James S. Baumstark
Vice President
Nuclear Engineering

Consolidated Edison Company of New York, Inc.
Indian Point 2 Station
Broadway & Bleakley Avenue
Buchanan, New York 10511

Internet: baumstarkj@coned.com
Telephone: (914) 734-5354
Cellular: (914) 391-9005
Pager: (917) 457-9698
Fax: (914) 734-5718

November 22, 1999

Re: Indian Point Unit No. 2
Docket No. 50 –247

Document Control Desk
US Nuclear Regulatory Commission
Mail Station P1-137
Washington, DC 20555-0001

Subject: Proposed Technical Specification Amendment on the Laboratory Testing of Nuclear-Grade Activated Charcoal

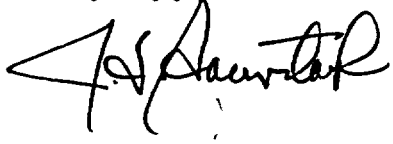
Reference: 1) NRC Generic Letter 99-02, "Laboratory Testing of Nuclear-Grade Activated Charcoal," dated June 3, 1999.

Transmitted herewith are the original and two (2) copies of an "Application for Amendment to the Operating License," sworn on November 22, 1999. This application requests an amendment to the Consolidated Edison Company of New York, Inc. (Con Edison), Indian Point Unit No. 2 Technical Specifications. In accordance with 10 CFR 50.91, a copy of this application and the associated attachments are being submitted to the designated New York State official.

The proposed changes to Section 4.5 address the ventilation system charcoal laboratory testing requirements of NRC Generic Letter 99-02 (Reference 1). This Generic Letter also requested the date of the next scheduled laboratory test. The charcoal in the ventilation systems required by Technical Specifications will be tested prior to completion of the next refueling outage. The refueling outage is scheduled for the second quarter of the year 2000. This testing, and any required interim testing, will be in accordance with Generic Letter 99-02. Attachment I to this letter provides the proposed changed pages, Attachment II provides the proposed changes as markups on the existing Technical Specification pages, and Attachment III provides the Safety Assessment. It has been determined that the changes set forth herein do not represent a significant hazards consideration as defined by 10 CFR 50.92(c).

Should you or your staff have any questions regarding this submittal, please contact Mr. John F. McCann, Manager, Nuclear Safety and Licensing.

Very truly yours,



A081

Attachments

cc: Mr. Hubert J. Miller
Regional Administrator-Region I
US Nuclear Regulatory Commission
475 Allendale Road
King of Prussia, PA 19406

Mr. Jefferey F. Harold, Project Manager
Project Directorate I-1
Division of Reactor Projects I/II
US Nuclear Regulatory Commission
Mail Stop 14B-2
Washington, DC 20555

Senior Resident Inspector
US Nuclear Regulatory Commission
PO Box 38
Buchanan, NY 10511

Mayor, Village of Buchanan
236 Tate Avenue
Buchanan, NY 10511

Mr.Paul Eddy
State of New York Department of Public Service
3 Empire Plaza
Albany, NY 12223

Mr. William F. Valentino, President
New York State Energy, Research and Development Authority
Corporate Plaza West
286 Washington Ave. Extension
Albany, NY 12223-6399

UNITED STATES OF AMERICA
NUCLEAR REGULATORY COMMISSION

In the Matter of	)	
CONSOLIDATED EDISON COMPANY	)	Docket No. 50-247
OF NEW YORK, INC.	)	
(Indian Point Station, Unit No. 2)	)	

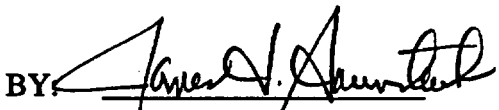
APPLICATION FOR AMENDMENT
TO OPERATING LICENSE

Pursuant to Section 50.90 of the Regulations of the Nuclear Regulatory Commission ("NRC"), Consolidated Edison Company of New York, Inc. ("Con Edison"), as holder of Facility Operating License No. DPR-26, hereby applies for amendment of the Technical Specifications contained in Appendix A of that license.

This Application for amendment to the Indian Point 2 Technical Specifications seeks to amend Section 4.5 to address the testing requirements of NRC Generic Letter 99-02 ("Laboratory Testing of Nuclear-Grade Activated Charcoal," dated June 3, 1999), which affect how the charcoal is tested in the laboratory.

