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DEC 10 2001

U.S. Nuclear Regulatory Commission
Attn: Document Control Desk
Mail Station OP1-17
Washington, DC 20555

**SUSQUEHANNA STEAM ELECTRIC STATION
PROPOSED AMENDMENT NO. 245 TO LICENSE
NFP-14 AND PROPOSED AMENDMENT NO. 209 TO
LICENSE NFP-22: ADOPTION OF NRC APPROVED
GENERIC CHANGES TO IMPROVED TECHNICAL
SPECIFICATIONS (CREOAS SYSTEM AOT)
PLA-5404**

**Docket No. 50-387
and 50-388**

Pursuant to 10 CFR 50.90, PPL Susquehanna, LLC, (PPL) proposes to amend the Susquehanna Steam Electric Station Units 1 and 2 (SSES) Technical Specifications (TS). The proposed change adopts generic change TSTF-287, Rev. 5 to NUREG 1433, "Standard Technical Specifications for General Electric Plants (BWR/4)," Revision 1 (STS). This generic change provides an enhancement to LCO 3.7.3 by establishing a new condition and required action to address degradation of the control room habitability envelope pressure boundary.

The improved STS were implemented at SSES in 1998 through Amendments 178 (Unit 1) and 151 (Unit 2), using NUREG 1433, Rev. 1 as the model. The industry and the NRC staff have been working to improve the STS NUREGs, and as a result, generic changes have been developed. This proposed amendment adopts NRC approved generic change TSTF-287, Rev. 5 for use at Susquehanna.

The proposed change to LCO 3.7.3 provides a significant benefit to the operation of SSES. Currently, if the control room habitability envelope pressure boundary is breached, neither Control Room Emergency Outside Air Supply (CREOAS) subsystem would be able to meet requirements for operability, and entry into shutdown LCO 3.0.3 would be required. This change will provide 24 hours for restoration of the capability to maintain proper pressure in the control room habitability envelope. In addition, a note is added to the LCO to allow intermittent opening of the control room habitability envelope barrier under administrative control.

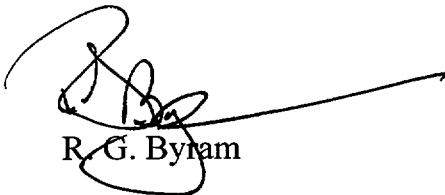
A001

Attachments to this letter include: the "Safety Assessment" supporting this change [Attachment 1]; the "No Significant Hazards Considerations Evaluation" performed in accordance with the criteria of 10CFR 50.92 and the categorical exclusion for an Environmental Assessment as specified in 10CFR 51.22 [Attachment 2]; markups of the Unit 1 and Unit 2 TS showing the proposed changes [Attachment 3]; the "camera ready" version of the revised Unit 1 and Unit 2 TS pages [Attachment 4]; and markups of the associated TS Bases [Attachment 5].

The Susquehanna SES Plant Operations Review Committee and the Susquehanna Review Committee have reviewed the proposed changes. In accordance with 10CFR 50.91(b)(1), PPL is sending a copy of this letter to the Pennsylvania Department of Environmental Protection.

PPL requests approval of this change by June 30, 2002, and that it be made effective within 60 days of issuance to allow orderly implementation of any new or revised plant procedures or training. If you have any questions, please contact Mr. D. L. Filchner at (610) 774-7819.

Sincerely,

A handwritten signature in black ink, appearing to be 'R. G. Byram', with a long horizontal line extending to the right.

R. G. Byram

Attachments

copy: NRC Region I

Mr. S. L. Hansell, NRC Sr. Resident Inspector

Mr. D. S. Collins, NRC Project Manager

Mr. D. J. Allard, PA DEP

**BEFORE THE
UNITED STATES NUCLEAR REGULATORY COMMISSION**

In the Matter of _____ :

PPL Susquehanna, LLC:

Docket No. 50-387

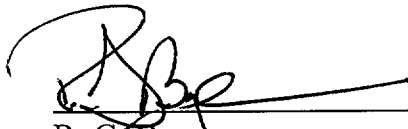
**PROPOSED AMENDMENT NO. 245 TO LICENSE NPF-14:
ADOPTION OF NRC APPROVED GENERIC CHANGES TO
IMPROVED TECHNICAL SPECIFICATIONS (CREOAS SYSTEM AOT)
UNIT NO. 1**

Licensee, PPL Susquehanna, LLC, hereby files Proposed Amendment No. 245 in support of a revision to its Facility Operating License No. NPF-14 dated July 17, 1982.

This amendment involves a revision to the Susquehanna SES Unit 1 Technical Specifications.

PPL Susquehanna, LLC

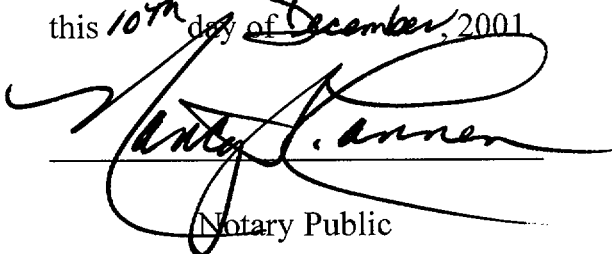
By:



R. G. Byram

Sr. Vice-President and Chief Nuclear Officer

Sworn to and subscribed before me
this 10th day of December, 2001



Notary Public

Notarial Seal
Nancy J. Lannen, Notary Public
Allentown, Lehigh County
My Commission Expires June 14, 2004

**BEFORE THE
UNITED STATES NUCLEAR REGULATORY COMMISSION**

In the Matter of :

PPL Susquehanna, LLC :

Docket No. 50-388

**PROPOSED AMENDMENT NO. 209 TO LICENSE NPF-22:
ADOPTION OF NRC APPROVED GENERIC CHANGES TO
IMPROVED TECHNICAL SPECIFICATIONS (CREOAS SYSTEM AOT)
UNIT NO. 2**

Licensee, PPL Susquehanna, LLC, hereby files Proposed Amendment No. 209 in support of a revision to its Facility Operating License No. NPF-22 dated March 23, 1984.

This amendment involves a revision to the Susquehanna SES Unit 2 Technical Specifications.

