



Prairie Island Nuclear Generating Plant  
Nuclear Management Company, LLC  
1717 Wakonade Dr East • Welch MN 55089

February 11, 2003

L-PI-03-011  
10 CFR 50.90  
GL 99-02

U S Nuclear Regulatory Commission  
Attn: Document Control Desk  
Washington, DC 20555-0001

**PRAIRIE ISLAND NUCLEAR GENERATING PLANT**  
Docket Nos. 50-282 License Nos. DPR-42  
50-306 DPR-60

**License Amendment Request (LAR) dated February 11, 2003**  
**Technical Specification 5.5.9, " Ventilation Filter Testing Program (VFTP)"**  
**Enhancements**

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Attached is a request for change to the Technical Specifications (TS), Appendix A and Additional Conditions, Appendix B, of the Operating Licenses, for the Prairie Island Nuclear Generating Plant (PINGP) Units 1 and 2. The Nuclear Management Company (NMC) submits this request in accordance with the provisions of 10 CFR 50.90.

This LAR proposes to revise TS 5.5.9, "Ventilation Filter Testing Program (VFTP)" by incorporating filter test face velocity limits for the: 1) Control Room Special Ventilation System (CRSVS); 2) Auxiliary Building Special Ventilation System (ABSVS); 3) Spent Fuel Pool Special and Inservice Purge Ventilation System (SFPSIPVS); and 4) Shield Building Ventilation System (SBVS). As a result of this proposed revision to TS 5.5.9, the requirements of an Additional Condition, for each unit, related to NRC Generic Letter (GL) 99-02 have been fulfilled and therefore are proposed to be deleted. A change to TS 5.5.9 paragraphs a and b is also proposed to revise the penetration and system bypass limit from 0.05% to 0.5% for the ventilation systems to which TS 5.5.9 applies. Prior to the recent license amendment 158/149, Prairie Island met the applicable regulatory dose limits with the TS penetration and system bypass limit of 1.0%, thus, the lower limit in current TS (0.05%) is not required to meet regulatory dose limits. However, the lower current TS limit (0.05%) will require additional maintenance of these ventilation systems that may impose unnecessary hardship on the plant. Thus, in this LAR NMC proposes a TS limit of 0.5%.

A081

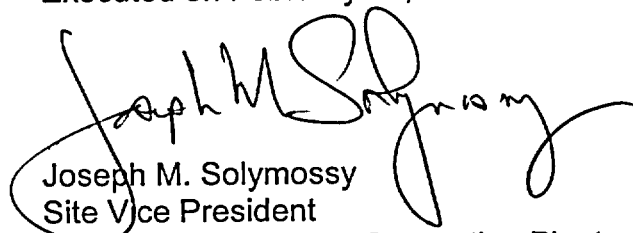
The Prairie Island Nuclear Generating Plant engineering department has completed the evaluation of the maximum face velocity for the ventilation systems included in TS Section 5.5.9 with the results contained in Attachment 1 of this letter. These results are presented in fulfillment of the requirements of an Additional Condition, for each unit, related to NRC Generic Letter (GL) 99-02. Based on these results, filter test face velocities for the applicable ventilation systems must be included in TS 5.5.9, "Ventilation Filter Testing Program (VFTP)" as required by the Additional Condition, for each unit, related to NRC Generic Letter (GL) 99-02. Inclusion of filtration system test face velocities in TS also meets the criteria set forth in NUREG-1431, Rev. 2, Improved Standard Technical Specifications, Westinghouse Plants.

Exhibit A contains the description of the specific proposed changes, the reasons for requesting the changes, the supporting Safety Evaluation, and the proposed Determination of No Significant Hazards Consideration. Exhibit B contains Technical Specification and Additional Condition pages marked up to show the proposed changes. Since there are no Bases associated with Section 5.0 of the TS, no Bases markups or corrections are included in this submittal. Exhibit C contains the revised Technical Specification and Additional Condition pages incorporating the proposed changes.

NMC is notifying the State of Minnesota of this LAR by transmitting a copy of this letter and attachments to the designated State Official.

This letter contains no new commitments and no revisions to existing commitments. Please address any comments or questions regarding this LAR to Mr. Dale Vincent or myself at 1-651-388-1121.

I declare under penalty of perjury that the foregoing is true and accurate.  
Executed on February 11, 2003.



Joseph M. Solymosy  
Site Vice President  
Prairie Island Nuclear Generating Plant

(Copies and enclosures shown on page 3)

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**NUCLEAR MANAGEMENT COMPANY**

C: Regional Administrator - Region III, NRC  
Senior Resident Inspector, NRC  
NRR Project Manager, NRC  
Glenn Wilson, State of Minnesota

Enclosures:

Attachment 1, "Face Velocities For Specific Prairie Island Ventilation Systems"  
Exhibit A, Description of Proposed Changes, Reasons for Requesting the  
Changes, Supporting Safety Evaluation and proposed Determination of  
No Significant Hazards Consideration  
Exhibit B, Marked Up Pages  
Exhibit C, Revised Pages

ATTACHMENT 1

Face Velocities For Specific Prairie Island Ventilation Systems

<u>Ventilation System</u>	<u>Face Velocity Test Value (fpm*)</u>
Control Room Special Ventilation System (CRSVS)	54
Auxiliary Building Special Ventilation System (ABSVS)	72
Spent Fuel Pool Special and Inservice Purge Ventilation System (SFPSIPVS)	47
Shield Building Ventilation System (SBVS)	47

