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James Knubel
Senior Vice President and
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September 7, 2000
IPN-00-064

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

SUBJECT: Indian Point 3 Nuclear Power Plant
Docket No. 50-286
License No. DPR-64
**Proposed Technical Specification Amendment to Extend the
Surveillance Frequency for the Fuel Storage Building Emergency
Ventilation System**

Dear Sir:

This application for amendment to the Indian Point 3 Technical Specifications (TS) proposes to amend Section 4.5.A.6, "Fuel Storage Building Emergency Ventilation System," (FSBEV) of Appendix A to the Facility Operating License. The proposed TS amendment would extend the surveillance frequency from 720 hours to 1440 hours for the FSBEV system. This change is acceptable because it is reasonable to expect satisfactory filter performance at this extended frequency based on past surveillance results.

This proposed TS amendment is desired before the next refueling outage, scheduled for May 2001. To support our outage schedule, we request approval of this amendment prior to March 31, 2001. Extending the FSBEV filter testing frequency will preclude interrupting work in order to perform FSBEV filter testing, since the filters need to be maintained operable prior to, during and after refueling for work activities in the FSB. More frequent testing than necessary is a resource burden, and may extend the outage, imposing an additional economic penalty.

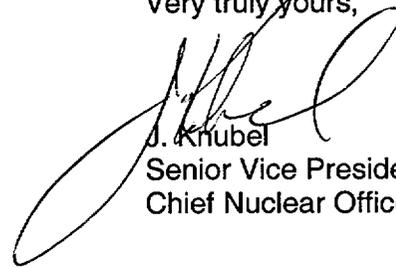
The signed original of the Application for Amendment to the Operating License is enclosed for filing. Attachment I contains the proposed new TS pages and Attachment II is the Safety Evaluation for the proposed change. A markup of the affected current TS pages and Improved Technical Specification is included in Attachment III, for information only.

A copy of this application and the associated attachments is being provided to the designated New York State official in accordance with 10 CFR 50.91.

ADD1

Indian Point 3 is not making any new commitments associated with this letter. If you have any questions regarding this submittal, please contact Ms. C. D. Faison.

Very truly yours,



J. Khubel
Senior Vice President and
Chief Nuclear Officer

Attachments: as stated

cc: Mr. Hubert J. Miller
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**BEFORE THE UNITED STATES
NUCLEAR REGULATORY COMMISSION**

In the Matter of)	
NEW YORK POWER AUTHORITY)	Docket No. 50-286
Indian Point 3 Nuclear Power Plant)	

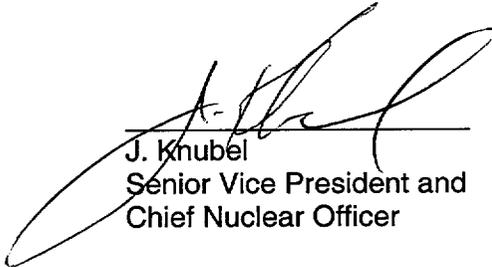
APPLICATION FOR AMENDMENT TO OPERATING LICENSE

The New York Power Authority requests an amendment to the Technical Specifications (TS) contained in Appendix A to Facility Operating License DPR-64 for the Indian Point 3 Nuclear Power Plant. This application is filed in accordance with 10 CFR 50.90 of the Nuclear Regulatory Commission's regulations.

This application for amendment to the Indian Point 3 Technical Specifications proposes to amend Section 4.5.A.6, "Fuel Storage Building Emergency Ventilation System," of Appendix A to the Facility Operating License. The proposed amendment would extend the surveillance frequency from 720 hours to 1440 hours for the fuel storage building filter system. This change is acceptable because it is reasonable to expect satisfactory filter performance at this extended frequency based on past surveillance results.

The signed original of the Application for Amendment to the Operating License is enclosed for filing. Attachment I includes the proposed changes to the TS pages. The Safety Evaluation for these changes is provided in Attachment II. A markup of the affected TS page and pending Improved TS is included in Attachment III for information only.

