



June 21, 1996

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

Subject: LaSalle County Nuclear Power Station Units 1 and 2
Application for Amendment of Facility Operating
Licenses NPF-11 and NPF-18, Appendix A, Technical
Specifications, Extension of the 18 Month Surveillance
Interval and One Time Extension of the Allowed Outage
Time for the Control Room and Auxiliary Electric
Equipment Room Emergency Filtration System Trains.
NRC Docket Nos. 50-373 and 50-374

Pursuant to 10 CFR 50.90, ComEd proposes to revise Appendix A, Technical Specifications of Facility Operating Licenses NPF-11 and NPF-18, LaSalle County Station Units 1 and 2. The proposed changes include an extension of the 18 month surveillance interval and a one time change to the Technical Specifications (TS) to extend the Allowed Outage Time for each subsystem of the Control Room and Auxiliary Electric Equipment Room Emergency Filtration System. The TS affected is TS 3/4.7.2, Control Room and Auxiliary Electric Equipment Room Emergency Filtration System.

This proposed amendment request is subdivided as follows:

1. Attachment A gives a description and safety analysis of the proposed changes in this amendment.
2. Attachment B includes the marked-up License/Technical Specifications pages for LaSalle Units 1 and 2 with the requested changes indicated.
3. Attachment C describes ComEd's evaluation performed in accordance with 10 CFR 50.92 (c), which confirms that no significant hazard consideration is involved.
4. Attachment D provides an Environmental Assessment Applicability Review per 10 CFR 51.21.

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The one time extension of the Allowed Outage Time in the TS LCO will allow required replacement work to be performed on the high efficiency charcoal adsorber retention screens. The screens became corroded after fire protection water was introduced in the charcoal adsorbers. ComEd has determined that the corroded screens do not affect the charcoal adsorber operability. Since replacement of the screens is extremely difficult and costly and tray-type adsorbers are easily replaced when problems develop, LaSalle Station wants to proactively replace the existing deep bed adsorbers with tray-type units. The deep bed adsorber replacement with tray-type units is expected to take up to 30 days for each train. The present LCO allows one subsystem of the Control Room and Auxiliary Electric Equipment Room Emergency Filtration System to be inoperable for up to 7 days before both operating units must be shut down. This amendment will allow each subsystem, one at a time, to remain inoperable for an extended period of time of up to 30 days total for the replacement work.

In addition, a change to the surveillance interval for Technical Specifications 4.7.2.b and 4.7.2.d will be changed from 18 months to 24 months. This change will serve two purposes. First, the surveillance interval change will maintain the CREFS available for service while preparation for the replacement trays modification are performed. Second, the change will reflect LaSalle Unit 1 and Unit 2 fuel cycles of 24 month duration, which are planned to begin with Unit 2 cycle 8 and Unit 1 cycle 9. The extension of the surveillance interval has an insignificant effect on safety as documented in the attached safety analysis.

This proposed amendment has been reviewed and approved by ComEd On-Site and Off-Site Review in accordance with procedures.

ComEd is requesting that this amendment be approved prior to November 15, 1996, with an implementation time of 60 days. Approval prior to November 15, 1996 is needed since the CREFS A train surveillance will become critical on December 5, 1996.

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.

If there are any further questions or comments concerning this submittal, please refer them to JoEllen Burns at (815) 357-6761, extension 2383.

Respectfully,



R. E. Querio
Site Vice President
LaSalle County Station

Enclosure

cc: H. J. Miller, NRC Region III Administrator
P. G. Brochman, NRC Senior Resident Inspector - LaSalle
D. M. Skay, Project Manager - NRR - LaSalle
F. Niziolek, Office of Nuclear Facility Safety - IDNS
Central File

STATE OF ILLINOIS

COUNTY OF LASALLE

IN THE MATTER OF

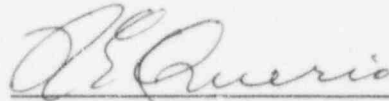
COMMONWEALTH EDISON COMPANY

LASALLE COUNTY - UNITS 1 & 2

Docket Nos. 50-373
50-374

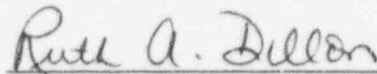
AFFIDAVIT

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



R. E. Querio
Site Vice President
LaSalle County Station

Subscribed and sworn to before me, a Notary Public in and for the State and County above named, this 24th day of June, 1996. My Commission expires on 3/25/2000, 192000.


