Entergy

Entergy Operations, Inc.
1448 S.R. 333
Russellville, AR 72802
Tel 501 858 5000

2CAN060203

June 26, 2002

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

SUBJECT: Arkansas Nuclear One, Unit 2
Docket No. 50-368
Revision of Section 6.0, Administrative Controls For Consistency with ANO-1 Improved Technical Specifications

REFERENCES:
1) Letter dated January 23, 2002, Revision of Section 6.0, Administrative Controls For Consistency with ANO-1 Improved Technical Specifications (2CAN010203)
2) NRC Safety Evaluation Related to ANO-2 Amendment 218, dated August 17, 2000
3) Letter dated March 13, 2002, Proposed Changes to Support Implementation of ANO-1 Improved Technical Specifications (ITS) (1CAN030201) (Approved June 10, 2002, Amendment 218, TAC No. MB4750)
4) NRC Safety Evaluation Related to ANO-2 Amendment 241, dated April 11, 2002
5) NRC Approval of Quality Assurance Program Manual dated November 6, 1998 (TAC No. M97893)
6) NRC Safety Evaluation Related to ANO-2 Amendment 180, dated March 7, 1997

Dear Sir or Madam:

By letter (reference 1), Entergy Operations, Inc. (Entergy) proposed a change to the Arkansas Nuclear One, Unit 2 (ANO-2) Technical Specifications (TSs) to reorganize the Administrative Section of the ANO-2 TSs, which also included modifications to several other TSs. The purpose of the change was intended to establish the same logical order in the ANO-2 TSs as reflected in the Arkansas Nuclear One, Unit 1 (ANO-1) improved TSs (ITSs). It was not the original intent for the wording to be the same between the two unit's TSs. In many cases the currently approved wording in the ANO-2 TSs was proposed rather than adopting the exact words contained in the ANO-1 ITS. The result was that the philosophy and location were the same, but the wording contained minor differences.

Based on a review by your staff, more detailed explanations and justifications were requested. Also based on the conversations with your staff, Entergy is revising the wording of the original proposed change to more closely reflect the wording contained in the ANO-1 ITS and NUREG-1432, *"Standard Technical Specifications Combustion*

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Engineering Plants." Differences in the wording between the proposed change and the approved words in the ANO-1 ITS will be discussed. The response to your request is contained in Attachment 1. This letter supercedes the letter (reference 1) submitted in January 2002.

The following changes, which were not included in the previous letter, are proposed within this letter:

- Facility Operating License (FOL) condition 2.C.(6) is proposed for deletion in this letter. The FOL condition required the establishment of a program to ensure the capability to accurately determine the airborne iodine concentration in vital areas under accident conditions. This change is classified as a less restrictive change.

- A note will be added to the Control Room Ventilation Intake Duct Monitors monthly functional test that allows delayed entry into the associated action for up to three hours if the monitors are inoperable solely as a result of the performance of the monthly functional test. This is a less restrictive change.

- The leakage rate of the containment purge supply and exhaust isolation valves required by Surveillance Requirement (SR) 4.6.3.1.4 will be relocated to the administrative controls section, "Programs and Manuals," and will be included as part of the Containment Leakage Rate Testing Program. This change is an administrative change.

- The actions related to the control room boundary are being changed to include a note 1) that allows opening of the boundary on an intermittent basis. In addition, an action will be added to address entry into TS 3.0.3 when both trains of the control room ventilation system are inoperable for reasons other than the control room boundary. These are less restrictive changes.

- A change to SRs 4.7.6.1.1.a and 4.7.6.1.2.a, which require testing of the control room emergency air conditioning system and the control room emergency filtration system, respectively, is proposed. This change will remove the staggered testing frequency and require the testing of each train every 31 days. This change is classified as more restrictive.

- A new action will be added to specifications 3.8.1.1, A.C. Sources and 3.8.1.2, A. C. Sources, Shutdown. These actions will address the requirements associated with the fuel oil storage system and sampling results. The actions are classified as less restrictive.

The font on all of the pages will be changed, along with some minor margin adjustments. These are considered administrative changes and no revision bars will be used to reflect these changes. The font and format change was not included in the original submittal.

A new no significant hazards considerations is included in this supplemental letter. A list of commitments is contained in Attachment 6 to this letter.

In the original submittal Entergy requested that the implementation date be within 180 days of the approval date. The team required to implement this change will be involved in the ANO-1 outage and therefore, Entergy requests a change of the implementation date to be within 270 days of approval.

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 25, 2002.

Sincerely,

CGA/dm

Attachments:
1. Response to Request for Additional Information
2. Revised Markup of Technical Specification Pages
3. Revised Markup of Technical Specification Bases Pages
4. Revised Clean Technical Specification Pages
5. Revised Clean Technical Specification Bases Pages
6. List of Regulatory Commitments

cc: Mr. Ellis W. Merschoff
Regional Administrator
U. S. Nuclear Regulatory Commission
Region IV
611 Ryan Plaza Drive, Suite 400
Arlington, TX 76011-8064

NRC Senior Resident Inspector
Arkansas Nuclear One
P. O. Box 310
London, AR 72847

U. S. Nuclear Regulatory Commission
Attn: Mr. Thomas W. Alexion MS O-7D1
Washington, DC 20555-0001

Mr. Bernard R. Bevill
Director Division of Radiation
Control and Emergency Management
Arkansas Department of Health
4815 West Markham Street
Little Rock, AR 72205

Attachment 1

To

2CAN060203

Response to Request for Additional Information

Response to Request for Additional Information Related to the Revision of Administrative Section 6.0 of the ANO-2 Technical Specifications

Based on your review the following additional information is being supplied to provide more detailed justifications and explanations of the proposed changes. Various changes to the Arkansas Nuclear One, Unit 2 (ANO-2) Technical Specifications (TSs) are proposed that differ from the originally submitted proposed change (reference 1) in an attempt to adjust the words to more closely reflect the Arkansas Nuclear One, Unit 1 (ANO-1) improved Technical Specification (ITS) wording. Several new changes, which were not included in the original proposed change, are contained in this letter. Therefore, this submittal replaces the original submittal (reference 1).

1.0 Facility Operating License (FOL) Changes

1.1 FOL 2.C.(3) (p)

FOL 2.C.(3) (p) requires that a Secondary Water Chemistry Monitoring program be established.

The proposed change deletes the above FOL requirement and relocates it to a new Technical Specification (TS) 6.5.10.

The following changes are proposed associated with the establishment of the new TS.

- The entry paragraph describing the program is being changed to be consistent with the wording in the ANO-1 ITS. The intent of the original wording is the same as the proposed wording – a secondary water chemistry monitoring program is required. The requirement to maintain a procedure governing the secondary water chemistry monitoring program is retained in the new section 6.4, Procedures, specifically 6.4.1.d states that written procedures shall be established, implemented, and maintained covering all programs specified in Specification 6.5. The reference to a specific procedure by name is being deleted. Entergy maintains a procedure; however, the specific name should not be included in the TSs. Neither the ANO-1 ITS nor NUREG-1432, Revision 2, *"Standard Technical Specifications Combustion Engineering Plants,"* reference a specific procedure by name for this program. These are administrative changes.

- The word "parameters" will be changed to "variables." This is an administrative change and results in the words being consistent with NUREG-1432 and ANO-1 ITS.

ANO-1 ITS 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-1 ITS. 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.

1.2 FOL 2.C.(5)

This FOL requirement describes the need to establish a program to reduce leakage from systems outside containment that would or could contain highly radioactive fluids during a serious transient or accident. The FOL requirement will be deleted. A new TS (6.5.2) will be established to reflect the FOL requirement.

The current FOL requirement states:

(5) 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.

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.

The proposed change will modify the wording to be consistent with ANO-1 ITS as follows:

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 Requirement 4.0.2 are applicable.

The intent of the FOL requirement is retained in the new TS with only minor wording changes proposed. These are considered administrative.

The addition of the applicability of Surveillance Requirement (SR) 4.0.2 makes it clear that the maximum allowable surveillance extension interval of 25 percent applies. This is an administrative change. Although this allowance is not explicitly contained in the FOL, the application of the 25 percent allowance is currently applied to the FOL requirements being deleted.

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 systems to which the program is applied have been previously identified in response to NUREG-0578. 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 applies 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.

1.3 FOL 2.C.(6)

This FOL condition requires an established program to ensure the capability to accurately determine the airborne iodine concentration in vital areas under accident conditions. This condition will be deleted. The current wording is as follows:

(6) 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:

1. Training of personnel,

2. Procedures for monitoring, and

3. Provisions for maintenance of sampling and analysis equipment.

NUREG-1432, specification 5.5.3 includes a reviewer's note that states: "This program may be eliminated based on the implementation of Topical Report

CE NPSD-1157, Rev. 1, "Technical Justification for the Elimination of the Post- Accident Sampling System from the Plant Design and Licensing Basis for CEOG Utilities," and the associated NRC Safety Evaluation dated May 16, 2000."

ANO-2 has eliminated the post accident sampling system requirements from TSs with the approval of amendment 218 dated August 17, 2000 (reference 2). Therefore, this FOL condition will be deleted and no new TS will be established as allowed by the reviewer's note in NUREG-1432.

The font on this page will be changed to Arial 11. In addition the page number is moved from the top of the page to the bottom of the page. Revision bars will not be included for the format changes described.

2.0 Index Pages

The index pages will be changed to reflect the new TS order and pagination of Section 6.0. This is an administrative change, no technical changes are proposed.

3.0 Section 1.0, Definitions - Core Operating Limits Report, 1.33

The current definition states:

> 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 Specifications 6.9.5. Plant operation within these operating limits is addressed in individual specifications.

TS 6.9.5 will be moved from its current location to TS 6.6.5. Therefore the reference to TS 6.9.5 will be replaced with TS 6.6.5. This is an administrative change only.

The following reflects the proposed change:

> 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 Specifications **6.6.5.** Plant operation within these operating limits is addressed in individual specifications.

ANO-1 ITS 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.

4.0 Radiation Monitoring Instrumentation TS 3.3.3.1, Table 3.3-6

Actions 17 and 20 apply 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 modifies these actions for clarity and adds a new action 21 for consistency between ANO-1 and ANO-2. The new action 21, discussed below, will address the required actions during handling of irradiated fuel, while the existing actions 17 and 20 will be applicable to Modes 1, 2, 3 or 4 only.

A format change is also proposed to this section. The table layout and actions will also be changed from landscape to portrait. These are administrative changes. No revision bars will be used to reflect the change from landscape to portrait.

Action 17

Current TS (CTS) Action 17 states:

> With no channels OPERABLE, within 1 hour initiate and maintain operation of the control room emergency ventilation system in the recirculation mode of operation.

The proposed Action 17 states:

> **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.**

The proposed change is applicable to Mode 1, 2, 3 or 4. A new action is proposed to reflect the requirements associated with inoperable monitoring equipment during handling of irradiated fuel.

The proposed change is considered more restrictive. Currently, if ANO-2 were unable to place the control room ventilation system in the recirculation mode of operation entry into TS 3.0.3 would be required. TS 3.0.3 allows 37 hours to be in COLD SHUTDOWN, while the proposed change allows only 36 hours after the initial hour allowed for placing the system in the recirculation mode of operation. ANO-2 desires this more restrictive change so that the associated ANO-1 and ANO-2 TS actions are consistent. The plant can be placed in cold shutdown within 36 hours and thus the proposed change does not present any challenges that cannot be met.

ANO-1 ITS 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 unit's 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.

Action 20

Action 20 currently states:

> With the number of channels OPERABLE one less than required by the Minimum Channels OPERABLE requirement, restore the inoperable channel to OPERABLE status within 7 days, or within the next 6 hours initiate and maintain the control room emergency ventilation system in the recirculation mode of operation.

The proposed change is as follows:

> **In MODE 1, 2, 3, or 4** with the number of channels OPERABLE one less than required by the Minimum Channels OPERABLE requirement, **initiate and maintain the control room emergency ventilation system in the recirculation mode of operation within 7 days, or be in HOT STANDBY within the next 6 hours and COLD SHUTDOWN in the following 30 hours.**

The proposed change is applicable to Mode 1, 2, 3 or 4. A new action is proposed to reflect the requirements associated with inoperable monitoring equipment during handling of irradiated fuel.

The proposed change is more restrictive in that it allows 7 days to either restore the inoperable channel or place the control room emergency ventilation system in the recirculation mode of operation. The current TSs allowed an additional 6 hours to place the control room emergency ventilation system in the recirculation mode of operation. 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. ANO-2 accepts the more restrictive change based on a desire to be consistent with the ANO-1 action statements associated with ANO-1 ITS 3.3.16.

ANO-1 ITS Comparison

ANO-1 ITS 3.3.16 Actions A and C are associated with the inoperability of one channel. Action A allows 7 days to place one OPERABLE Control Room Emergency Ventilation System train in the emergency recirculation mode. Action C requires the unit be in Mode 3 within 6 hours and Mode 5 in the following 30 hours if one operable control room ventilation system cannot be placed in the emergency recirculation mode of operation within the 7 day allowance of action A. The proposed change is consistent with the allowable outage times. Due to ITS format and usage rules, the wording in the ANO-2 proposed change is not exactly the same as the ANO-1 ITS. However, the intent of the ANO-1 specification is reflected in the proposed wording.

NUREG-1432 Comparison

NUREG-1432 LCO 3.3.9 addresses the control room isolation signal and requires only one operable channel. Because ANO-2 requires two channels to be operable, there is no related NUREG-1432 condition.

New Action 21

With the proposed changes to make Actions 17 and 20 applicable only in Mode 1, 2, 3, or 4, an action for during handling of irradiated fuel will be added. A reference to Action 21 will be added to Table 3.3-6 item 2.b, Control Room Ventilation Intake Duct Monitors. The proposed new action is:

> 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.

Currently, the ANO-2 TS action 17 addresses actions when no channels are operable during the applicable modes and during handling of irradiated fuel. This current action allows 1 hour to place the control room emergency ventilation system in the recirculation mode of operation. The new action 21 requires immediate action resulting in a more restrictive change.

ANO-2 CTS Action 20, which applies during Modes 1, 2, 3, and 4, and during the handling of irradiated fuel, presently allows 7 days to restore the inoperable channel or initiate and maintain the control room emergency ventilation system in the emergency recirculation mode of operation within the next 6 hours. The new action 21 replaces the portion of Action 20 related to during the handling of irradiated fuel and is more restrictive.