PPL Susquehanna, LLC

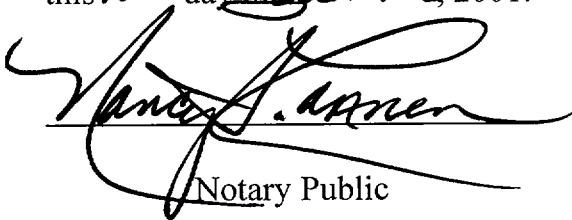
By:



R. G. Byram

Sr. Vice-President and Chief Nuclear Officer

Sworn to and subscribed before me
this 10th day of December, 2001.


Notary Public

Notarial Seal
Nancy J. Lannen, Notary Public
Allentown, Lehigh County
My Commission Expires June 14, 2004

Attachment 1 to PLA-5404

Safety Assessment

SECTION I

SUMMARY OF PROPOSED CHANGE

In accordance with 10 CFR 50.90, PPL Susquehanna, LLC (PPL) proposes to revise the Susquehanna Steam Electric Station Units 1 and 2 (SSES) Technical Specifications (TS) to incorporate generic change TSTF-287, Revision 5 to NUREG 1433, Standard Technical Specifications for General Electric Plants (BWR/4), Revision 1, which has been approved by the NRC for adoption by licensees.

Limiting Condition for Operation (LCO) 3.7.3, "Control Room Emergency Outside Air Supply (CREOAS) System," is revised to add a new Condition B, with an associated Required Action and Completion Time for control room habitability envelope boundary degradation (as opposed to ventilation train degradation). Existing Condition B and Conditions C, D, and E are relabeled as Conditions C, D, E, and F, respectively. Surveillance Requirement (SR) 3.7.3.4 tests the integrity of the control room habitability envelope boundary and requires a positive pressure limit to be satisfied with one required ventilation train operating. While the other SRs in LCO 3.7.3 test the OPERABILITY of the ventilation trains (i.e., heaters, filters, and actuation signals), SR 3.7.3.4 ensures that control room habitability envelope pressure boundary leak tightness is adequate to meet design basis assumptions. However, there are no corresponding Conditions, Required Actions, and Completion Times associated with this boundary surveillance. Currently, if the control room habitability envelope pressure boundary were breached, neither CREOAS subsystem would be able to maintain the positive pressure required by SR 3.7.3.4. Such a condition would render both subsystems inoperable, and require entry into LCO 3.0.3 (during operation in MODE 1, 2, or 3). Requiring the plant to enter LCO 3.0.3 when the control room habitability envelope pressure boundary is not intact does not provide time to effect required repairs or corrective maintenance activities. The proposed change allows 24 hours (during operation in MODE 1, 2, or 3) to restore the capability to maintain proper pressure before initiation of an orderly shutdown of the unit is required. Existing Condition D (relabeled as Condition E) is revised to require that LCO 3.0.3 be entered if two CREOAS subsystems are inoperable in MODE 1, 2, or 3 for reasons other than proposed new Condition B. LCO 3.7.3 is also revised to add a Note, which allows intermittent opening of the control room pressure boundary under administrative control.

TSTF-287, Revision 5 is adopted with no variances. However, plant-specific terminology (e.g., system name) is substituted for the generic terminology used in the TSTF.

The applicable TS Bases are also revised, consistent with TSTF-287, Revision 5, to document the proposed changes and to provide supporting information. The TS Bases are revised in accordance with TS 5.5.10, "TS Bases Control Program." TS Bases markups are included in Attachment 3 of this submittal for completeness.

TSTF-287, Revision 5 has previously been approved for incorporation in the TS for Duane Arnold, Catawba Units 1 and 2, Palisades, and Vogtle Units 1 and 2 by license amendments dated August 11, 2000, September 5, 2000, May 3, 2001, and May 14, 2001, respectively.

The proposed change provides a significant benefit to the operation of SSES, in that it serves to provide additional flexibility in the performance of maintenance and repair activities, eliminates unnecessary expenditure of NRC and licensee resources, and eases the burden of processing license amendment requests.

SECTION II

DESCRIPTION AND BASIS (BOTH LICENSING AND DESIGN) OF THE CURRENT REQUIREMENTS

The existing SR 3.7.3.4 tests the integrity of the control room habitability envelope pressure boundary and requires a positive pressure limit to be satisfied with one required ventilation train operating.

Currently, there are no corresponding Conditions, Required Actions, and Completion Times specified in LCO 3.7.3 (two CREOAS subsystems shall be OPERABLE) should the control room habitability envelope pressure boundary SR not be met, which is indicative of both trains being inoperable. Under the existing TS, Condition D would be entered for two-train inoperability. Condition D requires entering LCO 3.0.3 immediately.

SECTION III

EVALUATION OF PROPOSED CHANGE AND BASIS

PPL has reviewed TSTF-287, Revision 5 and determined that the proposed change and its justification are applicable to SSES.

If the control room habitability envelope pressure boundary is inoperable in MODE 1, 2, or 3 such that the CREOAS trains cannot establish or maintain the required pressure, action must be taken to restore an OPERABLE control room habitability envelope

pressure boundary within 24 hours. The 24 hour Completion Time is reasonable based on the low probability of a design basis accident occurring during this time period and compensatory measures available to the operator to minimize the consequences of potential hazards.

LCO 3.7.3 is modified by a Note which allows the control room habitability envelope 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, a dedicated individual, who is in continuous communication with the control room, is stationed at the opening. This individual will have a method to rapidly close the opening when a need for control room habitability envelope isolation is indicated.

The proposed changes allows 24 hours (during operation in MODES 1, 2, and 3) to restore the capability to maintain control room habitability envelope boundary pressure before initiation of an orderly shutdown is required, while intermittent opening of the control room habitability envelope pressure boundary is permitted under administrative control. During the period that the control room habitability envelope pressure boundary is inoperable, appropriate compensatory measures consistent with the intent of 10 CFR 50 Appendix A, General Design Criterion (GDC) 19 will be utilized to protect control room personnel from potential hazards such as radiation, radioactive contamination, toxic chemicals, smoke, temperature and relative humidity, and to ensure physical security. The preplanned measures will be available to address these concerns for intentional and unintentional entry into proposed new Condition B. For example, when the control room habitability envelope pressure boundary is opened for other than entry through doors, the proposed TS Bases indicate that, in addition to other necessary measures, a dedicated individual, in continuous contact with the control room, will be stationed in the area to rapidly restore the pressure boundary. PPL will have approved written procedures in place that describe the compensatory measures to be taken in the event of an intentional or unintentional entry into Condition B.