New York Power Authority



J. Khubel
Senior Vice President and
Chief Nuclear Officer

**STATE OF NEW YORK
COUNTY OF WESTCHESTER**
Subscribed and sworn to before me
this 7th day of Sept., 2000.



EILEEN E. O'CONNOR
Notary Public, State of New York
No. 4991062
Qualified in Westchester County
Commission Expires January 21, 2002

ATTACHMENT I TO IPN-00-064

Proposed Technical Specification Page for
Proposed Technical Specification Amendment to Extend the Surveillance
Frequency for the Fuel Storage Building Emergency Ventilation System

Remove existing page: 4.5-5;

Insert attached page 4.5-5

NEW YORK POWER AUTHORITY
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DPR-64

- e. Each toxic gas monitoring system shall be demonstrated operable by performance of a channel check at least once per day, a channel test at least once per 31 days and a channel calibration at least once per 18 months.

6. Fuel Storage Building Emergency Ventilation System

- a. The fuel storage building emergency ventilation system fan shall be operated for a minimum of 15 minutes every month when there is irradiated fuel in the spent fuel pit.
- b. Prior to handling of irradiated fuel, the following conditions shall be demonstrated before the system can be considered operable:
 - (1) The pressure drop across the combined HEPA filters and charcoal adsorber banks is less than 6 inches of water at ambient conditions and accident design flow rates.
 - (2) Using either direct or indirect measurements, the flow rate of the system fans shall be shown to be at least 90% of the accident design flow rate.
 - (3) The filtration system bypass assembly shall be isolated and leak tested to assure that it is properly sealed.
- c. Prior to handling of irradiated fuel, or at any time fire, chemical releases or work done on the filters could alter their integrity or after every 1440 hours of charcoal adsorber use since the last test, the following conditions shall be demonstrated before the system can be considered operable:
 - (1) Charcoal shall have a methyl iodine removal efficiency $\geq 90\%$ at $\pm 20\%$ of the accident design flow rate, 0.05 to 0.15 mg/m³ inlet methyl iodine concentration, $\geq 95\%$ relative humidity and $\geq 125^{\circ}\text{F}$.
 - (2) A halogenated hydrocarbon (freon) test on charcoal adsorbers at $\pm 20\%$ of the accident design flow rate and ambient conditions shall show $\geq 99\%$ halogenated hydrocarbon removal.

ATTACHMENT II TO IPN-00-064

Safety Evaluation for Proposed Technical Specification Amendment to Extend the
Surveillance Frequency for the Fuel Storage Building Emergency Ventilation System

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Safety Evaluation for Proposed Technical Specification Amendment to Extend the Surveillance Frequency for the Fuel Storage Building Emergency Ventilation System

I. Description of Proposed Change

This application for amendment to the Indian Point 3 Technical Specifications proposes to amend Section 4.5.A.6, "Fuel Storage Building Emergency Ventilation System," (FSBEV) of Appendix A to the Facility Operating License. The proposed amendment would extend the surveillance frequency from 720 hours to 1440 hours for the FSBEV system. The proposed change is:

In Section 4.5.A.6.c, page 4.5-5, replace "720 hours" with "1440 hours."

Note that Reference 1 is a pending Technical Specification Amendment that changed the filter testing program to adopt testing in accordance with ASTM D 3803-1989, except where the plant's design dictated deviation. The adoption of this standard allows for the safety margin to be at least 2, as committed to in Reference 1.

II. Purpose of Proposed Change

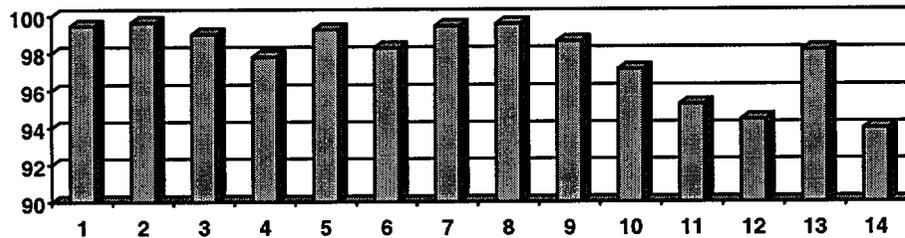
This proposed Technical Specification Amendment is desired before the next refueling outage, scheduled for May 2001. To support our outage schedule, we request approval of this amendment prior to March 31, 2001.