\* feet per minute

## **EXHIBIT A**

### **PRAIRIE ISLAND NUCLEAR GENERATING PLANT**

#### **License Amendment Request dated February 11, 2003 Technical Specification 5.5.9, "Ventilation Filter Testing Program (VFTP)" Enhancements**

#### **Description of Proposed Changes, Reasons for Requesting the Changes, Supporting Safety Evaluation and proposed Determination of No Significant Hazards Consideration**

Pursuant to 10 CFR Part 50, Section 50.90 and in fulfillment of an Operating License Appendix B Additional Condition, for each unit, the holders of Operating Licenses DPR-42 and DPR-60 hereby propose the following changes to the Technical Specifications (TS) contained in Appendix A and Additional Conditions in Appendix B of the Facility Operating Licenses:

#### **BACKGROUND**

The TS changes proposed in this license amendment request (LAR) simplify presentation of TS Section 5.5.9, increase the filter penetration and system bypass values allowed by TS and include filter test face velocity limits that fulfill the requirements of an Operating License Additional Condition for each unit with respect to NRC Generic Letter 99-02 (GL 99-02). This LAR also proposes to delete the Appendix B Additional Condition for each unit of which this LAR fulfills the requirements.

GL 99-02, "Laboratory Testing of Nuclear-Grade Activated Charcoal", dated June 3, 1999, was issued to:

- 1) Alert addressees that the NRC has determined that testing nuclear-grade activated charcoal to standards other than American Society for Testing and Materials (ASTM) D3803 -1989, "Standard Test Method for Nuclear-Grade Activated Carbon," does not provide assurance for complying with the current licensing basis as it relates to the dose limits of General Design Criterion (GDC) 19 of Appendix A to Part 50 of Title 10 of the Code of Federal Regulations (10CFR) and Subpart A of 10 CFR Part 100;
- 2) Request that all addressees determine whether their TS reference ASTM D3803 -1989 for charcoal filter laboratory testing. Addressees whose TS do not reference ASTM D3803-1989 should either amend their TS to reference ASTM D3803 -1989 or propose an alternative test protocol and provide the information discussed in the requested actions;
- 3) Alert addressees of the staff's intent to exercise enforcement discretion under certain conditions; and

- 4) Request that all addressees send the NRC written responses to this generic letter, relating to implementation of the requested actions.

Prairie Island Nuclear Generating Plant (PINGP) letter dated December 3, 1999 provided a response to GL 99-02. In that response, PINGP discussed the current (1999) testing processes as a function of ASTM standard since 1989 although TS at that time required an earlier test protocol. PINGP used two tests, one to satisfy the PINGP TS and the other to satisfy ASTM D3803 -1989. PINGP required that the charcoal pass both tests to be acceptable. The TS requirements at that time included the test parameters of 130 °C and 95% relative humidity and acceptance criteria of 90% efficiency. Thus, PINGP met the TS requirements, and there were no operability concerns for any of the applicable ventilation systems.

In addition, GL 99-02 requested an LAR to be submitted to change the TS to require testing to ASTM D3803 -1989. Since PINGP already met the requirements that would be in the revised TS, PINGP proposed to wait to submit an LAR at a later date.

In a letter to the NRC dated October 18, 2001, the Nuclear Management Company (NMC) restated the commitment to submit a TS change, but proposed to extend the submittal date to December 2001. This extension was proposed in anticipation of an LAR implementing evaluation results using an alternate source term for PINGP. It was anticipated that using an alternate source term would result in a reduction in the need for crediting charcoal filtration. Therefore, performance of the additional alternate source term evaluations required more time to develop accurate TS. Since the alternate source term evaluations were taking longer than originally expected and the NRC desired to close GL 99-02 issues, NMC submitted proposed TS for GL 99-02 by letter dated December 12, 2001 as part of the LAR to convert to improved TS (ITS) (conformance to the format and guidance of NUREG-1431).

NRC letter dated February 8, 2002, stated, "In response to GL 99-02, you provided letters dated December 3, 1999, October 18, 2001, and December 12, 2001. Associated with your letter dated December 12, 2001, was a request for a license amendment to change your TSs to provide for testing as described in the GL. In addition, you have committed to test in accordance with ASTM D3803 -1989 until your TS amendment is issued. Therefore, we consider GL 99-02 to be closed for your facility. The TS change will be reviewed as a separate plant-specific action under (TAC Nos. MB3924 and MB3925)."

Upon further review of the subject PINGP letters, NRC reviewer Mr. Harold Walker provided six additional questions to be discussed during a telephone call with the NRC. A conference call on June 4, 2002, between the NRC Project Manager T.J. Kim, NRC

reviewer Mr. Harold Walker, NMC representatives Messrs. Jack Leveille, Doug LaLone, Mike Heller and Steve Frost, was conducted. During that conference call, NMC committed to re-evaluate the maximum filter face velocity values for the: 1) Control Room Special Ventilation System (CRSVS); 2) Auxiliary Building Special Ventilation System (ABSVS); 3) Spent Fuel Pool Special and Inservice Purge Ventilation System (SFPSIPVS); and the 4) Shield Building Ventilation System (SBVS). Subsequent to this telephone call, NMC agreed to submit an LAR, in the event that the maximum face velocities for the above listed ventilation systems exceed the criteria specified in GL 99-02 and its supplements, on or before February 28, 2003, to include the face velocities in the TS. This commitment was documented in NMC letter dated June 25, 2002 by proposal of an Additional (License) Condition for each Prairie Island Operating License.