The proposed change is considered acceptable because of the low probability of an event occurring during the allowed outage time that would require an intact pressure boundary, and the use of compensatory measures.

The proposed change has been evaluated in accordance with 10 CFR 50.92 and found to not involve a significant hazards consideration.

SECTION IV

CONCLUSIONS

Generic changes to the Standard Technical Specifications (STS) are part of the continuing effort to maintain and improve use of the STS. Such generic changes are proposed to the NRC by use of the TSTF. They are prepared and reviewed using a process developed by industry and the NRC to correct and improve the STS. After approval by the NRC, generic changes are available for adoption by licensees who have implemented the improved STS.

While the improved STS have been implemented at SSES as a significant improvement in TS, there remains a need to continue to improve and correct the STS as generic requirements change (e.g., due to changes in regulations, industry standards, etc). The proposed change has been approved by the NRC on a generic basis, and is in compliance with applicable regulations. PPL has evaluated the proposed change for applicability to SSES, and has determined that it is consistent with TSTF-287, Revision 5, and that operation of SSES in accordance with the proposed change will not endanger the health and safety of the public.

Attachment 2 to PLA-5404

**No Significant Hazards Consideration Evaluation
and
Environmental Assessment**

NO SIGNIFICANT HAZARDS CONSIDERATION EVALUATION

The Commission has provided standards in 10 CFR 50.92(c) for determining whether a significant hazards consideration exists. A proposed amendment to an operating license for a facility does not involve a significant hazards consideration if operation of the facility in accordance with the proposed amendment would not (1) involve a significant increase in the probability of occurrence or consequences of an accident previously evaluated; (2) create the possibility of a new or different kind of accident from any accident previously evaluated; or (3) involve a significant reduction in a margin of safety.

PPL Susquehanna, LLC (PPL) proposes to revise the Susquehanna Steam Electric Station, Units 1 and 2 (SSES) Technical Specifications (TS) to adopt TSTF-287, Revision 5. This TSTF is a generic change to NUREG 1433, Standard Technical Specifications for General Electric Plants (BWR/4), Revision 1, approved by the NRC for adoption by licensees. The proposed changes involve the relaxation of the Required Actions in the current TS.

Upon discovery of a failure to meet a Limiting Condition for Operation (LCO), the TS specifies Required Actions to complete for the Conditions. Required Actions of the associated Conditions are used to establish remedial measures that must be taken, within the specified Completion Times, in response to the degraded conditions. These actions minimize the risk associated with continued operation while providing time to repair inoperable features. The proposed change provides a 24 hour Completion Time in which to restore an inoperable control room habitability envelope pressure boundary to OPERABLE status. This change is acceptable because of the low probability of an event requiring an intact control room boundary occurring during the 24 hour action completion time associated with Condition "B"

Based on the low probability of an event occurring in this time and the availability of compensatory measures consistent with GDC 19 to minimize the consequences during an event, this change has been determined not to be detrimental to plant safety.

In accordance with the criteria set forth in 10 CFR 50.92, PPL has evaluated the proposed TS change and determined that it does not involve a significant hazards consideration. The following is provided in support of this conclusion.

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

The proposed change relaxes the Required Actions of LCO 3.7.3 by allowing 24 hours to restore an inoperable control room habitability envelope pressure boundary to OPERABLE status. Required Actions and their associated

Completion Times are not initiating conditions for any accidents previously evaluated. The accident analyses do not assume that required CREOAS equipment is out of service prior to the analyzed event. Consequently, this change in Required Actions does not significantly increase the probability of occurrence of any accident previously evaluated. The Required Actions in the proposed change have been developed to provide assurance that appropriate remedial actions are taken in response to the degraded condition, considering the operability status of the CREOAS system and the capability of minimizing the risk associated with continued operation. As a result, the consequences of any accident previously evaluated are not significantly increased. Therefore, this 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?

The proposed change does not involve a physical modification or alteration of plant equipment (no new or different type of equipment will be installed) or a change in the methods governing normal plant operation. The Required Actions and associated Completion Times in the proposed change have been evaluated to ensure that no new accident initiators are introduced. Thus, this change does not create the possibility of a new or different kind of accident from any accident previously evaluated.

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

The relaxed Required Actions do not involve a significant reduction in the margin of safety. The proposed change has been evaluated to minimize the risk of continued operation with the control room habitability envelope pressure boundary inoperable. The operability status of the CREOAS system, a reasonable time for repairs or replacement of required features, and the low probability of a design basis accident occurring during the repair period have been considered in the evaluation. Therefore, this change does not involve a significant reduction in a margin of safety.

ENVIRONMENTAL ASSESSMENT

10 CFR 51.22(c)(9) identifies certain licensing and regulatory actions which are eligible for categorical exclusion from the requirement to perform an environmental assessment. A proposed amendment to an operating license for a facility does not require an environmental assessment if operation of the facility in accordance with the proposed amendment would not (1) involve a significant hazards consideration; (2) result in a significant change in the types or significant increase in the amounts of any effluents that may be released offsite; or (3) result in a significant increase in individual or cumulative occupational radiation exposure. PPL Susquehanna, LLC has evaluated the proposed change and has determined that the proposed change meets the eligibility criteria for categorical exclusion set forth in 10 CFR 51.22(c)(9). Accordingly, pursuant to 10 CFR 51.22(b), no environmental impact statement or environmental assessment needs to be prepared in connection with issuance of the amendment. The basis for this determination, using the above criteria, follows:

Basis

1. As demonstrated in the No Significant Hazards Consideration Evaluation, the proposed amendment does not involve a significant hazards consideration.
2. There is no significant change in the types or significant increase in the amounts of any effluents that may be released offsite. The proposed change does not involve any physical modification or alteration of plant equipment (no new or different type of equipment will be installed) or change in methods governing normal plant operation.
3. There is no significant increase in individual or cumulative occupational radiation exposure. The proposed change does not involve any physical modification or alteration of plant equipment (no new or different type of equipment will be installed) or change in methods governing normal plant operation.

