitoring, Primary Coolant Sources Outside Containment, and Iodine Monitoring license conditions will be moved to equivalent programmatic requirements in PTS Section 6.5, Programs and Manuals. The PTS programmatic administrative controls specification is consistent with NUREG-1432 and current plant practice, and meets the intent of the existing license conditions. As such, this change in presentation of existing requirements is purely administrative.

A23 FOL 2.C.(3) (p) and PTS 6.5.10 -The FOL requirement to define the secondary water chemistry monitoring program in plant procedures will be deleted. PTS 6.4.1.d requires that procedures be written, implemented and maintained for the programs included in specification 6.5. Therefore, inclusion of a requirement to maintain a plant specific procedure to describe the program in PTS 6.5.10 is redundant to the requirement of PTS 6.4.1.d.

Technical Changes – More Restrictive

None

Technical Changes – Less Restrictive

None

Technical Changes – Removal of Details

None

1.79 Administrative Controls Section New 6.5.10, Secondary Water Chemistry Monitoring (Inserts) (continued)

Discussion of Differences

ANO-1 and NUREG-1432 Comparison

The proposed change is consistent with the ANO-1 Specification 5.5.10.

NUREG-1432 Comparison

NUREG-1432 describes this program as one which provides controls to inhibit low pressure turbine disc stress corrosion cracking as well as Steam Generator (SG) tube degradation. The current ANO-2 FOL requirement does not include the words that the program inhibits low pressure turbine disc stress corrosion cracking. The proposed omission of the wording related to the stress corrosion cracking on the low pressure turbine disc is consistent with the approved wording in ANO-2 FOL condition. An evaluation of the secondary water chemistry to maximize the turbine availability is currently accomplished under administrative controls (Procedure 1000.043) and it is proposed to continue to be controlled in this manner. Therefore, the proposed change to the ANO-2 TS will differ from NUREG-1432 based on using the currently approved wording contained in the FOL.

1.80 Administrative Controls Section New 6.5.2, Primary Coolant Sources Outside Containment (Inserts)

Discussion of Changes

The Primary Coolant Sources Outside Containment will be deleted as an FOL condition and added as a PTS 6.5.2. Minor wording changes are proposed to the FOL condition when it is added as PTS 6.5.2. In addition, the FOL requires performance of the integrated leak test for each system at a frequency not to exceed refueling cycle intervals. These words will be changed to at least once per 18 months. Finally, the PTS adds the applicability of Surveillance Requirement 4.0.2.

Administrative Changes

A1 The designated change represents a non-technical, non-intent change. Examples of this type of change include: wording preference; convention adoption; editorial, numbering and formatting changes; and hierarchy structure.

A3 The Secondary Water Chemistry Monitoring, Primary Coolant Sources Outside Containment, and Iodine Monitoring license conditions will be moved to equivalent programmatic requirements in PTS Section 6.5, Programs and Manuals. The PTS programmatic administrative controls specification is consistent with NUREG-1432 and current plant practice, and meets the intent of the existing license conditions. As such, this change in presentation of existing requirements is purely administrative.

Technical Changes – More Restrictive

None

Technical Changes – Less Restrictive

L14 FOL 2.C.(5) requires performance of integrated leak tests for each system outside containment that could contain highly radioactive fluids "at a frequency not to exceed refueling cycle intervals." PTS 6.5.2 results in a change of the frequency to "at least once per 18 months." Since normal "refueling cycle intervals" are defined as 18 months, presenting this requirement in this manner is consistent with the current requirement.

L15 PTS 6.5.2 is considered a surveillance requirement (SR) and thus the normal surveillance intervals that are specified in the Limiting Condition for Operation (LCO) section that allow a 25% extension of the frequency in accordance with SR 4.0.2 are applicable to PTS 6.5.2. Because SR 4.0.2 applies to the LCO section of procedures, it is necessary to reference its applicability to PTS 6.5.2. This change is described in Technical Specification Task Force (TSTF)-299.

Technical Changes – Removal of Details

None

1.80 Administrative Controls Section New 6.5.2, Primary Coolant Sources Outside Containment (Inserts) (continued)

Discussion of Differences

ANO-1 ITS Comparison

The proposed change is consistent with the ANO-1 ITS.

NUREG-1432 Comparison

NUREG-1432, Section 5.5.2 includes a listing of systems that are considered primary coolant sources outside containment. This list is not incorporated. The application is adequately controlled through the design modification process and application of 10 CFR 50.59, *"Changes, Tests, and Experiments."* Therefore, the list of systems to which the program is applied will not be included in the proposed change and it is proposed to continue to administratively control the systems to which the specification is applicable.

1.81 Administrative Controls Section New 6.5.9, Steam Generator (SG) Tube Surveillance Program (Inserts)

Discussion of Changes

The proposed change relocates SR 4.4.5.0. 4.4.5.1, 4.4.5.2, 4.4.5.3, 4.4.5.4, Table 4.4-1, and Table 4.4-2 to PTS 6.5.9. Only minor editorial changes are proposed.

Administrative Changes

A1 The designated change represents a non-technical, non-intent change. Examples of this type of change include: wording preference; convention adoption; editorial, numbering and formatting changes; and hierarchy structure.

Technical Changes – More Restrictive

None

Technical Changes – Less Restrictive

None

Technical Changes – Removal of Details

None

Discussion of Differences

<u>ANO-1 ITS Comparison</u>

ANO-1 has relocated the SG tube surveillance program to Specification 5.5.9. Due to the two units being different, the current licensing basis varies slightly. ANO-2 is relocating the current licensing basis with only the minor changes.

<u>NUREG-1432 Comparison</u>

NUREG-1432 Specification 5.5.9 contains a reviewer's note specifying that the current licensing basis for the SG tube surveillance program should be relocated to this specification. ANO-2 is relocating the current licensing basis with only the minor changes. This change is consistent with the NUREG.

1.82 Administrative Controls Section New 6.5.13, Diesel Fuel Oil Testing Program (Inserts)

Discussion of Changes

CTS SR 4.8.1.1.2.b will be reworded to require verification of fuel oil properties in accordance with the Diesel Fuel Oil Testing Program (PTS 6.5.13). The new program will include testing of new fuel oil. Immediate confirmation of fuel oil quality (by monitoring for specific gravity, viscosity, and appearance/color) as well as follow-up confirmatory testing within 31 days after adding new fuel oil to the bulk storage tank will provide added assurance of acceptable fuel oil. This broad spectrum testing will not be performed routinely since this initial verification provides the necessary confirmation of fuel oil quality.

CTS SR 4.8.1.1.2.b will be revised to require the periodic testing of the stored fuel oil only for particulates (replacing the periodic testing per ASTM-D975) once every 92 days per PTS 6.5.13. These changes reflect the standard industry diesel fuel oil testing programs. Over the storage life of the ANO-2 fuel oil, the properties tested by ASTM-D975 are not expected to change and performing these tests once on the new fuel oil provides adequate assurance of the proper quality fuel oil. The periodic testing for particulates monitors a parameter that reflects degradation of fuel oil and can be trended to provide increased confidence that the stored diesel fuel oil will support diesel generator operability. The 92 day frequency which is the current licensing basis will be changed to 31 days.

PTS 6.5.13 will allow the application of SR 4.0.2 and 4.0.3 which is consistent with the current SR testing frequencies.

Administrative Changes

A2 A statement regarding the Applicability of SR 4.0.2 and /or SR 4.0.3 is added for clarification that the allowances provided by these general Surveillance Requirements are applicable to the identified program. This is an administrative change since the CTS 4.0.2 and 4.0.3 are currently applicable to the requirements being moved to the program that will be identified in the Administrative Controls section 6.0. This change is applicable to CTS 4.8.1.1.2.b which will be incorporated into the Diesel Fuel Oil testing Program, PTS 6.5.13. The change is also applicable to CTS 4.7.6.1.2 and 4.9.11.2 which will be incorporated into the Ventilation Filtration Program, PTS 6.5.11.

Technical Changes – More Restrictive

M1 CTS 4.8.1.1.2.b will be revised to include testing of new fuel oil. Immediate confirmation of fuel oil quality by monitoring for specific gravity, viscosity, and appearance, as well as follow-up confirmatory testing within 31 days after adding new fuel oil to the bulk storage tank will provide added assurance of acceptable fuel oil. This board spectrum testing will not be routinely performed since this initial verification provides the necessary confirmation of fuel oil quality. This is an additional restriction on the unit.

M14 CTS 4.8.1.1.2.b requires sampling of the diesel fuel from the fuel storage tank at least once per 92 days. PTS 6.5.13.c will change the testing frequency to every 31 days. The more frequent test frequency does not pose an undue burden.

1.82 Administrative Controls Section New 6.5.13, Diesel Fuel Oil Testing Program (Inserts) (continued)

Technical Changes – Less Restrictive

L1 PTS 6.5.13.c will require the periodic testing of stored fuel for particulates only. Refer to M1 for added testing requirements. This change reflects industry standard acceptable diesel generator (DG) fuel oil testing programs reflected in NUREG-1432. Over the storage life of ANO-2 fuel oil, the properties tested by ASTM-D975 are not expected to change and performing these tests once on the new fuel oil (see M1) provides adequate assurance of the proper quality fuel oil. The periodic testing for particulates monitors a parameter that reflects degradation of fuel oil and can be trended to provide increased confidence that the stored DG fuel oil and can be trended to provide increased confidence that the stored DG fuel oil will support SG operability.

Technical Changes – Removal of Details

LA1 This information will be moved to a licensee controlled document such as the Diesel Fuel Oil Testing Program (DFOTP), or the Ventilation Filter Testing Program (VFTP). A description of the programs will be incorporated into the Administrative Controls section 6.0. This information provides details of the method of implementation which are not directly pertinent to actual requirements. Since these details are not necessary to adequately describe the actual regulatory requirement, they can be moved to a licensee controlled document without a significant impact on safety. Placing these details in controlled documents provides adequate assurance that they will be maintained. The details of the DFOTP will be maintained in site procedures and the details of the VFTP will be relocated to the TRM. The procedure and the TRM are controlled by 10 CFR 50.59.

Discussion of Differences

<u>ANO-1 Comparison</u>

The new Diesel Fuel Oil Testing Program for ANO-2 is consistent with the ANO-1 ITS 5.5.13.

<u>NUREG-1432 Comparison</u>

NUREG-1432 and PTS 6.5.13 differ slightly. NUREG-1432 requires that the new fuel oil have a clear and bright appearance with proper color while the proposed TS requires the water and sediment to be within limits. ANO fuel oil is supplied with added dye, which precludes appropriate “clear and bright” testing.

1.83 Administrative Controls Section New 6.5.11 Ventilation Filter Testing Program (Inserts)

Discussion of Changes

The Control Room Emergency Air Filtration System Surveillance Requirements 4.7.6.1.2.b, c., d.1, e., and f. and the Fuel Handling Area Ventilation System Surveillance Requirement 4.9.11.2 will be combined into the new Ventilation Filter Testing Program (PTS 6.5.11). The proposed change will result in a new SR 4.7.6.1.2.c and SR 4.9.11.2 to direct filter testing in accordance with the Ventilation Filter Testing Program (VFTP).

The testing frequencies currently included will be deleted and replaced by a reference to perform testing at the frequencies specified in Regulatory Guide 1.52, Revision 2. There is no actual change in frequency.

The frequency “within 31 days after removal” and the reference to Regulatory Position C.6.b of Regulatory Guide 1.52 contained in CTS 4.9.11.2.a.2 will be deleted.

The phrase “other filters in the system” will be added to current SR 4.7.6.1.2.d.1 and 4.9.11.2.c when it is relocated.

Administrative Changes

A1 The designated change represents a non-technical, non-intent change. Examples of this type of change include: wording preference; convention adoption; editorial, numbering and formatting changes; and hierarchy structure.

A2 A statement regarding the Applicability of SR 4.0.2 and /or SR 4.0.3 is added for clarification that the allowances provided by these general Surveillance Requirements are applicable to the identified program. This is an administrative change since the CTS 4.0.2 and 4.0.3 are currently applicable to the requirements being moved to the program that will be identified in the Administrative Controls section 6.0. This change is applicable to CTS 4.8.1.1.2.b which will be incorporated into the Diesel Fuel Oil testing Program, PTS 6.5.13. The change is also applicable to CTS 4.7.6.1.2 and 4.9.11.2 which will be incorporated into the Ventilation Filtration Program, PTS 6.5.11.

A4 CTS SR 4.7.6.1.2.b & 4.9.11.2.a will be replaced by PTS 6.5.11, Ventilation Filter Testing Program. The presentation of the requirements for ventilation filter testing is revised for consistency. All frequencies and methods are replaced by a reference to perform the testing at the frequencies specified in Regulatory Guide 1.52, Revision 2. Since there are no actual changes in the frequencies, this change is considered to be one of presentation only, and therefore, administrative in nature.

1.83 Administrative Controls Section New 6.5.11 Ventilation Filter Testing Program (Inserts) (continued)

Technical Changes – More Restrictive

M2 By deleting the specific Regulatory Guide (RG) 1.52 section references from CTS 4.7.6.1.2.b and 4.9.11.2.a, the associated PTS section 6.5.11 will ensure all applicable RG 1.52 filter testing frequencies and criteria are applied to the TS ventilation filter systems. This results in a more restrictive change to unit operation, although RG 1.52 testing not specifically detailed in the CTS has previously been incorporated within the ANO filter testing program. RG 1.52 criteria not contained within the CTS includes the air flow distribution test (when maintenance activities may have affected the air flow distribution) for the Control Room Emergency Ventilation System, and the charcoal absorber leak test following charcoal sampling activities (when the effectiveness of the charcoal absorber may have been affected) for all TS ventilation systems. These tests are currently performed, as applicable, under the filter testing program at ANO.

M13 CTS 4.7.6.1.2.d.1 and 4.9.11.2.c will be changed to include prefilters and “roughing” filters in the ventilation system differential pressing testing requirement. The revision is shown as “other filters in the system” to accommodate system specific nomenclature and system design variances. These filters are part of the system and obviously do contribute to the system pressure drop and capability of the system to perform its function. Therefore, inclusion of the prefilters in this testing is appropriate. This change is an additional restriction on unit operation.

Technical Changes – Less Restrictive

None

Technical Changes – Removal of Details

LA1 This information will be moved to a licensee controlled document such as the Diesel Fuel Oil Testing Program (DFOTP), or the Ventilation Filter Testing Program (VFTP). A description of the programs will be incorporated into the Administrative Controls section 6.0. This information provides details of the method of implementation which are not directly pertinent to actual requirements. Since these details are not necessary to adequately describe the actual regulatory requirement, they can be moved to a licensee controlled document without a significant impact on safety. Placing these details in controlled documents provides adequate assurance that they will be maintained. The details of the DFOTP will be maintained in site procedures and the details of the VFTP will be relocated to the TRM. The procedure and the TRM are controlled by 10 CFR 50.59.

1.83 Administrative Controls Section New 6.5.11 Ventilation Filter Testing Program (Inserts) (continued)

Discussion of Differences

ANO-1 Comparison

The ANO-2 proposed VFTP is similar to the ANO-1 approved program. The ANO-1 program includes the Penetration Room Ventilation System which was in the ANO-1 TSs prior to ITS conversion. The ANO-2 Penetration Room Ventilation system is not included as a Technical Specification system in the current licensing basis. The relocation of these SRs reflects the intent of the ANO-1 ITS VFTP.

NUREG-1432 Comparison

The relocation of the filter testing surveillance requirements from the control room ventilation and air conditioning specification and from the fuel handling area ventilation specification is consistent with the philosophy set forth in NUREG-1432. The NUREG does not specifically define the systems or testing acceptance criteria, as these are plant specific.

1.84 Administrative Controls Section New 6.5.3 Iodine Monitoring Program (Inserts)

Discussion of Changes

The proposed change implements a program to ensure the capability of accurately determining the airborne iodine concentration under accident conditions. This requirement is currently required by FOL 2.C.(6), which will be deleted in conjunction with the proposed change.

Minor wording changes between the current licensing condition and the proposed change exist. In addition, the existing license condition requires determination of the airborne iodine concentration in vital areas under accident conditions, while the proposed change does not specify the determination is limited to vital areas.

Administrative Changes

A1 The designated change represents a non-technical, non-intent change. Examples of this type of change include: wording preference; convention adoption; editorial, numbering and formatting changes; and hierarchy structure.

A3 The Secondary Water Chemistry Monitoring, Primary Coolant Sources Outside Containment, and Iodine Monitoring license conditions will be moved to equivalent programmatic requirements in PTS Section 6.5, Programs and Manuals. The PTS programmatic administrative controls specification is consistent with NUREG-1432 and current plant practice, and meets the intent of the existing license conditions. As such, this change in presentation of existing requirements is purely administrative.

Technical Changes – More Restrictive

None

Technical Changes – Less Restrictive

None

1.84 Administrative Controls Section New 6.5.3 Iodine Monitoring Program (Inserts) (Continued)

Technical Changes – Removal of Details

LA2 This information will be moved to a license controlled document such as the Bases, Safety Analysis Report (SAR), QAPM, Technical Requirements Manual (TRM), etc. The information provides details of design or process which are not directly pertinent to the actual requirement, i.e., Definition, Limiting Condition for Operation, or Surveillance Requirement, but rather describe additional unnecessary details such as an acceptable method of compliance. Since these details are not necessary to adequately describe the actual regulatory requirement, they can be moved to a licensee controlled document without a significant impact on safety. Placing these details in controlled documents provides adequate assurance that they will be maintained. The Bases will be controlled by the Bases Control Process in Chapter 6 of the PTS.

CTS Location	New Location
4.7.6.1.2.a	Bases, SR 4.7.6.1.2.a
4.7.6.1.2.d.2	Bases, SR 4.7.6.1.2.b
6.9.1.1	TRM
6.9.1.2	TRM
6.9.1.3	TRM

Discussion of Differences

ANO-1 ITS Comparison

The proposed change is consistent with the ANO-1 ITS 5.5.3.

NUREG-1432 Comparison

The following differences exist between the proposed change and NUREG-1432 Specification 5.5.3:

- The title of the section in the proposed change is “Iodine Monitoring” while the section title in NUREG-1432 is “Post Accident Sampling.”
- NUREG-1432 states: “the program provides controls that ensure the capability to obtain and analyze reactor coolant, radioactive gases, and particulates in plant gaseous effluents and containment atmosphere samples under accident conditions.” The proposed change is consistent with the current wording of the license condition which only specifies iodine sampling. Therefore, the proposed change is consistent with the current licensing bases and the current wording will be retained.

2.0 REGULATORY ANALYSIS

2.1 Applicable Regulatory Requirements/Criteria

The proposed changes have been evaluated to determine whether applicable regulations and requirements continue to be met. Entergy has determined that the proposed changes do not require any exemptions or relief from regulatory requirements, other than the Technical Specifications (TSs), and do not affect conformance with any General Design Criteria (GDC) differently than described in the Safety Analysis Report (SAR).

2.2 No Significant Hazards Consideration

Entergy Operations, Inc. proposes to change the Arkansas Nuclear One, Unit 2 (ANO-2) Technical Specifications (TSs) to reformat, reword, and relocate several specifications and surveillance requirements (SRs) from their current location in the TSs to another location in the TSs. The changes have been classified as administrative (A); less restrictive, administrative deletion of requirements (LA); more restrictive (M); and less restrictive (L).

Administrative Changes:

Rewording and reformatting various TSs will make the TSs more readily understandable to plant operators and other users. Relocation of the specifications will assist in consistency between ANO-2 and ANO, Unit 1 (ANO-1). During the reformatting and rewording process, no technical changes (either actual or interpretational) to the Technical Specifications were made unless they were identified and justified.

Less Restrictive – Administrative Deletion of Requirements

Portions of some specifications provide information that is descriptive in nature regarding the equipment, system(s), actions or surveillances. This information is proposed to be deleted from the specifications and relocated to other license basis documents or procedures which are under licensee control. The license bases documents may include the TS Bases, Safety Analysis Report (SAR), Technical Requirements Manual, and Program and Manuals identified in TS Section 6.0, "Administrative Controls." The removal of descriptive information is permissible, because the documents containing the relocated information will be controlled through the applicable process provided by the regulatory requirements, e.g., 10 CFR 50.59, 10 CFR 50.54(a)(3), and TS Section 6.0, "Administrative Controls." This will not impact the actual requirements but may provide some flexibility in how the requirement is conducted. Therefore, the descriptive information that has been moved continues to be maintained in an appropriately controlled manner.

More Restrictive Changes

The ANO-2 TSs are proposed to be modified in some areas to impose more stringent requirements than previously required. These more restrictive modifications are being imposed to be consistent with the currently improved ANO-1 TSs and the *Standard Technical Specifications Combustion Engineering Plants* (NUREG-1432).

Less Restrictive Changes

Less restrictive changes that are proposed include the following:

1) A three (3) hour allowance to perform the channel functional test on the control room radiation monitors without entering the associated Actions.

2) An allowance to permit the control room boundary to be opened intermittently under administrative controls and to allow both Control Room Emergency Ventilation System (CREVS) trains to be inoperable for 24 hours if inoperability is due to the control room boundary being inoperable.

3) An allowance to use a simulated or actual test signal when testing the automatic isolation feature of the control room air filtration system.

4) An allowance for the diesel fuel storage tanks to contain less than 22,500 gallons of fuel for up to 48 hours as long as the individual tank volume is greater than 17,446 gallons. The lower value when summed with the contents of the other tank ensures six days of fuel oil is available. During the 48 hours, the diesel generator is capable of performing its intended function. There is a low probability that an event would occur for which the diesel generator would be required during this short period of time when the lower fuel oil volume is allowed.

5) Seven days will be allowed to restore the stored diesel fuel oil total particulates to within the required limits prior to declaring the associated diesel inoperable. The presence of particulates does not mean the fuel oil will fail to burn properly in the diesel engine. In addition, particulate concentration is unlikely to change significantly between surveillance intervals (31 days).

6) An allowance for the person who is satisfying the requirement of the radiation protection staff position and for the person filling the Shift Technical Advisor (STA) position to be vacant for not more than two hours in order to provide for unexpected absences. This is consistent with the allowance permitted for the control room operator as reflected in existing TSs.

7) The STA will be allowed to support the shift crew rather than only the shift supervisor. This provides more flexibility and does not dilute the function of the STA.

8) The Occupational Radiation Exposure Report will be submitted by April 30 of each calendar year instead of prior to March 1.

9) An allowance is proposed that will revise the high radiation areas to include additional previously approved methods for implementation of alternatives to the “control device” or “alarm signal” requirements of 10 CFR 20. These alternatives provide adequate control of personnel in high radiation areas as evidenced by NRC issuance of NUREG-1432.

10) An allowance to require periodic testing of stored fuel for the particulates only.

11) The removal of the requirement to notify the Vice President, Operations ANO within 24 hours of violating a safety limit.

12) The Radioactive Effluent Release Report will be submitted by May 1 of each calendar year instead of prior to March 1.

13) A change to the frequency of the integrated leak tests for each system outside containment that could contain highly radioactive fluids from “at a frequency not to exceed refueling cycle intervals” to “at least once per 18 months.”

14) A change that allows a 25% extension of the frequency in accordance with SR 4.0.2 for the integrated leak tests of each system outside containment that could contain highly radioactive fluids.

Entergy Operations, Inc. has evaluated whether or not a significant hazards consideration is involved with the proposed amendment(s) by focusing on the three standards set forth in 10 CFR 50.92, “Issuance of amendment,” as discussed below:

1. **Do the proposed changes involve a significant increase in the probability or consequences of an accident previously evaluated?**

Response: No.

Administrative Changes:

The proposed changes involve reformatting and rewording of the existing TSs. The reformatting and rewording process involves no technical changes to existing requirements. As such, the proposed changes are administrative in nature and do not impact initiators of analyzed events or assumed mitigation of accident or transient events.

Less Restrictive – Administrative Deletion of Requirements

The proposed changes relocate requirements from the TSs to other license basis documents which are under licensee control. The documents containing the relocated requirements will be maintained using the provisions of applicable regulatory requirements.

More Restrictive Changes

The proposed changes provide more stringent requirements for the ANO-2 TSs. These more stringent requirements are not assumed to be initiators of analyzed events and will not alter assumptions relative to mitigation of accident or transient events. The more stringent requirements are imposed to ensure process variables, structures, systems, and components are maintained consistent with the safety analyses and licensing basis and to provide greater consistency with the ANO-1 TS and NUREG 1432.

Less Restrictive Changes

1) A note will be added that allows three (3) hours to perform the channel functional test on the control room radiation monitors without entering the associated Actions.

The control room area radiation monitor is used to support mitigation of the consequences of an accident; however, it is not considered the initiator of any previously analyzed accident. Also, the addition of the Note to allow time for testing reduces the potential for initiation of a previously analyzed accident due to reduced potential for shutdowns and startups due to incomplete or missed surveillances. As such, the proposed revision to include an allowance for testing does not significantly increase the probability of any accident previously evaluated. This change does not result in any hardware changes, but does allow operation for a limited time with an inoperable monitor for the purposes of testing. Since the capability of the control room area radiation monitor to provide the required information continues to be verified, and the time allowed for inoperability for testing is short, the change will not reduce the capability of required equipment to mitigate the event. Also, the consequences of an event occurring during the proposed operation of the unit during the allowed inoperability for testing are the same as the consequences of an event occurring while operating under the current TS Actions. Therefore, this change does not involve a significant increase in the consequences of any accident previously evaluated.

2) This change will allow the control room boundary to be opened intermittently under administrative controls, and will allow both trains of the CREVS to be inoperable due to control room boundary inoperability for a period of 24 hours.

   Neither CREVS nor the control room boundary is the initiator of any accident analyzed in the SAR. Therefore, this change does not result in a significant increase in the probability of an accident previously evaluated.

   The CREVS and the control room boundary are intended to provide a habitable environment for the control room operators in the event of an accident that results in the release of radioactivity to the environment. The allowance to open the control room boundary intermittently is acceptable, because of the administrative controls that will be implemented to ensure that the opening can be rapidly closed when the need for control room isolation is indicated, restoring the control room habitability envelope. Allowing both CREVS trains to be inoperable for 24 hours due to an inoperable control room boundary is acceptable because of the low probability of an accident requiring control room isolation during any given 24 hour period, because entry into this condition is expected to be an infrequent occurrence, and because preplanned compensatory measures to protect the control room operators from potential hazards are implemented. Therefore, this change will not result in a significant increase in the probability of an accident previously evaluated.

3) An allowance will be added to allow use of a “simulated” or “actual” test signal when testing the automatic isolation feature of the control room air filtration system.

   The phrase "actual or simulated" in reference to the automatic initiation signal, has been added to the system functional test surveillance test description. This does not impose a requirement to create an "actual" signal, nor does it eliminate any restriction on producing an "actual" signal. The proposed change does not affect the procedures governing plant operations and the acceptability of creating these signals; it simply would allow such a signal to be utilized in evaluating the acceptance criteria for the system functional test requirements. Therefore, the change does not involve a significant increase in the probability of an accident previously evaluated. Since the function of the system functional test remains unaffected the change does not involve a significant increase in the consequences of an accident previously evaluated.

4) An allowance for the diesel fuel storage tanks to contain less than 22,500 gallons of fuel for up to 48 hours as long as the individual volume is greater than 17,446 gallons will be added. The lower value when summed with the contents of the other tank ensures six days of fuel oil is available. During the 48 hours, the diesel generator is capable of performing its intended function. There is a low probability that an event would occur for which the diesel generator would be required during this short period of time when the lower fuel oil volume is allowed.

   The AC Sources are used to support mitigation of the consequences of an accident and can be involved in the initiation of the accident analyzed in SAR. Equipment powered by the AC Sources, which may be considered as an initiator, continues to be assured of electrical power. The proposed increased restoration time involves parameters unrelated to initiating the failure of the AC Sources. As such the proposed time allowance for restoration of limited levels of readiness parameter degradation will not increase the probability of any accident previously evaluated. The proposed changes allow additional time for restoration of parameters that have been identified as not immediately affecting the capability of the power source to provide its required safety function. The identified parameters are capable of being replenished during operation of the diesel generators, and the short additional allowable action time continues to provide adequate assurance of operable required equipment. Therefore, this change does not involve a significant increase in the probability of or the consequences of any accident previously evaluated.

5) Seven days will be allowed to restore the stored diesel fuel oil total particulates to within the required limits prior to declaring the associated diesel inoperable.

   The testing of diesel generator fuel oil is not considered an initiator, or a mitigating factor, in any previously evaluated accident. The presence of particulates does not mean failure of the fuel oil to burn properly in the diesel engine. In addition, particulate concentration is unlikely to change significantly between surveillance intervals (31 days). Therefore, the change does not involve a significant increase in the probability or consequences of an accident previously evaluated.

6) An allowance for the person who is satisfying the requirement of the radiation protection staff position and for the person filling the Shift Technical Advisor (STA) position to be vacant for not more than two hours in order to provide for unexpected absences is being added. This is consistent with the allowance permitted for the control room operator as reflected in existing TSs.

   This change does not result in any changes in hardware or methods of operation. The change allowing the absence of the STA or the radiation protection technician is not considered in the safety analysis, and cannot initiate or affect the mitigation of an accident in any way. Therefore, this change does not involve a significant increase in the probability or consequences of an accident previously evaluated.

7) The STA will be allowed to support the shift crew rather than only the shift supervisor. This provides more flexibility and does not dilute the function of the STA.

This change does not result in any changes in hardware or methods of operation. The change in the support relationship between the STA and the control room staff is not considered in the safety analysis, and cannot initiate or affect the mitigation of an accident in any way. Therefore, this change does not involve a significant increase in the probability or consequences of an accident previously evaluated.

8) The Occupational Radiation Exposure Report will be submitted by April 30 of each calendar year instead of prior to March 1.

   This change does not result in any changes in hardware or methods of operation. The change in date for submittal of "after the fact" information is not considered in the safety analysis, and cannot initiate or affect the mitigation of an accident in any way. Therefore, this change does not involve a significant increase in the probability or consequences of an accident previously evaluated.

9) An allowance is proposed that will revise the high radiation areas to include additional previously approved methods for implementation of alternatives to the “control device” or “alarm signal” requirements of 10 CFR 20. These alternatives provide adequate control of personnel in high radiation areas as evidenced by NRC issuance of NUREG-1432.

   The controls for access to a high radiation area are not considered as initiators, or as a mitigation factor, in any previously evaluated accident. Therefore, the change does not involve a significant increase in the probability or consequences of an accident previously evaluated.

10) An allowance to require periodic testing of stored fuel for the particulates only is proposed.

    The testing of diesel generator fuel oil is not considered an initiator or a mitigating factor in any previously evaluated accident. Therefore, the change does not involve a significant increase in the probability or consequences of an accident previously evaluated.

11) The removal of the requirement to notify the Vice President, Operations ANO within 24 hours of violating a safety limit.

    Notification of the Vice President, Operations ANO when a safety limit is violated is not considered an initiator or a mitigating factor in any previously evaluated accident. Therefore, the change does not involve a significant increase in the probability or consequences of an accident previously evaluated.

12) The Radioactive Effluent Release Report will be submitted by May 1 of each calendar year instead of prior to March 1.

    This change does not result in any changes in hardware or methods of operation. The change in date for submittal of "after the fact" information is not considered in the safety analysis, and cannot initiate or affect the mitigation of an accident in any way. Therefore, this change does not involve a significant increase in the probability or consequences of an accident previously evaluated.

13) A change to frequency of the integrated leak tests for each system outside containment that could contain highly radioactive fluids from “at a frequency not to exceed refueling cycle intervals” to “at least once per 18 months.”

    Performance of the integrated leak tests for each system outside containment that could contain highly radioactive fluids is not an initiator or a mitigating factor in any previously evaluated accident. Therefore, the change does not involve a significant increase in the probability or consequences of an accident previously evaluated.

14) A change that allows a 25% extension of the frequency in accordance with SR 4.0.2 for the integrated leak tests of each system outside containment that could contain highly radioactive fluids.

    The extension of the testing frequency, up to 25% of the test interval, is not considered an initiator or a mitigating factor in any previously evaluated accident. Therefore, the change does not involve a significant increase in the probability or consequences of an accident previously evaluated.

Therefore, the proposed changes do not involve a significant increase in the probability or consequences of an accident previously evaluated.

2. Do the proposed changes create the possibility of a new or different kind of accident from any accident previously evaluated?

Response: No.

Administrative Changes:

The proposed changes do not necessitate a physical alteration of the plant (no new or different type of equipment will be installed) or changes in parameters governing normal plant operations. The proposed changes will not impose any different requirements.

Less Restrictive – Administrative Deletion of Requirements

The proposed change does not necessitate a physical alteration of the plant (no new or different type of equipment will be installed) or changes in parameters governing normal plant operations. The proposed changes will not impose any different requirements and adequate control of the information will be maintained.

More Restrictive Changes

The proposed change does not necessitate a physical alteration of the plant (no new or different type of equipment will be installed) or changes in parameters governing normal plant operation. The proposed changes do impose different requirements. However, these changes do not impact the safety analysis and licensing basis.

Less Restrictive Changes

1) A note will be added that allows three (3) hours to perform the channel functional test on the control room radiation monitors without entering the associated Actions.

The proposed change does not necessitate a physical alteration of the plant (no new or different type of equipment will be installed) or changes in parameters governing normal plant operation. The proposed change will still ensure proper surveillances are required for the equipment considered in the safety analysis. Thus, this change does not create the possibility of a new or different kind of accident from any accident previously evaluated.

2) This change will allow the control room boundary to be opened intermittently under administrative controls, and will allow both trains of the control room ventilation system (CREVS) to be inoperable due to a control room boundary inoperability for a period of 24 hours.

   The proposed change does not necessitate a physical alteration of the unit (no new or different type of equipment will be installed) or changes in parameters governing normal unit operation. Prompt and appropriate compensatory actions will still be taken in the event of an accident. Thus, this change does not create the possibility of a new or different kind of accident from any previously evaluated.

3) An allowance will be added to allow use of a “simulated” or “actual” test signal when testing the automatic isolation feature of the control room air filtration system.

   The possibility of a new or different kind of accident from any accident previously evaluated is not created because the proposed change introduces no new mode of plant operation and it does not involve physical modification to the plant.

4) An allowance for the diesel fuel storage tanks to contain less than 22,500 gallons of fuel for up to 48 hours as long as the individual volume is greater than 17,446 gallons will be added. The lower value when summed with the contents of the other tank ensures six days of fuel oil is available. During the 48 hours, the diesel generator is capable of performing its intended function. There is a low probability that an event would occur for which the diesel generator would be required during this short period of time when the lower fuel oil volume is allowed.

   The proposed change does not necessitate a physical alteration of the plant (no new or different type of equipment will be installed) or changes in parameters governing normal plant operation. The proposed change will continue to ensure operable safety equipment is available. Thus, this change does not create the possibility of a new or different kind of accident from any accident previously evaluated.

5) Seven days will be allowed to restore the stored diesel fuel oil total particulates to within the required limits prior to declaring the associated diesel inoperable.

   No changes are proposed in the manipulation of the plant structures, systems, or components, or in the design of the plant structures, systems, or components. The presence of particulates does not mean failure of the fuel oil to burn properly in the diesel engine. In addition, particulate concentration is unlikely to change significantly between surveillance intervals (31 days). Therefore, the change does not create the possibility of a new or different kind of accident from any accident previously evaluated.

6) An allowance for the person who is satisfying the requirement of the radiation protection staff position and for the person filling the Shift Technical Advisor (STA) position to be vacant for not more than two hours in order to provide for unexpected absences is proposed. This is consistent with the allowance permitted for the control room operator as reflected in existing TSs.

   The proposed change does not necessitate a physical alteration of the plant (no new or different type of equipment will be installed) or changes in parameters governing normal plant operation. The proposed change will impact only the STA and radiation protection staffing positions and does not directly impact the operation of the plant. Thus, this change does not create the possibility of a new or different kind of accident from any accident previously evaluated.

7) The STA will be allowed to support the shift crew rather than only the shift supervisor. This provides more flexibility and does not dilute the function of the STA.

   The proposed change does not necessitate a physical alteration of the plant (no new or different type of equipment will be installed) or changes in parameters governing normal plant operation. The proposed change will impact only the support relationship the STA provides the control room staff and does not directly impact the operation of the plant. Thus, this change does not create the possibility of a new or different kind of accident from any accident previously evaluated.

8) The Occupational Radiation Exposure Report will be submitted by April 30 of each calendar year instead of prior to March 1.

   The proposed change does not necessitate a physical alteration of the plant (no new or different type of equipment will be installed) or changes in parameters governing normal plant operation. The proposed change will impact only the administrative requirements for submittal of information and does not directly impact the operation of the plant. Thus, this change does not create the possibility of a new or different kind of accident from any accident previously evaluated.

9) An allowance is proposed that will revise the high radiation areas to include additional previously approved methods for implementation of alternates to the “control device” or “alarm signal” requirements of 10 CFR 20. These alternatives provide adequate control of personnel in high radiation areas as evidenced by NRC issuance of NUREG-1432.

   No changes are proposed in the manipulation of the plant structures, systems, or components, or in the design of the plant structures, systems, or components. Therefore, the change does not create the possibility of a new or different kind of accident from any accident previously evaluated.

10) An allowance to require periodic testing of stored fuel for the particulates only is proposed.

   No changes are proposed in the manipulation of the plant structures, systems, or components, or in the design of the plant structures, systems, or components. Therefore, the change does not create the possibility of a new or different kind of accident from any accident previously evaluated.

11) The removal of the requirement to notify the Vice President, Operations ANO within 24 hours of violating a safety limit.

    No changes are proposed that result in the manipulation or the design of plant structures, systems, or components. Therefore, the change does not create the possibility of a new or different kind of accident from any accident previously evaluated.

12) The Radioactive Effluent Release Report will be submitted by May 1 of each calendar year instead of prior to March 1.

    The proposed change does not necessitate a physical alteration of the plant (no new or different type of equipment will be installed) or changes in parameters governing normal plant operation. The proposed change will impact only the administrative requirements for submittal of information and does not directly impact the operation of the plant. Thus, this change does not create the possibility of a new or different kind of accident from any accident previously evaluated.

13) A change to frequency of the integrated leak tests for each system outside containment that could contain highly radioactive fluids from "at a frequency not to exceed refueling cycle intervals" to "at least once per 18 months."

    No changes are proposed that result in the manipulation or the design of plant structures, systems, or components. Therefore, the change does not create the possibility of a new or different kind of accident from any accident previously evaluated.

14) A change that allows a 25% extension of the frequency in accordance with SR 4.0.2 for the integrated leak tests of each system outside containment that could contain highly radioactive fluids.

    No changes are proposed that result in the manipulation or the design of plant structures, systems, or components. Therefore, the change does not create the possibility of a new or different kind of accident from any accident previously evaluated.

Therefore, the proposed changes do not create the possibility of a new or different kind of accident from any previously evaluated.

3. Do the proposed changes involve a significant reduction in a margin of safety?

Response: No.

Administrative Changes:

The proposed changes will not reduce the margin of safety because they have no impact on any safety analysis assumptions. The changes are administrative in nature.

Less Restrictive – Administrative Deletion of Requirements

The proposed changes will not reduce a margin of safety because they have no impact on any safety analysis assumptions. In addition, the requirements to be transposed from the

TSs to other license basis documents, which are under licensee control, are the same as the exiting TSs. The documents containing the relocated requirements will be maintained using the provisions of applicable regulatory requirements.

More Restrictive Changes

The imposition of more stringent requirements prevents a reduction in the margin of plant safety by:

a) increasing the scope of the specification to include additional plant equipment,
b) providing additional actions,
c) decreasing restoration times, or
d) imposing new surveillances.

The changes are consistent with the safety analysis and licensing basis.

Less Restrictive Changes

1) A note will be added that allows three (3) hours to perform the channel functional test on the control room radiation monitors without entering the associated Actions.

   The margin of safety for the control room area radiation monitor is based on availability and capability of the instrumentation to provide the required information to the operator. The frequency is based on unit operating experience that demonstrates channel failure is rare, and on the use of less formal but more frequent checks of channels during normal operational use of the displays associated with the required channels. Therefore, the availability and capability of the control room area radiation monitor continues to be assured by the proposed Surveillance Requirements and this change does not involve a significant reduction in a margin of safety.

2) This change will allow the control room boundary to be opened intermittently under administrative controls, and will allow both trains of the control room ventilation system (CREVS) to be inoperable due to control room boundary inoperability for a period of 24 hours.