Prior to LA-158/149, PINGP TS required the applicable ventilation system filters to demonstrate penetration and system bypass less than 1.0% in the DOP test of the high efficiency particulate air (HEPA) filter tests and the halogenated hydrocarbon tests. During the NRC/NMC telephone call on June 4, 2002 referenced above, the NRC requested NMC to specify penetration and system bypass less than 0.05% for these tests to be consistent with the guidance of NUREG-1431, Revision 1, improved Standard Technical Specifications, Westinghouse Plants. The 0.05% value is a bracketed number in NUREG-1431, Specification 5.5.9, "Ventilation Filter Testing Program (VFTP)". Under the rules for conformance with the improved Standard Technical Specifications (NUREG-1431), bracketed numbers can be replaced with pre-conversion TS values without further justification. During the NRC/NMC phone call on June 4, 2002, NMC accepted the bracketed < 0.05% value in the TS for the applicable ventilation systems even though the pre-conversion TS contained a penetration and system bypass value of < 1.0% for these tests, with the expectation that the < 0.05% penetration and system bypass value could be revised at a later date once ITS (LA-158/149) were implemented and the system bypass and testing capability were re-evaluated.

NMC implemented the conversion to ITS, LA-158/149, on October 12, 2002. In the process of complying with the Additional Conditions related to GL 99-02, NMC determined that the penetration and system bypass value less than 0.05% for HEPA and halogenated hydrocarbon tests will require additional system maintenance and this value is significantly more restrictive than required to satisfy the plant dose analyses. The penetration and system bypass value of < 0.05% will require more maintenance and/or replacement of filters with an associated increase in the cost of maintaining these filtration systems. In the opinion of NMC's testing service, it may be difficult to consistently meet this lower limit. In the past five years, 8 of the 54 halogenated hydrocarbon tests performed on these systems would have failed to meet 0.05%

penetration and system bypass. All of these tests passed the previous TS required 1.0% penetration and system bypass with significant margin.

The penetration and system bypass value for the systems included in TS 5.5.9 is an input to the site dose analyses. The site dose analyses are required to demonstrate that offsite dose and control room dose meet NRC regulatory limits. Prior to LA-158/149, PINGP met the regulatory dose limits with a TS penetration and system bypass limit of 1.0%. The PINGP dose analyses assume at least 5% filter bypass; therefore, a TS limit of 1.0% maintained a safety factor of at least 5 for the dose analyses.

There is a benefit to having a lower TS limit on the allowable penetration and system bypass in that, for a given source term, the resultant dose is lower when the penetration and system bypass limit is lower. Thus NMC in this LAR proposes TS to require penetration and system bypass to be less than 0.5% for the DOP tests on the HEPA filters and the halogenated hydrocarbon tests for the applicable ventilation systems. With this proposed change, operation of these systems will continue to meet NRC dose limits.

With the addition of paragraph 5.5.9.e, there are five paragraphs in this TS Section that spell out the names of the applicable ventilation systems. It is cumbersome and unnecessary to spell out these system names and thus these proposed TS changes define an abbreviation for each system. This change shortens this Section and avoids unnecessary repagination of TS Chapter 5.0 requirements.

#### PROPOSED CHANGES AND JUSTIFICATION OF CHANGES

A brief description of the proposed changes is provided below along with a discussion of the justification for each change. The specific wording changes to the Technical Specifications and Bases are provided in Exhibits B and C.

**TS 5.5.9, Ventilation Filter Testing Program, introductory paragraphs:** The first paragraph defines an abbreviation for each ventilation system and the second paragraph replaces the name of each ventilation system with its abbreviation.

This is an administrative change that improves clarity of the specification requirements by shortening the statements. Since no technical requirements have been affected this change is acceptable.

**TS 5.5.9.a and TS 5.5.9.b:** These paragraphs were revised to require penetration and system bypass less than 0.5% for the systems to which TS 5.5.9 applies. The parenthetical statement "(for DOP, particles having a mean diameter of 0.7 microns)" was deleted from paragraph TS 5.5.9.b.

This change proposes to revise the penetration and system bypass values from less than 0.05% to less than 0.5%. PINGP TS originally specified this value to be less than 1.0% prior to LA-158/149. The PINGP dose analyses assume at least 5% penetration and system bypass and thus assure that the regulatory limits are met with a factor of at least 5 over the required pre-LA158/149 TS limit. The proposed TS value of 0.5% allows less filter penetration and system bypass and thus assures that the dose analysis assumptions continue to be met. Therefore, revising the penetration and system bypass value to a limit higher than the current TS limit of 0.05% and less than its original value of 1.0% is supported by PINGP dose analyses and is acceptable.

The parenthetical statement in paragraph TS 5.5.9.b does not apply to the halogenated hydrocarbon test. This proposed change is acceptable since it corrects an error in the TS and makes them more accurate.

**TS 5.5.9.c:** The name of each ventilation system has been replaced with its abbreviation and the connective "and" was deleted.

Replacing the names with abbreviations is an editorial change that improves clarity of the specification requirements by shortening the statements. Deleting "and" is an editorial change required by the addition of paragraph 5.5.9.e. Since no technical requirements have been made these proposed changes are acceptable.

**TS 5.5.9.d:** The period was replaced with a semicolon and an "and" was added.

These are editorial changes required by the addition of paragraph 5.5.9.e. Since no technical requirements have been made these proposed changes are acceptable.

**TS 5.5.9.e:** The minimum filter test face velocities were added for the Control Room Special Ventilation System, Auxiliary Building Special Ventilation System, Spent Fuel Pool Special and Inservice Purge Ventilation System, and the Shield Building Ventilation System.