Attachment 3 to PLA-5404

Technical Specification Markups
(Units 1 & 2)

3.7 PLANT SYSTEMS

3.7.3 Control Room Emergency Outside Air Supply (CREOAS) System

LCO 3.7.3 Two CREOAS subsystems shall be OPERABLE.

TSTF-287 INSERT
LCO NOTE

APPLICABILITY: MODES 1, 2, and 3,
During movement of irradiated fuel assemblies in the
secondary containment,
During CORE ALTERATIONS,
During operations with a potential for draining the reactor
vessel (OPDRVs).

ACTIONS

CONDITION	REQUIRED ACTION	COMPLETION TIME
A. One CREOAS subsystem inoperable.	A.1 Restore CREOAS subsystem to OPERABLE status.	7 days
<p>Ⓟ. Required Action and associated Completion Time of Condition A not met in MODE 1, 2, or 3.</p> <p>Ⓢ or Ⓟ</p>	<p>Ⓟ.1 Be in MODE 3.</p> <p>AND</p> <p>Ⓟ.2 Be in MODE 4.</p>	<p>12 hours</p> <p>36 hours</p>

(continued)

INSERT 3.7-6

TSTF-287, Rev. 5
INSERT LCO NOTE

----- NOTE -----

The control room habitability envelope boundary may be opened intermittently under administrative control.

INSERT 3.7-6

B. Two CREOAS subsystems inoperable due to inoperable control room habitability envelope boundary in MODES 1, 2, and 3.	B.1 Restore control room habitability envelope boundary to OPERABLE status.	24 hours
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<TSTF-287 RS>

ACTIONS (continued)

CONDITION	REQUIRED ACTION	COMPLETION TIME
<p>Ⓢ. Required Action and associated Completion Time of Condition A not met during movement of irradiated fuel assemblies in the secondary containment, during CORE ALTERATIONS, or during OPDRVs.</p>	<p>-----NOTE----- LCO 3.0.3 is not applicable. -----</p> <p>Ⓢ.1. Place OPERABLE CREOAS subsystem in pressurization/filtration mode. Ⓢ.2.1 Suspend movement of irradiated fuel assemblies in the secondary containment. <u>OR</u> Ⓢ.2.2 Suspend CORE ALTERATIONS. <u>AND</u> Ⓢ.2.3 Initiate action to suspend OPDRVs.</p>	<p>Immediately</p> <p>Immediately</p> <p>Immediately</p> <p>Immediately</p>
<p>Ⓢ. Two CREOAS subsystems inoperable in MODE 1, 2, or 3.</p>	<p>Ⓢ.1 Enter LCO 3.0.3.</p>	<p>Immediately</p>

(continued)

for reasons other than Condition B

ACTIONS (continued)

CONDITION	REQUIRED ACTION	COMPLETION TIME
⑤ Two CREOAS subsystems inoperable during movement of irradiated fuel assemblies in the secondary containment, during CORE ALTERATIONS, or during OPDRVs. ⑥	-----NOTE----- LCO 3.0.3 is not applicable. -----	
	⑤.1 Suspend movement of irradiated fuel assemblies in the secondary containment. ⑥	Immediately
	AND ⑤.2 Suspend CORE ALTERATIONS. ⑥	Immediately
	AND ⑤.3 Initiate action to suspend OPDRVs. ⑥	Immediately

SURVEILLANCE REQUIREMENTS

SURVEILLANCE		FREQUENCY
SR 3.7.3.1	Operate each CREOAS filter train for ≥ 10 continuous hours with the heaters operable.	31 days
SR 3.7.3.2	Perform required CREOAS filter testing in accordance with the Ventilation Filter Testing Program (VFTP).	In accordance with the VFTP
SR 3.7.3.3	Verify each CREOAS subsystem actuates on an actual or simulated initiation signal.	24 months

(continued)

3.7 PLANT SYSTEMS

3.7.3 Control Room Emergency Outside Air Supply (CREOAS) System

LCO 3.7.3 Two CREOAS subsystems shall be OPERABLE.

TSTF-287 INSERT
LCO NOTE

APPLICABILITY: MODES 1, 2, and 3,
During movement of irradiated fuel assemblies in the
secondary containment,
During CORE ALTERATIONS,
During operations with a potential for draining the reactor
vessel (OPDRVs).

ACTIONS

CONDITION	REQUIRED ACTION	COMPLETION TIME
A. One CREOAS subsystem inoperable.	A.1 Restore CREOAS subsystem to OPERABLE status.	7 days
B. Required Action and associated Completion Time of Condition A not met in MODE 1, 2, or 3. or B	B.1 Be in MODE 3.	12 hours
	AND B.2 Be in MODE 4.	36 hours

(continued)

INSERT 3.7-6

TSTF-287, Rev. 5
INSERT LCO NOTE

----- **NOTE** -----

The control room habitability envelope boundary may be opened intermittently under administrative control.

INSERT 3.7-6

B. Two CREOAS subsystems inoperable due to inoperable control room habitability envelope boundary in MODES 1, 2, and 3.	B.1 Restore control room habitability envelope boundary to OPERABLE status.	24 hours
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ACTIONS (continued)

CONDITION	REQUIRED ACTION	COMPLETION TIME
<p>Ⓢ. Required Action and associated Completion Time of Condition A not met during movement of irradiated fuel assemblies in the secondary containment, during CORE ALTERATIONS, or during OPDRVs.</p> <p>ⓓ</p>	<p>-----NOTE----- LCO 3.0.3 is not applicable. -----</p> <p>Ⓢ.1 Place OPERABLE CREOAS subsystem in pressurization/filtration mode.</p> <p>ⓓ</p> <p>OR</p> <p>Ⓢ.2.1 Suspend movement of irradiated fuel assemblies in the secondary containment.</p> <p>ⓓ</p> <p>AND</p> <p>Ⓢ.2.2 Suspend CORE ALTERATIONS.</p> <p>ⓓ</p> <p>AND</p> <p>Ⓢ.2.3 Initiate action to suspend OPDRVs.</p> <p>ⓓ</p>	<p>Immediately.</p> <p>Immediately</p> <p>Immediately</p> <p>Immediately</p>
<p>Ⓢ. Two CREOAS subsystems inoperable in MODE 1, 2, or 3.</p> <p>ⓓ</p> <p>ⓔ</p>	<p>Ⓢ.1 Enter LCO 3.0.3.</p> <p>ⓓ</p>	<p>Immediately</p>