The current allowed outage time is excessive for initiation of the CREVS. Placing the control room in the emergency recirculation mode of operations while necessary repairs are being made ensures satisfactory control room habitability while fuel

handling activities proceed. If for some reason the control room cannot be placed in the emergency recirculation mode, suspension of fuel handling activities provides assurance that the resultant radiological concerns associated with a potential fuel handling accident will not occur. Therefore, this change provides the needed protection for control room personnel.

ANO-1 ITS 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. ANO-2 desires this more restrictive change for consistency with ANO-1.

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.

5.0 TS 3.3.3.1, Table 4.3-3, Radiation Monitoring Instrumentation Surveillance Requirements

The ANO-1 ITS SR 3.3.16.2, which requires that a channel function test be performed every 31 days, contains a note stating: "When the Control Room Isolation-High Radiation instrumentation is placed in an inoperable status solely for performance of this Surveillance, entry into associated Conditions and Required Actions may be delayed for up to 3 hours." The proposed change will include this note in Table 4.3-3 of the ANO-2 TS. The three hour period is based on the average time required to perform the channel surveillance. It is not acceptable to remove the channels from service for more than three hours to perform the required surveillance testing without declaring the channel inoperable. 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. This is a less restrictive change.

A format change is also proposed to this page. The table layout and actions will be changed from landscape to portrait. These are administrative changes. No revision bars will be used to reflect the change from landscape to portrait.

ANO-1 ITS Comparison

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." 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 Comparison

A similar note is not included in NUREG-1432 SR 3.3.9.2.

6.0 Table 3.3-6, Actions 18 and 19

These actions require submittal of a special report to the Commission pursuant to specification 6.9.2 for the containment high range and main steam line radiation monitors when restoration cannot be accomplished. Specification 6.9.2 will be deleted. However, the requirement to submit the special report will be retained. Only minor wording changes are proposed in the current actions to delete reference to specification 6.9.2 and to state that the report should be submitted to the NRC. Written communication to the NRC is described in 10 CFR 50.4 and therefore, the proposed change will reference that the report be submitted to the NRC. The 10 CFR 50.4 guidance adequately ensures that the regional office will receive a copy of the report. This is an administrative change.

ANO-1 ITS Comparison

ANO-1 ITS requires a special report when the reactor building high range radiation monitors are inoperable. 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.

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. 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.

7.0 Table 3.3-10, Actions 3.b and 4.b

This table provides a listing of the post accident monitoring instrumentation and the associated requirements. Actions 3.b and 4.b require submittal of a special report pursuant to Specification 6.9.2. In the proposed change Specification 6.9.2 is being deleted and thus the reference to 6.9.2 will be deleted. This is an administrative change.

This TS page will also be changed from landscape to portrait. Revision bars will not be included for this format change.

ANO-1 ITS Comparison

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.

NUREG-1432 Comparison

NUREG-1432 includes an optional reporting requirement 5.6.7 related to Post Accident Monitoring Reports. The NUREG-1432 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.

8.0 Steam Generator Surveillance Requirements (SRs) 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

The following administrative changes are proposed to the Steam Generator (SG) SRs:

The SG tube surveillance program described in SRs 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 will be relocated to new Specification 6.5.9. The references to the surveillance requirements and table numbers will be changed to reflect the relocation into section 6.0. A new SR 4.4.5 will be added to direct performance of steam generator inspections in accordance with the Steam Generator Tube Surveillance Program.

CTS has a note stating "The requirements for inservice inspection do not apply during the steam generator replacement outage (2R14)." This note will be deleted in the relocation of these SRs. The note is no longer applicable, as the SG replacement is complete.

ANO-1 ITS Comparison

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 described above.

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 with only the minor changes described above. Thus this change is consistent with the NUREG.

Reference to CTS 6.9.2 on Table 4.4-2

CTS Table 4.4-2 requires submittal of a special report to the NRC pursuant to specification 6.9.2. Steam generator reporting requirements contained in CTS 4.4.5.5 will be relocated to Specification 6.6.7. Specification 6.9.2 will be deleted and, therefore, the reference in the proposed TS Table 6.5.9-2 will be changed to reflect the new Specification 6.6.7. Written communication to the NRC is described in 10 CFR 50.4. The 10 CFR 50.4 guidance adequately ensures the regional office

will receive a copy of the report. Therefore, the proposed change will reference that the report be submitted to the NRC rather than to a specific group. This is an administrative change.

ANO-1 ITS Comparison (Reference to CTS 6.9.2)

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. However, based on the reviewer's note contained in NUREG-1432 (see below) the exact format of the ANO-1 conversion is not adopted.

NUREG-1432 Comparison (Reference to CTS 6.9.2)

Steam generator reporting requirements are contained in Specification 5.6.9 of NUREG-1432. 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.

9.0 Steam Generator SR 4.4.5.5

The requirement for reporting the results of the SG inservice inspection is being relocated to specification 6.6.7 with minor changes proposed to item c. The changes, as well as the comparison to ANO-1 ITS and NUREG-1432, are described below with the proposed changes to CTS 6.9.1.5.b.

10.0 Steam Generator Bases

The portion of the bases of TS 3.4.5 that discusses the surveillance requirements for inspection of the SG tubes will be modified to support the changes described above.

11.0 Emergency Core Cooling System (ECCS) Subsystems, TSs 3.5.2 and 3.5.3

CTS actions 3.5.2 b and 3.5.3 b require submittal of a special report pursuant to Specification 6.9.2. Specification 6.9.2 will be deleted in the proposed change. The requirement to submit a special report will be retained with minor wording changes in the above referenced actions. Written communications to the NRC are described in 10 CFR 50.4. The 10 CFR 50.4 guidance adequately ensures the regional office will receive a copy of the report. Therefore, the proposed change will reference that the report be submitted to the NRC rather than specify which group within the NRC should receive the report. This is an administrative change.

ANO-1 ITS 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.

12.0 Containment Isolation Valves, SR 4.6.3.1.4

This SR will be relocated to Specification 6.5.16 along with the other containment leakage rate testing program requirements. The CTS SR states:

> 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.

The proposed change to SR 4.6.3.1.4 will states the following:

> The containment purge supply and exhaust isolation valves shall be demonstrated OPERABLE as specified in the Containment Leakage Rate Testing Program.

The current SR requirement will be worded as follows in the proposed Specification 6.5.16:

> 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 proposed TS 6.5.16 deletes the reference to TS 3.6.1.1, which is applicable in MODES 1, 2, 3, and 4, and requires the leakage rate test prior to entering MODE 4 from MODE 5. The intent of the current SR is met with the proposed wording of Specification 6.5.16.

The proposed TS will delete the reference to TS 4.6.1.2. TS 4.6.1.2 requires that the containment leakage rates shall be determined in accordance with the Containment Leakage Rate Testing Program. By moving the testing requirements of SR 4.6.3.1.4 to the Containment Leakage Rate Testing Program, this deletion makes sense. The intent of the current SR remains met.

The proposed changes are administrative. This action consolidates requirements for leak rate testing in one location. These changes were not included in the original submittal.

ANO-1 Comparison

The relocation of ANO-2 SR 4.6.3.1.4 results in consistency in the location of information between the ANO-1 and ANO-2 TSs. The ANO-1 ITS states that "valves shall be leakage rate tested once." ANO-2 will not adopt the word "once." The use of "once" could be misunderstood since it is possible that more than one test may be

required due to finding an excessive leakage rate. Inclusion of the word "once" may give a false sense that only one test is required. Therefore, ANO-2 will not include the word "once."

NUREG-1432 Comparison

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.

13.0 Control Room Emergency Ventilation and Air Conditioning System, TS 3.7.6.1

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 control room emergency ventilation system (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 is required if both trains of CREVS are inoperable for reasons other than the control room boundary (proposed action e) or if both trains of the control room emergency air conditioning system are inoperable.

The allowance to have the control room boundary open intermittently is acceptable as the note also requires that administrative controls will be in place to ensure that the control room boundary can be rapidly closed when a need for control room isolation is indicated. This is a less restrictive change.

The CTS does not provide actions associated with the control room boundary. Entry into the requirements of Specification 3.0.3 would be required if the boundary were to become inoperable. Requiring the unit to enter Specification 3.0.3 for this condition is excessive, as it does not provide sufficient time to attempt a repair. The proposed change is acceptable because of the low probability of a design basis accident during any given 24 hour period and because entry into the Condition is expected to be very infrequent. This is a less restrictive change.

The addition of proposed action e is consistent with the current licensing basis in that entry into TS 3.0.3 would be required if both trains of the CREVS or both trains of the control room emergency air conditioning system were inoperable. This is an administrative change.

ANO-1 ITS Comparison

The proposed change captures the intent of ANO-1 ITS 3.7.9 and the associated actions and note 1. Due to the format difference between ITS and CTS minor wording differences are required.

The CTS 3.7.6.1 requirements for the CREVS will not be revised to include ANO-1 ITS 3.7.9 note 2, which states that one train of the CREVS shall be capable of automatic actuation. The information contained in this note is consistent with the currently approved ANO-2 bases for the CREVS, which states the following: "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." Therefore, the note is not necessary in the ANO-2 TS.

ANO-1 ITS 3.7.9 action F (CREVS) and ITS 3.7.10, action E (control room emergency air conditioning system) require entry into TS 3.0.3 if both trains of the respective systems are inoperable. The proposed change to ANO-2 TS 3.7.6.1, action e is consistent with the logic presented in these ANO-1 specifications.

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 does not contain a note similar to the ANO-1 ITS note 2. Therefore, the proposed change to the ANO-2 TSs is consistent with the intent of NUREG-1432.

NUREG-1432 Specification 3.7.11, action F and NUREG-1432 Specification 3.7.12, action E require entry into TS 3.0.3 if no control room emergency ventilation or air conditioning systems are operable. The proposed change to ANO-2 TS 3.7.6.1, action e captures the intent of these two NUREG-1432 specifications.

14.0 Control Room Emergency Ventilation and Air Conditioning System Bases 3/4.7.6

The following will be added to the bases:

> A note is included which 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.
>
> If the control room boundary is inoperable in MODES 1, 2, 3, and 4, the control room emergency ventilation systems cannot perform their intended functions. Action 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 radioactive contamination, toxic chemicals, smoke, temperature and relative humidity, and physical security. Pre-planned

measures should be available to address these concerns for intentional and unintentional entry into the condition. The 24 hour allowable outage time is reasonable based on the low probability of a design basis accident occurring during this time period, and the use of compensatory measure. The 24 hour allowable outage time is a typically reasonable time to diagnose, plan and possibly repair, and test most problems with the control room boundary.

ANO-1 ITS Comparison

The proposed change is similar to the wording contained in the ANO-1 TS bases related to the control room boundary. The minor differences are related to ANO-2 not implementing note 2.

NUREG-1432 Comparison

The proposed change is similar to the wording contained in the ANO-1 TS bases related to the control room boundary. The only difference is first sentence in the first paragraph. The intent, however, is the same.

15.0 Control Room Emergency Ventilation and Air Conditioning System, SR 4.7.6.1.1.a and 4.7.6.1.2.a

CTS SRs 4.7.6.1.1.a and 4.7.6.1.2.a require testing of the control room emergency air conditioning system and the control room emergency filtration system, respectively, at least once per 31 days on a STAGGERED TEST BASIS.

The allowance to perform the tests on a STAGGERED TEST BASIS will be deleted. The tests will be conducted on alternating trains semi-monthly. This is a more restrictive change. Testing each train once every month provides an adequate check of the system.

The heading at the top of the page states: "Surveillance Requirements (Continued)." This is not a continuation page of the Surveillance Requirements and therefore the word "continued" and associated parenthesis will be deleted.

ANO-1 ITS Comparison

The related ANO-1 SRs 3.7.6.1 and 3.7.10.1 require testing of each train every 31 days. The proposed change is consistent with this testing frequency.

NUREG-1432 Comparison

The related NUREG-1432 SR 3.7.11.1 requires testing of each train every 31 days. The proposed change is consistent with this testing frequency.

16.0 Control Room Emergency Ventilation and Air Conditioning System, SR 4.7.6.1.2.a and 4.7.6.1.2.d.2

CTS 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 specific details of how to perform the test will be relocated to the TS bases. The proposed change will reword the SR to require that each control room emergency air filtration system operate for at least 15 minutes.

At least once every 18 months CTS SR 4.7.6.1.2.d.2 requires verification of the system's ability to automatically isolate the control room within 10 seconds and switches into a recirculation mode of operation with flow through the HEPA filter and charcoal adsorber banks upon receipt of a control room high radiation test signal. The specific details of how to perform the test will be relocated to the TS bases. The proposed change will require verifying that the control room emergency ventilation system automatically isolates the Control Room and switches into the recirculation mode of operation on an actual or simulated signal. CTS SR 4.7.6.1.2.d.2 will be relocated to the proposed TS 4.7.6.1.2.b based on the discussion below.

The specific details related to the flow path and the 10-second requirement for control room isolation are not necessary parts of the surveillance requirements. Placing these testing details in controlled documents provides adequate assurance that they will be maintained. The Bases will be controlled by the Technical Specification Bases Control Program, which is being added in Section 6.5.14 of the proposed change. These are less restrictive administrative changes.

CTS SR 4.7.6.1.2.d.2 currently does not specify that the test can be performed using either an actual or simulated signal. The proposed change will allow this. This allows satisfactory automatic system initiations for other than surveillance purposes to be used to fulfill the surveillance requirements. OPERABILITY is adequately demonstrated in either case since the system can not discriminate between "actual" or "simulated" signals. This is a less restrictive change.

The following will be added to the TS bases:

> Performance of SR 4.7.6.1.2.a requires that the control room emergency air filtration system be started from the control room and flow through the HEPA filters and charcoal adsorbers.
>
> Performance of SR 4.7.6.1.2.b requires automatic isolation of the control room within 10 seconds upon injection of an actual or simulated control room high radiation test signal. Flow shall be verified through the HEPA filters and charcoal adsorber banks.

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 SR as ANO-2 proposed change to SR 4.7.6.1.2.a and ANO-1 ITS SR 3.7.9.3 is the same SR as ANO-2 proposed change to SR 4.7.6.1.2.d.2.

NUREG-1432 Comparison

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

17.0 ANO-1 ITS SR 3.7.9.4

This ANO- 1 ITS SR requires that system makeup flow rate be verified to be within a specified limit when supplying the control room with outside air. This testing requirement applies only to the ANO-1 emergency ventilation fan (VSF-9). ANO-1 measures make-up airflow through VSF-9 because VSF-9 has a make-up charcoal filter. The charcoal filters have a minimum and maximum requirement for face velocity and other parameters that require the flow rate.