Notary Public

ATTACHMENT A

DESCRIPTION OF SAFETY ANALYSIS OF THE PROPOSED CHANGES

Description of the Proposed Change

The charcoal adsorber filters in the Control Room and Auxiliary Equipment Room Emergency Filtration System (CREFS) trains A and B require that repair work be performed to replace the existing deep bed adsorbers with tray-type adsorbers. The work will be a longer duration than the Technical Specification (TS) 3.7.2 LCO allows for unit operation. Therefore, it is requested that the TS 3.7.2 LCO be changed one time for each subsystem to allow unit operation in all operational conditions with one inoperable filtration train for a duration of 30 days if the other train is operable at all times. The change is applicable to both Unit 1 and Unit 2.

In addition, the TS SURVEILLANCE REQUIREMENTS 4.7.2.b and 4.7.2.d specify a 18 month interval for testing the filter trains to verify operability of the equipment. Since the LaSalle Station Units 1 and 2 are going to a 24 month fuel cycle, it is requested the surveillance interval be changed from 18 months to "at least once per 24 months".

The CREFS A and B charcoal filter units have been inspected by ComEd personnel and the filter unit vendor. The inspection found that the charcoal adsorber screens have corroded sections. ComEd has determined that even though the corrosion does not presently affect the charcoal adsorber operability, LaSalle Station wants to proactively replace the screens. When the charcoal is to be replaced in each filter unit, the filter unit would be declared inoperable and the 7 day LCO timeclock would start. The deep beds would be replaced with tray-type adsorbers when the charcoal is removed. The replacement will take up to 30 days.

This amendment is in part similar to an amendment requested by Duke Power in Reference 1 and approved by the NRC in Reference 2.

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Description of the Current Operating License/Technical Specification Requirement

Both CREFS trains A and B are required to be operable in all operational conditions per Technical Specification 3.7.2 for both Units 1 and 2. The LCO Action states that with one emergency filtration system train inoperable, the inoperable train must be restored to operable status within 7 days or go to Hot Shutdown within the next 12 hours and Cold Shutdown within the following 24 hours.

If in Operational Condition 4, 5, or when irradiated fuel is being handled in the secondary containment, then the operable filtration system is required to be initiated and maintained in the pressurization mode of operation.

Surveillance Requirements 4.7.2.b and 4.7.2.d require that the filters be tested "At least once per 18 months ...".

Bases for the Current Requirement

The basis for the current Technical Specification requirement is based on the operation of the CREFS A and B trains during emergency conditions to limit the dose to plant operations personnel in the areas to less than 5 rem. This meets the General Design Criteria 19 of Appendix A of 10CFR50. Both units are required to be operable per the 3.7.2 LCO to allow for single failure of either train of filtration. The 7 day duration of the LCO for one filter train operation is based on a reasonable length of time that the probability of a DBA LOCA occurrence is extremely low and the one operable filter can provide the required filtration (NUREG-1434, Standard Technical Specifications, General Electric Plants, BWR 6, Rev. 1, dated April, 1995).

TS 4.7.2.b states that in-place testing be performed per RG 1.52 Rev. 2 (March 1978) Positions C.5.a, C.5.c, and C.5.d. The RG 1.52 states the following:

- C.5.a - Visual inspection will be performed in accordance with Section 5 of ANSI N510-1975. ANSI N510-1975 Table 1 recommends that the visual inspection be performed prior to any test.

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- C.5.c- In-place DOP test for HEPA filters should conform to ANSI N510-1975 Section 10 and should be tested "... at least once per 18 months ...". ANSI N510-1975 Table 1 recommends that the test be performed at least annually.
- C.5.d- Activated carbon adsorber section shall be leak tested in accordance with ANSI N510-1975 Section 12 and should be tested "... at least once per 18 months ...". ANSI N510-1975 Table 1 recommends that the test be performed at least annually.

NUREG-0519 - Safety Evaluation Report (SER) related to the operation of LaSalle County Station Units 1 and 2, Section 6.4.1 - Control Room Habitability System Radiological Protection, states that to assure the availability of the CREFS A and B trains during radiological emergencies, the filter trains will be tested approximately once every 18 months.

The CREFS A and B trains are designed per the guidelines of Regulatory Guide 1.52 (dated March, 1978) and the recommendations of ANSI N509. RG 1.52 states that the "ESF atmosphere cleanup systems designed and installed for the purpose of mitigating accident doses should be redundant". The CREFS A and B trains are the redundant ESF atmosphere cleanup systems common to LaSalle Unit 1 and Unit 2. RG 1.52 also states that the filter adsorber should be designed per ANSI N509 and arranged per ERDA 76-21.

