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ComEd

April 26, 2000

United States Nuclear Regulatory Commission
Attention: Document Control Desk
Washington, D.C. 20555

LaSalle County Station, Units 1 and 2
Facility Operating License Nos. NPF-11 and NPF-18
NRC Docket Nos. 50-373 and 50-374

Subject: Application for Amendment to Appendix A, Technical Specifications, Elimination of Auxiliary Electric Equipment Room Habitability Requirements

References:

1) Licensee Event Report 50-373/96-012-01, "Auxiliary Electric Equipment Room Found Not to Meet GDC 19 Habitability Requirements Due to Failure to Understand the Design and Licensing Basis," dated March 25, 1997.

2) Letter from W. T. Subalusky (ComEd) to the U.S. NRC, "Application for Amendment to Facility Operating Licenses NPF-11 and NPF-18, Technical Specifications, Addition of a Ventilation Filter Testing Program," dated September 26, 1997.

3) Letter from F. R. Dacimo (ComEd) to the U.S. NRC, "Supplement to Application for Amendment to Facility Operating Licenses NPF-11 and NPF-18, Technical Specifications, Addition of a Ventilation Filter Testing Program," dated April 7, 1998.

4) Letter from F. R. Dacimo (ComEd) to the U.S. NRC, "Supplement to Application for Amendment to Facility Operating Licenses NPF-11 and NPF-18, Technical Specifications, Addition of a Ventilation Filter Testing Program," dated May 1, 1998.

5) Letter from D. M. Skay (U.S. NRC) to O. D. Kingsley (ComEd), "Issuance of Amendments (TAC Nos. M99726 and M99727)," dated May 13, 1998.

A001

In accordance with 10 CFR 50.90, "Application for amendment of license or construction permit," Commonwealth Edison (ComEd) Company proposes changes to Appendix A, Technical Specifications (TS), of Facility Operating License Nos. NPF-11 and NPF-18. Specifically, we propose to change TS Bases Section 3/4.3.7.1, "Radiation Monitoring Instrumentation," TS Section 3/4.7.2, "Control Room and Auxiliary Electric Equipment Room Emergency Filtration System," TS Bases Section 3/4.7.2, and TS Section 6.2.F.8, "Ventilation Filter Testing Program (VFTP)."

The operability of the Auxiliary Electric Equipment Room (AEER) filtration system, in accordance with the requirements of TS Section 3/4.7.2, ensures that the AEER will remain habitable for personnel during and following all design basis accident conditions. The requirement to maintain the capability to continuously man the AEER, during and following all design basis accidents, was part of the original design and licensing bases of the LaSalle County Station. Reference 1 documented a non-compliance with that requirement. References 2 through 5 changed TS Sections 3/4.7.2 and 6.2.F.8 to explicitly include requirements to demonstrate and maintain the capability to permit continuous manning of the AEER.

Since the issuance of Reference 5, additional reviews of required AEER actions have determined that the AEER does not have to be continuously manned during and following any design basis accident. A time/motion study of required AEER actions has determined that the maximum cumulative time spent in the AEER is approximately 300 minutes. Thus, the actions that need to be taken in the AEER do not result in the requirement to maintain the capability to continuously man the AEER. The AEER should be considered a vital area for personnel, in post-accident scenarios, requiring infrequent access and not continuous occupancy as previously classified. The dose to operators performing the required AEER actions, without credit for the AEER filtration system, will continue to be within 10 CFR 50, Appendix A, "General Design Criteria for Nuclear Power Plants," General Design Criterion (GDC) 19, "Control Room," limits, during and following all design basis accidents. Therefore, TS Bases 3/4.3.7.1, TS 3/4.7.2, TS Bases Section 3/4.7.2, and TS Section 6.2.F.8 can be modified to remove the AEER habitability systems.

The information supporting the proposed changes is subdivided as follows.

1. Attachment A gives a description and safety analysis of the proposed changes.

2. Attachment B includes the marked-up TS pages with the proposed changes indicated.

3. Attachment C describes our evaluation performed in accordance with 10 CFR 50.92(c), which provides information supporting a finding of no significant hazards consideration.

4. Attachment D provides information supporting an Environmental Assessment.

5. Attachment E includes the marked-up proposed changes to LaSalle County Station Improved TS pages.

The proposed changes have been reviewed by the LaSalle County Station Plant Operations Review Committee (PORC) and approved by Nuclear Safety Review Board (NSRB) in accordance with the Quality Assurance Program.

ComEd is notifying the State of Illinois of this application for amendment by transmitting a copy of this letter and its attachments to the designated State Official.

Should you have any questions concerning this letter, please contact Mr. Frank A. Spangenberg, III, Regulatory Assurance Manager, at (815) 357-6761, extension 2383.

Respectfully,

Charles G. Pardee
Site Vice President
LaSalle County Station

Attachments

cc: Regional Administrator – NRC Region III
NRC Senior Resident Inspector – LaSalle County Station

STATE OF ILLINOIS)

IN THE MATTER OF)

COMMONWEALTH EDISON COMPANY)

LASALLE COUNTY STATION - UNIT 1 & UNIT 2) Docket Nos. 50-373
50-374

Subject: Application for Amendment to Appendix A, Technical Specifications, Elimination of Auxiliary Electric Equipment Room Habitability Requirements

AFFIDAVIT

I affirm that the content of this transmittal is true and correct to the best of my knowledge, information and belief.

Charles G. Pardee
Site Vice President
LaSalle County Station

Subscribed and sworn to before me, a Notary Public in and for the State above named, this 26th day of April, 2000.
My Commission expires on 10-1, 2000.

OFFICIAL SEAL
DEBRA J. FEENEY
NOTARY PUBLIC, STATE OF ILLINOIS
MY COMMISSION EXPIRES10-1-2000

Notary Public

ATTACHMENT A
Proposed Changes to the Technical Specifications for
LaSalle County Station, Units 1 and 2
1 of 6

DESCRIPTION AND SAFETY ANALYSIS FOR THE PROPOSED CHANGES

A. SUMMARY OF PROPOSED CHANGES

In accordance with 10 CFR 50.90, "Application for amendment of license or construction permit," Commonwealth Edison (ComEd) Company proposes changes to Appendix A, Technical Specifications (TS), of Facility Operating Licenses Nos. NPF-11 and NPF-18. Specifically, we propose to change TS Bases Section 3/4.3.7.1, "Radiation Monitoring Instrumentation," TS Section 3/4.7.2, "Control Room and Auxiliary Electric Equipment Room Emergency Filtration System," TS Bases Section 3/4.7.2, and TS Section 6.2.F.8, "Ventilation Filter Testing Program (VFTP)."

The operability of the Auxiliary Electric Equipment Room (AEER) filtration system, in accordance with the requirements of TS Section 3/4.7.2, ensures that the AEER will remain habitable for personnel during and following all design basis accident conditions. The requirement to maintain the capability to continuously man the AEER, during and following all design basis accidents, was part of the original design and licensing bases of the LaSalle County Station. Reference 1 documented a non-compliance with that requirement. References 2 through 5 changed TS Sections 3/4.7.2 and 6.2.F.8 to explicitly include requirements to demonstrate and maintain the capability to permit continuous manning of the AEER.

Since the issuance of Reference 5, additional reviews of required AEER actions have determined that the AEER does not have to be continuously manned during and following any design basis accident. A time/motion study of required AEER actions has determined that the maximum cumulative time spent in the AEER is approximately 300 minutes. Thus, the actions that need to be taken in the AEER do not result in the requirement to maintain the capability to continuously man the AEER. The AEER should be considered a vital area for personnel, in post-accident scenarios, requiring infrequent access and not continuous occupancy as previously classified. The dose to operators performing the required AEER actions, without credit for the AEER filtration system, will continue to be within 10 CFR 50, Appendix A, "General Design Criteria for Nuclear Power Plants," General Design Criterion (GDC) 19, "Control Room," limits, during and following all design basis accidents. Therefore, TS Bases 3/4.3.7.1, TS 3/4.7.2, TS Bases Section 3/4.7.2, and TS Section 6.2.F.8 can be modified to remove the AEER habitability systems.