The ANO-2 fan (2VSF-9) does not have a separate make-up air filter. A similar test is, therefore, not required for the ANO-2 fan and the requirement does not need to be included in the ANO-2 TSs.

18.0 Control Room Emergency Ventilation and Air Conditioning System, SR 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

These SRs describe the ventilation filtration program associated with the control room emergency filtration system. They will be moved and combined with the fuel handing area ventilation filtration testing program, currently included in SR 4.9.11.2, to the Administrative Controls Section 6.5.11. A new SR 4.7.6.1.c will replace these SRs with the following words: "By performing the required Control Room Emergency Ventilation filter testing in accordance with the Ventilation Filter Testing Program (VFTP)."

The following will be deleted because in the proposed addition of the VFTP in Section 6.5.11 all frequencies are replaced by a reference to perform the testing at the frequencies specified in Regulatory Guide 1.52, Revision 2. Since there is no actual change in the frequencies or in the commitment conformance to Regulatory Guide 1.52, this change is considered to be one of presentation only, and therefore, administrative in nature.

- The introductory paragraph contained in CTS SR 4.7.6.1.2.b
- The reference to the specific Regulatory Positions C.5.a, C.5.c and C.5.d of Regulatory Guide 1.52 listed in CTS SR 4.7.6.1.2.b.1
- The frequency "After every 720 hours of charcoal adsorder operation" contained in CTS SR 4.7.6.1.2.c introductory paragraph.
- The reference to the specific Regulatory Positions C.6.b of Regulatory Guide 1.52 listed in CTS SR 4.7.6.1.2.c
- The frequency "at least once per 18 months" contained in CTS SR 4.7.6.1.2.d.

- The frequency "after each complete or partial replacement of a HPEA filter bank" contained in CTS SR 4.7.6.1.2.e.

- The frequency "after each complete or partial replacement of a charcoal adsorber bank" contained in CTS SR 4.7.6.1.2.f.

The following less restrictive administrative deletions will be made based on the fact that the information providing details of implementation does not directly pertain to the actual requirement and can be moved to a licensee controlled document without a significant impact on safety. Placing these details in the VFTP itself and not specifically in the TS provides adequate assurance that they will be maintained.

- The frequency "within 31 days after removal" and the reference to Regulatory Position C.6.b of Regulatory Guide 1.52 contained in CTS SR 4.7.6.1.2.b.2

- The frequency "within 31 days after removal" contained in CTS SR 4.7.6.1.2.c introductory paragraph.

"Other filters in the system" will be added to CTS 4.7.6.1.2.d.1 when it is relocated. This is a more restrictive change, which results in including the pre-filters and "roughing" filters in the ventilation system differential pressure testing requirements. Adding "other filters in the system" accommodates specific nomenclature and system design variances.

ANO-1 ITS Comparison

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 closely reflect the intent of the ANO-1 ITS VFTP.

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 closely reflect the intent of the NUREG.

19.0 Shock Suppressors (Snubbers) SR 4.7.8.h

This SR refers to Specification 6.10.2, which was deleted from the ANO-2 TSs with Amendment 209. 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. This is an administrative change.

20.0 Spent Fuel Pool Structural Integrity, TS 3.7.12, Action a

This action requires submittal of a special report to the commission pursuant to specification 6.9.2. Specification 6.9.2 will be deleted; however, the required special report will be retained. Minor wording changes are proposed to delete reference to specification 6.9.2 and state that the report should be submitted to the NRC. Written communication to the NRC is described in 10 CFR 50.4, which adequately ensures that the regional office will receive a copy of the report. Therefore, the proposed change will reference that the report be submitted to the NRC with the understanding that the guidance for written communication to the NRC described in 10 CFR 50.4 will be used. This is an administrative change.

ANO-1 ITS Comparison

ANO-1 does not have a similar specification. The current ANO-2 licensing basis requires this submittal and it will be retained.

NUREG-1432 Comparison

NUREG-1432 does not include a similar specification. The current ANO-2 licensing basis requires this submittal and it will be retained.

21.0 Sample of Diesel Fuel, SR 4.8.1.1.2.b

SR 4.8.1.1.2.b will be relocated to specification 6.5.13 as the Diesel Fuel Oil Testing Program. The current SR words will be replaced with: "Verify fuel oil properties of new and stored fuel oil are tested in accordance with and maintained within the limits of the Diesel Fuel Oil Testing Program."

ANO-1 and ANO-2 share a common above ground fuel oil storage tank (T-25). In addition each unit has separate fuel storage tanks (T-57A/B for ANO-1 and 2T-57A/B for ANO-2) that supply fuel oil to the day tanks associated with each EDG. The fuel oil sample is required of 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.

The proposed change will include the addition of a new action f that addresses the required actions associated with fuel oil, either level in the fuel storage system (3.8.1.1.b.2) or fuel oil sample results. The proposed new action f is as follows:

f. With the volume of the separate fuel storage system outside the limits of action f.1 or the new or stored fuel oil properties outside the limits of the Diesel Fuel Oil Testing Program, perform the following as appropriate: (Note 2)

    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 one or more diesel generators, restore stored fuel oil properties to within limits within 30 days.
4. If action f.1 is not met within the allowable outage time or is outside the allowable limits, or if action f.2 or f.3 is not met within the allowable outage time, then immediately declare the associated diesel generator inoperable and perform the appropriate action.

A note will be added to new action f as follows:

Note 2: Separate Condition entry is allowed for each diesel generator.

This new action and note were not proposed in the original submittal. This is a less restrictive change. Currently a bad fuel sample would require declaring the diesel inoperable and entering a 72 hour allowable outage time. The proposed change will allow additional time to restore the fuel oil to within acceptable parameters before entering the 72 hour action statement for an inoperable diesel generator.

Each fuel oil storage tank, when 100% full (22,500 gallons), contains sufficient volume for approximately 3 ½ days of operations. Therefore, the combined storage capacity, 45, 000 gallons, ensures a sufficient supply of fuel oil for seven days of full load operations. Only one diesel generator is required to supply the components needed for accident mitigation. The proposed change introduces a lower volume of 17,446 gallons. This value, when summed with the contents of the other storage tank (i.e., a total of 34, 892 gallons) ensures six days of fuel oil is available.

During the proposed allowable time associated with level and the properties of the fuel oil, the diesel generator is capable of performing its intended function and is therefore not inoperable. The fuel oil volume and properties of the fuel 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.

In order to accommodate the addition of the new action and the change of fonts TS pages 3/4 8-1 through 3/4 8-2a will be spread over pages 3/4 8-1 through 3/4 8-2b, i.e., a new page 3/4 8-2b will be added. Minor format changes are proposed other than the change of font. No technical changes other than those described in this letter are proposed to any of the pages.

CTS SR 4.8.1.1.2.b states:

Each diesel generator shall be demonstrated OPERABLE:

"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.

The proposed change will create a new SR 4.8.1.1.2.b. The proposed change creates separate actions for the fuel oil storage tank and does not require that the

associated diesel generator be declared inoperable if the fuel oil storage system is inoperable for any of the reasons outlined above in the proposed new action f.

> "Verify fuel oil properties of new and stored fuel oil are tested in accordance with, and maintained within the limits of, the Diesel Fuel Oil Testing Program."

The following is the proposed new 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 92 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.

The proposed change will revise CTS SR 4.8.1.1.2.b to 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 routinely performed since this initial verification provides the necessary confirmation of fuel oil quality. This is a more restrictive change.

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 proposed TS 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 is the current licensing basis and will be retained.

The proposed TS 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.

A change to the associated TS bases is also proposed to add information related to the diesel fuel oil testing program.

ANO-1 ITS Comparison

The proposed changes result in the ANO-1 ITS and ANO-2 TSs being similar. The ANO-1 ITS has a separate TS 3.8.2 for Diesel Fuel Oil and Starting Air which the proposed change does not create. However, the proposed change does create a new action f that adopts the actions that are contained in the ANO-1 ITS 3.8.2 for the stored diesel fuel oil. The new Diesel Fuel Oil Testing Program for ANO-2 is consistent with the ANO-1 ITS 5.5.13 except the allowance of using the ANO-2 current testing frequency for particulates of every 92 days.

NUREG-1432 Comparison

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

The proposed TS 6.5.13 and NUREG-1432 5.5.13 differ only 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. If the water and sediments are within limits then the new fuel oil will have a clear and bright appearance with proper color. Therefore, although different, the intent is satisfied.

In addition the currently approved testing frequency of 92 days contained in the ANO-2 license will be retained. This differs from the NUREG.

22.0 TS 3.8.1.2 New Action

TS 3.8.1.2 requires operability of at least one diesel generator. Operability is demonstrated by performance of the SRs 4.8.1.1.1 and 4.8.1.1.2 except for SR 4.8.1.1.2a.5. SR 4.8.1.1.2.b requires sampling of the diesel fuel and will be relocated and modified as described above. A similar action as the proposed action "f" above will be added to TS 3.8.1.2. The logic and basis for the change is discussed above with action "f." The proposed change will ensure that consistent actions apply anytime operability of an emergency diesel is required. LCO 3.8.3 in NUREG-1432 and ANO-1 ITS addresses, in part, stored diesel fuel oil and is applicable when the associated diesel generator is required to be operable. The newly proposed action results in the ANO-2 TSs related to the emergency diesel generators being consistent with the logic for stored diesel fuel oil contained in both the NUREG and the ANO-1 ITS. During the 48 hours allowed by the proposed change, the diesel generator is capable of performing its intended function and is therefore not inoperable. The fuel oil volume and properties of the fuel 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. The proposed change is less restrictive.

The new action "b" is proposed as follows:

b. With the volume of the fuel storage system outside the limits of action b.1 or the new or stored fuel oil properties outside the limits of the Diesel Fuel Oil Testing Program, perform the following as appropriate:

    1. If the required diesel generator associated fuel storage tank contains 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 the required diesel generator, restore fuel oil total particulates to within limits within 7 days.
    3. If new fuel oil properties are not within limits for the one required diesel generator, restore stored fuel oil properties to within limits within 30 days.
    4. If action b.1 is not met within the allowable outage time or is outside the allowable limits, or if action b.2 or b.3 is not met within the allowable outage time, then immediately declare the associated diesel generator inoperable and suspend all operations involving CORE ALTERATIONS or positive reactivity changes.

ANO-1 ITS Comparison

ANO-1 ITS LCOs 3.8.1 and 3.8.2 require diesel generator operability during operating and shutdown conditions, respectively. LCO 3.8.3, in part, requires that stored diesel fuel oil shall be within limits for each diesel generator required to be operable by either LCOs 3.8.1 or 3.8.2. ANO-1 ITS SR 3.8.3.2 requires testing of the fuel oil properties of new and stored fuel oil in accordance with the Diesel Fuel Oil Testing Program. The ANO-2 TS SR 4.8.1.2 requires performance of the newly proposed SR 4.8.1.1.2.b, which ensures the fuel oil is tested in accordance with the

Diesel Fuel Oil Testing Program. The proposed change to action "b" of ANO-2 TS 3.8.1.2, in conjunction with the completion of the surveillance tests, meets the intent of the ANO-1 ITS for the stored diesel fuel oil.

NUREG-1432 Comparison

NUREG-1432 LCOs 3.8.1 and 3.8.2 require diesel generator operability during operating and shutdown conditions, respectively. LCO 3.8.3, in part, requires that stored diesel fuel oil shall be within the limits for each diesel generator required to be operable by either LCO 3.8.1 or 3.8.2. The ANO-2 TS SR 4.8.1.2 requires performance of the newly proposed SR 4.8.1.1.2.b, which ensures the fuel oil is tested in accordance with the Diesel Fuel Oil Testing Program. The proposed change to action "b" of ANO-2 TS 3.8.1.2, in conjunction with the completion of the surveillance tests, meets the intent of the NUREG for the stored diesel fuel oil.

23.0 Fuel Handling Area Ventilation System, SR 4.9.11.2

This CTS SR provides the testing criteria for the fuel handling area filtration system. The filter testing program will be relocated to the proposed TS 6.5.11. Several deletions are proposed to the CTS in order to accommodate this relocation. A new SR will be included as SR 4.9.11.2 stating that the system will be tested in accordance with the Ventilation Filter Testing Program.

The following will be deleted because all frequencies are replaced by a reference to perform the testing at the frequencies specified in Regulatory Guide 1.52, Revision 2. Since there is no actual change in the frequencies, this change is considered to be one of presentation only, and therefore, administrative in nature.

- The CTS SR 4.9.11.2.a which describes the frequency, based on at least once per 18 months or following maintenance activities that affect the system.
- The reference to the specific Regulatory Positions C.5.a, C.5.c and C.5.d of Regulatory Guide 1.52 listed in CTS SR 4.9.11.2.a.1.
- The frequency "After every 720 hours of charcoal adsorder operation" and the reference to the specific Regulatory Positions C.6.b of Regulatory Guide 1.52 contained in CTS SR 4.9.11.2.b
- The frequency "at least once per 18 months" contained in CTS SR 4.9.11.2.c.
- The frequency "after each complete or partial replacement of a HEPA filter bank" contained in CTS SR 4.9.11.2.d
- The frequency "after each complete or partial replacement of a charcoal adsorber bank" contained in CTS SR 4.9.11.2.e

The following less restrictive administrative deletions will be made based on the fact that the information providing details of implementation does not directly pertain to the actual requirement. The details are not necessary to adequately described the

actual regulatory requirement and can be moved to a licensee controlled document without a significant impact on safety. Placing these details in the VFTP provides adequate assurance that they will be maintained.

- The frequency "within 31 days after removal" and the reference to Regulatory Position C.6.b of Regulatory Guide 1.52 contained in CTS SR 4.9.11.2.a.2.

"Other filters in the system" will be added to CTS 4.9.11.2.c when it is relocated. This is a more restrictive change, which results in including the pre-filters and "roughing" filters in the ventilation system differential pressure testing requirements. Adding "other filters in the system" accommodates specific nomenclature and system design variances.

ANO-1 ITS Comparison

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 closely reflect the intent of the ANO-1 ITS VFTP.

NUREG-1432 Comparison

The relocation of the ventilation filter testing program from the fuel handling area ventilation 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 closely reflect the intent of the NUREG.

24.0 TSs 3.11.2 and 3.11.3, Gas Storage Tanks and Explosive Gas Mixture

The Explosive Gas and Storage Tank Radioactivity Monitoring Program is included in the ANO-1 ITS and in NUREG-1432 as Section 5.5.12. ANO-1 and ANO-2 do not share common systems. ANO-2 TSs 3.11.2 and 3.11.3 currently cover these activities. Changes to these specifications were not proposed in the original submittal. Relocation may be considered in the future in a separate submittal.