   This change does not involve a significant reduction in a margin of safety since: 1) administrative controls will be in place to ensure that an open control room boundary can be rapidly closed when a need for control room isolation is indicated; and 2) an inoperable control room boundary that renders both trains of CREVS inoperable is an infrequent occurrence, the probability of an accident requiring control room isolation during any given 24 hour period is low, and preplanned compensatory measures to protect the control room operators from potential hazards are implemented.

3) An allowance will be added to use a simulated or actual test signal when testing the automatic isolation feature of the control room air filtration system.

   Use of an actual signal instead of the existing requirement which limits use to a simulated signal, will not affect the performance of the surveillance test. OPERABILITY is adequately demonstrated in either case since the system itself can not discriminate between "actual" or "simulated" signals. Therefore, the change does not involve a significant reduction in a margin of safety.

4) An allowance for the diesel fuel storage tanks to contain less than 22,500 gallons of fuel for up to 48 hours as long as the individual volume is greater than 17,446 gallons. The lower value when summed with the contents of the other tank ensures six days of fuel oil is available. During the 48 hours, the diesel generator is capable of performing its intended function. There is a low probability that an event would occur for which the diesel generator would be required during this short period of time when the lower fuel oil volume is allowed.

   The parameter limits provide substantial margin to the parameter values that would be absolutely necessary for diesel generator operability. When the parameters are less than their limits this margin is reduced. However, the availability of AC Sources continues to be assured since the allowed time for parameters to be less than their limits is short and the allowed levels for the parameters are adequate to provide the immediately needed power availability. Further, the parameters can be restored to within limits during the proposed time provided should they be required. Therefore, this change does not result in a signification reduction in margin of safety.

5) Seven days will be allowed to restore the stored diesel fuel oil total particulates to within the required limits prior to declaring the associated diesel inoperable.

   The proposed change allows the stored diesel fuel oil total particulates to be outside the required limits for seven days before declaring the associated diesel inoperable. The presence of particulates does not mean failure of the fuel oil to burn properly in the diesel engine. In addition, particulate concentration is unlikely to change significantly between surveillance intervals (31 days). The seven day allowance provides an appropriate backstop to ensure the particulate level is restored to within limits in a reasonable time period. Since the diesel is still capable of performing its function the margin to safety is not reduced.

6) An allowance for the person who is satisfying the requirement of the radiation protection staff position and for the person filling the Shift Technical Advisor (STA) position to be vacant for not more than two hours in order to provide for unexpected absences is proposed. This is consistent with the allowance permitted for the control room operator as reflected in existing TSs.

   The margin of safety is not dependent on the presence of the STA or the radiation protection technician. Therefore, this change does not involve a significant reduction in a margin of safety.

7) The STA will be allowed to support the shift crew rather than only the shift supervisor. This provides more flexibility and does not dilute the function of the STA.

   The margin of safety is not dependent upon who the STA supports. Therefore, this change does not involve a significant reduction in a margin of safety.

8) The Occupational Radiation Exposure Report will be submitted by April 30 of each calendar year instead of prior to March 1.

The margin of safety is not dependent on the submittal of information. Therefore, this change does not involve a significant reduction in a margin of safety.

9) An allowance is proposed that will revise the high radiation areas to include additional previously approved methods for implementation of alternatives to the “control device” or “alarm signal” requirements of 10 CFR 20. These alternatives provide adequate control of personnel in high radiation areas as evidenced by NRC issuance of NUREG-1432.

   The requirements for control of high radiation areas provide for the use of alternates to the “control device” or “alarm signal” requirements of 10 CFR 20.1601. This change provides such alternative methods for controlling access. These methods and additional administrative requirements have been determined to provide adequate controls to prevent unauthorized and inadvertent access to such areas. Therefore, this change does not involve a significant reduction in a margin of safety.

10) An allowance to require periodic testing of stored fuel for the particulates only is proposed.

    The testing of stored diesel generator fuel oil is revised to require the periodic testing of the stored fuel oil only for particulates (replacing the periodic testing per ASTM-D975) once every 31 days. The change reflects industry-standard acceptable DG fuel oil testing programs. Over the storage life of ANO-2 DG fuel oil, the properties tested by ASTM-D975 are not expected to change and performing these tests once on the new fuel oil provides adequate assurance of the proper initial quality of fuel oil. The periodic testing for particulates monitors a parameter that reflects degradation of fuel oil and can be trended to provide increased confidence that the stored DG fuel oil will support DG operability. Therefore, this change does not involve a significant reduction in a margin of safety.

11) The removal of the requirement to notify the Vice President, Operations ANO within 24 hours of violating a safety limit.

    The margin of safety is not dependent upon notification of the Vice President, Operations ANO upon the violation of a TS safety limit. Therefore, the proposed change does not involve a significant reduction in a margin of safety.

12) The Radioactive Effluent Release Report will be submitted by May 1 of each calendar year instead of prior to March 1.

    The margin of safety is not dependent on the submittal of information. Therefore, this change does not involve a significant reduction in a margin of safety.

13) A change to frequency of the integrated leak tests for each system outside containment that could contain highly radioactive fluids from “at a frequency not to exceed refueling cycle intervals” to “at least once per 18 months.”

    The current and proposed frequencies of this test are equivalent for all practical purposes. Therefore, this change does not involve a significant reduction in a margin of safety.

14) A change that allows a 25% extension of the frequency in accordance with SR 4.0.2 for the integrated leak tests of each system outside containment that could contain highly radioactive fluids.

    The proposed allowance allows a possible increase in performance interval. However, the test will still be performed at reasonable intervals to ensure the intent of the surveillance is maintained. Therefore, this change does not involve a significant reduction in a margin of safety.

Therefore, the proposed changes do not involve a significant reduction in a margin of safety.

Based on the above, Entergy concludes that the proposed amendment(s) present no significant hazards consideration under the standards set forth in 10 CFR 50.92(c), and, accordingly, a finding of “no significant hazards consideration” is justified.

3.3 Environmental Considerations

The proposed amendment does not involve (i) a significant hazards consideration, (ii) a significant change in the types or significant increase in the amounts of any effluent that may be released offsite, or (iii) a significant increase in individual or cumulative occupational radiation exposure. Accordingly, the proposed amendment meets the eligibility criterion for categorical exclusion set forth in 10 CFR 51.22(c)(9). Therefore, pursuant to 10 CFR 51.22(b), no environmental impact statement or environmental assessment need be prepared in connection with the proposed amendment.

Attachment 2

2CAN060303

Proposed Technical Specification Changes (mark-up)

UNITED STATES
NUCLEAR REGULATORY COMMISSION
WASHINGTON, D.C. 20555-0001

ENTERGY ARKANSAS, INC.

ENTERGY OPERATIONS, INC.

DOCKET NO. 50-368

ARKANSAS NUCLEAR ONE, UNIT 2

FACILITY OPERATING LICENSE

License No. NPF-6

1. The Nuclear Regulatory Commission (the Commission) having found that:

   A. The issuance of this license to Entergy Arkansas, Inc. complies with the standards and requirements of the Atomic Energy Act of 1954, as amended (the Act), and the Commission's regulations set forth in 10 CFR Chapter I;

   B. Construction of Arkansas Nuclear One, Unit 2 (the facility) has been substantially completed in conformity with Construction Permit No. CPPR-89 and the application, as amended, the provisions of the Act and the regulations of the Commission;

   C. The facility requires exemptions from certain requirements of (1) Sections 50.55a(g)(2) and 50.55a(g)(4) of 10 CFR Part 50, (2) Appendices G and H to 10 CFR Part 50 and (3) Appendix J to 10 CFR Part 50 for a period of three years. These exemptions are described in the Office of Nuclear Reactor Regulation's safety evaluations supporting the granting of these exemptions which are enclosed in the letter transmitting this license amendment. These exemptions are authorized by law and will not endanger life or property or the common defense and security and are otherwise in the public interest. The exemptions are, therefore, hereby granted. With the granting of these exemptions, the facility will operate in conformity with the application, as amended, the provisions of the Act, and the regulations of the Commission;

   D. There is reasonable assurance: (i) that the activities authorized by this operating license can be conducted without endangering the health and safety of the public, and (ii) that such activities will be conducted in compliance with the regulations of the Commission;

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   E. Entergy Operations, Inc. (EOI)* ~~in~~ is technically and financially qualified to engage is the activities authorized by this operating license in accordance with the regulations of the Commission;

F. Entergy Arkansas, Inc. has satisfied the applicable provisions of 10 CFR Part 140, "Financial Protection Requirements and Indemnity Agreements," of the Commission's regulations;

G. The issuance of this amended operating license will not be inimical to the common defense and security or to the health and safety of the public;

H. After weighing the environmental, economic, technical and other benefits of the facility against environmental and other costs and considering available alternatives, the issuance of Facility Operating License No. NPF-6 subject to the conditions for protection of the environment set forth herein, is in accordance with 10 CFR Part 51 (formerly Appendix D to 10 CFR Part 50) of the Commission's regulations and all applicable requirements have been satisfied; and

I. The receipt, possession, and use of source, byproduct and special nuclear material as authorized by this license will be in accordance with the Commission's regulations in 10 CFR Parts 30, 40 and 70, including 10 CFR Sections 30.33, 40.32, ~~70-23~~70.23 and 70.31.

2. Facility Operating License No. NPF-6 is hereby issued to Entergy Arkansas, Inc. and Entergy Operations, Inc. to read ~~an~~ as follows:

A. This amended license applies to Arkansas Nuclear One, Unit 2, a pressurized water reactor and associated equipment (the facility) owned by Entergy Arkansas, Inc. The facility is located in Pope County, Arkansas and ~~in~~ is described in the Final Safety Analysis Report as supplemented and amended (Amendments 20 through 47) and the Environmental Report as supplemented and amended (Amendments 1 through 7).

B. Subject to the Conditions and requirements incorporated herein, the Commission hereby licenses;

(1) Entergy Arkansas, Inc. pursuant to Section 103 of the Act and 10 CFR Part 50, to possess but not operate the facility at the designated location in Pope County, Arkansas in accordance with the procedures and limitations set forth in this license.

(2) EOI, pursuant to Section 103 of the Act and 10 CFR Part 50, "Licensing of Production and Utilization Facilities," to possess, use, and operate the facility at the designated location in Pope County, Arkansas in accordance with the procedures and limitations set forth in this amended license;

(3) EOI, pursuant to the Act and 10 CFR Part 70, to receive, possess and use at any time at the facility site and as designated solely for the facility, special nuclear material as reactor fuel, in accordance with the limitations for storage and amounts required for reactor operation, as described in the Final Safety Analysis Report, as supplemented and amended;

All A1

3.9	Protection of Redundant Cables in the Lower South Electrical Penetration Room (2111-T)	September 30, 1978
3.10	Protection of Safe Shutdown Cables in the Upper South Piping Penetration Room (2084-DD)	September 30, 1978
3.11	Protection of Redundant Reactor Protection System Cables (2136-I)	*, **
3.12	Fire Dampers	September 30, 1978
3.13	Portable Extinguisher for the Control Room (2199-J)	November 15, 1978
3.14	Smoke Detectors	*, **
3.15	Manual Hose Stations (2055-JJ, 2084-DD, Containment, Elev. 317' of Auxiliary Building) A1	*, **
3.16	Portable Smoke Exhaust Equipment	December 1, 1978
3.17	Emergency Lighting	December 1, 1978
3.18	Reactor Coolant Pump Oil Collection System	*
3.19	Control of Fire Doors	March 31, 1979
3.20	Administrative Control Changes	December 1, 1978

(Numbers in parentheses refer to fire zone designations in the AP&L fire hazards analysis.)

* Prior to startup following the first regularly scheduled refueling outage.

** Technical Specifications covering these items should be proposed not later than 90 days prior to implementation.

2.C.(3)(f) Deleted per Amendment 24, 6/19/81.

2.C.(3)(g) Deleted per Amendment 93, 4/25/89.

2.C.(3)(h) Deleted per Amendment 29, (3/4/82) and its correction letter, (3/15/82).

(i) Containment Radiation Monitor

AP&L shall, prior to July 31, 1980 submit for Commission review and approval documentation which establishes the adequacy of the qualifications of the containment radiation monitors located inside the containment and shall complete the installation and testing of these instruments to demonstrate that they meet the operability requirements of Technical Specification No. 3.3.3.6.

2.C.(3)(j) Deleted per Amendment 7, 12/1/78.

2.C.(3)(k) Deleted per Amendment 12, 6/12/79 and Amendment No. 31, 5/12/82.

2.C.(3)(l) Deleted per Amendment 24, 6/19/81.

2.C.(3)(m) Deleted per Amendment 12, 6/12/79.

2.C.(3)(n) Deleted per Amendment 7, 12/1/78.

2.C.(3)(o) Deleted per Amendment 7, 12/1/78.

A1 2.C.(3)(p) Deleted per Amendment ~~Secondary Water Chemistry Monitoring~~ A3

~~EOI shall implement a secondary water chemistry monitoring program using the overall plant administrative procedure "Steam Generator Water Chemistry Monitoring, Unit II", to minimize steam generator tube degradation. The program shall be defined in specific plant procedures and shall include:~~

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LATER SEE PTS 6.5.10

~~1. Identification of sampling schedule for the critical parameters and control points for these parameters;~~

~~2. Identification of the procedures used to measure the values of the critical parameters;~~

~~3. Identification of process sampling points;~~

~~4. Procedure for the recording and management of data;~~

~~5. Procedures defining corrective actions for off control point chemistry conditions; and~~

~~6. A procedure identifying the authority responsible for the interpretation of the data, and the sequence and timing of administrative events required to initiate corrective action.~~

2.C.(4) (Number has never been used.)

A1 2.C.(5) Deleted per Amendment ~~EOI shall implement a program to reduce leakage from systems outside containment that would or could contain highly radioactive fluids during a serious transient or accident to as low as practical levels. This program shall include the following:~~

Later ITS 6.5.2

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~~1. Provisions establishing preventative maintenance and periodic visual inspection requirements, and~~

~~2. Integrated leak test requirements for each system at a frequency not to exceed refueling cycle intervals.~~

A1 2.C.(6) Deleted per Amendment. ~~EOI shall implement a program which will ensure the capability to accurately determine the airborne iodine concentration in vital areas under accident conditions. This program shall include the following:~~

Later ITS 6.5.3

A3

~~1. Training of personnel,~~

~~2. Procedures for monitoring, and~~

~~3. Provisions for maintenance of sampling and analysis equipment.~~

2.C.(7) Deleted per Amendment 78, 7/22/86.

(8) Antitrust Conditions

EOI shall not market or broker power or energy from Arkansas Nuclear One, Unit 2. Entergy Arkansas, Inc. is responsible and accountable for the actions of its agents to the extent said agent's actions affect the marketing or brokering of power or energy from ANO, Unit 2.

(9) Rod Average Fuel Burnup

Entergy Operations is authorized to operate the facility with an individual rod average fuel burnup (burnup averaged over the length of a fuel rod) not to exceed 60 megawatt-days/kilogram or uranium.

A1 ~~(D)~~D. Physical Protection

EOI shall fully implement and maintain in effect all provisions of the Commission - approved physical security, guard training and qualification, and safeguards contingency plans, including amendments made pursuant to provisions of the Miscellaneous Amendments and Search Requirements revisions to 10 CFR 73.55 (51 FR 27817 and 27822) and to the authority of 10 CFR 50.90 and 10 CFR 50.54(p). The plan, which contains Safeguards Information protected under 10 CFR 73.21, is entitled: "Arkansas Nuclear One Industrial Security Plan," with revisions submitted through August 4, 1995. The Industrial Security Plan also includes the requirements for guard training and qualification in Appendix A of the safeguards contingency events in Chapter 7. Changes made in accordance with 10 CFR 73.55 shall be implemented in accordance with the schedule set forth therein.

DEFINITIONS

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SAFETY LIMITS AND LIMITING SAFETY SYSTEMS SETTINGS

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BASES

A1

LIMITING CONDITIONS FOR OPERATION AND SURVEILLANCE REQUIREMENTS

SECTION PAGE

BASES

BASES

A1

ADMINISTRATIVE CONTROLS

A1

ADMINISTRATIVE CONTROLS

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CHANNEL FUNCTIONAL TEST

1.11 A CHANNEL FUNCTIONAL TEST shall be:

a. Analog channels – The injection of a simulated signal into the channel as close to the sensor as practicable to verify OPERABILITY including alarm and/or trip functions.

b. Bistable channels – The injection of a simulated signal into the sensor to verify OPERABILITY including alarm and/or trip functions.

c. Digital computer channels – The exercising of the digital computer hardware using diagnostic programs and the injection of simulated process data into the channel to verify OPERABILITY.

CORE ALTERATION

1.12 CORE ALTERATION shall be the movement or manipulation of any fuel, sources, or reactivity control components within the reactor vessel with the vessel head removed and fuel in the vessel. Suspension of CORE ALTERATION shall not preclude completion of movement of a component to a safe conservative position.

SHUTDOWN MARGIN

1.13 SHUTDOWN MARGIN shall be the instantaneous amount of reactivity by which the reactor is subcritical or would be subcritical from its present condition assuming all control element assemblies are fully inserted except for the single assembly of highest reactivity worth which is assumed to be fully withdrawn.

IDENTIFIED LEAKAGE

1.14 IDENTIFIED LEAKAGE shall be:

a. Leakage (except ~~CONTROLLED LEAKAGE~~controlled leakage) into closed systems, such as pump seal or valve packing leaks that are captured, and conducted to a sump or collecting tank, or (A1)

b. Leakage into the containment atmosphere from sources that are both specifically located and known either not to interfere with the operation of leakage detection systems or not to be PRESSURE BOUNDARY LEAKAGE, or

c. Reactor coolant system leakage through a steam generator to the secondary system.

UNIDENTIFIED LEAKAGE

1.15 UNIDENTIFIED LEAKAGE shall be all leakage which is not IDENTIFIED LEAKAGE or ~~CONTROLLED LEAKAGE~~controlled leakage.

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PRESSURE BOUNDARY LEAKAGE

1.16 PRESSURE BOUNDARY LEAKAGE shall be leakage (except steam generator tube leakage) through a non-isolable fault in a Reactor Coolant System component body, pipe wall or vessel wall.

AZIMUTHAL POWER TILT – T_q

1.17 AZIMUTHAL POWER TILT shall be the power asymmetry between azimuthally symmetric fuel assemblies.

DOSE EQUIVALENT I-131

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1.18 DOSE EQUIVALENT I-131 shall be that concentration of ~~1~~I-131 (µCi/gram) which alone would produce the same thyroid dose as the quantity and isotopic mixture of I-131, I-132, I-133, I-134 and I-135 actually present. The thyroid dose conversion factors used for this calculation shall be those listed in Table III of TID-14844, "Calculation of Distance Factors for Power and Test Reactor Sites."

$\bar{E}$ - AVERAGE DISINTEGRATION ENERGY

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1.19 - $\bar{E}$ shall be the average (weighted in proportion to the concentration of each radionuclide in the reactor coolant at the time of sampling) of the sum of the average beta and gamma energies per disintegration (in MEV) for isotopes, other than iodines, with half lives greater than 15 minutes, making up at least 95% of the total non-iodine activity in the coolant.

STAGGERED TEST BASIS

1.20 A STAGGERED TEST BASIS shall consist of:

a. A test schedule for n systems, subsystems, trains or other designated components obtained by dividing the specified test interval into n equal subintervals, and

b. The testing of one system, subsystem, train or other designated component at the beginning of each subinterval.

FREQUENCY NOTATION

1.21 The FREQUENCY NOTATION specified for the performance of Surveillance Requirements shall correspond to the intervals defined in Table 1.2.

MEMBER(S) OF THE PUBLIC

1.29 MEMBER(S) OF THE PUBLIC shall include all persons who are not occupationally associated with the plant. This category does not include employees of the utility, its contractors or vendors. Also excluded from this category are persons who enter the site to service equipment or to make deliveries. This category does include persons who use portions of the site for recreational, occupational or other purposes not associated with the plant.

PURGE – PURGING

1.30 PURGE or PURGING is the controlled process of discharging air or gas from a confinement to reduce airborne radioactive concentrations in such a manner that replacement air or gas is required to purify the confinement.

EXCLUSION AREA

1.31 The EXCLUSION AREA is that area surrounding ANO within a minimum radius of .65 miles of the reactor buildings and controlled to the extent necessary by the licensee for purposes of protection of individuals from exposure to radiation and radioactive materials.

UNRESTRICTED AREA

1.32 An UNRESTRICTED AREA shall be any area at or beyond the exclusion area boundary.

CORE OPERATING LIMITS REPORT

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1.33 The CORE OPERATING LIMITS REPORT is the ANO-2 specific document that provides core operating limits for the current operating reload cycle. These cycle-specific core operating limits shall be determined for each reload cycle in accordance with Technical Specification ~~6.9.5~~ 6.6.5. Plant operation within these operating limits is addressed in individual specifications.

BORON DILUTION

LIMITING CONDITION FOR OPERATION

3.1.1.3 The flow rate of reactor coolant through the reactor coolant system shall be $\geq$ 2000 gpm whenever a reduction in Reactor Coolant System boron concentration is being made.

APPLICABILITY: ALL MODES.

ACTION:

With the flow rate of reactor coolant through the reactor coolant system < 2000 gpm, immediately suspend all operations involving a reduction in boron concentration of the Reactor Coolant System.

SURVEILLANCE REQUIREMENTS

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4.1.1.3 The flow rate of reactor coolant through the reactor coolant system shall be determined to be $\geq$ 2000 gpm within one hour prior to the start of and at least once per hour during a reduction in the Reactor Coolant System boron concentration by either:

a. Verifying at least one reactor coolant pump is in operation, or

b. Verifying that at least one low pressure safety injection pump or containment spray pump is in operation as a shutdown cooling pump and supplying $\geq$ 2000 gpm through the reactor coolant system.

POWER DISTRIBUTION LIMITS

RADIAL PEAKING FACTORS

LIMITING CONDITION FOR OPERATION

3.2.2 The measured PLANAR RADIAL PEAKING FACTORS (F^m_{xy}) shall be less than or equal to the PLANAR RADIAL PEAKING FACTORS (F^c_{xy}) used in the Core Operating Limit Supervisory System (COLSS) and in the Core Protection Calculators (CPC).

APPLICABILITY: MODE 1 above 20% of RATED THERMAL POWER*

ACTION:

With a F^m_{xy} exceeding a corresponding F^c_{xy}, within 6 hours either:

a. Adjust the CPC addressable constants to increase the multiplier applied to PLANAR RADIAL PEAKING FACTOR by a factor equivalent to $\geq F^m_{xy} / F^c_{xy}$ and restrict subsequent operation so that a margin to the COLSS operating limits of at least $[(F^m_{xy}/F^c_{xy}) - 1.0] \times 100\%$ is maintained; or

A1

b. Adjust the affected PLANAR RADIAL PEAKING FACTORS (F^c_{xy}) used in the ~~CLOSS~~ COLSS and CPC to a value greater than or equal to the measured PLANAR RADIAL PEAKING FACTORS (F^m_{xy}); or

c. Be in at least HOT STANDBY.

SURVEILLANCE REQUIREMENTS

4.2.2.1 The provisions of Specification 4.0.4 are not applicable.

4.2.2.2 The measured PLANAR RADIAL PEAKING FACTORS (F^m_{xy}), obtained by using the incore detection system, shall be determined to be less than or equal to the PLANAR RADIAL PEAKING FACTORS (F^c_{xy}) used in the COLSS and CPC at the following intervals:

a. After each fuel loading with THERMAL POWER greater than 40% but prior to operation above 70% of RATED THERMAL POWER, and

b. At least once per 31 days of accumulated operation in MODE 1.

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* See Special Test Exception 3.10.2.

TABLE 3.3-1 (Continued)

ACTION STATEMENTS

ACTION 2 – With the number of channels OPERABLE one less than the Total Number of Channels, operation in the applicable MODES may continue provided the inoperable channel is placed in the bypassed or tripped condition within 1 hour. If the inoperable channel is bypassed for greater than 48 hours, the desirability of maintaining this channel in the bypassed condition shall be reviewed as soon as possible but no later than ~~at~~ the next regularly scheduled ~~PSC~~ OSRC meeting in accordance with the ~~QA Manual Operations~~Quality Assurance Program Manual (QAPM). The channel shall be returned to OPERABLE status prior to startup following the next COLD SHUTDOWN.

A1

With a channel process measurement circuit that affects multiple functional units inoperable or in test, bypass or trip all associated functional units as listed below.

Process Measurement Circuit	Functional Unit Bypassed
1. Linear Power (Subchannel or Linear)	Linear Power Level – High Local Power Density – High DNBR – Low Log Power Level – High*
2. Pressurizer Pressure – NR	Pressurizer Pressure – High Local Power Density – High DNBR – Low
3. Containment Pressure – NR	Containment Pressure – High (RPS) Containment Pressure – High (ESFAS) Containment Pressure – High-High (ESFAS)
4. Steam Generator 1 Pressure	Steam Generator 1 Pressure – Low Steam Generator 1 ΔP (EFAS 1) Steam Generator 2 ΔP (EFAS 2)
5. Steam Generator 2 Pressure	Steam Generator 2 Pressure – Low Steam Generator 1 ΔP (EFAS 1) Steam Generator 2 ΔP (EFAS 2)
6. Steam Generator 1 Level	Steam Generator 1 Level – Low Steam Generator 1 ΔP (EFAS 1)
7. Steam Generator 2 Level	Steam Generator 2 Level – Low Steam Generator 2 ΔP (EFAS 2)
8. Core Protection Calculator	Local Power Density – High DNBR – Low

* Only for failure common to both linear power and log power.

TABLE 3.3-3 (Continued)

TABLE NOTATION

(a) Trip function may be bypassed in this MODE when pressurizer pressure is below 400 psia; bypass shall be automatically removed before pressurizer pressure exceeds 500 psia.

(b) An SIAS signal is first necessary to enable CSAS logic.

(c) Remote manual not provided for RAS. These are local manuals at each ESF auxiliary relay cabinet.

ACTION STATEMENTS

ACTION 9 – With the number of OPERABLE channels one less than the Total Number of Channels, restore the inoperable channel to OPERABLE status within 48 hours or be in at least HOT STANDBY within the next 6 hours and in COLD SHUTDOWN within the following 30 hours.

A1

ACTION 10 – With the number of channels OPERABLE one less than the Total Number of Channels, operation in the applicable MODES may continue provided the inoperable channel is placed in the bypassed or tripped condition within 1 hour. If the inoperable channel is bypassed for greater than 48 hours, the desirability of maintaining this channel in the bypassed condition shall be reviewed as soon as possible but no later than ~~at~~ the next regularly scheduled ~~PSC~~ OSRC meeting in accordance with the ~~QA Manual Operations~~ Quality Assurance Program Manual (QAPM). The channel shall be returned to OPERABLE status prior to startup following the next COLD SHUTDOWN.

If an inoperable Steam Generator ΔP or RWT Level – Low channel is placed in the tripped condition, remove the inoperable channel from the tripped condition within 48 hours or be in at least HOT STANDBY within the next 6 hours and in COLD SHUTDOWN within the following 30 hours.

With a channel process measurement circuit that affects multiple functional units inoperable or in test, bypass or trip all associated functional units as listed below.

Process Measurement Circuit	Functional Unit Bypassed
1. Containment Pressure – NR	Containment Pressure – High (RPS) Containment Pressure – High (ESFAS) Containment Pressure – High-High (ESFAS)
2. Steam Generator 1 Pressure	Steam Generator 1 Pressure – Low Steam Generator 1 ΔP (ESFAS 1) Steam Generator 2 ΔP (ESFAS 2)
3. Steam Generator 2 Pressure	Steam Generator 2 Pressure – Low Steam Generator 1 ΔP (ESFAS 1) Steam Generator 2 ΔP (ESFAS 2)
4. Steam Generator 1 Level	Steam Generator 1 Level – Low Steam Generator 1 ΔP (EFAS 1)
5. Steam Generator 2 Level	Steam Generator 2 Level – Low Steam Generator 2 ΔP (EFAS 2)

TABLE 3.3-4

ENGINEERED SAFETY FEATURE ACTUATION SYSTEM INSTRUMENTATION TRIP VALUES

FUNCTIONAL UNIT	TRIP SETPOINT	ALLOWABLE VALUES	
1. SAFETY INJECTION (SIAS)			
a. Manual (Trip Buttons)	Not Applicable	Not Applicable	
b. Containment Pressure – High	≤ 18.3 psia	≤ 18.490 psia	
c. Pressurizer Pressure – Low	≥ 1650 psia (1)	≥ 1618.9 psia	A1
2. CONTAINMENT SPRAY (CSAS)			
a. Manual (Trip Buttons)	Not Applicable	Not Applicable	A1
b. Containment Pressure – High-High	≤ 23.3 psia	≤ 23.490 psia	
3. CONTAINMENT ISOLATION (CIAS)			
a. Manual (Trip Buttons)	Not Applicable	Not Applicable	A1
b. Containment Pressure – High	≤ 18.3 psia	≤ 18.490 psia	

TABLE 3.3-4 (Continued)

ENGINEERED SAFETY FEATURE ACTUATION SYSTEM INSTRUMENTATION TRIP VALUES

FUNCTIONAL UNIT	TRIP SETPOINT	ALLOWABLE VALUES
4. MAIN STEAM AND FEEDWATER ISOLATION (MSIS)		
a. Manual (Trip Buttons)	Not Applicable	Not Applicable
b. Steam Generator Pressure – Low	≥ 751 psia (2)	≥ 738.6 psia (2)
5. CONTAINMENT COOLING (CCAS)		
A1 a. Manual (Trip Buttons)	Not Applicable	Not Applicable
b. Containment Pressure – High	≤ 18.3 psia	≤ 18.490 psia
c. Pressurizer Pressure – Low	≥ 1650 psia	≥ 1618.9 psia
6. RECIRCULATION (RAS)		
a. Manual (Trip Buttons)	Not Applicable	Not Applicable
b. Refueling Water Tank – Low	6.0 ± 0.5% indicated level	between 5.111% and 6.889% indicated level
7. LOSS OF POWER		
a. 4.16 kv Emergency Bus Undervoltage	(4)	2300 ± 699 volts with a 0.64 ± 0.34 second time delay
b. 460 volt Emergency Bus Undervoltage	(4)	429.6 ± 6.4 volts with an 8.0 ± 1.0 second time delay

TABLE 3.3-4 (Continued)

ENGINEERED SAFETY FEATURE ACTUATION SYSTEM INSTRUMENTATION TRIP VALUES

A1

FUNCTIONAL UNIT	TRIP SETPOINT	ALLOWABLE VALUES
8. EMERGENCY FEEDWATER (EFAS)		
a. Manual (Trip Buttons)	Not Applicable	Not Applicable
b. Steam Generator (A&B) Level – Low	≥ 22.2% (3)	≥ 21.5% (3)
c. Steam Generator ΔP– High (SG-A > SG-B)	≤ 90 psi	≤ 99.344 psi
d. Steam Generator ΔP– High (SG-B > SG-A)	≤ 90 psi	≤ 99.344 psi
e. Steam Generator (A&B) Pressure – Low	≥ 751 psia (2)	≥ 738.6 psia (2)

(1) Value may be decreased manually, to a minimum of ≥ 100 psia, during a planned reduction in pressurizer pressure, provided the margin between the pressurizer pressure and this value is maintained at ≤ 200 psi; the setpoint shall be increased automatically as pressurizer pressure is increased until the trip set-point is reached. Trip may be manually bypassed below 400 psia; bypass shall be automatically removed before pressurizer pressure exceeds 500 psia.

(2) Value may be decreased manually during a planned reduction in steam generator pressure, provided the margin between the steam generator pressure and this value is maintained at ≤ 200 psi; the setpoint shall be increased automatically as steam generator pressure is increased until the trip setpoint is reached.

(3) % of the distance between steam generator upper and lower narrow range level instrument nozzles.

(4) The trip value for this function is listed in the surveillance test procedures. The trip value will ensure that adequate protection is provided when all the applicable calibration tolerances, channel uncertainties, and time delays are taken into account.

3/4.3.3 MONITORING INSTRUMENTATION

RADIATION ~~MONTIORING~~ MONITORING INSTRUMENTATION

A1

LIMITING CONDITION FOR OPERATION

3.3.3.1 The radiation monitoring instrumentation channels shown in Table 3.3-6 shall be OPERABLE with their alarm/trip setpoints within the specified limits.

APPLICABILITY: As shown in Table 3.3-6.

ACTION:

a. With a radiation monitoring channel alarm/trip setpoint exceeding the value shown in Table 3.3-6, adjust the setpoint to within the limit within 4 hours or declare the channel inoperable.

b. With one or more radiation monitoring channels inoperable, take the ACTION shown in Table 3.3-6.

c. The provisions of Specification 3.0.3 are not applicable.

SURVEILLANCE REQUIREMENTS

4.3.3.1 Each radiation monitoring instrumentation channel shall be demonstrated OPERABLE by the performance of the CHANNEL CHECK, CHANNEL CALIBRATION and CHANNEL FUNCTIONAL TEST operations during the modes and at the frequencies shown in Table 4.3-3.

TABLE 3.3-6

RADIATION MONITORING INSTRUMENTATION

INSTRUMENT	MINIMUM CHANNELS OPERABLE	APPLICABLE MODES	ALARM/TRIP SETPOINT	MEASUREMENT RANGE	ACTION
1. AREA MONITORS					
a. Spent Fuel Pool Area Monitor	1	Note 1	$\leq 1.5\times10^{-2}$ R/hr	$10^{-4} - 10^{1}$ R/hr	13
b. Containment High Range	2	1, 2, 3, & 4	Not Applicable	$1 - 10^{7}$ R/hr	18
2. PROCESS MONITORS					
a. Containment Purge and Exhaust Isolation	1	5 & 6	$\leq$ 2 x background	$10 - 10^{6}$ cpm	16
b. Control Room Ventilation Intake Duct Monitors	2	Note 2	$\leq$ 2 x background	$10 - 10^{6}$ cpm	17, 20, 21 M5
c. Main Steam Line Radiation Monitors	1/Steam Line	1, 2, 3, & 4	Not Applicable	$10^{-1} - 10^{4}$ mR/hr	19

Note 1 - With fuel in the spent fuel pool or building.
Note 2 - MODES 1, 2, 3, 4, and during handling of irradiated fuel.

TABLE 3.3-6 (Continued)

TABLE NOTATION

ACTION 13 – With the number of channels OPERABLE less than required by the Minimum Channels OPERABLE requirement, perform area surveys of the monitored area with portable monitoring instrumentation at least once per 24 hours.

ACTION 16 – With the number of OPERABLE channels one less than the Minimum Channels OPERABLE requirement, complete the following:

a. If performing CORE ALTERATIONS or moving irradiated fuel within the reactor building, secure the containment purge system or suspend CORE ALTERATIONS and movement of irradiated fuel within the reactor building.

b. If a containment PURGE is in progress, secure the containment purge system.

c. If continuously ventilating, verify the SPING monitor operable or perform the ACTIONS of ~~3.3.3.9~~ the Offsite Dose Calculation Manual, Appendix 2, Table 2.2-1, ~~or~~ secure the containment purge system. A28

M5

ACTION 17 – In MODE 1, 2, 3, or 4, ~~With~~ with A1 no channels OPERABLE, within 1 hour initiate and maintain operation of the control room emergency ventilation system A1 (CREVS) in the recirculation mode of operation or be in HOT STANDBY within the next 6 hours and COLD SHUTDOWN in the following 30 hours. M4

ACTION 18 – With the number of channels OPERABLE one less than required by the Minimum Channels OPERABLE requirement, (1) either restore the inoperable channel to OPERABLE status within 7 days or (2) prepare and submit a Special Report to the ~~Commission pursuant to Specification 6.9.2~~ NRC within 30 days following the event, outlining the action taken, the cause of the inoperability, and the plans and schedule for restoring the system to OPERABLE status. With both channels inoperable, initiate alternate methods of monitoring the containment radiation level within 72 hours in addition to the actions described above. A6

ACTION 19 – With the number of OPERABLE Channels less than required by the Minimum Channels OPERABLE requirements, initiate the preplanned alternate method of monitoring the appropriate parameter(s), within 72 hours, and:

1) either restore the inoperable Channel(s) to OPERABLE status within 7 days of the event, or

2) prepare and submit a Special Report to the ~~Commission pursuant to Specification 6.9.2~~ NRC within 14 days following the event outlining the action taken, the cause of the inoperability and the plans and schedule for restoring the system to OPERABLE status. A6

M5

ACTION 20 – In MODE 1, 2, 3, or 4 ~~A~~ with A1 the number of channels OPERABLE one less than required by the Minimum Channels OPERABLE requirement, within 7 days A1 restore the inoperable channel to OPERABLE status ~~or within 7 days, or within the next 6 hours~~ initiate and maintain the ~~control room emergency ventilation system~~ CREVS in the recirculation mode of operation. Otherwise, be in HOT STANDBY within the next 6 hours and COLD SHUTDOWN in the following 30 hours. M3 A1 M4

ACTION 21 - During handling of irradiated fuel with one or two channels inoperable, immediately place one OPERABLE CREVS train in the emergency recirculation mode or immediately suspend handling of irradiated fuel. MS

TABLE 4.3-3

RADIATION MONITORING INSTRUMENTATION SURVEILLANCE REQUIREMENTS

INSTRUMENT	CHANNEL CHECK	CHANNEL CALIBRATION	CHANNEL FUNCTIONAL TEST	MODES IN WHICH SURVEILLANCE REQUIRED
1. AREA MONITORS				
a. Spent Fuel Pool Area Monitor	S	R	M	Note 1
b. Containment High Range	S	R Note 4	M	1, 2, 3, & 4
2. PROCESS MONITORS				
a. Containment Purge and Exhaust Isolation	Note 2	R	Note 3	5 & 6
b. Control Room Ventilation Intake Duct Monitors	S	R	M Note 6	Note 5
c. Main Steam Line Radiation Monitors	S	R	M	1, 2, 3, & 4

L2

Note 1 – With fuel in the spent fuel pool or building.
Note 2 – Within 8 hours prior to initiating containment purge operations and at least once per 12 hours during containment purge operations.
Note 3 – Within 31 days prior to initiating containment purge operations and at least once per 31 days during containment purge operations.
Note 4 – Acceptable criteria for calibration are provided in Table II.F.1-3 of NUREG-0737.
Note 5 – MODES 1, 2, 3, 4, and during handling of irradiated fuel.
Note 6 - When the Control Room Ventilation Intake Duct Monitor is placed in an inoperable status solely for performance of this Surveillance, entry into associated ACTIONS may be delayed up to 3 hours.

L2

TABLE 3.3-9

REMOTE SHUTDOWN MONITORING INSTRUMENTATION

INSTRUMENT	READOUT LOCATION	MEASUREMENT RANGE	MINIMUM CHANNELS OPERABLE
1. Logarithmic Neutron Channel	2C80	10^{-8} – 200%	1
2. Startup Channel	2C80	1 – ~~10^{5}~~ 10^{6} cps (A29)	1
3. Reactor Trip Breaker Indication	-	OPEN-CLOSE	1/trip breaker
4. Reactor Coolant Cold Leg Temperature	2C80	0 - 600°F	1
5. Pressurizer Pressure	2C80	0 – 3000 psia	1
6. Pressurizer Level	2C80	0 – 100%	1
7. Steam Generator Pressure	2C80	0 – 1200 psia	1/steam generator
8. Steam Generator Level	2C80 and Local (at EFW Valves Control)	0 – 100%	1/steam generator
9. Shutdown Cooling Flow Rate	2C80	0 – ~~100%~~ 8000 gpm (A29)	1
10. Condensate Storage Tank Level	2C80	0 – 100%	1

TABLE 4.3-6

REMOTE SHUTDOWN MONITORING INSTRUMENTATION SURVEILLANCE REQUIREMENTS

INSTRUMENT	CHANNEL CHECK	CHANNEL CALIBRATION	
1. Logarithmic Neutron Channel	M	N.A.	
2. Startup Channel	M	N.A.	
3. Reactor Trip Breaker Indication	M	N.A.	
4. Reactor Coolant Cold Leg Temperature	M	R	
5. ~~Pressurization~~ Pressurizer Pressure	M	R	A1
6. Pressurizer Level	M	R	
7. Steam Generator Level	M	R	
8. Steam Generator Pressure	M	R	
9. Shutdown Cooling Flow Rate	M	R	
10. Condensate Storage Tank Level	M	R	

TABLE 3.3-10

POST-ACCIDENT MONITORING INSTRUMENTATION

INSTRUMENT		MINIMUM CHANNELS OPERABLE	ACTION
1.	Containment Pressure (Normal Design Range)	2	1
2.	Containment Pressure (High Range)	2	2
3.	Pressurizer Pressure	2	1
4.	Pressurizer Water Level	2	1
5.	Steam Generator Pressure	2/steam generator	1
6.	Steam Generator Water Level	2/steam generator	1
7.	Refueling Water Tank Water Level	2	1
8.	Containment Water Level – Wide Range	2	2
9.	Emergency Feedwater Flow Rate	1/steam generator	1
10.	Reactor Coolant System Subcooling Margin Monitor	1	1
11.	Pressurizer Safety Valve Acoustic Position Indication	1/Valve	1
12.	Pressurizer Safety Valve Tail Pipe Temperature	1/Valve	1
13.	In Core Thermocouples (Core Exit Thermocouples)	2/core quadrant	1
14.	Reactor Vessel Level Monitoring System (RVLMS)	2	3, 4

A1

TABLE 3.3-10 (cont'd)

POST-ACCIDENT MONITORING INSTRUMENTATION

~~INSTRUMENT~~	~~MINIMUM CHANNELS OPERABLE~~	~~ACTION~~
~~13. In Core Thermocouples (Core Exit Thermocouples)~~	~~2/core quadrant~~	~~1~~
~~14. Reactor Vessel Level Monitoring System (RVLMS)~~	~~2~~	~~3, 4~~

A1

Action 1: With the number of OPERABLE post-accident monitoring channels less than required by Table 3.3-10, either restore the inoperable channel to OPERABLE status within 30 days, or be in HOT SHUTDOWN within the next 12 hours.