The proposed changes are described in Section E of this Attachment. The marked up TS pages are shown in Attachment B.

B. DESCRIPTION OF THE CURRENT REQUIREMENTS

TS Section 3/4.7.2, Limiting Condition for Operation, requires two independent control room and AEER emergency filtration system trains to be operable.

TS Surveillance Requirement (SR) 4.7.2, similarly requires each control room and AEER emergency filtration system train to be demonstrated operable as follows.

- TS SR 4.7.2.a.1 requires that each Control Room and AEER emergency filter system be operated for greater than or equal to 10 continuous hours with heaters operating at least once per 31 days on a staggered test basis,

- TS SR 4.7.2.a.2 requires that flow be manually initiated through the control room and AEER recirculation filters for at least 10 hours at least once per 31 days on a staggered test basis,

- TS SR 4.7.2.b requires that the control room and AEER filter testing be performed in accordance with, and at the frequency specified by, the Ventilation Filter Testing Program,

- TS SR 4.7.2.d.2 requires that in response to the outside air smoke detection and the air intake radiation monitor pressurization mode actuation test signals, the emergency ventilation train automatically switches to the pressurization mode of operation. Flow is manually initiated through the Control Room and AEER recirculation filters and then the Control Room and AEER are verified to be maintained at a positive pressure of greater than or equal to 1/8 inch water gauge relative to adjacent areas during emergency ventilation train operation at a flow rate less than or equal to 4000 cubic feet per minute at least once per 18 months, and

- TS 6.2.F.8 prescribes the required tests for the AEER recirculation filters.

C. BASES FOR THE CURRENT REQUIREMENTS

The operability of the AEER filtration system, in accordance with the requirements of TS Section 3/4.7.2, ensures that the AEER will remain habitable for personnel, during and following all design basis accident conditions with resultant radiation exposure to personnel less than or equal to 5 rem whole body, or its equivalent. This limitation is consistent with the requirements of GDC 19.

D. NEED FOR REVISION OF THE REQUIREMENT

The proposed changes reflect the actual operator actions and stay times in the AEER needed to perform the applicable steps of the Emergency Operating Procedures (EOPs) during analyzed accidents.

During the first surveillance of the AEER, to verify the AEER is maintained at greater than or equal to 1/8 inch of Water Gauge (WG) in accordance with TS SR 4.7.2.d.2, it was determined that the margin between the actual pressure and 1/8 inch WG was small. As a result, a review was initiated to determine how much time was needed to perform EOP required operator actions in the AEER. The time/motion study determined that the operator actions required less time than was previously assumed, and thus maintaining the capability to continuously man the AEER was not required. In addition, removal of the habitability requirements for the AEER will reduce the testing requirements of the associated TS SRs around sensitive equipment located in the AEER.

E. DESCRIPTION OF THE PROPOSED CHANGES

TS Section 3/4.7.2, TS Bases Section 3/4.7.2, and TS Section 6.2.F.8 will be revised to remove all references of the AEER as follows:

- The title of TS Section 3/4.7.2 will be revised to read "3/4.7.2 Control Room Emergency Filtration System,"
- Limiting Condition for Operation 3.7.2 will be revised to read "3.7.2 Two independent control room emergency filtration system trains shall be OPERABLE#,"
- TS SR 4.7.2 will be revised to read "4.7.2 Each control room emergency filtration system train shall be demonstrated OPERABLE,"
- TS SR 4.7.2.a.1 will be revised to read "Operate each Control Room Emergency Filter System for greater than or equal to 10 continuous hours with heaters operating,"
- TS SR 4.7.2.a.2 will be revised to read "Manually initiating flow through the control room recirculation filter for at least 10 hours,"
- TS SR 4.7.2.b will be revised to read " Perform required control room filter testing in accordance with, and at the frequency specified by, the Ventilation Filter Testing Program,"
- TS SR 4.7.2.d.2 will be revised to read "Verifying that on each of the below pressurization mode test actuation signals, the emergency train automatically

switches to the pressurization mode of operation. Manually initiate flow through the control room recirculation filter and then verify that the control room is maintained at a positive pressure of greater than or equal to 1/8 inch W.G. relative to the adjacent areas during emergency train operation at a flow rate less than or equal to 4000 cfm...,"

- The title of TS Section 3/4.7.2 Bases will be revised to read "3/4.7.2 Control Room Emergency Filtration System,"

- TS Section 3/4.3.7.1 Bases will be revised to read "The Control Room Emergency Filtration System (CREFS) consists of two trains,"

- TS Section 3/4.7.2 Bases will be revised to read "The OPERABILITY of the control room emergency filtration system, which includes the control room recirculation filters, ensures that the room will remain habitable for operations personnel during and following all design basis accident conditions...," and

- The AEER recirculation filters system requirements will be removed from TS Administrative Controls Section 6.2.F.8, "Ventilation Filter Testing Program," parts 6.2.F.8.b, 6.2.F.8.c, and 6.2.F.8.d.

F. SAFETY ANALYSIS OF THE PROPOSED CHANGES

In response to NUREG-0737, "Clarification of TMI Action Plan Requirements," dated November 1980, Item II.B.2, "Plant Shielding to Provide Access to Vital Areas and Protect Safety Equipment for Postaccident Operation," ComEd characterized the AEER as a vital area for personnel access in post-accident scenarios. ComEd went on to state that the dose rates, in the AEER, allowed for continuous occupancy during post-accident scenarios. NUREG-0737, Item II.B.2 provides guidance that design dose rates in vital areas requiring continuous occupancy be less than 15 millirem/hour averaged over 30 days. NUREG-0737, Item II.B.2 also recommends that design dose rates in vital areas requiring infrequent access be such that GDC 19 limits will not be exceeded during the course of the accident.

The Operations department performed an evaluation of operator actions needed post Loss of Coolant Accident (LOCA), as identified in UFSAR Chapters 6 and 15, in the AEER. The basis of the evaluation is the station's EOPs following a LOCA to identify required and potential actions. A detailed evaluation of each action, including a time motion study to determine the time required to perform each action, was performed. The actions requiring entry into the AEER are hydrogen recombiner operation, bypassing the reactor core isolation cooling (RCIC) system low pressure isolation interlock, bypassing main steam isolation valve (MSIV) isolations, and venting the containment. This evaluation determined that operators would make several trips to the AEER following a LOCA in order to perform required actions. The cumulative time spent in the AEER following a LOCA was conservatively determined to be approximately 300 minutes, with

the maximum estimated continuous period of occupancy of 150 minutes. Based on this information, the AEER should be considered a vital area for personnel in post-accident scenarios requiring infrequent access, not continuous occupancy as it was previously classified.

Consistent with this change in classification, operator access to the AEER and monitoring of operator dose will be performed in accordance with the station's Emergency Plan Implementing Procedures in the same manner as other areas originally characterized as vital areas for personnel access in post-accident scenarios requiring infrequent access. Operators would be dispatched from the Operations Support Center (OSC) with radiation protection support, as required, to perform the needed actions in the AEER. This would be the same process followed when dispatching personnel to obtain grab samples using the post accident sampling system. Radiation Protection personnel are responsible to monitor personnel accumulated dose to ensure the limits of GDC 19 are not exceeded.

A dose profile of the AEER was generated using the methodology previously submitted in Reference 4, the results of which were accepted by the NRC in Reference 5. The accident scenarios, source terms and fumigation period input assumptions for the dose profile were the same as those used in Reference 4. The AEER ventilation system analytical model in the dose calculation was modified to bound the worst case configuration i.e.

- filtered pressurization air from the Emergency Makeup Filter Unit (EMU) was reduced from 2250 cfm to 0 cfm,
- the AEER recirculation charcoal filter was assumed not to be placed into service over the length of the accident, and
- the AEER room was at a negative pressure with 1600 cfm of unfiltered inleakage.