25.0 Responsibility, TS 6.1

CTS 6.1.1 states the following:

> The ANO-2 plant manager ANO shall be responsible for overall unit operations and shall delegate in writing the succession to this responsibility during his absence.

The proposed change to 6.1.1 is as follows:

> The **Plant Manager Operations** shall be responsible for overall unit operation and shall delegate in writing the succession to this responsibility during his absence.

The proposed change results in a minor editorial change to reflect the change in the position title.

ANO-1 ITS Comparison

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 (reference 3). The change is consistent with a recent organization change at ANO, which resulted in only one plant manager between the two units. This is an administrative change.

NUREG-1432 Comparison

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 No. 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.

CTS 6.1.2 states the following:

> 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 MODE 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.

The proposed change to 6.1.2 is as follows:

> 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 MODE 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.

The deletion of the first use of "license" in the phrase "with an active SRO **license** or Reactor Operator license" is the only change proposed resulting in this being an editorial administrative change.

ANO-1 ITS Comparison

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

NUREG-1432 Comparison

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 "turnover" requirements in the ITS are unnecessary. These changes are consistent with the current license basis.

26.0 Organization, Offsite and Onsite Organizations, TS 6.2.1

CTS 6.2.1 is titled "Offsite and Onsite Organizations." This title will be changed to "Onsite and Offsite Organizations" to be consistent with ANO-1 ITS and NUREG-1432. This is an editorial change.

The opening paragraph of CTS 6.2.1 states:

> 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**.

The proposed change results in the following words:

> 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 **unit**.

The proposed change results in only a minor editorial administrative change with the changing of the word "plant" to "unit" in the last sentence.

ANO-1 Comparison

ANO-2 proposed TS is consistent with the wording in ANO-1 ITS.

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.

CTS 6.2.1.a states the following:

> Lines of authority, responsibility, and communication shall be established and defined for the 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 responsibilities of the positions delineated in these Technical Specifications shall be documented in the Safety Analysis Report (SAR).

The proposed change to TS 6.2.1.a is as follows:

> 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);

The proposed changes result in minor editorial administrative changes.

ANO-1 ITS Comparison

The proposed changes are consistent with the ANO-1 ITS 5.2.1.a.

NUREG-1432 Comparison

NUREG-1432 refers to "plant-specific" titles while the proposed change 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."

CTS 6.2.1.b states the following:

> The ANO-2 plant manager shall be responsible for overall unit safe operation and shall have control over those onsite activities necessary for safe operation and maintenance of the plant.

The proposed change is as follows

> 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;**

The proposed change results in minor editorial administrative changes.

ANO-1 ITS Comparison

The proposed change 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 (reference 3) which modifies the title of "ANO-1 plant manager" to "Plant Manager Operations." This change is an organization change at ANO that resulted in one plant manager between the two units.

NUREG-1432 Comparison

Only minor differences exist between the proposed change to TS 6.2.1.b and NUREG 5.2.1.a as follows:

- 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.

CTS 6.2.1.c states the following:

> A specified corporate executive shall have corporate responsibility for overall plant 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 to ensure nuclear safety. The specified corporate executive shall be documented in the SAR.

The proposed change results in the following changes:

> 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 documented in the SAR; **and**

The proposed change results in minor editorial administrative changes.

ANO-1 ITS Comparison

The proposed change is consistent with ANO-1 ITS 5.2.1.c.

NUREG-1432 Comparison

The word "plant" is used in NUREG-1432 instead of the proposed wording in proposed TS 6.2.1.c, which uses the word "unit." 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. This is a more restrictive administrative requirement than is contained in NUREG-1432.

CTS 6.2.1.d states the following:

> The individuals who train the operating staff and those who carry out health physics and quality assurance functions may report to the appropriate onsite manager; however, they shall have sufficient organizational freedom to ensure their independence from operating pressures.

The proposed change states the following:

> 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.

The proposed changes are editorial administrative changes.

ANO-1 ITS Comparison

The proposed changes are consistent with ANO-1 ITS 5.2.1.d.

NUREG-1432 Comparison

The proposed changes are consistent with NUREG-1432.

27.0 Organization, Unit Staff, TS 6.2.2

NUREG-1432 includes an introductory phase "The unit staff organization shall include the following." This phrase is omitted. The phrase provides no requirements or clarification, and implies that "the following" is intended to be a listing of required organizational elements. However, also included are general requirements for the staff, e.g., absence and overtime limitations, etc. Therefore, the introductory phrase is not appropriate.

CTS 6.2.2.a states the following:

> Each on-duty shift shall be composed of at least the minimum shift crew composition shown in Table 6.2-1.

The proposed change will delete Table 6.2-1 and create two specifications to describe shift crew composition delineated in the table.

The proposed change to TS 6.2.2.a will state the following:

> 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.

proposed to the CTS as related to this sentence. This is a more restrictive administrative requirement than is contained in NUREG-1432.

CTS 6.2.1.d states the following:

> The individuals who train the operating staff and those who carry out health physics and quality assurance functions may report to the appropriate onsite manager; however, they shall have sufficient organizational freedom to ensure their independence from operating pressures.

The proposed change states the following:

> 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.

The proposed changes are editorial administrative changes.

ANO-1 ITS Comparison

The proposed changes are consistent with ANO-1 ITS 5.2.1.d.

NUREG-1432 Comparison

The proposed changes are consistent with NUREG-1432.

27.0 Organization, Unit Staff, TS 6.2.2

NUREG-1432 includes an introductory phase "The unit staff organization shall include the following." This phrase is omitted. The phrase provides no requirements or clarification, and implies that "the following" is intended to be a listing of required organizational elements. However, also included are general requirements for the staff, e.g., absence and overtime limitations, etc. Therefore, the introductory phrase is not appropriate.

CTS 6.2.2.a states the following:

> Each on-duty shift shall be composed of at least the minimum shift crew composition shown in Table 6.2-1.

The proposed change will delete Table 6.2-1 and create two specifications to describe shift crew composition delineated in the table.

The proposed change to TS 6.2.2.a will state the following:

> 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.

A new TS 6.2.2.b is proposed that will state the following:

> 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.

In the discussion of the Unit Staff, plant specific clarifications will be provided to reflect the station two unit design, and that the two units share a common control room envelope, but the control rooms are separate. Unit specific terminology will be incorporated to clarify applicability of requirements on a unit specific basis. Since the unit operations licensed staff is assigned in this manner (i.e., to either ANO-1 or ANO-2, but not both), a specific identification will be provided for the applicable column of the table in 10 CFR 50.54(m)(2)(i). The shift manning requirements for "one unit, one control room" are considered to be applicable to each unit at ANO on an individual basis due to the dissimilarity of design of the units. ANO does not attempt to license individuals on both units simultaneously. These changes are consistent with the current license basis. This is an administrative change.

ANO-1 Comparison

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 (reference 3).

NUREG-1432 Comparison

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.

CTS 6.2.2.b states the following:

> At least one licensed Operator shall be in the control room when fuel is in the reactor.

The CTS will be deleted. This paragraph duplicates requirements provided in the 10 CFR 50.54(m)(2)(iii), which states: "In addition to this senior operator, for each fueled nuclear power unit, a licensed operator or senior operator shall be present at the controls at all times." This is an administrative change.

ANO-1 ITS Comparison

A similar requirement was contained in the ANO-1 CTS prior to conversion. It was deleted based on being redundant to the regulations. Therefore, the proposed change is consistent with ANO-1's ITS conversion.

NUREG-1432 Comparison

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

CTS 6.2.2.c states the following:

> 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.

The CTS will be deleted. This paragraph duplicates 10 CFR 50.54(m)(1) and (m)(2)(iii). This is an administrative change.

ANO-1 Comparison

ANO-1 had a similar CTS which was deleted when converting to ITS since the CTS duplicated requirements provided in the regulations. Therefore, this change is consistent with the ANO-1 ITS conversion.

NUREG-1432 Comparison

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

CTS 6.2.2.d states the following:

> An individual qualified in radiation protection procedures shall be on site when fuel is in the reactor.

The above will be retained as proposed TS 6.2.2.d with the addition of a second sentence as follows:

> 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.

The addition of the second sentence provides guidance in the event of an unexpected absence. This is consistent with the current guidance given for minimum shift crew composition in CTS Table 6.2-1. It is appropriate to apply the same guidance to the individual qualified in radiation protection. This is an administrative change.

ANO-1 ITS Comparison

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

NUREG-1432 Comparison

The proposed change is consistent with the intent of NUREG-1432 although the wording differs slightly.

CTS 6.2.2.e states the following:

> 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.

The CTS will be deleted as it duplicates the requirements contained in 10 CFR 50.54(m)(2)(iv). This change is considered administrative.

ANO-1 ITS Comparison

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

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

CTS 6.2.2.f states the following:

> In MODES 1, 2, 3, or 4, an individual shall provide advisory technical support for the unit operations shift supervisor 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 on Engineering Expertise on Shift.

This will be retained and relocated to PROPOSED TS 6.2.2.g with only minor editorial administrative changes as follows:

> 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.

The proposed change introduces only minor differences in that the individual provides support to operations shift crew rather than just the operations shift supervisor. This change is consistent with the actual practice of the advisory individual with the shift crew. This is an administrative change.

ANO-1 ITS Comparison

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

NUREG-1432 Comparison

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

CTS 6.2.2.g states the following:

> Administrative control shall be established to limit the amount of overtime worked by plant staff performing safety related functions. These administrative controls shall be in accordance with the guidance provided by the NRC Policy Statement on working hours (Generic Letter 82-12).

The proposed change will move the above to 6.2.2.e with minor editorial administrative changes:

> 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).

ANO-1 ITS Comparison

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

NUREG-1432 Comparison

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.

CTS 6.2.2.h states the following:

> The operations manager or the assistant operations manager shall hold a senior reactor operator license.

The proposed change will relocate CTS 6.2.2.h to 6.2.2.f. A minor editorial administrative change replacing the words "senior reactor operator" with "SRO" is also proposed.

ANO-1 ITS Comparison

The wording is consistent with the ANO-1 ITS.

NUREG-1432 Comparison

The wording is consistent with NUREG-1432.

CTS Table 6.2-1 will be deleted. The requirements of shift manning delineated in the table will be included in proposed TS 6.2.2.a and 6.2.2.b. This is an administrative change.

ANO-1 ITS Comparison

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

NUREG-1432 Comparison

See previous discussion under CTS 6.2.2.a.

CTS Table 6.2-1 * note will be deleted. This note is redundant to requirements contained in 10 CFR 50.54. The justification for the deletion is described above. This is an administrative change.

ANO-1 ITS Comparison

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

NUREG-1432 Comparison

The proposed change is consistent with NUREG-1432.

CTS Table 6.2-1 # Note states the following:

> 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.

This will be moved to PROPOSED TS 6.2.2.c as follows:

> 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.

The proposed change references the requirements of 10 CFR 50.54(m)(2)(i) for one unit, one control room, which was described in the proposed change associated with CTS 6.2.2.a. The change also allows two hours for the non-licensed operator (proposed TS 6.2.2.a) to be absent unexpectedly, which is consistent with the current licensing basis. The change also allows two hours for the shift technical advisor (proposed TS 6.2.2.g) to be absent, which is not defined in the current licensing basis. This addition provides clarity that any shift operations position that

provides direct support to the unit operations crew has the same unexpected absence policy. This is an administrative change.

ANO-1 ITS Comparison

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

NUREG-1432 Comparison

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.

28.0 Unit Staff Qualifications, TS 6.3.1

CTS 6.3.1 currently states:

> Each member of the unit staff shall meet or exceed the minimum qualifications of ANSI N18.1-1971 for comparable positions, except for (1) the designated radiation protection manager, who shall meet or exceed the qualifications of Regulatory Guide 1.8, September 1975

The proposed change is as follows:

> 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

This is a more restrictive change replacing the ANSI N18.1-1971 requirements with ANSI ANS 3.1-1978. This change reflects the latest changes to the Quality Assurance Program Manual (QAPM) approved by the NRC (reference 5).

ANO-1 ITS Comparison

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

NUREG-1432 Comparison

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.

29.0 Programs, TS 6.5

CTS 6.5.7 Reactor Coolant Pump Flywheel Inspection

No change is proposed to this program. Amendment 241 (reference 4) relocated this program to the administrative controls section of the ANO-2 TSs and extended the inspection interval from three years to ten years.

ANO-1 ITS Comparison

ANO-1 is not committed to the requirements of Regulatory Guide 1.14, Revision 1, as stated in the NUREG. Therefore, the current ANO-1 surveillance requirements were retained. ANO-2 is committed to Regulatory Guide 1.14 and thus the reactor coolant pump flywheel inspection requirements differ between the two units.

NUREG-1432 Comparison

The ANO-2 specification includes the following that is not contained in NUREG-1432: "The volumetric examination per Regulatory Position C.4.b.1 will be performed on approximately 10-year intervals." This is the current licensing basis as approved in TS Amendment 241 (reference 4).

CTS 6.5.8 Inservice Testing Program

The Inservice Testing Program was relocated to CTS 6.5.8 with Amendment 233. No changes are proposed to this specification.

ANO-1 ITS Comparison

The heading in the proposed change, which states "ASME Boiler and Pressure Vessel Code and applicable Addenda terminology for inservice testing activities," differs from the heading in ANO-1 ITS specification 5.5.8, which states "ASME Code terminology for inservice testing activities." The intent is the same. The ANO-2 wording is in the current license basis and is consistent with the heading in NUREG-1432.

NUREG-1432 Comparison

The wording in the proposed change is consistent with NUREG-1432 with the exception of the definition of every 6 weeks, which is not included in NUREG-1432. The definition of every 6 weeks is in the current license bases and will be retained.

30.0 Safety Limit Violation, TS 6.7

Specifications 6.7.1.a, 6.7.1.b, and 6.7.1.c will be deleted. This is an administrative change.

Specification 6.7.1.a requires that the unit be placed in at least HOT STANDBY within one hour of violating a Safety Limit. The Safety Limits are included in Section 2.1 of the ANO-2 TSs. Specification 6.7.1.a is duplicated in the action statements of the safety limits, Departure from Nucleate Boiling Ratio, Peak Fuel Centerline Temperature, and Reactor Coolant System pressure, which currently require that if the limits are exceed, the unit be placed in HOT STANDY within one hour. The same action is required by each specification, therefore specification 6.7.1.a will be deleted.