This change is proposed in fulfillment of an Additional Condition on the Operating License for each unit and in conformance to the guidance of GL 99-02. Unit 1 license amendment 158 and Unit 2 license amendment 149 each imposed an Additional Condition on the unit Operating License related to GL 99-02 that states:

The licensee will complete evaluation of the maximum test face velocity for the ventilation systems included in Technical Specifications (TS) Section 5.5.9 by February 28, 2003. The licensee will also submit a license amendment request for TS amendment by February 28, 2003, to specify the maximum test face velocity if the maximum actual face velocity is greater than 110 percent of 40 fpm based on the licensee's evaluation.

The technical requirements of these Additional Conditions are consistent with the guidance of GL 99-02 as clarified by errata issued August 23, 1999 and the guidance of NUREG-1431, Revision 2.

NMC has completed an evaluation of the maximum face velocity for each of the applicable TS filtration systems and determined that the actual face velocities for each system is greater than 110 percent of 40 fpm. Based on these evaluations, NMC proposes to add new paragraph 5.5.9.e that specifies the minimum filter test face velocities. This change is acceptable since it assures that these filtration systems are operated in a safe manner, conforms to the regulatory guidance and fulfills the requirements of the Prairie Island Operating License Additional Conditions.

The wording of the Additional Conditions and the proposed TS 5.5.9.e may appear to be inconsistent. The Additional Conditions state, "The licensee will also submit a license amendment request for TS amendment by February 28, 2003, to specify the maximum test face velocity if the maximum actual face velocity is greater than 110 percent of 40 fpm based on the licensee's evaluation" (emphasis added). The proposed TS 5.5.9.e states in part, "The filter test face velocity shall be greater than or equal to . . ." The intent of these Additional Conditions was to require NMC to perform evaluations and/or tests to determine the actual maximum filter face velocities for these systems. The filtration and adsorption capability of these systems is dependent on the flow rate through them. As the flow rate increases, the filtration and adsorption efficiencies will decrease. Since the actual maximum filter face velocity has been determined by evaluations or tests as required by the Additional Conditions, NMC is now proposing minimum filter test face velocities for these systems. The maximum actual face velocity, determined by test or evaluation, now becomes the minimum filter test face velocity. NMC must test these filters at face velocities greater than those specified to assure that the filters meet the other required test requirements. Meeting the test acceptance criteria at or above these filter test face velocities assures that the criteria will be met at the lower actual system filter face velocities. Thus, the proposed minimum filter test face velocities in TS 5.5.9.e fulfill the requirements of the Additional Conditions and there is not an inconsistency between these two documents.

**Unit 1 Operating License Additional Condition related to GL 99-02 added by LA-158 and Unit 2 Operating License Additional Condition related to GL 99-02 added by LA-149: Delete these Additional Conditions.**

This change proposes to delete the Operating License Additional Condition for both units that relate to GL 99-02. These Additional Conditions require NMC to complete evaluations of the maximum face velocity for the ventilation systems included in TS Section 5.5.9 by February 28, 2003. The subject Additional Conditions also require NMC to submit a license amendment by February 28, 2003 to specify the filter test face velocity if the maximum actual face velocity is greater than 110 percent of 40 fpm based on the evaluations. Incorporating the filter test face velocities of these systems provides additional assurance that the specific systems are performing in accordance with the required values on the specific systems. This is an administrative change that is acceptable since this LAR fulfills the requirements of the Additional Conditions and they are no longer needed.

**SAFETY EVALUATION**

This LAR proposes two technical changes: 1) revision of the allowable filtration penetration and system bypass for the TS ventilation systems; and 2) addition of allowable minimum filter test face velocities. This LAR also proposes editorial changes and administrative changes, the most significant of which are use of filtration system abbreviations and deletion of the Operating License Additional Conditions related to GL 99-02.

**Revision of the allowable filtration penetration and system bypass**

Current TS require the four ventilation systems to which TS Section 5.5.9 applies to have penetration and system bypass less than 0.05%. As discussed above in the Background section of this Exhibit, this limit was recently included in TS by LA-158/149. Previously TS allowed penetration and system bypass to be less than 1.0%. NMC accepted the < 0.05% limit in the TS for the applicable ventilation systems with the expectation that the < 0.05% bypass value could be revised at a later date. This LAR proposes to set the penetration and system bypass limit at 0.5% for these ventilation systems.

The current TS limit of 0.05% reduces the allowable bypass leakage by a factor of 20 compared to the previous TS limit. NMC has evaluated this current TS limit since it was accepted on June 4, 2002. Since PINGP is an older plant, the filtration units were not designed to meet these lower bypass leakage limits. In the past five years, 8 of the 54

halogenated hydrocarbon tests performed on these systems would have failed to meet the 0.05% bypass limit. To meet this lower limit, NMC will be required to perform more maintenance on the filter housings and may be required to replace filter units more frequently.

From a safety perspective it is not necessary to meet a penetration and system bypass limit of 0.05%. Prior to LA-158/149, the TS limit for penetration and system bypass for CRSVS, ABSVS, SBVS and SFPSIVS was 1.0%. The dose analyses for these ventilation systems assume at least 5.0% penetration and system bypass, thus a safety factor of at least five was maintained between the TS limit and the dose analyses. Assuming penetration and system bypass of at least 5.0%, the PINGP dose analyses for these systems met the applicable regulatory limits.

There is a benefit to having a lower TS limit on the allowable penetration and system bypass in that, for a given source term, the resultant dose is lower when the penetration and system bypass limit is lower. Thus NMC proposes to revise the TS penetration and system bypass limit to 0.5% in lieu of the previous limit of 1.0%. With this proposed change, operation of these systems will continue to meet NRC dose limits.