These new assumptions eliminate positive pressure and filtration of iodine in the AEER. The LOCA results in the highest dose to an operator in the AEER. Evaluation of the calculation determined that an operator could be in the AEER in excess of 20 continuous hours without exceeding the limits of GDC 19. Since 20 hours bounds the 300 minute (i.e., 5 hours) cumulative duration of required operator actions in the AEER, it can be concluded that operation of the AEER system in accordance with the worst case conditions defined in the calculation maintains operator dose to within the GDC 19 limits. Therefore, the AEER system is not required to maintain post LOCA operator dose within GDC 19 limits.

The resultant dose to operators in the Control Room is not impacted by the worst case conditions defined for the operation of the AEER system post-LOCA.

AEER habitability during the release of toxic gases was also evaluated. Release of toxic gases is evaluated during normal plant operations when personnel do not routinely occupy the AEER. Release of toxic gases is not assumed concurrent with a design

basis accident. Therefore, elimination of the AEER habitability system does not present a concern as it relates to the release of toxic gases.

G. IMPACT ON PREVIOUS SUBMITTALS

This submittal impacts our submittal dated March 3, 2000, "Request for Technical Specifications Changes for Dresden Nuclear Power Station, Units 2 and 3, LaSalle County Station, Units 1 and 2, and Quad Cities Nuclear Power Station, Units 1 and 2, to Convert to Improved Standard Technical Specifications." The following sections of the proposed LaSalle County Station Improved Technical Specification (ITS) are affected by the proposed changes to the current TS:

- Bases for TS Section 3.3.7.1, "Control Room Area Filtration (CRAF) System Instrumentation,"
- Bases for TS Section 3.7.4, "Control Room Area Filtration (CRAF) System,"
- TS Section 3.7.5, "Control Room Area Ventilation AC System," and its Bases Section, and
- TS Section 5.5.8, "Ventilation Filter Testing Program (VFTP)."

The proposed changes to the affected ITS pages are included in Attachment E.

H. SCHEDULE REQUIREMENTS

We request that the proposed changes be approved by December 1, 2000 to be implemented within 60 days of approval.

ATTACHMENT B
Proposed Changes to the Technical Specifications for
LaSalle County Station, Units 1 and 2

MARKED-UP TS PAGES FOR PROPOSED CHANGES

REVISED PAGES

NPF-11	NPF-18
VIII	VIII
XV	XV
3/4 7-4	3/4 7-4
3/4 7-5	3/4 7-5
3/4 7-6	3/4 7-6
B 3/4 3-4a	B 3/4 3-4a
B 3/4 7-1	B 3/4 7-1
6-20a*	6-20a*
6-20b	6-20b
	6-20c*

* This page is provided for information only, no changes.

LIMITING CONDITIONS FOR OPERATION AND SURVEILLANCE REQUIREMENTS

BASES

3/4.7.2 CONTROL ROOM AND AUXILIARY ELECTRIC EQUIPMENT ROOM EMERGENCY FILTRATION SYSTEM

LIMITING CONDITION FOR OPERATION

3.7.2 Two independent control room and auxiliary electric equipment room emergency filtration system trains shall be OPERABLE.#

APPLICABILITY: All OPERATIONAL CONDITIONS and *.

ACTION:

a. With one emergency filtration system train inoperable, restore the inoperable train to OPERABLE status within 7 days or:

   1. In OPERATIONAL CONDITIONS 1, 2, 3, be in at least HOT SHUTDOWN within the next 12 hours and in COLD SHUTDOWN within the following 24 hours.

   2. In OPERATIONAL CONDITION 4, 5 or *, initiate and maintain operation of the OPERABLE emergency filtration system in the pressurization mode of operation.

b. With both emergency filtration system trains inoperable, in OPERATIONAL CONDITION 4, 5 or *, suspend CORE ALTERATIONS, handling of irradiated fuel in the secondary containment and operations with a potential for draining the reactor vessel.

c. The provisions of Specification 3.0.3 are not applicable in Operational Condition *.

SURVEILLANCE REQUIREMENTS

4.7.2 Each control room and auxiliary electric equipment room emergency filtration system train shall be demonstrated OPERABLE:

a. At least once per 31 days on a STAGGERED TEST BASIS:

   1. Operate each Control Room and Auxiliary Electric Equipment Room Emergency Filter System for greater than or equal to 10 continuous hours with the heaters operating, and

   2. Manually initiating flow through the control room and auxiliary electric equipment room recirculation filters for at least 10 hours.

*When irradiated fuel is being handled in the secondary containment.
#The normal or emergency power source may be inoperable in OPERATIONAL CONDITION 4, 5 or *.

SURVEILLANCE REQUIREMENTS (Continued)

b. Perform required control room and auxiliary electric equipment room filter testing in accordance with, and at the frequency specified by, the Ventilation Filter Testing Program.

c. Deleted.

d. At least once per 18 months by:

1. Deleted.

SURVEILLANCE REQUIREMENTS (Continued)

2. Verifying that on each of the below pressurization mode actuation test signals, the emergency train automatically switches to the pressurization mode of operation. Manually initiate flow through the control room and auxiliary electric equipment room recirculation filters line and then verify that the control room and auxiliary electric equipment rooms are maintained at a positive pressure of greater than or equal to 1/8 inch W.G. relative to the adjacent areas during emergency train operation at a flow rate less than or equal to 4000 cfm:

   a) Outside air smoke detection, and

   b) Air intake radiation monitors.

3. Deleted.

e. Deleted.

f. Deleted.

3/4.3.7.1 RADIATION MONITORING INSTRUMENTATION (Continued)

The Control Room and Auxiliary Electric Equipment Room (AEER) Emergency Filtration System (CREFS) consists of two trains. Each train has one outside air intake. The Main Control Room Atmospheric Control System (MCRACS) Radiation Monitoring System consists of two trains, one for each train of CREFS. Each MCRACS train contains four radiation monitors arranged in two trip systems. Each trip system contains two radiation monitors. Both radiation monitors in each trip system are required to be OPERABLE for that trip system to be OPERABLE.

Specified surveillance intervals and surveillance and maintenance outage times have been determined in accordance with GENE-770-06-1-A, "Bases for Changes to Surveillance Test Intervals and Allowed Out-Of-Service Times for Selected Instrumentation Technical Specifications," December 1992. When a channel is placed in an inoperable status solely for performance of required surveillances, entry into LCO and required ACTIONS may be delayed, provided the associated function maintains initiation capability.

3.4.3.7.2 DELETED

3/4.3.7.3 METEOROLOGICAL MONITORING INSTRUMENTATION

The OPERABILITY of the meteorological monitoring instrumentation ensures that sufficient meteorological data is available for estimating potential radiation doses to the public as a result of routine or accidental release of radioactive materials to the atmosphere. This capability is required to evaluate the need for initiating protective measures to protect the health and safety of the public. This instrumentation is consistent with the recommendations of Regulatory Guide 1.23, "Onsite Meteorological Programs," February 1972.

3/4.3.7.4 REMOTE SHUTDOWN MONITORING INSTRUMENTATION

The OPERABILITY of the remote shutdown monitoring instrumentation ensures that sufficient capability is available to permit shutdown and maintenance of HOT SHUTDOWN of the unit from locations outside of the control room. This capability is required in the event control room habitability is lost and is consistent with General Design Criteria 19 of 10 CFR 50.

3/4.7.1 CORE STANDBY COOLING SYSTEM - EQUIPMENT COOLING WATER SYSTEMS

The OPERABILITY of the core standby cooling system - equipment cooling water systems and the ultimate heat sink ensure that sufficient cooling capacity is available for continued operation of safety-related equipment during normal and accident conditions. The redundant cooling capacity of these systems, assuming a single failure, is consistent with the assumptions used in the accident conditions within acceptable limits.