Specification 6.7.1.b requires that the Vice President, Operations ANO and the SRC be notified within 24 hours of violating a safety limit. This notification is administratively controlled as part of the ANO corrective action process. This notification 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.

Specification 6.7.1.c requires that the Nuclear Regulatory Commission (NRC) be notified in the event of a safety limit violation. 10 CFR 50.36, 10 CFR 50.72 and 10 CFR 50.73 require verbal and written notification to the NRC if a plant shutdown is required by the unit's Technical Specifications. TS 6.7.1.c will be deleted since it is redundant to the requirements contained in these regulations.

ANO-1 ITS Comparison

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

NUREG-1432 Comparison

The proposed change is consistent with NUREG-1432.

31.0 Procedures and Programs, TS 6.8

CTS 6.8.1.a

This specification requires that written procedures covering activities referenced in Appendix "A" of Regulatory Guide (RG) 1.33, Revision 2, February 1978 shall be established, implemented, and maintained. This will be retained as specification 6.4.1.a with slight re-ordering of the words. This is an administrative change.

ANO-1 ITS Comparison

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

NUREG-1432 Comparison

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

CTS 6.8.1.b, 6.8.1.c and 6.8.1.h

Specification 6.8.1.a requires that written procedures be established as recommended in Appendix "A" of RG 1.33, Revision 2, February 1978. Specifications 6.8.1.b, c and h list specific types of written procedures that shall be established, implemented, and maintained. The types of procedures listed in these specifications are procedures covering refueling operations, surveillance and test activities on safety related equipment, and new and spent fuel storage, respectively. RG 1.33 includes a list of the types of procedures that should be established. Each of these is included in the RG and therefore 6.8.1.b, c and h will be deleted. This is an administrative change.

ANO-1 ITS Comparison

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

NUREG-1432 Comparison

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.

CTS 6.8.1.f will be retained as 6.4.1.c. This is an administrative change with no wording changes proposed.

ANO-1 ITS Comparison

ANO-1 ITS 5.4.1.c is the same as the proposed change to TS 6.4.1.c.

NUREG-1432 Comparison

NUREG-1432 specification 5.4.1.d is the same as the proposed change to TS 6.4.1.c.

CTS 6.8.1.g, Modifications to CPCs

This specification describes the procedures needed for the core protection calculator addressable constants and software. This will be retained as specification 6.4.1.e with only minor editorial administrative changes proposed.

ANO-1 ITS Comparison

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

NUREG-1432 Comparison

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

CTS 6.8.1.i, ODCM and PCP Implementation

This specification requires that written procedures shall be established, implemented and maintained related to the Offsite Dose Calculation Manual (ODCM) and Process Control Program (PCP). These programs will be included in new Section 6.5. The proposed change (new TS 6.4.1.d) will encompass each of the programs that will be included in the new Section 6.5 and will ensure that procedures are maintained for the programs listed in Section 6.5. The change is desired to be consistent with the ANO-1 ITS and NUREG-1432. This is an administrative change.

ANO-1 ITS Comparison

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 Section 5.5. Therefore, this change is consistent with the ANO-1 ITS.

NUREG-1432 Comparison

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 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.

New 6.4.1.b, Emergency Operating Procedures

This is added as a new more restrictive requirement to be consistent with NUREG-1432 and the ANO-1 ITS. Since ANO-2 currently maintains emergency operating procedures as described by this requirement, it is not a burden or hardship to adopt this TS. The addition of the TS ensures that ANO-2 current practices are maintained.

CTS 6.8.4.a, Radioactive Effluent Controls Program

This specification requires that a Radioactive Effluent Controls Program shall be established, implemented, and maintained. This will be retained as specification 6.5.4. The proposed changes include renumbering of the subparagraphs from numerical to alpha characters and adding clarity that SR 4.0.2 and 4.0.3 are applicable, based on being consistent with the intent of performing periodic surveillances. Since no changes to the regulatory requirements are made this change is considered an administrative change.

The addition of SR 4.0.2 is consistent with the current philosophy, in that performance of surveillances under this program currently allow the surveillance interval described in SR 4.0.2. The addition of SR 4.0.3 is also consistent with the current philosophy. Twenty-four hours may be applied when it is identified that a surveillance, as described in the radioactive effluent controls program, has not been perform.

The current licensing basis reference to 10 CFR 20.1302 and 10 CFR 20, Appendix B, Table II, Column 1 and 2 will be retained as described below in the NUREG-1432 comparison.

ANO-1 ITS Comparison

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 (reference 3).

NUREG-1432 Comparison

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. Fabrication, purchase, 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.

CTS 6.8.4.b, Component Cyclic or Transient Limit Program

This specification will be retained as proposed TS 6.5.5 with only a minor editorial administrative change.

ANO-1 ITS Comparison

The ANO-1 ITS does not include this requirement.

NUREG-1432 Comparison

This CTS is consistent with the wording contained in NUREG-1432.

32.0 Reporting Requirements, TS 6.9

The reporting requirements will be located in section 6.6 of the proposed change. The opening statement about making submittals in accordance with 10 CFR 50.4 will not be adopted. Many of the reports addressed are submitted in accordance with Part 20 and are not governed by 50.4. This is an administrative change.

CTS 6.9.1, Routine Reports

This specification reminds the licensee that reporting requirements are contained in 10 CFR and that additional reports are required to those specified in the 10 CFR. This will be deleted since it duplicates requirements provided in the regulations. This is an administrative change.

ANO-1 ITS Comparison

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

NUREG-1432 Comparison

The proposed change is consistent with NUREG-1432.

CTS 6.9.1.1, 6.9.1.2, and 6.9.1.3, Startup Reports

Subsection 6.9.1.1, 6.9.1.2, and 6.9.1.3 will be deleted and relocated to the Technical Requirements Manual (TRM). This is a less restrictive administrative deletion of the requirements. This information provides details of the method of implementation that are not directly pertinent to the actual requirement. 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 TRM is controlled by 10 CFR 50.59.

ANO-1 ITS Comparison

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

NUREG-1432 Comparison

The proposed change is consistent with NUREG-1432.

CTS Subsection 6.9.1.4 states the following:

> 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.

This section provides an introductory paragraph into 6.9.1.5, which includes a listing of the required the 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. This is an administrative change.

ANO-1 ITS Comparison

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.

NUREG-1432 Comparison

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.

CTS 6.9.1.5.a, Occupational Exposure Data Report

This CTS provides guidance related to the Occupational Exposure Data 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. This is considered a less restrictive change. The April 30th date is consistent with the revisions to 10 CFR 20 and is provided to supplement the information require by 10 CFR 20.2206 (b), which is filed on or before April 30th in accordance with 10 CFR 20.2206 (c). The supplemental information report submittal date will therefore be revised to correspond with the required submittal date of the report being supplemented.

In addition, the CTS will be revised to 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. 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 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.

The current note 1, which defines the allowance for a common submittal to be made, will be added to the appropriate annual reports. This is an administrative change.

The current note 2 will be modified to reflect the current regulation and included within the specification rather than as a separate note. This is an administrative change.

ANO-1 ITS and NUREG-1432 Comparison

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

CTS 6.9.1.5.b, Steam Generator Tube Inservice Inspection Report

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. Written communication to the NRC is described in 10 CFR 50.4. Therefore, the specific details of addressees, etc. will not be included in the specification. This is considered an editorial administrative change.

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, however, 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.

CTS 6.9.1.5.c, Documentation of Challenges to Pressurizer Safety Valves

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.

NUREG-1432 previously contained the requirement to report challenges of pressurizer safety valves as part of the monthly operating report. Technical Specification Traveler number 258 removed this monthly 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 (reference 2). 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 (reference 6), which added the Low Temperature Overpressure Protection (LTOP) requirements, ANO committed to include within the report of challenges to the pressurizer safety valves a report of any challenges to the LTOP valves. This commitment will be retained and thus any challenges to the LTOP valves will be reported.

ANO-1 ITS Comparison

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

NUREG-1432 Comparison

This reporting requirement is not described in NUREG-1432, therefore, the proposed change is consistent with NUREG-1432.

CTS 6.9.1.5.e, Specific Activity Analysis

This specification 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. This is an administrative change. In the original submittal dated January 23, 2002, a portion of this specification was inadvertently deleted.

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.

CTS 6.9.1.6, Monthly Operating Reports

This specification will be retained as specification 6.6.4 with only a minor editorial change in the title from "report" to "reports." This is an editorial change.

ANO-1 ITS and NUREG-1432 Comparison

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

CTS 6.9.2, Special Reports

This section requires that a special report be submitted 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. 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.

ANO-1 ITS 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.

CTS 6.9.3, Radioactive Effluent Release Report

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." This change is considered administrative.
- CTS 6.9.1.4 required that annual reports covering activities of the unit for the precious calendar year shall be submitted prior to March 1 of each year. The proposed change will change the date of the report to be prior to May 1 of each year. The proposed change is considered purely administrative since there is no relaxation of the requirements and the proposed change is consistent with 10 CFR 20.

ANO-1 ITS and NUREG-1432 Comparison

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

CTS 6.9.4, Annual Radiological Environmental Operating Report

The proposed change will relocate the Annual Radiological Environmental Operating Report from CTS 6.9.4 to TS 6.6.2. Very minor administrative changes are proposed to the current wording contained in the note.

ANO-1 ITS 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.

CTS 6.9.5, Core Operating Limits Report

The proposed change will relocate CTS 6.9.5 to TS 6.6.5. The following changes are proposed to the CTS:

- CTS 6.9.5 will be replaced with TS 6.6.5.a. The CTS states: "The core operating limits shall be established and documented in the CORE OPERATING LIMITS REPORT prior to each reload cycle or any remaining part of a reload cycle." The

proposed change will modify the wording as follows: "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 for the following." These words although different have the same intent. The proposed change includes a list of the ANO-2 individual specifications for which the core operating limits apply. This is an administrative change.

- CTS 6.9.5.1 will be replaced with TS 6.6.5.b. The current words will be modified slightly to agree with the wording contained in the ANO-1 ITS and NUREG-1432. In addition the references included in methods 13, 14, 15, and 16 will be changed based on the relocation. This is an administrative change.

- CTS 6.9.5.2 will be relocated to TS 6.6.5.c. The proposed change includes minor adjustments to the wording for consistency. This is an administrative change.

- CTS 6.9.5.3 will be relocated to TS 6.6.5.d. The proposed change will replace the phrase "to the NRC Document Control Desk with copies to the Regional Administrator and Resident Inspector" with "for each reload cycle to the NRC." The wording in the CTS is redundant to the regulatory guidance of 10 CFR 50.4, which provides the requirements for submitting written reports to the NRC. This is an administrative change.

ANO-1 and NUREG-1432 Comparison

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

33.0 Radiation Protection Program, CTS 6.11

This specification requires that procedures for personnel radiation protection are prepared, approved, maintained, and followed. This specification will be deleted. Entergy will maintain written procedures in accordance with RG 1.33 as reflected in the current 6.8.1.a and the proposed 6.4.1.a. This is an administrative change.

ANO-1 ITS Comparison

The proposed change is consistent with the actions taken in the conversion of the ANO-1 TSs.

NUREG-1432 Comparison

NUREG-1432 does not include a separate requirement for procedures associated with the radiation protection program. The ANO-2 proposed change is consistent with the NUREG.

34.0 High Radiation Area, CTS 6.13

CTS 6.13 includes the old 10 CFR 20 requirements. The proposed change will update these requirements to the current 10 CFR 20 requirements and relocate the specification to section 6.7. This is considered administrative.

The CTS requirements will also 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. This is a less restrictive change.

ANO-1 ITS Comparison

ANO-2 is adopting the same wording as is contained in the ANO-1 ITS, with the changes proposed by letter dated March 13, 2002 (reference 3).

NUREG-1432 Comparison

ANO-2 proposed TS is very similar to NUREG-1432 with only minor administrative word differences.

35.0 Offsite Dose Calculation Manual, CTS 6.14

CTS 6.14 described the Offsite Dose Calculation Manual. Minor editorial administrative changes are proposed to the CTS as well as the relocation of the specification to TS 6.5.1. Due to organizational title changes the title of General Manager, Plant Operations will be changed to ANO General Manager.

ANO-1 ITS Comparison

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

NUREG-1432 Comparison

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.

36.0 Containment Leakage Rate Testing Program, CTS 6.15

This program is currently located in the ANO-2 administrative TSs as item 6.15 as follows:

6.15 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.

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 $\leq$ 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.

The proposed change will be as follows:

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 < 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.

The proposed changes relocate CTS SR 4.6.3.1.4 for leak rate testing of the containment purge supply and exhaust isolation valves. This action consolidates requirements for leak rate testing in one location. These administrative changes are either editorial or consistent with the current license basis.

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 TS 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 and thus OPERABILITY of containment must be established prior to entry into MODE 4.

The proposed change also changes the "$\leq$0.60 L_a" and "$\leq$0.75 L_a" limits for acceptable reactor building leakage in CTS 6.15 to "<0.60 L_a" and "<0.75 L_a" for consistency with the acceptance criteria provided in 10 CFR 50, Appendix J and ANO-1 ITS. These are considered to be essentially equivalent since the parameter can be less than the limit, but be so close as to be imperceptible. Therefore, this change has no impact on application of the regulations and is considered administrative.

ANO-1 ITS Comparison

The ANO-2 proposed change will be modified to be similar to the ANO-1 ITS as described above 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 specifies Type A leakage rate acceptance criteria of $\leq 0.75\ L_a$. The ANO-1 ITS modified this acceptance criteria as described above. The ANO-2 proposed TS is consistent with the ANO-1 ITS and thus differs from NUREG-1432. This is justified above.

NUREG-1432 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.

36.0 New 6.5.14, T

37.0 REGULATORY ANALYSIS

37.1 Applicable Regulatory Requirements/Criteria

The proposed changes have been evaluated to determine whether applicable regulations and requirements continue to be met. As has been discussed in the previous sections of this request, many of the proposed changes will result in current requirements being deleted, which are redundant to existing regulatory requirements. The following regulations are referenced and will remain satisfied: 10 CFR 50.4, *"Written Communications,"* 10 CFR 50.54, *"Conditions of Licenses,"* 10 CFR 50.36, *"Technical Specifications,"* 10 CFR 50.36a, *"Technical Specifications on Effluents from Nuclear Power Reactors,"* 10 CFR 50.72, *"Immediate Notification Requirements for Operating Nuclear Power Reactors,"* 10 CFR 50.73, *"Licensee Event Report System,"* and 10 CFR 20.2206, *"Reports of Individual Monitoring."* Regulatory Guide (RG) 1.33, *"Quality Assurance Program Requirements (Operation)"* and RG 1.16, *"Reporting Of Operating Information – Appendix A Technical Specifications"* as well as Generic Letter (GL) 97-02, *"Revised Content of Monthly Operating Report"* are also included in the discussion of the proposed change.