The specific proposed Technical Specification Revisions are set forth in Attachment I to this Application. A mark-up of the existing Technical Specifications is provided in Attachment II. The Safety Assessment of the proposed change is set forth in Attachment III to this Application. This assessment demonstrates that the proposed changes do not represent a significant hazards consideration as defined in 10 CFR 50.92(c).

As required by 10 CFR 50.91(b)(1), a copy of this Application and our analysis concluding that the proposed change does not constitute a significant hazards consideration have been provided to the appropriate New York State official designated to receive such amendments.

BY 
James S. Baumstark
Vice President - Nuclear Engineering

Subscribed and sworn to
before me this 22nd day
November, 1999.

Karen L. Lancaster
Notary Public

KAREN L. LANCASTER
Notary Public, State of New York
No. 60-4643659
Qualified In Westchester County
Term Expires 9/30/01

ATTACHMENT I

PROPOSED TECHNICAL SPECIFICATION CHANGES

CONSOLIDATED EDISON COMPANY OF NEW YORK, INC.
INDIAN POINT UNIT NO. 2
DOCKET NOS. 50-247
NOVEMBER 1999

b. verifying that the HEPA filters and/or charcoal adsorbers satisfy the in-place testing acceptance criteria and uses the test procedures of Regulatory Positions C.5.a and C.5.c of Regulatory Guide 1.52, Revision 2, March 1978, at ambient conditions and at a flow rate of 65,600 cfm ±10% for the HEPA filters.

c. verifying, within 31 days after removal, that a laboratory test of a sample of the charcoal adsorber, when obtained in accordance with Regulatory Position C.6.b of Regulatory Guide 1.52, Revision 2, March 1978, shows a methyl iodide penetration of less than 15.0 % when tested in accordance with ASTM D3803-1989 at a temperature of 30 °C [86 °F], a relative humidity of 95 %, and a face velocity of 0.305 m/sec [60 ft/min].

3. Within 31 days of completing 720 hours of charcoal adsorber operation, verify that a laboratory test of a sample of the charcoal adsorber, when obtained in accordance with Regulatory Position C.6.b of Regulatory Guide 1.52, Revision 2, March 1978, shows a methyl iodide penetration of less than 15.0 % when tested in accordance with ASTM D3803-1989 at a temperature of 30 °C [86 °F], a relative humidity of 95 %, and a face velocity of 0.305 m/sec [60 ft/min].

4. At least once every Refueling Interval (#) by:

a. Verifying that the pressure drop across the moisture separator and HEPA filters is less than 6 inches Water Gauge while operating the filtration unit at ambient conditions and at a flow rate of 65,600 cfm ±10%.

b. Verifying that the unit starts automatically on a Safety Injection Test Signal.

5. After each complete or partial replacement of a HEPA filter bank, by verifying that the HEPA filter banks remove greater than or equal to 99% of the DOP when they are tested in-place in accordance with ANSI N510-1975 while operating the unit at ambient conditions and at a flow rate of 65,600 cfm ±10%.

6. After each complete or partial replacement of a charcoal adsorber bank, verify that the flow rate through the charcoal adsorbers is $\geq$ 8,000 cfm when the system is operating at ambient conditions and a flow rate of 65,600 cfm ±10% when tested in accordance with ANSI N510-1975.

E. CONTROL ROOM AIR FILTRATION SYSTEM

The control room air filtration system specified in Specification 3.3.H shall be demonstrated to be operable:

1. At least once per 31 days by initiating, from the control room, flow through the HEPA filters and charcoal adsorbers and verifying that the system operates for at least 15 minutes.

2. At least once every Refueling Interval(#) or (1) after any structural maintenance on the HEPA filter or charcoal adsorber housings, or (2) at any time painting, fire or chemical releases could alter filter integrity by:

   a. verifying a system flow rate, at ambient conditions, of 1840 cfm ±10% during system operation when tested in accordance with ANSI N510-1975.

   b. verifying that, with the system operating at ambient conditions and at a flow rate of 1840 CFM ±10% and exhausting through the HEPA filters and charcoal adsorbers, the total bypass flow of the system to the facility vent, including leakage through the system diverting valves, is less than or equal to 1% when the system is tested by admitting cold DOP at the system intake.

   c. verifying that the system satisfies the in-place testing acceptance criteria and uses the test procedures of Regulatory Positions C.5.a, C.5.c and C.5.d of Regulatory Guide 1.52, Revision 2, March 1978, at ambient conditions and at a flow rate of 1840 cfm ±10%.

   d. verifying, within 31 days after removal, that a laboratory test of a sample of the charcoal adsorber, when obtained in accordance with Regulatory Position C.6.b of Regulatory Guide 1.52, Revision 2, March 1978, shows a methyl iodide penetration of less than 5.0 % when tested in accordance with ASTM D3803-1989 at a temperature of 30 °C [86 °F], a relative humidity of 95 %, and a face velocity of 0.203 m/sec [40 ft/min].