(continued)

for reasons other than Condition B

ACTIONS (continued)

CONDITION	REQUIRED ACTION	COMPLETION TIME
⑤ Two CREOAS subsystems inoperable during movement of irradiated fuel assemblies in the secondary containment, during CORE ALTERATIONS, or during OPDRVs. ⑥	-----NOTE----- LCO 3.0.3 is not applicable. -----	
	⑤.1 Suspend movement of irradiated fuel assemblies in the secondary containment. ⑥	Immediately
	AND ⑤.2 Suspend CORE ALTERATIONS. ⑥	Immediately
	AND ⑤.3 Initiate action to suspend OPDRVs. ⑥	Immediately

SURVEILLANCE REQUIREMENTS

SURVEILLANCE	FREQUENCY
SR 3.7.3.1 Operate each CREOAS filter train for ≥ 10 continuous hours with the heaters operable.	31 days
SR 3.7.3.2 Perform required CREOAS filter testing in accordance with the Ventilation Filter Testing Program (VFTP).	In accordance with the VFTP
SR 3.7.3.3 Verify each CREOAS subsystem actuates on an actual or simulated initiation signal.	24 months

(continued)

Attachment 4 to PLA-5404

**"Camera Ready" Technical Specificaitons
(Units 1 & 2)**

3.7 PLANT SYSTEMS

3.7.3 Control Room Emergency Outside Air Supply (CREOAS) System

LCO 3.7.3 Two CREOAS subsystems shall be OPERABLE.

-----NOTE-----

The control room habitability envelope boundary may be opened intermittently under administrative control.

APPLICABILITY: MODES 1, 2, and 3,
During movement of irradiated fuel assemblies in the secondary containment,
During CORE ALTERATIONS,
During operations with a potential for draining the reactor vessel (OPDRVs).

ACTIONS

CONDITION	REQUIRED ACTION	COMPLETION TIME
A. One CREOAS subsystem inoperable.	A.1 Restore CREOAS subsystem to OPERABLE status.	7 days
B. Two CREOAS subsystems inoperable due to inoperable control room habitability envelope boundary in MODES 1, 2, and 3.	B.1 Restore control room habitability envelope boundary to OPERABLE status.	24 hours
C. Required Action and associated Completion Time of Condition A or B not met in MODE 1, 2, or 3.	C.1 Be in MODE 3.	12 hours
	<u>AND</u> C.2 Be in MODE 4.	36 hours

(continued)

ACTIONS (continued)

CONDITION	REQUIRED ACTION	COMPLETION TIME
D. Required Action and associated Completion Time of Condition A not met during movement of irradiated fuel assemblies in the secondary containment, during CORE ALTERATIONS, or during OPDRVs.	-----NOTE----- LCO 3.0.3 is not applicable. -----	
	D.1 Place OPERABLE CREOAS subsystem in pressurization/ filtration mode.	Immediately
	<u>OR</u>	
	D.2.1 Suspend movement of irradiated fuel assemblies in the secondary containment.	Immediately
	<u>AND</u>	
	D.2.2 Suspend CORE ALTERATIONS.	Immediately
	<u>AND</u>	
	D.2.3 Initiate action to suspend OPDRVs.	Immediately
E. Two CREOAS subsystems inoperable in MODE 1, 2, or 3 for reasons other than Condition B.	E.1 Enter LCO 3.0.3.	Immediately

(continued)

ACTIONS (continued)

CONDITION	REQUIRED ACTION	COMPLETION TIME
F. Two CREOAS subsystems inoperable during movement of irradiated fuel assemblies in the secondary containment, during CORE ALTERATIONS, or during OPDRVs.	-----NOTE----- LCO 3.0.3 is not applicable. -----	
	F.1 Suspend movement of irradiated fuel assemblies in the secondary containment.	Immediately
	<u>AND</u>	
	F.2 Suspend CORE ALTERATIONS.	Immediately
	<u>AND</u>	
	F.3 Initiate action to suspend OPDRVs.	Immediately

SURVEILLANCE REQUIREMENTS

SURVEILLANCE	FREQUENCY
SR 3.7.3.1 Operate each CREOAS filter train for ≥ 10 continuous hours with the heaters operable.	31 days
SR 3.7.3.2 Perform required CREOAS filter testing in accordance with the Ventilation Filter Testing Program (VFTP).	In accordance with the VFTP
SR 3.7.3.3 Verify each CREOAS subsystem actuates on an actual or simulated initiation signal.	24 months

(continued)

3.7 PLANT SYSTEMS

3.7.3 Control Room Emergency Outside Air Supply (CREOAS) System

LCO 3.7.3 Two CREOAS subsystems shall be OPERABLE.

-----NOTES-----

The control room habitability envelope boundary may be opened intermittently under administrative control.

APPLICABILITY: MODES 1, 2, and 3,
During movement of irradiated fuel assemblies in the secondary containment,
During CORE ALTERATIONS,
During operations with a potential for draining the reactor vessel (OPDRVs).

ACTIONS

CONDITION	REQUIRED ACTION	COMPLETION TIME
A. One CREOAS subsystem inoperable.	A.1 Restore CREOAS subsystem to OPERABLE status.	7 days
B. Two CREOAS subsystems inoperable due to inoperable control room habitability envelope boundary in MODES 1, 2, and 3.	B.1 Restore control room habitability envelope boundary to OPERABLE status.	24 hours
C. Required Action and associated Completion Time of Condition A or B not met in MODE 1, 2, or 3.	C.1 Be in MODE 3.	12 hours
	<u>AND</u> C.2 Be in MODE 4.	36 hours

(continued)

ACTIONS (continued)