Extending the FSBEV filter testing frequency will preclude interrupting work activities in order to perform FSBEV filter testing, since the filters need to be maintained operable prior to, during and after refueling for work activities in the FSB. The design and operation of the FSBEV system results in the charcoal remaining in service for greater than 720 hours. About one month before moving irradiated fuel in the FSB, some of the new fuel is moved into the spent fuel pit to accommodate storage of all the new fuel. This requires the FSBEV system to be operable per Technical Specifications 3.8.A.12 because of moving the crane over the spent fuel pit. In order for the FSBEV to be made operable, manual isolation devices are installed and in-place leak testing is performed to ensure airflow through the charcoal and HEPA adsorbers. Between the time that new fuel is stored in the spent fuel pit and irradiated fuel is moved in the FSB, normal ventilation is required, not filtration, to maintain temperate conditions. During these times, the tested configuration is maintained to preclude unnecessary disassembly, re-assembly and in-place testing of the charcoal manual bypass isolation devices. Therefore, longer service duration is required between periodic FSBEV system filter testing. More frequent testing than necessary is a resource burden and may extend the outage, which would impose an additional economic penalty.

III. Safety Implication of Proposed Changes

Technical Specification section 4.5.A.6.c requires surveillance on the FSBEV system at a frequency of 720 hours to determine methyl iodine removal efficiency of the charcoal and leak tightness and visual inspection of the charcoal and High Efficiency Particulate Adsorbers (HEPA). For twelve (12) years of charcoal service life in the FSBEV system, the below table shows the performance of the charcoal filters:

FSBEV Charcoal % Efficiency



Graph Legend	1	2	3	4	5	6	7	8	9	10	11	12	13	14
Date	5/87	4/90	8/90	4/92	6/92	6/96	1/97	4/97	5/97	6/97	8/98	11/98	4/99	7/99
% Efficiency	99.46	99.64	99.00	97.81	99.25	98.26	99.45	99.57	98.62	97.13	95.25	94.44	98.14	93.95
←----- ~4300 operating hours ----->														

During the twelve years of service life, the charcoal met the Technical Specification requirement for efficiency with margin to the requirement of $\geq 90\%$. Between January 1997 through July 1999, the charcoal filter experienced approximately 4300 hours of service with a sufficiently predictable trend. Based on these 4300 hours of operation with filter performance maintained above the required 90% criteria, it is reasonable to expect satisfactory filter performance with an extended surveillance frequency of 1440 hours. In August 1999, the charcoal was replaced and tested to an efficiency of $>98.9\%$ in accordance with ASTM D-3803-1989 and at a face velocity of 50 ft/min. With the adoption of the testing standard ASTM D-3803-1989, there is a higher confidence that the safety factor of at least 2 will be ensured with charcoal surveillance results of $\geq 90\%$. The IP3 Safety Analysis Report assumes no credit for FSBEV charcoal filtration but presents that if credit were taken for charcoal filtration at a 90% elemental iodine and a 70% organic iodine removal rate, then the dose to the thyroid for site boundary would be a value well within 10CFR100. Comparing the 70% organic iodine removal rate used in the analysis to the $\geq 90\%$ methyl iodine removal rate as tested would represent a safety factor of 3 which is more conservative than the required safety factor of 2.

Regulatory Guide 1.52 (Reference 2) and Generic Letter 83-13 (Reference 3) do not require in-place penetration and bypass leakage testing of the charcoal or HEPA adsorbers based on system operating time, rather they recommend testing every refueling cycle or when the integrity of the adsorber section is affected. This change will not change the requirement to perform in-place testing and visual inspections every refueling cycle that is implemented by the IP3 TS requirement in section 4.5.A.6.c with the words "Prior to handling irradiated fuel." Nor will this change reduce any requirement to perform testing when filter integrity is affected as required by the same section.