3. Within 31 days of completing 720 hours of charcoal adsorber operation, verify that a laboratory test of a sample of the charcoal adsorber, when obtained in accordance with Regulatory Position C.6.b of Regulatory Guide 1.52, Revision 2, March 1978, shows a methyl iodide penetration of less than 5.0 % when tested in accordance with ASTM D3803-1989 at a temperature of 30 °C [86 °F], a relative humidity of 95 %, and a face velocity of 0.203 m/sec [40 ft/min].

2. At each refueling, prior to refueling operations, or (1) after any structural maintenance on the HEPA filter or charcoal adsorber housings, or (2) at any time painting, fire or chemical releases could alter filter integrity by:

   a. verifying a system flow rate at ambient conditions of 20,000 cfm ±10% during system operation when tested in accordance with ANSI N510-1975.

   b. verifying that the system satisfies the in-place testing acceptance criteria and uses the test procedures of Regulatory Positions C.5.a, C.5.c and C.5.d of Regulatory Guide 1.52, Revision 2, March 1978, at ambient conditions and at a flow rate of 20,000 cfm ±10%.

   c. verifying, within 31 days after removal, that a laboratory test of a sample of the charcoal adsorber, when obtained in accordance with Regulatory Position C.6.b of Regulatory Guide 1.52, Revision 2, March 1978, shows a methyl iodide penetration of less than 7.5 % when tested in accordance with ASTM D3803-1989 at a temperature of 30 °C [86 °F], a relative humidity of 95 %, and a face velocity of 0.254 m/sec [50 ft/min].

3. Prior to handling spent fuel which has decayed for less than 35 days, within 31 days, verify that a laboratory test of a sample of the charcoal adsorber, when obtained in accordance with Regulatory Position C.6.b of Regulatory Guide 1.52, Revision 2, March 1978, shows a methyl iodide penetration of less than 7.5 % when tested in accordance with ASTM D3803-1989 at a temperature of 30 °C [86 °F], a relative humidity of 95 %, and a face velocity of 0.254 m/sec [50 ft/min]. Such an analysis is good for 720 hours of charcoal adsorber operation. After 720 hours of operation, if spent fuel with a decay time of less than 35 days is still being handled, a new sample is required along with a new analysis.

4. At each refueling prior to refueling operations by:

   a. verifying that the pressure drop across the combined HEPA filters and charcoal adsorber banks is less than 6 inches water gauge while operating the system at ambient conditions and at a flow rate of 20,000 cfm ±10%.

   b. verifying that the system maintains the spent fuel storage pool area at a pressure less than that of the outside atmosphere during system operation.

5. After each complete or partial replacement of a HEPA filter bank, by verifying that the HEPA filter banks remove greater than or equal to 99% of the DOP when they are tested in-place in accordance with ANSI N510-1975 while operating the system at ambient conditions and at a flow rate of 20,000 cfm ±10%.

6. After each complete or partial replacement of a charcoal adsorber bank, by verifying that the charcoal adsorbers remove greater than or equal to 99.95% of a halogenated hydrocarbon refrigerant test gas when they are tested in-place in accordance with ANSI N510-1975 while operating the system at ambient conditions and at a flow rate of 20,000 cfm ±10%.

G. POST-ACCIDENT CONTAINMENT VENTING SYSTEM

The post-accident containment venting system shall be demonstrated operable:

1. At least once every Refueling Interval(#), or (1) after any structural maintenance on the HEPA filter or charcoal adsorber housings, or (2) at any time painting, fire or chemical releases could alter filter integrity by:

   a. verifying no flow blockage by passing flow through the filter system.

   b. verifying that the system satisfies the in-place testing acceptance criteria and uses the test procedures of Regulatory Positions C.5.a, C.5.c and C.5.d of Regulatory Guide 1.52, Revision 2, March 1978, at ambient conditions and at a flow rate of 200 cfm ±10%.

   c. at Refueling Intervals (#), verifying, within 31 days after removal, that a laboratory test of a sample of the charcoal adsorber, when obtained in accordance with Regulatory Position C.6.b of Regulatory Guide 1.52, Revision 2, March 1978, shows a methyl iodide penetration of less than 15.0 % when tested in accordance with ASTM D3803-1989 at a temperature of 30 °C [86 °F], a relative humidity of 95 %, and a face velocity of 0.203 m/sec [40 ft/min].