Ultimately the TS limit on ventilation system filtration penetration and system bypass does not affect safety. This limit is an input to the plant dose analyses. The end result is that plant dose analyses must demonstrate that the NRC regulatory limits are met with the appropriate safety factor applied to the TS bypass limit. The regulatory dose limits must be met regardless of the TS allowed filtration penetration and system bypass limit. Since the dose analyses have not been modified to credit 0.05% penetration and system bypass, this change has no effect on the site dose analyses which demonstrate that the regulatory limits are satisfied.

The PINGP TS will continue to protect the health and safety of the public with the penetration and system bypass limit less than or equal to 0.5% for the CRSVS, ABSVS, SBVS and SFPSIVS.

#### Addition of filter test face velocities

This LAR proposes to add minimum filter test face velocity values for CRSVS, ABSVS, SFPSIPVS, and SBVS. Analyses of the design basis accidents assume specific charcoal filter adsorption efficiencies for these systems when calculating offsite doses and control room doses. The charcoal filter adsorption efficiency is dependent on the flow rate of the filtered material through the filter train. The test flow rate must be greater than the actual system flow rate to assure the desired filter adsorption efficiencies are achieved during system operation.

Testing is periodically performed on the filtration trains to assure that the assumed filter adsorption efficiencies are met. The testing acceptance criteria contain a safety factor (safety factor of 2) to ensure that the efficiency assumed in the accident analysis is still valid at the end of the operating cycle. NMC has determined from testing that filter adsorber efficiencies are greater than or equal to those assumed in the design basis accident analyses if the actual system filter face velocities are less than the minimum filter test face velocities proposed in this LAR.

In accordance with the NMC evaluations, the actual maximum system filter face velocities for CRSVS, ABSVS, SFPSIPVS and SBVS all exceed 110 percent of 40 fpm, and therefore, in fulfillment of the Operating License Additional Conditions related to GL 99-02 and in conformance with the guidance of NUREG-1431, Revision 2, these minimum filter test face velocity limits have been placed in the new TS paragraph 5.5.9.e.

Placing the minimum filter test face velocities in TS provides added assurance that the charcoal filter systems perform within their design limits and support the plant specific safety analyses. The PINGP TS will continue to protect the health and safety of the public with the proposed filter test face velocities for CRSVS, ABSVS, SFPSIPVS and SBVS included in the TS.

#### Editorial and administrative changes

This LAR proposes editorial changes to TS Section 5.5.9 including replacement of ventilation system names with abbreviations and miscellaneous changes associated with addition of a new paragraph to this section. These editorial changes do not change any operating limits or requirements and the Prairie Island TS will continue to protect the health and safety of the public when these changes have been incorporated.

This LAR proposes to delete the Operating License Additional Condition for both units that relate to GL 99-02. These Additional Conditions require NMC to: 1) complete evaluations of the maximum test face velocity for the ventilation systems included in TS Section 5.5.9 by February 28, 2003; and 2) submit a license amendment request by February 28, 2003 to specify the maximum face velocity if the maximum actual face velocity is greater than 110 percent of 40 fpm based on the evaluations.

The evaluation of maximum actual filtration system test face velocity for the ventilation systems included in TS Section 5.5.9 has been completed. Based on the actual results of the evaluation, the filter face velocity for all four ventilation systems was greater than 110 percent of 40 fpm, thus requiring the filter test face velocities to be

incorporated into the TS. This is the LAR submittal that specifies the filter test face velocity in TS for these systems. Since the requirements of these Additional Conditions have been met, they can be deleted. This is an administrative change that does not change any technical requirements or operating limits. The Prairie Operating Licenses will continue to protect the health and safety of the public when these Additional Conditions have been deleted.

#### DETERMINATION OF NO SIGNIFICANT HAZARDS CONSIDERATION

The changes proposed in this license amendment request fall into three subject areas: 1) revision of the allowable filtration penetration and system bypass for the Technical Specification ventilation systems; 2) addition of minimum filter test face velocities; and 3) editorial and administrative changes. Since these subjects are significantly diverse from each other, the determination of no significant hazards consideration for each subject area will be addressed individually.

##### Revision of the allowable filtration penetration and system bypass

This license amendment request proposes to increase the penetration and system bypass limit for the control room special ventilation system, auxiliary building special ventilation system, spent fuel pool special and inservice purge ventilation system and shield building ventilation system from 0.05% to 0.5%. The proposed limit is consistent with plant dose analyses and the plant will continue to meet applicable assumptions of the safety analyses with this change.

1. The proposed amendment will not involve a significant increase in the probability or consequences of an accident previously evaluated.

This license amendment request proposes to increase the penetration and system bypass limit for the control room special ventilation system, auxiliary building special ventilation system, spent fuel pool special and inservice purge ventilation system and shield building ventilation system from 0.05% to 0.5%. These ventilation systems are included in the plant design to mitigate accident consequences and are not assumed accident initiators, thus, this change does not involve a significant increase in the probability of an accident. This change will assure that the subject ventilation systems will perform within their intended design ranges thus, this change assures that the consequences of an accident are not increased.

2. The proposed amendment will not create the possibility of a new or different kind of accident from any accident previously analyzed.

This proposed change does not alter the design, function, or operation of any plant component and does not install any new or different equipment. The malfunction of safety related equipment, assumed to be operable in the accident analyses, would not be caused as a result of the proposed Technical Specification change. No new failure mode has been created and no new equipment performance burdens are imposed. Therefore the possibility of a new or different kind of accident from those previously analyzed has not been created.

