

ATTACHMENT 1

PROPOSED CHANGES TO APPENDIX A
TECHNICAL SPECIFICATIONS FOR
QUAD CITIES STATION UNITS 1 AND 2

FACILITY OPERATING LICENSES DPR-29 AND DPR-30

Revised Pages: 3.8/4.8-14a (DPR 29)
 3.8/4.8-14b (DPR 29)
 3.8/4.8-19 (DPR 29)

 3.8/4.8-14b (DPR 30)
 3.8/4.8-14b (DPR 30)
 3.8/4.8-19 (DPR 30)

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H. Control Room Emergency Filtration System

1. The control room emergency filtration system, including at least one booster fan shall be operable at all times when secondary containment integrity is required, except as specified in Sections 3.8.H.1.a. or b.

a. After the control room emergency filtration system is made or found to be inoperable for any reason, reactor operation and fuel handling are permissible only during the succeeding 14 days. Within 36 hours following the 14 days, the reactor shall be placed in a condition for which the control room emergency filtration system is not required in accordance with Specification 3.7.C.1.a. through d.

b. Specification 3.8.H.1.a. above does not apply during performance of surveillance testing, or during removal of the charcoal test canisters.

2. Periodic Performance Requirements

a. The results of the in-place DOP tests at 2000 cfm ($\pm 10\%$) on HEPA filters shall show less than or equal to 1.0% DOP penetration per bank when tested with 0.3 micron DOP aerosol.

b. The results of in-place halogenated hydrocarbon tests at 2000 cfm ($\pm 10\%$) on the overall charcoal banks shall show less than or equal to 0.5% penetration.

c. The results of laboratory carbon sample analysis of both carbon canisters shall show less than or equal to 0.5% methyl iodide penetration (overall) when tested at 30°C and 70% R.H.

H. Control Room Emergency Filtration System

1. At least once per month, initiate 2000 cfm ($\pm 10\%$) flow through the control room emergency filtration system for at least 10 hours with the heaters operable.

2. Performance Requirement Tests

a. At least once per operating cycle but not to exceed 18 months, or following painting, fire, or toxic chemical release in any ventilation zone communicating with the intake of the system while the system is operating that could contaminate the HEPA filters or charcoal adsorbers, perform the following:

- 1) In-place DOP test the HEPA filter banks to verify leaktight integrity.
- 2) In-place test the charcoal adsorber banks with halogenated hydrocarbon tracer to verify leaktight integrity.

3) Remove one carbon test canister from each charcoal adsorber bank. Subject these samples to a laboratory analysis to verify methyl iodide removal efficiency.

b. At least once per operating cycle, but not to exceed 18 months, the following conditions shall be demonstrated:

1) Pressure drop across the combined filters is less than 6 inches of water at 2000 cfm ($\pm 10\%$) flow rate.

2) Operability of inlet heater demonstrates heater ΔT of 15°F.

3. Postmaintenance Requirements

a. After any maintenance or testing that could affect the HEPA filter or HEPA filter mounting frame leaktight integrity, the results of the in-place DOP tests at 2000 cfm ($\pm 10\%$) on HEPA filters shall show less than or equal to 1.0% DOP penetration per bank in accordance with 3.8.H.2.a.

b. After any maintenance or testing that could affect the charcoal adsorber leaktight integrity, the results of in-place halogenated hydrocarbon tests at 2000 cfm ($\pm 10\%$) shall show less than or equal to 0.5% overall penetration in accordance with 3.8.H.2.b.

3. Postmaintenance Testing

a. After any maintenance or testing that could affect the leaktight integrity of the HEPA filters, perform in-place DOP tests on the HEPA filters in accordance with Specification 3.8.H.2.a.

b. After any maintenance or testing that could affect the leaktight integrity of the charcoal adsorber banks, perform halogenated hydrocarbon tests on the charcoal adsorbers in accordance with Specification 3.8.H.2.b.

3.8/4.8.C MECHANICAL VACUUM PUMP

The purpose of isolating the mechanical vacuum line is to limit release of activity from the main condenser. During an accident, fission products would be transported from the reactor through the main steamline to the main condenser. The fission product radioactivity would be sensed by the main steamline radioactivity monitors which initiate isolation.

3.8/4.8.E SOLID RADIOACTIVE WASTE

The operability of the solid radioactive waste system ensures that the system will be available for use whenever solid radwastes require processing and packaging prior to being shipped off-site. This specification implements the requirements of 10 CFR 50.36a and General Design Criteria 60 of Appendix A to 10 CFR Part 50.

3.8/4.8.F MISCELLANEOUS RADIOACTIVE MATERIALS SOURCES

The objective of this specification is to assure that leakage from byproduct, source and special nuclear material sources does not exceed allowable limits. The limitations on removable contamination for sources requiring leak testing, including alpha emitters, is based on 10 CFR 70.39(c) limits for plutonium.