2. Within 31 days of completing 720 hours of charcoal adsorber operation, verify that a laboratory test of a sample of the charcoal adsorber, when obtained in accordance with Regulatory Position C.6.b of Regulatory Guide 1.52, Revision 2, March 1978, shows a methyl iodide penetration of less than 15.0 % when tested in accordance with ASTM D3803-1989 at a temperature of 30 °C [86 °F], a relative humidity of 95 %, and a face velocity of 0.203 m/sec [40 ft/min].

be needed until approximately 13 days have elapsed following the accident. Use of the system will be based upon containment atmosphere sample analysis and availability of the hydrogen recombiners. When in use, HEPA filters and charcoal adsorbers will filter the containment atmosphere discharge prior to release to the plant vent. The required in-place testing and laboratory charcoal sample testing will verify operability of this venting system and provide further assurance that releases to the environment will be minimized.

As indicated for the previously mentioned engineered safety feature (ESF) air filtration systems, high-efficiency particulate absolute (HEPA) filters are installed upstream of the charcoal adsorbers to prevent clogging of these adsorbers. The charcoal adsorbers are installed to reduce the potential release of radioiodine to the environment. The laboratory charcoal sample is tested periodically in accordance with ASTM D3803-1989 to verify that the charcoal meets the iodine removal efficiency requirements of Regulatory Guide 1.52, Revision 2, March 1978. Should the charcoal of any of these filtration systems fail to satisfy the specified test acceptance criteria, the charcoal will be replaced with new charcoal which satisfies the requirements for new charcoal outlined in Regulatory Guide 1.52 Revision 2, March 1978 and ASTM D3803-1989.

NRC Generic Letter 99-02 ("Laboratory Testing of Nuclear-Grade Activated Charcoal," dated June 3, 1999) requires testing in accordance with ASTM D3803-1989 and requires that the testing be done at 30°C [86°F] and a relative humidity of 95%. Also, the Generic Letter requires that the testing be done at a minimum face velocity of 0.203 m/sec [40 ft/sec] or, if higher, the design face velocity. As stated in the Generic Letter, these conditions give test results that represent a more realistic assessment of the capability of the charcoal in systems without heater-based humidity control. The methyl iodide penetration is based on the following formula (the Generic Letter requires a minimum Safety Factor of 2), which is provided in Generic Letter 99-02, Attachment 2:

$$\text{Allowable Penetration} = \frac{[100\% - \text{Methyl Iodide Efficiency for Charcoal Credited in Licensee's Accident Analysis}]}{\text{Safety Factor}}$$

Thus, the allowable methyl iodide penetration, by system, is as follows:

TS Sec.	System Name	Filter Efficiency	UFSAR Reference	Allowable Methyl Iodide Penetration
4.5.D	Containment Air Filtration System	70%	Sec. 14.3.6.1.3	15.0%
4.5.E	Control Room Air Filtration System	90%	Sec. 14.3.6.5	5.0%
4.5.F	Fuel Storage Building Air Filtration System	85%	Table 14.2-2	7.5%
4.5.G	Post-Accident Containment Venting System	70%	Sec. 14.3.6.1.3	15.0%

While UFSAR Sections 14.3.6.1.3 and 14.3.6.5 provide filter efficiencies for methyl iodide, UFSAR Table 14.2-2 just provides a combined iodide (methyl iodide and elemental iodide) efficiency. Since the methyl iodide efficiency is lower than the combined iodide efficiency, the use of the combined iodide efficiency provides a more conservative limit for testing purposes.