3. The proposed amendment will not involve a significant reduction in the margin of safety.

This license amendment request proposes to increase the penetration and system bypass limit for the control room special ventilation system, auxiliary building special ventilation system, spent fuel pool special and inservice purge ventilation system and shield building ventilation system from 0.05% to 0.5%. Site dose analyses are required to demonstrate that regulatory dose limits are met using Technical Specification allowed penetration and system bypass with an appropriate safety factor as an input to the evaluation. Since the dose analyses have not been modified to credit 0.05% penetration and system bypass, this proposed change has no effect on the dose analyses which demonstrate that the regulatory limits are satisfied. Since the NRC regulatory limits must continue to be met and the safety factor will not be changed by this proposed Technical Specification change, this change does not involve a significant reduction in the margin of safety.

#### Addition of filter test face velocities

This license amendment request proposes to add filter test face velocity minimum values for the control room special ventilation system, auxiliary building special ventilation system, spent fuel pool special and inservice purge ventilation system and shield building ventilation system. The Nuclear Management Company has determined from testing that actual system filter adsorber efficiencies are greater than or equal to those assumed in the design basis accident analyses if the actual system filter face velocities are less than the filter test face velocities proposed in this license amendment request. This change fulfills NRC requirements in an Operating License Additional Condition for each unit and is consistent with the guidance of NUREG-1431, Revision 2.

1. The proposed amendment will not involve a significant increase in the probability or consequences of an accident previously evaluated.

This license amendment request proposes to add filter test face velocity minimum values for the control room special ventilation system, auxiliary building special ventilation system, spent fuel pool special and inservice purge ventilation system and shield building ventilation system. These ventilation systems are included in the plant design to mitigate accident consequences and are not assumed accident initiators, thus, this change does not involve a significant increase in the probability of an accident. This change will assure that the subject ventilation systems will perform within their intended design ranges thus, this change assures that the consequences of an accident are not increased.

2. The proposed amendment will not create the possibility of a new or different kind of accident from any accident previously analyzed.

This proposed change does not alter the design, function, or operation of any plant component and does not install any new or different equipment. The malfunction of safety related equipment, assumed to be operable in the accident analyses, would not be caused as a result of the proposed Technical Specification change. No new failure mode has been created and no new equipment performance burdens are imposed. Therefore the possibility of a new or different kind of accident from those previously analyzed has not been created.

3. The proposed amendment will not involve a significant reduction in the margin of safety.

This license amendment request proposes to add filter test face velocity minimum values for the control room special ventilation system, auxiliary building special ventilation system, spent fuel pool special and inservice purge ventilation system and shield building ventilation system. These additional Technical Specification limits on system performance assures these ventilation systems are tested and maintained within their designed function limits and may increase the margin of safety for these systems. Therefore this change does not involve a significant reduction in the margin of safety.

#### Editorial and administrative changes

This license amendment request proposes editorial changes to Technical Specification Section 5.5.9 including replacement of ventilation system names with abbreviations and miscellaneous changes associated with addition of a new paragraph to this section.

These editorial changes do not change any plant operating limits or technical requirements. This license amendment request also proposes an administrative change to delete the Operating License (Appendix B) Additional Condition for each unit that relates to NRC Generic Letter 99-02. Since this license amendment request fulfills the requirements of these Additional Conditions they are no longer needed and can be deleted.

1. The proposed amendment will not involve a significant increase in the probability or consequences of an accident previously evaluated.

This license amendment request proposes editorial changes to Technical Specification Section 5.5.9, including replacement of ventilation system names with abbreviations and miscellaneous changes associated with addition of a new paragraph to this section, and proposes an administrative change to delete the Operating License Additional Condition for each unit that relates to NRC Generic Letter 99-02. Since these changes are editorial or administrative, they do not change any plant operating limits or technical requirements. Therefore these changes do not involve a significant increase in the probability or consequences of an accident previously evaluated.

2. The proposed amendment will not create the possibility of a new or different kind of accident from any accident previously analyzed.

This proposed change does not alter the design, function, or operation of any plant component and does not install any new or different equipment. The malfunction of safety related equipment, assumed to be operable in the accident analyses, would not be caused as a result of the proposed technical specification change. No new failure mode has been created and no new equipment performance burdens are imposed. Therefore, the possibility of a new or different kind of accident from those previously analyzed has not been created.

3. The proposed amendment will not involve a significant reduction in the margin of safety.

This license amendment request proposes editorial changes to Technical Specification Section 5.5.9, including replacement of ventilation system names with abbreviations and miscellaneous changes associated with addition of a new paragraph to this section, and proposes an administrative change to delete the Operating License Additional Condition for each unit that relates to NRC Generic Letter 99-02. Since these changes are editorial or administrative, they do not

change any plant operating limits or technical requirements. Therefore these changes do not involve a significant reduction in the margin of safety.

Considering the above evaluations and pursuant to 10CFR50.91, the Nuclear Management Company has determined that operation of the Prairie Island Nuclear Generating Plant in accordance with this proposed license amendment request does not involve a significant hazards consideration as defined by Nuclear Regulatory Commission regulations in 10CFR50.92.

### ENVIRONMENTAL ASSESSMENT

The Nuclear Management Company has evaluated the proposed change and determined that:

1. The changes do not involve a significant hazards consideration,
2. The changes do not involve a significant change in the types or significant increase in the amounts of any effluents that may be released offsite, and
3. The changes do not involve a significant increase in individual or cumulative occupational radiation exposure.

Accordingly, the proposed change meets the eligibility criterion for categorical exclusion set forth in 10CFR51.22(c)(9). Therefore, pursuant to 10CFR51.22(b), an environmental assessment of the proposed changes is not required.