Action 2: With the number of OPERABLE post-accident monitoring channels less than required by Table 3.3-10, either restore the inoperable channel to OPERABLE status within 30 days, or be in HOT SHUTDOWN within the next 12 hours.

If only one channel is inoperable and containment entry is required to restore the inoperable channel, the channel need not be restored until the following refueling outage.

Action 3: With the number of OPERABLE channels one less than the minimum number of channels required to be OPERABLE:

a. If repairs are feasible, restore the inoperable channel to OPERABLE status within 7 days or be in at least HOT SHUTDOWN within the next 12 hours.

A6

b. If repair is not feasible without shutting down, operations may continue and a special report ~~pursuant to specification 6.9.2~~ shall be submitted to the NRC within 30 days following the failure; describing the action taken, the cause of the inoperability, and the plans and schedule for restoring the channel to OPERABLE status during the next scheduled refueling outage.

Action 4: With the number of OPERABLE channels two less than the minimum channels required to be OPERABLE:

a. If repairs are feasible, restore at least one inoperable channel to OPERABLE status within 48 hours or be in at least HOT SHUTDOWN within the next 12 hours.

A6

b. If repair is not feasible without shutting down, operation may continue and a special report ~~pursuant to specification 6.9.2~~ shall be submitted to the NRC within 30 days following the failure; describing the action taken, the cause of the inoperability, and the plans and schedule for restoring the channels to OPERABLE status during the next scheduled refueling outage.

Page Layout A1

LIMITING CONDITION FOR OPERATION

3.4.5 Each steam generator shall be OPERABLE.

APPLICABILITY: MODES 1, 2, 3 and 4.

ACTION:

With one or more steam generators inoperable, restore the inoperable generator(s) to OPERABLE status prior to increasing Tavg above 200°F.

SURVEILLANCE REQUIREMENTS

4.4.5~~.0~~ Each steam generator shall be demonstrated OPERABLE in accordance with the Steam Generator Tube Surveillance Program. ~~by performance of the following augmented inservice inspection program.~~

A1

Later PTS 6.5.9

A31

~~NOTE: The requirements for inservice inspection do not apply during the steam generator replacement outage (2R14).~~

~~4.4.5.1 Steam Generator Sample Selection and Inspection - Each steam generator shall be determined OPERABLE during shutdown by selecting and inspecting at least the minimum number of steam generators specified in Table 4.4-1.~~

A1

Later PTS 6.5.9

~~4.4.5.2 Steam Generator Tube Sample Selection and Inspection - The steam generator tube minimum sample size, inspection result classification, and the corresponding action required shall be as specified in Table 4.4-2. The inservice inspection of steam generator tubes shall be performed at the frequencies specified in specification 4.4.5.3 and the inspected tubes shall be verified acceptable per the acceptance criteria of Specification 4.4.5.4. The tubes selected for each inservice inspection shall include at least 3% of the total number of tubes in all steam generators; the tubes selected for these inspections shall be selected on a random basis except:~~

~~a. Where experience in similar plants with similar water chemistry indicates critical areas to be inspected, then at least 50% of the tubes inspected shall be from these critical areas.~~

~~b. The first sample of tubes selected for each inservice inspection (subsequent to the preservice inspection) of each steam generator shall include:~~

A1

~~1. All nonplugged tubes that previously had detectable wall penetrations (> 20%).~~

~~2. Tubes in those areas where experience has indicated potential problems.~~

~~3. A tube inspection (pursuant to Specification 4.4.5.4.a.9) shall be performed on each selected tube. If any selected tube does not permit the passage of the eddy current probe for a tube inspection, this shall be recorded and an adjacent tube shall be selected and subjected to a tube inspection.~~

~~c. The tubes selected as the second and third samples (if required by Table 4.4-2) during each inservice inspection may be subjected to a partial inspection provided:~~

~~1. The tubes selected for these samples include the tubes from those areas of the tube sheet array where tubes with imperfections were previously found.~~

~~2. The inspections include those portions of the tubes where imperfections were previously found.~~

~~The result of each sample inspection shall be classified into one to the following three categories:~~

~~Category~~	~~Inspection Results~~
~~C-1~~	~~Less than 5% of the total tubes inspected are degraded tubes and none of the inspected tubes are defective.~~
~~C-2~~	~~One or more tubes, but not more than 1% of the total tubes inspected are defective, or between 5% and 10% of the total tubes inspected are degraded tubes.~~
~~C-3~~	~~More than 10% of the total tubes inspected are degraded tubes or more than 1% of the inspected tubes are defective.~~

~~Note: In all inspections, previously degraded tubes must exhibit significant (> 10%) further wall penetrations to be included in the above percentage calculations.~~

LATER
PTS 6.5.9

A1

~~4.4.5.3 Inspection Frequencies - The above required inservice inspections of steam generator tubes shall be performed at the following frequencies:~~

~~a. The first inservice inspection shall be performed after 6 Effective Full Power Months but within 24 calendar months of initial criticality. Subsequent inservice inspections shall be performed at intervals of not less than 12 nor more than 24 calendar months after the previous inspection. If two consecutive inspections following service under AVT conditions, not including the preservice inspection, result in all inspection results falling into the C-1 category or if two consecutive inspections demonstrate that previously observed degradation has not continued and no additional degradation has occurred, the inspection interval may be extended to a maximum of once per 40 months.~~

~~A one-time inspection interval of a maximum of once per 40 months is allowed for the inspection performed immediately following the 2R15 outage. This is an exception to 4.4.5.3.a in that the interval extension is based on all of the results of one inspection falling into the C-1 category.~~

~~b. If the results of the inservice inspection of a steam generator conducted in accordance with Table 4.4-2 at 40 month intervals fall into Category C-3, the inspection frequency shall be increased to at least once per 20 months. The increase in inspection frequency shall apply until the subsequent inspections satisfy the criteria of Specification 4.4.5.3.a; the interval may then be extended to a maximum of once per 40 months.~~

~~c. Additional, unscheduled inservice inspections shall be performed on each steam generator in accordance with the first sample inspection specified in Table 4.4-2 during the shutdown subsequent to any of the following conditions:~~

~~1. Primary-to-secondary tube leaks (not including leaks originating from tube-to-tube sheet welds) in excess of the limits of Specification 3.4.6.2.~~

~~2. A seismic occurrence greater than the Operating Basis Earthquake.~~

~~3. A loss-of coolant accident requiring actuation of the engineered safeguards.~~

~~4. A main steam line or feedwater line break.~~

Later PTS 6.5.9

All
A1

~~4.4.5.4 Acceptance Criteria~~

~~a. As used in this Specification~~

1. ~~Tubing or Tube means that portion of the tube which forms the primary system to secondary system pressure boundary.~~

2. ~~Imperfection means an exception to the dimensions, finish or contour of a tube from that required by fabrication drawings or specifications. Eddy current testing indications below 20% of the nominal tube wall thickness, if detectable, may be considered as imperfections.~~

3. ~~Degradation means a service-induced cracking, wastage, wear or general corrosion occurring on either inside or outside of a tube.~~

4. ~~Degraded Tube means a tube containing imperfections ≥ 20% of nominal wall thickness caused by degradation.~~

5. ~~% Degradation means the percentage of the tube wall thickness affected or removed by degradation.~~

6. ~~Defect means an imperfection of such severity that it exceeds the plugging limit. A tube containing a defect is defective.~~

7. ~~Plugging Limit means the imperfection depth at or beyond which the tube shall be removed from service by plugging because it may become unserviceable prior to the next inspection. The plugging limit is equal to 40% of the nominal tube wall thickness.~~

8. ~~Unserviceable describes the condition of a tube if it leaks or contains a defect large enough to affect its structural integrity in the event of an Operating Basis Earthquake, a loss-of-coolant accident, or a steam line or feedwater line break as specified in 4.4.5.3.c, above.~~

9. ~~Tube Inspection means an inspection of the steam generator tube from tube end (cold leg side) to tube end (hot leg side).~~

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~~10. Preservice Inspection means an inspection of the full length of each tube in each steam generator performed by eddy current techniques prior to service to establish a baseline condition of the tubing. This inspection shall be performed after the hydrostatic test and prior to POWER OPERATION using the equipment and techniques expected to be used during subsequent inservice inspections.~~

~~b. The steam generator shall be determined OPERABLE after completing the corresponding actions (plug all tubes exceeding the plugging limit and all tubes containing through-wall cracks) required by Table 4.4-2.~~

LATER PTS 6.5.9

A1

~~4.4.5.5 Reports~~

~~a. Following each inservice inspection of steam generator tubes the number of tubes plugged in each steam generator shall be reported to the Commission within 15 days.~~

~~b. The complete results of the steam generator tube inservice inspection shall be reported within 12 months following the completion of the inservice inspection. This report shall include:~~

~~1. Number and extent of tubes inspected.~~

~~2. Location and percent of wall-thickness penetration for each indication of an imperfection.~~

~~3. Identification of tubes plugged.~~

~~c. Results of steam generator tube inspections which fall into Category C-3 shall be reported in a Special Report pursuant to Specification 6.9.2 as denoted by Table 4.4-2. Notification of the Commission will be made prior to resumption of plant operation (i.e., prior to entering Mode 4). The written Special Report shall provide a description of investigations conducted to determine cause of the tube degradation and corrective measures taken to prevent recurrence.~~

LATER PTS 6.6.7

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~~TABLE 4.4-1~~

~~MINIMUM NUMBER OF STEAM GENERATORS TO BE INSPECTED DURING INSERVICE INSPECTION~~

~~Preservice Inspection~~	~~Yes~~
~~No. of Steam Generators per Unit~~	~~Two~~
~~First Inservice Inspection~~	~~One~~
~~Second & Subsequent Inservice Inspections~~	~~One[1]~~

~~Table Notation:~~

1. ~~The inservice inspection may be limited to one steam generator on a rotating schedule encompassing 3 N % of the tubes (where N is the number of steam generators in the plant) if the results of the first or previous inspections indicate that all steam generators are performing in a like manner. Note that under some circumstances, the operating conditions in one or more steam generators may be found to be more severe than those in other steam generators. Under such circumstances the sample sequence shall be modified to inspect the most severe conditions.~~

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LATER PTS 6.5.9

A1

~~TABLE 4.4-2~~

~~STEAM GENERATOR TUBE INSPECTION~~

~~1ST SAMPLE INSPECTION~~			~~2ND SAMPLE INSPECTION~~		~~3RD SAMPLE INSPECTION~~	
~~Sample Size~~	~~Result~~	~~Action Required~~	~~Result~~	~~Action Required~~	~~Result~~	~~Action Required~~
~~A minimum of S Tubes per S.G.~~	~~C-1~~	~~None~~	~~N/A~~	~~N/A~~	~~N/A~~	~~N/A~~
	~~C-2~~	~~Plug defective tubes and inspect additional 2S tubes in this S.G.~~	~~C-1~~	~~None~~	~~N/A~~	~~N/A~~
			~~C-2~~	~~Plug defective tubes and inspect additional 4S tubes in this S.G.~~	~~C-1~~	~~None~~
					~~C-2~~	~~Plug defective tubes~~
					~~C-3~~	~~Perform action for C-3 result of first sample~~
			~~C-3~~	~~Perform action for C-3 result of first sample~~	~~N/A~~	~~N/A~~
	~~C-3~~	~~Inspect all tubes in this S.G., plug defective tubes and inspect 2S tubes in the other S.G.~~ ~~Special Report to NRC per Specification 6.9.2~~	~~Other S.G. is C-1~~	~~None~~	~~N/A~~	~~N/A~~
			~~Other S.G. is C-2~~	~~Perform action for C-2 result of second sample~~	~~N/A~~	~~N/A~~
			~~Other S.G. is C-3~~	~~Inspect all tubes in the other S.G. and plug defective tubes.~~ ~~Special Report to NRC per Spec. 6.9.2~~	~~N/A~~	~~N/A~~

~~$S = 3\frac{2}{n}\%$ Where n is the number of steam generators inspected during an inspection.~~

EMERGENCY CORE COOLING SYSTEMS

ECCS SUBSYSTEMS – $T_{avg} \geq 300°F$

LIMITING CONDITION FOR OPERATION

3.5.2 Two independent ECCS subsystems shall be OPERABLE with each subsystem comprised of:

a. One OPERABLE high-pressure safety injection pump,

b. One OPERABLE low-pressure safety injection pump, and

c. An independent OPERABLE flow path capable of taking suction from the refueling water tank on a Safety Injection Actuation Signal and automatically transferring suction to the containment sump on a Recirculation Actuation Signal.

APPLICABILITY: MODES 1, 2 and 3*.

ACTION:

a. With one ECCS subsystem inoperable, restore the inoperable subsystem to OPERABLE status within 72 hours or be in HOT SHUTDOWN within the next 12 hours.

b. In the event the ECCS is actuated and injects water into the Reactor Coolant System, a Special Report shall be prepared and submitted to the NRC ~~Commission pursuant to Specification 6.9.2~~ within 90 days describing the circumstances of the actuation and the total accumulated actuation cycles to date. A6

SURVEILLANCE REQUIREMENTS

4.5.2 Each ECCS subsystem shall be demonstrated OPERABLE:

a. At least once per 12 hours by verifying that the following valves are in the indicated positions with power to the valve operators removed:

Valve Number	Valve Function	Valve Position
2CV-5101	HPSI Hot Leg Injection Isolation	Closed
2CV-5102	HPSI Hot Leg Injection Isolation	Closed
2BS26	RWT Return Line	Open

* With pressurizer pressure ≥ 1700 psia.

EMERGENCY CORE COOLING SYSTEMS

ECCS SUBSYSTEMS – T_{avg} < 300°F

LIMITING CONDITION FOR OPERATION

3.5.3 As a minimum, one ECCS subsystem comprised of the following shall be OPERABLE:

a. One OPERABLE high-pressure safety injection pump, and

b. An OPERABLE flow path capable of taking suction from the refueling water tank on a Safety Injection Actuation Signal and automatically transferring suction to the containment sump on a Recirculation Actuation Signal.

APPLICABILITY: MODES 3* and 4.

ACTION:

a. With no ECCS subsystem OPERABLE, restore at least one ECCS subsystem to OPERABLE status within 1 hour or be in COLD SHUTDOWN within the next 20 hours.

b. In the event the ECCS is actuated and injects water into the Reactor Coolant System, a Special Report shall be prepared and submitted to the NRC ~~Commission pursuant to Specification 6.9.2~~ within 90 days describing the circumstances of the actuation and the total accumulated actuation cycles to date. A6

SURVEILLANCE REQUIREMENTS

4.5.3 The ECCS subsystem shall be demonstrated OPERABLE per the applicable Surveillance Requirements of 4.5.2.

* With pressurizer pressure < 1700 psia.

~~4.6.2.1~~

A1

c. At least once per 18 months, during shutdown, by:

1. Verifying that each automatic valve in the flow path actuates to its correct position on CSAS and RAS test signals.

2. Verifying that upon a RAS test signal, the containment sump isolation valves open and that a recirculation mode flow path via an OPERABLE shutdown cooling heat exchanger is established.

3. Verifying that each spray pump starts automatically on a CSAS test signal.

d. At least once per 5 years by performing an air or smoke flow test through each spray header and verifying each spray nozzle is unobstructed.

3/4.6.3 CONTAINMENT ISOLATION VALVES

LIMITING CONDITION ~~OF~~ FOR OPERATION

A1

3.6.3.1 Each containment isolation valve shall be OPERABLE.*

APPLICABILITY: MODES 1, 2, 3 and 4.

ACTION:

With one or more isolation valve(s) inoperable, maintain at least one isolation valve OPERABLE in each affected penetration that is open and either:

a. Restore the inoperable valve(s) to OPERABLE status within 4 hours, or

b. Isolate each affected penetration within 4 hours by use of at least one deactivated automatic valve secured in the isolation position, or

c. Isolate the affected penetration within 4 hours by use of at least one closed manual valve or blind flange; or

d. Be in at least HOT STANDBY within the next 6 hours and in COLD SHUTDOWN within the following 30 hours.

SURVEILLANCE REQUIREMENTS

4.6.3.1.1 Each containment isolation valve shall be demonstrated OPERABLE prior to returning the valve to service after maintenance, repair or replacement work is performed on the valve or its associated actuator, control or power circuit by performance of a cycling test and verification of isolation time.

* Locked or sealed closed valves may be opened on an intermittent basis under administrative control.

SURVEILLANCE REQUIREMENTS (Continued)

4.6.3.1.2 Each containment isolation valve shall be demonstrated OPERABLE at least once per 18 months by verifying that on a containment isolation test signal, each isolation valve actuates to its isolation position.

4.6.3.1.3 The isolation time of each power operated or automatic containment isolation valve shall be determined to be within its limit when tested pursuant to the Inservice Testing Program.

4.6.3.1.4 The containment purge supply and exhaust isolation valves shall be demonstrated OPERABLE as specified in the Containment Leakage Rate Testing Program. ~~Prior to exceeding conditions which require establishment of reactor building integrity per TS 3.6.1.1, the leak rate of the containment purge supply and exhaust isolation valves shall be verified to be within acceptable limits per TS 4.6.1.2, unless the test has been successfully completed within the last three months.~~

A1

Later PTS 6.5.16

PLANT SYSTEMS

3/4.7.6 CONTROL ROOM EMERGENCY VENTILATION AND AIR CONDITIONING SYSTEM

LIMITING CONDITION FOR OPERATION

L3

3.7.6.1 Two independent control room emergency ventilation and air conditioning systems shall be OPERABLE. (Note 1)

APPLICABILITY: MODES 1, 2, 3, 4, or during handling of irradiated fuel.

ACTION:

MODES 1, 2, 3, and 4

a. With one control room emergency air conditioning system inoperable, restore the inoperable system to OPERABLE status within 30 days or be in at least HOT STANDBY within the next 6 hours and in COLD SHUTDOWN within the following 30 hours.

b. With one control room emergency ventilation system inoperable, restore the inoperable system to OPERABLE status within 7 days or be in at least HOT STANDBY within the next 6 hours and in COLD SHUTDOWN within the following 30 hours.

c. With one control room emergency air conditioning system and one control room emergency ventilation system inoperable, restore the inoperable control room emergency ventilation system to OPERABLE status within 7 days and restore the inoperable control room emergency air conditioning system to OPERABLE status within 30 days or be in at least HOT STANDBY within the next 6 hours and in COLD SHUTDOWN within the following 30 hours.

L3

d. With two control room emergency ventilation systems inoperable due to an inoperable control room boundary, restore the control room boundary to OPERABLE status within 24 hours or be in at least HOT STANDBY within the next 6 hours and in COLD SHUTDOWN within the following 30 hours.

A7

e. With two control room emergency ventilation systems inoperable for reasons other than ACTION d or with two control room emergency air conditioning systems inoperable, enter Specification 3.0.3.

During Handling of Irradiated Fuel

A1

~~d~~f. With one control room emergency air conditioning system inoperable, restore the inoperable system to OPERABLE status within 30 days or immediately place the OPERABLE system in operation; otherwise, suspend all activities involving the handling of irradiated fuel. The provisions of Specification 3.0.4 are not applicable.

~~e~~g. With one control room emergency ventilation system inoperable, restore the inoperable system to OPERABLE status within 7 days or immediately place the control room in the emergency recirc mode of operation; otherwise, suspend all activities involving the handling of irradiated fuel. The provisions of Specification 3.0.4 are not applicable.

L3

Note 1: The control room boundary may be open intermittently under administrative controls.

~~f~~h. With one control room emergency air conditioning system and one control room emergency ventilation system inoperable:

A1

1. restore the inoperable control room emergency ventilation system to OPERABLE status within 7 days or immediately place the control room in the emergency recirc mode of operation, and

2. restore the inoperable control room emergency air conditioning system to OPERABLE status within 30 days or immediately place the OPERABLE system in operation;

3. otherwise, suspend all activities involving the handling of irradiated fuel.

4. The provisions of Specification 3.0.4 are not applicable.

~~g~~i. With both control room emergency air conditioning systems or both control room emergency ventilation systems inoperable, immediately suspend all activities involving the handling of irradiated fuel.

These actions will be moved to a new page 3/4 7-17a.

3/4.7.6 CONTROL ROOM EMERGENCY VENTILATION AND AIR CONDITIONING SYSTEM

LIMITING CONDITION FOR OPERATION

h. With one control room emergency air conditioning system and one control room emergency ventilation system inoperable:

   1. restore the inoperable control room emergency ventilation system to OPERABLE status within 7 days or immediately place the control room in the emergency recirc mode of operation, and

   2. restore the inoperable control room emergency air conditioning system to OPERABLE status within 30 days or immediately place the OPERABLE system in operation;

   3. otherwise, suspend all activities involving the handling of irradiated fuel.

   4. The provisions of Specification 3.0.4 are not applicable.

i. With both control room emergency air conditioning systems or both control room emergency ventilation systems inoperable, immediately suspend all activities involving the handling of irradiated fuel.

A1

NEW PAGE FOR EXISTING ACTIONS 'f' AND 'g' WHICH ARE DESIGNATED 'h' AND 'i' RESPECTIVELY DUE TO THE ADDITION OF NEW ACTIONS 'd' AND 'e'

A1

4.7.6.1.1 Each control room emergency air conditioning system shall be demonstrated OPERABLE:

a. At least once per 31 days on a STAGGERED TEST BASIS by:

1. Starting each unit from the control room, and

2. Verifying that each unit operates for at least 1 hour and maintains the control room air temperature ≤ 84°F D.B.

b. At least once per 18 months by verifying a system flow rate of 9900 cfm ± 10%.

4.7.6.1.2 Each control room emergency air filtration system shall be demonstrated OPERABLE:

LA2

TS Bases

a. At least once per 31 days on a STAGGERED TEST BASIS by ~~initiating, from the control room, flow through the HEPA filters and charcoal adsorbers and~~ verifying that the system operates for at least 15 minutes.

~~b. At least once per 18 months or (1) after any structural maintenance on the HEPA filter or charcoal adsorber housings, or (2) following painting, fire or chemical release in any ventilation zone communicating with the system by:~~

~~1. Verifying that the cleanup system satisfies the in-place testing acceptance criteria and uses the test procedures of Regulatory Positions C.5.a, C.5.c and C.5.d of Regulatory Guide 1.52, Revision 2, March 1978, and the system flow rate is 2000 cfm ± 10%.~~

~~2. Verifying within 31 days after removal that a laboratory analysis of a representative carbon sample obtained in accordance with Regulatory Position C.6.b of Regulatory Guide 1.52, Revision 2, March 1978, meets the laboratory testing criteria of ASTM D3803-1989 when tested at 30°C and 95% relative humidity for a methyl iodide penetration of:~~

~~a. ≤ 2.5% for 2 inch charcoal adsorber beds, or~~

~~b. ≤ 0.5% for 4 inch charcoal adsorber beds.~~

~~3. Verifying a system flow rate of 2000 cfm ± 10% during system operation when tested in accordance with ANSI N510-1975.~~

~~c. After every 720 hours of charcoal adsorber operation by verifying within 31 days after removal that a laboratory analysis of a representative carbon sample obtained in accordance with Regulatory Position C.6.b of Regulatory Guide 1.52, Revision 2, March 1978, meets the laboratory testing criteria of ASTM D3803-1989 when tested at 30°C and 95% relative humidity for a methyl iodide penetration of:~~

~~1. ≤ 2.5% for 2 inch charcoal adsorber beds, or~~

A1

Later PTS 6.5.11

~~2. ≤ 0.5% for 4 inch charcoal adsorber beds.~~

Next Page is 3/4 7-22

A1 ~~d~~b. At least once per 18 months by~~:~~ A1

A1 ~~1. Verifying that the pressure drop across the combined HEPA filters and charcoal adsorber banks is < 6 inches Water Gauge while operating the system at a flow rate of 2000 cfm ± 10%.~~ LATER PTS 6.5.11

A1 ~~2.~~ ~~Verifying~~ verifying that on a control room high radiation test signal, either actual or simulated, the system automatically isolates the control room ~~within 10 seconds~~ and switches into a recirculation mode of operation~~, with flow through the HEPA filters and charcoal adsorber banks.~~ LA2 L11

~~e. After each complete or partial replacement of a HEPA filter bank by verifying that the HEPA filter banks remove ≥ 99.95% of the DOP when they are tested in-place in accordance with ANSI N510-1975 while operating the system at a flow rate of 2000 cfm ± 10%.~~

~~f. After each complete or partial replacement of a charcoal adsorber bank by verifying that the charcoal adsorbers remove ≥ 99.95% of a halogenated hydrocarbon refrigerant test gas when they are tested in-place in accordance with ANSI N510-1975 while operating the system at a flow rate of 2000 cfm ±10%.~~ A1 Later PTS 6.5.11

c. By performing the required Control Room Emergency Ventilation filter testing in accordance with the Ventilation Filter Testing Program (VFTP). A8

d. At least once per 18 months verify VSF-9 makeup flow rate is ≥ 300 and ≤ 366 cfm when supplying the control room with outside air.

e. At least once per 18 months verify 2VSF-9 makeup flow rate is ≥ 418.5 and ≤ 511.5 cfm when supplying the control room with outside air. M11

Note: The new actions b.2, c, d and e. will be on page 3/4 7-18 in the clean pages and page 3/4 7-19 will be deleted A1

Next Page is 3/4 7-22

c. Visual Inspection Acceptance Criteria

A1

Visual inspections shall verify that (1) there are no visible indications of damage or impaired OPERABILITY, and (2) attachments to the foundation or supporting structure are functional and (3) fastners for the attachment of the snubber to the component and to the snubber anchorage are functional. Snubbers which appear inoperable as a result of visual inspections shall be classified as ~~INOPERABLE~~ inoperable and may be reclassified OPERABLE for the purpose of establishing the next visual inspection interval, providing that (1) the cause of the rejection is clearly established and remedied for that particular snubber and for other snubbers that may be generically susceptible; and (2) the affected snubber is functionally tested in the as found condition and determined OPERABLE per Specifications 4.7.8.d or 4.7.8.e, as applicable. However, when the fluid port of a hydraulic snubber is found to be uncovered, the snubber shall be determined inoperable and cannot be determined OPERABLE via functional testing for the purpose of establishing the next visual inspection interval. All snubbers connected to a common hydraulic fluid reservoir shall be evaluated for operability if any snubber connected to that reservoir is determined to be inoperable.

d. Functional Tests

At least once each refueling shutdown a representative sample of snubbers shall be tested using the following sample plan.

At least 10% of the snubbers required by Specification 3.7.8 shall be functionally tested either in place or in bench test. For each snubber that does not meet the functional test acceptance criteria of Specification 4.7.8.e, an additional 10% of the snubbers shall be functionally tested until no more failures are found or until all snubbers have been functionally tested.

The representative samples for the functional test sample plans shall be randomly selected from the snubbers required by Specification 3.7.8 and reviewed before beginning the testing. The review shall ensure as far as practical that they are representative of the various configurations, operating environments, range of sizes, and capacities. Snubbers placed in the same locations as snubbers which failed the previous functional test shall be retested at the

If any snubber selected for functional testing either fails to activate or fails to move, i.e., frozen-in-place, the cause will be evaluated and, if caused by manufacturer or design deficiency, all snubbers of the same type subject to the same defect shall be evaluated in a manner to ensure their OPERABILITY. This requirement shall be independent of the requirements stated in Specification 4.7.8.d for snubbers not meeting the functional test acceptance criteria.

g. Preservice Testing of Repaired, Replacement and New Snubbers

Preservice operability testing shall be performed on repaired, replacement or new snubbers prior to installation. Testing may be at the manufacturer's facility. The testing shall verify the functional test acceptance criteria in 4.7.8.e.

In addition, a preservice inspection shall be performed on each repaired, replacement or new snubber and shall verify that:

1) There are no visible signs of damage or impaired operability as a result of storage, handling or installation;

2) The snubber load rating, location, orientation, position setting and configuration (attachment, extensions, etc.), are in accordance with design;

3) Adequate swing clearance is provided to allow snubber movement;

4) If applicable, fluid is at the recommended level and fluid is not leaking from the snubber system;

5) Structural connections such as pins, bearings, studs, fasteners and other connecting hardware such as lock nuts, tabs, wire, and cotter pins are installed correctly.

h. Snubber Seal Replacement Program

The seal service life of hydraulic snubbers shall be monitored to ensure that the service life is not exceeded between surveillance inspections. The expected service life for the various seals, seal materials, and applications shall be determined and established based on engineering information and the seals shall be replaced so that the expected service life will not be exceeded during a period when the snubber is required to be OPERABLE. The seal replacement shall be documented.~~, and the documentation shall be retained in accordance with Specification 6.10.2.~~

A9

TABLE 4.7.8-1

SNUBBER VISUAL INSPECTION INTERVAL

NUMBER OF INOPERABLE SNUBBERS

Population per Category (Notes 1 and 2)	Column A Extend Interval (Notes 3 and 6)	Column B Repeat Interval (Notes 4 and 6)	Column C Reduce Interval (Notes 5 and 6)
1	0	0	1
80	0	0	2
100	0	1	4
150	0	3	8
200	2	5	13
300	5	12	25
400	8	18	36
500	12	24	48
750	20	40	78
1000 or greater	29	56	109

Note 1: The next visual inspection interval for a snubber category shall be determined based upon the previous inspection interval and the number of ~~INOPERABLE~~ inoperable snubbers found during that interval. Snubbers may be categorized, based upon their accessibility during power operation, as accessible or inaccessible. These categories may be examined separately or jointly. However, categories must be determined and documented before any inspection and that determination shall be the basis upon which to determine the next inspection interval for that category.

All
A1

Note 2: Interpolation between population per category and the number of ~~INOPERABLE~~ inoperable snubbers is permissible. Use next lower integer for the value of the limit for Columns A, B, and C if that integer includes a fractional value of ~~INOPERABLE~~ inoperable snubbers as determined by interpolation.

TABLE 4.7.8-1 (Continued)

SNUBBER VISUAL INSPECTION INTERVAL

Note 3: If the number of ~~INOPERABLE~~ inoperable snubbers is equal to or less than the number in Column A, the next inspection interval may be twice the previous interval but not greater than 48 months. ALL A1

Note 4: If the number of ~~INOPERABLE~~ inoperable snubbers is equal to or less than the number in Column B but greater than the number in Column A, the next inspection interval shall be the same as the previous interval.

Note 5: If the number of ~~INOPERABLE~~ inoperable snubbers is equal to or greater than the number in Column C, the next inspection interval shall be two-thirds of the previous interval. However, if the number of ~~INOPERABLE~~ inoperable snubbers is less than the number in Column C but greater than the number in Column B, the next interval shall be reduced proportionally by interpolation, that is, the previous interval shall be reduced by a factor that is one-third of the ratio of the difference between the number of ~~INOPERABLE~~ inoperable snubbers found during the previous interval and the number in Column B to the difference in the numbers in Column B and C.

Note 6: Specified surveillance intervals may be adjusted plus or minus 25 percent to accommodate normal test and surveillance schedule intervals up to and including 48 months, with the exception that inspection of inaccessible snubbers may be deferred to the next shutdown when plant conditions allow five days for inspection. See Note 7 for definition of interval as applied to snubber visual inspections. The provisions of Specification 4.0.2 regarding surveillance intervals are not applicable.

Note 7: Interval as defined for the shock suppressors (snubbers) visual inspection surveillance requirements is the period of time starting when the unit went into cold shutdown for refueling, and ending when the unit goes into cold shutdown for its next scheduled refueling. This period of time is nominally considered to be an 18 month period, or a 24 month period based on the type of fuel being used. However, the period of time (interval) could be shorter or longer due to plant operating variables such as fuel life and operating performance.

PLANT SYSTEMS

3/4.7.12 SPENT FUEL POOL STRUCTURAL INTEGRITY

LIMITING CONDITION FOR OPERATION

3.7.12 The structural integrity of the spent fuel pool shall be maintained in accordance with Specification 4.7.12.

APPLICABILITY: Whenever irradiated fuel assemblies are in the spent fuel pool.

ACTION:

A6

a. With the structural integrity of the spent fuel pool not conforming to the above requirements, in lieu of any other report, prepare and submit a Special Report to the ~~Commission pursuant to Specification 6.9.2~~NRC within 30 days of a determination of such non-conformity.

b. The provisions of Specification 3.0.3 are not applicable.

SURVEILLANCE REQUIREMENTS

4.7.12.1 Inspection Frequencies - The structural integrity of the spent fuel pool shall be determined per the acceptance criteria of Specification 4.7.12.2 at the following frequencies:

a. At least once per 92 days after the pool is filled with water. If no abnormal degradation or other indications of structural distress are detected during five consecutive inspections, the inspection interval may be extended to at least once per 5 years.

b. Within 24 hours following any seismic event which actuates or should have actuated the seismic monitoring instrumentation.

4.7.12.2 Acceptance Criteria - The structural integrity of the spent fuel pool shall be determined by a visual inspection of at least the interior and exterior surfaces of the pool, the struts in the tilt pit, the surfaces of the separation walls, and the structural slabs adjoining the pool walls. This visual inspection shall verify no changes in the concrete crack patterns, no abnormal degradation or other signs of structural distress (i.e, cracks, bulges, out of plumbness, leakage, discolorations, efflorescence, etc.).

3/4.8 ELECTRICAL POWER SYSTEMS

3/4.8.1 A.C. SOURCES

LIMITING CONDITION FOR OPERATION

3.8.1.1 As a minimum, the following A.C. electrical power sources shall be OPERABLE:

a. Two physically independent circuits between the offsite transmission network and the onsite Class 1E distribution system and

b. Two separate and independent diesel generators each with:

A30

1. A day fuel tank containing a minimum volume of 280 gallons of fuel ~~(equivalent to 50% of indicated tank volume)~~,

2. A separate fuel storage system ~~containing a minimum volume of 22,500 gallons of fuel (equivalent to 100% of indicated tank level)~~, and

A34

3. A separate fuel transfer pump.

APPLICABILITY: MODES 1, 2, 3 and 4.

ACTION:

a. With one offsite A.C. circuit of the above required A.C. electrical power sources inoperable, perform the following:
   1. Demonstrate the OPERABILITY of the remaining offsite A.C. circuit by performing Surveillance Requirement 4.8.1.1.1.a within 1 hour and at least once per 8 hours thereafter, and
   2. Restore the offsite A.C. circuit to OPERABLE status within 72 hours or be in at least HOT STANDBY within the next 6 hours and in COLD SHUTDOWN within the following 30 hours. Startup Transformer No. 2 may be removed from service for up to 30 days as part of a preplanned preventative maintenance schedule. The 30-day allowance may be applied not more than once in a 10-year period. The provisions of Specification 3.0.4 are not applicable to Startup Transformer No. 2 during the 30-day preventative maintenance period.

A1

~~b. With one diesel generator of the above required A.C. electrical power source inoperable, perform the following:~~
~~1. Demonstrate the OPERABILITY of both the offsite A.C. circuits by performing Surveillance Requirement 4.8.1.1.1.a within 1 hour and at least once per 8 hours thereafter, and~~
~~2. Demonstrate the OPERABILITY of the remaining OPERABLE diesel generator by performing Surveillance Requirement 4.8.1.1.2.a.4 within 24 hours except when:~~
~~i. A common cause failure has been determined not to exist, or~~
~~ii. The remaining diesel generator is currently in operation, or~~
~~iii. The remaining diesel generator has been demonstrated OPERABLE within the previous 24 hours, and~~
~~3. Restore the diesel generator to OPERABLE status within 72 hours (See note 1) or be in at least HOT STANDBY within the next 6 hours and in COLD SHUTDOWN within the following 30 hours.~~

~~Note 1 - The requirement for diesel generator (EDG) restoration to OPERABLE status may be extended to ten days if the Alternate AC diesel generator (AACDG) is verified available. If the AACDG is found unavailable during this period, the 72 hour restoration period of condition b.3 is immediately applicable until either the AACDG or the EDG is returned to operable status (not to exceed ten days from the initial~~

~~diesel generator inoperability). The 10-day allowance may be applied only once for each EDG.~~

Move to new page 3/4 8-1a with no change. A1

b. With one diesel generator of the above required A.C. electrical power source inoperable, perform the following:

1. Demonstrate the OPERABILITY of both the offsite A.C. circuits by performing Surveillance Requirement 4.8.1.1.1.a within 1 hour and at least once per 8 hours thereafter, and

2. Demonstrate the OPERABILITY of the remaining OPERABLE diesel generator by performing Surveillance Requirement 4.8.1.1.2.a.4 within 24 hours except when:

    i. A common cause failure has been determined not to exist, or
    ii. The remaining diesel generator is currently in operation, or
    iii. The remaining diesel generator has been demonstrated OPERABLE within the previous 24 hours, and

3. Restore the diesel generator to OPERABLE status within 72 hours (See note 1) or be in at least HOT STANDBY within the next 6 hours and in COLD SHUTDOWN within the following 30 hours.

Note 1 - The requirement for diesel generator (EDG) restoration to OPERABLE status may be extended to ten days if the Alternate AC diesel generator (AACDG) is verified available. If the AACDG is found unavailable during this period, the 72 hour restoration period of condition b.3 is immediately applicable until either the AACDG or the EDG is returned to operable status (not to exceed ten days from the initial diesel generator inoperability). The 10-day allowance may be applied only once for each EDG.

Moved from page 3/4 8-1 with no changes. All A1

ACTION (Continued)

c. With one offsite A.C. circuit and one diesel generator of the above required A.C. electrical power sources inoperable, perform the following:

1. Demonstrate the OPERABILITY of the remaining offsite A.C. circuit by performing Surveillance Requirement 4.8.1.1.1.a within 1 hour and at least once per 8 hours thereafter; and,

2. If the diesel generator became inoperable due to any cause other than preplanned preventive maintenance or testing, then

i. Demonstrate the OPERABILITY of the remaining OPERABLE diesel generator by performing Surveillance Requirement 4.8.1.1.2.a.4 within 8 hours except when:

a. The remaining diesel generator is currently in operation, or

b. The remaining diesel generator has been demonstrated OPERABLE within the previous 8 hours, and

3. Restore at least one of the inoperable sources to OPERABLE status within 12 hours or be in at least HOT STANDBY within the next 6 hours and in COLD SHUTDOWN within the following 30 hours, and

4. Restore both offsite circuits and both diesel generators to OPERABLE status within 72 hours (see b. 3, Note 1) of the initiating event or be in at least HOT STANDBY within the next 6 hours and in COLD SHUTDOWN within the following 30 hours.

d. With two offsite A.C. circuits of the above required A.C. electrical power sources inoperable, perform the following:

1. Perform Surveillance Requirement 4.8.1.1.2.a.4 on the diesel generators within the next 8 hours except when:

i. The diesel generators are currently in operation, or

ii. The diesel generators have been demonstrated OPERABLE within the previous 8 hours, and

2. Restore one of the inoperable offsite A.C. circuits to OPERABLE status within 24 hours or be in at least HOT STANDBY within the next 6 hours and in COLD SHUTDOWN within the following 30 hours, and

3. Restore both A.C. circuits within 72 hours of the ~~intiating~~ initiating event or be in at least HOT STANDBY within the next 6 hours and in COLD SHUTDOWN within the following 30 hours.