The CREFS A and B trains are designed to provide filtered air to pressurize the Control Room during emergency modes to maintain the Control Room at a positive pressure with respect to the surroundings. The trains are designed for an inlet air flow of 4,000 cfm of outside air and are designed to remove radioactive iodine such that the dose to the control room operators is within GDC 19 limits. The charcoal is kept in place in the charcoal adsorbers by stainless steel retaining screens.

The CREFS A and B trains are normally not in operation and are only operated to support testing and emergency plant operation.

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More detailed descriptions of the CREFS A and B trains are provided in UFSAR Chapter 6.4 - Habitability Systems, Chapter 6.5.1.1.2 - Design Bases Emergency Makeup Air Filter Units, Chapter 6.5.1.2.2 - System Design Emergency Makeup Air Filter Units, and Chapter 9.4.1 - Control Room Area Ventilation Systems.

Description of the Need for Amending the Technical Specification

The CREFS A and B trains charcoal adsorber section retaining screens have been found to be corroded. This occurred when the fire protection deluge spray header leaked water into the charcoal bed and washed away the impregnation material from the charcoal. This created a corrosive fluid which subsequently corroded the stainless steel screens. The CREFS A and B trains charcoal filter units have been inspected by ComEd personnel and the filter unit vendor. The inspection found that the charcoal adsorber screens have corroded sections. ComEd has determined that even though the corrosion does not presently affect the charcoal adsorber operability, LaSalle Station wants to proactively replace the screens. In order to perform the repair/replacement work, each filter unit will be required to be Out-Of-Service (OOS) for a longer time than the Technical Specification LCO 3.7.2 allows (LCO 3.7.2 allows one filter train to be out of service for up to 7 days). The replacement of the deep bed adsorbers with tray-type adsorbers will take up to 30 days. Therefore, a one time Technical Specification change is requested to repair each filter train.

In addition, since the plant is going to 24 month fuel cycles for both units, a change to the 18 month surveillance interval for TS surveillances 4.7.2.b and 4.7.2.c are being requested. This is needed since the plan for replacement of the existing deep bed adsorbers with tray-type adsorbers, shows that the design change will not be developed in time for the next scheduled surveillance of 0VC01SA (0VC01SA surveillance is due July 23, 1996 and becomes critical December 5, 1996). The surveillance test of the 0VC01SB was due April 18, 1996 and becomes critical August 31, 1996. This test is scheduled to be performed during the week of July 22, 1996. The change to a 24 month surveillance interval will extend the surveillance due date to January 23, 1997 (critical July 23, 1997) for 0VC01SA. This allows more time for the necessary design changes to be developed.

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Description of the Amended Technical Specification Requirement

1. Change Limiting Condition for Operation (LCO) 3.7.2.a ACTION statement to add a footnote:
 - a. With one emergency filtration system train inoperable, restore the inoperable train to OPERABLE status within 7 days** or:

The footnote is proposed as follows:

** During fuel cycle 8, a one-time allowed outage time extension to 30 days is granted for each train, one at a time, to allow for modification of the charcoal adsorber section of each train.

2. Change the Surveillance Requirement 4.7.2.b and 4.7.2.d from "At least once per 18 months ..." to "At least once per 24 months ...".

Bases for the Amended Technical Specification Request

The LCO duration of 7 days for one inoperable train of CREFS is based on the low probability of a DBA occurring during this time period and that the operable train can provide the required capabilities. This work is expected to be performed while both LaSalle Units 1 and 2 are in Operational Condition 1. The LCO assumes that the probability that a DBA could occur during any 7 day interval of the plant's lifetime operation is low and therefore, single failure of one train of the CREFS will not adversely affect plant safety during this time period. This Technical Specification change requests a one time extension of the LCO of 30 days for each CREFS train. The probability of a DBA occurring along with a single active failure is $7.3E-6$ in those 30 days, versus $1.7E-6$ in a 7 day period. This is insignificant with respect to any credible event that could occur and is therefore acceptable. The CREFS filter trains provide filtration for the Control Room. The components are needed to maintain habitability in the Control Room during and after analyzed accidents. The consequences of a Loss of Coolant Accident are mitigated by the operability of the emergency core cooling system (ECCS). Multiple failures of the various ECCS subsystems would have to occur in concert with a LOCA to cause a substantial radioactive release, which would initiate CREFS. Such an event is not considered credible,

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especially in light of leak before break and Technical Specification limits on reactor coolant system leakage. The probability of this event occurring during the 30 day period is very low.