CONDITION	REQUIRED ACTION	COMPLETION TIME
D. Required Action and associated Completion Time of Condition A not met during movement of irradiated fuel assemblies in the secondary containment, during CORE ALTERATIONS, or during OPDRVs.	-----NOTE----- LCO 3.0.3 is not applicable. -----	
	D.1 Place OPERABLE CREOAS subsystem in pressurization/filtration mode.	Immediately
	<u>OR</u>	
	D.2.1 Suspend movement of irradiated fuel assemblies in the secondary containment.	Immediately
	<u>AND</u>	
	D.2.2 Suspend CORE ALTERATIONS.	Immediately
	<u>AND</u>	
	D.2.3 Initiate action to suspend OPDRVs.	Immediately
E. Two CREOAS subsystems inoperable in MODE 1, 2, or 3 for reasons other than Condition B.	E.1 Enter LCO 3.0.3.	Immediately

(continued)

ACTIONS (continued)

CONDITION	REQUIRED ACTION	COMPLETION TIME
F. Two CREOAS subsystems inoperable during movement of irradiated fuel assemblies in the secondary containment, during CORE ALTERATIONS, or during OP DRVs.	-----NOTE----- LCO 3.0.3 is not applicable. -----	
	F.1 Suspend movement of irradiated fuel assemblies in the secondary containment.	Immediately
	<u>AND</u>	
	F.2 Suspend CORE ALTERATIONS.	Immediately
	<u>AND</u>	
	F.3 Initiate action to suspend OPDRVs.	Immediately

SURVEILLANCE REQUIREMENTS

SURVEILLANCE	FREQUENCY
SR 3.7.3.1 Operate each CREOAS filter train for ≥ 10 continuous hours with the heaters operable.	31 days
SR 3.7.3.2 Perform required CREOAS filter testing in accordance with the Ventilation Filter Testing Program (VFTP).	In accordance with the VFTP
SR 3.7.3.3 Verify each CREOAS subsystem actuates on an actual or simulated initiation signal.	24 months

(continued)

Attachment 5 to PLA-5404

Technical Specification Bases Markups
(Units 1 & 2)

BASES

LCO

(continued)

One subsystem is considered OPERABLE when:

- a. One filter train consisting of a CREOAS fan, heater, a HEPA filter, and charcoal adsorber which is not excessively restricting flow is OPERABLE; and
- b. The 'A' Control Structure Heating and Ventilation fan (0V103A) and the 'A' Computer Room Floor Cooling fan (0V115A) and the 'A' Control Room Floor Cooling fan (0V117A) are OPERABLE

OR

The 'B' Control Structure Heating and Ventilation fan (0V103B) and the 'B' Computer Room Floor Cooling fan (0V115B) and the 'B' Control Room Floor Cooling fan (0V117B) are OPERABLE

(These fans are not dedicated to either CREOAS subsystem. As a result when any one set of fans is not OPERABLE, one arbitrarily determined CREOAS subsystem is not OPERABLE): and

- c. Ductwork, valves, and dampers are OPERABLE, and air circulation can be maintained.
- d. Neither Smoke Removal Fan (0V104A/B) is in operation.

In addition, the habitability envelope must be maintained, including the integrity of the walls, floors, ceilings, ductwork, and access doors to maintain a positive pressure. Note the habitability envelope can not be maintained with a smoke removal fan (0V104A or 0V104B) in operation.

TSTF-287 INSERT
LCO NOTE BASES

APPLICABILITY

In MODES 1, 2, and 3, the CREOAS System must be OPERABLE to control operator exposure during and following a DBA, since the DBA could lead to a fission product release.

In MODES 4 and 5, the probability and consequences of a DBA are reduced because of the pressure and temperature limitations in these MODES. Therefore, maintaining the CREOAS System OPERABLE is not required in MODE 4 or 5, except for the following situations under which significant radioactive releases can be postulated:

- a. During operations with potential for draining the reactor vessel (OPDRVs);

(continued)

TSTF-287, Rev. 5
INSERT
LCO NOTE BASES

The LCO is modified by a Note allowing the control room habitability envelope 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 habitability envelope isolation is indicated.

BASES

APPLICABILITY
(continued)

- b. During CORE ALTERATIONS; and
- c. During movement of irradiated fuel assemblies in the secondary containment.

ACTIONS

A.1

With one CREOAS subsystem inoperable, the inoperable CREOAS subsystem must be restored to OPERABLE status within 7 days. With the unit in this condition, the remaining OPERABLE CREOAS subsystem is adequate to perform its radiation protection function. However, the overall reliability is reduced because a single failure in the OPERABLE subsystem could result in reduced CREOAS System capability. The 7 day Completion Time is based on the low probability of a DBA occurring during this time period, and that the remaining subsystem can provide the required capabilities.

TSTF-287 INSERT 1

③ → ③.1 and ③.2

or control room
habitability
envelope boundary

In MODE 1, 2, or 3, if the inoperable CREOAS subsystem cannot be restored to OPERABLE status within the associated Completion Time, the unit must be placed in a MODE that minimizes risk. To achieve this status, the unit must be placed in at least MODE 3 within 12 hours and in MODE 4 within 36 hours. The allowed Completion Times are reasonable, based on operating experience, to reach the required unit conditions from full power conditions in an orderly manner and without challenging unit systems.

③.1, ③.2.1, ③.2.2, and ③.2.3

The Required Actions of Condition ③ are modified by a Note indicating that LCO 3.0.3 does not apply. If moving irradiated fuel assemblies while in MODE 1, 2, or 3, the fuel movement is independent of reactor operations. Therefore, inability to suspend movement of irradiated fuel assemblies is not sufficient reason to require either an entry into LCO 3.0.3 or a reactor shutdown in accordance with LCO 3.0.3.

During movement of irradiated fuel assemblies in the secondary containment, during CORE ALTERATIONS, or during OPDRVs, if the inoperable CREOAS subsystem cannot be restored to OPERABLE status within the required Completion Time, the OPERABLE CREOAS subsystem

(continued)

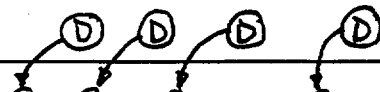
TSTF-287, Rev. 5
INSERT 1

B.1


If the control room habitability envelope boundary is inoperable in MODES 1, 2, and 3, the CREOAS trains cannot perform their intended functions. Actions must be taken to restore an OPERABLE control room habitability envelope boundary within 24 hours. During the period that the control room habitability envelope 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. Preplanned measures should be available to address these concerns for intentional and unintentional entry into the Condition. The 24 hour Completion Time is reasonable based on the low probability of a DBA occurring during this time period, and the use of compensatory measures. The 24 hour Completion Time is a typically reasonable time to diagnose, plan and possibly repair, and test most problems with the control room habitability envelope boundary.