~~e. With two diesel generators of the above required A.C. electrical power sources inoperable, perform the following:~~

~~1. Demonstrate the OPERABILITY of the two offsite A.C. circuits by performing Surveillance Requirement 4.8.1.1.1.a within 1 hour and at least once per 8 hours thereafter, and~~

~~2. Restore one of the inoperable diesel generators to OPERABLE status within 2 hours or be in a least HOT STANDBY within the next 6 hours and in COLD SHUTDOWN within the following 30 hours, and~~

~~3. Restore both diesel generators within 72 hours (see b.3, Note 1) of the initiating event or be in at least HOT STANDBY within the next 6 hours and in COLD SHUTDOWN within the following 30 hours.~~

Format changes are made - adding spaces between outlined sections and the header "Limiting Conditions for Operation".

Typo is corrected in d.3.

Action 'e' will be moved to page 3/4 8-2a

All A1

ACTION (Continued)

e. With two diesel generators of the above required A.C. electrical power sources inoperable, perform the following:

   1. Demonstrate the OPERABILITY of the two offsite A.C. circuits by performing Surveillance Requirement 4.8.1.1.1.a within 1 hour and at least once per 8 hours thereafter, and

   2. Restore one of the inoperable diesel generators to OPERABLE status within 2 hours or be in a least HOT STANDBY within the next 6 hours and in COLD SHUTDOWN within the following 30 hours, and

   3. Restore both diesel generators within 72 hours (see b.3, Note 1) of the initiating event or be in at least HOT STANDBY within the next 6 hours and in COLD SHUTDOWN within the following 30 hours.

Moved from page 3/4 8-2

All
A1

4.8.1.1.1 Each of the above required independent circuits between the offsite transmission network and the onsite Class 1E distribution system shall be:

a. Determined OPERABLE at least once per 7 days by verifying correct breaker alignments, indicated power availability, and

b. Demonstrated OPERABLE at least once per 18 months during shutdown by transferring (manually and automatically) unit power supply from the normal circuit to the alternate circuit.

4.8.1.1.2 Each diesel generator shall be demonstrated OPERABLE: (Note 1)

a. At least once per 31 days on a STAGGERED TEST BASIS by:

1. Verifying the fuel level in the day fuel tank.

A34

Later PTS SR 4.8.1.3

2. ~~Verifying the fuel level in the fuel storage tank.~~ deleted

3. Verifying the fuel transfer pump can be started and transfers fuel from the storage system to the day tank.

4. Verifying the diesel starts from a standby condition and accelerates to at least 900 rpm in $\leq$ 15 seconds. (Note 2)

5. Verifying the generator is synchronized, loaded to an indicated 2600 to 2850 Kw and operates for $\geq$ 60 minutes. (Notes 3 & 4)

6. Verifying the diesel generator is aligned to provide standby power to the associated emergency busses.

b. ~~At least once per 92 days by verifying that a sample of diesel fuel from the fuel storage tank obtained in accordance with ASTM-D270-65, is within the acceptable limits specified in Table 1 of ASTM D975-74 when checked for viscosity, water and sediment.~~deleted

Later PTS 6.5.13

A1

Note 1
All planned diesel generator starts for the purposes of these surveil-lances may be preceded by prelube procedures.

A1

Note 2
This diesel generator start from a standby condition in ≤ 15 sec. shall be accomplished at least once every 184 days. All other diesel generator starts for this surveillance may be in accordance with vendor recommendations.

Note 3
Diesel generator loading may be accomplished in accordance with vendor recommendations such as gradual loading.

A1

Note 4
Momentary transients outside this load band due to changing loads will not invalidate the test. Load ranges are allowed to preclude over- loading the diesel generators.

c. At least once per 18 months by:

1. Deleted

2. Verifying during shutdown that the automatic sequence time delay relays are OPERABLE at their setpoint ± 10% of the elapsed time for each load block.

3. Verifying during shutdown the generator capability to reject a load of greater than or equal to its associated single largest post-accident load, and maintain voltage at 4160 ± 500 volts and frequency at 60 ± 3 Hz.

4. Verifying during shutdown the generator capability to reject a load of 2850 Kw without exceeding 75% of the difference between nominal speed and the overspeed trip setpoint, or 15% above nominal, whichever is lower.

5. Simulating during shutdown a loss of offsite power by itself, and:

   ~~a)~~ a. Verifying de-energization of the emergency busses and load shedding from the emergency busses. A1

   b. Verifying the diesel starts from a standby condition on the undervoltage auto-start signal, energizes the emergency busses with permanently connected loads, energizes the auto-connected shutdown loads through the time delay relays and operates for ≥ 5 minutes while its generator is loaded with the shutdown loads.

6. Verifying during shutdown that on a Safety Injection Actuation Signal (SIAS) actuation test signal (without loss of offsite power) the diesel generator starts on the auto-start signal and operates on standby for ≥ 5 minutes.

ELECTRICAL POWER SYSTEMS

SHUTDOWN

LIMITING CONDITION FOR OPERATION

3.8.1.2 As a minimum, the following A.C. electrical power sources shall be OPERABLE:

a. One circuit between the offsite transmission network and the onsite Class 1E distribution system, and

b. One diesel generator with:

A30

1. A day fuel tank containing a minimum volume of 280 gallons of fuel ~~(equivalent to 50% of total tank volume)~~,

2. A fuel storage system ~~containing a minimum volume of 22,500 gallons of fuel (equivalent to 100% of total tank volume)~~, and

A34

3. A fuel transfer pump.

APPLICABILITY: MODES 5 and 6.

ACTION:

With less than the above minimum required A.C. electrical power sources OPERABLE, suspend all operations involving CORE ALTERATIONS or positive reactivity changes.

SURVEILLANCE REQUIREMENTS

4.8.1.2 The above required A.C. electrical power sources shall be demonstrated OPERABLE by the performance of each of the Surveillance Requirements of 4.8.1.1.1 and 4.8.1.1.2 except for Requirement 4.8.1.1.2a.5.

LIMITING CONDITION FOR OPERATION

3.8.1.3 The stored diesel fuel oil shall be within limits for each required diesel generator.

APPLICABILITY: When associated diesel generator is required to be OPERABLE.

A1

ACTION:

With the volume of the stored diesel fuel oil less than 22,500 gallons for either fuel oil storage tank or the new or stored fuel oil properties outside the limits of the Diesel Fuel Oil Testing Program, perform the following as appropriate: (Note – Separate ACTION entry is allowed for each diesel generator.)

1. If one or more fuel storage tanks contain less than 22,500 gallons and greater than 17,446 gallons, restore the fuel oil volume to within limits within 48 hours. L4

2. If the stored fuel oil total particulates are not within limits for one or more diesel generators, restore fuel oil total particulates to within limits within 7 days. L5

3. If new fuel oil properties are not within limits for the one or more diesel generators, restore stored fuel oil properties to within limits within 30 days. M6

4. If ACTION 1 is not met within the allowable outage time or is outside the allowable limits, or if ACTION 2 or 3 is not met within the allowable outage time, then immediately declare the associated diesel generator inoperable. A10

SURVEILLANCE REQUIREMENTS

4.8.1.3 At least once per 31 days on a STAGGERED TEST BASIS verify the fuel oil storage tank contains ≥ 22,500 gallons of fuel.

A1

MOVED FROM SR 4.8.1.1.2.b

3/4.9 REFUELING OPERATIONS

BORON CONCENTRATION

LIMITING CONDITION FOR OPERATION

3.9.1 With the reactor vessel head unbolted or removed, the boron concentration of the reactor coolant and the refueling canal shall be maintained uniform and sufficient to ensure that the more restrictive of following reactivity conditions is met:

a. Either a K_{eff} of 0.95 or less, which includes a 1% $\Delta k/k$ conservative allowance for uncertainties, or

b. A boron concentration of ≥ 2500 ppm, which includes a 50 ppm conservative allowance for uncertainties.

APPLICABILITY: MODE 6*.

ACTION:

With the requirements of the above specification not satisfied, immediately suspend all operations involving CORE ALTERATIONS or positive reactivity changes and initiate and continue boration at ≥ 40 gpm of ≥ 2500 ppm boric acid solution until K_{eff} is reduced to ≤ 0.95 or the boron concentration is restored to ≥ 2500 ppm, whichever is the more restrictive. The provisions of Specification 3.0.3 are not applicable.

A1

SURVEILLANCE REQUIREMENTS

4.9.1.1 The more restrictive of the above two reactivity conditions shall be determined prior to:

a. Removing or unbolting the reactor vessel head, and

b. Withdrawal of any CEA in excess of 3 feet from its fully inserted position within the reactor pressure vessel.

4.9.1.2 The boron concentration of the reactor coolant and the refueling canal shall be determined by chemical analysis at least once per 72 hours.

---

* The reactor shall be maintained in MODE 6 when the reactor vessel head is unbolted or removed.

FUEL HANDLING AREA VENTILATION SYSTEM

LIMITING CONDITION FOR OPERATION

3.9.11 The fuel handling area ventilation system shall be operating and discharging through the HEPA filters and charcoal adsorbers.

APPLICABILITY: Whenever irradiated fuel is being moved in the storage pool and during crane operation with loads over the storage pool.

ACTION:

a. With the fuel handling area ventilation system not operating, suspend all operations involving movement of fuel within the spent fuel pool or crane operation with loads over the spent fuel pool until the fuel handling area ventilation system is restored to operation.

b. The provisions of Specification 3.0.3 are not applicable.

SURVEILLANCE REQUIREMENTS

4.9.11.1 The fuel handling area ventilation system shall be determined to be in operation and discharging through the HEPA filters and charcoal adsorbers at least once per 12 hours.

4.9.11.2 The fuel handling area ventilation system shall be demonstrated OPERABLE ~~at the following frequencies~~ when irradiated fuel is in the storage pool~~:~~ by performing the required fuel handling filter testing in accordance with the Ventilation Filter Testing Program (VFTP).

~~a. At least once per 18 months or (1) after any structural maintenance on the HEPA filter or charcoal adsorber housings, or (2) following painting, fire or chemical release in any ventilation zone communicating with the system by:~~

~~1. Verifying that the ventilation system satisfies the inplace testing acceptance criteria and uses the test procedures of Regulatory Positions C.5.a, C.5.c and C.5.d of Regulatory Guide 1.52, Revision 2, March 1978, and the system flow rate is 39,700 cfm ± 10%.~~

Later PTS 6.5.11

All A1

Next Page is 3/4 9-14

2. ~~Verifying within 31 days after removal that laboratory analysis of a representative carbon sample obtained in accordance with Regulatory Position C.6.b of Regulatory Guide 1.52, Revision 2, March 1978, shows the methyl iodide penetration less than 5.0% when tested in accordance with ASTM D3803-1989 at a temperature of 30°C and a relative humidity of 95%.~~

3. ~~Verifying a system flow rate of 39,700 cfm ± 10% during system operation when tested in accordance with ANSI N510-1975.~~

b. ~~After every 720 hours of charcoal adsorber operation by verifying within 31 days after removal that a laboratory analysis of a representative carbon sample obtained in accordance with Regulatory Position C.6.b. of Regulatory Guide 1.52, Revision 2, March 1978, shows the methyl iodide penetration less than 5.0% when tested in accordance with ASTM D3803-1989 at a temperature of 30°C and a relative humidity of 95%.~~

c. ~~At lease once per 18 months by verifying that the pressure drop across the combined HEPA filters and charcoal adsorber banks is < 6 inches Water Gauge while operating the system at a flow rate of 39,700 cfm ± 10%.~~

d. ~~After each complete or partial replacement of a HEPA filter bank by verifying that the HEPA filter banks remove ≥ 99% of the DOP when they are tested in-place in accordance with ANSI N510-1975 while operating the system at a flow rate of 39,700 cfm ± 10%.~~

e. ~~After each complete or partial replacement of a charcoal adsorber bank by verifying that the charcoal adsorbers remove ≥ 99.95% of a halogenated hydrocarbon refrigerant test gas when they are tested in-place in accordance with ANSI N510-1975 while operating the system at a flow rate of 39,700 cfm ± 10%.~~

A1

Later 6.5.11 Page will be deleted.

SPECIAL TEST EXCEPTIONS

GROUP HEIGHT, INSERTION AND POWER DISTRIBUTION LIMITS

LIMITING CONDITION FOR OPERATION

3.10.2 The group height, insertion and power distribution limits of Specifications 3.1.1.4, 3.1.3.1, 3.1.3.5, 3.1.3.6, 3.2.2, 3.2.3, 3.2.7 and the Minimum Channels OPERABLE requirement of Functional Unit ~~15~~ 14 of Table 3.3-1 may be suspended during the performance of PHYSICS TESTS provided: A1

a. The THERMAL POWER is restricted to the test power plateau which shall not exceed 85% of RATED THERMAL POWER, and

b. The linear heat rate limit shall be maintained by either:

   1. Maintaining COLSS calculated core power less than or equal to COLSS calculated core power operating limit based on linear heat rate (when COLSS is in service); or

   2. Operating within the region of acceptable operation as specified in the CORE OPERATING LIMITS REPORT using any operable CPC channel (when COLSS is out of service.)

APPLICABILITY: During startup and PHYSICS TESTS.

ACTION:

With any of the above limits being exceeded while any of the above requirements are suspended, either:

a. Reduce THERMAL POWER sufficiently to satisfy the requirements of the above Specification, or

b. Be in HOT STANDBY within 6 hours.

SURVEILLANCE REQUIREMENTS

4.10.2.1 The THERMAL POWER shall be determined at least once per hour during PHYSICS TESTS in which any of the above requirements are suspended and shall be verified to be within the test power plateau.

4.10.2.2 The linear heat rate shall be determined to be within its limits during PHYSICS TESTS above 5% of RATED THERMAL POWER in which any of the above requirements are suspended.

6.0 ADMINISTRATIVE CONTROLS

ALL A1 UNLESS OTHERWISE NOTED

6.1 RESPONSIBILITY

A13

6.1.1 The ~~ANO-2~~ ~~p~~Plant ~~m~~Manager ~~ANO~~ Operations shall be responsible for overall unit operations and shall delegate in writing the succession to this responsibility during his absence.

6.1.2 An individual with an active Senior Reactor Operator (SRO) license shall be designated as responsible for the control room command function while the unit is in MODE 1, 2, 3, or 4. With the unit not in MODES 1, 2, 3, or 4, an individual with an active SRO ~~license~~ or Reactor Operator license shall be designated as responsible for the control room command function.

6.2 ORGANIZATION

6.2.1 ONSITE AND OFFSITE ~~AND ONSITE~~ ORGANIZATIONS

Onsite and offsite organizations shall be established for unit operation and corporate management, respectively. The onsite and offsite organizations shall include the positions for activities affecting ~~the~~ safety of the nuclear power ~~plant~~unit.

a. Lines of authority, responsibility, and communication shall be defined and established ~~and defined for the~~ throughout ~~highest management levels, through~~ intermediate levels, ~~to~~ and ~~including~~ all operating organization positions. These relationships shall be documented and updated, as appropriate, in ~~the form of~~ organization charts, functional descriptions of departmental responsibilities and relationships, and job descriptions for key personnel positions, or in equivalent forms of documentation. These requirements, including the unit specific titles of those personnel fulfilling ~~its~~ the responsibilities of the positions delineated in these Technical Specifications, shall be documented in the Safety Analysis Report (SAR).

A13

b. The ~~ANO-2~~ ~~p~~Plant ~~m~~Manager, Operations shall be responsible for overall ~~unit~~ safe operation of the unit and shall have control over those onsite activities necessary for safe operation and maintenance of the ~~plant~~ unit.

c. A specified corporate executive shall have corporate responsibility for overall ~~plant~~ unit nuclear safety and shall take any measures needed to ensure acceptable performance of the staff in operating, maintaining, and providing technical support to the ~~plant~~ unit to ensure nuclear safety. The specified corporate executive shall be ~~documented~~ identified in the SAR~~.~~; and

d. The individuals who train the operating staff, ~~and those who~~ carry out health physics, ~~and or perform~~ quality assurance functions may report to the appropriate onsite manager; however, ~~they~~ these individuals shall have sufficient organizational freedom to ensure their independence from operating pressures.

6.2.2 UNIT STAFF

a. ~~Each on-duty shift shall be composed of at least the minimum shift crew composition shown in Table 6.2-1~~ A11 A non-licensed operator shall be on site when A12 fuel is in the reactor and two additional non-licensed operators shall be on site when the reactor is in MODES 1, 2, 3, or 4. A12

b. ~~At least one licensed Operator shall be in the control room when fuel is in the reactor.~~ The minimum shift crew composition for licensed operators shall meet the minimum staffing requirements of 10 CFR 50.54(m)(2)(i) for one unit, one control room. A11

A11

c. ~~At least two licensed Operators shall be present in the control room during reactor start-up, scheduled reactor shutdown and during recovery from reactor trips.~~ Shift crew composition may be less than the minimum requirement of 10 CFR 50.54(m)(2)(i) for one unit, one control room, and 6.2.2.a and 6.2.2.g for a period of time not to exceed 2 hours in order to accommodate unexpected absence of on-duty shift crew members provided immediate action is taken to restore the shift crew composition to within the minimum requirements. L8

A12

d. An individual qualified in radiation protection procedures shall be on site when fuel is in the reactor. The position may be vacant for not more than 2 hours, in order to provide for unexpected absence, provided immediate action is taken to fill the required position. L6

~~e. All CORE ALTERATIONS shall be directly supervised by either a licensed Senior Reactor Operator or Senior Reactor Operator Limited to Fuel Handling who has no other concurrent responsibilities during this operation.~~ A11

L7

~~f~~g. In MODES 1, 2, 3, or 4, an individual shall provide advisory technical support for the ~~unit~~ operations shift ~~supervisor~~ crew in the areas of thermal hydraulics, reactor engineering, and plant analysis with regard to the safe operation of the unit. This individual shall meet the qualifications specified by the Commission Policy Statement on Engineering Expertise on Shift.

A1

~~g~~e. ~~Administrative control shall be established to limit t~~The amount of overtime worked by ~~plant~~ unit staff members performing safety-related functions. ~~These administrative controls~~ shall be limited and controlled in accordance with ~~the guidance provided by~~ the NRC Policy Statement on working hours (Generic Letter No. 82-12).

~~h~~f. The operations manager or the assistant operations manager shall hold a ~~senior reactor operator~~SRO license.

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~~TABLE 6.2-1~~

~~MINIMUM SHIFT CREW COMPOSITION#~~

A11

~~LICENSE CATEGORY~~	~~APPLICABLE MODES~~	
	~~1, 2, 3, & 4~~	~~5 & 6~~
~~SOL~~	~~2~~	~~1*~~
~~OL~~	~~2~~	~~1~~
~~Non-Licensed~~	~~3~~	~~1~~

A12

~~* Does not include the licensed Senior Reactor Operator or Senior Reactor Operator Limited to Fuel Handling, supervising CORE ALTERATIONS.~~ A 11

~~# Shift crew composition may be less than the minimum requirements for a period of time not to exceed 2 hours in order to accommodate unexpected absence of on duty shift crew members provided immediate action is taken to restore the shift crew composition to within the minimum requirements of Table 6.2-1.~~ A12 PTS 6.2.2.c

6.3 UNIT STAFF QUALIFICATIONS

M7

6.3.1 Each member of the unit staff shall meet or exceed the minimum qualifications of ANSI ~~N18.1-1971~~ANS 3.1-1978 for comparable positions, except for ~~(1)~~ the designated radiation protection manager, who shall meet or exceed the minimum qualifications of Regulatory Guide 1.8, September 1975.

A1

6.4 ~~DELETED~~PROCEDURES

6.5 PROGRAMS AND MANUALS

~~[6.5.1 through 6.5.6 will be used later.]~~

6.5.1 Offsite Dose Calculation Manual (ODCM)

CTS 6.1.4 will be relocated to PTS 6.5.1

6.5.2 Primary Coolant Sources Outside Containment

See Insert 2 later

6.5.3 Iodine Monitoring

See Insert 6 later

6.5.4 Radioactive Effluent Controls Program

CTS 6.8.4.a will be relocated to PTS 6.5.4

6.5.5 Component Cyclic or Transient Limit Program

CTS 6.8.4.b will be relocated to PTS 6.5.5

A1

6.5.6 not used

6.5.7 Reactor Coolant Pump Flywheel Inspection Program

A1

This program shall provide for the inspection of each reactor coolant pump flywheel per the recommendation of Regulatory Position C.4.b of Regulatory Guide 1.14, Revision 1, August 1975. The volumetric examination per Regulatory Position C.4.b.1 will be performed on approximately 10-year intervals.

6.5.8 Inservice Testing Program

A1

This program provides controls for inservice testing of ASME Code Class 1, 2, and 3 components. The program shall include the following:

a. Testing frequencies specified in Section XI of the ASME Boiler and Pressure Vessel Code and applicable Addenda as follows:

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ASME ~~Boiler and Pressure Vessel~~ Code ~~and applicable Addenda~~ terminology for inservice testing activities	Required frequencies for performing inservice testing activities
Weekly	At least once per 7 days
Monthly	At least once per 31 days
Every 6 weeks	At least once per 42 days
Quarterly or every 3 months	At least once per 92 days
Semiannually or every 6 months	At least once per 184 days

Every 9 months	At least once per 276 days
Yearly or annually	At least once per 366 days
Biennially or every 2 years	At least once per 731 days

b. The provisions of Specification 4.0.2 are applicable to the above required frequencies for performing inservice testing activities.

c. The provisions of Specification 4.0.3 are applicable to inservice testing activities, and

d. Nothing in the ASME Boiler and Pressure Vessel Code shall be construed to supersede the requirements of any Technical Specification.

6.5.9 Steam Generator (SG) Tube Surveillance Program See insert 3 later

6.5.10 Secondary Water Chemistry See insert 1 later

6.5.11 Ventilation Filter Testing Program (VFTP) See insert 5 later

A1 6.5.12 Later

6.5.13 Diesel Fuel Oil Testing Program See insert 4 later

6.5.14 Technical Specifications (TS) Bases Control Program

This program provides a means for processing changes to the Bases of these Technical Specifications.

a. Changes to the Bases of the TS shall be made under appropriate administrative controls and reviews.

b. Licensees may make changes to Bases without prior NRC approval provided the changes do not require either of the following:

1. A change in the TS incorporated in the license or

2. A change to the updated SAR or Bases that requires NRC approval pursuant to 10 CFR 50.59.

c. The Bases Control Program shall contain provisions to ensure that the Bases are maintained consistent with the SAR.

d. Proposed changes that do not meet the criteria of 6.5.14b above shall be reviewed and approved by the NRC prior to implementation. Changes to the Bases implemented without prior NRC approval shall be provided to the NRC on a frequency consistent with 10 CFR 50.71(e).

~~6.6 DELETED~~ A1
6.5.15 not used

6.5.16 Containment Leakage Rate Testing Program

CTS 6.15 will be relocated to PTS 6.5.16

~~6.7 SAFETY LIMIT VIOLATION~~ A14

~~6.7.1 The following actions shall be taken in the event a Safety Limit is violated:~~

~~a. The unit shall be placed in at least HOT STANDBY within one hour.~~

L12 ~~b. The Vice President, Operations ANO and the SRC shall be notified within 24 hours.~~

A11 ~~c. The Nuclear Regulatory Commission shall be notified pursuant to 10 CFR 50.72 and a report submitted pursuant to the requirements of 10 CFR 50.36 and Specification 6.6.~~

6.~~8~~4 PROCEDURES ~~AND PROGRAMS~~

A1

6.~~8~~4.1 Written procedures shall be established, implemented~~,~~ and maintained covering the following activities: ~~referenced below:~~

a. The applicable procedures recommended in ~~Appendix "A" of~~ Regulatory Guide 1.33, Revision 2, Appendix A, February 1978~~:~~.

M9

b. ~~Refueling operations.~~ The emergency operating procedures required to implement the requirements of NUREG-0737 and NUREG-0737, Supplement 1, as stated in Section 7.1 of Generic Letter 82-33.

A22

~~c. Surveillance and test activities of safety related equipment.~~

d. ~~(Deleted)~~ All programs specified in Specification 6.5; and M8

A1 ~~e. (Deleted)~~

~~f~~c. Fire Protection Program implementation.

~~g~~e. Modification of ~~C~~core ~~P~~protection ~~C~~calculator (CPC) ~~A~~addressable ~~C~~constants. These procedures ~~should~~ shall include provisions to ~~assure~~ ensure that sufficient margin is maintained in CPC ~~T~~type I addressable constants to avoid excessive operator interaction with the CPCs during reactor operation. A1

~~NOTE:~~ Modifications to the CPC software (including changes of algorithms and fuel cycle specific data) shall be performed in accordance with the most recent version of "CPC Protection Algorithm Software Change Procedure," CEN-39(A)-P, ~~that~~ which has been determined to be applicable to the facility. Additions or deletions to CPC addressable constants or changes to addressable constant software limit values shall not be implemented without prior NRC approval. A1

~~h. New and spent fuel storage.~~ A22

~~i. ODCM and PCP implementation.~~ M8

~~6.8.2 Deleted~~ A1

ALL A1 UNLESS OTHERWISE NOTED

~~6.8.3 Deleted~~

6.5 PROGRAMS AND MANUALS

~~6.8.4~~ The following programs shall be established, implemented, and maintained:

~~a.~~ 6.5.4 Radioactive Effluent Controls Program

This program conforms with 10 CFR 50.36a for the control of radioactive effluents and for maintaining the doses to MEMBERS OF THE PUBLIC from radioactive effluents as low as reasonably achievable. The program shall be contained in the ODCM, shall be implemented by procedures, and shall include remedial actions to be taken whenever the program limits are exceeded. The program shall include the following elements:

~~1)~~a. Limitations on the functional capability of radioactive liquid and gaseous monitoring instrumentation including surveillance tests and setpoint determination in accordance with the methodology in the ODCM;

~~2)~~b. Limitations on the concentrations of radioactive material released in liquid effluents to UNRESTRICTED AREAS, conforming to 10 CFR ~~Part~~ 20, Appendix B, Table II, Column 2;

~~3)~~c. Monitoring, sampling, and analysis of radioactive liquid and gaseous effluents in accordance with 10 CFR 20.1302 and with the methodology and parameters in the ODCM;

~~4)~~d. Limitations on the annual and quarterly doses or dose commitment to a MEMBER OF THE PUBLIC from radioactive materials in liquid effluents released from each unit to UNRESTRICTED AREAS, conforming to 10 CFR 50, Appendix I;

~~5)~~e. Determination of cumulative ~~and projected~~ dose contributions from radioactive effluents for the current calendar quarter and current calendar year in accordance with the methodology and parameters ~~in the ODCM~~ at least every 31 days. Determination of projected dose contributions from radioactive effluents in accordance with the methodology in the ODCM at least every 31 days.; A35

~~6)~~f. Limitations on the functional capability and use of the liquid and gaseous effluent treatment systems to ensure that appropriate portions of these systems are used to reduce releases of radioactivity when the projected doses in a period of 31 days would exceed 2% of the guidelines for the annual dose or dose commitment, conforming to 10 CFR 50, Appendix I;

~~7)~~g. Limitations on the dose rate resulting from radioactive material released in gaseous effluents to areas beyond the site boundary conforming to the dose associated with 10 CFR 20, Appendix B, Table II, Column 1;

~~8)~~h. Limitations on the annual and quarterly air doses resulting from noble gases released in gaseous effluents from each unit to areas beyond the site boundary, conforming to 10 CFR 50, Appendix I;

~~9~~i.) Limitations on the annual and quarterly doses to a MEMBER OF THE PUBLIC from iodine-131, iodine-133, tritium, and all radionuclides in particulate form with half lives > 8 days in gaseous effluents released from each unit to areas beyond the site boundary, conforming to 10 CFR 50, Appendix I; and

A1

~~10)~~j. Limitations on the annual dose or dose commitment to any MEMBER OF THE PUBLIC beyond the site boundary due to releases of radioactivity and to radiation from uranium fuel cycle sources, conforming to 40 CFR 190. A33

The provisions of SR 4.0.2 and SR 4.0.3 are applicable to the Radioactive Effluent Controls Program surveillance frequency. A16

~~b~~6.5.5~~.~~ Component Cyclic or Transient Limit Program

This program provides controls to track the SAR Section 5.2.1.5, cyclic ~~or~~ and transient occurrences to ensure that components are maintained within the design limits.

~~6.9~~6.6 REPORTING REQUIREMENTS

~~ROUTINE REPORTS~~

~~6.9.1 In addition to the applicable reporting requirements of Title 10, Code of Federal Regulations, the following reports shall be submitted to the Administrator of the Regional Office unless otherwise noted.~~ A11

~~STARTUP REPORT~~

~~6.9.1.1 A summary report of plant startup and power escalation testing shall be submitted following (1) receipt of an operating license, (2) amendment to the license involving a planned increase in power level, (3) installation of fuel that has a different design or has been manufactured by a different fuel supplier, and (4) modifications that may have significantly altered the nuclear, thermal, or hydraulic performance of the plant.~~ LA2 TRM

~~6.9.1.2 The startup report shall address each of the tests identified in the FSAR and shall include a description of the measured values of the operating conditions or characteristics obtained during the test program and a comparison of these values with design predictions and specifications. Any corrective actions that were required to obtain satisfactory operation shall also be described. Any additional specific details required in license conditions based on other commitments shall be included in this report.~~

~~6.9.1.3 Startup reports shall be submitted within (1) 90 days following completion of the startup test program, (2) 90 days following resumption or commencement of commercial power operation, or (3) 9 months following initial criticality, whichever is earliest. If the Startup Report does not cover all three events (i.e., initial criticality, completion of startup test program, and resumption or commencement of commercial power operation), supplementary reports shall be submitted at least every three months until all three events have been completed.~~

~~ANNUAL REPORTS~~ [1] A1

~~6.9.1.4 Annual reports covering the activities of the unit as described below for the previous calendar year shall be submitted prior to March 1 of each year. The initial report shall be submitted prior to March 1 of the year following initial criticality.~~ A17

~~6.9.1.5. Reports required on an annual basis shall include:~~
6.6.1 Occupational Radiation Exposure Report (Note: A single submittal may be made for ANO. The submittal should combine sections common to both units.) A1

~~a.~~ A tabulation on an annual basis ~~for~~ of the number of station, utility, and other personnel (including contractors), for whom monitoring was performed, receiving ~~exposures~~ an annual deep dose equivalent ~~greater than~~ >100 mrem/~~yrs~~ and their associated ~~man rem exposure~~collective deep dose equivalent (reported in person-rem) according to work and job functions, [2] (e.g., reactor operations and surveillance, inservice inspection, routine maintenance, special maintenance (describe maintenance), waste processing, and refueling). This tabulation supplements the requirements of 10 CFR 20.2206. The dose assignments to various duty functions may be ~~estimates~~ estimated based on pocket ~~dosimeter~~ionization chamber, thermoluminescence dosimeter (TLD), electronic dosimeter, or film badge measurements. Small exposures totalling ~~less than~~ <20 ~~%~~percent of the individual total dose need not be accounted for. In the aggregate, at least 80~~%~~ percent of the total ~~whole body~~deep dose equivalent received from external sources ~~shall~~ should be assigned to specific major work functions. The report covering the previous calendar year shall be submitted by April 30 of each year. A18 & A1 L9

A1 ~~b.~~ 6.6.7 Steam Generator Tube Surveillance Reports ~~The complete results of steam generator tube inservice inspections performed during the report period (reference Specification 4.4.5.5.b).~~ A20

PTS 6.6.7 RELOCATED FROM CTS 4.4.5.5 A1

a. Following each inservice inspection of steam generator tubes the number of tubes plugged in each steam generator shall be reported to the Commission within 15 days.

b. The complete results of the steam generator tube inservice inspection shall be reported within 12 months following the completion of the inservice inspection. This report shall include:

1. Number and extent of tubes inspected.

2. Location and percent of wall-thickness penetration for each indication of an imperfection.

3. Identification of tubes plugged.

A6

c. Results of steam generator tube inspections which fall into Category C-3 shall be reported ~~in a Special Report pursuant to Specification 6.9.2~~ to the Commission as denoted by Table ~~4.4-2~~6.5.9-2. Notification of the Commission will be made prior to resumption of plant operation (i.e., prior to entering Mode 4). The written ~~Special R~~report shall provide a description of investigations conducted to

A1

determine cause of the tube degradation and corrective measures taken to prevent recurrence. (A1)

~~c. Documentation of all challenges to the pressurizer safety valves.~~ (LA3)

~~d. Deleted~~

(A1) ~~e~~6.6.8. Specific Activity

The results of specific activity analysis in which the primary coolant exceeded the limits of Specification 3.4.8. The following information shall be included: (1) Reactor power history starting 48 hours prior to the first sample in which the limit was exceeded; (2) Results of the last isotopic analysis for radioiodine performed prior to exceeding the limit, results of analysis while limit was exceeded the results of one analysis after the radioiodine activity was reduced to less than limit. Each result should include date and time of sampling and the radioiodine concentrations; (3) Clean-up system flow history

(A1) ~~1/ A single submittal may be made for a multiple unit station. The submittal should combine those sections that are common to all units at the station.~~

~~2/ This tabulation supplements the requirements of §20.407 of 10 CFR Part 20.~~ (A18) starting 48 hours prior to the first sample in which the limit was exceeded; (4) Graph of the I-131 concentration and one other radioiodine isotope concentration in microcuries per gram as a function of time for the duration of the specific activity above the steady-state level; and (5) The time duration when the specific activity of the primary coolant exceeded the radioiodine limit.

6.6.4 ~~MONTHLY OPERATING REPORT~~Monthly Operating Reports A1

~~6.9.1.6~~ Routine reports of operating statistics and shutdown experience shall be submitted on a monthly basis no later than the 15th of each month following the calendar month covered by the report.

~~SPECIAL REPORTS~~

A26

~~6.9.2 Special reports shall be submitted to the Administrator of the Regional Office within the time period specified for each report. These reports shall be submitted covering the activities identified below pursuant to the requirements of the applicable reference specification:~~ A11

~~a. ECCS Actuation, Specifications 3.5.2 and 3.5.3.~~ – SEE INDIVIDUAL SPECIFICATIONS

~~b. Deleted~~

~~c. Deleted~~

~~d. Deleted~~ A1

~~e. Deleted~~

~~f. Deleted~~

~~g. Deleted~~

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h. ~~Deleted~~

i. ~~Inoperable Containment Radiation Monitors, Specification 3.3.3.1.~~

j. ~~Steam Generator Tubing Surveillance – Category C-3 Results, Specification 4.4.5.5.~~

k. ~~Maintenance of Spent Fuel Pool Structural Integrity, Specification 3.7.12.~~

l. ~~Deleted~~

m. ~~Deleted~~

SEE INDIVIDUAL SPECIFICATIONS

n. ~~Inoperable Reactor Vessel Level Monitoring System (RVLMS), Specification 3.3.3.6, Table 3.3-10 Item 14.~~

o. ~~Inoperable Main Steam Line Radiation Monitors, Specification 3.3.3.1, Table 3.3-6.~~

6.6.3 Radioactive Effluent Release Report ~~RADIOACTIVE EFFLUENT RELEASE REPORT *~~

~~6.9.3~~ The Radioactive Effluent Release Report covering the operation of the unit in the previous year shall be submitted prior to May 1 of each year in accordance with 10 CFR 50.36a. The report shall include a summary of the quantities of radioactive liquid and gaseous effluents and solid waste released from the unit. The material provided shall be consistent with the objectives outlined in the ODCM and Process Control Program and in conformance with 10 CFR 50.36a and 10 CFR 50, Appendix I, Section IV.B.1.

L13 A21 A1

~~*~~ (Note: A single submittal may be made for ANO. The submittal ~~should~~ shall combine ~~those~~ sections ~~that are~~ common to both units. The submittal shall specify the releases of radioactive material from each unit.)

A21 A1 A1

Move note up after section title.

A1

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6.6.2 ~~ANNUAL RADIOACTIVE ENVIRONMENTAL OPERATING REPORT~~Annual Radiological Environmental Operating Report *

~~6.9.4~~ The Annual Radiological Environmental Operating Report covering the operation of the unit during the previous calendar year shall be submitted by May 15 of each year. The report shall include summaries, interpretations, and analyses of trends of the results of the radiological environmental monitoring program for the reporting period. The material provided shall be consistent with the objectives outlined in the Offsite Dose Calculation Manual (ODCM), and in 10 CFR 50, Appendix I, Sections IV.B.2, IV.B.3, and IV.C.

The Annual Radiological Environmental Operating Report shall include the results of analyses of all radiological environmental samples and of all environmental radiation measurements taken during the period pursuant to the locations specified in the table and figures in the ODCM, as well as summarized and tabulated results of these analyses and measurements. In the event that some individual results are not available for inclusion with the report, the report shall be submitted noting and explaining the reasons for the missing results. The missing data shall be submitted in a supplementary report as soon as possible.

* (Note: A single submittal may be made for ANO. The submittal should combine those sections ~~that are~~ common to both units.) 1

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6.6.5 CORE OPERATING LIMITS REPORT (COLR)

~~6.9.5~~a. ~~The core~~ Core operating limits shall be established prior to each reload cycle, or prior to any remaining part of a reload cycle, and shall be documented in the ~~CORE OPERATING LIMITS REPORT~~COLR ~~prior to each reload cycle or any remaining part of a reload cycle.~~for the following:

3.1.1.1	Shutdown Margin – T_{avg} > 200°F
3.1.1.2	Shutdown Margin - T_{avg} ≤ 200°F
3.1.1.4	Moderator Temperature Coefficient
3.1.3.1	CEA Position
3.1.3.6	Regulating and Group P CEA Insertion Limits
3.2.1	Linear Heat Rate
3.2.3	Azimuthal Power – Tq
3.2.4	DNBR Margin
3.2.7	Axial Shape Index

ALL A1

~~6.9.5.1~~b. The analytical methods used to determine the core operating limits ~~addressed by the individual Technical Specifications~~ shall be those previously reviewed and approved by the NRC ~~for use at ANO-2~~, specifically those described in the following documents:

1) "The ROCS and DIT Computer Codes for Nuclear Design", CENPD-266-P-A, April 1983 (Methodology for Specifications 3.1.1.1 and 3.1.1.2 for Shutdown Margins, 3.1.1.4 for MTC, 3.1.3.6 for Regulating and Group P CEA Insertion Limits, and 3.2.4.b for DNBR Margin).

2) "CE Method for Control Element Assembly Ejection Analysis," CENPD-0190-A, January 1976 (Methodology for Specification 3.1.3.6 for Regulating and Group P CEA Insertion Limits and 3.2.3 for Azimuthal Power Tilt).

3) "Modified Statistical Combination of Uncertainties, CEN-356(V)-P-A, Revision 01-P-A, May 1988 (Methodology for Specification 3.2.4.c and 3.2.4.d for DNBR Margin and 3.2.7 for ASI).

4) "Calculative Methods for the CE Large Break LOCA Evaluation Model," CENPD-132-P, August 1974 (Methodology for Specification 3.1.1.4 for MTC, 3.2.1 for Linear Heat Rate, 3.2.3 for Azimuthal Power Tilt, and 3.2.7 for ASI).

5) "Calculational Methods for the CE Large Break LOCA Evaluation Model," CENPD-132-P, Supplement 1, February 1975 (Methodology for Specification 3.1.1.4 for MTC, 3.2.1 for Linear Heat Rate, 3.2.3 for Azimuthal Power Tilt, and 3.2.7 for ASI).

6) "Calculational Methods for the CE Large Break LOCA Evaluation Model," CENPD-132-P, Supplement 2-P, July 1975 (Methodology for Specification 3.1.1.4 for MTC, 3.2.1 for Linear Heat Rate, 3.2.3 for Azimuthal Power Tilt, and 3.2.7 for ASI).

7) "Calculative Methods for the CE Large Break LOCA Evaluation Model for the Analysis of CE and W Designed NSSS," CEN-132, Supplement 3-P-A, June 1985 (Methodology for Specification 3.1.1.4 for MTC, 3.2.1 for Linear Heat Rate, 3.2.3 for Azimuthal Power Tilt, and 3.2.7 for ASI).