However, this change will extend the frequency to 1440 hours for in-place testing and visual inspection to coincide with the requirement to test the charcoal efficiency since removing samples affects charcoal adsorber integrity. A review of past data shows that the in-place as-left testing met the TS criteria of >99% for the data reviewed.

This proposed change is acceptable because it is reasonable to expect satisfactory filter performance at this extended frequency based on past surveillance results. Additionally, it can enhance system operation in that it would reduce the number of times the charcoal filters would need to be dismantled to obtain samples.

IV. Evaluation of Significant Hazards Consideration

Consistent with the criteria of 10 CFR 50.92, the enclosed application is judged to involve no significant hazards based on the following information:

- (1) Does the proposed license amendment involve a significant increase in the probability or consequences of an accident previously evaluated?

Response:

The proposed license amendment does not involve a significant increase in the probability or consequences of an accident previously evaluated. Extending the surveillance frequency from 720 hours to 1440 hours for the Fuel Storage Building Emergency Ventilation (FSBEV) System charcoal and HEPA adsorbers does not involve any modifications to the plant, will not require changes to how the plant is operated nor will it affect the operation of the plant. Filter systems are not initiators of accidents, and therefore extending the filter surveillance frequency will not increase the probability of an accident. The way the filters perform will not be changed by extending the surveillance frequency. In addition, it is reasonable to expect satisfactory filter performance at this extended frequency based on past surveillance results. Hence, there is no change in the assumptions of an accident. Therefore, this change will not increase the consequences of an accident previously evaluated.

- (2) Does the proposed license amendment create the possibility of a new or different kind of accident from any accident previously evaluated?

Response:

The proposed license amendment does not create the possibility of a new or different kind of accident from any accident previously evaluated. Extending the surveillance frequency from 720 hours to 1440 hours for the FSBEV charcoal and HEPA adsorbers does not involve any modifications to the plant, will not require changes to how the plant is operated nor will it affect the operation of the plant. Therefore, extending the surveillance frequency will not create the possibility of a new or different kind of accident from any accident previously evaluated.

- 3) Does the proposed license amendment involve a significant reduction in a margin of safety?

Response:

The proposed license amendment does not involve a significant reduction in a margin of safety. Extending the surveillance frequency from 720 hours to 1440 hours for the FSBEV charcoal and HEPA adsorbers does not change the TS required methyl iodine efficiency removal requirement of $\geq 90\%$ that ensures a safety factor of at least 2. This change is acceptable because it is reasonable to expect satisfactory filter performance at this extended frequency based on past surveillance results, hence it is reasonable to expect that the additional 720 hours before testing will not result in the safety factor being diminished. Thus, the proposed change would not involve a significant reduction in a margin of safety.

V. Implementation of The Proposed Changes

This amendment request meets the eligibility criteria for a categorical exclusion set forth in 10 CFR 51.22 (c)(9) as follows:

- (i) The amendment involves no significant hazards consideration.

As demonstrated in Section IV of this Safety Evaluation, the proposed TS change involves no significant hazards consideration.

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

The proposed change will not result in changes in the operation or configuration of the facility. There will be no change in the level of controls or methodology used for processing of radioactive effluents or the handling of solid radioactive waste; nor will the proposal result in any change in the normal radiation levels within the plant. Therefore, there will be no change in the types or significant increase in the amounts of any effluents released offsite resulting from this TS change.

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

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

Based on the above, we conclude that the proposed changes meet the criteria specified in 10 CFR 51.22 for a categorical exclusion from the requirements of 10 CFR 51.21 relative to requiring a specific environmental assessment by the Commission.

VI. Conclusion

The proposed change will not alter assumptions relative to the mitigation of an accident or transient event. These changes will not adversely affect normal plant operation and testing. The proposed changes are consistent with the current safety analysis assumptions and with the Westinghouse Standard Technical Specifications.