3.6/4.8.H CONTROL ROOM AIR FILTRATION

The purpose of these specifications is to assure availability of the control room emergency air filtration unit that has been installed in response to NUREG-0737 Item III D.3.4. Operation of this unit is described in the "Control Room Habitability Study" for Quad-Cities Station which was submitted to the NRC in December 1981.

The frequency of tests and sample analysis is necessary to show that the HEPA filters and charcoal adsorbers can perform as evaluated. The Control Room Filtration system in-place testing procedures will be established utilizing applicable sections of ANSI N510-1975 standard as a procedural guideline only. Operation of the Control Room Filtration system every month for 10 hours will reduce the moisture buildup on the adsorbent. If painting, fire, or chemical release occurs such that the HEPA filter or charcoal adsorber could become contaminated from the fumes, chemicals, or foreign materials, the same tests and sample analysis should be performed as required for operational use. Replacement adsorbent should be qualified according to the guidelines of Regulatory Guide 1.52, Revision 1 (June 1976). The charcoal adsorber efficiency test procedures will allow for the removal of one representative sample cartridge from each bank and testing in accordance with the guidelines of Table 3 of Regulatory Guide 1.52, Revision 1 (June 1976). The sample will be at least two inches in diameter and a length equal to the thickness of the bed. If the iodine removal efficiency test results are unacceptable, all adsorbent in the system will be replaced. High efficiency particulate filters are installed before and after the charcoal filters to prevent clogging of the carbon adsorbers and to minimize potential entrance of particulates that may be released to the environment following an accident. This will be demonstrated by in-place testing with DOP as the testing medium. Any HEPA filters found defective will be replaced with filters qualified to regulatory guide position C.3.d of Regulatory Guide 1.52, Revision 1 (June 1976). Once per operating cycle demonstration of HEPA filter pressure drop and operability of inlet heaters at rated power is necessary to assure system performance capability.

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b. Specification 3.8.H.1.a. above does not apply during performance of surveillance testing, or during removal of the charcoal test canisters.

2. Periodic Performance Requirements

a. The results of the in-place DOP tests at 2000 cfm ($\pm 10\%$) on HEPA filters shall show less than or equal to 1.0% DOP penetration per bank when tested with 0.3 micron DOP aerosol.

b. The results of in-place halogenated hydrocarbon tests at 2000 cfm ($\pm 10\%$) on the overall charcoal banks shall show less than or equal to 0.5% penetration.

c. The results of laboratory carbon sample analysis of both carbon canisters shall show less than or equal to 0.5% methyl iodide penetration (overall) when tested at 30°C and 70% R.H.

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a. At least once per operating cycle but not to exceed 18 months, or following painting, fire, or toxic chemical release in any ventilation zone communicating with the intake of the system while the system is operating that could contaminate the HEPA filters or charcoal adsorbers, perform the following:

- 1) In-place DOP test the HEPA filter banks to verify leaktight integrity.
- 2) In-place test the charcoal adsorber banks with halogenated hydrocarbon tracer to verify leaktight integrity.

3) Remove one carbon test canister from each charcoal adsorber bank. Subject these samples to a laboratory analysis to verify methyl iodide removal efficiency.

b. At least once per operating cycle, but not to exceed 18 months, the following conditions shall be demonstrated:

1) Pressure drop across the combined filters is less than 6 inches of water at 2000 cfm ($\pm 10\%$) flow rate.

2) Operability of inlet heater demonstrates heater ΔT of 15°F.

3. Postmaintenance Requirements

a. After any maintenance or testing that could affect the HEPA filter or HEPA filter mounting frame leaktight integrity, the results of the in-place DOP tests at 2000 cfm ($\pm 10\%$) on HEPA filters shall show less than or equal to 1.0% DOP penetration per bank in accordance with 3.8.H.2.a.

b. After any maintenance or testing that could affect the charcoal adsorber leaktight integrity, the results of in-place halogenated hydrocarbon tests at 2000 cfm ($\pm 10\%$) shall show less than or equal to 0.5% overall penetration in accordance with 3.8.H.2.b.

3. Postmaintenance Testing

a. After any maintenance or testing that could affect the leaktight integrity of the HEPA filters, perform in-place DOP tests on the HEPA filters in accordance with Specification 3.8.H.2.a.

b. After any maintenance or testing that could affect the leaktight integrity of the charcoal adsorber banks, perform halogenated hydrocarbon tests on the charcoal adsorbers in accordance with Specification 3.8.H.2.b.