8) "Calculative Methods for the CE Small Break LOCA Evaluation Model," CENPD-137-P, August 1974 (Methodology for Specification 3.1.1.4 for MTC, 3.2.1 for Linear Heat Rate, 3.2.3 for Azimuthal Power Tilt, and 3.2.7 for ASI).

9) "Calculative Methods for the CE Small Break LOCA Evaluation Model," CENPD-137, Supplement 1-P, January 1977 (Methodology for Specification 3.1.1.4 for MTC, 3.2.1 for Linear Heat Rate, 3.2.3 for Azimuthal Power Tilt, and 3.2.7 for ASI).

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A1 6.6.5 CORE OPERATING LIMITS REPORT (COLR) (Continued) A1

10) "Calculative Methods for the CE Small Break LOCA Evaluation Model," CENPD-137, Supplement 2-P-A, dated April, 1998 (Methodology for Specification 3.1.1.4 for MTC, 3.2.1 for Linear Heat Rate, 3.2.3 for Azimuthal Power Tilt, and 3.2.7 for ASI).

11) "CESEC-Digital Simulation of a Combustion Engineering Nuclear Steam Supply System," December 1981 (Methodology for Specifications 3.1.1.1 and 3.1.1.2 for Shutdown Margin, 3.1.1.4 for MTC, 3.1.3.1 for CEA Position, 3.1.3.6 for Regulating CEA and Group P Insertion Limits, and 3.2.4.b for DNBR Margin).

12) "Technical Manual for the CENTS Code," CENPD 282-P-A, February 1991 (Methodology for Specifications 3.1.1.1 and 3.1.1.2 for Shutdown Margin, 3.1.1.4 for MTC, 3.1.3.1 for CEA Position, 3.1.3.6 for Regulating and Group P Insertion Limits, and 3.2.4.b for DNBR Margin.

13) Letter: O.D. Parr (NRC) to F.M. Stern (CE), dated June 13, 1975 (NRC Staff Review of the Combustion Engineering ECCS Evaluation Model). NRC approval for (~~6.9.5.1.4~~6.6.5.4), ~~6.9.5.1.5~~6.6.5.5), and ~~6.9.5.1.8~~6.6.5.8) methodologies. A1

14) Letter: O.D. Parr (NRC) to A.E. Scherer (CE), dated December 9, 1975 (NRC Staff Review of the Proposed Combustion Engineering ECCS Evaluation Model changes). NRC approval for (~~6.9.5.1~~6.6.5.6) methodology. A1

15) Letter: K. Kniel (NRC) to A.E. Scherer (CE), dated September 27, 1977 (Evaluation of Topical Reports CENPD-133, Supplement 3-P and CENPD-137, Supplement 1-P). NRC approval for (~~6.9.5.1~~6.6.5.9) methodology. A1

16) Letter: 2CNA038403, dated March 20, 1984, J.R. Miller (NRC) to J.M. Griffin (AP&L), "CESEC Code Verification." NRC approval for (~~6.9.5.1~~6.6.5.11) methodology. A1

17) "Calculative Methods for the CE Nuclear Power Large Break LOCA Evaluation Model," CENPD-132-P, Supplement 4-P-A, Revision 1 (Methodology for Specification 3.1.1.4 for MTC, 3.2.1 for Linear Heat Rate, 3.2.3 for Azimuthal Power Tilt, and 3.2.7 for ASI).

A1 ~~6.9.5.2~~c. The core operating limits shall be determined ~~so~~ such that all applicable limits (e.g. fuel thermal-mechanical limits, core thermal-hydraulic limits, Emergency Core Cooling System (ECCS) limits, nuclear limits such as ~~shutdown margin~~SDM, ~~and~~ transient analysis limits, and accident analysis limits) of the safety analysis are met. A1

~~6.9.5.3~~d. The ~~CORE OPERATING LIMITS REPORT~~COLR A1 including any mid-cycle revisions or supplements ~~thereto~~, shall be provided upon issuance ~~to the NRC Document Control Desk with copies to the Regional Administrator and Resident Inspector~~for each reload cycle to the NRC. A11

~~6.10 DELETED~~ A1

~~6.11 RADIATION PROTECTION PROGRAM~~

A27

~~Procedures for personnel radiation protection shall be prepared consistent with the requirements of 10 CFR Part 20 and shall be approved, maintained and adhered to for all operations involving personnel radiation exposure.~~

~~6.12 (DELETED)~~

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~~6.12.2 (DELETED)~~

6.~~137~~ HIGH RADIATION AREA

~~6.13.1 In lieu of the "control device" or "alarm signal" required by paragraph 20.203(c)(2) of 10 CFR 20, each high radiation area (as defined in 20.202(b)(3) of 10 CFR 20) in which the intensity of radiation is 1000 mrem/hr or less shall be barricaded and conspicuously posted as a high radiation area and entrance thereto shall be controlled by requiring the issuance of a radiation work permit. Any individual or group of individuals permitted to enter such areas shall be provided with or accompanied by one or more of the following:~~

~~a. A radiation monitoring device which continuously indicates the radiation dose rate in the area.~~

~~b. A radiation monitoring device which continuously integrates the radiation dose rate in the area and alarms when a preset integrated dose is received. Entry into such areas with this monitoring device may be made after the dose rate level in the area has been established and personnel have been made knowledgeable of them.~~

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~~c. An individual qualified in radiation protection procedures who is equipped with a radiation dose rate monitoring device. This individual shall be responsible for providing positive control over the activities within the area and shall perform periodic radiation surveillance at the frequency specified in the radiation work permit.~~

~~6.13.2 The requirements of 6.13.1, above, shall also apply to each high radiation area in which the intensity of radiation is greater than 1000 mrem/hr. In addition, locked doors shall be provided to prevent unauthorized entry into such areas and access to these areas shall be maintained under the administrative control of the shift supervisor on duty and/or the designated radiation protection manager.~~

As provided in paragraph 20.1601(c) of 10 CFR Part 20, the following controls shall be applied to high radiation areas in place of the controls required by paragraph 20.1601(a) and (b) of 10 CFR Part 20:

6.7.1 High Radiation Areas with Dose Rates Not Exceeding 1.0 rem/hour at 30 Centimeters from the Radiation Source or from any Surface Penetrated by the Radiation

a. Each entryway to such an area shall be barricaded and conspicuously posted as a high radiation area. Such barricades may be opened as necessary to permit entry or exit of personnel or equipment.

b. Access to, and activities in, each such area shall be controlled by means of Radiation Work Permit (RWP), or equivalent that includes specification of radiation dose rates in the immediate work area(s) and other appropriate radiation protection equipment and measures.

c. Individuals qualified in radiation protection procedures and personnel continuously escorted by such individuals may be exempted from the requirement for an RWP or equivalent while performing their assigned

L10

duties provided that they are otherwise following plant radiation protection procedures for entry to, exit from, and work in such areas. L10

d. Each individual or group entering such an area shall possess:

1. A radiation monitoring device that continuously displays radiation dose rates in the area; or

A1

2. A radiation monitoring device that continuously integrates the radiation dose rates in the area and alarms when the device's dose alarm setpoint is reached, with an appropriate alarm setpoint, or

3. A radiation monitoring device that continuously transmits dose rate and cumulative dose information to a remote receiver monitored by radiation protection personnel responsible for controlling personnel radiation exposure within the area, or

4. A self-reading dosimeter (e.g., pocket ionization chamber or electronic dosimeter) and,

   (i) Be under the surveillance, as specified in the RWP or equivalent, while in the area, of an individual qualified in radiation protection procedures, equipped with a radiation monitoring device that continuously displays radiation dose rates in the area; who is responsible for controlling personnel exposure within the area, or L10

   (ii) Be under the surveillance as specified in the RWP or equivalent, while in the area, by means of closed circuit television, of personnel qualified in radiation protection procedures, responsible for controlling personnel radiation exposure in the area, and with the means to communicate with individuals in the area who are covered by such surveillance.

e. Except for individuals qualified in radiation protection procedures, or personnel continuously escorted by such individuals, ~~entry into such areas shall be made only after dose rates in the area have~~ been determined and entry personnel are knowledgeable of them. These continuously escorted personnel will receive a pre-job briefing prior to entry into such areas. This dose rate determination, knowledge, and pre-job briefing does not require documentation prior to initial entry.

6.7.2 High Radiation Areas with Dose Rates Greater than 1.0 rem/hour at 30 Centimeters from the Radiation Source or from any Surface Penetrated by the Radiation, but less than 500 rads/hour at 1 Meter from the Radiation Source or from any Surface Penetrated by the Radiation A1

a. Each entryway to such an area shall be conspicuously posted as a high radiation area and shall be provided with a locked or continuously guarded door or gate that prevents unauthorized entry, and, in addition:

1. All such door and gate keys shall be maintained under the administrative control of the shift manager, radiation protection manager, or his or her designee.

2. Doors and gates shall remain locked except during periods of personnel or equipment entry or exit.

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b. Access to, and activities in, each such area shall be controlled by means of an RWP or equivalent that includes specification of radiation dose rates in the immediate work area(s) and other appropriate radiation protection equipment and measures.

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c. Individuals qualified in radiation protection procedures may be exempted from the requirement for an RWP or equivalent while performing radiation surveys in such areas provided that they are otherwise following plant radiation protection procedures for entry to, exit from, and work in such areas.

d. Each individual or group entering such an area shall possess:

A1

1. A radiation monitoring device that continuously integrates the radiation rates in the area and alarms when the device's dose alarm setpoint is reached, with an appropriate alarm setpoint, or

2. A radiation monitoring device that continuously transmits dose rate and cumulative dose information to a remote receiver monitored by radiation protection personnel responsible for controlling personnel radiation exposure within the area with the means to communicate with and control every individual in the area, or

3. A self-reading dosimeter (e.g., pocket ionization chamber or electronic dosimeter) and,

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(i) Be under the surveillance, as specified in the RWP or equivalent, while in the area, of an individual qualified in radiation protection procedures, equipped with a radiation monitoring device that continuously displays radiation dose rates in the area; who is responsible for controlling personnel exposure within the area, or

(ii) Be under the surveillance as specified in the RWP, or equivalent, while in the area by means of closed circuit television, or personnel qualified in radiation protection procedures responsible for controlling personnel radiation exposure in the area and with the means to communicate with individuals in the area who are covered by such surveillance.

4. In those cases where options (2) and (3), above, are impractical or determined to be inconsistent with the "As Low As is Reasonably Achievable" principle, a radiation monitoring device that continuously displays radiation dose rates in the area.

e. Except for individuals qualified in radiation protection procedures, or personnel continuously escorted by such individuals, entry into such areas shall be made only after dose rates in the area have been determined and entry personnel are knowledgeable of them. These continuously escorted personnel will receive a pre-job briefing prior to entry into such areas. This dose rate determination, knowledge, and pre-job briefing does not require documentation prior to initial entry.

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f. Such individual areas that are within a larger area where no enclosure exists for the purpose of locking and where no enclosure can reasonably be constructed around the individual area need not be controlled by a locked door or gate, nor continuously guarded, but shall be barricaded, conspicuously posted, and a clearly visible flashing light shall be activated at the area as a warning device.

6.5 PROGRAMS AND MANUALS

The following programs shall be established, implemented, and maintained.

6.~~14~~5.1 ~~OFFSITE DOSE CALCULATION MANUAL~~Offsite Dose Calculation Manual (ODCM)

The ODCM shall contain 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~~.~~; and

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. ~~and Annual Radiological Environmental Operating Reports required by Specifications 6.9.3 and 6.9.4.~~

Licensee initiated changes to the ODCM:

a. Shall be documented and records of reviews performed shall be retained. This documentation shall contain:

   1. ~~Sufficient~~ sufficient information to support the change(s) together with the appropriate analyses or evaluations justifying the change(s), and

   2. ~~A~~ a determination that the change(s) maintain the levels of radioactive effluent control required by 10 CFR 20.1302, 40 CFR 190, 10 CFR 50.36a, and 10 CFR 50, Appendix I, and not adversely impact the accuracy or reliability of effluent, dose, or setpoint calculations;

LA4

b. Shall become effective after approval of the ANO g~~G~~eneral m~~M~~anager~~, Plant Operations~~; and

SAR

c. Shall be submitted to the NRC in the form of a complete, legible copy of the entire ODCM as a part of or concurrent with the Radioactive Effluent Release Report for the period of the report in which any change in the ODCM was made effective. Each change shall be identified by markings in the margin of the affected pages, clearly indicating the area of the page that was changed and shall ~~also~~ indicate the date (i.e., month and year) the change was implemented.

All A1 unless otherwise noted.

6.~~15~~5.16 Containment Leakage Rate Testing Program~~CONTAINMENT LEAKAGE RATE TESTING PROGRAM~~

A program shall be established to implement the leakage rate testing of the containment as required by 10 CFR 50.54(o) and 10 CFR 50, Appendix J, Option B, as modified by approved exemptions. This program shall be in accordance with the guidelines contained in Regulatory Guide 1.163, "Performance-Based Containment Leak-Test Program," dated September 1995.

In addition, ~~Prior to exceeding conditions which require establishment of rector building integrity per TS 3.6.1.1, the leak rate of~~ the containment purge supply and exhaust isolation valves shall be ~~verified to be within acceptable limits per TS 4.6.1.2, unless the test has been successfully completed within the last three months~~ leakage rate tested prior to entering MODE 4 from MODE 5 if not performed within the previous 92 days.

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The peak calculated containment internal pressure for the design basis loss of coolant accident, P_a, is 58 psig.

The maximum allowable containment leakage rate, L_a, shall be 0.1% of containment air weight per day at P_a.

Leakage rate acceptance criteria are:

a. Containment leakage rate acceptance criteria is $\leq 1.0\ L_a$. During the first unit startup following each test performed in accordance with this program, the leakage rate acceptance criteria are $< 0.60\ L_a$ for the Type B and Type C tests and $\leq 0.75\ L_a$ for Type A tests.

A19

b. Air lock acceptance criteria are:

1. Overall air lock leakage rate is $\leq 0.05\ L_a$ when tested at $\geq P_a$.

2. Leakage rate for each door is $\leq 0.01\ L_a$ when pressurized to ≥ 10 psig.

The provisions of Specification 4.0.2 do not apply to the test frequencies specified in the Containment Leakage Rate Testing Program.

The provisions of Specification 4.0.3 are applicable to the Containment Leakage Rate Testing Program.

Inserts

1) **New 6.5.10** A3

Secondary Water Chemistry ~~Monitoring~~ A1

A23

~~EOI shall implement a secondary water chemistry monitoring program using the overall plant administrative procedure "Steam Generator Water Chemistry Monitoring, Unit II", to minimize steam generator tube degradation. The program shall be defined in specific plant procedures and shall include:~~ This program provides controls for monitoring secondary water chemistry to inhibit SG tube degradation. The program shall include: A1

A1

a. ~~1)~~ Identification of a sampling schedule for the critical ~~parameters~~ variables and control points for these ~~parameters~~ variables; A1

b. ~~2)~~ Identification of the procedures used to measure the values of the critical variables ~~parameters~~;

c. ~~3)~~ Identification of process sampling points;

d. ~~4)~~ Procedure for the recording and management of data;

e. ~~5)~~ Procedures defining corrective actions for all off control point chemistry conditions; and A1

f. ~~6.~~ A procedure identifying the authority responsible for the interpretation of the data, and the sequence and timing of administrative events required to initiate corrective action.

2) **New 6.5.2** A3

Primary Coolant Sources Outside Containment

A1 ~~EOI shall implement a program to reduce~~ This program provides controls to minimize leakage from those portions of systems outside containment that ~~would or~~ could ~~contain~~ highly radioactive fluids during a serious transient or accident to levels as low as practicable ~~levels~~. The program shall include the following:

a. ~~Provisions establishing P~~Preventive maintenance and periodic visual inspection requirements~~,~~; and

b. Integrated leak test requirements for each system at ~~a frequency not to exceed refueling cycle intervals.~~ least once per 18 months. The provisions of Surveillance Requirements 4.0.2 are applicable. L14

L15

3) New 6.5.9, Steam Generator (SG) Tube Surveillance Program

~~4.4.5.0 Each steam generator shall be demonstrated OPERABLE by performance of the following augmented inservice inspection program.~~

~~4.4.5.1~~6.5.9.1 Steam Generator Sample Selection and Inspection -

Each steam generator shall be determined OPERABLE during shutdown by selecting and inspecting at least the minimum number of steam generators specified in Table ~~4.4-1~~ 6.5.9-1.

6.5.9.2~~4.4.5.2~~ Steam Generator Tube Sample Selection and Inspection

The steam generator tube minimum sample size, inspection result classification~~,~~ and the corresponding action required shall be as specified in Table ~~4.4-2~~6.5.9-2. The inservice inspection of steam generator tubes shall be performed at the frequencies specified in specification ~~4.4.5.3~~ 6.5.9.3 and the inspected tubes shall be verified acceptable per the acceptance criteria of Specification ~~4.4.5.4~~6.5.9.4. The tubes selected for each inservice inspection shall include at least 3% of the total number of tubes in all steam generators; the tubes selected for these inspections shall be selected on a random basis except:

a. Where experience in similar plants with similar water chemistry indicates critical areas to be inspected, then at least 50% of the tubes inspected shall be from these critical areas.

b. The first sample of tubes selected for each inservice inspection (subsequent to the pre-service inspection) of each steam generator shall include:

ALL A1

1. All non-plugged tubes that previously had detectable wall penetrations (>20%).

2. Tubes in those areas where experience has indicated potential problems.

3. A tube inspection (pursuant to Specification ~~4.4.5.4~~ 6.5.9.4.a.9) shall be performed on each selected tube. If any selected tube does not permit the passage of the eddy current probe for a tube inspection, this shall be recorded and an adjacent tube shall be selected and subjected to a tube inspection.

c. The tubes selected as the second and third samples (if required by Table ~~4.4-2~~ 6.5.9-2) during each inservice inspection may be subjected to a partial inspection provided:

1. The tubes selected for these samples include the tubes from those areas of the tube sheet array where tubes with imperfections were previously found.

2. The inspections include those portions to of the tubes where imperfections were previously found.

The result of each sample inspection shall be classified into one to the following three categories:

Category	Inspection Results
C-1	Less than 5% of the total tubes inspected are degraded tubes and none of the inspected tubes are defective.
C-2	One or more tubes, but not more than 1% of the total tubes inspected are defective, or between 5% and 10% of the total tubes inspected are degraded tubes.
C-3	More than 10% of the total tubes inspected are degraded tubes or more than 1% of the inspected tubes are defective.

Note: In all inspections, previously degraded tubes must exhibit significant (>10%) further wall penetrations to be included in the above percentage calculations.

~~4.4.5.3~~6.5.9.3 Inspection Frequencies

The above required inservice inspections of steam generator tubes shall be performed at the following frequencies:

All A1

a. The first inservice inspection shall be performed after 6 Effective Full Power Months but within 24 calendar months of initial criticality. Subsequent inservice inspections shall be performed at intervals of not less than 12 nor more than 24 calendar months after the previous inspection. If two consecutive inspections following service under AVT conditions, not including the pre-service inspection, result in all inspection results falling into the C-1 category or if two consecutive inspections demonstrate that previously observed degradation has not continued and no additional degradation has occurred, the inspection interval may be extended to a maximum of once per 40 months.

   A one-time inspection interval of a maximum of once per 40 months is allowed for the inspection performed immediately following the 2R15 outage. This is an exception to ~~4.4.5.3~~6.5.9.3.a in that the interval extension is based on all of the results of one inspection falling into the C-1 category.

b. If the results of the inservice inspection of a steam generator conducted in accordance with Table ~~4.4-2~~ 6.5.9-2 at 40 month intervals fall into Category C-3, the inspection frequency shall be increased to at least once per 20 months. The increase in inspection frequency shall apply until the subsequent inspections satisfy the criteria of Specification ~~4.4.5.3.a~~6.5.9.3.a; the interval may then be extended to a maximum of once per 40 months.

c. Additional, unscheduled inservice inspections shall be performed on each steam generator in accordance with the first sample inspection specified in Table ~~4.4.2~~ 6.5.9-2 during the shutdown subsequent to any of the following conditions:

1. Primary-to-secondary tube leaks (not including leaks originating from tube-to-tube sheet welds) in excess of the limits of Specification 3.4.6.2. ALL A1

2. A seismic occurrence greater than the Operating Basis Earthquake.

3. A loss-of coolant accident requiring actuation of the engineered safeguards.

4. A main steam line or feedwater line break.

6.5.9.4~~4.4.5.4~~ Acceptance Criteria

a. As used in this Specification

1. Tubing or Tube means that portion of the tube which forms the primary system to secondary system pressure boundary.

2. Imperfection means an exception to the dimensions, finish or contour of a tube from that required by fabrication drawings or specifications. Eddy-current testing indications below 20% of the nominal tube wall thickness, if detectable, may be considered as imperfections.

3. Degradation means a service-induced cracking, wastage, wear or general corrosion occurring on either inside or outside of a tube.

4. Degraded Tube means a tube containing imperfections ≥20% of nominal wall thickness caused by degradation.

5. % Degradation means the percentage of the tube wall thickness affected or removed by degradation.

6. Defect means an imperfection of such severity that it exceeds the plugging limit. A tube containing a defect is defective.

7. Plugging Limit means the imperfection depth at or beyond which the tube shall be removed from service by plugging because it may become unserviceable prior to the next inspection. The plugging limit is equal to 40% of the nominal tube wall thickness.

8. Unserviceable describes the condition of a tube if it leaks or contains a defect large enough to affect its structural integrity in the event of an Operating Basis Earthquake, a loss-of-coolant accident, or a steam line or feedwater line break as specified in 6.5.9.3.c~~4.4.5.3.c~~ above.

9. Tube Inspection means an inspection of the steam generator tube from tube end (cold leg side) to tube end (hot leg side).

10. Pre-service Inspection means an inspection of the full length of each tube in each steam generator performed by eddy current techniques prior to service to establish a baseline condition of the tubing. This inspection shall be performed after the hydrostatic test and prior to POWER OPERATION using the equipment and techniques expected to be used during subsequent inservice inspections.

ALL A1

b. The steam generator shall be determined OPERABLE after completing the corresponding actions (plug all tubes exceeding the plugging limit and all tubes containing through-wall cracks) required by Table ~~4.4-2~~6.5.9-2.

TABLE 6.5.9-1~~4.4-1~~

MINIMUM NUMBER OF STEAM GENERATORS TO BE INSPECTED DURING INSERVICE INSPECTION

Pre-service Inspection	Yes
No. of Steam Generators per Unit	Two
First Inservice Inspection	One
Second & Subsequent Inservice Inspections	One[1]

Table Notation:

1. The inservice inspection may be limited to one steam generator on a rotating schedule encompassing 3 N % of the tubes (where N is the number of steam generators in the plant) if the results of the first or previous inspections indicate that all steam generators are performing in a like manner. Note that under some circumstances, the operating conditions in one or more steam generators may be found to be more severe than those in other steam generators. Under such circumstances the sample sequence shall be modified to inspect the most severe conditions.

TABLE 6.5.9-2~~4.4.2~~

STEAM GENERATOR TUBE INSPECTION

1ST SAMPLE INSPECTION			2ND SAMPLE INSPECTION		3RD SAMPLE INSPECTION	
Sample Size	Result	Action Required	Result	Action Required	Result	Action Required
A minimum of S Tubes per S.G.	C-1	None	N/A	N/A	N/A	N/A
	C-2	Plug defective tubes and inspect additional 2S tubes in this S.G.	C-1	None	N/A	N/A
			C-2	Plug defective tubes and inspect additional 4S tubes in this S.G.	C-1	None
					C-2	Plug defective tubes
					C-3	Perform action for C-3 result of first sample
			C-3	Perform action for C-3 result of first sample	N/A	N/A
	C-3	Inspect all tubes in this S.G., plug defective tubes and inspect 2S tubes in the other S.G.	Other S.G. is C-1	None	N/A	N/A
		Special Report to NRC per Specification 6.6.7~~6.9.2~~	Other S.G. is C-2	Perform action for C-2 result of second sample	N/A	N/A
			Other S.G. is C-3	Inspect all tubes in the other S.G. and plug defective tubes. Special Report to NRC per Spec. 6.6.7~~6.6.7~~	N/A	N/A

S = 3 (2/n) % Where n is the number of steam generators inspected during an inspection.

ALL A1

4) New 6.5.13 Diesel Fuel Oil Testing Program

LA1 ~~At least once per 92 days by verifying that a sample of diesel fuel from the fuel storage tank obtained in accordance with ASTM-D270-65, is within the acceptable limits specified in Table 1 of ASTM-D975-74 when checked for viscosity, water and sediment.~~

M1 A diesel fuel oil testing program to implement required testing of both new fuel oil and stored fuel oil shall be established. The program shall include sampling and testing requirements, and acceptance criteria, all in accordance with applicable ASTM Standards. The purpose of the program is to establish the following:

a. Acceptability of new fuel oil for use prior to addition to storage tanks by determining that the fuel oil has:

1. an API gravity or an absolute specific gravity within limits,

2. a flash point and kinematic viscosity within limits for ASTM 2D fuel oil, and

3. water and sediment within limits;

b. Within 31 days following addition of new fuel oil to storage tanks, verify that the properties of the new fuel oil, other than those addressed in a. above, are within limits for ASTM 2D fuel oil;

L1 c. Total particulate concentration of the fuel oil is ≤ 10 mg/l when tested every 31 days based on ASTM D-2276, Method A-2 or A-3; and

M14

A2 d. The provisions of SR 4.0.2 and SR 4.0.3 are applicable to the Diesel Fuel Oil Testing Program surveillance frequencies.

5) New 6.5.11 Ventilation Filter Testing Program

A1 unless otherwise noted

Control Room Emergency Air Filtration System SR 4.7.6.1.2.b, c., d.1, e., and f.	Fuel Handling Area Ventilation System SR 4.9.11.2	New Ventilation Filtration Program TS 6.5.11
~~4.7.6.1.2.b~~ ~~At least once per 18 months or (1) after any structural maintenance on the HEPA filter or charcoal adsorber housings, or (2) following painting, fire or chemical release in any ventilation zone communicating with the system by:~~ A4 ~~4.~~ ~~Verifying that the cleanup system satisfies the in-place testing acceptance criteria and uses the test procedures of Regulatory Positions C.5.a, C.5.c and C.5.d of~~A program shall be established to implement the following required testing of Engineered Safeguards (ES) ventilation systems filters at the frequencies specified in Regulatory Guide 1.52, Revision 2~~, March 1978, and the system flow rate is 2000 cfm ± 10%~~. The VFTP is applicable to the Fuel Handling Area Ventilation System (FHAVS) and the Control Room Emergency Ventilation System (CREVS). M2	~~4.9.11.2.a~~ ~~At least once per 18 months of (1) after any structural maintenance on the HEPA filter or charcoal adsorber housings, or (2) following painting, fire or chemical release in any ventilation zone communicating with the system by:~~ ~~1. Verifying that the ventilation system satisfies the inplace testing acceptance criteria and uses the test procedures of Regulatory Positions C.5.a, C.5.c and C.5.d of~~ A program shall be established to implement the following required testing of Engineered Safeguards (ES) ventilation systems filters at the frequencies specified in Regulatory Guide 1.52, Revision 2~~, March 1978, and the system flow rate is 39,700 cfm ± 10%.~~ The VFTP is applicable to the Fuel Handling Area Ventilation System (FHAVS) and the Control Room Emergency Ventilation System (CREVS).	A program shall be established to implement the following required testing of Engineered Safeguards (ES) ventilation systems filters at the frequencies specified in Regulatory Guide 1.52, Revision 2. The VFTP is applicable to the Fuel Handling Area Ventilation System (FHAVS) and the Control Room Emergency Ventilation System (CREVS).

UNLESS OTHERWISE NOTED CHANGES ARE A1 AND LA1

Control Room Emergency Air Filtration System SR 4.7.6.1.2.b, c., d.1, e., and f.	Fuel Handling Area Ventilation System SR 4.9.11.2	New Ventilation Filtration Program TS 6.5.11
~~2~~c. ~~Verifying within 31 days after removal~~Demonstrate that a laboratory ~~analysis~~ test of a ~~representative carbon~~ sample of the charcoal adsorder ~~obtained in accordance with Regulatory Position C.6.b of Regulatory Guide 1.52, Revision 2, March 1978,~~ meets the laboratory testing criteria of ASTM D3803-1989 when tested at 30°C and 95% relative humidity for a methyl iodide penetration of: A4 A4 2. when obtained as described in Regulatory Guide 1.52, Revision 2, for CREVS A1 ~~a~~i. ≤ 2.5% for 2 inch charcoal adsorber beds, or ~~b~~ii. ≤ 0.5% for 4 inch charcoal adsorber beds.	~~2~~c. ~~Verifying within 31 days after removal~~Demonstrate that a laboratory ~~analysis~~ test of a ~~representative carbon~~ sample ~~obtained in accordance with Regulatory Position C.6.b of Regulatory Guide 1.52, Revision 2, March 1978, shows the methyl iodide penetration less than 5.0% when tested in accordance with~~ of the charcoal adsorber meets the laboratory testing criteria of ASTM D3803-1989 when tested at ~~a temperature of~~ 30°C and ~~a relative humidity of~~ 95% relative humidity for a methyl iodide penetration of:. 1. < 5% for the FHAVS; and	c. Demonstrate that a laboratory test of a sample of the charcoal adsorber meets the laboratory testing criteria of ASTM D3803-1989 when tested at 30°C and 95% relative humidity for a methyl iodide penetration of: 1. < 5% for the FHAVS; and 2. when obtained as described in Regulatory Guide 1.52, Revision 2, for CREVS i. ≤ 2.5% for 2 inch charcoal adsorber beds; and ii. ≤ 0.5% for 4 inch charcoal adsorber beds.
~~3. Verifying a system flow rate of 2000 cfm ± 10% during system operation when tested in accordance with ANSI N510-1975.~~ A1 SYSTEM FLOW RATE IS INCLUDED IN PTS 6.5.11a, b, AND d.	~~3. Verifying a system flow rate of 39,700 cfm ± 10% during system operation when tested in accordance with ANSI N510-1975.~~	

UNLESS OTHERWISE NOTED CHANGES ARE A1 AND LA1

Control Room Emergency Air Filtration System SR 4.7.6.1.2.b, c., d.1, e., and f.	Fuel Handling Area Ventilation System SR 4.9.11.2	New Ventilation Filtration Program TS 6.5.11
c. ~~After every 720 hours of charcoal adsorber operation by verifying within 31 days after removal that a laboratory analysis of a representative carbon sample obtained in accordance with Regulatory Position C.6.b of~~ A4 Demonstrate that a laboratory test of a sample of the charcoal adsorber meets the laboratory testing criteria of ASTM D3803-1989 when tested at 30°C and 95% relative humidity for a methyl iodide penetration of: 2. when obtained as described in Regulatory Guide 1.52, Revision 2, ~~March, 1978, meets the laboratory testing criteria of ASTM D3803-1989 when tested at 30°C and 95% relative humidity for a methyl iodide penetration of~~ for CREVS ~~1~~i. ≤2.5% for 2 inch charcoal adsorber beds, or ~~2~~ii. ≤0.5% for 4 inch charcoal adsorber beds	~~b~~c. ~~After every 720 hours of charcoal adsorber operation by verifying within 31 days after removal~~ Demonstrate that a laboratory ~~analysis~~ test of a ~~representative carbon~~ sample of the charcoal adsorber meets the laboratory testing criteria of ~~obtained in accordance with Regulatory Position C.6.b of Regulatory Guide 1.52, Revision 2, March 1978, shows the methyl iodine penetration less than 5.0% when tested in accordance with~~ ASTM D3803-1989 when tested at ~~a temperature of~~ 30°C and ~~a relative humidity of~~ 95% relative humidity for a methyl iodide penetration of: 1. < 5% for the FHAVS; and.	c. Demonstrate that a laboratory test of a sample of the charcoal adsorber meets the laboratory testing criteria of ASTM D3803-1989 when tested at 30°C and 95% relative humidity for a methyl iodide penetration of: 1. < 5% for the FHAVS; and 2. when obtained as described in Regulatory Guide 1.52, Revision 2, for CREVS i. ≤ 2.5% for 2 inch charcoal adsorber beds; and ii. ≤ 0.5% for 4 inch charcoal adsorber beds.
d. ~~At least once per 18 months by:~~ ~~1. Verifying~~ Demonstrate for the FHAVS and CREVS that the pressure drop across the combined HEPA filters, other filters in the system and charcoal adsorber banks is < 6 inches ~~Water Gauge~~ of water ~~while operating~~ when tested at the following flowrates ± 10%. ~~the system at a flow rate of~~ M13 CREVS 2000 cfm ~~± 10%~~.	~~c.~~ d. ~~At lease once per 18 months by verifying~~ Demonstrate for the FHAVS and CREVS that the pressure drop across the combined HEPA filters, other filters in the system and charcoal adsorber banks is < 6 inches ~~Water Gauge~~ of water ~~while~~ when ~~operating~~ tested at the following system design flowrates ± 10%. ~~the system at a flow rate of~~ FHAVS 39,700 cfm ~~± 10%~~.	d. Demonstrate for the FHAVS and CREVS, that the pressure drop across the combined HEPA filters, other filters in the system, and charcoal adsorbers is < 6 inches of water when tested at the following system design flowrates ± 10%. FHAVS 39,700 cfm CREVS 2,000 cfm

UNLESS OTHERWISE NOTED
CHANGES ARE A1

Control Room Emergency Air Filtration System SR 4.7.6.1.2.b, c., d.1, e., and f.	Fuel Handling Area Ventilation System SR 4.9.11.2	New Ventilation Filtration Program TS 6.5.11
a. Demonstrate that an in place cold DOP test of the high efficiency particulate (HEPA) filters shows: A4 ~~e. After each complete or partial replacement of a HEPA filter bank by verifying that the HEPA filter banks remove~~ 2. ≥ 99.95% ~~of the~~ DOP removal for the CREVS when ~~they are~~ tested ~~in-place~~ in accordance with Regulatory Guide 1.52, Revision 2 ~~ANSI N510-1975~~at ~~while operating~~ the system ~~at a~~design flow-rate of 2000 cfm ± 10%.	d. ~~After each complete or partial replacement of a HEPA filter bank by verifying that the HEPA filter banks remove~~ a. Demonstrate that an in place cold DOP test of the high efficiency particulate (HEPA) filters shows: 1. ≥ 99% ~~of the~~ DOP removal for the FHAVS when ~~they are~~ tested ~~in-place in accordance with ANSI N510-1975 while operating the system~~ at ~~a~~ the system design flow-rate of 39,700 cfm ± 10%~~.~~; and	a. Demonstrate that an inplace cold DOP test of the high efficiency particulate (HEPA) filters shows: 1. ≥ 99% DOP removal for the FHAVS when tested at the system design flowrate of 39,700 cfm ± 10%; and 2. ≥ 99.95% DOP removal for the CREVS when tested in accordance with Regulatory Guide 1.52, Revision 2 and ANSI N510-1975, at the system design flowrate 2000 cfm ± 10%.
A4 2. ~~After each complete or partial replacement of a charcoal adsorber bank by verifying that the charcoal adsorbers remove~~ ≥ 99.95% ~~of the~~ halogenated hydrocarbon removal from the CREVS ~~refrigerant test gas~~ when ~~they are~~ tested ~~in-place~~ in accordance with ~~ANSI N510-1975~~Regulatory Guide 1.52, Revision 2, ~~while operating the system at a~~ the system design flow rate of 2000 cfm ± 10%.	~~e~~b. ~~After each compete or partial replacement of a charcoal adsorber bank by verifying~~ Demonstrate that ~~the~~ an in place halogenated hydrocarbon test of the charcoal adsorbers ~~remove~~ shows: 1. ≥ 99.95% ~~of a~~ halogenated hydrocarbon ~~refrigerant test gas when they are tested in-place in accordance with ANSI N510-1975 while operating the~~ removal for the FHAVS when tested at the system ~~at a~~design flow rate of 39,700 cfm ± 10~~%.~~%; and	b. Demonstrate that an inplace halogenated hydrocarbon test of the charcoal adsorbers shows: 1. ≥ 99.95% halogenated hydrocarbon removal for the FHAVS when tested at the system design flow rate of 39,700 cfm ± 10%; and 2. ≥ 99.95% halogenated hydrocarbon removal for the CREVS when tested in accordance with Regulatory Guide 1.52, Revision 2, at the system design flow rate of 2000 cfm ± 10%.
N/A	N/A	The provision of SR 4.0.2 and SR 4.0.3 are applicable to the VFTP test frequencies. A2

6) New 6.5.3 - Iodine Monitoring Program (A3)

Iodine Monitoring

(A1)

~~EOI shall implement a~~This program provides controls that ~~which will~~ ensure the capability to accurately determine the airborne iodine concentration ~~in vital areas~~ under accident conditions. ~~This~~ The program shall include the following:

(LA2)

(A1)

~~1~~a. Training of personnel,

~~2~~b. Procedures for monitoring, and

~~3~~c. Provisions for maintenance of sampling and analysis equipment.

Attachment 3

2CAN060303

Changes to Technical Specification Bases Pages
For Information Only

Demonstration of the safety valves' lift setting will occur only during shutdown and will be performed in accordance with the provisions of Section XI of the ASME Boiler and Pressure Vessel Code.

3/4.4.4 PRESSURIZER

A steam bubble in the pressurizer ensures that the RCS is not a hydraulically solid system and is capable of accommodating pressure surges during operation. The steam bubble also protects the pressurizer code safety valves against water relief. The steam bubble functions to relieve RCS pressure during all design transients.

The requirement that 150 KW of pressurizer heaters and their associated controls be capable of being supplied electrical power from an emergency bus provides assurance that these heaters can be energized during a loss-of-offsite power condition to maintain natural circulation at HOT STANDBY.

3/4.4.5 STEAM GENERATORS

The ~~Surveillance Requirements~~Steam Generator Tube Surveillance Program ~~for inspection of the steam generator tubes~~ ensures that the structural integrity of this portion of the RCS will be maintained. The program ~~for inservice inspection of steam generator tubes~~ is based on a modification of Regulatory Guide 1.83, Revision 1. Inservice inspection of steam generator tubing is essential in order to maintain surveillance of the conditions of the tubes in the event that there is evidence of mechanical damage or progressive degradation due to design, manufacturing errors, or inservice conditions that lead to corrosion. Inservice inspection of steam generator tubing also provides a means of characterizing the nature and cause of any tube degradation so that corrective measures can be taken.

The plant is expected to be operated in a manner such that the secondary coolant will be maintained within those chemistry limits found to result in negligible corrosion of the steam generator tubes. If the secondary coolant chemistry is not maintained within these limits, localized corrosion may likely result in stress corrosion cracking. The extent of cracking during plant operation would be limited by the limitation of steam generator tube leakage between the primary coolant system and the secondary coolant system (primary-to-secondary leakage = 150 gallons per day per steam generator). Cracks having a primary-to-secondary leakage less than this limit during operation will have an adequate margin of safety to withstand the loads imposed during normal operation and by postulated accidents. Operating plants have demonstrated that primary-to-secondary leakage of 150 gallons per day per steam generator can readily be detected by radiation monitors on the secondary system. Leakage in excess of this limit will require plant shutdown and an unscheduled inspection, during which the leaking tubes will be located and plugged.

3/4.7.6 CONTROL ROOM EMERGENCY VENTILATION (CREVS) AND AIR CONDITIONING SYSTEM (CREACS)

BACKGROUND

CREVS

The CREVS is a shared system which provides a protected environment from which operators can control the unit following an uncontrolled release of radioactivity.

The CREVS consists of two independent filter and fan trains, two independent actuation channels and the Control Room isolation dampers.

The CREVS is an emergency system. Upon receipt of a unit specific high radiation signal, the control room envelope is isolated, the associated unit's normal control room ventilation system is shutdown, and the associated unit's CREVS is started. ~~The control room dampers isolate the control room within 10 seconds of receipt of a high radiation signal. If the actuation signal cannot start the emergency ventilation recirculation fan, operating the affected fan in the manual recirculation mode and isolating the control room isolation dampers provides the required design function of the control room emergency ventilation system to isolate the combined control rooms to ensure that the control rooms will remain habitable for operations personnel during and following accident conditions. This contingency action should be put in place immediately (within 1 hour) to fully satisfy the design functions of the control room emergency ventilation system.~~

The CREVS is discussed in the SAR, Section 9.4.