As discussed in UFSAR 6.4.3, upon receipt of a radiation signal from the outside air intake, the radiation monitoring system automatically shuts off the normal outside air supply to the system. The minimum outside air requirement is routed through the CREFS filter units. Each CREFS train is capable of handling the minimum requirements of outside air for the system. Since one train will always be operable during this modification work, the ability of the system to deal with a radioactive release is unimpaired by the proposed change. In the unlikely event that an alternate source of air is required, air masks (fed from a standby source of breathing air) and SCBA (Self Contained Breathing Apparatus) equipment are available in the Control Room.

To preclude the operable train from being taken out of service to perform other surveillance testing, the TS 4.7.2.a surveillance for each filter train will be performed just prior to the modification of the opposite filter train. This test is the 10 hour run with the heaters in operation which is performed every 31 days. As of April 17, 1996, the cumulative run time of 0VC01SA was 312.3 hours and as of April 30, 1996, the cumulative run time of 0VC01SB was 243 hours. When the modification will be implemented in July, 1997, it is expected that another 100 hours of operation will have accumulated on both trains. Therefore, neither train will reach 720 hours of operation, which would require charcoal testing per Technical Specification Surveillance Requirement 4.7.2.c prior to performing the modifications and subsequent testing. All the other TS surveillances of the CREFS trains are performed on an 18 month interval (proposed 24 month interval) or when major maintenance or modification work is completed. Thus it will not be necessary to perform any surveillances on the required train while the opposite train is out of service. The second train to be taken out of service will have further assurance that the opposite train will be operable as it (the operable train) will have recently been modified and subjected to post maintenance system testing. Therefore, the impact of this one-time Allowed Outage Time (AOT) extension on public health risk is insignificant.

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In order to ensure the operability of the operable train, normal performance testing and preventative maintenance will be performed on the system in order to identify and resolve any problems prior to starting modification activities (on the opposite train). The performance of preventative maintenance on the system will ensure maximum reliability for the system. As previously discussed, no CREFS TS surveillance will be performed on the operable train during the extended AOT, and the second train to be taken out of service will have further assurance of the required opposite train being operable as the required train will be fully tested in accordance with post maintenance testing and the previously discussed measures.

The operators will be fully aware of the situation. The impact of losing the operable CREFS train would be the shutting down of both units within thirteen hours of the initial event (per Technical Specification 3.0.3). The impact of a station shutdown on LaSalle (thermal cycling of equipment) and on the ComEd system is a situation that ComEd seeks to avoid, thus LaSalle will be examining other measures that may be taken to prevent degradation of the operable CREFS train during the modification on the redundant train. However, should the operable train become inoperable, a shutdown of both units will be initiated in accordance with Technical Specification 3.0.3.

Modification activities will be completed one train at a time, thus one CREFS train will be fully available at all times. If neither CREFS train is operable, the station will be in TS 3.0.3, which would require that one train be returned to operability within one hour or the units be in Startup within the following six hours, Hot Shutdown within the next six hours, and Cold Shutdown within the next twenty-four hours. Additionally, while the filter package is inoperable for the modification activities, the normal supply and return fans are available if needed. The supply and return fans could be operated in a 100% recirculation mode such that the Control Room would be maintained at atmospheric conditions. This would be an improvement over the normal mode of operation which utilizes some amount of outside air. While this would not be done to meet requirements in the Technical Specifications for system operability, recirculated and filtered air would be available to provide atmospheric conditions in the Control Room in the event of an accident. This operation will augment the radiological protection for the control room operators during the time that both CREFS trains are unavailable.

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The previously discussed failure sequence of ECCS in conjunction with a DBA LOCA, which would require CREFS, is not a credible event during these two separate 30 day intervals. The systems that would be assumed to fail are covered by TS, and are thus maintained and tested as such to assure operability in the event of an accident. In addition to the failure of systems designed to prevent core damage during an analyzed accident, the operable filter train would have to fail to affect safety. Such a total failure during the 30 day AOT for each train is not considered a credible event.

As one train is all that is necessary to provide ventilation, and one train will be operable at all times, no loss of safety function is involved.