3/4.7.2 CONTROL ROOM AND AUXILIARY ELECTRIC EQUIPMENT ROOM EMERGENCY FILTRATION SYSTEM

The OPERABILITY of the control room and auxiliary electric equipment room emergency filtration system, which includes the control room and auxiliary electric equipment room recirculation filters, ensures that the room(s) will remain habitable for operations personnel during and following all design basis accident conditions. The OPERABILITY of this system in conjunction with room design provisions is based on limiting the radiation exposure to personnel occupying the rooms 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 Part 50. Continuous operation of the system with the heaters operating for 10 hours over a 31 day period is sufficient to reduce the buildup of moisture on the adsorbers and HEPA filters.

3/4.7.3 REACTOR CORE ISOLATION COOLING SYSTEM

The reactor core isolation cooling (RCIC) system is provided to assure adequate core cooling in the event of reactor isolation from its primary heat sink and the loss of feedwater flow to the reactor vessel without requiring actuation of any of the Emergency Core Cooling System equipment. The RCIC system is conservatively required to be OPERABLE whenever reactor pressure exceeds 150 psig even though the LPCI mode of the the residual heat removal (RHR) system provides adequate core cooling up to 350 psig.

The RCIC system specifications are applicable during OPERATIONAL CONDITIONS 1, 2 and 3 when reactor vessel pressure exceeds 150 psig because RCIC is the primary non-ECCS source of core cooling when the reactor is pressurized.

With the RCIC system inoperable, adequate core cooling is assured by the OPERABILITY of the HPCS system and justifies the specified 14 day out-of-service period.

The surveillance requirements provide adequate assurance that RCICS will be OPERABLE when required. Although all active components are testable and full flow can be demonstrated by recirculation during reactor operation, a complete functional test requires reactor shutdown. Initial startup test program data may be used to determine equivalent turbine/pump capabilities between test flow path and the vessel injection flow path. The pump discharge piping is maintained full to prevent water hammer damage and to start cooling at the earliest possible moment. The low pressure setpoint allowable value for the discharge line "keep-filled" alarm is based on the head of water between the centerline of the pump discharge and the system high point vent.

NO CHANGES, THIS PAGE INCLUDED FOR CONTINUITY

PLANT OPERATING PROCEDURES AND PROGRAMS (Continued)

7. Primary Containment Leakage Rate Testing Program

A program shall be established to implement the leakage rate testing of the primary 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-Testing Program," dated September 1995.

The peak calculated primary containment internal pressure for the design basis loss of coolant accident, P_a, is 39.6 psig.

The maximum allowable primary containment leakage rate, L_a, at P_a, is 0.635% of primary containment air weight per day.

Leakage rate acceptance criteria are:

a. Primary containment overall leakage rate acceptance criterion is $\leq 1.0\ L_a$. During the first unit startup following testing in accordance with this program, the leakage rate acceptance criteria are $\leq 0.60\ L_a$ for the combined Type B and Type C tests, and $\leq 0.75\ L_a$ for Type A tests.

b. Air lock testing acceptance criteria are:

1) Overall air lock leakage rate is $\leq 0.05\ L_a$ when tested at $\geq P_a$.

2) For each door, the seal leakage rate is $\leq$ 5 scf per hour when the gap between the door seals is pressurized to $\geq$ 10 psig.

The provisions of specification 4.0.2 do not apply to the test frequencies specified in the Primary Containment Leakage Rate Testing Program.

The provisions of specification 4.0.3 are applicable to the Primary Containment Leakage Rate Testing Program.

8. Ventilation Filter Testing Program (VFTP)

A program shall be established to implement the following required testing of Engineered Safety Feature (ESF) filter ventilation systems at the frequencies specified in Regulatory Guide 1.52, Revision 2, dated March 1978, and in accordance with ASME N510-1989.

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

a. Demonstrate for each of the ESF systems that an inplace test of the high efficiency particulate air (HEPA) filters shows a penetration and system bypass <0.05% when tested in accordance with ASME N510-1989, at the system flowrate specified below:

ESF Ventilation System	Flowrate (cfm)
SBGT System	$\geq$ 3600 and $\leq$ 4400
CREF System	$\geq$ 3600 and $\leq$ 4400

b. Demonstrate for each of the ESF system filter units that an inplace test of the charcoal adsorber shows a penetration and system bypass less than the value specified below, when tested in accordance with ASME N510-1989, at the system flowrate specified below:

ESF Ventilation System	Penetration and System Bypass	Flowrate (cfm)
SBGT System	0.05 %	≥ 3600 and ≤ 4400
CREF System	0.05 %	≥ 3600 and ≤ 4400
CRRF System	2.0 %	≥18000 and ≤ 28900
AEERRF System	2.0 %	≥14000 and ≤ 22800

c. Demonstrate for each of the ESF systems that a laboratory test of a sample of the charcoal adsorber, when obtained as described in Regulatory Guide 1.52, Revision 2, shows the methyl iodide penetration less than the value specified below when tested in accordance with ASTM D3803-1989 at a temperature of 30°C, a relative humidity of 70 % and a face velocity as specified below.

ESF Ventilation System	Penetration	Face Velocity (fpm)
SBGT System	0.5 %	40
CREF System	2.5 %	40
CRRF System	15.0 %	80
AEERRF System	15.0 %	80

d. Demonstrate for each of the ESF systems that the pressure drop across the combined moisture separator, heater, prefilter, HEPA filters and the charcoal adsorbers is less than the value specified below when tested at the system flowrate specified below:

ESF Ventilation System	Delta P (inches wg)	Flowrate (cfm)
SBGT System	8	≥ 3600 and ≤ 4400
CREF System	8	≥ 3600 and ≤ 4400
CRRF System	3.0	≥ 18000 and ≤ 28900
AEERRF System	3.0	≥ 14000 and ≤ 22800

e. Demonstrate that the heaters for each of the ESF systems dissipate the electrical power specified below when tested in accordance with ASME N510-1989. These readings shall include appropriate corrections for variations from 480 Volts at the bus.

ESF Ventilation System	Wattage (kw)
SBGT System	≥ 21 and ≤ 25
CREF System	≥ 18 and ≤ 22

6.3 ACTION TO BE TAKEN IN THE EVENT OF A REPORTABLE EVENT IN PLANT OPERATION

The following actions shall be taken for REPORTABLE EVENTS:

a. The Commission shall be notified and a Licensee Event Report submitted pursuant to the requirements of Section 50.73 to 10 CFR Part 50, and

b. Each REPORTABLE EVENT shall be reviewed by the Onsite Review and Investigative Function.

BASES

3/4.7.2 CONTROL ROOM AND AUXILIARY ELECTRIC EQUIPMENT ROOM EMERGENCY FILTRATION SYSTEM

LIMITING CONDITION FOR OPERATION

3.7.2 Two independent control room and auxiliary electric equipment room emergency filtration system trains shall be OPERABLE.#

APPLICABILITY: All OPERATIONAL CONDITIONS and *.

ACTION:

a. With one emergency filtration system train inoperable, restore the inoperable train to OPERABLE status within 7 days or:

   1. In OPERATIONAL CONDITIONS 1, 2, 3, be in at least HOT SHUTDOWN within the next 12 hours and in COLD SHUTDOWN within the following 24 hours.

   2. In OPERATIONAL CONDITION 4, 5 or *, initiate and maintain operation of the OPERABLE emergency filtration system in the pressurization mode of operation.

b. With both emergency filtration system trains inoperable, in OPERATIONAL CONDITION 4, 5 or *, suspend CORE ALTERATIONS, handling of irradiated fuel in the secondary containment and operations with a potential for draining the reactor vessel.

c. The provisions of Specification 3.0.3 are not applicable in Operational Condition *.