The Plant Operating review Committee (PORC) and the Safety Review Committee (SRC) have reviewed this proposed TS amendment and have concluded that it does not involve a significant hazards consideration and will not endanger the health and safety of the public.

VII. References

- 1) NYPA letter to the NRC, "Response to NRC Generic Letter 99-02 and Application for Technical Specification Amendment for Laboratory Testing of Nuclear-Grade Activated Charcoal," dated November 29, 1999, IPN-99-123.
- 2) USNRC Regulatory Guide 1.52, "Design, Testing and Maintenance Criteria for Post-Accident ESF Atmospheric Cleanup System Air Filtration and Adsorption Units of Light-Water-Cooled Nuclear Power Plants," Revision 2.
- 3) USNRC Generic Letter 83-13, dated 3/2/1983, "Clarification of Surveillance Requirements for HEPA Filters and Charcoal Adsorber Units in Standard Technical Specifications on ESF Cleanup Systems."

ATTACHMENT III TO IPN-00-064

**Technical Specification and Improved Technical Specification
Marked-up Pages for information only**

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- e. Each toxic gas monitoring system shall be demonstrated operable by performance of a channel check at least once per day, a channel test at least once per 31 days and a channel calibration at least once per 18 months.

6. Fuel Storage Building Emergency Ventilation System

- a. The fuel storage building emergency ventilation system fan shall be operated for a minimum of 15 minutes every month when there is irradiated fuel in the spent fuel pit.
- b. Prior to handling of irradiated fuel, the following conditions shall be demonstrated before the system can be considered operable:
 - (1) The pressure drop across the combined HEPA filters and charcoal adsorber banks is less than 6 inches of water at ambient conditions and accident design flow rates.
 - (2) Using either direct or indirect measurements, the flow rate of the system fans shall be shown to be at least 90% of the accident design flow rate.
 - (3) The filtration system bypass assembly shall be isolated and leak tested to assure that it is properly sealed.
- c. Prior to handling of irradiated fuel, or at any time fire, chemical releases or work done on the filters could alter their integrity or after every ~~720~~ 1440 hours of charcoal adsorber use since the last test, the following conditions shall be demonstrated before the system can be considered operable:
 - (1) Charcoal shall have a methyl iodine removal efficiency $\geq 90\%$ at $\pm 20\%$ of the accident design flow rate, 0.05 to 0.15 mg/m³ inlet methyl iodine concentration, $\geq 95\%$ relative humidity and $\geq 125^{\circ}\text{F}$.
 - (2) A halogenated hydrocarbon (freon) test on charcoal adsorbers at $\pm 20\%$ of the accident design flow rate and ambient conditions shall show $\geq 99\%$ halogenated hydrocarbon removal.

5.5 Programs and Manuals

5.5.10 Ventilation Filter Testing Program (VFTP)

This program provides controls for implementation of required testing the ventilation filter function for the Fuel Storage Building Emergency Ventilation System (FSBEVS), Control Room Ventilation System, Containment Fan Cooler Units, and Containment Purge System.

Applicable tests described in Specifications 5.5.10.a, 5.5.10.b, 5.5.10.c and 5.5.10.d shall be performed:

- 1) After 720 hours of charcoal adsorber use since the last test for the above systems except the FSBEVS; and,
- 2) After 1440 hours of charcoal adsorber use since the last test for the FSBEVS; and,
- 3) Every 24 months for the Fuel Storage Building Emergency Ventilation System, Control Room Ventilation System, and Containment Fan Cooler Units; and,
- 4) Every 18 months for the Containment Purge System; and,
- 5) After each complete or partial replacement of the HEPA filter train or charcoal adsorber filter; and,
- 6) After any structural maintenance on the system housing that could alter system integrity; and,
- 7) After significant painting, fire, or chemical release in any ventilation zone communicating with the system while it is in operation.

SR 3.0.2 is applicable to the Ventilation Filter Testing Program.

(continued)