CREACS

The control room emergency air conditioning system (CREACS) provides temperature control for the control room following isolation of the control room. It is manually started from the Unit 2 Control Room.

The CREACS consists of two independent and redundant trains that provide cooling of recirculated control room air. A cooling coil and a water cooled condensing unit are provided for each system to provide suitable temperature conditions in the control room for operating personnel and safety related control equipment. During operation, the CREACS maintains the temperature in a range consistent with personnel comfort and long term equipment operation.

APPLICABLE SAFETY ANALYSES

The shared CREVS components are arranged in two safety related ventilation trains, which ensure an adequate supply of filtered air to all areas requiring access. The CREVS provides airborne radiological protection for the control room operators for the design basis loss of coolant accident fission product release and for a fuel handling accident.

The worst case single active failure of a CREVS component, assuming a loss of offsite power, does not impair the ability of the system to perform its design function.

The design basis for the CREACS is to maintain control room temperature for 30 days of continuous occupancy.

The CREACS components are arranged in redundant, safety related trains. A single active failure of a CREACS component does not impair the ability of the system to perform as designed. The CREACS is designed in accordance with Seismic Category I requirements. The CREACS is capable of removing sensible and latent heat loads from the control room, including consideration of equipment heat loads and personnel occupancy requirements, to ensure a habitable environment and equipment OPERABILITY.

In MODES 1 and 2 and during movement of irradiated fuel assemblies, the CREVS and CREACS satisfy Criterion 3 of 10 CFR 50.36. In MODES 3 and 4, the CREVS and CREACS satisfy Criterion 4 of 10 CFR 50.36.

LCO

The OPERABILITY of the control room emergency ventilation and air conditioning system ensures that 1) the ambient air temperature does not exceed the allowable temperature for continuous duty rating for the equipment and instrumentation cooled by this system and 2) the control room will remain habitable for operations personnel during and following all credible accident conditions. ~~The OPERABILITY of this system in conjunction with control room design provisions is based on limiting the radiation exposure to personnel occupying the control room to 5 rem or less whole body, or its equivalent. This limitation is consistent with the requirements of General Design Criteria 19 of Appendix "A", 10 CFR 50.~~

Two CREVS trains are required to be OPERABLE to ensure that at least one is available if a single failure disables the other train. Total system failure could result in exceeding a dose of 5 rem whole body or its equivalent to the control room operators in the event of a large radioactive release. This limitation is consistent with the requirements of General Design Criteria 19 of Appendix "A", 10 CFR 50.

For a CREVS train to be considered OPERABLE, the CREVS train must include the associated:

a. OPERABLE fan;
b. OPERABLE HEPA filter and charcoal adsorber; and
c. OPERABLE ductwork and dampers sufficient to maintain air circulation and provide adequate makeup air flow.

In addition, the control room envelope, including the integrity of the walls, floors, ceilings, ductwork, and access doors, must be maintained within the assumptions of the design analysis.

Two independent and redundant trains of the CREACS are required to be OPERABLE to ensure that at least one is available, assuming a single failure disables the other train. Total system failure could result in the control room temperature exceeding limits in the event of an accident.

For a CREACS train to be considered OPERABLE, the individual components that are necessary to maintain control room temperature must be OPERABLE. These components include the cooling coils, condensing units, and associated temperature control instrumentation. In addition, the CREACS must be capable of maintaining air circulation.

The LCO is modified by Note 1 that allows the control room boundary to be opened intermittently under administrative controls. For entry and exit through doors the administrative control of the opening is performed by the person(s) entering or exiting the area. For other openings, these controls consist of stationing a dedicated individual at the opening who is in continuous communication with the control room. This individual will have a method to rapidly close the opening when a need for control room isolation is indicated.

Due to the unique situation of the shared emergency ventilation and air conditioning equipment, the components may be cross fed from the opposite unit per predetermined contingency actions/procedures. Unit 1 may take credit for OPERABILITY of these systems when configured to achieve separation and independence regardless of normal power and/or service water configuration. This will be in accordance with pre-determined contingency actions/procedures.

APPLICABILITY

In MODES 1, 2, 3, and 4, the CREVS and CREACS must be OPERABLE to ensure that the control room will remain habitable during and following a DBA.

During movement of irradiated fuel assemblies, the CREVS must be OPERABLE to cope with a release due to a fuel handling accident.

Unit 1 and Unit 2 control rooms are a single environment for emergency ventilation and air conditioning concerns. Since the control room emergency ventilation and air conditioning equipment is shared between units, the plant status of both units must be considered when determining applicability of the specification.

ACTIONS

a.

With one CREACS train inoperable, action must be taken to restore OPERABLE status within 30 days. In this ACTION, the remaining OPERABLE CREACS train is adequate to maintain the control room temperature within limits. However, the overall reliability is reduced because a failure in the OPERABLE CREACS train could result in a loss of CREACS function. The 30 day ACTION statement is based on the low probability of an event occurring requiring control room isolation, the consideration that the remaining train can provide the required capabilities, and alternate non-safety related cooling means that are available.

b.

With one CREVS train inoperable due to other than the loss of capability for automatic actuation on a high radiation signal, action must be taken to restore the OPERABLE status within 7 days. In this ACTION, the remaining OPERABLE CREVS train is adequate to perform the control room radiation protection function. However, the overall reliability is reduced because a failure in the OPERABLE CREVS train could result in loss of CREVS function. The 7 day ACTION statement is based on the low probability of a DBA occurring during this time period, and ability of the remaining train to provide the required capability. If automatic actuation on high radiation is lost, the ACTIONS of LOC 3.3.3.1 provide sufficient actions to ensure continued safe operation.

c.

With one CREVS train and one CREACS train inoperable, actions must be taken to restore the CREVS to an OPERABLE status within 7 days and to restore the CREACS train to an OPERABLE status within 30 days.

d.

If the control room boundary is inoperable in MODE 1, 2, 3, and 4, the CREVS trains cannot perform their intended functions. Actions must be taken to restore an OPERABLE control room boundary within 24 hours. During the period that the control room boundary is inoperable, appropriate compensatory measures (consistent with the intent of GDC 19) should be utilized to protect control room operators from potential hazards such as radioactivity, toxic chemicals, smoke, temperature and relative humidity, and physical security. Preplanned measures should be available to address these concerns for intentional and unintentional entry into the ACTION. The 24 hour ACTION statement is reasonable based on the low probability of a DBA occurring during this time period, and the use of compensatory measures. The 24 hour ACTION statement is a typically reasonable time to diagnose, plan and possibly repair, and test most problems with the control room boundary.

e.

With both trains of the ~~control room emergency ventilation and/or emergency air conditioning~~CREVS for reasons other than ACTION d and/or both trains of the CREACS inoperable, the function of the ~~control room emergency air~~ systems ~~have~~ has been lost, requiring immediate action to place the unit in a ~~condition~~ MODE where the specification does not apply. To achieve this status, the unit must be placed in at least MODE 3 within 6 hours and in MODE 5 within the following 30 hours. The allowed outage times are reasonable, based on operating experience, to reach the required unit conditions from full power conditions in an orderly manner and without challenging unit systems.

f.

If during handling of irradiated fuel, the system cannot be restored within 30 days, then either the OPERABLE CREACS train must be immediately placed in service or all activities involving the handling of irradiate fuel must be suspended. Placing the OPERABLE CREACS train in service ensures any active failure will be readily detected. The alternative to immediately suspend movement of irradiated fuel assemblies is acceptable since handling of irradiated fuel could release radioactivity that might require isolation of the control room. This places the unit in a condition that minimizes accident risk. This does not preclude the movement of fuel to a safe position.

g.

If during handling of irradiated fuel, the system cannot be restored within 7 days, then either the OPERABLE CREVS train must be immediately placed in emergency recirculation mode or all activities involving the handling of irradiate fuel must be suspended. Placing the OPERABLE CREVS train in emergency recirculation mode ensures that no failures preventing automatic actuation will occur, and that any active failure will be readily detected. The alternative to immediately suspend movement of irradiated fuel assemblies is acceptable since handling of irradiated fuel could release radioactivity that might require isolation of the control room. This places the unit in a condition that minimizes accident risk. This does not preclude the movement of fuel to a safe position.

h.

If during handling of irradiated fuel, one CREVS train and one CREACS train are inoperable, actions must be taken to restore the CREVS to an OPERABLE status within 7 daysor immediately place the OPERABLE CREVS in the emergency recirculation mode and actions must be taken to restore the CREACS train to an OPERABLE status within 30 days or immediately place the OPERABLE CREACS train in service. If these actions cannot be accomplished, then all activities involving the handling of irradiated fuel must be suspended. This does not preclude movement of fuel to a safe position.

i.

If during handling of irradiated fuel, both CREVS trains or both CREACS trains are inoperable, actions must be taken immediately to suspend movement of irradiated fuel assemblies since this is an activity that could release radioactivity that could enter the control room. This places the unit in a condition that minimizes the accident risk. This does not preclude movement of fuel to a safe position.

SURVEILLANCE REQUIREMENTS

SR 4.7.6.1.1 a. and b.

These SRs, in conjunction with periodic preventative maintenance activities, provide verification that the CREACS will maintain the control room temperature within acceptable bound. SR 4.7.6.1.1.a is performed on a STAGGERED TEST BASIS with one train being tested every two weeks. The frequencies (31 days and 18 months) are appropriate as periodic preventative maintenance activities are routinely performed and significant degradation of the CREACS is not expected over these time periods.

SR 4.7.6.1.2.a

Standby systems should be checked periodically to ensure that they function properly. As the environment and normal operating conditions on this system are not severe, testing each train once every month adequately checks this system. This test is conducted on alternating trains on a STAGGERED TEST BASIS with one train being tested every two weeks by starting the system from the control room and initiating flow through the HEPA filters and charcoal adsorbers. The CREVS is designed without heaters and need only be operated at least 15 minutes to demonstrate the function of the system. The 31 day frequency is based on the known reliability of the equipment and two train redundancy available.

SR 4.7.6.1.2.b

This SR verifies that upon injection of an actual or simulated control room high radiation test signal the Control Room automatically isolates within 10 seconds and the CREVS switches into a recirculation mode of operation with flow through the HEPA filters and charcoal adsorber banks. The frequency of 18 months is consistent with the guidance provided in Regulatory Guide 1.52.

SR 4.7.6.1.2.c

This SR verifies that the required CREVS testing is performed in accordance with the Ventilation Filter Testing Program (VFTP). The VFTP includes testing HEPA filter performance, charcoal adsorber efficiency, minimum system flow rate, and the physical properties of the activated charcoal. Specific test frequencies and additional information are discussed in detail in the VFTP.

SR 4.7.6.1.2.d and SR 4.7.6.1.2.e

These SRs verify the ability of the CREVS to provide outside air at a flow rate consistent with their safety function to protect the operator from radiological exposure by minimizing unfiltered air in-leakage in the event of an accident. Many factors must be taken into account to determine the overall expected dose consequences for control room personnel during various off-normal events. The CREVS makeup airflow and filter efficiency are two of the factors that must be considered. Makeup airflow, which is filtered outside air, is drawn into the control room recirculated airflow to pressurize the control room in order to reduce the potential for unfiltered in-leakage. The flow verification ensures that an assumed amount of makeup air is available to account for boundary leak paths. The flowrate verification is consistent with SRP Section 6.4 (Reference 4) for those control rooms having a design makeup rate of $\geq$ 0.5 volume changes per hour. Due to design variations between the filter trains, the acceptance criteria for each train are different. SR 3.7.9.4 verifies VSF-9 makeup air flow accounting for a separate makeup air filter in the acceptance criteria. SR 3.7.9.5 verifies 2VSF-9 makeup air flow which is based on expected flow rates through the flow path. The Frequency of 18 months is considered adequate to detect any degradation of the outside air flow rate before it is reduced to a point at which sufficient pressurization will not occur.

~~The control room emergency ventilation system consists of two independent filter and fan trains, two independent actuation channels and the Control Room isolation dampers. The control room dampers isolate the control room within 10 seconds of receipt of a high radiation signal.~~

~~If the actuation signal can not start the emergency ventilation recirculation fan, operating the affected fan in the manual recirculation mode and isolating the control room isolation dampers provides the required design function of the control room emergency ventilation system to isolate the combined control rooms to ensure that the control rooms will remain habitable for operations personnel during and following accident conditions. This contingency action should be put in place immediately (within 1 hour) to fully satisfy the design functions of the control room emergency ventilation system.~~

~~The control room emergency air conditioning system (CREACS) provides temperature control for the control room following isolation of the control room. It is manually started from the Unit 2 Control Room. The CREACS consists of two independent and redundant trains that provide cooling of recirculated control room air. A cooling coil and a water cooled condensing unit are provided for each system to provide suitable temperature conditions in the control room for operating personnel and safety related control equipment.~~

~~The actions associated with the control room emergency ventilation and air conditioning systems ensure that the remaining train is OPERABLE, that no failures preventing automatic actuation will occur, and that any active failure will be readily detected. Fuel handling is suspended if neither train is OPERABLE or if the actions cannot be applied. Suspending fuel handling activities acts to place the unit in a condition that minimizes the accident risk. This does not preclude the movement of fuel assemblies to a safe position.~~

Attachment 4

2CAN060303

List of Regulatory Commitments

List of Regulatory Commitments

The following table identifies those actions committed to by Entergy in this document. Any other statements in this submittal are provided for information purposes and are not considered to be regulatory commitments.

<table>
<tr><th rowspan="2">COMMITMENT</th><th colspan="2">TYPE
(Check one)</th><th rowspan="2">SCHEDULED COMPLETION DATE (If Required)</th></tr>
<tr><th>ONE-TIME ACTION</th><th>CONTINUING COMPLIANCE</th></tr>
<tr><td>The details of the Diesel Fuel Oil Testing Program (DFOTP) will be maintained in site procedures and the details of the Ventilation Filter Testing Program (VFTP) will be relocated to the TRM. A description of the programs will be incorporated into the Administrative Controls section 6.0.</td><td>X</td><td></td><td>Upon implementation</td></tr>
<tr><td>The details of design or process which are not directly pertinent to the actual requirement, i.e., Definition, Limiting Condition for Operation, or Surveillance Requirement, but rather describe additional unnecessary details such as an acceptable method of compliance will be relocated as follows.
<u>CTS Location</u>   <u>New Location</u>
4.7.6.1.2.a   Bases, SR 4.7.6.1.2.a
4.7.6.1.2.d.2   Bases, SR 4.7.6.1.2.b
6.9.1.1   TRM
6.9.1.2   TRM
6.9.1.3   TRM</td><td>X</td><td></td><td>Upon implementation</td></tr>
<tr><td>Compliance details relating to the plant specific management position titles fulfilling the duties of generic positions will continue to be defined, established, documented, and updated in the ANO-2 Safety Analysis Report (SAR).</td><td></td><td>X</td><td></td></tr>
</table>

Attachment 5

2CAN060303

Proposed Technical Specification Changes (clean pages)

UNITED STATES
NUCLEAR REGULATORY COMMISSION
WASHINGTON, D.C. 20555-0001

ENTERGY ARKANSAS, INC.

ENTERGY OPERATIONS, INC.

DOCKET NO. 50-368

ARKANSAS NUCLEAR ONE, UNIT 2

FACILITY OPERATING LICENSE

License No. NPF-6

1. The Nuclear Regulatory Commission (the Commission) having found that:

   A. The issuance of this license to Entergy Arkansas, Inc. complies with the standards and requirements of the Atomic Energy Act of 1954, as amended (the Act), and the Commission's regulations set forth in 10 CFR Chapter I;

   B. Construction of Arkansas Nuclear One, Unit 2 (the facility) has been substantially completed in conformity with Construction Permit No. CPPR-89 and the application, as amended, the provisions of the Act and the regulations of the Commission;

   C. The facility requires exemptions from certain requirements of (1) Sections 50.55a(g)(2) and 50.55a(g)(4) of 10 CFR Part 50, (2) Appendices G and H to 10 CFR Part 50 and (3) Appendix J to 10 CFR Part 50 for a period of three years. These exemptions are described in the Office of Nuclear Reactor Regulation's safety evaluations supporting the granting of these exemptions which are enclosed in the letter transmitting this license amendment. These exemptions are authorized by law and will not endanger life or property or the common defense and security and are otherwise in the public interest. The exemptions are, therefore, hereby granted. With the granting of these exemptions, the facility will operate in conformity with the application, as amended, the provisions of the Act, and the regulations of the Commission;

   D. There is reasonable assurance: (i) that the activities authorized by this operating license can be conducted without endangering the health and safety of the public, and (ii) that such activities will be conducted in compliance with the regulations of the Commission;

   E. Entergy Operations, Inc. (EOI)* is technically and financially qualified to engage is the activities authorized by this operating license in accordance with the regulations of the Commission;

F. Entergy Arkansas, Inc. has satisfied the applicable provisions of 10 CFR Part 140, "Financial Protection Requirements and Indemnity Agreements," of the Commission's regulations;

G. The issuance of this amended operating license will not be inimical to the common defense and security or to the health and safety of the public;

H. After weighing the environmental, economic, technical and other benefits of the facility against environmental and other costs and considering available alternatives, the issuance of Facility Operating License No. NPF-6 subject to the conditions for protection of the environment set forth herein, is in accordance with 10 CFR Part 51 (formerly Appendix D to 10 CFR Part 50) of the Commission's regulations and all applicable requirements have been satisfied; and

I. The receipt, possession, and use of source, byproduct and special nuclear material as authorized by this license will be in accordance with the Commission's regulations in 10 CFR Parts 30, 40 and 70, including 10 CFR Sections 30.33, 40.32, 70.23 and 70.31.

2. Facility Operating License No. NPF-6 is hereby issued to Entergy Arkansas, Inc. and Entergy Operations, Inc. to read as follows:

A. This amended license applies to Arkansas Nuclear One, Unit 2, a pressurized water reactor and associated equipment (the facility) owned by Entergy Arkansas, Inc. The facility is located in Pope County, Arkansas and is described in the Final Safety Analysis Report as supplemented and amended (Amendments 20 through 47) and the Environmental Report as supplemented and amended (Amendments 1 through 7).

B. Subject to the Conditions and requirements incorporated herein, the Commission hereby licenses;

(1) Entergy Arkansas, Inc. pursuant to Section 103 of the Act and 10 CFR Part 50, to possess but not operate the facility at the designated location in Pope County, Arkansas in accordance with the procedures and limitations set forth in this license.

(2) EOI, pursuant to Section 103 of the Act and 10 CFR Part 50, "Licensing of Production and Utilization Facilities," to possess, use, and operate the facility at the designated location in Pope County, Arkansas in accordance with the procedures and limitations set forth in this amended license;

(3) EOI, pursuant to the Act and 10 CFR Part 70, to receive, possess and use at any time at the facility site and as designated solely for the facility, special nuclear material as reactor fuel, in accordance with the limitations for storage and amounts required for reactor operation, as described in the Final Safety Analysis Report, as supplemented and amended;

3.9	Protection of Redundant Cables in the Lower South Electrical Penetration Room (2111-T)	September 30, 1978
3.10	Protection of Safe Shutdown Cables in the Upper South Piping Penetration Room (2084-DD)	September 30, 1978
3.11	Protection of Redundant Reactor Protection System Cables (2136-I)	*, **
3.12	Fire Dampers	September 30, 1978
3.13	Portable Extinguisher for the Control Room (2199-J)	November 15, 1978
3.14	Smoke Detectors	*, **
3.15	Manual Hose Stations (2055-JJ, 2084-DD, Containment, Elev. 317' of Auxiliary Building)	*, **
3.16	Portable Smoke Exhaust Equipment	December 1, 1978
3.17	Emergency Lighting	December 1, 1978
3.18	Reactor Coolant Pump Oil Collection System	*
3.19	Control of Fire Doors	March 31, 1979
3.20	Administrative Control Changes	December 1, 1978

(Numbers in parentheses refer to fire zone designations in the AP&L fire hazards analysis.)

* Prior to startup following the first regularly scheduled refueling outage.

** Technical Specifications covering these items should be proposed not later than 90 days prior to implementation.

2.C.(3)(f) Deleted per Amendment 24, 6/19/81.

2.C.(3)(g) Deleted per Amendment 93, 4/25/89.

2.C.(3)(h) Deleted per Amendment 29, (3/4/82) and its correction letter, (3/15/82).

(i) <u>Containment Radiation Monitor</u>

AP&L shall, prior to July 31, 1980 submit for Commission review and approval documentation which establishes the adequacy of the qualifications of the containment radiation monitors located inside the containment and shall complete the installation and testing of these instruments to demonstrate that they meet the operability requirements of Technical Specification No. 3.3.3.6.

2.C.(3)(j) Deleted per Amendment 7, 12/1/78.

2.C.(3)(k) Deleted per Amendment 12, 6/12/79 and Amendment No. 31, 5/12/82.

2.C.(3)(l) Deleted per Amendment 24, 6/19/81.

2.C.(3)(m) Deleted per Amendment 12, 6/12/79.

2.C.(3)(n) Deleted per Amendment 7, 12/1/78.

2.C.(3)(o) Deleted per Amendment 7, 12/1/78.

2.C.(3)(p) Deleted per Amendment

2.C.(4) (Number has never been used.)

2.C.(5) Deleted per Amendment.

2.C.(6) Deleted per Amendment.

2.C.(7) Deleted per Amendment 78, 7/22/86.

(8) Antitrust Conditions

EOI shall not market or broker power or energy from Arkansas Nuclear One, Unit 2. Entergy Arkansas, Inc. is responsible and accountable for the actions of its agents to the extent said agent's actions affect the marketing or brokering of power or energy from ANO, Unit 2.

(9) Rod Average Fuel Burnup

Entergy Operations is authorized to operate the facility with an individual rod average fuel burnup (burnup averaged over the length of a fuel rod) not to exceed 60 megawatt-days/kilogram or uranium.

D. Physical Protection

EOI shall fully implement and maintain in effect all provisions of the Commission-approved physical security, guard training and qualification, and safeguards contingency plans, including amendments made pursuant to provisions of the Miscellaneous Amendments and Search Requirements revisions to 10 CFR 73.55 (51 FR 27817 and 27822) and to the authority of 10 CFR 50.90 and 10 CFR 50.54(p). The plan, which contains Safeguards Information protected under 10 CFR 73.21, is entitled: "Arkansas Nuclear One Industrial Security Plan," with revisions submitted through August 4, 1995. The Industrial Security Plan also includes the requirements for guard training and qualification in Appendix A of the safeguards contingency events in Chapter 7. Changes made in accordance with 10 CFR 73.55 shall be implemented in accordance with the schedule set forth therein.

DEFINITIONS

SECTION PAGE

1.0 DEFINITIONS

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SAFETY LIMITS AND LIMITING SAFETY SYSTEMS SETTINGS

SECTION PAGE

2.1 SAFETY LIMITS

2.2 LIMITING SAFETY SYSTEM SETTINGS

BASES

SECTION PAGE

2.1 SAFETY LIMITS

2.2 LIMITING SAFETY SYSTEM SETTINGS

LIMITING CONDITIONS FOR OPERATION AND SURVEILLANCE REQUIREMENTS

BASES

BASES

ADMINISTRATIVE CONTROLS

CHANNEL FUNCTIONAL TEST

1.11 A CHANNEL FUNCTIONAL TEST shall be:

a. Analog channels – The injection of a simulated signal into the channel as close to the sensor as practicable to verify OPERABILITY including alarm and/or trip functions.

b. Bistable channels – The injection of a simulated signal into the sensor to verify OPERABILITY including alarm and/or trip functions.

c. Digital computer channels – The exercising of the digital computer hardware using diagnostic programs and the injection of simulated process data into the channel to verify OPERABILITY.

CORE ALTERATION

1.12 CORE ALTERATION shall be the movement or manipulation of any fuel, sources, or reactivity control components within the reactor vessel with the vessel head removed and fuel in the vessel. Suspension of CORE ALTERATION shall not preclude completion of movement of a component to a safe conservative position.

SHUTDOWN MARGIN

1.13 SHUTDOWN MARGIN shall be the instantaneous amount of reactivity by which the reactor is subcritical or would be subcritical from its present condition assuming all control element assemblies are fully inserted except for the single assembly of highest reactivity worth which is assumed to be fully withdrawn.

IDENTIFIED LEAKAGE

1.14 IDENTIFIED LEAKAGE shall be:

a. Leakage (except controlled leakage) into closed systems, such as pump seal or valve packing leaks that are captured, and conducted to a sump or collecting tank, or

b. Leakage into the containment atmosphere from sources that are both specifically located and known either not to interfere with the operation of leakage detection systems or not to be PRESSURE BOUNDARY LEAKAGE, or

c. Reactor coolant system leakage through a steam generator to the secondary system.

UNIDENTIFIED LEAKAGE

1.15 UNIDENTIFIED LEAKAGE shall be all leakage which is not IDENTIFIED LEAKAGE or controlled leakage.

PRESSURE BOUNDARY LEAKAGE

1.16 PRESSURE BOUNDARY LEAKAGE shall be leakage (except steam generator tube leakage) through a non-isolable fault in a Reactor Coolant System component body, pipe wall or vessel wall.

AZIMUTHAL POWER TILT – T_q

1.17 AZIMUTHAL POWER TILT shall be the power asymmetry between azimuthally symmetric fuel assemblies.

DOSE EQUIVALENT I-131

1.18 DOSE EQUIVALENT I-131 shall be that concentration of I-131 (μCi/gram) which alone would produce the same thyroid dose as the quantity and isotopic mixture of I-131, I-132, I-133, I-134 and I-135 actually present. The thyroid dose conversion factors used for this calculation shall be those listed in Table III of TID-14844, "Calculation of Distance Factors for Power and Test Reactor Sites."

$\bar{E}$ - AVERAGE DISINTEGRATION ENERGY

1.19 $\bar{E}$ shall be the average (weighted in proportion to the concentration of each radionuclide in the reactor coolant at the time of sampling) of the sum of the average beta and gamma energies per disintegration (in MEV) for isotopes, other than iodines, with half lives greater than 15 minutes, making up at least 95% of the total non-iodine activity in the coolant.

STAGGERED TEST BASIS

1.20 A STAGGERED TEST BASIS shall consist of:

a. A test schedule for n systems, subsystems, trains or other designated components obtained by dividing the specified test interval into n equal subintervals, and

b. The testing of one system, subsystem, train or other designated component at the beginning of each subinterval.

FREQUENCY NOTATION

1.21 The FREQUENCY NOTATION specified for the performance of Surveillance Requirements shall correspond to the intervals defined in Table 1.2.

MEMBER(S) OF THE PUBLIC

1.29 MEMBER(S) OF THE PUBLIC shall include all persons who are not occupationally associated with the plant. This category does not include employees of the utility, its contractors or vendors. Also excluded from this category are persons who enter the site to service equipment or to make deliveries. This category does include persons who use portions of the site for recreational, occupational or other purposes not associated with the plant.

PURGE – PURGING

1.30 PURGE or PURGING is the controlled process of discharging air or gas from a confinement to reduce airborne radioactive concentrations in such a manner that replacement air or gas is required to purify the confinement.

EXCLUSION AREA

1.31 The EXCLUSION AREA is that area surrounding ANO within a minimum radius of .65 miles of the reactor buildings and controlled to the extent necessary by the licensee for purposes of protection of individuals from exposure to radiation and radioactive materials.

UNRESTRICTED AREA

1.32 An UNRESTRICTED AREA shall be any area at or beyond the exclusion area boundary.

CORE OPERATING LIMITS REPORT

1.33 The CORE OPERATING LIMITS REPORT is the ANO-2 specific document that provides core operating limits for the current operating reload cycle. These cycle-specific core operating limits shall be determined for each reload cycle in accordance with Technical Specification 6.6.5. Plant operation within these operating limits is addressed in individual specifications.

BORON DILUTION

LIMITING CONDITION FOR OPERATION

3.1.1.3 The flow rate of reactor coolant through the reactor coolant system shall be ≥ 2000 gpm whenever a reduction in Reactor Coolant System boron concentration is being made.

APPLICABILITY: ALL MODES.

ACTION:

With the flow rate of reactor coolant through the reactor coolant system < 2000 gpm, immediately suspend all operations involving a reduction in boron concentration of the Reactor Coolant System.

SURVEILLANCE REQUIREMENTS

4.1.1.3 The flow rate of reactor coolant through the reactor coolant system shall be determined to be ≥ 2000 gpm within one hour prior to the start of and at least once per hour during a reduction in the Reactor Coolant System boron concentration by either:

a. Verifying at least one reactor coolant pump is in operation, or

b. Verifying that at least one low pressure safety injection pump or containment spray pump is in operation as a shutdown cooling pump and supplying ≥ 2000 gpm through the reactor coolant system.

RADIAL PEAKING FACTORS

LIMITING CONDITION FOR OPERATION

3.2.2 The measured PLANAR RADIAL PEAKING FACTORS (F_{xy}^{m}) shall be less than or equal to the PLANAR RADIAL PEAKING FACTORS (F_{xy}^{c}) used in the Core Operating Limit Supervisory System (COLSS) and in the Core Protection Calculators (CPC).

APPLICABILITY: MODE 1 above 20% of RATED THERMAL POWER*

ACTION:

With a F_{xy}^{m} exceeding a corresponding F_{xy}^{c}, within 6 hours either:

a. Adjust the CPC addressable constants to increase the multiplier applied to PLANAR RADIAL PEAKING FACTOR by a factor equivalent to $\geq F_{xy}^{m} / F_{xy}^{c}$ and restrict subsequent operation so that a margin to the COLSS operating limits of at least $[(F_{xy}^{m}/F_{xy}^{c}) - 1.0] \times 100\%$ is maintained; or

b. Adjust the affected PLANAR RADIAL PEAKING FACTORS (F_{xy}^{c}) used in the COLSS and CPC to a value greater than or equal to the measured PLANAR RADIAL PEAKING FACTORS (F_{xy}^{m}); or

c. Be in at least HOT STANDBY.

SURVEILLANCE REQUIREMENTS

4.2.2.1 The provisions of Specification 4.0.4 are not applicable.

4.2.2.2 The measured PLANAR RADIAL PEAKING FACTORS (F_{xy}^{m}), obtained by using the incore detection system, shall be determined to be less than or equal to the PLANAR RADIAL PEAKING FACTORS (F_{xy}^{c}) used in the COLSS and CPC at the following intervals:

a. After each fuel loading with THERMAL POWER greater than 40% but prior to operation above 70% of RATED THERMAL POWER, and

b. At least once per 31 days of accumulated operation in MODE 1.

* See Special Test Exception 3.10.2.

TABLE 3.3-1 (Continued)

ACTION STATEMENTS

ACTION 2 – With the number of channels OPERABLE one less than the Total Number of Channels, operation in the applicable MODES may continue provided the inoperable channel is placed in the bypassed or tripped condition within 1 hour. If the inoperable channel is bypassed for greater than 48 hours, the desirability of maintaining this channel in the bypassed condition shall be reviewed as soon as possible but no later than the next regularly scheduled OSRC meeting in accordance with the Quality Assurance Program Manual (QAPM). The channel shall be returned to OPERABLE status prior to startup following the next COLD SHUTDOWN.

With a channel process measurement circuit that affects multiple functional units inoperable or in test, bypass or trip all associated functional units as listed below.

Process Measurement Circuit	Functional Unit Bypassed
1. Linear Power (Subchannel or Linear)	Linear Power Level – High Local Power Density – High DNBR – Low Log Power Level – High*
2. Pressurizer Pressure – NR	Pressurizer Pressure – High Local Power Density – High DNBR – Low
3. Containment Pressure – NR	Containment Pressure – High (RPS) Containment Pressure – High (ESFAS) Containment Pressure – High-High (ESFAS)
4. Steam Generator 1 Pressure	Steam Generator 1 Pressure – Low Steam Generator 1 ΔP (EFAS 1) Steam Generator 2 ΔP (EFAS 2)
5. Steam Generator 2 Pressure	Steam Generator 2 Pressure – Low Steam Generator 1 ΔP (EFAS 1) Steam Generator 2 ΔP (EFAS 2)
6. Steam Generator 1 Level	Steam Generator 1 Level – Low Steam Generator 1 ΔP (EFAS 1)
7. Steam Generator 2 Level	Steam Generator 2 Level – Low Steam Generator 2 ΔP (EFAS 2)
8. Core Protection Calculator	Local Power Density – High DNBR – Low

* Only for failure common to both linear power and log power.

TABLE 3.3-3 (Continued)

TABLE NOTATION

(a) Trip function may be bypassed in this MODE when pressurizer pressure is below 400 psia; bypass shall be automatically removed before pressurizer pressure exceeds 500 psia.

(b) An SIAS signal is first necessary to enable CSAS logic.

(c) Remote manual not provided for RAS. These are local manuals at each ESF auxiliary relay cabinet.

ACTION STATEMENTS

ACTION 9 – With the number of OPERABLE channels one less than the Total Number of Channels, restore the inoperable channel to OPERABLE status within 48 hours or be in at least HOT STANDBY within the next 6 hours and in COLD SHUTDOWN within the following 30 hours.

ACTION 10 – With the number of channels OPERABLE one less than the Total Number of Channels, operation in the applicable MODES may continue provided the inoperable channel is placed in the bypassed or tripped condition within 1 hour. If the inoperable channel is bypassed for greater than 48 hours, the desirability of maintaining this channel in the bypassed condition shall be reviewed as soon as possible but no later than the next regularly scheduled OSRC meeting in accordance with the Quality Assurance Program Manual (QAPM). The channel shall be returned to OPERABLE status prior to startup following the next COLD SHUTDOWN.

If an inoperable Steam Generator ΔP or RWT Level – Low channel is placed in the tripped condition, remove the inoperable channel from the tripped condition within 48 hours or be in at least HOT STANDBY within the next 6 hours and in COLD SHUTDOWN within the following 30 hours.

With a channel process measurement circuit that affects multiple functional units inoperable or in test, bypass or trip all associated functional units as listed below.

Process Measurement Circuit	Functional Unit Bypassed
1. Containment Pressure – NR	Containment Pressure – High (RPS) Containment Pressure – High (ESFAS) Containment Pressure – High-High (ESFAS)
2. Steam Generator 1 Pressure	Steam Generator 1 Pressure – Low Steam Generator 1 ΔP (ESFAS 1) Steam Generator 2 ΔP (ESFAS 2)
3. Steam Generator 2 Pressure	Steam Generator 2 Pressure – Low Steam Generator 1 ΔP (ESFAS 1) Steam Generator 2 ΔP (ESFAS 2)
4. Steam Generator 1 Level	Steam Generator 1 Level – Low Steam Generator 1 ΔP (EFAS 1)
5. Steam Generator 2 Level	Steam Generator 2 Level – Low Steam Generator 2 ΔP (EFAS 2)

TABLE 3.3-4

ENGINEERED SAFETY FEATURE ACTUATION SYSTEM INSTRUMENTATION TRIP VALUES

FUNCTIONAL UNIT	TRIP SETPOINT	ALLOWABLE VALUES
1. SAFETY INJECTION (SIAS)		
a. Manual (Trip Buttons)	Not Applicable	Not Applicable
b. Containment Pressure – High	≤ 18.3 psia	≤ 18.490 psia
c. Pressurizer Pressure – Low	≥ 1650 psia (1)	≥ 1618.9 psia
2. CONTAINMENT SPRAY (CSAS)		
a. Manual (Trip Buttons)	Not Applicable	Not Applicable
b. Containment Pressure – High-High	≤ 23.3 psia	≤ 23.490 psia
3. CONTAINMENT ISOLATION (CIAS)		
a. Manual (Trip Buttons)	Not Applicable	Not Applicable
b. Containment Pressure – High	≤ 18.3 psia	≤ 18.490 psia

TABLE 3.3-4 (Continued)

ENGINEERED SAFETY FEATURE ACTUATION SYSTEM INSTRUMENTATION TRIP VALUES

FUNCTIONAL UNIT	TRIP SETPOINT	ALLOWABLE VALUES
4. MAIN STEAM AND FEEDWATER ISOLATION (MSIS)		
a. Manual (Trip Buttons)	Not Applicable	Not Applicable
b. Steam Generator Pressure – Low	≥ 751 psia (2)	≥ 738.6 psia (2)
5. CONTAINMENT COOLING (CCAS)		
a. Manual (Trip Buttons)	Not Applicable	Not Applicable
b. Containment Pressure – High	≤ 18.3 psia	≤ 18.490 psia
c. Pressurizer Pressure – Low	≥ 1650 psia	≥ 1618.9 psia
6. RECIRCULATION (RAS)		
a. Manual (Trip Buttons)	Not Applicable	Not Applicable
b. Refueling Water Tank – Low	6.0 ± 0.5% indicated level	between 5.111% and 6.889% indicated level
7. LOSS OF POWER		
a. 4.16 kv Emergency Bus Undervoltage	(4)	2300 ± 699 volts with a 0.64 ± 0.34 second time delay
b. 460 volt Emergency Bus Undervoltage	(4)	429.6 ± 6.4 volts with an 8.0 ± 1.0 second time delay

TABLE 3.3-4 (Continued)

ENGINEERED SAFETY FEATURE ACTUATION SYSTEM INSTRUMENTATION TRIP VALUES

FUNCTIONAL UNIT	TRIP SETPOINT	ALLOWABLE VALUES
8. EMERGENCY FEEDWATER (EFAS)		
a. Manual (Trip Buttons)	Not Applicable	Not Applicable
b. Steam Generator (A&B) Level – Low	≥ 22.2% (3)	≥ 21.5% (3)
c. Steam Generator ∆P– High (SG-A > SG-B)	≤ 90 psi	≤ 99.344 psi
d. Steam Generator ∆P– High (SG-B > SG-A)	≤ 90 psi	≤ 99.344 psi
e. Steam Generator (A&B) Pressure – Low	≥ 751 psia (2)	≥ 738.6 psia (2)

(1) Value may be decreased manually, to a minimum of ≥ 100 psia, during a planned reduction in pressurizer pressure, provided the margin between the pressurizer pressure and this value is maintained at ≤ 200 psi; the setpoint shall be increased automatically as pressurizer pressure is increased until the trip set-point is reached. Trip may be manually bypassed below 400 psia; bypass shall be automatically removed before pressurizer pressure exceeds 500 psia.

(2) Value may be decreased manually during a planned reduction in steam generator pressure, provided the margin between the steam generator pressure and this value is maintained at ≤ 200 psi; the setpoint shall be increased automatically as steam generator pressure is increased until the trip setpoint is reached.

(3) % of the distance between steam generator upper and lower narrow range level instrument nozzles.

(4) The trip value for this function is listed in the surveillance test procedures. The trip value will ensure that adequate protection is provided when all the applicable calibration tolerances, channel uncertainties, and time delays are taken into account.

(Next Page is 3/4 3-21)

INSTRUMENTATION

3/4.3.3 MONITORING INSTRUMENTATION

RADIATION MONITORING INSTRUMENTATION

LIMITING CONDITION FOR OPERATION

3.3.3.1 The radiation monitoring instrumentation channels shown in Table 3.3-6 shall be OPERABLE with their alarm/trip setpoints within the specified limits.

APPLICABILITY: As shown in Table 3.3-6.

ACTION:

a. With a radiation monitoring channel alarm/trip setpoint exceeding the value shown in Table 3.3-6, adjust the setpoint to within the limit within 4 hours or declare the channel inoperable.

b. With one or more radiation monitoring channels inoperable, take the ACTION shown in Table 3.3-6.

c. The provisions of Specification 3.0.3 are not applicable.

SURVEILLANCE REQUIREMENTS

4.3.3.1 Each radiation monitoring instrumentation channel shall be demonstrated OPERABLE by the performance of the CHANNEL CHECK, CHANNEL CALIBRATION and CHANNEL FUNCTIONAL TEST operations during the modes and at the frequencies shown in Table 4.3-3.

TABLE 3.3-6

RADIATION MONITORING INSTRUMENTATION

INSTRUMENT	MINIMUM CHANNELS OPERABLE	APPLICABLE MODES	ALARM/TRIP SETPOINT	MEASUREMENT RANGE	ACTION
1. AREA MONITORS					
a. Spent Fuel Pool Area Monitor	1	Note 1	$\leq 1.5\text{x}10^{-2}$ R/hr	$10^{-4} - 10^{1}$ R/hr	13
b. Containment High Range	2	1, 2, 3, & 4	Not Applicable	$1 - 10^{7}$ R/hr	18
2. PROCESS MONITORS					
a. Containment Purge and Exhaust Isolation	1	5 & 6	$\leq$ 2 x background	$10 - 10^{6}$ cpm	16
b. Control Room Ventilation Intake Duct Monitors	2	Note 2	$\leq$ 2 x background	$10 - 10^{6}$ cpm	17, 20, 21
c. Main Steam Line Radiation Monitors	1/Steam Line	1, 2, 3, & 4	Not Applicable	$10^{-1} - 10^{4}$ mR/hr	19

Note 1 - With fuel in the spent fuel pool or building.
Note 2 - MODES 1, 2, 3, 4, and during handling of irradiated fuel.