BASES


ACTIONS


 S.1, S.2.1, S.2.2, and S.2.3 (continued)

may be placed in the pressurization/filtration mode. This action ensures that the remaining subsystem is OPERABLE, that no failures that would prevent automatic actuation will occur, and that any active failure will be readily detected.


An alternative to Required Action  S.1 is to immediately suspend activities that present a potential for releasing radioactivity that might require isolation of the control room. This places the unit in a condition that minimizes risk.


If applicable, CORE ALTERATIONS and movement of irradiated fuel assemblies in the secondary containment must be suspended immediately. Suspension of these activities shall not preclude completion of movement of a component to a safe position. Also, if applicable, actions must be initiated immediately to suspend OPDRVs to minimize the probability of a vessel draindown and the subsequent potential for fission product release. Actions must continue until the OPDRVs are suspended.


S.1

for reasons other than an inoperable control room habitability envelope boundary (i.e., Condition B)

If both CREOAS subsystems are inoperable in MODE 1, 2, or 3, the CREOAS System may not be capable of performing the intended function and the unit is in a condition outside the accident analyses. Therefore, LCO 3.0.3 must be entered immediately.


 S.1, S.2, and S.3

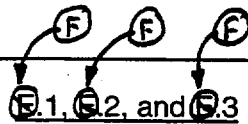
The Required Actions of Condition  are modified by a Note indicating that LCO 3.0.3 does not apply. If moving irradiated fuel assemblies while in MODE 1, 2, or 3, the fuel movement is independent of reactor operations. Therefore, inability to suspend movement of irradiated fuel assemblies is not sufficient reason to require either an entry into LCO 3.0.3 or a reactor shutdown in accordance with LCO 3.0.3.

During movement of irradiated fuel assemblies in the secondary containment, during CORE ALTERATIONS, or during OPDRVs, with two CREOAS subsystems inoperable, action must be taken immediately to suspend activities that present a potential for releasing radioactivity that might require pressurization of the habitability envelope. This places the unit in a condition that minimizes risk.

(continued)

BASES

ACTIONS



E.1, E.2, and E.3 (continued)

If applicable, CORE ALTERATIONS and movement of irradiated fuel assemblies in the secondary containment must be suspended immediately. Suspension of these activities shall not preclude completion of movement of a component to a safe position. If applicable, actions must be initiated immediately to suspend OPDRVs to minimize the probability of a vessel draindown and subsequent potential for fission product release. Actions must continue until the OPDRVs are suspended.

SURVEILLANCE
REQUIREMENTSSR 3.7.3.1

This SR verifies that a CREOAS fan in a standby mode starts on demand from the control room and continues to operate with flow through the HEPA filters and charcoal adsorbers. Standby systems should be checked periodically to ensure that they start and function properly. As the environmental and normal operating conditions of this system are not severe, testing each subsystem once every month provides an adequate check on this system. Monthly heater operation dries out any moisture that has accumulated in the charcoal as a result of humidity in the ambient air. Systems with heaters must be operated for ≥ 10 continuous hours with the heaters energized. Furthermore, the 31 day Frequency is based on the known reliability of the equipment and the availability of two redundant subsystems.

SR 3.7.3.2

This SR verifies that the required CREOAS testing is performed in accordance with the Ventilation Filter Testing Program (VFTP). The VFTP includes testing HEPA filter performance, charcoal adsorber efficiency, minimum system flow rate, and the physical properties of the activated charcoal (general use and following specific operations). Specific test frequencies and additional information are discussed in detail in the VFTP.

SR 3.7.3.3

This SR verifies that on an actual or simulated initiation signal, each CREOAS subsystem starts and operates. The LOGIC SYSTEM FUNCTIONAL TEST in SR 3.3.7.1.5 overlaps this SR to provide complete testing of the safety function. The 24 month Frequency is consistent with industry practice and other filtration systems SRs.

(continued)

<TSTF-287 R5>

BASES

LCO
(continued)

One subsystem is considered OPERABLE when:

- a. One filter train consisting of a CREOAS fan, heater, a HEPA filter, and charcoal adsorber which is not excessively restricting flow is OPERABLE; and
- b. The 'A' Control Structure Heating and Ventilation fan (0V103A) and the 'A' Computer Room Floor Cooling fan (0V115A) and the 'A' Control Room Floor Cooling fan (0V117A) are OPERABLE

OR

The 'B' Control Structure Heating and Ventilation fan (0V103B) and the 'B' Computer Room Floor Cooling fan (0V115B) and the 'B' Control Room Floor Cooling fan (0V117B) are OPERABLE

(These fans are not dedicated to either CREOAS subsystem. As a result when any one set of fans is not OPERABLE, one arbitrarily determined CREOAS subsystem is not OPERABLE); and

- c. Ductwork, valves, and dampers are OPERABLE, and air circulation can be maintained.
- d. Neither Smoke Removal Fan (0V104A/B) is in operation.

In addition, the habitability envelope must be maintained, including the integrity of the walls, floors, ceilings, ductwork, and access doors to maintain a positive pressure. Note the habitability envelope can not be maintained with a smoke removal fan (0V104A or 0V104B) in operation.

TSTF-287 INSERT
LCO NOTE BASES

APPLICABILITY

In MODES 1, 2, and 3, the CREOAS System must be OPERABLE to control operator exposure during and following a DBA, since the DBA could lead to a fission product release.

In MODES 4 and 5, the probability and consequences of a DBA are reduced because of the pressure and temperature limitations in these MODES. Therefore, maintaining the CREOAS System OPERABLE is not required in MODE 4 or 5, except for the following situations under which significant radioactive releases can be postulated:

(continued)

TSTF-287, Rev. 5
INSERT
LCO NOTE BASES

The LCO is modified by a Note allowing the control room habitability envelope 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 habitability envelope isolation is indicated.