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ATTACHMENT 2

SUMMARY OF CHANGES

A total of thirty-two (32) changes to the Quad Cities Station Units 1 and 2 Technical Specifications have been identified (16 per unit) and are listed below as follows:

1) Page 3.8/4.8-14a, DPR-29 and 30

- (a) Limiting Condition for Operation (LCO), 3.8.H.1 - Delete the word "and" and replace with the word "or", so that 3.8.H.1 now reads, "except as specified in Sections 3.8.H.1.a or b."

This change merely replaces the word "and" with "or" and is considered to be administrative.

- (b) LCO, 3.8.H.1.b. - Delete "or post maintenance" and replace with "of surveillance", so the sentence now reads, "does not apply during performance of surveillance testing, or during...".

Changes 1(b) clarifies the testing requirement and corrects a typographical error ("or" to "of"). The word "post-maintenance" has been changed to "surveillance".

This change is administrative in nature.

- (c) LCO, 3.8.H.2.a. - Add the statement, "per bank when tested with 0.3 micron DOP aerosol.", so the sentence now reads, "the results of the in-place DOP tests...with 0.3 micron DOP aerosol."

This change clarifies the testing results.

- (d) LCO, 3.8.H.2.b. - Delete the phrase, "charcoal banks shall show 1% penetration." and replace with "overallly charcoal banks shall show less than or equal to 0.5 penetration." Change 1(d) clarifies the testing requirements and reduces the allowable penetration percent to "0.5" to "1.0".

- (e) LCO, 3.8.H.2.c. - Delete the words "shall show 90% methyl iodide removal efficiency when tested at 130°C and 95% R.H." and replace with "of both carbon canisters shall show less than or equal to 0.5% methyl iodide penetration (overall) when tested at 30°C and 70° R.H.", so the sentence now reads, "The results of laboratory carbon sample analysis of both...at 30°C and 70% R.H."

Item 1(e) reduces the % allowable penetration to "0.5" from 10 (90% removal efficiency). Testing parameters have also been changed to "30°C and 70% R.H." from "130°C and 95% R.H."

- (f) Surveillance Requirements, (S.R.), 4.8.H.2.a. - Replace the word "absorbers" which exists in the current Technical Specifications, with the word "adsorbers", so the sentence now reads, "At least once per operating cycle...or charcoal adsorbers...".

This change is administrative as it corrects a typographical error.

- (g) S.R. 4.8.H.2.a.(2) - Replace the word "absorber" with the word "adsorber" (same change as that identified in Item 1f)), so the sentence now reads, "In-place test the charcoal adsorber...".

This change is administrative as it corrects a typographical error.

2) Page 3.8/4.8-14b, DPR-29 and 30

- (a) LCO 3.8.H.3.a. - Replace the word "heating" with the word "testing", so the sentence now reads, "After any maintenance or testing...".

This change corrects a typographical error replacing "heating" with the word "testing" and is administrative.

- (b) LCO 3.8.H.3.a. (con't) - Replace " $\leq 1\%$ penetration." with "less than or equal to 1.0% DOP penetration per bank in accordance with 3.8.H.2.a.", so the specification now reads, "After any maintenance or testing...less than or equal to...with 3.8.H.2.a.".

Item 2(b) changes the % penetration allowed from " ≤ 1.0 " to " ≤ 0.5 ".

- (c) LCO 3.8.H.3.b. - Replace the word "absorber" with the word "adsorber", so the sentence now reads, "After any maintenance or testing...adsorber...".

This change is administrative in nature and corrects a typographical error (adsorber instead of absorber).

- (d) LCO 3.8.H.3.b - Replace " $\leq 1\%$ penetration" with "less than or equal to 0.5% overall penetration in accordance with 3.8.H.2.b.", so the specification now reads, "After maintenance or testing...less than or equal to 0.5%...with 3.8.H.2.b."

This change reduces the % penetration allowed to " ≤ 0.5 " from " ≤ 1.0 ".

- (e) S.R. 4.8.H.2.a(3) - Delete "the charcoal absorber", and replace with "each charcoal adsorber bank.", so the sentence now reads "Remove one carbon test canister from each charcoal adsorber bank."

Change 2(e) clarifies the test requirements and corrects a typographical error (absorber vs. adsorber).

- (f) S.R. 4.8.H.3.b. - Replace "absorber" with the word "adsorber", so the sentence now reads, "After any maintenance...of the charcoal adsorber banks,...".

This change corrects a typographical error (absorber vs. adsorber).

3) Page 3.8/4.8-19, DPR-29 and 30

- (a) Bases Page, Item 3.8/4.8.E., SOLID RADIOACTIVE WASTE - The location for 3.8/4.8.E. has been interchanged with the location for 3.8/4.8.F. to put it in alphabetical order with the preceding item. The contents of Item 3.8/4.8.E. have not been changed, only the location has.