TABLE 3.3-6 (Continued)

TABLE NOTATION

ACTION 13 – With the number of channels OPERABLE less than required by the Minimum Channels OPERABLE requirement, perform area surveys of the monitored area with portable monitoring instrumentation at least once per 24 hours.

ACTION 16 – With the number of OPERABLE channels one less than the Minimum Channels OPERABLE requirement, complete the following:

a. If performing CORE ALTERATIONS or moving irradiated fuel within the reactor building, secure the containment purge system or suspend CORE ALTERATIONS and movement of irradiated fuel within the reactor building.

b. If a containment PURGE is in progress, secure the containment purge system.

c. If continuously ventilating, verify the SPING monitor operable or perform the ACTIONS of the Offsite Dose Calculation Manual, Appendix 2,Table 2.2-1, or secure the containment purge system.

ACTION 17 – In MODE 1, 2, 3, or 4, with no channels OPERABLE, within 1 hour initiate and maintain operation of the control room emergency ventilation system (CREVS) in the recirculation mode of operation or be in HOT STANDBY within the next 6 hours and COLD SHUTDOWN in the following 30 hours.

ACTION 18 – With the number of channels OPERABLE one less than required by the Minimum Channels OPERABLE requirement, (1) either restore the inoperable channel to OPERABLE status within 7 days or (2) prepare and submit a Special Report to the NRC within 30 days following the event, outlining the action taken, the cause of the inoperability, and the plans and schedule for restoring the system to OPERABLE status. With both channels inoperable, initiate alternate methods of monitoring the containment radiation level within 72 hours in addition to the actions described above.

ACTION 19 – With the number of OPERABLE Channels less than required by the Minimum Channels OPERABLE requirements, initiate the preplanned alternate method of monitoring the appropriate parameter(s), within 72 hours, and:

1) either restore the inoperable Channel(s) to OPERABLE status within 7 days of the event, or

2) prepare and submit a Special Report to the NRC within 14 days following the event outlining the action taken, the cause of the inoperability and the plans and schedule for restoring the system to OPERABLE status.

ACTION 20 – In MODE 1, 2, 3, or 4 with the number of channels OPERABLE one less than required by the Minimum Channels OPERABLE requirement, within 7 days restore the inoperable channel to OPERABLE status or initiate and maintain the CREVS in the recirculation mode of operation. Otherwise, be in HOT STANDBY within the next 6 hours and COLD SHUTDOWN in the following 30 hours.

ACTION 21 - During handling of irradiated fuel with one or two channels inoperable, immediately place one OPERABLE CREVS train in the emergency recirculation mode or immediately suspend handling of irradiated fuel.

TABLE 4.3-3

RADIATION MONITORING INSTRUMENTATION SURVEILLANCE REQUIREMENTS

INSTRUMENT	CHANNEL CHECK	CHANNEL CALIBRATION	CHANNEL FUNCTIONAL TEST	MODES IN WHICH SURVEILLANCE REQUIRED
1. AREA MONITORS				
a. Spent Fuel Pool Area Monitor	S	R	M	Note 1
b. Containment High Range	S	R Note 4	M	1, 2, 3, & 4
2. PROCESS MONITORS				
a. Containment Purge and Exhaust Isolation	Note 2	R	Note 3	5 & 6
b. Control Room Ventilation Intake Duct Monitors	S	R	M Note 6	Note 5
c. Main Steam Line Radiation Monitors	S	R	M	1, 2, 3, & 4

Note 1 – With fuel in the spent fuel pool or building.
Note 2 – Within 8 hours prior to initiating containment purge operations and at least once per 12 hours during containment purge operations.
Note 3 – Within 31 days prior to initiating containment purge operations and at least once per 31 days during containment purge operations.
Note 4 – Acceptable criteria for calibration are provided in Table II.F.1-3 of NUREG-0737.
Note 5 – MODES 1, 2, 3, 4, and during handling of irradiated fuel.
Note 6 - When the Control Room Ventilation Intake Duct Monitor is placed in an inoperable status solely for performance of this Surveillance, entry into associated ACTIONS may be delayed up to 3 hours.

TABLE 3.3-9

REMOTE SHUTDOWN MONITORING INSTRUMENTATION

INSTRUMENT		READOUT LOCATION	MEASUREMENT RANGE	MINIMUM CHANNELS OPERABLE
1.	Logarithmic Neutron Channel	2C80	10^{-8} – 200%	1
2.	Startup Channel	2C80	1 – 10^{6} cps	1
3.	Reactor Trip Breaker Indication	-	OPEN-CLOSE	1/trip breaker
4.	Reactor Coolant Cold Leg Temperature	2C80	0 - 600°F	1
5.	Pressurizer Pressure	2C80	0 – 3000 psia	1
6.	Pressurizer Level	2C80	0 – 100%	1
7.	Steam Generator Pressure	2C80	0 – 1200 psia	1/steam generator
8.	Steam Generator Level	2C80 and Local (at EFW Valves Control)	0 – 100%	1/steam generator
9.	Shutdown Cooling Flow Rate	2C80	0 – 8000 gpm	1
10.	Condensate Storage Tank Level	2C80	0 – 100%	1

TABLE 4.3-6

REMOTE SHUTDOWN MONITORING INSTRUMENTATION SURVEILLANCE REQUIREMENTS

INSTRUMENT	CHANNEL CHECK	CHANNEL CALIBRATION
1. Logarithmic Neutron Channel	M	N.A.
2. Startup Channel	M	N.A.
3. Reactor Trip Breaker Indication	M	N.A.
4. Reactor Coolant Cold Leg Temperature	M	R
5. Pressurizer Pressure	M	R
6. Pressurizer Level	M	R
7. Steam Generator Level	M	R
8. Steam Generator Pressure	M	R
9. Shutdown Cooling Flow Rate	M	R
10. Condensate Storage Tank Level	M	R

TABLE 3.3-10

POST-ACCIDENT MONITORING INSTRUMENTATION

INSTRUMENT		MINIMUM CHANNELS OPERABLE	ACTION
1.	Containment Pressure (Normal Design Range)	2	1
2.	Containment Pressure (High Range)	2	2
3.	Pressurizer Pressure	2	1
4.	Pressurizer Water Level	2	1
5.	Steam Generator Pressure	2/steam generator	1
6.	Steam Generator Water Level	2/steam generator	1
7.	Refueling Water Tank Water Level	2	1
8.	Containment Water Level – Wide Range	2	2
9.	Emergency Feedwater Flow Rate	1/steam generator	1
10.	Reactor Coolant System Subcooling Margin Monitor	1	1
11.	Pressurizer Safety Valve Acoustic Position Indication	1/Valve	1
12.	Pressurizer Safety Valve Tail Pipe Temperature	1/Valve	1
13.	In Core Thermocouples (Core Exit Thermocouples)	2/core quadrant	1
14.	Reactor Vessel Level Monitoring System (RVLMS)	2	3, 4

TABLE 3.3-10 (cont'd)

POST-ACCIDENT MONITORING INSTRUMENTATION

Action 1: With the number of OPERABLE post-accident monitoring channels less than required by Table 3.3-10, either restore the inoperable channel to OPERABLE status within 30 days, or be in HOT SHUTDOWN within the next 12 hours.

Action 2: With the number of OPERABLE post-accident monitoring channels less than required by Table 3.3-10, either restore the inoperable channel to OPERABLE status within 30 days, or be in HOT SHUTDOWN within the next 12 hours.

If only one channel is inoperable and containment entry is required to restore the inoperable channel, the channel need not be restored until the following refueling outage.

Action 3: With the number of OPERABLE channels one less than the minimum number of channels required to be OPERABLE:

a. If repairs are feasible, restore the inoperable channel to OPERABLE status within 7 days or be in at least HOT SHUTDOWN within the next 12 hours.

b. If repair is not feasible without shutting down, operations may continue and a special report shall be submitted to the NRC within 30 days following the failure; describing the action taken, the cause of the inoperability, and the plans and schedule for restoring the channel to OPERABLE status during the next scheduled refueling outage.

Action 4: With the number of OPERABLE channels two less than the minimum channels required to be OPERABLE:

a. If repairs are feasible, restore at least one inoperable channel to OPERABLE status within 48 hours or be in at least HOT SHUTDOWN within the next 12 hours.

b. If repair is not feasible without shutting down, operation may continue and a special report shall be submitted to the NRC within 30 days following the failure; describing the action taken, the cause of the inoperability, and the plans and schedule for restoring the channels to OPERABLE status during the next scheduled refueling outage.

REACTOR COOLANT SYSTEM

STEAM GENERATORS

LIMITING CONDITION FOR OPERATION

3.4.5 Each steam generator shall be OPERABLE.

APPLICABILITY: MODES 1, 2, 3 and 4.

ACTION:

With one or more steam generators inoperable, restore the inoperable generator(s) to OPERABLE status prior to increasing Tavg above 200°F.

SURVEILLANCE REQUIREMENTS

4.4.5 Each steam generator shall be demonstrated OPERABLE in accordance with the Steam Generator Tube Surveillance Program.

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ECCS SUBSYSTEMS – $T_{avg} \geq 300°F$

LIMITING CONDITION FOR OPERATION

3.5.2 Two independent ECCS subsystems shall be OPERABLE with each subsystem comprised of:

a. One OPERABLE high-pressure safety injection pump,

b. One OPERABLE low-pressure safety injection pump, and

c. An independent OPERABLE flow path capable of taking suction from the refueling water tank on a Safety Injection Actuation Signal and automatically transferring suction to the containment sump on a Recirculation Actuation Signal.

APPLICABILITY: MODES 1, 2 and 3*.

ACTION:

a. With one ECCS subsystem inoperable, restore the inoperable subsystem to OPERABLE status within 72 hours or be in HOT SHUTDOWN within the next 12 hours.

b. In the event the ECCS is actuated and injects water into the Reactor Coolant System, a Special Report shall be prepared and submitted to the NRC within 90 days describing the circumstances of the actuation and the total accumulated actuation cycles to date.

SURVEILLANCE REQUIREMENTS

4.5.2 Each ECCS subsystem shall be demonstrated OPERABLE:

a. At least once per 12 hours by verifying that the following valves are in the indicated positions with power to the valve operators removed:

Valve Number	Valve Function	Valve Position
2CV-5101	HPSI Hot Leg Injection Isolation	Closed
2CV-5102	HPSI Hot Leg Injection Isolation	Closed
2BS26	RWT Return Line	Open

* With pressurizer pressure $\geq$ 1700 psia.

EMERGENCY CORE COOLING SYSTEMS

ECCS SUBSYSTEMS – T_{avg} < 300°F

LIMITING CONDITION FOR OPERATION

3.5.3 As a minimum, one ECCS subsystem comprised of the following shall be OPERABLE:

a. One OPERABLE high-pressure safety injection pump, and

b. An OPERABLE flow path capable of taking suction from the refueling water tank on a Safety Injection Actuation Signal and automatically transferring suction to the containment sump on a Recirculation Actuation Signal.

APPLICABILITY: MODES 3* and 4.

ACTION:

a. With no ECCS subsystem OPERABLE, restore at least one ECCS subsystem to OPERABLE status within 1 hour or be in COLD SHUTDOWN within the next 20 hours.

b. In the event the ECCS is actuated and injects water into the Reactor Coolant System, a Special Report shall be prepared and submitted to the NRC within 90 days describing the circumstances of the actuation and the total accumulated actuation cycles to date.

SURVEILLANCE REQUIREMENTS

4.5.3 The ECCS subsystem shall be demonstrated OPERABLE per the applicable Surveillance Requirements of 4.5.2.

* With pressurizer pressure < 1700 psia.

SURVEILLANCE REQUIREMENTS (Continued)

c. At least once per 18 months, during shutdown, by:

   1. Verifying that each automatic valve in the flow path actuates to its correct position on CSAS and RAS test signals.

   2. Verifying that upon a RAS test signal, the containment sump isolation valves open and that a recirculation mode flow path via an OPERABLE shutdown cooling heat exchanger is established.

   3. Verifying that each spray pump starts automatically on a CSAS test signal.

d. At least once per 5 years by performing an air or smoke flow test through each spray header and verifying each spray nozzle is unobstructed.

3/4.6.3 CONTAINMENT ISOLATION VALVES

LIMITING CONDITION FOR OPERATION

3.6.3.1 Each containment isolation valve shall be OPERABLE.*

APPLICABILITY: MODES 1, 2, 3 and 4.

ACTION:

With one or more isolation valve(s) inoperable, maintain at least one isolation valve OPERABLE in each affected penetration that is open and either:

a. Restore the inoperable valve(s) to OPERABLE status within 4 hours, or

b. Isolate each affected penetration within 4 hours by use of at least one deactivated automatic valve secured in the isolation position, or

c. Isolate the affected penetration within 4 hours by use of at least one closed manual valve or blind flange; or

d. Be in at least HOT STANDBY within the next 6 hours and in COLD SHUTDOWN within the following 30 hours.

SURVEILLANCE REQUIREMENTS

4.6.3.1.1 Each containment isolation valve shall be demonstrated OPERABLE prior to returning the valve to service after maintenance, repair or replacement work is performed on the valve or its associated actuator, control or power circuit by performance of a cycling test and verification of isolation time.

* Locked or sealed closed valves may be opened on an intermittent basis under administrative control.

SURVEILLANCE REQUIREMENTS (Continued)

4.6.3.1.2 Each containment isolation valve shall be demonstrated OPERABLE at least once per 18 months by verifying that on a containment isolation test signal, each isolation valve actuates to its isolation position.

4.6.3.1.3 The isolation time of each power operated or automatic containment isolation valve shall be determined to be within its limit when tested pursuant to the Inservice Testing Program.

4.6.3.1.4 The containment purge supply and exhaust isolation valves shall be demonstrated OPERABLE as specified in the Containment Leakage Rate Testing Program.

3/4.7.6 CONTROL ROOM EMERGENCY VENTILATION AND AIR CONDITIONING SYSTEM

LIMITING CONDITION FOR OPERATION

3.7.6.1 Two independent control room emergency ventilation and air conditioning systems shall be OPERABLE. (Note 1)

APPLICABILITY: MODES 1, 2, 3, 4, or during handling of irradiated fuel.

ACTION:

MODES 1, 2, 3, and 4

a. With one control room emergency air conditioning system inoperable, restore the inoperable system to OPERABLE status within 30 days or be in at least HOT STANDBY within the next 6 hours and in COLD SHUTDOWN within the following 30 hours.

b. With one control room emergency ventilation system inoperable, restore the inoperable system to OPERABLE status within 7 days or be in at least HOT STANDBY within the next 6 hours and in COLD SHUTDOWN within the following 30 hours.

c. With one control room emergency air conditioning system and one control room emergency ventilation system inoperable, restore the inoperable control room emergency ventilation system to OPERABLE status within 7 days and restore the inoperable control room emergency air conditioning system to OPERABLE status within 30 days or be in at least HOT STANDBY within the next 6 hours and in COLD SHUTDOWN within the following 30 hours.

d. With two control room emergency ventilation systems inoperable due to an inoperable control room boundary, restore the control room boundary to OPERABLE status within 24 hours or be in at least HOT STANDBY within the next 6 hours and in COLD SHUTDOWN within the following 30 hours.

e. With two control room emergency ventilation systems inoperable for reasons other than ACTION d or two control room emergency air conditioning systems inoperable, enter Specification 3.0.3.

During Handling of Irradiated Fuel

f. With one control room emergency air conditioning system inoperable, restore the inoperable system to OPERABLE status within 30 days or immediately place the OPERABLE system in operation; otherwise, suspend all activities involving the handling of irradiated fuel. The provisions of Specification 3.0.4 are not applicable.

g. With one control room emergency ventilation system inoperable, restore the inoperable system to OPERABLE status within 7 days or immediately place the control room in the emergency recirc mode of operation; otherwise, suspend all activities involving the handling of irradiated fuel. The provisions of Specification 3.0.4 are not applicable.

Note 1: The control room boundary may be open intermittently under administrative controls.

3/4.7.6 CONTROL ROOM EMERGENCY VENTILATION AND AIR CONDITIONING SYSTEM

LIMITING CONDITION FOR OPERATION

h. With one control room emergency air conditioning system and one control room emergency ventilation system inoperable:

1. restore the inoperable control room emergency ventilation system to OPERABLE status within 7 days or immediately place the control room in the emergency recirc mode of operation, and

2. restore the inoperable control room emergency air conditioning system to OPERABLE status within 30 days or immediately place the OPERABLE system in operation;

3. otherwise, suspend all activities involving the handling of irradiated fuel.

4. The provisions of Specification 3.0.4 are not applicable.

i. With both control room emergency air conditioning systems or both control room emergency ventilation systems inoperable, immediately suspend all activities involving the handling of irradiated fuel.

SURVEILLANCE REQUIREMENTS

4.7.6.1.1 Each control room emergency air conditioning system shall be demonstrated OPERABLE:

a. At least once per 31 days on a STAGGERED TEST BASIS by:

1. Starting each unit from the control room, and

2. Verifying that each unit operates for at least 1 hour and maintains the control room air temperature ≤ 84°F D.B.

b. At least once per 18 months by verifying a system flow rate of 9900 cfm ± 10%.

4.7.6.1.2 Each control room emergency air filtration system shall be demonstrated OPERABLE:

a. At least once per 31 days on a STAGGERED TEST BASIS by verifying that the system operates for at least 15 minutes.

b. At least once per 18 months by verifying that on a control room high radiation test signal, either actual or simulated, the system automatically isolates the control room and switches into a recirculation mode of operation.

c. By performing the required Control Room Emergency Ventilation filter testing in accordance with the Ventilation Filter Testing Program (VFTP).

d. At least once per 18 months verify VSF-9 makeup flow rate is ≥ 300 and ≤ 366 cfm when supplying the control room with outside air.

e. At least once per 18 months verify 2VSF-9 makeup flow rate is ≥ 418.5 and ≤ 511.5 cfm when supplying the control room with outside air.

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c. Visual Inspection Acceptance Criteria

Visual inspections shall verify that (1) there are no visible indications of damage or impaired OPERABILITY, and (2) attachments to the foundation or supporting structure are functional and (3) fastners for the attachment of the snubber to the component and to the snubber anchorage are functional. Snubbers which appear inoperable as a result of visual inspections shall be classified as inoperable and may be reclassified OPERABLE for the purpose of establishing the next visual inspection interval, providing that (1) the cause of the rejection is clearly established and remedied for that particular snubber and for other snubbers that may be generically susceptible; and (2) the affected snubber is functionally tested in the as found condition and determined OPERABLE per Specifications 4.7.8.d or 4.7.8.e, as applicable. However, when the fluid port of a hydraulic snubber is found to be uncovered, the snubber shall be determined inoperable and cannot be determined OPERABLE via functional testing for the purpose of establishing the next visual inspection interval. All snubbers connected to a common hydraulic fluid reservoir shall be evaluated for operability if any snubber connected to that reservoir is determined to be inoperable.

d. Functional Tests

At least once each refueling shutdown a representative sample of snubbers shall be tested using the following sample plan.

At least 10% of the snubbers required by Specification 3.7.8 shall be functionally tested either in place or in bench test. For each snubber that does not meet the functional test acceptance criteria of Specification 4.7.8.e, an additional 10% of the snubbers shall be functionally tested until no more failures are found or until all snubbers have been functionally tested.

The representative samples for the functional test sample plans shall be randomly selected from the snubbers required by Specification 3.7.8 and reviewed before beginning the testing. The review shall ensure as far as practical that they are representative of the various configurations, operating environments, range of sizes, and capacities. Snubbers placed in the same locations as snubbers which failed the previous functional test shall be retested at the

If any snubber selected for functional testing either fails to activate or fails to move, i.e., frozen-in-place, the cause will be evaluated and, if caused by manufacturer or design deficiency, all snubbers of the same type subject to the same defect shall be evaluated in a manner to ensure their OPERABILITY. This requirement shall be independent of the requirements stated in Specification 4.7.8.d for snubbers not meeting the functional test acceptance criteria.

g. Preservice Testing of Repaired, Replacement and New Snubbers

Preservice operability testing shall be performed on repaired, replacement or new snubbers prior to installation. Testing may be at the manufacturer's facility. The testing shall verify the functional test acceptance criteria in 4.7.8.e.

In addition, a preservice inspection shall be performed on each repaired, replacement or new snubber and shall verify that:

1) There are no visible signs of damage or impaired operability as a result of storage, handling or installation;

2) The snubber load rating, location, orientation, position setting and configuration (attachment, extensions, etc.), are in accordance with design;

3) Adequate swing clearance is provided to allow snubber movement;

4) If applicable, fluid is at the recommended level and fluid is not leaking from the snubber system;

5) Structural connections such as pins, bearings, studs, fasteners and other connecting hardware such as lock nuts, tabs, wire, and cotter pins are installed correctly.

h. Snubber Seal Replacement Program

The seal service life of hydraulic snubbers shall be monitored to ensure that the service life is not exceeded between surveillance inspections. The expected service life for the various seals, seal materials, and applications shall be determined and established based on engineering information and the seals shall be replaced so that the expected service life will not be exceeded during a period when the snubber is required to be OPERABLE. The seal replacement shall be documented.

TABLE 4.7.8-1

SNUBBER VISUAL INSPECTION INTERVAL

NUMBER OF INOPERABLE SNUBBERS

Population per Category (Notes 1 and 2)	Column A Extend Interval (Notes 3 and 6)	Column B Repeat Interval (Notes 4 and 6)	Column C Reduce Interval (Notes 5 and 6)
1	0	0	1
80	0	0	2
100	0	1	4
150	0	3	8
200	2	5	13
300	5	12	25
400	8	18	36
500	12	24	48
750	20	40	78
1000 or greater	29	56	109

Note 1: The next visual inspection interval for a snubber category shall be determined based upon the previous inspection interval and the number of inoperable snubbers found during that interval. Snubbers may be categorized, based upon their accessibility during power operation, as accessible or inaccessible. These categories may be examined separately or jointly. However, categories must be determined and documented before any inspection and that determination shall be the basis upon which to determine the next inspection interval for that category.

Note 2: Interpolation between population per category and the number of inoperable snubbers is permissible. Use next lower integer for the value of the limit for Columns A, B, and C if that integer includes a fractional value of inoperable snubbers as determined by interpolation.

TABLE 4.7.8-1 (Continued)

SNUBBER VISUAL INSPECTION INTERVAL

Note 3: If the number of inoperable snubbers is equal to or less than the number in Column A, the next inspection interval may be twice the previous interval but not greater than 48 months.

Note 4: If the number of inoperable snubbers is equal to or less than the number in Column B but greater than the number in Column A, the next inspection interval shall be the same as the previous interval.

Note 5: If the number of inoperable snubbers is equal to or greater than the number in Column C, the next inspection interval shall be two-thirds of the previous interval. However, if the number of inoperable snubbers is less than the number in Column C but greater than the number in Column B, the next interval shall be reduced proportionally by interpolation, that is, the previous interval shall be reduced by a factor that is one-third of the ratio of the difference between the number of inoperable snubbers found during the previous interval and the number in Column B to the difference in the numbers in Column B and C.

Note 6: Specified surveillance intervals may be adjusted plus or minus 25 percent to accommodate normal test and surveillance schedule intervals up to and including 48 months, with the exception that inspection of inaccessible snubbers may be deferred to the next shutdown when plant conditions allow five days for inspection. See Note 7 for definition of interval as applied to snubber visual inspections. The provisions of Specification 4.0.2 regarding surveillance intervals are not applicable.

Note 7: Interval as defined for the shock suppressors (snubbers) visual inspection surveillance requirements is the period of time starting when the unit went into cold shutdown for refueling, and ending when the unit goes into cold shutdown for its next scheduled refueling. This period of time is nominally considered to be an 18 month period, or a 24 month period based on the type of fuel being used. However, the period of time (interval) could be shorter or longer due to plant operating variables such as fuel life and operating performance.

3/4.7.12 SPENT FUEL POOL STRUCTURAL INTEGRITY

LIMITING CONDITION FOR OPERATION

3.7.12 The structural integrity of the spent fuel pool shall be maintained in accordance with Specification 4.7.12.

APPLICABILITY: Whenever irradiated fuel assemblies are in the spent fuel pool.

ACTION:

a. With the structural integrity of the spent fuel pool not conforming to the above requirements, in lieu of any other report, prepare and submit a Special Report to the NRC within 30 days of a determination of such non-conformity.

b. The provisions of Specification 3.0.3 are not applicable.

SURVEILLANCE REQUIREMENTS

4.7.12.1 Inspection Frequencies - The structural integrity of the spent fuel pool shall be determined per the acceptance criteria of Specification 4.7.12.2 at the following frequencies:

a. At least once per 92 days after the pool is filled with water. If no abnormal degradation or other indications of structural distress are detected during five consecutive inspections, the inspection interval may be extended to at least once per 5 years.

b. Within 24 hours following any seismic event which actuates or should have actuated the seismic monitoring instrumentation.

4.7.12.2 Acceptance Criteria - The structural integrity of the spent fuel pool shall be determined by a visual inspection of at least the interior and exterior surfaces of the pool, the struts in the tilt pit, the surfaces of the separation walls, and the structural slabs adjoining the pool walls. This visual inspection shall verify no changes in the concrete crack patterns, no abnormal degradation or other signs of structural distress (i.e, cracks, bulges, out of plumbness, leakage, discolorations, efflorescence, etc.).

3/4.8 ELECTRICAL POWER SYSTEMS

3/4.8.1 A.C. SOURCES

LIMITING CONDITION FOR OPERATION

3.8.1.1 As a minimum, the following A.C. electrical power sources shall be OPERABLE:

a. Two physically independent circuits between the offsite transmission network and the onsite Class 1E distribution system and

b. Two separate and independent diesel generators each with:

1. A day fuel tank containing a minimum volume of 280 gallons of fuel,

2. A separate fuel storage system, and

3. A separate fuel transfer pump.

APPLICABILITY: MODES 1, 2, 3 and 4.

ACTION:

a. With one offsite A.C. circuit of the above required A.C. electrical power sources inoperable, perform the following:

1. Demonstrate the OPERABILITY of the remaining offsite A.C. circuit by performing Surveillance Requirement 4.8.1.1.1.a within 1 hour and at least once per 8 hours thereafter, and

2. Restore the offsite A.C. circuit to OPERABLE status within 72 hours or be in at least HOT STANDBY within the next 6 hours and in COLD SHUTDOWN within the following 30 hours. Startup Transformer No. 2 may be removed from service for up to 30 days as part of a preplanned preventative maintenance schedule. The 30-day allowance may be applied not more than once in a 10-year period. The provisions of Specification 3.0.4 are not applicable to Startup Transformer No. 2 during the 30-day preventative maintenance period.

LIMITING CONDITION FOR OPERATION

b. With one diesel generator of the above required A.C. electrical power source inoperable, perform the following:

1. Demonstrate the OPERABILITY of both the offsite A.C. circuits by performing Surveillance Requirement 4.8.1.1.1.a within 1 hour and at least once per 8 hours thereafter, and

2. Demonstrate the OPERABILITY of the remaining OPERABLE diesel generator by performing Surveillance Requirement 4.8.1.1.2.a.4 within 24 hours except when:

   i. A common cause failure has been determined not to exist, or
   ii. The remaining diesel generator is currently in operation, or
   iii. The remaining diesel generator has been demonstrated OPERABLE within the previous 24 hours, and

3. Restore the diesel generator to OPERABLE status within 72 hours (See note 1) or be in at least HOT STANDBY within the next 6 hours and in COLD SHUTDOWN within the following 30 hours.

Note 1 - The requirement for diesel generator (EDG) restoration to OPERABLE status may be extended to ten days if the Alternate AC diesel generator (AACDG) is verified available. If the AACDG is found unavailable during this period, the 72 hour restoration period of condition b.3 is immediately applicable until either the AACDG or the EDG is returned to operable status (not to exceed ten days from the initial diesel generator inoperability). The 10-day allowance may be applied only once for each EDG.

ACTION (Continued)

c. With one offsite A.C. circuit and one diesel generator of the above required A.C. electrical power sources inoperable, perform the following:

   1. Demonstrate the OPERABILITY of the remaining offsite A.C. circuit by performing Surveillance Requirement 4.8.1.1.1.a within 1 hour and at least once per 8 hours thereafter; and,

   2. If the diesel generator became inoperable due to any cause other than preplanned preventive maintenance or testing, then

      i. Demonstrate the OPERABILITY of the remaining OPERABLE diesel generator by performing Surveillance Requirement 4.8.1.1.2.a.4 within 8 hours except when:

         a. The remaining diesel generator is currently in operation, or

         b. The remaining diesel generator has been demonstrated OPERABLE within the previous 8 hours, and

   3. Restore at least one of the inoperable sources to OPERABLE status within 12 hours or be in at least HOT STANDBY within the next 6 hours and in COLD SHUTDOWN within the following 30 hours, and

   4. Restore both offsite circuits and both diesel generators to OPERABLE status within 72 hours (see b. 3, Note 1) of the initiating event or be in at least HOT STANDBY within the next 6 hours and in COLD SHUTDOWN within the following 30 hours.

d. With two offsite A.C. circuits of the above required A.C. electrical power sources inoperable, perform the following:

   1. Perform Surveillance Requirement 4.8.1.1.2.a.4 on the diesel generators within the next 8 hours except when:

      i. The diesel generators are currently in operation, or

      ii. The diesel generators have been demonstrated OPERABLE within the previous 8 hours, and

   2. Restore one of the inoperable offsite A.C. circuits to OPERABLE status within 24 hours or be in at least HOT STANDBY within the next 6 hours and in COLD SHUTDOWN within the following 30 hours, and

   3. Restore both A.C. circuits within 72 hours of the initiating event or be in at least HOT STANDBY within the next 6 hours and in COLD SHUTDOWN within the following 30 hours.

ACTION (Continued)

e. With two diesel generators of the above required A.C. electrical power sources inoperable, perform the following:

   1. Demonstrate the OPERABILITY of the two offsite A.C. circuits by performing Surveillance Requirement 4.8.1.1.1.a within 1 hour and at least once per 8 hours thereafter, and

   2. Restore one of the inoperable diesel generators to OPERABLE status within 2 hours or be in a least HOT STANDBY within the next 6 hours and in COLD SHUTDOWN within the following 30 hours, and

   3. Restore both diesel generators within 72 hours (see b.3, Note 1) of the initiating event or be in at least HOT STANDBY within the next 6 hours and in COLD SHUTDOWN within the following 30 hours.

SURVEILLANCE REQUIREMENTS

4.8.1.1.1 Each of the above required independent circuits between the offsite transmission network and the onsite Class 1E distribution system shall be:

a. Determined OPERABLE at least once per 7 days by verifying correct breaker alignments, indicated power availability, and

b. Demonstrated OPERABLE at least once per 18 months during shutdown by transferring (manually and automatically) unit power supply from the normal circuit to the alternate circuit.

4.8.1.1.2 Each diesel generator shall be demonstrated OPERABLE: (Note 1)

a. At least once per 31 days on a STAGGERED TEST BASIS by:

1. Verifying the fuel level in the day fuel tank.

2. deleted

3. Verifying the fuel transfer pump can be started and transfers fuel from the storage system to the day tank.

4. Verifying the diesel starts from a standby condition and accelerates to at least 900 rpm in $\leq$ 15 seconds. (Note 2)

5. Verifying the generator is synchronized, loaded to an indicated 2600 to 2850 Kw and operates for $\geq$ 60 minutes. (Notes 3 & 4)

6. Verifying the diesel generator is aligned to provide standby power to the associated emergency busses.

b. deleted

Note 1
All planned diesel generator starts for the purposes of these surveillances may be preceded by prelube procedures.

Note 2
This diesel generator start from a standby condition in $\leq$ 15 sec. shall be accomplished at least once every 184 days. All other diesel generator starts for this surveillance may be in accordance with vendor recommendations.

Note 3
Diesel generator loading may be accomplished in accordance with vendor recommendations such as gradual loading.

Note 4
Momentary transients outside this load band due to changing loads will not invalidate the test. Load ranges are allowed to preclude over- loading the diesel generators.

c. At least once per 18 months by:

1. Deleted

2. Verifying during shutdown that the automatic sequence time delay relays are OPERABLE at their setpoint ± 10% of the elapsed time for each load block.

3. Verifying during shutdown the generator capability to reject a load of greater than or equal to its associated single largest post-accident load, and maintain voltage at 4160 ± 500 volts and frequency at 60 ± 3 Hz.

4. Verifying during shutdown the generator capability to reject a load of 2850 Kw without exceeding 75% of the difference between nominal speed and the overspeed trip setpoint, or 15% above nominal, whichever is lower.

5. Simulating during shutdown a loss of offsite power by itself, and:

   a. Verifying de-energization of the emergency busses and load shedding from the emergency busses.

   b. Verifying the diesel starts from a standby condition on the undervoltage auto-start signal, energizes the emergency busses with permanently connected loads, energizes the auto-connected shutdown loads through the time delay relays and operates for ≥ 5 minutes while its generator is loaded with the shutdown loads.

6. Verifying during shutdown that on a Safety Injection Actuation Signal (SIAS) actuation test signal (without loss of offsite power) the diesel generator starts on the auto-start signal and operates on standby for ≥ 5 minutes.

SHUTDOWN

LIMITING CONDITION FOR OPERATION

3.8.1.2 As a minimum, the following A.C. electrical power sources shall be OPERABLE:

a. One circuit between the offsite transmission network and the onsite Class 1E distribution system, and

b. One diesel generator with:

1. A day fuel tank containing a minimum volume of 280 gallons of fuel,

2. A fuel storage system, and

3. A fuel transfer pump.

APPLICABILITY: MODES 5 and 6.

ACTION:

With less than the above minimum required A.C. electrical power sources OPERABLE, suspend all operations involving CORE ALTERATIONS or positive reactivity changes.

SURVEILLANCE REQUIREMENTS

4.8.1.2 The above required A.C. electrical power sources shall be demonstrated OPERABLE by the performance of each of the Surveillance Requirements of 4.8.1.1.1 and 4.8.1.1.2 except for Requirement 4.8.1.1.2a.5.

LIMITING CONDITION FOR OPERATION

3.8.1.3 The stored diesel fuel oil shall be within limits for each required diesel generator.

APPLICABILITY: When associated diesel generator is required to be OPERABLE.

ACTION:

With the volume of the stored diesel fuel oil less than 22,500 gallons for either fuel oil storage tank or the new or stored fuel oil properties outside the limits of the Diesel Fuel Oil Testing Program, perform the following as appropriate: (Note – Separate ACTION entry is allowed for each diesel generator.)

1. If one or more fuel storage tanks contain less than 22,500 gallons and greater than 17,446 gallons, restore the fuel oil volume to within limits within 48 hours.

2. If the stored fuel oil total particulates are not within limits for one or more diesel generators, restore fuel oil total particulates to within limits within 7 days.

3. If new fuel oil properties are not within limits for the one or more diesel generators, restore stored fuel oil properties to within limits within 30 days.

4. If ACTION 1 is not met within the allowable outage time or is outside the allowable limits, or if ACTION 2 or 3 is not met within the allowable outage time, then immediately declare the associated diesel generator inoperable.

SURVEILLANCE REQUIREMENTS

4.8.1.3 At least once per 31 days on a STAGGERED TEST BASIS verify the fuel oil storage tank contains ≥ 22,500 gallons of fuel.

3/4.9 REFUELING OPERATIONS

BORON CONCENTRATION

LIMITING CONDITION FOR OPERATION

3.9.1 With the reactor vessel head unbolted or removed, the boron concentration of the reactor coolant and the refueling canal shall be maintained uniform and sufficient to ensure that the more restrictive of following reactivity conditions is met:

a. Either a K_{eff} of 0.95 or less, which includes a 1% $\Delta k/k$ conservative allowance for uncertainties, or

b. A boron concentration of ≥ 2500 ppm, which includes a 50 ppm conservative allowance for uncertainties.

APPLICABILITY: MODE 6*.

ACTION:

With the requirements of the above specification not satisfied, immediately suspend all operations involving CORE ALTERATIONS or positive reactivity changes and initiate and continue boration at ≥ 40 gpm of ≥ 2500 ppm boric acid solution until K_{eff} is reduced to ≤ 0.95 or the boron concentration is restored to ≥ 2500 ppm, whichever is the more restrictive. The provisions of Specification 3.0.3 are not applicable.

SURVEILLANCE REQUIREMENTS

4.9.1.1 The more restrictive of the above two reactivity conditions shall be determined prior to:

a. Removing or unbolting the reactor vessel head, and

b. Withdrawal of any CEA in excess of 3 feet from its fully inserted position within the reactor pressure vessel.

4.9.1.2 The boron concentration of the reactor coolant and the refueling canal shall be determined by chemical analysis at least once per 72 hours.

* The reactor shall be maintained in MODE 6 when the reactor vessel head is unbolted or removed.

FUEL HANDLING AREA VENTILATION SYSTEM

LIMITING CONDITION FOR OPERATION

3.9.11 The fuel handling area ventilation system shall be operating and discharging through the HEPA filters and charcoal adsorbers.

APPLICABILITY: Whenever irradiated fuel is being moved in the storage pool and during crane operation with loads over the storage pool.

ACTION:

a. With the fuel handling area ventilation system not operating, suspend all operations involving movement of fuel within the spent fuel pool or crane operation with loads over the spent fuel pool until the fuel handling area ventilation system is restored to operation.

b. The provisions of Specification 3.0.3 are not applicable.

SURVEILLANCE REQUIREMENTS

4.9.11.1 The fuel handling area ventilation system shall be determined to be in operation and discharging through the HEPA filters and charcoal adsorbers at least once per 12 hours.

4.9.11.2 The fuel handling area ventilation system shall be demonstrated OPERABLE when irradiated fuel is in the storage pool by performing the required fuel handling filter testing in accordance with the Ventilation Filter Testing Program (VFTP).

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SPECIAL TEST EXCEPTIONS

GROUP HEIGHT, INSERTION AND POWER DISTRIBUTION LIMITS

LIMITING CONDITION FOR OPERATION

3.10.2 The group height, insertion and power distribution limits of Specifications 3.1.1.4, 3.1.3.1, 3.1.3.5, 3.1.3.6, 3.2.2, 3.2.3, 3.2.7 and the Minimum Channels OPERABLE requirement of Functional Unit 14 of Table 3.3-1 may be suspended during the performance of PHYSICS TESTS provided:

a. The THERMAL POWER is restricted to the test power plateau which shall not exceed 85% of RATED THERMAL POWER, and

b. The linear heat rate limit shall be maintained by either:

   1. Maintaining COLSS calculated core power less than or equal to COLSS calculated core power operating limit based on linear heat rate (when COLSS is in service); or

   2. Operating within the region of acceptable operation as specified in the CORE OPERATING LIMITS REPORT using any operable CPC channel (when COLSS is out of service.)

APPLICABILITY: During startup and PHYSICS TESTS.

ACTION:

With any of the above limits being exceeded while any of the above requirements are suspended, either:

a. Reduce THERMAL POWER sufficiently to satisfy the requirements of the above Specification, or

b. Be in HOT STANDBY within 6 hours.

SURVEILLANCE REQUIREMENTS

4.10.2.1 The THERMAL POWER shall be determined at least once per hour during PHYSICS TESTS in which any of the above requirements are suspended and shall be verified to be within the test power plateau.

4.10.2.2 The linear heat rate shall be determined to be within its limits during PHYSICS TESTS above 5% of RATED THERMAL POWER in which any of the above requirements are suspended.

6.0 ADMINISTRATIVE CONTROLS

6.1 RESPONSIBILITY

6.1.1 The Plant Manager Operations shall be responsible for overall unit operation and shall delegate in writing the succession to this responsibility during his absence.

6.1.2 An individual with an active Senior Reactor Operator (SRO) license shall be designated as responsible for the control room command function while the unit is in MODE 1, 2, 3, or 4. With the unit not in MODES 1, 2, 3, or 4, an individual with an active SRO or Reactor Operator license shall be designated as responsible for the control room command function.