Entergy has determined that the proposed changes 1) do not require any exemptions or relief from the regulatory requirements, other than the TS, and 2) do not affect conformance with any General Design Criteria differently than described in the Safety Analysis Report.

37.2 No Significant Hazards Consideration

Entergy Operations, Inc. (Entergy) proposes to modify the Arkansas Nuclear One, Unit 2 (ANO-2) Technical Specifications (TSs) to re-order the Administrative Controls section to be for the most part consistent with NUREG-1432, *"Standard Technical Specifications Combustion Engineering Plants"* and the ANO, Unit 1 (ANO-1) TS Administrative Controls section. This change will result in moving several surveillance requirements currently contained in the Surveillance Requirements section of the ANO-2 TSs to the Administrative Controls section. The change will also result in the deletion of several specifications currently contained in the Administrative Controls section. For the majority of those that will be deleted, the requirements are presently contained in either the Code of Federal Regulations, referenced Generic Letters, or referenced Regulatory Guides. Entergy will continue to maintain the requirements contained in these regulatory documents. Entergy also proposes to add a Technical Specification Bases Control Program as part of the requested changes.

The actions related to the Control Room Ventilation System will be modified as part of the proposed change. The ventilation system (emergency and air conditioning system) for the control room is shared with ANO-1 and thus the specifications for this system are maintained consistent between the units where appropriate. Recently, ANO-1 received approval of a submittal that resulted in the conversion their custom TSs to the format of NUREG-1430, *"Standard Technical Specifications Babcock and Wilcox Plants."* Included in this conversion were changes to the actions related to the process radiation monitors located in the Control Room Ventilation System intake ducts as well as the specifications for the Control Room Emergency Ventilation System. It is proposed to add new actions to the ANO-2 TSs associated with the process monitors and the Control Room Emergency Ventilation System. This results in consistency between the two unit's specifications.

Entergy also proposed to add new TS actions addressing diesel fuel oil storage and sampling. These actions are consistent with the related actions contained in NUREG-1432 and the ANO-1 ITS.

Entergy has evaluated whether or not a significant hazards consideration is involved with the proposed amendment by focusing on the three standards set forth in 10 CFR 50.92, *"Issuance of Amendment,"* as described below.

1. Does the proposed change involve a significant increase in the probability or consequences of an accident previously evaluated?

   Response: No.

   The proposed change modifies the Administrative Controls section of the ANO-2 TSs to be consistent with NUREG-1432. 10 CFR 50.36, *"Technical Specifications"* defines the Administrative Controls section as follows: "Administrative controls are the provisions relating to organization and management, procedures, recordkeeping, review and audit, and reporting necessary to assure operation of the facility in a safe manner." Therefore, by definition the specifications contained in the Administrative Controls section are not specifications related to systems that are used to mitigate any types of accidents. The proposed changes to the Administrative Controls section therefore do not impact the ability of a plant system to perform its intended function.

   The proposed addition of the Technical Specification Bases Control Program allows the utility to make changes to the TS Bases under 10 CFR 50.59, *"Changes, Tests, and Experiments."* 10 CFR 50.59 provides adequate guidance to ensure that facility initiated changes will not result in a significant increase in the probability or consequences of an accident previously evaluated.

   The proposed changes to the Control Room Ventilation System specifications do not result in any type of plant modification to this system. The system's intended function is to provide heating, ventilation, and air conditioning to ensure a suitable environment for equipment and station operator comfort and safety.

   The proposed change to add new actions associated with the diesel fuel oil storage system and sampling requirements will allow time to restore the fuel oil system within its specified parameters before declaring the associated diesel generator inoperable. The specified parameters include the volume of available fuel and the chemical analysis of the fuel. The delay in declaring the associated diesel generator inoperable does not cause an increase in the probability or consequences of an accident previously evaluated. The diesel generator is capable of performing its intended function during this period in the event of a loss of offsite power.

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

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

   Response: No.

   The proposed change will re-organize the ANO-2 Administrative Controls section and modify the actions related to the Control Room Ventilation System. The changes to the Administrative Controls section by definition of the type of specifications that are included in the Administrative Controls section will not create any new or different types of accidents.

   The addition of a Technical Specification Bases Control Program allows the utility to modify the bases of the TS under the guidance contained 10 CFR 50.59. A change to the bases alone would not result in a modification to the unit and therefore would not create any new or different type of accident.

   The modifications to the Control Room Ventilation System specifications result in providing clarity to existing actions and the addition of new actions. The addition of the new actions results in consistency between the ANO-1 and ANO-2 TSs. No design changes are proposed to the Control Room Ventilation System.

   The proposed change to add new actions for the diesel fuel oil storage system and associate sampling requires will allow this system to exceed specified parameters for a given time without declaring the associated diesel generator inoperable. The diesel remains operable and available to perform its intended function even when these parameters are exceeded. No modifications will be made to the diesel fuel oil system to support the proposed change.

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

3. Does the proposed change involve a significant reduction in a margin of safety?

   Response: No.

   The proposed changes result in the relocation of several surveillance requirements to the Administrative Controls section as well as the re-organization of the Administrative Controls Section of the ANO-2 TSs. In addition, clarification is added to the Control Room Ventilation System action statements that result in consistency between the ANO-1 and ANO-2 TSs. These changes do not affect the margin of safety.

   The proposed change to add actions related to the diesel fuel oil storage system and associated sampling requirements is consistent with similar allowances that have been previously approved as part of NUREG-1432. The diesel generator remains capable of performing its intended function. There is a low probability of an event during the brief period allowed for full restoration.

   Therefore, the proposed change does not involve a significant reduction in a margin of safety.

Based on the above, Entergy concludes that the proposed amendment presents 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.

37.3 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

To

2CAN060203

Revised Markup of Technical Specification Pages

(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.

2.C.(3)(p) Deleted per Amendment

~~(p) Secondary Water Chemistry Monitoring~~

This becomes the new proposed TS 6.5.10.

~~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:~~

~~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.)

New proposed TS 6.5.2

2.C.(5) Deleted per AmendmentEOI 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.

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.

2.C.(6) Deleted per AmendmentEOI 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:

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 lengthof a fuel rod) not to exceed 60 megawatt-days/kilogram of 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.

INDEX

ADMINISTRATIVE CONTROLS

INDEX

ADMINISTRATIVE CONTROLS

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~~6.9.5~~. Plant operation within these operating limits is addressed in individual specifications.

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	$\leq 1.5 \times 10^{-2}$ 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 3.3.3.9, or secure the containment purge system.

ACTION 17 - In MODE 1, 2, 3, or 4 ~~W~~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 ~~Commission pursuant to Specification 6.9.2~~ 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 ~~Commission~~ NRC pursuant ~~to Specification 6.9.2~~ 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 ~~W~~with the number of channels OPERABLE one less than required by the Minimum Channels OPERABLE requirement, ~~restore the inoperable channel to OPERABLE status within 7 days, or within the next 6 hours~~ initiate and maintain the control room emergency ventilation system in the recirculation mode of operation within 7 days, or 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 Conditions and Required Actions may be delayed up to 3 hours.

TABLE 3.3-10 (Con't)
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

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 ~~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.

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.

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

~~4.4.5.0~~4.4.5 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.~~

~~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.~~

~~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:~~

SR 4.4.5.1 and 4.4.5.2 are relocated to proposed TS 6.5.9.

SURVEILLANCE REQUIREMENTS (Continued)

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.

This page will be deleted. The requirements will be moved to proposed TS 6.5.9.

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.

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.

This page will be deleted and the requirements moved to proposed TS 6.5.9.

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).

This page will be deleted and the requirements relocated to proposed TS 6.5.9.

SURVEILLANCE REQUIREMENTS (Continued)

Relocated to proposed TS 6.5.9.

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.

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.

Moved to proposed TS 6.6.7.

This page will be deleted.

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.

This page will be deleted and the requirements relocated to proposed TS 6.5.9.

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 = $\frac{3}{n}$ % Where n is the number of steam generators inspected during an inspection.

This page will be deleted and the requirements relocated to proposed TS 6.5.9.

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 sub-system 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 Commission pursuant to Specification 6.9.2~~ 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 ≥ 1700 psia.

EMERGENCY CORE COOLING SYSTEMS

ECCS SUBSYSTEMS - $T_{avg} \leq 300°F$

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 Commission pursuant to Specification 6.9.2~~ 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)

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.~~

SR 4.6.3.1.4 is being moved to 6.5.16.

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

~~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.

eg. 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 opened intermittently under administrative controls.

f. 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.

Moved to new page 3/4 7-17a as h. and i. due to addition of new d. & e.

g. 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.

3/4 7.6 CONTROL ROOM EMERGENCY VENTILATION AND AIR CONDITIONING SYSTEM

LIMITING CONDITION FOR OPERATION (Continued)

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 ~~(Continued)~~

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 ~~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~~

~~2. ≤ 0.5% for 4 inch charcoal adsorber beds.~~

~~d.~~2.~~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 ~~within 10 seconds and~~ switches into a recirculation mode of operation ~~with flow through the HEPA filters and charcoal adsorber banks~~.

c. By performing the required Control Room Emergency Ventilation filter testing in accordance with the Ventilation Filter Testing Program (VFTP).

SURVEILLANCE REQUIREMENTS (continued)

d. At least once per 18 months by:

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%.

2. Verifying that on a control room high radiation test signal, 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.

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%.

d.1, e. and f. will be relocated to the VFTP, proposed TS 6.5.11, with minor changes noted.

d.2 will be moved to new 4.7.6.1.2.b

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~~.

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:

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~~ 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 (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

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.

Moved action b to new page 3/4 8-1a

~~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.~~

LIMITING CONDITION FOR OPERATION (Continued)

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.

LIMITING CONDITION FOR OPERATION (Continued)
~~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.

~~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.

Action e will be moved to page 3/4 8-2a

LIMITING CONDITION FOR OPERATION (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.

f. With the volume of the separate fuel storage system outside the limits of action f.1 or the new or stored fuel oil properties outside the limits of the Diesel Fuel Oil Testing Program, perform the following as appropriate: (Note 2)

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 one or more diesel generators, restore stored fuel oil properties to within limits within 30 days.

4. If action f.1 is not met within the allowable outage time or is outside the allowable limits, or if action f.2 or f.3 is not met within the allowable outage time, then immediately declare the associated diesel generator inoperable and perform the appropriate action.

Note 2 Separate condition entry is allowed for each diesel generator.

SR 4.8.1.1.1 & 4.8.1.1.2 and associated notes will be moved to a new page 3/4 8-2b.

~~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. Verifying the fuel level in the fuel storage tank.

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 ≤ 15 seconds. (Note 2)

5. Verifying the generator is synchronized, loaded to an indicated 2600 to 2850 Kw and operates for ≥ 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.

Note 1
All planned diesel generator starts for the purposes of these surveil- lances may be preceded by prelube procedures.
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.
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.

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. Verifying the fuel level in the fuel storage tank.

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 < 15 seconds. (Note 2)

5. Verifying the generator is synchronized, loaded to an indicated 2600 to 2850 Kw and operates for ≥ 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.~~ Verify fuel oil properties of new and stored fuel oil are tested in accordance with, and maintained within the limits of, the Diesel Fuel Oil Testing Program.

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 ≤ 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.

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:

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

3. A fuel transfer pump.

APPLICABILITY: MODES 5 and 6.

ACTION:

a. With less than the above minimum required A.C. electrical power sources OPERABLE, suspend all operations involving CORE ALTERATIONS or positive reactivity changes.

b. With the volume of the fuel storage system outside the limits of action b.1 or the new or stored fuel oil properties outside the limits of the Diesel Fuel Oil Testing Program, perform the following as appropriate:

1. If the required diesel generator associated fuel storage tank contains 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 the required diesel generator, restore fuel oil total particulates to within limits within 7 days.

3. If new fuel oil properties are not within limits for the one required diesel generator, restore stored fuel oil properties to within limits within 30 days.

4. If action b.1 is not met within the allowable outage time or is outside the allowable limits, or if action b.2 or b.3 is not met within the allowable outage time, then immediately declare the associated diesel generator inoperable and suspend all operations involving CORE ALTERATIONS or positive reactivity changes.

SURVEILLANCE REQUIREMENT

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.

REFUELING OPERATIONS

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 Specifications 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 rateis 39,700 cfm ± 10%.~~

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%.

6.1 RESPONSIBILITY

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 MODE 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);

b. The ~~ANO-2 plant~~ 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 in the SAR; and

6.2.2 will be moved to page 6-2 of the clean pages.

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, these~~y~~ 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.~~ 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. ~~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.

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.

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. 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.~~

~~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.

~~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#~~

~~LICENSE CATEGORY~~	~~APPLICABLE MODES~~	
	~~1, 2, 3, & 4~~	~~5 & 6~~
~~SOL~~	~~2~~	~~1*~~
~~OL~~	~~2~~	~~1~~
~~Non-Licensed~~	~~3~~	~~1~~

~~*Does not include the licensed Senior Reactor Operator or Senior Reactor Operator Limited to Fuel Handling, supervising CORE ALTERATIONS.~~

~~#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.~~

Moved to 6.2.c with minor wording changes

6.3 UNIT STAFF QUALIFICATIONS

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.

CTS 6.14 will be relocated here – see markup later.

6.4 ~~DELETED~~PROCEDURES

Subsections are later in markup.

6.5 PROGRAMS

~~[6.5.1 through 6.5.6 will be used later.]~~

Insert 2)

6.5.1 Offsite Dose Calculation Manual (ODCM)

6.5.2 Primary Coolant Sources Outside Containment

6.5.3 not used

CTS 6.8.4.a will be relocated here – see markup later.

6.5.4 Radioactive Effluent Controls Program

CTS 6.8.4.b will be relocated here – see markup later.