References

(1) UFSAR Section 6.2
(2) UFSAR Section 6.4
(3) NRC Generic Letter 99-02, dated June 3, 1999
(4) UFSAR Table 14.2-2
(5) UFSAR Section 14.3.6.1.3
(6) UFSAR Section 14.3.6.5

1. In this instance Refueling Interval is defined by R#.

ATTACHMENT II

PROPOSED TECHNICAL SPECIFICATION MARKED-UP PAGES

CONSOLIDATED EDISON COMPANY OF NEW YORK, INC.
INDIAN POINT UNIT NO. 2
DOCKET NOS. 50-247
NOVEMBER 1999

On these marked-up pages from the current Tech Specs:

Additions are shown by ***bold italic***,

and

Deletions are shown by ~~double-strikethrough~~.

Inserts A and B are provided below:

INSERT A

verifying, within 31 days after removal, that a laboratory test of a sample of the charcoal adsorber, when obtained in accordance with Regulatory Position C.6.b of Regulatory Guide 1.52, Revision 2, March 1978, shows a methyl iodide penetration of less than **XX** % when tested in accordance with ASTM D3803-1989 at a temperature of 30 °C [86 °F], a relative humidity of 95 %, and a face velocity of **YY** m/sec [**ZZ** ft/min].

INSERT B

verify that a laboratory test of a sample of the charcoal adsorber, when obtained in accordance with Regulatory Position C.6.b of Regulatory Guide 1.52, Revision 2, March 1978, shows a methyl iodide penetration of less than **XX** % when tested in accordance with ASTM D3803-1989 at a temperature of 30 °C [86 °F], a relative humidity of 95 %, and a face velocity of **YY** m/sec [**ZZ** ft/min].

Depending on the system, the values of XX, YY, and ZZ change. By system, these values are:

TS Sec	System Name	XX (%)	YY (m/sec)	ZZ (ft/min)
4.5.D	Containment Air Filtration System	15.0	0.305	60
4.5.E	Control Room Air Filtration System	5.0	0.203	40
4.5.F	Fuel Storage Building Air Filtration System	7.5	0.254	50
4.5.G	Post-Accident Containment Venting System	15.0	0.203	40

b. verifying that the HEPA filters and/or charcoal adsorbers satisfy the in-place testing acceptance criteria and uses the test procedures of Regulatory Positions C.5.a and C.5.c of Regulatory Guide 1.52, Revision 2, March 1978, at ambient conditions and at a flow rate of 65,600 cfm ±10% for the HEPA filters.

c. ~~verifying within 31 days after removal that a laboratory analysis of a representative carbon sample obtained in accordance with Regulatory Position C.6.b of Regulatory Guide 1.52, Revision 2, March 1978, meets the laboratory testing criteria of Regulatory Position C.6.a (except for Position C.6.a(1)) of Regulatory Guide 1.52, Revision 2, March 1978.~~ ***[INSERT A]***

3. ~~After every~~ ***Within 31 days of completing*** 720 hours of charcoal adsorber operation, ~~by verifying within 31 days after removal that a laboratory analysis of a representative carbon sample obtained in accordance with Regulatory Position C.6.b of Regulatory Guide 1.52, Revision 2, March 1978, meets the laboratory testing criteria of Regulatory Position C.6.a (except for Position C.6.a(1)) of Regulatory Guide 1.52, Revision 2, March 1978.~~ ***[INSERT B]***

4. At least once every Refueling Interval (#) by:

   a. Verifying that the pressure drop across the moisture separator and HEPA filters is less than 6 inches Water Gauge while operating the filtration unit at ambient conditions and at a flow rate of 65,600 cfm ±10%.

   b. Verifying that the unit starts automatically on a Safety Injection Test Signal.

5. After each complete or partial replacement of a HEPA filter bank, by verifying that the HEPA filter banks remove greater than or equal to 99% of the DOP when they are tested in-place in accordance with ANSI N510-1975 while operating the unit at ambient conditions and at a flow rate of 65,600 cfm ±10%.

6. After each complete or partial replacement of a charcoal adsorber bank, verify that the flow rate through the charcoal adsorbers is $\geq$ 8,000 cfm when the system is operating at ambient conditions and a flow rate of 65,600 cfm ±10% when tested in accordance with ANSI N510-1975.

E. CONTROL ROOM AIR FILTRATION SYSTEM

The control room air filtration system specified in Specification 3.3.H shall be demonstrated to be operable:

1. At least once per 31 days by initiating, from the control room, flow through the HEPA filters and charcoal adsorbers and verifying that the system operates for at least 15 minutes.