6.2 ORGANIZATION

6.2.1 ONSITE AND OFFSITE ORGANIZATIONS

Onsite and offsite organizations shall be established for unit operation and corporate management, respectively. The onsite and offsite organizations shall include the positions for activities affecting safety of the nuclear power unit.

a. Lines of authority, responsibility, and communication shall be defined and established throughout highest management levels, intermediate levels, and all operating organization positions. These relationships shall be documented and updated, as appropriate, in organization charts, functional descriptions of departmental responsibilities and relationships, and job descriptions for key personnel positions, or in equivalent forms of documentation. These requirements, including the unit specific titles of those personnel fulfilling the responsibilities of the positions delineated in these Technical Specifications, shall be documented in the Safety Analysis Report (SAR);

b. The Plant Manager Operations shall be responsible for overall safe operation of the unit and shall have control over those onsite activities necessary for safe operation and maintenance of the unit;

c. A specified corporate executive shall have corporate responsibility for overall unit nuclear safety and shall take any measures needed to ensure acceptable performance of the staff in operating, maintaining, and providing technical support to the unit to ensure nuclear safety. The specified corporate executive shall be identified in the SAR; and

d. The individuals who train the operating staff, carry out health physics, or perform quality assurance functions may report to the appropriate onsite manager; however, these individuals shall have sufficient organizational freedom to ensure their independence from operating pressures.

6.2.2 UNIT STAFF

a. A non-licensed operator shall be on site when fuel is in the reactor and two additional non-licensed operators shall be on site when the reactor is in MODES 1, 2, 3, or 4.

b. The minimum shift crew composition for licensed operators shall meet the minimum staffing requirements of 10 CFR 50.54(m)(2)(i) for one unit, one control room.

c. Shift crew composition may be less than the minimum requirement of 10 CFR 50.54(m)(2)(i) for one unit, one control room, and 6.2.2.a and 6.2.2.g for a period of time not to exceed 2 hours in order to accommodate unexpected absence of on-duty shift crew members provided immediate action is taken to restore the shift crew composition to within the minimum requirements.

d. An individual qualified in radiation protection procedures shall be on site when fuel is in the reactor. The position may be vacant for not more than 2 hours, in order to provide for unexpected absence, provided immediate action is taken to fill the required position.

e. The amount of overtime worked by unit staff members performing safety related functions shall be limited and controlled in accordance with the NRC Policy Statement on working hours (Generic Letter No. 82-12).

f. The operations manager or the assistant operations manager shall hold a SRO license.

g. In MODES 1, 2, 3, or 4, an individual shall provide advisory technical support for the operations shift crew in the areas of thermal hydraulics, reactor engineering, and plant analysis with regard to the safe operation of the unit. This individual shall meet the qualifications specified by the Commission Policy Statement on Engineering Expertise on Shift.

6.3 UNIT STAFF QUALIFICATIONS

6.3.1 Each member of the unit staff shall meet or exceed the minimum qualifications of ANSI ANS 3.1-1978 for comparable positions, except for the designated radiation protection manager, who shall meet or exceed the minimum qualifications of Regulatory Guide 1.8, September 1975.

6.4 PROCEDURES

6.4.1 Written procedures shall be established, implemented, and maintained covering the following activities:

a. The applicable procedures recommended in Regulatory Guide 1.33, Revision 2, Appendix A, February 1978;

b. The emergency operating procedures required to implement the requirements of NUREG-0737 and NUREG-0737, Supplement 1, as stated in Section 7.1 of Generic Letter 82-33;

c. Fire Protection Program implementation;

d. All programs specified in Specification 6.5; and

e. Modification of core protection calculator (CPC) addressable constants. These procedures shall include provisions to ensure that sufficient margin is maintained in CPC type I addressable constants to avoid excessive operator interaction with the CPCs during reactor operation.

Modifications to the CPC software (including changes of algorithms and fuel cycle specific data) shall be performed in accordance with the most recent version of "CPC Protection Algorithm Software Change Procedure," CEN-39(A)-P, which has been determined to be applicable to the facility. Additions or deletions to CPC addressable constants or changes to addressable constant software limit values shall not be implemented without prior NRC approval.

6.5 PROGRAMS AND MANUALS

The following programs shall be established, implemented, and maintained.

6.5.1 Offsite Dose Calculation Manual (ODCM)

The ODCM shall contain 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; and

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.

Licensee initiated changes to the ODCM:

a. Shall be documented and records of reviews performed shall be retained. This documentation shall contain:

   1. sufficient information to support the change(s) together with the appropriate analyses or evaluations justifying the change(s), and

   2. a determination that the change(s) maintain the levels of radioactive effluent control required by 10 CFR 20.1302, 40 CFR 190, 10 CFR 50.36a, and 10 CFR 50, Appendix I, and not adversely impact the accuracy or reliability of effluent, dose, or setpoint calculations;

b. Shall become effective after approval of the ANO general manager; and

c. Shall be submitted to the NRC in the form of a complete, legible copy of the entire ODCM as a part of or concurrent with the Radioactive Effluent Release Report for the period of the report in which any change in the ODCM was made effective. Each change shall be identified by markings in the margin of the affected pages, clearly indicating the area of the page that was changed and shall indicate the date (i.e., month and year) the change was implemented.

6.5 PROGRAMS AND MANUALS

6.5.2 Primary Coolant Sources Outside Containment

This program provides controls to minimize leakage from those portions of systems outside containment that could contain highly radioactive fluids during a serious transient or accident to levels as low as practicable. The program shall include the following:

a. Preventive maintenance and periodic visual inspection requirements; and

b. Integrated leak test requirements for each system at least once per 18 months. The provisions of Surveillance Requirements 4.0.2 are applicable.

6.5.3 Iodine Monitoring

This program provides controls that ensure the capability to accurately determine the airborne iodine concentration under accident conditions. The program shall include the following:

a. Training personnel;

b. Procedures for monitoring; and

c. Provisions for maintenance of sampling and analysis equipment.

6.5.4 Radioactive Effluent Controls Program

This program conforms with 10 CFR 50.36a for the control of radioactive effluents and for maintaining the doses to MEMBERS OF THE PUBLIC from radioactive effluents as low as reasonably achievable. The program shall be contained in the ODCM, shall be implemented by procedures, and shall include remedial actions to be taken whenever the program limits are exceeded. The program shall include the following elements:

a. Limitations on the functional capability of radioactive liquid and gaseous monitoring instrumentation including surveillance tests and setpoint determination in accordance with the methodology in the ODCM;

b. Limitations on the concentrations of radioactive material released in liquid effluents to UNRESTRICTED AREAS, conforming to 10 CFR 20, Appendix B, Table II, Column 2;

c. Monitoring, sampling, and analysis of radioactive liquid and gaseous effluents in accordance with 10 CFR 20.1302 and with the methodology and parameters in the ODCM;

d. Limitations on the annual and quarterly doses or dose commitment to a MEMBER OF THE PUBLIC from radioactive materials in liquid effluents released from each unit to UNRESTRICTED AREAS, conforming to 10 CFR 50, Appendix I;

6.5.4 Radioactive Effluent Controls Program (continued)

e. Determination of cumulative dose contributions from radioactive effluents for the current calendar quarter and current calendar year in accordance with the methodology and parameters in the ODCM at least every 31 days. Determination of projected dose contributions from radioactive effluents in accordance with the methodology in the ODCM at least every 31 days.

f. Limitations on the functional capability and use of the liquid and gaseous effluent treatment systems to ensure that appropriate portions of these systems are used to reduce releases of radioactivity when the projected doses in a period of 31 days would exceed 2% of the guidelines for the annual dose or dose commitment, conforming to 10 CFR 50, Appendix I;

g. Limitations on the dose rate resulting from radioactive material released in gaseous effluents to areas beyond the site boundary conforming to the dose associated with 10 CFR 20, Appendix B, Table II, Column 1;

h. Limitations on the annual and quarterly air doses resulting from noble gases released in gaseous effluents from each unit to areas beyond the site boundary, conforming to 10 CFR 50, Appendix I;

i. Limitations on the annual and quarterly doses to a MEMBER OF THE PUBLIC from iodine-131, iodine-133, tritium, and all radionuclides in particulate form with half lives $>$ 8 days in gaseous effluents released from each unit to areas beyond the site boundary, conforming to 10 CFR 50, Appendix I; and

j. Limitations on the annual dose or dose commitment to any MEMBER OF THE PUBLIC beyond the site boundary due to releases of radioactivity and to radiation from uranium fuel cycle sources, conforming to 40 CFR 190.

The provisions of SR 4.0.2 and SR 4.0.3 are applicable to the Radioactive Effluent Controls Program surveillance frequency.

6.5.5 Component Cyclic or Transient Limit Program

This program provides controls to track the SAR Section 5.2.1.5, cyclic and transient occurrences to ensure that components are maintained within the design limits.

6.5.6 not used

6.5.7 Reactor Coolant Pump Flywheel Inspection Program

This program shall provide for the inspection of each reactor coolant pump flywheel per the recommendation of Regulatory Position C.4.b of Regulatory Guide 1.14, Revision 1, August 1975. The volumetric examination per Regulatory Position C.4.b.1 will be performed on approximately 10-year intervals.

6.5.8 Inservice Testing Program

This program provides controls for inservice testing of ASME Code Class 1, 2, and 3 components. The program shall include the following:

a. Testing frequencies specified in Section XI of the ASME Boiler and Pressure Vessel Code and applicable Addenda as follows:

ASME Code terminology for inservice testing activities	Required frequencies for performing inservice testing activities
Weekly	At least once per 7 days
Monthly	At least once per 31 days
Every 6 weeks	At least once per 42 days
Quarterly or every 3 months	At least once per 92 days
Semianually or every 6 months	At least once per 184 days
Every 9 months	At least once per 276 days
Yearly or annually	At least once per 366 days
Biennially or every 2 years	At least once per 731 days

b. The provisions of Specification 4.0.2 are applicable to the above required frequencies for performing inservice testing activities.

c. The provisions of Specification 4.0.3 are applicable to inservice testing activities, and

d. Nothing in the ASME Boiler and Pressure Vessel Code shall be construed to supersede the requirements of any Technical Specification.

6.5.9 Steam Generator (SG) Tube Surveillance Program

6.5.9.1 Steam Generator Sample Selection and Inspection

Each steam generator shall be determined OPERABLE during shutdown by selecting and inspecting at least the minimum number of steam generators specified in Table 6.5.9-1.

6.5.9.2 Steam Generator Tube Sample Selection and Inspection

The steam generator tube minimum sample size, inspection result classification, and the corresponding action required shall be as specified in Table 6.5.9-2. The inservice inspection of steam generator tubes shall be performed at the frequencies specified in specification 6.5.9.3 and the inspected tubes shall be verified acceptable per the acceptance criteria of Specification 6.5.9.4. The tubes selected for each inservice inspection shall include at least 3% of the total number of tubes in all steam generators; the tubes selected for these inspections shall be selected on a random basis except:

a. Where experience in similar plants with similar water chemistry indicates critical areas to be inspected, then at least 50% of the tubes inspected shall be from these critical areas.

b. The first sample of tubes selected for each inservice inspection (subsequent to the pre-service inspection) of each steam generator shall include:

   1. All non-plugged tubes that previously had detectable wall penetrations (>20%).

   2. Tubes in those areas where experience has indicated potential problems.

   3. A tube inspection (pursuant to Specification 6.5.9.4.a.9) shall be performed on each selected tube. If any selected tube does not permit the passage of the eddy current probe for a tube inspection, this shall be recorded and an adjacent tube shall be selected and subjected to a tube inspection.

c. The tubes selected as the second and third samples (if required by Table 6.5.9-2) during each inservice inspection may be subjected to a partial inspection provided:

   1. The tubes selected for these samples include the tubes from those areas of the tube sheet array where tubes with imperfections were previously found.

   2. The inspections include those portions of the tubes where imperfections were previously found.

The result of each sample inspection shall be classified into one to the following three categories:

Category	Inspection Results
C-1	Less than 5% of the total tubes inspected are degraded tubes and none of the inspected tubes are defective.
C-2	One or more tubes, but not more than 1% of the total tubes inspected are defective, or between 5% and 10% of the total tubes inspected are degraded tubes.
C-3	More than 10% of the total tubes inspected are degraded tubes or more than 1% of the inspected tubes are defective.

Note: In all inspections, previously degraded tubes must exhibit significant (>10%) further wall penetrations to be included in the above percentage calculations.

6.5.9.3 Inspection Frequencies

The above required inservice inspections of steam generator tubes shall be performed at the following frequencies:

a. The first inservice inspection shall be performed after 6 Effective Full Power Months but within 24 calendar months of initial criticality. Subsequent inservice inspections shall be performed at intervals of not less than 12 nor more than 24 calendar months after the previous inspection. If two consecutive inspections following service under AVT conditions, not including the pre-service inspection, result in all inspection results falling into the C-1 category or if two consecutive inspections demonstrate that previously observed degradation has not continued and no additional degradation has occurred, the inspection interval may be extended to a maximum of once per 40 months.

   A one-time inspection interval of a maximum of once per 40 months is allowed for the inspection performed immediately following the 2R15 outage. This is an exception to 6.5.9.3.a in that the interval extension is based on all of the results of one inspection falling into the C-1 category.

b. If the results of the inservice inspection of a steam generator conducted in accordance with Table 6.5.9-2 at 40 month intervals fall into Category C-3, the inspection frequency shall be increased to at least once per 20 months. The increase in inspection frequency shall apply until the subsequent inspections satisfy the criteria of Specification 6.5.9.3.a; the interval may then be extended to a maximum of once per 40 months.

c. Additional, unscheduled inservice inspections shall be performed on each steam generator in accordance with the first sample inspection specified in Table 6.5.9-2 during the shutdown subsequent to any of the following conditions:

   1. Primary-to-secondary tube leaks (not including leaks originating from tube-to-tube sheet welds) in excess of the limits of Specification 3.4.6.2.

   2. A seismic occurrence greater than the Operating Basis Earthquake.

   3. A loss-of coolant accident requiring actuation of the engineered safeguards.

   4. A main steam line or feedwater line break.

6.5.9.4 Acceptance Criteria

a. As used in this Specification

1. Tubing or Tube means that portion of the tube which forms the primary system to secondary system pressure boundary.

2. Imperfection means an exception to the dimensions, finish or contour of a tube from that required by fabrication drawings or specifications. Eddy-current testing indications below 20% of the nominal tube wall thickness, if detectable, may be considered as imperfections.

3. Degradation means a service-induced cracking, wastage, wear or general corrosion occurring on either inside or outside of a tube.

4. Degraded Tube means a tube containing imperfections ≥20% of nominal wall thickness caused by degradation.

5. % Degradation means the percentage of the tube wall thickness affected or removed by degradation.

6. Defect means an imperfection of such severity that it exceeds the plugging limit. A tube containing a defect is defective.

7. Plugging Limit means the imperfection depth at or beyond which the tube shall be removed from service by plugging because it may become unserviceable prior to the next inspection. The plugging limit is equal to 40% of the nominal tube wall thickness.

8. Unserviceable describes the condition of a tube if it leaks or contains a defect large enough to affect its structural integrity in the event of an Operating Basis Earthquake, a loss-of-coolant accident, or a steam line or feedwater line break as specified in 6.5.9.3.c, above.

9. Tube Inspection means an inspection of the steam generator tube from tube end (cold leg side) to tube end (hot leg side).

10. Pre-service Inspection means an inspection of the full length of each tube in each steam generator performed by eddy current techniques prior to service to establish a baseline condition of the tubing. This inspection shall be performed after the hydrostatic test and prior to POWER OPERATION using the equipment and techniques expected to be used during subsequent inservice inspections.

b. The steam generator shall be determined OPERABLE after completing the corresponding actions (plug all tubes exceeding the plugging limit and all tubes containing through-wall cracks) required by Table 6.5.9-2.

TABLE 6.5.9-1

MINIMUM NUMBER OF STEAM GENERATORS TO BE INSPECTED
DURING INSERVICE INSPECTION

Pre-service Inspection	Yes
No. of Steam Generators per Unit	Two
First Inservice Inspection	One
Second & Subsequent Inservice Inspections	One[1]

Table Notation:

1. The inservice inspection may be limited to one steam generator on a rotating schedule encompassing 3 N % of the tubes (where N is the number of steam generators in the plant) if the results of the first or previous inspections indicate that all steam generators are performing in a like manner. Note that under some circumstances, the operating conditions in one or more steam generators may be found to be more severe than those in other steam generators. Under such circumstances the sample sequence shall be modified to inspect the most severe conditions.

TABLE 6.5.9-2

STEAM GENERATOR TUBE INSPECTION

<table>
<tr><th colspan="3">1ST SAMPLE INSPECTION</th><th colspan="2">2ND SAMPLE INSPECTION</th><th colspan="2">3RD SAMPLE INSPECTION</th></tr>
<tr><th>Sample Size</th><th>Result</th><th>Action Required</th><th>Result</th><th>Action Required</th><th>Result</th><th>Action Required</th></tr>
<tr><td rowspan="9">A minimum of S Tubes per S.G.</td><td>C-1</td><td>None</td><td>N/A</td><td>N/A</td><td>N/A</td><td>N/A</td></tr>
<tr><td rowspan="5">C-2</td><td rowspan="5">Plug defective tubes and inspect additional 2S tubes in this S.G.</td><td>C-1</td><td>None</td><td>N/A</td><td>N/A</td></tr>
<tr><td rowspan="3">C-2</td><td rowspan="3">Plug defective tubes and inspect additional 4S tubes in this S.G.</td><td>C-1</td><td>None</td></tr>
<tr><td>C-2</td><td>Plug defective tubes</td></tr>
<tr><td>C-3</td><td>Perform action for C-3 result of first sample</td></tr>
<tr><td>C-3</td><td>Perform action for C-3 result of first sample</td><td>N/A</td><td>N/A</td></tr>
<tr><td rowspan="3">C-3</td><td rowspan="3">Inspect all tubes in this S.G., plug defective tubes and inspect 2S tubes in the other S.G.

Special Report to NRC per Specification 6.6.7</td><td>Other S.G. is C-1</td><td>None</td><td>N/A</td><td>N/A</td></tr>
<tr><td>Other S.G. is C-2</td><td>Perform action for C-2 result of second sample</td><td>N/A</td><td>N/A</td></tr>
<tr><td>Other S.G. is C-3</td><td>Inspect all tubes in the other S.G. and plug defective tubes.

Special Report to NRC per Spec. 6.6.7</td><td>N/A</td><td>N/A</td></tr>
</table>

S = 3 (2/n) % Where n is the number of steam generators inspected during an inspection.

6.5.10 Secondary Water Chemistry

This program provides controls for monitoring secondary water chemistry to inhibit SG tube degradation. The program shall include:

a. Identification of a sampling schedule for the critical variables and control points for these variables;

b. Identification of the procedures used to measure the values of the critical variables;

c. Identification of process sampling points;

d. Procedures for the recording and management of data;

e. Procedures defining corrective actions for all off control point chemistry conditions; and

f. A procedure identifying the authority responsible for the interpretation of the data and the sequence and timing of administrative events required to initiate corrective action.

6.5.11 Ventilation Filter Testing Program (VFTP)

A program shall be established to implement the following required testing of Engineered Safeguards (ES) ventilation systems filters at the frequencies specified in Regulatory Guide 1.52, Revision 2. The VFTP is applicable to the Fuel Handling Area Ventilation System (FHAVS) and the Control Room Emergency Ventilation System (CREVS).

a. Demonstrate that an inplace cold DOP test of the high efficiency particulate (HEPA) filters shows:

1. $\geq$ 99% DOP removal for the FHAVS when tested at the system design flowrate of 39,700 cfm $\pm$ 10%; and

2. $\geq$ 99.95% DOP removal for the CREVS when tested in accordance with Regulatory Guide 1.52, Revision 2, at the system design flowrate 2000 cfm $\pm$ 10%.

b. Demonstrate that an inplace halogenated hydrocarbon test of the charcoal adsorbers shows:

1. $\geq$ 99.95% halogenated hydrocarbon removal for the FHAVS when tested at the system design flow rate of 39,700 cfm $\pm$ 10%; and

2. $\geq$ 99.95% halogenated hydrocarbon removal for the CREVS when tested in accordance with Regulatory Guide 1.52, Revision 2, at the system design flow rate of 2000 cfm $\pm$ 10%.

c. Demonstrate that a laboratory test of a sample of the charcoal adsorber meets the laboratory testing criteria of ASTM D3803-1989 when tested at 30°C and 95% relative humidity for a methyl iodide penetration of:

1. $<$ 5% for the FHAVS; and

2. when obtained as described in Regulatory Guide 1.52, Revision 2, for CREVS

   i. $\leq$ 2.5% for 2 inch charcoal adsorber beds; and

   ii. $\leq$ 0.5% for 4 inch charcoal adsorber beds.

d. Demonstrate for the FHAVS and CREVS, that the pressure drop across the combined HEPA filters, other filters in the system, and charcoal adsorbers is $<$ 6 inches of water when tested at the following system design flowrates $\pm$ 10%.

FHAVS	39,700 cfm
CREVS	2,000 cfm

The provision of SR 4.0.2 and SR 4.0.3 are applicable to the VFTP test frequencies.

6.5.12 Later

6.5.13 Diesel Fuel Oil Testing Program

A diesel fuel oil testing program to implement required testing of both new fuel oil and stored fuel oil shall be established. The program shall include sampling and testing requirements, and acceptance criteria, all in accordance with applicable ASTM Standards. The purpose of the program is to establish the following:

a. Acceptability of new fuel oil for use prior to addition to storage tanks by determining that the fuel oil has:

   1. an API gravity or an absolute specific gravity within limits,

   2. a flash point and kinematic viscosity within limits for ASTM 2D fuel oil, and

   3. water and sediment within limits;

b. Within 31 days following addition of new fuel oil to storage tanks, verify that the properties of the new fuel oil, other than those addressed in a. above, are within limits for ASTM 2D fuel oil;

c. Total particulate concentration of the fuel oil is $\leq$ 10 mg/l when tested every 31 days based on ASTM D-2276, Method A-2 or A-3; and

d. The provisions of SR 4.0.2 and SR 4.0.3 are applicable to the Diesel Fuel Oil Testing Program surveillance frequencies.

6.5.14 Technical Specifications (TS) Bases Control Program

This program provides a means for processing changes to the Bases of these Technical Specifications.

a. Changes to the Bases of the TS shall be made under appropriate administrative controls and reviews.

b. Licensees may make changes to Bases without prior NRC approval provided the changes do not require either of the following:

   1. A change in the TS incorporated in the license or

   2. A change to the updated SAR or Bases that requires NRC approval pursuant to 10 CFR 50.59.

c. The Bases Control Program shall contain provisions to ensure that the Bases are maintained consistent with the SAR.

d. Proposed changes that do not meet the criteria of 6.5.14b above shall be reviewed and approved by the NRC prior to implementation. Changes to the Bases implemented without prior NRC approval shall be provided to the NRC on a frequency consistent with 10 CFR 50.71(e).

6.5.15 not used

6.5.16 Containment Leakage Rate Testing Program

A program shall be established to implement the leakage rate testing of the containment as required by 10 CFR 50.54(o) and 10 CFR 50, Appendix J, Option B, as modified by approved exemptions. This program shall be in accordance with the guidelines contained in Regulatory Guide 1.163, “Performance-Based Containment Leak-Test Program,” dated September 1995.

In addition, the containment purge supply and exhaust isolation valves shall be leakage rate tested prior to entering MODE 4 from MODE 5 if not performed within the previous 92 days.

The peak calculated containment internal pressure for the design basis loss of coolant accident, P_a, is 58 psig.

The maximum allowable containment leakage rate, L_a, shall be 0.1% of containment air weight per day at P_a.

Leakage rate acceptance criteria are:

a. Containment leakage rate acceptance criteria is $\leq 1.0\ L_a$. During the first unit startup following each test performed in accordance with this program, the leakage rate acceptance criteria are $< 0.60\ L_a$ for the Type B and Type C tests and $\leq 0.75\ L_a$ for Type A tests.

b. Air lock acceptance criteria are:

   1. Overall air lock leakage rate is $\leq 0.05\ L_a$ when tested at $\geq P_a$.

   2. Leakage rate for each door is $\leq 0.01\ L_a$ when pressurized to $\geq$ 10 psig.

The provisions of Specification 4.0.2 do not apply to the test frequencies specified in the Containment Leakage Rate Testing Program.

The provisions of Specification 4.0.3 are applicable to the Containment Leakage Rate Testing Program.

6.6 REPORTING REQUIREMENTS

6.6.1 Occupational Radiation Exposure Report

(Note: A single submittal may be made for ANO. The submittal should combine sections common to both units.)

A tabulation on an annual basis of the number of station, utility, and other personnel (including contractors), for whom monitoring was performed, receiving an annual deep dose equivalent >100 mrems and the associated collective deep dose equivalent (reported in person-rem) according to work and job functions, (e.g., reactor operations and surveillance, inservice inspection, routine maintenance, special maintenance (describe maintenance), waste processing, and refueling). This tabulation supplements the requirements of 10 CFR 20.2206. The dose assignments to various duty functions may be estimated based on pocket ionization chamber, thermoluminescence dosimeter (TLD), electronic dosimeter, or film badge measurements. Small exposures totaling < 20 percent of the individual total dose need not be accounted for. In the aggregate, at least 80 percent of the total deep dose equivalent received from external sources should be assigned to specific major work functions. The report covering the previous calendar year shall be submitted by April 30 of each year.

6.6.2 Annual Radiological Environmental Operating Report

(Note: A single submittal may be made for ANO. The submittal should combine sections common to both units.)

The Annual Radiological Environmental Operating Report covering the operation of the unit during the previous calendar year shall be submitted by May 15 of each year. The report shall include summaries, interpretations, and analyses of trends of the results of the radiological environmental monitoring program for the reporting period. The material provided shall be consistent with the objectives outlined in the Offsite Dose Calculation Manual (ODCM), and in 10 CFR 50, Appendix I, Sections IV.B.2, IV.B.3, and IV.C.

The Annual Radiological Environmental Operating Report shall include the results of analyses of all radiological environmental samples and of all environmental radiation measurements taken during the period pursuant to the locations specified in the table and figures in the ODCM, as well as summarized and tabulated results of these analyses and measurements. In the event that some individual results are not available for inclusion with the report, the report shall be submitted noting and explaining the reasons for the missing results. The missing data shall be submitted in a supplementary report as soon as possible.

6.6.3 Radioactive Effluent Release Report

(Note: A single submittal may be made for ANO. The submittal shall combine sections common to both units. The submittal shall specify the releases of radioactive material from each unit.)

The Radioactive Effluent Release Report covering the operation of the unit in the previous year shall be submitted prior to May 1 of each year in accordance with 10 CFR 50.36a. The report shall include a summary of the quantities of radioactive liquid and gaseous effluents and solid waste released from the unit. The material provided shall be consistent with the objectives outlined in the ODCM and Process Control Program and in conformance with 10 CFR 50.36a and 10 CFR 50, Appendix I, Section IV.B.1.

6.6.4 Monthly Operating Reports

Routine reports of operating statistics and shutdown experience shall be submitted on a monthly basis no later than the 15th of each month following the calendar month covered by the report.

6.6.5 CORE OPERATING LIMITS REPORT (COLR)

a. Core operating limits shall be established prior to each reload cycle, or prior to any remaining part of a reload cycle, and shall be documented in the COLR for the following:

3.1.1.1 Shutdown Margin – $T_{avg} > 200°F$
3.1.1.2 Shutdown Margin - $T_{avg} \leq 200°F$
3.1.1.4 Moderator Temperature Coefficient
3.1.3.1 CEA Position
3.1.3.6 Regulating and Group P CEA Insertion Limits
3.2.1 Linear Heat Rate
3.2.3 Azimuthal Power – Tq
3.2.4 DNBR Margin
3.2.7 Axial Shape Index

b. The analytical methods used to determine the core operating limits shall be those previously reviewed and approved by the NRC, specifically those described in the following documents:

1) "The ROCS and DIT Computer Codes for Nuclear Design", CENPD-266-P-A, April 1983 (Methodology for Specifications 3.1.1.1 and 3.1.1.2 for Shutdown Margins, 3.1.1.4 for MTC, 3.1.3.6 for Regulating and Group P CEA Insertion Limits, and 3.2.4.b for DNBR Margin).

2) "CE Method for Control Element Assembly Ejection Analysis," CENPD-0190-A, January 1976 (Methodology for Specification 3.1.3.6 for Regulating and Group P CEA Insertion Limits and 3.2.3 for Azimuthal Power Tilt).

6.6.5 CORE OPERATING LIMITS REPORT (COLR) (Continued)

3) "Modified Statistical Combination of Uncertainties, CEN-356(V)-P-A, Revision 01-P-A, May 1988 (Methodology for Specification 3.2.4.c and 3.2.4.d for DNBR Margin and 3.2.7 for ASI).

4) "Calculative Methods for the CE Large Break LOCA Evaluation Model," CENPD-132-P, August 1974 (Methodology for Specification 3.1.1.4 for MTC, 3.2.1 for Linear Heat Rate, 3.2.3 for Azimuthal Power Tilt, and 3.2.7 for ASI).

5) "Calculational Methods for the CE Large Break LOCA Evaluation Model," CENPD-132-P, Supplement 1, February 1975 (Methodology for Specification 3.1.1.4 for MTC, 3.2.1 for Linear Heat Rate, 3.2.3 for Azimuthal Power Tilt, and 3.2.7 for ASI).

6) "Calculational Methods for the CE Large Break LOCA Evaluation Model," CENPD-132-P, Supplement 2-P, July 1975 (Methodology for Specification 3.1.1.4 for MTC, 3.2.1 for Linear Heat Rate, 3.2.3 for Azimuthal Power Tilt, and 3.2.7 for ASI).

7) "Calculative Methods for the CE Large Break LOCA Evaluation Model for the Analysis of CE and W Designed NSSS," CEN-132, Supplement 3-P-A, June 1985 (Methodology for Specification 3.1.1.4 for MTC, 3.2.1 for Linear Heat Rate, 3.2.3 for Azimuthal Power Tilt, and 3.2.7 for ASI).

8) "Calculative Methods for the CE Small Break LOCA Evaluation Model," CENPD-137-P, August 1974 (Methodology for Specification 3.1.1.4 for MTC, 3.2.1 for Linear Heat Rate, 3.2.3 for Azimuthal Power Tilt, and 3.2.7 for ASI).

9) “Calculative Methods for the CE Small Break LOCA Evaluation Model,” CENPD-137, Supplement 1-P, January 1977 (Methodology for Specification 3.1.1.4 for MTC, 3.2.1 for Linear Heat Rate, 3.2.3 for Azimuthal Power Tilt, and 3.2.7 for ASI).

10) “Calculative Methods for the CE Small Break LOCA Evaluation Model,” CENPD-137, Supplement 2-P-A, dated April, 1998 (Methodology for Specification 3.1.1.4 for MTC, 3.2.1 for Linear Heat Rate, 3.2.3 for Azimuthal Power Tilt, and 3.2.7 for ASI).

11) "CESEC-Digital Simulation of a Combustion Engineering Nuclear Steam Supply System," December 1981 (Methodology for Specifications 3.1.1.1 and 3.1.1.2 for Shutdown Margin, 3.1.1.4 for MTC, 3.1.3.1 for CEA Position, 3.1.3.6 for Regulating CEA and Group P Insertion Limits, and 3.2.4.b for DNBR Margin).

6.6.5 CORE OPERATING LIMITS REPORT (COLR) (Continued)

12) “Technical Manual for the CENTS Code,” CENPD 282-P-A, February 1991 (Methodology for Specifications 3.1.1.1 and 3.1.1.2 for Shutdown Margin, 3.1.1.4 for MTC, 3.1.3.1 for CEA Position, 3.1.3.6 for Regulating and Group P Insertion Limits, and 3.2.4.b for DNBR Margin.

13) Letter: O.D. Parr (NRC) to F.M. Stern (CE), dated June 13, 1975 (NRC Staff Review of the Combustion Engineering ECCS Evaluation Model). NRC approval for 6.6.5.4), 6.6.5.5), and 6.6.5.8) methodologies.

14) Letter: O.D. Parr (NRC) to A.E. Scherer (CE), dated December 9, 1975 (NRC Staff Review of the Proposed Combustion Engineering ECCS Evaluation Model changes). NRC approval for 6.6.5.6) methodology.

15) Letter: K. Kniel (NRC) to A.E. Scherer (CE), dated September 27, 1977 (Evaluation of Topical Reports CENPD-133, Supplement 3-P and CENPD-137, Supplement 1-P). NRC approval for 6.6.5.9) methodology.

16) Letter: 2CNA038403, dated March 20, 1984, J.R. Miller (NRC) to J.M. Griffin (AP&L), "CESEC Code Verification." NRC approval for 6.6.5.11) methodology.

17) "Calculative Methods for the CE Nuclear Power Large Break LOCA Evaluation Model," CENPD-132-P, Supplement 4-P-A, Revision 1 (Methodology for Specification 3.1.1.4 for MTC, 3.2.1 for Linear Heat Rate, 3.2.3 for Azimuthal Power Tilt, and 3.2.7 for ASI).

c. The core operating limits shall be determined such that all applicable limits (e.g. fuel thermal mechanical limits, core thermal hydraulic limits, Emergency Core Cooling System (ECCS) limits, nuclear limits such as SDM, transient analysis limits, and accident analysis limits) of the safety analysis are met.

d. The COLR, including any midcycle revisions or supplements, shall be provided upon issuance for each reload cycle to the NRC.

6.6.6 not used

6.6.7 Steam Generator Tube Surveillance Reports

a. Following each inservice inspection of steam generator tubes the number of tubes plugged in each steam generator shall be reported to the Commission within 15 days.

b. The complete results of the steam generator tube inservice inspection shall be reported within 12 months following the completion of the inservice inspection. This report shall include:

1. Number and extent of tubes inspected.

2. Location and percent of wall-thickness penetration for each indication of an imperfection.

3. Identification of tubes plugged.

c. Results of steam generator tube inspections which fall into Category C-3 shall be reported to the Commission as denoted by Table 6.5.9-2. Notification of the Commission will be made prior to resumption of plant operation (i.e., prior to entering Mode 4). The written report shall provide a description of investigations conducted to determine cause of the tube degradation and corrective measures taken to prevent recurrence.

6.6.8. Specific Activity

The results of specific activity analysis in which the primary coolant exceeded the limits of Specification 3.4.8. The following information shall be included: (1) Reactor power history starting 48 hours prior to the first sample in which the limit was exceeded; (2) Results of the last isotopic analysis for radioiodine performed prior to exceeding the limit, results of analysis while limit was exceeded the results of one analysis after the radioiodine activity was reduced to less than limit. Each result should include date and time of sampling and the radioiodine concentrations; (3) Clean-up system flow history starting 48 hours prior to the first sample in which the limit was exceeded; (4) Graph of the I-131 concentration and one other radioiodine isotope concentration in microcuries per gram as a function of time for the duration of the specific activity above the steady-state level; and (5) The time duration when the specific activity of the primary coolant exceeded the radioiodine limit.

6.7 HIGH RADIATION AREA

As provided in paragraph 20.1601(c) of 10 CFR Part 20, the following controls shall be applied to high radiation areas in place of the controls required by paragraph 20.1601(a) and (b) of 10 CFR Part 20:

6.7.1 High Radiation Areas with Dose Rates Not Exceeding 1.0 rem/hour at 30 Centimeters from the Radiation Source or from any Surface Penetrated by the Radiation

a. Each entryway to such an area shall be barricaded and conspicuously posted as a high radiation area. Such barricades may be opened as necessary to permit entry or exit of personnel or equipment.

b. Access to, and activities in, each such area shall be controlled by means of Radiation Work Permit (RWP), or equivalent that includes specification of radiation dose rates in the immediate work area(s) and other appropriate radiation protection equipment and measures.

c. Individuals qualified in radiation protection procedures and personnel continuously escorted by such individuals may be exempted from the requirement for an RWP or equivalent while performing their assigned duties provided that they are otherwise following plant radiation protection procedures for entry to, exit from, and work in such areas.

d. Each individual or group entering such an area shall possess:

   1. A radiation monitoring device that continuously displays radiation dose rates in the area; or

   2. A radiation monitoring device that continuously integrates the radiation dose rates in the area and alarms when the device's dose alarm setpoint is reached, with an appropriate alarm setpoint, or

   3. A radiation monitoring device that continuously transmits dose rate and cumulative dose information to a remote receiver monitored by radiation protection personnel responsible for controlling personnel radiation exposure within the area, or

6.7 HIGH RADIATION AREA (continued)

4. A self-reading dosimeter (e.g., pocket ionization chamber or electronic dosimeter) and,

(i) Be under the surveillance, as specified in the RWP or equivalent, while in the area, of an individual qualified in radiation protection procedures, equipped with a radiation monitoring device that continuously displays radiation dose rates in the area; who is responsible for controlling personnel exposure within the area, or

(ii) Be under the surveillance as specified in the RWP or equivalent, while in the area, by means of closed circuit television, of personnel qualified in radiation protection procedures, responsible for controlling personnel radiation exposure in the area, and with the means to communicate with individuals in the area who are covered by such surveillance.

e. Except for individuals qualified in radiation protection procedures, or personnel continuously escorted by such individuals, entry into such areas shall be made only after dose rates in the area have been determined and entry personnel are knowledgeable of them. These continuously escorted personnel will receive a pre-job briefing prior to entry into such areas. This dose rate determination, knowledge, and pre-job briefing does not require documentation prior to initial entry.

6.7.2 High Radiation Areas with Dose Rates Greater than 1.0 rem/hour at 30 Centimeters from the Radiation Source or from any Surface Penetrated by the Radiation, but less than 500 rads/hour at 1 Meter from the Radiation Source or from any Surface Penetrated by the Radiation

a. Each entryway to such an area shall be conspicuously posted as a high radiation area and shall be provided with a locked or continuously guarded door or gate that prevents unauthorized entry, and, in addition:

1. All such door and gate keys shall be maintained under the administrative control of the shift manager, radiation protection manager, or his or her designee.

2. Doors and gates shall remain locked except during periods of personnel or equipment entry or exit.

b. Access to, and activities in, each such area shall be controlled by means of an RWP or equivalent that includes specification of radiation dose rates in the immediate work area(s) and other appropriate radiation protection equipment and measures.

6.7 HIGH RADIATION AREA (continued)

c. Individuals qualified in radiation protection procedures may be exempted from the requirement for an RWP or equivalent while performing radiation surveys in such areas provided that they are otherwise following plant radiation protection procedures for entry to, exit from, and work in such areas.

d. Each individual or group entering such an area shall possess:

1. A radiation monitoring device that continuously integrates the radiation rates in the area and alarms when the device's dose alarm setpoint is reached, with an appropriate alarm setpoint, or

2. A radiation monitoring device that continuously transmits dose rate and cumulative dose information to a remote receiver monitored by radiation protection personnel responsible for controlling personnel radiation exposure within the area with the means to communicate with and control every individual in the area, or

3. A self-reading dosimeter (e.g., pocket ionization chamber or electronic dosimeter) and,

(i) Be under the surveillance, as specified in the RWP or equivalent, while in the area, of an individual qualified in radiation protection procedures, equipped with a radiation monitoring device that continuously displays radiation dose rates in the area; who is responsible for controlling personnel exposure within the area, or

(ii) Be under the surveillance as specified in the RWP, or equivalent, while in the area by means of closed circuit television, or personnel qualified in radiation protection procedures responsible for controlling personnel radiation exposure in the area and with the means to communicate with individuals in the area who are covered by such surveillance.

4. In those cases where options (2) and (3), above, are impractical or determined to be inconsistent with the "As Low As is Reasonably Achievable" principle, a radiation monitoring device that continuously displays radiation dose rates in the area.

e. Except for individuals qualified in radiation protection procedures, or personnel continuously escorted by such individuals, entry into such areas shall be made only after dose rates in the area have been determined and entry personnel are knowledgeable of them. These continuously escorted personnel will receive a pre-job briefing prior to entry into such areas. This dose rate determination, knowledge, and pre-job briefing does not require documentation prior to initial entry.

f. Such individual areas that are within a larger area where no enclosure exists for the purpose of locking and where no enclosure can reasonably be constructed around the individual area need not be controlled by a locked door or gate, nor continuously guarded, but shall be barricaded, conspicuously posted, and a clearly visible flashing light shall be activated at the area as a warning device.