6.5.5 Component Cyclic or Transient Limit Program

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:

New Pages will be added as needed.

a. Testing frequencies specified in Section XI of the ASME Boiler and Pressure Vessel Code and applicable Addenda as follows:

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

Insert 3

Insert 1)

6.5.10 Secondary Water Chemistry

6.5.11 Ventilation Filter Testing Program (VFTP)

Insert 5)

6.5.12 later

Insert 4)

6.5.13 Diesel Fuel Oil Testing Program

6.5.14 Technical Specification (TS) Bases Control Program

Insert 6)

6.5.15 not used

6.5.16 Containment Leakage Rate Testing Program

CTS 6.15 will be relocated here – see markup later

~~6.6 DELETED~~

~~6.7 SAFETY LIMIT VIOLATION~~

~~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.~~

~~b. The Vice President, Operations ANO and the SRC shall be notified within 24 hours.~~

~~c. The Nuclear Regulatory Commission shall be notified pursuant to 10CFR50.72 and a report submitted pursuant to the requirements of 10CFR50.36 and Specification 6.6.~~

6.~~8~~4 PROCEDURES AND PROGRAMS

6.~~4~~8.1 Written procedures shall be established, implemented, and maintained covering the following activities: ~~referenced below:~~

a. ~~a.~~ The applicable procedures recommended in ~~Appendix "A" of~~ 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.

~~b. Refueling operations.~~

~~c. Surveillance and test activities of safety related equipment.~~

~~d. (Deleted)~~

~~e. (Deleted)~~

f~~c~~. Fire Protection Program implementation. ~~;~~

d. All programs specified in Specification 6.5; and

g~~e~~. Modification of c~~C~~ore p~~P~~rotection c~~C~~alculator (CPC) a~~A~~ddressable c~~C~~onstants. 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.

~~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, which ~~that~~ 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.

~~h. New and spent fuel storage.~~

~~i. ODCM and PCP implementation.~~

~~6.8.2 Deleted~~

~~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.

~~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

~~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.

The provisions of SR 4.0.2 and SR 4.0.3 are applicable to the Radioactive Effluent Controls Program surveillance frequency.

~~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.~~

~~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.~~

~~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]~~

~~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.~~

~~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.)

~~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 an annual deep dose ~~exposures~~ equivalent greater than 100 mrem~~/yrs~~ and their associated collective deep dose equivalent (reported in person~~man-~~-rem) ~~exposure~~ 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 estimatesd based on pocket 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.

~~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).~~

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 the investigations conducted to determine the cause of the tube degradation and the corrective measures taken to prevent recurrence.

c. Documentation of all challenges to the pressurizer safety valves.

d. Deleted

e. 6.6.8 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

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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.

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 REPORTS

~~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~~

~~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:~~

~~a. ECCS Actuation, Specifications 3.5.2 and 3.5.3.~~

~~b. Deleted~~

~~c. Deleted~~

~~d. Deleted~~

~~e. Deleted~~

~~f. Deleted~~

~~g. Deleted~~

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

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 *

~~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.

* (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.)

Move note up on this line.

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6.6.2 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.)

Move note up.

6.6.5 CORE OPERATING LIMITS REPORT (COLR)

6.9.5 a. The coreCore 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 for the following:prior to each reload cycle or any remaining part of a reload cycle.

3/4.1.1.1	Shutdown Margin-T_{avg} > 200°F
3/4.1.1.2	Shutdown Margin-T_{avg} ≤ 200°F
3.1.1.1	Moderator Temperature Coefficient
3.1.3.1	CEA Position
3.1.3.6	Regulating CEA Insertion Limits
3/4.2.1	Linear Heat Rate
3.2.3	Azimuthal Power Tilt-T_q
3/4.2.4	DNBR Martin
3.2.7	Axial Shape Index

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).

Additional pages will be added as needed when clean pages are created.

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).

6.6.5 CORE OPERATING LIMITS REPORT (COLR) (Continued)

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.

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~~ 6.6.5.6) 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 ~~6.9.5.1.9~~ 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 ~~6.9.5.1.11~~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).

~~6.9.5.2~~ c. The core operating limits shall be determined so 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.

~~6.9.5.3~~ d. The ~~CORE OPERATING LIMITS REPORT~~COLR, 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.

~~6.10 DELETED~~

~~6.11 RADIATION PROTECTION PROGRAM~~

~~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)~~

~~6.12.2 (DELETED)~~

~~6.13.6~~ 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.~~

~~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

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

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.

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.

6.5 Programs and Manuals

The following programs shall be established, implemented, and maintained.

~~6.14~~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 ~~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. s~~S~~ufficient 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;

b. Shall become effective after approval of the ANO General Manager~~, Plant Operations~~; 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 ~~also~~ indicate the date (i.e., month and year) the change was implemented.

~~6.15~~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 ~~$\leq$~~ $\leq 0.60\ L_a$ for the Type B and Type C tests and ~~$\leq$~~ $\leq 0.75\ L_a$ 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 ≥ 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.

1) New 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 test 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.

2) New 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.

3) New 6.5.9, Steam Generator (SG) Tube Surveillance Program

Each Steam Generator shall be demonstrated OPERABLE during shutdown by selecting and inspecting at least the minimum number of steam generators specified in Table 6.5.9-1.

6.9.5.1 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 6.5.9-1.

6.9.5.2 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 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.

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

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 6.6.7	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. 6.6.7	N/A	N/A

S = 3 (2/n) % Where n is the number of steam generators inspected during an inspection.

4) New 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 921 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.

5) New 6.5.11 Ventilation Filter Testing Program

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 in place cold DOP test of the high efficiency particulate (HEPA) filters shows:

   1. $\geq$ 99% DOP removal for the FHAVS when in accordance with Regulatory Guide 1.52, Revision 2 and ANSI N510-1975, at the system design flow rate 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 and ANSI N510-1975, at the system design flow rate 2000 cfm $\pm$ 10%.

b. Demonstrate that an in place 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. ≥ 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%.

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. Demonstrate for the FHAVS and CREVS, that the pressure drop across the combined HEPA filters, other filters in the system, and the charcoal adsorbers is < 6 inches of water when tested at the system design flow rate ± 10%.

FHAVS	39,700 cfm
CREVS	2,000 cfm

The provisions of SR 4.0.2 and SR 4.0.3 are applicable to the VFTP test frequencies.

6) New 6.5.14, Technical Specification Bases Control Program

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 involve 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.

Proposed changes that do meet these criteria 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).

c. The Bases Control Program shall contain provisions to ensure that the Bases are maintained consistent with the SAR.

Attachment 3

To

2CAN060203

Revised Markup of Technical Specification Bases Pages

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 for inspection of the steam generator tubes ensure 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.

Wastage type defects are unlikely with proper chemistry treatment of the secondary coolant. However, even if a defect should develop in service, it will be found during scheduled inservice steam generator tubes examinations. Plugging will be required for all tubes with imperfections exceeding the plugging limit as defined in ~~Surveillance Requirement 4.4.5.4.a~~ Steam Generator Tube Surveillance Program. Steam generator tube inspections of operating plants have demonstrated the capability to reliably detect degradation that could affect tube wall integrity. Additionally, upgraded testing methods will be evaluated and appropriately implemented as better methods are developed and validated for commercial use.

Whenever the results of any steam generator tubing inservice inspection fall into Category C-3 certain results will be reported in a Special Report to the Commission. ~~pursuant to Specification 6.9.2 as denoted by Table 4.2-2.~~ Notification of the Commission will be made prior to resumption of plant operation. Such cases will be considered by the Commission on a case-by-case basis and may result in a requirement for analysis, laboratory examinations, tests, additional eddy-current inspection, and revision of the Technical Specifications, if necessary.

3/4.4.6 REACTOR COOLANT SYSTEM LEAKAGE

3/4.4.6.1 LEAKAGE DETECTION SYSTEMS

GDC 30 of Appendix A to 10 CFR 50 requires means for detecting and, to the extent practical, identifying the location of the source of RCS LEAKAGE. The RCS leakage detection systems required by this specification are provided to monitor and detect leakage from the Reactor Coolant Pressure Boundary. These detection systems are consistent with the recommendations of Regulatory Guide 1.45, "Reactor Coolant Pressure Boundary Leakage Detection Systems" May 1973. Likewise, the actions implemented upon inoperability of a required leak detection instrument are sufficient in maintaining the diversity and accuracy needed to effectively detect RCS leaks.

Industry practice has shown that water flow changes of 0.5 gpm to 1.0 gpm can readily be detected in contained volumes by monitoring changes in water level, in flow rate, or in the operating frequency of a pump. In addition, the reactor coolant contains radioactivity that, when released to the containment, can be detected by radiation monitoring instrumentation. Instrument sensitivities of 10 – 10^6 cpm for particulate and gaseous monitoring are practical for these leakage detection systems.

12 hours is provided by a footnote to allow for plant stabilization before performance of the required reactor coolant inventory balance. This provision is necessary to ensure an accurate measurement is obtained.

3/4.7.6 CONTROL ROOM EMERGENCY VENTILATION AND AIR CONDITIONING SYSTEM

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.

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.

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.

A note is included which 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.

If the control room boundary is inoperable in MODES 1, 2, 3, and 4, the control room emergency ventilation systems cannot perform their intended functions. Action 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 radioactive contamination, toxic chemicals, smoke, temperature and relative humidity, and physical security. Pre-planned measures should be available to address these concerns for intentional and unintentional entry into the condition. The 24 hour allowable outage time is reasonable based on the low probability of a design basis accident occurring during this time period, and the use of compensatory measure. The 24 hour allowable outage time is a typically reasonable time to diagnose, plan and possibly repair, and test most problems with the control room boundary.

~~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.

This will be moved to a new page 3/4 7-5a.

With both trains of the control room emergency ventilation and/or emergency air conditioning inoperable, the function of the control room emergency air systems have been lost, requiring immediate action to place the unit in a condition where the specification does not apply.

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.

3/4.7.6 CONTROL ROOM EMERGENCY VENTILATION AND AIR CONDITIONING SYSTEM (continued)

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.

With both trains of the control room emergency ventilation and/or emergency air conditioning inoperable, the function of the control room emergency air systems have been lost, requiring immediate action to place the unit in a condition where the specification does not apply.

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.

Performance of SR 4.7.6.1.2.a requires that the control room emergency air filtration system be started from the control room and flow through the HEPA filters and charcoal adsorbers.

Performance of SR 4.7.6.1.2.b requires automatically isolation of the control room within 10 seconds upon injection of an actual or simulated control room high radiation test signal. Flow shall be verified through the HEPA filters and charcoal adsorber banks.

BASES

The tests of fuel oil prior to addition to the storage tanks are a means of determining whether 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. If results from these tests are within acceptable limits, the fuel oil may be added to the storage tanks without concern for contaminating the entire volume of fuel oil in the storage tanks. These tests are to be conducted prior to adding the new fuel to the storage tank(s), but in no case is the time between sampling (and associated results) of new fuel and addition of new fuel oil to the storage tank(s) to exceed 31 days. The tests, limits, and applicable ASTM Standards for the tests listed in Specification 6.5.13, "Diesel Fuel Oil Testing Program," are as follows:

a. Sample the new fuel oil in accordance with ASTM D4057-88; and

b. Verify in accordance with the tests specified in ASTM D975-81 that the sample has:

   1. an absolute specific gravity at 60/60°F of =0.83 and =0.89 or an API gravity at 60°F of =27°, =39°,

   2. a kinematic viscosity at 40°C of =1.9 centistokes and =4.1 centistokes,

   3. a flash point of =125°F, and

   4. water and sediment within limits.

Failure to meet any of the above limits is cause for rejecting the new fuel oil, but does not represent a failure to meet the LCO since the fuel oil is not added to the storage tanks.

Following the initial new fuel oil sample, the fuel oil is analyzed to establish that the other properties specified in Table 1 of ASTM D975-81 are met for new fuel oil when tested in accordance with ASTM D975-81, except that the analysis for sulfur may be performed in accordance with ASTM D1552-90 or ASTM D2622-87. These additional analyses are required by Specification 6.5.13, "Diesel Fuel Oil Testing Program," to be performed within 31 days following sampling and addition. This 31 days is intended to assure: 1) that the sample taken is not more than 31 days old at the time of adding the fuel oil to the storage tank, and 2) that the results of a new fuel oil sample (sample obtained prior to addition but not more than 31 days prior to) are obtained within 31 days after addition. For circumstances where multiple fuel oil additions are made within a short period of time, the samples taken for each batch added to the storage tank can be composited for a single follow-up analysis. The 31 day period is acceptable because the fuel oil properties of interest, even if they were not within stated limits, would not have an immediate effect on DG operation. This Surveillance ensures the availability of high quality fuel oil for the DGs.

Fuel oil degradation during long term storage shows up as an increase in particulate, due mostly to oxidation. The presence of particulate does not mean the fuel oil will not burn properly in a diesel engine. The particulate can cause fouling of filters and fuel oil injection equipment, however, which can cause engine failure.

Particulate concentrations should be determined in accordance with ASTM D2276-88, Method A. This method involves a gravimetric determination of total particulate concentration in the fuel oil and has a limit of 10 mg/l. It is acceptable to obtain a field sample for subsequent laboratory testing in lieu of field testing. Each tank is considered and tested separately.

The Frequency of this test takes into consideration fuel oil degradation trends that indicate that particulate concentration is unlikely to change significantly between Frequency intervals.

3/4.9.9 and 3/4.9.10 WATER LEVEL-REACTOR VESSEL AND SPENT FUEL POOL WATER LEVEL

The restrictions on minimum water level ensure that sufficient water depth is available to remove 99% of the assumed 12% iodine gap activity released from the rupture of an irradiated fuel assembly. The minimum water depth is consistent with the assumptions of the accident analysis.

3/4.9.11 FUEL HANDLING AREA VENTILATION SYSTEM

The limitations on the fuel handling area ventilation system ensure that all radioactive materials released from an irradiated fuel assembly will be filtered through the HEPA filters and charcoal adsorbers prior to discharge to the atmosphere. The operation of this system and the resulting iodine removal capacity are consistent with the assumptions of the accident analyses.

~~Acceptable removal efficiency is shown by methyl iodide penetration of less than 5.0% when tests are performed in accordance with ASTM D3803-1989, "Standard Test Method for Nuclear-Grade Activated Carbon," at a temperature of 30°C and a relative humidity of 95%. The penetration acceptance criterion is determined by the following equation:~~

~~Allowable Penetration = [100% - methyl iodide efficiency for charcoal credited in accident analysis] safety factor of 2~~

~~Applying a safety factor of 2 is acceptable because ASTM D3803-1989 is a more accurate and demanding test than older tests.~~

3/4.9.12 FUEL STORAGE

Region 1 and Region 2 of the spent fuel storage racks are designed to assure fuel assemblies of less than or equal to 5.0 w/o U-235 enrichment that are within the limits of Figure 3.9.2 will be maintained in a subcritical array with K_{eff} ≤0.95 in unborated water. These conditions have been verified by criticality analyses.