SURVEILLANCE REQUIREMENTS

4.7.2 Each control room and auxiliary electric equipment room emergency filtration system train shall be demonstrated OPERABLE:

a. At least once per 31 days on a STAGGERED TEST BASIS:

   1. Operate each Control Room and Auxiliary Electric Equipment Room Emergency Filter System for greater than or equal to 10 continuous hours with the heaters operating, and

   2. Manually initiating flow through the control room and auxiliary electric equipment room recirculation filters for at least 10 hours.

*When irradiated fuel is being handled in the secondary containment.
#The normal or emergency power source may be inoperable in OPERATIONAL CONDITION 4, 5 or *.

SURVEILLANCE REQUIREMENTS (Continued)

b. Perform required control room and auxiliary electric equipment room filter testing in accordance with, and at the frequency specified by, the Ventilation Filter Testing Program.

c. Deleted.

d. At least once per 18 months by:

1. Deleted.

SURVEILLANCE REQUIREMENTS (Continued)

2. Verifying that on each of the below pressurization mode actuation test signals, the emergency train automatically switches to the pressurization mode of operation. Manually initiate flow through the control room and auxiliary electric equipment room recirculation filters and then verify that the control room and auxiliary electric equipment rooms are maintained at a positive pressure of greater than or equal to 1/8 inch W.G. relative to the adjacent areas during emergency train operation at a flow rate less than or equal to 4000 cfm:

   a) Outside air smoke detection, and

   b) Air intake radiation monitors.

3. Deleted.

e. Deleted.

f. Deleted.

3/4.3.7.1 RADIATION MONITORING INSTRUMENTATION (Continued)

The Control Room and Auxiliary Electric Equipment Room (AEER) Emergency Filtration System (CREFS) consists of two trains. Each train has one outside air intake. The Main Control Room Atmospheric Control System (MCRACS) Radiation Monitoring System consists of two trains, one for each train of CREFS. Each MCRACS train contains four radiation monitors arranged in two trip systems. Each trip system contains two radiation monitors. Both radiation monitors in each trip system are required to be OPERABLE for that trip system to be OPERABLE.

Specified surveillance intervals and surveillance and maintenance outage times have been determined in accordance with GENE-770-06-1-A, "Bases for Changes to Surveillance Test Intervals and Allowed Out-Of-Service Times for Selected Instrumentation Technical Specifications," December 1992. When a channel is placed in an inoperable status solely for performance of required surveillances, entry into LCO and required ACTIONS may be delayed, provided the associated function maintains initiation capability.

3.4.3.7.2 DELETED

3/4.3.7.3 METEOROLOGICAL MONITORING INSTRUMENTATION

The OPERABILITY of the meteorological monitoring instrumentation ensures that sufficient meteorological data is available for estimating potential radiation doses to the public as a result of routine or accidental release of radioactive materials to the atmosphere. This capability is required to evaluate the need for initiating protective measures to protect the health and safety of the public. This instrumentation is consistent with the recommendations of Regulatory Guide 1.23, "Onsite Meteorological Programs," February 1972.

3/4.3.7.4 REMOTE SHUTDOWN MONITORING INSTRUMENTATION

The OPERABILITY of the remote shutdown monitoring instrumentation ensures that sufficient capability is available to permit shutdown and maintenance of HOT SHUTDOWN of the unit from locations outside of the control room. This capability is required in the event control room habitability is lost and is consistent with General Design Criteria 19 of 10 CFR 50.

3/4.7.1 CORE STANDBY COOLING SYSTEM - EQUIPMENT COOLING WATER SYSTEMS

The OPERABILITY of the core standby cooling system - equipment cooling water systems and the ultimate heat sink ensure that sufficient cooling capacity is available for continued operation of safety-related equipment during normal and accident conditions. The redundant cooling capacity of these systems, assuming a single failure, is consistent with the assumptions used in the accident conditions within acceptable limits.

3/4.7.2 CONTROL ROOM AND AUXILIARY ELECTRIC EQUIPMENT ROOM EMERGENCY FILTRATION SYSTEM

The OPERABILITY of the control room and auxiliary electric equipment room emergency filtration system, which includes the control room and auxiliary electric equipment room recirculation filters, ensures that the room(s) will remain habitable for operations personnel during and following all design basis accident conditions. The OPERABILITY of this system in conjunction with room design provisions is based on limiting the radiation exposure to personnel occupying the rooms 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 Part 50. Continuous operation of the system with the heaters operating for 10 hours over a 31 day period is sufficient to reduce the buildup of moisture on the adsorbers and HEPA filters.

3/4.7.3 REACTOR CORE ISOLATION COOLING SYSTEM

The reactor core isolation cooling (RCIC) system is provided to assure adequate core cooling in the event of reactor isolation from its primary heat sink and the loss of feedwater flow to the reactor vessel without requiring actuation of any of the Emergency Core Cooling System equipment. The RCIC system is conservatively required to be OPERABLE whenever reactor pressure exceeds 150 psig even though the LPCI mode of the residual heat removal (RHR) system provides adequate core cooling up to 350 psig.

The RCIC system specifications are applicable during OPERATIONAL CONDITIONS 1, 2 and 3 when reactor vessel pressure exceeds 150 psig because RCIC is the primary non-ECCS source of core cooling when the reactor is pressurized.

With the RCIC system inoperable, adequate core cooling is assured by the OPERABILITY of the HPCS system and justifies the specified 14 day out-of-service period.

The surveillance requirements provide adequate assurance that RCICS will be OPERABLE when required. Although all active components are testable and full flow can be demonstrated by recirculation during reactor operation, a complete functional test requires reactor shutdown. Initial startup test program data may be used to determine equivalent turbine/pump capabilities between test flow path and the vessel injection flow path. The pump discharge piping is maintained full to prevent water hammer damage and to start cooling at the earliest possible moment. The low pressure setpoint allowable value for the discharge line "keep-filled" alarm is based on the head of water between the centerline of the pump discharge and the system high point vent.

PLANT OPERATING PROCEDURES AND PROGRAMS (Continued)

the Initial Structural Integrity Tests were not within 2 years of each other.

The Onsite Review and Investigative Function shall be responsible for reviewing and approving changes to the Inservice Inspection Program for Post Tensioning Tendons.

The provisions of 4.0.2 and 4.0.3 are applicable to the Tendon Surveillance Program inspection frequencies.

7. Primary Containment Leakage Rate Testing Program

A program shall be established to implement the leakage rate testing of the primary 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-Testing Program," dated September 1995.

The peak calculated primary containment internal pressure for the design basis loss of coolant accident, P_a, is 39.6 psig.

The maximum allowable primary containment leakage rate, L_a, at P_a, is 0.635% of primary containment air weight per day.

Leakage rate acceptance criteria are:

a. Primary containment overall leakage rate acceptance criterion is $\leq 1.0\ L_a$. During the first unit startup following testing in accordance with this program, the leakage rate acceptance criteria are $\leq 0.60\ L_a$ for the combined Type B and Type C tests, and $\leq 0.75\ L_a$ for Type A tests.

b. Air lock testing acceptance criteria are:

1) Overall air lock leakage rate is $\leq 0.05\ L_a$ when tested at $\geq P_a$.

2) For each door, the seal leakage rate is $\leq$ 5 scf per hour when the gap between the door seals is pressurized to $\geq$ 10 psig.

The provisions of specification 4.0.2 do not apply to the test frequencies specified in the Primary Containment Leakage Rate Testing Program.

The provisions of specification 4.0.3 are applicable to the Primary Containment Leakage Rate Testing Program.

8. Ventilation Filter Testing Program (VFTP)

A program shall be established to implement the following required testing of Engineered Safety Feature (ESF) filter ventilation systems at the frequencies specified in Regulatory Guide 1.52, Revision 2, dated March 1978, and in accordance with ASME N510-1989.