2. At least once every Refueling Interval(#) or (1) after any structural maintenance on the HEPA filter or charcoal adsorber housings, or (2) at any time painting, fire or chemical releases could alter filter integrity by:

   a. verifying a system flow rate, at ambient conditions, of 1840 cfm ±10% during system operation when tested in accordance with ANSI N510-1975.

   b. verifying that, with the system operating at ambient conditions and at a flow rate of 1840 CFM ±10% and exhausting through the HEPA filters and charcoal adsorbers, the total bypass flow of the system to the facility vent, including leakage through the system diverting valves, is less than or equal to 1% when the system is tested by admitting cold DOP at the system intake.

   c. verifying that the system satisfies the in-place testing acceptance criteria and uses the test procedures of Regulatory Positions C.5.a, C.5.c and C.5.d of Regulatory Guide 1.52, Revision 2, March 1978, at ambient conditions and at a flow rate of 1840 cfm ±10%.

   d. ~~verifying within 31 days after removal that a laboratory analysis of a representative carbon sample obtained in accordance with Regulatory Position C.6.b of Regulatory Guide 1.52, Revision 2, March 1978, meets the laboratory testing criteria of Regulatory Position C.6.a of Regulatory Guide 1.52, Revision 2, March 1978.~~ ***[INSERT A]***

3. ~~After every~~ ***Within 31 days of completing*** 720 hours of charcoal adsorber operation, ~~by verifying within 31 days after removal that a laboratory analysis of a representative carbon sample obtained in accordance with Regulatory Position C.6.b of Regulatory Guide 1.52, Revision 2, March 1978, meets the laboratory testing criteria of Regulatory Position C.6.a of Regulatory Guide 1.52, Revision 2, March 1978.~~ ***[INSERT B]***

2. At each refueling, prior to refueling operations, or (1) after any structural maintenance on the HEPA filter or charcoal adsorber housings, or (2) at any time painting, fire or chemical releases could alter filter integrity by:

   a. verifying a system flow rate at ambient conditions of 20,000 cfm ±10% during system operation when tested in accordance with ANSI N510-1975.

   b. verifying that the system satisfies the in-place testing acceptance criteria and uses the test procedures of Regulatory Positions C.5.a, C.5.c and C.5.d of Regulatory Guide 1.52, Revision 2, March 1978, at ambient conditions and at a flow rate of 20,000 cfm ±10%.

   c. ~~verifying within 31 days after removal that a laboratory analysis of a representative carbon sample obtained in accordance with Regulatory Position C.6.b of Regulatory Guide 1.52, Revision 2, March 1978, meets the laboratory testing criteria of Regulatory Position C.6.a of Regulatory Guide 1.52, Revision 2, March 1978.~~ ***[INSERT A]***

3. Prior to handling spent fuel which has decayed for less than 35 days, ***within 31 days,*** ~~verify within 31 days after removal that a laboratory analysis of a representative carbon sample obtained in accordance with Regulatory Position C.6.b of Regulatory Guide 1.52, Revision 2, March 1978, meets the laboratory testing criteria of Regulatory Position C.6.a of Regulatory Guide 1.52, Revision 2, March 1978.~~ ***[INSERT B]*** Such an analysis is good for 720 hours of charcoal adsorber operation. After 720 hours of operation, if spent fuel with a decay time of less than 35 days is still being handled, a new sample is required along with a new analysis.

4. At each refueling prior to refueling operations by:

   a. verifying that the pressure drop across the combined HEPA filters and charcoal adsorber banks is less than 6 inches water gauge while operating the system at ambient conditions and at a flow rate of 20,000 cfm ±10%.

   b. verifying that the system maintains the spent fuel storage pool area at a pressure less than that of the outside atmosphere during system operation.

5. After each complete or partial replacement of a HEPA filter bank, by verifying that the HEPA filter banks remove greater than or equal to 99% of the DOP when they are tested in-place in accordance with ANSI N510-1975 while operating the system at ambient conditions and at a flow rate of 20,000 cfm ±10%.

6. After each complete or partial replacement of a charcoal adsorber bank, by verifying that the charcoal adsorbers remove greater than or equal to 99.95% of a halogenated hydrocarbon refrigerant test gas when they are tested in-place in accordance with ANSI N510-1975 while operating the system at ambient conditions and at a flow rate of 20,000 cfm ±10%.