The requirement for 1600 ppm boron concentration is to assure the fuel assemblies will be maintained in a subcritical array with K_{eff} ≤0.95 in the event of a postulated accident. Analysis has shown that, during a postulated accident with the fuel stored within the limits of this specification, that a K_{eff} of ≤0.95 will be maintained when the boron concentration is at or above 1000 ppm.

Normally, fuel stored in a cross-hatch storage configuration must have all four diagonal spaces or at least two adjacent faces remain vacant to meet the criticality safety analysis mentioned above. However, the spent fuel pool walls may be credited as a neutron leakage path. Therefore, vacant spaces face adjacent to the walls of the Region I cross-hatch configured assemblies may be used to store fuel assemblies that are outside

of the area of the graph enclosed by Curve A on Figure 3.9.2, excluding the most southeast and southwest corner spaces of Region 1 which must remain empty.

Attachment 4

To

2CAN060203

Revised Clean Technical Specification Pages

(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.

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 of 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.

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ADMINISTRATIVE CONTROLS

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.

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	$\leq 1.5 \times 10^{-2}$ 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	$\leq 2 \times$ background	10 - 10^{6} cpm	16
b. Control Room Ventilation Intake Duct Monitors	2	Note 2	$\leq 2 \times$ 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 3.3.3.9, 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, initiate and maintain the control room emergency ventilation system in the recirculation mode of operation within 7 days, or 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 Conditions and Required Actions may be delayed up to 3 hours.

TABLE 3.3-10 (Con't)
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

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.

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.

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 sub-system 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
2BS 26	RWT Return Line	Open

*With pressurizer pressure ≥ 1700 psia.

EMERGENCY CORE COOLING SYSTEMS

ECCS SUBSYSTEMS - $T_{avg} \leq 300°F$

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)

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 opened intermittently under administrative controls.

3/4 7.6 CONTROL ROOM EMERGENCY VENTILATION AND AIR CONDITIONING SYSTEM

LIMITING CONDITION FOR OPERATION (Continued)

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 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 $\leq$ 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 by verifying that the system operates for at least 15 minutes.

b At least once per 18 months by verifying that on a test signal either actual or simulated, the system automatically isolates the control room 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).

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.

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:

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 (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

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 (Continued)

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.

LIMITING CONDITION FOR OPERATION (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.

LIMITING CONDITION FOR OPERATION (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.

f. With the volume of the separate fuel storage system outside the limits of action f.1 or the new or stored fuel oil properties outside the limits of the Diesel Fuel Oil Testing Program, perform the following as appropriate: (Note 2)

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 one or more diesel generators, restore stored fuel oil properties to within limits within 30 days.

4. If action f.1 is not met within the allowable outage time or is outside the allowable limits, or if action f.2 or f.3 is not met within the allowable outage time, then immediately declare the associated diesel generator inoperable and perform the appropriate action.

Note 2 Separate Condition entry is allowed for each diesel generator.

3/4.8.1 A.C. SOURCES

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. Verifying the fuel level in the fuel storage tank.

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. Verify fuel oil properties of new and stored fuel oil are tested in accordance with, and maintained within the limits of, the Diesel Fuel Oil Testing Program.

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.

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:

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

3. A fuel transfer pump.

APPLICABILITY: MODES 5 and 6.

ACTION:

a. With less than the above minimum required A.C. electrical power sources OPERABLE, suspend all operations involving CORE ALTERATIONS or positive reactivity changes.

b. With the volume of the fuel storage system outside the limits of action b.1 or the new or stored fuel oil properties outside the limits of the Diesel Fuel Oil Testing Program, perform the following as appropriate:

1. If the required diesel generator associated fuel storage tank contains 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 the required diesel generator, restore fuel oil total particulates to within limits within 7 days.

3. If new fuel oil properties are not within limits for the one required diesel generator, restore stored fuel oil properties to within limits within 30 days.

4. If action b.1 is not met within the allowable outage time or is outside the allowable limits, or if action b.2 or b.3 is not met within the allowable outage time, then immediately declare the associated diesel generator inoperable and suspend all operations involving CORE ALTERATIONS or positive reactivity changes.

SURVEILLANCE REQUIREMENT

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.

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 Specifications 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).

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 MODE 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 the 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 documented 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.

6.5.2 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 PROGRAMS AND MANUALS

6.5.3 not used

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 Part 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;

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 them 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;

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 PROGRAMS AND MANUALS

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 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 PROGRAMS AND MANUALS

6.5.9 Steam Generator (SG) Tube Surveillance Program

Each Steam Generator shall be demonstrated OPERABLE during shutdown by selecting and inspecting at least the minimum number of steam generators specified in Table 6.5.9-1.

6.5.9.1 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.

6.5 PROGRAMS AND MANUALS

6.5.9 Steam Generator (SG) Tube Surveillance Program

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 PROGRAMS AND MANUALS

6.5.9 Steam Generator (SG) Tube Surveillance Program

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.

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 PROGRAMS AND MANUALS

6.5.9 Steam Generator (SG) Tube Surveillance Program

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).

6.5 PROGRAMS AND MANUALS

6.5.9 Steam Generator (SG) Tube Surveillance Program

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.

6.5 PROGRAMS AND MANUALS

6.5.9 Steam Generator (SG) Tube Surveillance Program

TABLE 6.5.9-2

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 6.6.7	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. 6.6.7	N/A	N/A

S = 3 (2/n) % Where n is the number of steam generators inspected during an inspection.

6.5 PROGRAMS AND MANUALS

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 test 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 PROGRAMS AND MANUALS

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 in place cold DOP test of the high efficiency particulate (HEPA) filters shows:

1. ≥ 99% DOP removal for the FHAVS when in accordance with Regulatory Guide 1.52, Revision 2 and ANSI N510-1975, at the system design flow rate 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 flow rate 2000 cfm ± 10%.

b. Demonstrate that an in place 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%.

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. Demonstrate for the FHAVS and CREVS, that the pressure drop across the combined HEPA filters, other filters in the system, and the charcoal adsorbers is < 6 inches of water when tested at the system design flow rate ± 10%.

FHAVS	39,700 cfm
CREVS	2,000 cfm

The provisions of SR 4.0.2 and SR 4.0.3 are applicable to the VFTP test frequencies.

6.5 PROGRAMS AND MANUALS

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 92 days based on ASTM D-2276, Method A-2 or A-3; and

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 PROGRAMS AND MANUALS

6.5.14 Technical Specification (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 involve 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.

Proposed changes that do meet these criteria 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).

c. The Bases Control Program shall contain provisions to ensure that the Bases are maintained consistent with the SAR.

6.5 PROGRAMS AND MANUALS

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 $< 0.75\ L_a$ 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 ≥ 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 greater than 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 less than 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 that are 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 REPORTING REQUIREMENTS

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 CORE OPERATING LIMITS REPORT for the following:

3/4.1.1.1	Shutdown Margin-T_{avg} > 200°F
3/4.1.1.2	Shutdown Margin-$T_{avg} \leq$ 200°F
3.1.1.2	Moderator Temperature Coefficient
3.1.3.1	CEA Position
3.1.3.6	Regulating CEA Insertion Limits
3/4.2.1	Linear Heat Rate
3.2.3	Azimuthal Power Tilt-T_q
3/4.2.4	DNBR Martin
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).

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).

6.6 REPORTING REQUIREMENTS

6.6.5 CORE OPERATING LIMITS REPORT (COLR)

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).

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.

6.6 REPORTING REQUIREMENTS

6.6.5 CORE OPERATING LIMITS REPORT (COLR)

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 mid-cycle 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 the investigations conducted to determine the cause of the tube degradation and the corrective measures taken to prevent recurrence.

6.6 REPORTING REQUIREMENTS

6.6.8 Specific Activity Analysis

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

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.

6.7 HIGH RADIATION 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.

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

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.

6.7 HIGH RADIATION AREA

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.

Attachment 5

To

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Revised Clean Technical Specification Bases Pages

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 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.

Wastage type defects are unlikely with proper chemistry treatment of the secondary coolant. However, even if a defect should develop in service, it will be found during scheduled inservice steam generator tubes examinations. Plugging will be required for all tubes with imperfections exceeding the plugging limit as defined in Steam Generator Tube Surveillance Program. Steam generator tube inspections of operating plants have demonstrated the capability to reliably detect degradation that could affect tube wall integrity. Additionally, upgraded testing methods will be evaluated and appropriately implemented as better methods are developed and validated for commercial use.

Whenever the results of any steam generator tubing inservice inspection fall into Category C-3 certain results will be reported in a Special Report to the Commission. Notification of the Commission will be made prior to resumption of plant operation. Such cases will be considered by the Commission on a case-by-case basis and may result in a requirement for analysis, laboratory examinations, tests, additional eddy-current inspection, and revision of the Technical Specifications, if necessary.

3/4.4.6 REACTOR COOLANT SYSTEM LEAKAGE

3/4.4.6.1 LEAKAGE DETECTION SYSTEMS

GDC 30 of Appendix A to 10 CFR 50 requires means for detecting and, to the extent practical, identifying the location of the source of RCS LEAKAGE. The RCS leakage detection systems required by this specification are provided to monitor and detect leakage from the Reactor Coolant Pressure Boundary. These detection systems are consistent with the recommendations of Regulatory Guide 1.45, "Reactor Coolant Pressure Boundary Leakage Detection Systems" May 1973. Likewise, the actions implemented upon inoperability of a required leak detection instrument are sufficient in maintaining the diversity and accuracy needed to effectively detect RCS leaks.

Industry practice has shown that water flow changes of 0.5 gpm to 1.0 gpm can readily be detected in contained volumes by monitoring changes in water level, in flow rate, or in the operating frequency of a pump. In addition, the reactor coolant contains radioactivity that, when released to the containment, can be detected by radiation monitoring instrumentation. Instrument sensitivities of $10 - 10^6$ cpm for particulate and gaseous monitoring are practical for these leakage detection systems.

12 hours is provided by a footnote to allow for plant stabilization before performance of the required reactor coolant inventory balance. This provision is necessary to ensure an accurate measurement is obtained.

3/4.7.6 CONTROL ROOM EMERGENCY VENTILATION AND AIR CONDITIONING SYSTEM

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.

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.

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.

A note is included which 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.

If the control room boundary is inoperable in MODES 1, 2, 3, and 4, the control room emergency ventilation systems cannot perform their intended functions. Action 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 radioactive contamination, toxic chemicals, smoke, temperature and relative humidity, and physical security. Pre-planned measures should be available to address these concerns for intentional and unintentional entry into the condition. The 24 hour allowable outage time is reasonable based on the low probability of a design basis accident occurring during this time period, and the use of compensatory measure. The 24 hour allowable outage time is a typically reasonable time to diagnose, plan and possibly repair, and test most problems with the control room boundary.

3/4.7.6 CONTROL ROOM EMERGENCY VENTILATION AND AIR CONDITIONING SYSTEM (continued)

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.

With both trains of the control room emergency ventilation and/or emergency air conditioning inoperable, the function of the control room emergency air systems have been lost, requiring immediate action to place the unit in a condition where the specification does not apply.

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.

Performance of SR 4.7.6.1.2.a requires that the control room emergency air filtration system be started from the control room and flow through the HEPA filters and charcoal adsorbers.

Performance of SR 4.7.6.1.2.b requires automatically isolation of the control room within 10 seconds upon injection of an actual or simulated control room high radiation test signal. Flow shall be verified through the HEPA filters and charcoal adsorber banks.

BASES

The tests of fuel oil prior to addition to the storage tanks are a means of determining whether 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. If results from these tests are within acceptable limits, the fuel oil may be added to the storage tanks without concern for contaminating the entire volume of fuel oil in the storage tanks. These tests are to be conducted prior to adding the new fuel to the storage tank(s), but in no case is the time between sampling (and associated results) of new fuel and addition of new fuel oil to the storage tank(s) to exceed 31 days. The tests, limits, and applicable ASTM Standards for the tests listed in Specification 6.5.13, "Diesel Fuel Oil Testing Program," are as follows:

a. Sample the new fuel oil in accordance with ASTM D4057-88; and

b. Verify in accordance with the tests specified in ASTM D975-81 that the sample has:

1. an absolute specific gravity at 60/60°F of =0.83 and =0.89 or an API gravity at 60°F of =27°, =39°,

2. a kinematic viscosity at 40°C of =1.9 centistokes and =4.1 centistokes,

3. a flash point of =125°F, and

4. water and sediment within limits.

Failure to meet any of the above limits is cause for rejecting the new fuel oil, but does not represent a failure to meet the LCO since the fuel oil is not added to the storage tanks.

Following the initial new fuel oil sample, the fuel oil is analyzed to establish that the other properties specified in Table 1 of ASTM D975-81 are met for new fuel oil when tested in accordance with ASTM D975-81, except that the analysis for sulfur may be performed in accordance with ASTM D1552-90 or ASTM D2622-87. These additional analyses are required by Specification 6.5.13, "Diesel Fuel Oil Testing Program," to be performed within 31 days following sampling and addition. This 31 days is intended to assure: 1) that the sample taken is not more than 31 days old at the time of adding the fuel oil to the storage tank, and 2) that the results of a new fuel oil sample (sample obtained prior to addition but not more than 31 days prior to) are obtained within 31 days after addition. For circumstances where multiple fuel oil additions are made within a short period of time, the samples taken for each batch added to the storage tank can be composited for a single follow-up analysis. The 31 day period is acceptable because the fuel oil properties of interest, even if they were not within stated limits, would not have an immediate effect on DG operation. This Surveillance ensures the availability of high quality fuel oil for the DGs.

Fuel oil degradation during long term storage shows up as an increase in particulate, due mostly to oxidation. The presence of particulate does not mean the fuel oil will not burn properly in a diesel engine. The particulate can cause fouling of filters and fuel oil injection equipment, however, which can cause engine failure.

Particulate concentrations should be determined in accordance with ASTM D2276-88, Method A. This method involves a gravimetric determination of total particulate concentration in the fuel oil and has a limit of 10 mg/l. It is acceptable to obtain a field sample for subsequent laboratory testing in lieu of field testing. Each tank is considered and tested separately.

The Frequency of this test takes into consideration fuel oil degradation trends that indicate that particulate concentration is unlikely to change significantly between Frequency intervals.

Attachment 6

To

2CAN060203

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.

COMMITMENT	TYPE (Check one)		SCHEDULED COMPLETION DATE (If Required)
	ONE-TIME ACTION	CONTINUING COMPLIANCE	
For entry and exit through doors the administrative control of the openings 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.		x	This control program will be established upon TS implementation