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

NO CHANGES, THIS PAGE INCLUDED FOR CONTINUITY

PLANT OPERATING PROCEDURES AND PROGRAMS (Continued)

a. Demonstrate for each of the ESF systems that an inplace test of the high efficiency particulate air (HEPA) filters shows a penetration and system bypass < 0.05 % when tested in accordance with ASME N510-1989, at the system flowrate specified below:

ESF Ventilation System	Flowrate (cfm)
SBGT System	≥ 3600 and ≤ 4400
CREF System	≥ 3600 and ≤ 4400

b. Demonstrate for each of the ESF system filter units that an inplace test of the charcoal adsorber shows a penetration and system bypass less than the value specified below, when tested in accordance with ASME N510-1989, at the system flowrate specified below:

ESF Ventilation System	Penetration and System Bypass	Flowrate (cfm)
SBGT System	0.05 %	≥ 3600 and ≤ 4400
CREF System	0.05 %	≥ 3600 and ≤ 4400
CRRF System	2.0 %	≥ 18000 and ≤ 28900
AEERRF System	2.0 %	≥ 14000 and ≤ 22800

c. Demonstrate for each of the ESF systems that a laboratory test of a sample of the charcoal adsorber, when obtained as described in Regulatory Guide 1.52, Revision 2, shows the methyl iodide penetration less than the value specified below when tested in accordance with ASTM D3803-1989 at a temperature of 30°C, a relative humidity of 70 % and a face velocity as specified below.

ESF Ventilation System	Penetration	Face Velocity (fpm)
SBGT System	0.5 %	40
CREF System	2.5 %	40
CRRF System	15.0 %	80
AEERRF System	15.0 %	80

d. Demonstrate for each of the ESF systems that the pressure drop across the combined moisture separator, heater, prefilter, HEPA filters and the charcoal adsorbers is less than the value specified below when tested at the system flowrate specified below:

ESF Ventilation System	Delta P (inches wg)	Flowrate (cfm)
SBGT System	8	≥ 3600 and ≤ 4400
CREF System	8	≥ 3600 and ≤ 4400
CRRF System	3.0	≥ 18000 and ≤ 28900
AEERRF System	3.0	≥ 14000 and ≤ 22800

PLANT OPERATING PROCEDURES AND PROGRAMS (Continued)

e. Demonstrate that the heaters for each of the ESF systems dissipate the electrical power specified below when tested in accordance with ASME N510-1989. These readings shall include appropriate corrections for variations from 480 Volts at the bus.

ESF Ventilation System	Wattage (kw)
SBGT System	≥ 21 and ≤ 25
CREF System	≥ 18 and ≤ 22

6.3 ACTION TO BE TAKEN IN THE EVENT OF A REPORTABLE EVENT IN PLANT OPERATION

The following actions shall be taken for REPORTABLE EVENTS:

a. The Commission shall be notified and a Licensee Event Report submitted pursuant to the requirements of Section 50.73 to 10 CFR Part 50, and

b. Each REPORTABLE EVENT shall be reviewed by the Onsite Review and Investigative Function.

NO CHANGES, THIS PAGE INCLUDED FOR CONTINUITY

ATTACHMENT C
Proposed Changes to the Technical Specifications for
LaSalle County Station, Units 1 and 2
1 of 3

INFORMATION SUPPORTING A FINDING OF NO SIGNIFICANT HAZARDS CONSIDERATION

Commonwealth Edison (ComEd) Company has evaluated the proposed changes and determined that they do not involve a significant hazards consideration. According to 10 CFR 50.92(c), a proposed amendment to an operating license involves no significant hazards consideration if operation of the facility in accordance with the proposed amendment would not:

> Involve a significant increase in the probability of occurrence or consequences of an accident previously evaluated;
>
> Create the possibility of a new or different kind of accident from any previously analyzed; or
>
> Involve a significant reduction in a margin of safety.

The operability of the Auxiliary Electric Equipment Room (AEER) filtration system, in accordance with the requirements of TS Section 3/4.7.2, ensures that the AEER will remain habitable for personnel during and following all design basis accident conditions. The requirement to maintain the capability to continuously man the AEER, during and following all design basis accidents, was part of the original design and licensing bases of the LaSalle County Station.

A time/motion study of required AEER actions has determined that the maximum cumulative time spent in the AEER is approximately 300 minutes. Thus, the actions that need to be taken in the AEER do not result in the requirement to maintain the capability to continuously man the AEER. The AEER should be considered a vital area for personnel, in post-accident scenarios, requiring infrequent access and not continuous occupancy as previously classified. The dose to operators performing the required AEER actions, without credit for the AEER filtration system, will continue to be within 10 CFR 50, Appendix A, "General Design Criteria for Nuclear Power Plants," General Design Criterion (GDC) 19, "Control Room," limits, during and following all design basis accidents.

Therefore, we propose to change TS Bases Section 3/4.3.7.1, "Radiation Monitoring Instrumentation," TS Section 3/4.7.2, "Control Room and Auxiliary Electric Equipment Room Emergency Filtration System," TS Bases Section 3/4.7.2, and TS Section 6.2.F.8, "Ventilation Filter Testing Program (VFTP)," to eliminate habitability system requirements associated with the AEER.

The determination that the criteria set forth in 10 CFR 50.92 (c) is met for this amendment request is indicated below:

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

The elimination of Auxiliary Electric Equipment Room (AEER) habitability system requirements does not affect the precursors or initiators of any accidents previously evaluated.

The current analysis assumes an operator will maintain continuous occupancy of the AEER for 30 days following a design basis loss-of-coolant-accident (LOCA). This analysis credits operation of the AEER habitability system. The resultant dose to the operator is within the limits of 10 CFR 50, Appendix A, "General Design Criteria for Nuclear Power Plants," General Design Criterion (GDC) 19, "Control Room." We have performed an evaluation that determined an operator has more than sufficient time to perform all required actions in the AEER following a design basis LOCA, when directed by the station's emergency operating procedures (EOPs), without taking credit for the AEER habitability system and still maintain the resultant dose within the limits of GDC 19.

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

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

The proposed changes do not effect the operation or configuration of plant systems, structures or components. This proposed changes do not affect currently analyzed failure modes and does not introduce new failure modes.

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

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

The proposed changes will require an operator to be present in the AEER in a post-LOCA environment only when necessary to perform required actions as directed by the station's EOPs. A time/motion study of required AEER actions has determined that the maximum cumulative time spent in the AEER is approximately 300 minutes. The dose to operators performing the required AEER actions, without credit for the AEER filtration system, will continue to be within the limits of GDC 19, during and following all design basis accidents.

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

Therefore, based upon the above evaluation, ComEd has concluded that the proposed changes do not constitute a significant hazards consideration.

ATTACHMENT D
Proposed Changes to Technical Specifications for
LaSalle County Station, Units 1 and 2
1 of 1

INFORMATION SUPPORTING AN ENVIRONMENTAL ASSESSMENT

ComEd has evaluated the proposed changes against the criteria for identification of licensing and regulatory actions requiring environmental assessment in accordance with 10 CFR 51.21. ComEd has determined that the proposed changes meet the criteria for a categorical exclusion set forth in 10 CFR 51.22(c)(9) and as such, has determined that no irreversible consequences exist in accordance with 10 CFR 50.92(b). This determination is based on the fact that this change is being proposed as an amendment to a license issued pursuant to 10 CFR 50 that changes a requirement with respect to installation or use of a facility component located within the restricted area, as defined in 10 CFR 20, or that changes an inspection or a surveillance requirement, and the proposed changes meet the following specific criteria.

(i) The proposed changes involve no significant hazards consideration.

The proposed changes do not involve a significant hazards consideration.

(ii) There is no significant change in the types or significant increase in the amounts of any effluent that may be released offsite.

The proposed changes will not change the types or significantly increase the amounts of any effluents released offsite.

(iii) There is no significant increase in individual or cumulative occupational radiation exposure.

The proposed changes will not result in changes in the operation or configuration of the facility. There will be no change in the level of controls or methodology used for processing of radioactive effluents or handling of solid radioactive waste, nor will the proposal result in any change in the normal radiation levels within the plant. Therefore, there will be no increase in individual or cumulative occupational radiation exposure resulting from the proposed changes.