**EXHIBIT B**

**PRAIRIE ISLAND NUCLEAR GENERATING STATION**

**License Amendment Request dated February 11, 2003**

**Marked Up Pages**

(Additions shaded, deletions strikethrough)

Appendix A, Technical Specification

Marked Up Pages

TS 5.0-23

TS 5.0-23 overflow designated as TS 5.0-24 for this markup

Appendix B, Additional Conditions

Marked Up Pages

Facility Operating License No. DPR-42 (Unit 1) B-3

Facility Operating License No. DPR-60 (Unit 2) B-3

## 5.5 Programs and Manuals (continued)

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### 5.5.9 Ventilation Filter Testing Program (VFTP)

A program shall be established to implement the following required testing of the Control Room Special Ventilation System CRSVS, Auxiliary Building Special Ventilation System ABSVS, Shield Building Ventilation System SBVS, and the Spent Fuel Pool Special and Inservice Purge Ventilation System SFPSIPVS each operating cycle (18 months for shared systems).

Demonstrate for the ABSVS Auxiliary Building Special Ventilation, SBVS Shield Building Ventilation, CRSVS Control Room Special Ventilation, and SFPSIPVS Spent Fuel Pool Special and Inservice Purge Ventilation Systems that:

- a. An inplace DOP test of the high efficiency particulate air (HEPA) filters shows a penetration and system bypass  $< 0.05\%$  (for DOP, particles having a mean diameter of 0.7 microns);
- b. A halogenated hydrocarbon test of the inplace charcoal adsorber shows a penetration and system bypass  $< 0.05\%$  (for DOP, particles having a mean diameter of 0.7 microns);
- c. 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: 1) 15% penetration for ABSVS Auxiliary Special Ventilation System, 2) 15% penetration for SBVS Shield Building Ventilation System, 3) 7.5% penetration for the SFPSIPVS Spent Fuel Pool Special and Inservice Purge System, and 4) 2.5% penetration for the CRSVS Control Room Special Ventilation System when tested in accordance with ASTM D3803-1989 at a temperature of 30°C and 95% relative humidity (RH); and
- d. The pressure drop across the combined HEPA filters and the charcoal adsorbers is less than 6 inches of water at the system flowrate  $\pm 10\%$  and

*e. The filter test face velocity shall be greater than or equal to the following values for each system: 1) 54 fpm for the CRSVS, 2) 72 fpm for the ABSVS, 3) 47 fpm for the SBVS, and 4) 47 fpm for the SFPSIPVS.*

## APPENDIX B

### ADDITIONAL CONDITIONS

#### FACILITY OPERATING LICENSE NO. DPR-42

<u>Amendment Number</u>	<u>Additional Conditions</u>	<u>Implementation Date</u>
158	<p>The schedule for performing Surveillance Requirements (SRs) that are new or revised in Amendment No. 158 shall be as follows:</p> <p>For SRs that are new in this amendment, the first performance is due at the end of the first surveillance interval, which begins on the date of implementation of this amendment.</p> <p>For SRs that existed prior to this amendment, whose intervals of performance are being reduced, the first reduced surveillance interval begins upon completion of the first surveillance performed after implementation of this amendment.</p> <p>For SRs that existed prior to this amendment that have modified acceptance criteria, the first performance is due at the end of the surveillance interval that began on the date the surveillance was last performed prior to the implementation of this amendment.</p> <p>For SRs that existed prior to this amendment, whose intervals of performance are being extended, the first extended surveillance interval begins upon completion of the last surveillance performed prior to the implementation of this amendment.</p>	October 31, 2002
158	The licensee is authorized to relocate certain Technical Specification requirements previously included in Appendix A to licensee-controlled documents, as described in Table LR, "Less Restrictive Changes – Relocated Details," and Table R, "Relocated Specifications," attached to the NRC staff's safety evaluation dated July 26, 2002. Those requirements shall be relocated to the appropriate documents no later than October 31, 2002.	October 31, 2002
158	<del>The licensee will complete evaluation of the maximum test face velocity for the ventilation systems included in Technical Specifications (TS) Section 5.5.9 by February 28, 2003. The licensee will also submit a license amendment request for TS amendment by February 28, 2003, to specify the maximum test face velocity if the maximum actual face velocity is greater than 110 percent of 40 fpm based on the licensee's evaluation.</del>	<del>February 28, 2003</del>

## APPENDIX B

### ADDITIONAL CONDITIONS

#### FACILITY OPERATING LICENSE NO. DPR-60

<u>Amendment Number</u>	<u>Additional Conditions</u>	<u>Implementation Date</u>
149	<p>The schedule for performing Surveillance Requirements (SRs) that are new or revised in Amendment No. 149 shall be as follows:</p> <p>For SRs that are new in this amendment, the first performance is due at the end of the first surveillance interval, which begins on the date of implementation of this amendment.</p> <p>For SRs that existed prior to this amendment, whose intervals of performance are being reduced, the first reduced surveillance interval begins upon completion of the first surveillance performed after implementation of this amendment.</p> <p>For SRs that existed prior to this amendment that have modified acceptance criteria, the first performance is due at the end of the surveillance interval that began on the date the surveillance was last performed prior to the implementation of this amendment.</p> <p>For SRs that existed prior to this amendment, whose intervals of performance are being extended, the first extended surveillance interval begins upon completion of the last surveillance performed prior to the implementation of this amendment.</p>	October 31, 2002
149	The licensee is authorized to relocate certain Technical Specification requirements previously included in Appendix A to licensee-controlled documents, as described in Table LR, "Less Restrictive Changes – Relocated Details," and Table R, "Relocated Specifications," attached to the NRC staff's safety evaluation dated July 26, 2002. Those requirements shall be relocated to the appropriate documents no later than October 31, 2002.	October 31, 2002
149	<del>The licensee will complete evaluation of the maximum test face velocity for the ventilation systems included in Technical Specifications (TS) Section 5.5.9 by February 28, 2003. The licensee will also submit a license amendment request for TS amendment by February 28, 2003, to specify the maximum test face velocity if the maximum actual face velocity is greater than 110 percent of 40 fpm based on the licensee's evaluation.</del>	<del>February 28, 2003</del>