This change is administrative in nature.

- (b) Bases Page, Item 3.8/4.8.F., MISCELLANEOUS RADIOACTIVE MATERIALS SOURCES - The location for 3.8/4.8.F. have not been changed; only the location has.

This change is administrative in nature.

- (c) Bases Page, Item 3.8/4.8.H., CONTROL ROOM AIR FILTRATION - Add new paragraph following the first paragraph of this section which reads as follows, "The frequency of tests and sample analysis is necessary...to assure system performance capabilities."

This section has been added to reference applicable testing requirements and standards and is administrative in nature.

ATTACHMENT 3

EVALUATION OF SIGNIFICANT HAZARDS CONSIDERATION

DESCRIPTION OF PROPOSED AMENDMENT REQUEST

Overall, there are three (3) types of changes associated with this proposed license amendment, the first two of which are related. The first type of change results from increasing the filter efficiency for the charcoal adsorbers in the Control Room HVAC Air Filter Unit (AFU) to a more conservative value that was previously approved by the NRC. The increased filter efficiency ensures compliance with Control Room Habitability thyroid dose limitations. The second change pertains to clarification of testing requirements for the AFU's in the Surveillance portion of the Technical Specifications. This type of change is carried through in the applicable Technical Specifications. Lastly, changes to the Technical Specifications are included which correct grammatical and typographical errors. These changes are considered to be administrative in nature.

Quad Cities Station License Event Report (LER) 87-025, Revision 1, for DPR-29, dated April 15, 1988 was issued by the Station after it was determined that there was a conflict between a design basis assumption used in the Control Room Habitability Study and the existing Quad Cities Station Technical Specifications. The current Technical Specifications required 90% methyl iodide removal efficiencies for both the Standby Gas Treatment System and Control Room Ventilation Air Filtration Unit (AFU). The Study performed for Control Room Habitability assumed 99% overall decontamination efficiency for these trains. Therefore, the assumed organic iodide removal efficiency in the Study was more conservative than the values in the current Technical Specification.

A review of records and additional analysis has shown that the maximum thyroid dose allowed for Control Room personnel would not have been exceeded for any time in question.

Since this was identified on November 25, 1987, the Station has administratively assured that the proper efficiencies are currently maintained. It is the intent of this proposed Technical Specification change to ensure that the values assumed in the Control Room Habitability design, are maintained during plant operation, rather than via an administrative procedure.

BASIS FOR NO SIGNIFICANT HAZARDS CONSIDERATION

Commonwealth Edison has evaluated this proposed amendment and determined that it involves no significant hazards consideration. In accordance with the criteria of 10 CFR 50.92(c), a proposed amendment to an operating license involves no significant hazards considerations if operation of the facility, in accordance with the proposed amendment, would not:

1) Involve a significant increase in the probability or consequences of an accident previously evaluated because:

- (a) In general, increasing the filter efficiencies actually mitigates the consequences of an accident on control room personnel by lowering the thyroid dose received by personnel during an accident. In this case, the change assures that thyroid dose limits will be met at all times as defined in the Control Room Habitability report and as required by General Design Criteria (GDC) 19. By using these efficiency values (which were utilized in the Control Room Habitability report), the probability or consequences remain unchanged.

Therefore, these changes do not significantly increase the probability or consequences of previously evaluated accidents.

- (b) The other changes to the Technical Specifications (which include correction of typographical and grammatical errors) are administrative in nature and do not affect the probability or consequences of previously evaluated accidents.

2) Create the possibility of a new or different kind of accident from any accident previously evaluated because:

- (a) This change does not result in a direct change to the design or operation of the Control Room Air Filter Units, but rather establishes a higher efficiency value for their operation. The use of a higher efficiency value for the AFU's does not create the possibility of a new or different kind of accident from previously evaluated accidents.

- (b) The other types of changes noted in the proposed amendment are administrative in nature.

3) Involve a significant reduction in the margin of safety because:

- (a) The thyroid doses will be lower than what was previously allowed with a 90 percent filter efficiency. The use of this AFU efficiency value ensures that the Control Room Habitability design is met, which in turn ensures that operator thyroid dose limits will not exceed GDC-19 limits. Additionally, there are no changes being made to plant systems, hardware or in the manner that the systems are being operated. Therefore, the margin of safety as established in the Detailed Control Room Habitability report is maintained and not decreased as a result of this proposed change.

- (b) The second class of changes are corrections of typographical errors, and therefore do not affect the margin of safety as they are administrative.

Therefore, since the proposed license amendment satisfies the criteria specified in 10 CFR 50.92, Commonwealth Edison has determined that a no significant hazards consideration exist for these items. We further request their approval in accordance with the provisions of 10 CFR 50.91(a)(4).