The proposed extension of the surveillance interval for the CREFS trains from 18 months to 24 months for TS surveillances 4.7.2.b and 4.7.2.d is based on the change of LaSalle refueling outage intervals and is in accordance with Generic Letter 91-04, "Changes in Technical Specification Surveillance Intervals to Accommodate a 24 Month Fuel Cycle". The tests that will be affected by the extended surveillance interval are the CREFS train A and B in-place testing which includes visual inspection, DOP test of HEPA filters, and the adsorber section bypass leakage test (the in-place testing is defined in RG 1.52 Positions C.5.a, C.5.c, and C.5.d). Also included in these surveillances are the charcoal laboratory analysis, verification of filter train flow rate, verification that pressure drop across the HEPA filters and charcoal adsorber is less than 8 inches of water at design flow, verification of automatic actuation of the CREFS in the pressurization mode, verification that the pressurization mode will maintain the Control Room at a positive 1/8 inch pressure, and verification that the CREFS filter train heaters will dissipate 20 ± 2 kW. All equipment that is tested by these surveillances do not have a tendency to drift over time. The logic is static and the failure frequency is not time dependent. The surveillance test results for the last five tests have been reviewed and no failures were found. The maintenance history of the equipment has been reviewed and no extensive maintenance has been performed on the equipment that would indicate degradation over an extended period of time. The plant licensing basis requires that the CREFS trains be periodically tested and this proposed extension of the surveillance interval maintains a periodic test requirement.

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The charcoal adsorber screen corrosion was initiated due to the introduction of water in the charcoal from a fire protection deluge header. It is expected that no further corrosion of the screens has occurred because of two reasons: 1) A change to this fire protection valve line-up was made that ensures that this line will no longer discharge water in the charcoal unless deliberately initiated for fire protection purposes; and, 2) Each train of CREFS is operated for a minimum of 10 hours every 31 days, in accordance with Surveillance Requirement 4.7.2.a. This 10 hour operation assures that the charcoal adsorbers remain dry, because of the moisture separators and the heaters in each train.

Therefore, the increase of the surveillance interval for these surveillances from 18 months to 24 months will have no effect on plant safety.

Schedule

The CREFS A and B trains are required to be visually inspected per the Technical Specification 4.7.2.b Surveillance Requirements. The visual inspection is based on the acceptance criteria of Regulatory Guide 1.52 Position C.5.a. The CREFS A train was last inspected/tested in January 23, 1995. At that time the corrosion was observed on the screens and the operability assessment was made. Therefore, the next scheduled surveillance of the CREFS A train is due on July 23, 1996 (18 months) and is critical December 5, 1996 (22.5 months). The surveillance test of the 0VC01SB was due April 18, 1996 and becomes critical August 31, 1996. This test is scheduled to be performed during the week of July 22, 1996.

With this TS change, the surveillance interval extensions for the CREFS A and B trains will change the respective due dates to January 23, 1997 (critical July 23, 1997) for 0VC01SA. Although 0VC01SB will not come due again prior to the installation of the modification to the charcoal adsorber, the change is requested as a permanent change for both trains. CREFS is required to be operable "At all times" per the applicability statements of TS LCO 3.7.2. Therefore, because the equipment is common to both Units, one Unit is always normally in operation. Also, since doing the surveillances during a refuel outage on one Unit would cause extra work, these surveillances are normally performed while both Units are at power. Thus changing the interval to 24 months prior to the actual fuel cycle changing to 24 months does not effect the

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Units, or other surveillances. Also, this change to a 24 month interval will maintain the CREFS available for service while preparation activities for the replacement trays modification are performed.

Therefore, ComEd is requesting that this amendment be approved prior to November 15, 1996, with an implementation time of 60 days. Approval prior to November 15, 1996 is needed since the CREFS A train surveillance will become critical on December 5, 1996.

References

1. Letter from T. C. McMeekin (Duke Power McGuire Nuclear Station) to the NRC dated November 4, 1993. Proposed TS Amendment Control Area Ventilation System
2. Letter from Victor Nerses, NRC to T. C. McMeekin VP McGuire Site - Issuance of Amendments - McGuire Nuclear Stations Units 1 and 2 and associated Safety Evaluation Report dated February 10, 1994.

ATTACHMENT B
PROPOSED AMENDMENTS TO THE
LICENSE/TECHNICAL SPECIFICATIONS

<u>NPF-11</u>	<u>NPF-18</u>
3/4 7-4	3/4 7-4
INSERT A	INSERT A
3/4 7-5	3/4 7-5
3/4 7-6*	3/4 7-6*

* Page provided for information only, no changes.