ATTACHMENT E
Proposed Changes to Technical Specifications for
LaSalle County Station, Units 1 and 2
1 of 1

MARKED-UP PAGES FOR PROPOSED CHANGES TO LASALLE COUNTY STATION
IMPROVED TECHNICAL SPECIFICATIONS

REVISED LASALLE ITS PAGES
NPF-11 & NPF-18

3.7.5-3
5.5-7
5.5-8
B 3.3.7.1-1
B 3.7.4-1
B 3.7.4-2
B 3.7.4-8
B 3.7.5-1
B 3.7.5-2
B 3.7.5-3
B 3.7.5-6

ACTIONS

CONDITION	REQUIRED ACTION	COMPLETION TIME
E. Two control room area ventilation AC 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. ---------- E.1 Suspend movement of irradiated fuel assemblies in the secondary containment. AND E.2 Suspend CORE ALTERATIONS. AND E.3 Initiate action to suspend OPDRVs.	 Immediately Immediately Immediately

SURVEILLANCE REQUIREMENTS

SURVEILLANCE		FREQUENCY
SR 3.7.5.1	Monitor control room and auxiliary electric equipment room temperatures.	12 hours
SR 3.7.5.2	Verify correct breaker alignment and indicated power are available to the control room area ventilation AC subsystems.	7 days

5.5 Programs and Manuals

5.5.8 Ventilation Filter Testing Program (VFTP) (continued)

ESF Ventilation System	Flowrate(cfm)
Standby Gas Treatment (SGT) System	$\geq$ 3600 and $\leq$ 4400
Control Room Area Filtration (CRAF) System Emergency Makeup Air Filter Units (EMUs)	$\geq$ 3600 and $\leq$ 4400

b. Demonstrate for each of the ESF systems that an inplace test of the charcoal adsorber shows a penetration and system bypass less than the value specified below when tested in accordance with ANSI/ASME N510-1989 at the system flowrate specified below:

ESF Ventilation System	Penetration and System Bypass	Flowrate (cfm)
SGT System	0.05%	$\geq$ 3600 and $\leq$ 4400
CRAF System		
EMUs	0.05%	$\geq$ 3600 and $\leq$ 4400
Control Room Recirculation Filters(CRRFs)	2.0%	$\geq$ 18000 and $\leq$ 28900
Auxiliary Electric Equipment Room Recirculation Filters (AEERRFs)	2.0%	$\geq$ 14000 and $\leq$ 22800

c. Demonstrate for each of the ESF systems that a laboratory test of a sample of the charcoal adsorber, when obtained as described in Regulatory Guide 1.52, Revision 2, shows the methyl iodide penetration less than the value specified below when tested in accordance with ASTM D3803-1989 at a temperature of 30°C, a relative humidity of 70% and a face velocity as specified below:

(continued)

5.5 Programs and Manuals

5.5.8 Ventilation Filter Testing Program (VFTP) (continued)

ESF Ventilation System	Penetration	Face Velocity (fpm)
SGT System	0.5%	40
CRAF System		
EMUs	2.5%	40
CRRFs	15.0%	80
AEERRFs	15.0%	80

d. Demonstrate for each of the ESF systems that the pressure drop across the combined moisture separator, heater, HEPA filters, prefilters, and charcoal adsorbers is less than the value specified below when tested at the system flowrate specified below:

ESF Ventilation System	Delta P (inches WG)	Flowrate (cfm)
SGT System	8	$\geq$ 3600 and $\leq$ 4400
CRAF System		
EMUs	8	$\geq$ 3600 and $\leq$ 4400
CRRFs	3.0	$\geq$ 18000 and $\leq$ 28900
AEERRFs	3.0	$\geq$ 14000 and $\leq$ 22800

(continued)

B 3.3 INSTRUMENTATION

B 3.3.7.1 Control Room Area Filtration (CRAF) System Instrumentation

BASES

BACKGROUND

The CRAF System is designed to provide a radiologically controlled environment to ensure the habitability of the control room for the safety of control room operators under all plant conditions. Two independent CRAF subsystems are each capable of fulfilling the stated safety function. The instrumentation and controls for the CRAF System automatically initiate action to isolate and pressurize the control room area to minimize the consequences of radioactive material in the control room area environment.

In the event of a Control Room Air Intake Radiation—High signal, the CRAF System is automatically placed in the pressurization mode. In this mode the normal outside air supply to the system is closed and is diverted to the emergency makeup filter train where it passes through a charcoal filter and is delivered to the suction of the control room return air fan and the suction of the auxiliary electric equipment room supply fan. Recirculated control room air is combined with the emergency makeup filter train air and delivered to the control room area via the supply fan. The addition of outside air through the emergency filter train will keep the control room area slightly pressurized with respect to surrounding areas. A description of the CRAF System is provided in the Bases for LCO 3.7.4, "Control Room Area Filtration (CRAF) System."

The CRAF System (Ref. 1) instrumentation has 4 trip systems, two for each of the air intakes: two trip systems initiate one CRAF subsystem, while the other trip systems initiate the other CRAF subsystem. For each CRAF subsystem, the associated two trip systems are arranged in a one-out-of-two logic (i.e., either trip system can actuate the CRAF subsystem). Each trip system receives input from two Control Room Air Intake Radiation—High channels. The Control Room Air Intake Radiation—High channels are arranged in a two-out-of-two logic for each trip system. The channels include electronic equipment (e.g., trip units)

(continued)

B 3.7 PLANT SYSTEMS

B 3.7.4 Control Room Area Filtration (CRAF) System

BASES

BACKGROUND The CRAF System provides a radiologically controlled environment (control room and auxiliary electric equipment room) from which the unit can be safely operated following a Design Basis Accident (DBA). The Control Room Area Heating Ventilation and Air Conditioning (HVAC) System is comprised of the Control Room HVAC System and the Auxiliary Electric Equipment Room (AEER) HVAC System. The Control Room HVAC System is common to both units and serves the control room, main security control center, and the control room habitability storage room (toilet room). The AEER HVAC System is common to both units and services the auxiliary electrical equipment rooms. The control room area is comprised of the areas covered by the Control Room and AEER HVAC Systems.

The safety related function of the CRAF System used to control radiation exposure consists of two independent and redundant high efficiency air filtration subsystems (i.e., the emergency makeup air filter units (EMUs) for treatment of outside supply air). Recirculation filters are also provided for treatment of recirculated air. Each EMU subsystem consists of a demister, an electric heater, a prefilter, a high efficiency particulate air (HEPA) filter, an activated charcoal adsorber section, a second HEPA filter, a fan, and the associated ductwork, dampers, and instrumentation and controls. Demisters remove water droplets from the airstream. The electric heater reduces the relative humidity of the air entering the EMUs. Prefilters and HEPA filters remove particulate matter that may be radioactive. The charcoal adsorbers provide a holdup period for gaseous iodine, allowing time for decay. Each Control Room and AEER Ventilation System has a charcoal recirculation filter in the supply of the system that is normally bypassed. In addition, the OPERABILITY of the CRAF System is dependent upon portions of the Control Room Area HVAC System, including the control room and auxiliary electric equipment room outside air intakes, supply fans, ducts, dampers, etc.

(continued)

BASES

BACKGROUND (continued)

In addition to the safety related standby emergency filtration function, parts of the CRAF System that are shared with the Control Room Area HVAC System are operated to maintain the control room area environment during normal operation. Upon receipt of a high radiation signal from the outside air intake (indicative of conditions that could result in radiation exposure to control room personnel), the CRAF System automatically isolates the normal outside air supply to the Control Room Area HVAC System, and diverts the minimum outside air requirement through the EMUs before delivering it to the control room area. The recirculation filters for the control room and AEER must be manually placed in service within 4 hours of receipt of any control room high radiation alarm.