G. POST-ACCIDENT CONTAINMENT VENTING SYSTEM

The post-accident containment venting system shall be demonstrated operable:

1. At least once every Refueling Interval(#), or (1) after any structural maintenance on the HEPA filter or charcoal adsorber housings, or (2) at any time painting, fire or chemical releases could alter filter integrity by:

a. verifying no flow blockage by passing flow through the filter system.

b. verifying that the system satisfies the in-place testing acceptance criteria and uses the test procedures of Regulatory Positions C.5.a, C.5.c and C.5.d of Regulatory Guide 1.52, Revision 2, March 1978, at ambient conditions and at a flow rate of 200 cfm ±10%.

c. ~~verifying within 31 days after removal that a laboratory analysis of a representative carbon sample obtained in accordance with Regulatory Position C.6.b of Regulatory Guide 1.52, Revision 2, March 1978, meets the laboratory testing criteria of Regulatory Position C.6.a of Regulatory Guide 1.52, Revision 2, March 1978.~~ ***[INSERT A]***

2. ~~After every~~ ***Within 31 days of completing*** 720 hours of charcoal adsorber operation, ~~by verifying within 31 days after removal that a laboratory analysis of a representative carbon sample obtained in accordance with Regulatory Position C.6.b of Regulatory Guide 1.52, Revision 2, March 1978, meets the laboratory testing criteria of Regulatory Position C.6.a of Regulatory Guide 1.52, Revision 2, March 1978.~~ ***[INSERT B]***

be needed until approximately 13 days have elapsed following the accident. Use of the system will be based upon containment atmosphere sample analysis and availability of the hydrogen recombiners. When in use, HEPA filters and charcoal adsorbers will filter the containment atmosphere discharge prior to release to the plant vent. The required in-place testing and laboratory charcoal sample testing will verify operability of this venting system and provide further assurance that releases to the environment will be minimized.

As indicated for the previously mentioned engineered safety feature (ESF) air filtration systems, high-efficiency particulate absolute (HEPA) filters are installed upstream of the charcoal adsorbers to prevent clogging of these adsorbers. The charcoal adsorbers are installed to reduce the potential release of radioiodine to the environment. The laboratory charcoal sample ~~testing~~ ***is tested*** periodically ***in accordance with ASTM D3803-1989 to verify*** ~~verifies~~ that the charcoal meets the iodine removal efficiency requirements of Regulatory Guide 1.52, Revision 2, ***March 1978.*** Should the charcoal of any of these filtration systems fail to satisfy the specified test acceptance criteria, the charcoal will be replaced with new charcoal which satisfies the requirements for new charcoal outlined in Regulatory Guide 1.52 Revision 2, ***March 1978 and ASTM D3803-1989.***

NRC Generic Letter 99-02 ("Laboratory Testing of Nuclear-Grade Activated Charcoal," dated June 3, 1999) requires testing in accordance with ASTM D3803-1989 and requires that the testing be done at 30°C [86°F] and a relative humidity of 95%. Also, the Generic Letter requires that the testing be done at a minimum face velocity of 0.203 m/sec [40 ft/sec] or, if higher, the design face velocity. As stated in the Generic Letter, these conditions give test results that represent a more realistic assessment of the capability of the charcoal in systems without heater-based humidity control. The methyl iodide penetration is based on the following formula (the Generic Letter requires a minimum Safety Factor of 2), which is provided in Generic Letter 99-02, Attachment 2:

$$\text{Allowable Penetration} = \frac{\text{[100\% - Methyl Iodide Efficiency for Charcoal Credited in Licensee's Accident Analysis]}}{\text{Safety Factor}}$$

Thus, the allowable methyl iodide penetration, by system, is as follows:

TS Sec.	*System Name*	*Filter Efficiency*	*UFSAR Reference*	*Allowable Methyl Iodide Penetration*
4.5.D	*Containment Air Filtration System*	*70%*	*Sec. 14.3.6.1.3*	*15.0%*
4.5.E	*Control Room Air Filtration System*	*90%*	*Sec. 14.3.6.5*	*5.0%*
4.5.F	*Fuel Storage Building Air Filtration System*	*85%*	*Table 14.2-2*	*7.5%*
4.5.G	*Post-Accident Containment Venting System*	*70%*	*Sec. 14.3.6.1.3*	*15.0%*

While UFSAR Sections 14.3.6.1.3 and 14.3.6.5 provide filter efficiencies for methyl iodide, UFSAR Table 14.2-2 just provides a combined iodide (methyl iodide and elemental iodide) efficiency. Since the methyl iodide efficiency is lower than the combined iodide efficiency, the use of the combined iodide efficiency provides a more conservative limit for testing purposes.