**EXHIBIT C**

**PRAIRIE ISLAND NUCLEAR GENERATING STATION**

**License Amendment Request dated February 11, 2003**

**Revised Pages**

Appendix A, Technical Specification

Revised Page

TS 5.0-23

Appendix B, Additional Conditions

Revised Pages

Facility Operating License No. DPR-42 (Unit 1) B-3  
Facility Operating License No. DPR-60 (Unit 2) B-3

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5.5 Programs and Manuals (continued)

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5.5.9 Ventilation Filter Testing Program (VFTP)

A program shall be established to implement the following required testing of the Control Room Special Ventilation System (CRSVS), Auxiliary Building Special Ventilation System (ABSVS), Shield Building Ventilation System (SBVS), and the Spent Fuel Pool Special and Inservice Purge Ventilation System (SFPSIPVS) each operating cycle (18 months for shared systems).

Demonstrate for the ABSVS, SBVS, CRSVS, and SFPSIPVS systems that:

- a. An inplace DOP test of the high efficiency particulate air (HEPA) filters shows a penetration and system bypass  $< 0.5\%$  (for DOP, particles having a mean diameter of 0.7 microns);
- b. A halogenated hydrocarbon test of the inplace charcoal adsorber shows a penetration and system bypass  $< 0.5\%$ ;
- c. 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: 1) 15% penetration for ABSVS, 2) 15% penetration for SBVS, 3) 7.5% penetration for the SFPSIPVS, and 4) 2.5% penetration for the CRSVS when tested in accordance with ASTM D3803-1989 at a temperature of 30°C and 95% relative humidity (RH);
- d. The pressure drop across the combined HEPA filters and the charcoal adsorbers is less than 6 inches of water at the system flowrate  $\pm 10\%$ ; and
- e. The filter test face velocity shall be greater than or equal to the following values for each system: 1) 54 fpm for the CRSVS, 2) 72 fpm for the ABSVS, 3) 47 fpm for the SBVS, and 4) 47 fpm for the SFPSIPVS.

APPENDIX B

ADDITIONAL CONDITIONS

FACILITY OPERATING LICENSE NO. DPR-42

<u>Amendment Number</u>	<u>Additional Conditions</u>	<u>Implementation Date</u>
1758	<p>The schedule for performing Surveillance Requirements (SRs) that are new or revised in Amendment No. 158 shall be as follows:</p> <p>For SRs that are new in this amendment, the first performance is due at the end of the first surveillance interval, which begins on the date of implementation of this amendment.</p> <p>For SRs that existed prior to this amendment, whose intervals of performance are being reduced, the first reduced surveillance interval begins upon completion of the first surveillance performed after implementation of this amendment.</p> <p>For SRs that existed prior to this amendment that have modified acceptance criteria, the first performance is due at the end of the surveillance interval that began on the date the surveillance was last performed prior to the implementation of this amendment.</p> <p>For SRs that existed prior to this amendment, whose intervals of performance are being extended, the first extended surveillance interval begins upon completion of the last surveillance performed prior to the implementation of this amendment.</p>	October 31, 2002
158	<p>The licensee is authorized to relocate certain Technical Specification requirements previously included in Appendix A to licensee-controlled documents, as described in Table LR, "Less Restrictive Changes – Relocated Details," and Table R, "Relocated Specifications," attached to the NRC staff's safety evaluation dated July 26, 2002. Those requirements shall be relocated to the appropriate documents no later than October 31, 2002.</p>	October 31, 2002

APPENDIX B

ADDITIONAL CONDITIONS

FACILITY OPERATING LICENSE NO. DPR-60

<u>Amendment Number</u>	<u>Additional Conditions</u>	<u>Implementation Date</u>
149	<p>The schedule for performing Surveillance Requirements (SRs) that are new or revised in Amendment No. 149 shall be as follows:</p> <p>For SRs that are new in this amendment, the first performance is due at the end of the first surveillance interval, which begins on the date of implementation of this amendment.</p> <p>For SRs that existed prior to this amendment, whose intervals of performance are being reduced, the first reduced surveillance interval begins upon completion of the first surveillance performed after implementation of this amendment.</p> <p>For SRs that existed prior to this amendment that have modified acceptance criteria, the first performance is due at the end of the surveillance interval that began on the date the surveillance was last performed prior to the implementation of this amendment.</p> <p>For SRs that existed prior to this amendment, whose intervals of performance are being extended, the first extended surveillance interval begins upon completion of the last surveillance performed prior to the implementation of this amendment.</p>	October 31, 2002
149	<p>The licensee is authorized to relocate certain Technical Specification requirements previously included in Appendix A to licensee-controlled documents, as described in Table LR, "Less Restrictive Changes – Relocated Details," and Table R, "Relocated Specifications," attached to the NRC staff's safety evaluation dated July 26, 2002. Those requirements shall be relocated to the appropriate documents no later than October 31, 2002.</p>	October 31, 2002