The CRAF System is designed to maintain the control room area environment for a 30 day continuous occupancy after a DBA, without exceeding a 5 rem whole body dose or its equivalent to any part of the body. CRAF System operation in maintaining the control room area habitability is discussed in the UFSAR, Sections 6.4, 6.5.1, and 9.4.1 (Refs. 1, 2, and 3, respectively).

APPLICABLE SAFETY ANALYSES

The ability of the CRAF System to maintain the habitability of the control room area is an explicit assumption for the safety analyses presented in the UFSAR, Chapters 6 and 15 (Refs. 4 and 5, respectively). The pressurization mode of the CRAF System is assumed to operate following a loss of coolant accident, main steam line break, fuel handling accident, and control rod drop accident. The radiological doses to control room personnel as a result of the various DBAs are summarized in Reference 5. No single active failure will cause the loss of outside or recirculated air from the control room area.

The CRAF System satisfies Criterion 3 of 10 CFR 50.36(c)(2)(ii).

LCO

Two redundant subsystems of the CRAF System are required to be OPERABLE to ensure that at least one is available, assuming a single failure disables the other subsystem. Total system failure could result in exceeding a dose of 5 rem to the control room operators in the event of a DBA.

(continued)

BASES

SURVEILLANCE REQUIREMENTS (continued)

SR 3.7.4.5

This SR verifies the integrity of the control room area and the assumed inleakage rates of potentially contaminated air. The control room area positive pressure, with respect to potentially contaminated adjacent areas, is periodically tested to verify proper function of the CRAF System. During the pressurization mode of operation, the CRAF System is designed to slightly pressurize the control room area to $\geq$ 0.125 inches water gauge positive pressure with respect to adjacent areas to prevent unfiltered inleakage. The CRAF System is designed to maintain this positive pressure at a flow rate of $\leq$ 4000 cfm to the control room area in the pressurization mode. This test also requires manual initiation of flow through the control room and AEER recirculation filters line when the CRAF System is in the pressurization mode of operation. The Frequency of 24 months is consistent with industry practice and other filtration system SRs.

REFERENCES

1. UFSAR, Section 6.4.
2. UFSAR, Section 6.5.1.
3. UFSAR, Section 9.4.1.
4. UFSAR, Chapter 6.
5. UFSAR, Chapter 15.
6. ANSI/ASME N510-1989.

B 3.7 PLANT SYSTEMS

B 3.7.5 Control Room Area Ventilation Air Conditioning (AC) System

BASES

BACKGROUND

The Control Room Area Ventilation AC System provides temperature control for the control room area. The control room area is comprised of the control room and the Auxiliary Electric Equipment Rooms (AEERs).

The Control Room Area Ventilation AC System is comprised of two independent, redundant subsystems that provide cooling and heating of control room air and the auxiliary electric equipment rooms air. Each Control Room Area Ventilation AC subsystem consists of a Control Room AC subsystem and an AEER AC subsystem. The associated Control Room AC and AEER AC subsystems share a common outside air intake with a common emergency makeup air filter unit. The Control Room AC System is common to both units and serves the control room, main security control center, and the control room habitability storage room (toilet room). The AEER AC System is common to both units and services the AEERs.

Each Control Room Area Ventilation AC subsystem is powered from a Division 2 power source. One subsystem is powered from Unit 1 Division 2 and the other subsystem is powered from Unit 2 Division 2.

Each control room AC and AEER AC subsystem consists of a supply air filter, supply and return air fans, direct expansion cooling coils, an air-cooled condenser, a refrigerant compressor and receiver, heating coils, ductwork, dampers, and instrumentation and controls to provide temperature control for their respective areas. However, the heating coils are not safety related.

The Control Room Area Ventilation AC System is designed to provide a controlled environment under both normal and accident conditions. A single control room area ventilation AC subsystem provides the required temperature control to maintain a suitable control room and AEER environment for a sustained occupancy of at least the required normal and emergency shift crew complements. The design conditions for

(continued)

BASES

BACKGROUND (continued)

habitability of the control room and AEER environment are 65°F to 85°F and a maximum of 50% relative humidity. The Control Room Area Ventilation AC System operation in maintaining the temperatures of the control room and AEERs is discussed in the UFSAR, Sections 6.4 and 9.4.1 (Refs. 1 and 2, respectively).

APPLICABLE SAFETY ANALYSES

The design basis of the Control Room Area Ventilation AC System is to maintain temperatures of the control room and AEERs for a 30 day period after a Design Basis Accident (DBA).

The Control Room Area Ventilation AC System components are arranged in redundant safety related subsystems. During emergency operation, the Control Room Area Ventilation AC System maintains a habitable environment and ensures the OPERABILITY of components in the control room and AEERs. A single active failure of a component of the Control Room Area Ventilation AC System, assuming a loss of offsite power, does not impair the ability of the system to perform its design function. Redundant detectors and controls are provided for control room and AEERs temperature control. The Control Room Area Ventilation AC System is designed in accordance with Seismic Category I requirements, with exceptions described in UFSAR Section 9.4.1.1.1.1 (Ref. 3). The Control Room Area Ventilation AC System is capable of removing sensible and latent heat loads from the control room and AEERs, including consideration of equipment heat loads and personnel occupancy requirements to ensure equipment OPERABILITY.

The Control Room Area Ventilation AC System satisfies Criterion 3 of 10 CFR 50.36(c)(2)(ii).

LCO

Two independent and redundant subsystems of the Control Room Area Ventilation AC System are required to be OPERABLE to ensure that at least one subsystem is available, assuming a single failure disables the other subsystem. Total system failure could result in the equipment operating temperature exceeding limits.

(continued)

BASES

LCO (continued)

The Control Room Area Ventilation AC System is considered OPERABLE when the individual components necessary to maintain the control room and AEERs temperatures are OPERABLE in both subsystems. These components include the supply and return air fans, direct expansion cooling coils, an air-cooled condenser, a refrigerant compressor and receiver, ductwork, dampers, and instrumentation and controls.

APPLICABILITY

In MODE 1, 2, or 3, the Control Room Area Ventilation AC System must be OPERABLE to ensure that the control room and AEERs temperatures will not exceed equipment OPERABILITY limits during operation of the Control Room Area Filtration (CRAF) System in the pressurization mode.

In MODES 4 and 5, the probability and consequences of a Design Basis Accident are reduced due to the pressure and temperature limitations in these MODES. Therefore, maintaining the Control Room Area Ventilation AC 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 movement of irradiated fuel assemblies in the secondary containment;

b. During CORE ALTERATIONS; and

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

ACTIONS

A.1

With one control room area ventilation AC subsystem inoperable, the inoperable control room area ventilation AC subsystem must be restored to OPERABLE status within 30 days. With the unit in this condition, the remaining OPERABLE control room area ventilation AC subsystem is adequate to perform the control room air conditioning function. However, the overall reliability is reduced because a single failure in the OPERABLE subsystem could result in loss of the control room area ventilation air conditioning function. The 30 day Completion Time is based

(continued)

BASES

ACTIONS

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

OPDRVs with two control room area ventilation AC subsystems inoperable, action must be taken 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 handling of irradiated fuel 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, action must be initiated immediately to suspend OPDRVs to minimize the probability of a vessel draindown and subsequent potential for fission product release. Action must continue until the OPDRVs are suspended.

SURVEILLANCE REQUIREMENTS

SR 3.7.5.1

This SR monitors the control room and AEER temperatures for indication of Control Room Area Ventilation AC System performance. Trending of control room area temperature will provide a qualitative assessment of refrigeration unit OPERABILITY. Limiting the average temperature of the Control Room and AEER to less than or equal to 85°F provides a threshold beyond which the operating control room area ventilation AC subsystem is no longer demonstrating capability to perform its function. This threshold provides margin to temperature limits at which equipment qualification requirements could be challenged. Subsystem operation is routinely alternated to support planned maintenance and to ensure each subsystem provides reliable service. The 12 hour Frequency is adequate considering the continuous manning of the control room by the operating staff.

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