References

(1) UFSAR Section 6.2
(2) UFSAR Section 6.4
(3) NRC Generic Letter 99-02, dated June 3, 1999
(4) UFSAR Table 14.2-2
(5) UFSAR Section 14.3.6.1.3
(6) UFSAR Section 14.3.6.5

1. In this instance Refueling Interval is defined by R#.

ATTACHMENT III

SAFETY ASSESSMENT

CONSOLIDATED EDISON COMPANY OF NEW YORK, INC.
INDIAN POINT UNIT NO. 2
DOCKET NO. 50-247
NOVEMBER 1999

SECTION I - Description of Change

In Section 4.5 the proposed changes address the testing requirements of NRC Generic Letter 99-02 ("Laboratory Testing of Nuclear-Grade Activated Charcoal," dated June 3, 1999), which affect how the charcoal is tested in the laboratory.

The changes utilize the wording and requirements provided in Attachment 2 of Generic Letter 99-02.

SECTION II - Evaluation of Change

The changes are to incorporate current NRC testing requirements and affect how the charcoal would be tested in the laboratory. These changes would not affect any equipment or physical plant attributes.

In Generic Letter 99-02, the NRC raised the concern that the older testing methodology used by several nuclear power plants may not provide accurate testing results. In Generic Letter 99-02, the NRC stated that it considers ASTM D3803-1989 to be the most accurate and most realistic protocol for testing charcoal in ESF ventilation systems because it offers the greatest assurance of accurately and consistently determining the capability of the charcoal. For example, it requires the test to be performed at a constant low temperature of 30 °C [86 °F]; it provides for smaller tolerances in temperature, humidity, and air flow; and it has a humidity pre-equilibration.

Therefore, the use of ASTM D3803-1989 provides additional assurance that the charcoal utilized the ESF ventilation system performance will comply with Indian Point 2's licensing basis as it relates to the dose limits of GDC 19 and Part 100.

SECTION III - No Significant Hazards Evaluation

The proposed changes do not involve a significant hazards consideration because:

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

No. The proposed change would revise Section 4.5 to incorporate current NRC testing requirements which affect how the charcoal would be tested in the laboratory. These changes would not affect possible initiating events for accidents previously evaluated or alter the configuration or operation of the facility. The Limiting Safety System Settings and Safety Limits specified in the current Technical Specifications would remain unchanged. Therefore, the proposed changes would not involve a significant increase in the probability or in the consequences of an accident previously evaluated.

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

No. The proposed changes would implement testing methodology for ventilation system charcoal in accordance with Generic Letter 99-02, but would not alter equipment performance criteria or standards. The safety analysis of the facility would remain complete and accurate, and would not be affected by the new charcoal testing requirements. There would be no physical changes to the facility and the plant conditions for which the design basis accidents have been evaluated would still be valid. The operating procedures and emergency procedures would be unaffected. Consequently no new failure modes would be introduced as a result of the proposed change. Therefore, the proposed changes would not create the possibility of a new or different kind of accident from any accident previously evaluated.

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

No. Since there would be no changes to the operation of the facility, to its physical design, or to the performance characteristics of any safety-related equipment, neither the Updated Final Safety Analysis Report (UFSAR) design basis, accident assumptions, nor Technical Specification bases would be affected. Therefore, the proposed changes do not involve a significant reduction in a margin of safety.

SECTION IV - Impact Of Changes

This change would not adversely impact the following:

ALARA Program
Security and Fire Protection Programs
Emergency Plan
UFSAR or SER Conclusions
Overall Plant Operations and the Environment

The changes involve revising Section 4.5 to incorporate current NRC testing requirements for charcoal laboratory testing. This level of detail is not listed or implied in the UFSAR. Therefore, there would be no UFSAR impact. There would be no new failure modes introduced by this change. There would be no physical changes to the facility and the plant conditions for which the design basis accidents have been evaluated would still be valid. The operating procedures and emergency procedures would be unaffected.

SECTION V - Conclusion

Therefore, the proposed changes to the Technical Specifications do not involve a significant hazards consideration. In addition, the proposed change to the Technical Specifications has been reviewed by both the Station Nuclear Safety Committee (SNSC) and the Con Edison Nuclear Facility Safety Committee (NFSC). Both Committees concur that the proposed changes do not represent a significant hazards consideration.