BASES

APPLICABILITY (continued)

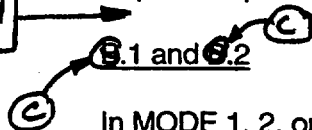
- a. During operations with potential for draining the reactor vessel (OPDRVs);
- b. During CORE ALTERATIONS; and
- c. During movement of irradiated fuel assemblies in the secondary containment

ACTIONS

A.1

With one CREOAS subsystem inoperable, the inoperable CREOAS subsystem must be restored to OPERABLE status within 7 days. With the unit in this condition, the remaining OPERABLE CREOAS subsystem is adequate to perform its radiation protection function. However, the overall reliability is reduced because a single failure in the OPERABLE subsystem could result in reduced CREOAS System capability. The 7 day Completion Time is based on the low probability of a DBA occurring during this time period, and that the remaining subsystem can provide the required capabilities.

TSTF-287 INSERT 1



or control room habitability
envelope boundary

In MODE 1, 2, or 3, if the inoperable CREOAS subsystem cannot be restored to OPERABLE status within the associated Completion Time, the unit must be placed in a MODE that minimizes risk. To achieve this status, the unit must be placed in at least MODE 3 within 12 hours and in MODE 4 within 36 hours. The allowed Completion Times are reasonable, based on operating experience, to reach the required unit conditions from full power conditions in an orderly manner and without challenging unit systems.

3.1, 3.2.1, 3.2.2, and 3.2.3

The Required Actions of Condition 3 are modified by a Note indicating that LCO 3.0.3 does not apply. If moving irradiated fuel assemblies while in MODE 1, 2, or 3, the fuel movement is independent of reactor operations. Therefore, inability to suspend movement of irradiated fuel assemblies is not sufficient reason to require either an entry into LCO 3.0.3 or a reactor shutdown in accordance with LCO 3.0.3.

During movement of irradiated fuel assemblies in the secondary containment, during CORE ALTERATIONS, or during OPDRVs, if the inoperable CREOAS subsystem cannot be restored to OPERABLE status

(continued)

TSTF-287, Rev. 5
INSERT 1

B.1

If the control room habitability envelope boundary is inoperable in MODES 1, 2, and 3, the CREOAS trains cannot perform their intended functions. Actions must be taken to restore an OPERABLE control room habitability envelope boundary within 24 hours. During the period that the control room habitability envelope 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. Preplanned measures should be available to address these concerns for intentional and unintentional entry into the Condition. The 24 hour Completion Time is reasonable based on the low probability of a DBA occurring during this time period, and the use of compensatory measures. The 24 hour Completion Time is a typically reasonable time to diagnose, plan and possibly repair, and test most problems with the control room habitability envelope boundary.

BASES

ACTIONS

Q.1, Q.2.1, Q.2.2, and Q.2.3 (continued)

within the required Completion Time, the OPERABLE CREOAS subsystem may be placed in the pressurization/filtration mode. This action ensures that the remaining subsystem is OPERABLE, that no failures that would prevent automatic actuation will occur, and that any active failure will be readily detected.

An alternative to Required Action Q.1 is to immediately suspend activities that present a potential for releasing radioactivity that might require isolation of the control room. This places the unit in a condition that minimizes risk.

If applicable, CORE ALTERATIONS and movement of irradiated fuel assemblies in the secondary containment must be suspended immediately. Suspension of these activities shall not preclude completion of movement of a component to a safe position. Also, if applicable, actions must be initiated immediately to suspend OPDRVs to minimize the probability of a vessel draindown and the subsequent potential for fission product release. Actions must continue until the OPDRVs are suspended.

Q.1 *for reasons other than an inoperable control room habitability envelope boundary (i.e., Condition B)*

If both CREOAS subsystems are inoperable in MODE 1, 2, or 3, the CREOAS System may not be capable of performing the intended function and the unit is in a condition outside the accident analyses. Therefore, LCO 3.0.3 must be entered immediately.

E.1, E.2, and E.3

The Required Actions of Condition E are modified by a Note indicating that LCO 3.0.3 does not apply. If moving irradiated fuel assemblies while in MODE 1, 2, or 3, the fuel movement is independent of reactor operations. Therefore, inability to suspend movement of irradiated fuel assemblies is not sufficient reason to require either an entry into LCO 3.0.3 or a reactor shutdown in accordance with LCO 3.0.3.

During movement of irradiated fuel assemblies in the secondary containment, during CORE ALTERATIONS, or during OPDRVs, with two CREOAS subsystems inoperable, action must be taken immediately to suspend activities that present a potential for releasing radioactivity that might require pressurization of the habitability envelope. This places the unit in a condition that minimizes risk.

(continued)

BASES

ACTIONS

3.1, 3.2, and 3.3 (continued)

If applicable, CORE ALTERATIONS and movement of irradiated fuel assemblies in the secondary containment must be suspended immediately. Suspension of these activities shall not preclude completion of movement of a component to a safe position. If applicable, actions must be initiated immediately to suspend OPDRVs to minimize the probability of a vessel draindown and subsequent potential for fission product release. Actions must continue until the OPDRVs are suspended.

SURVEILLANCE
REQUIREMENTSSR 3.7.3.1

This SR verifies that a CREOAS fan in a standby mode starts on demand from the control room and continues to operate with flow through the HEPA filters and charcoal adsorbers. Standby systems should be checked periodically to ensure that they start and function properly. As the environmental and normal operating conditions of this system are not severe, testing each subsystem once every month provides an adequate check on this system. Monthly heater operation dries out any moisture that has accumulated in the charcoal as a result of humidity in the ambient air. Systems with heaters must be operated for ≥ 10 continuous hours with the heaters energized. Furthermore, the 31 day Frequency is based on the known reliability of the equipment and the availability of two redundant subsystems.

SR 3.7.3.2

This SR verifies that the required CREOAS testing is performed in accordance with the Ventilation Filter Testing Program (VFTP). The VFTP includes testing HEPA filter performance, charcoal adsorber efficiency, minimum system flow rate, and the physical properties of the activated charcoal (general use and following specific operations). Specific test frequencies and additional information are discussed in detail in the VFTP.

SR 3.7.3.3

This SR verifies that on an actual or simulated initiation signal, each CREOAS subsystem starts and operates. The LOGIC SYSTEM FUNCTIONAL TEST in SR 3.3.7.1.5 overlaps this SR to provide complete testing of the safety function. The 24 month Frequency is consistent with industry practice and other filtration systems SRs.

(continued)