Table 2.1-1

RADIOACTIVE LIQUID EFFLUENT MONITORING INSTRUMENTATION

Instrument	Minimum Channels Operable	Action
Gross radioactivity monitors providing alarm and automatic termination of release		
Liquid radwaste effluent line	1	(a)
Gross beta or gamma radioactivity monitors providing alarm but not providing automatic termination of release		
Service water system effluent line	1	(b)
Flow rate measurement devices		
Liquid radwaste effluent line	1	(c)

NOTES FOR TABLE 2.1-1

(a) With the number of operable channels less than the required minimum number, effluent releases may continue provided that prior to initiating a release:

a. Two independent samples are analyzed;

b. Two technically qualified members of the facility staff verify the discharge line valving;

Otherwise, suspend release of radioactive effluents via this pathway.

(b) With the number operable of channels less than the required minimum number, effluent releases in this pathway may continue provided that, at least once per 12 hours, grab samples are collected and analyzed for principal gamma emitters at a limit of detection of at least 5×10^{-7} microcuries/ml. The principal gamma emitters for which the LLD specification applies exclusively are described in Note (c) to Table 2.2-1.

(c) With the number of operable channels less than the required minimum number, effluent releases via this pathway may continue provided the flow rate is estimated at least once per four hours during actual releases. Pump curves or tank level decreases generated in situ may be used to estimate flow.

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TABLE 3.2-1

RADIOACTIVE GASEOUS WASTE SAMPLING AND ANALYSIS PROGRAM

Gaseous Release Type	Sampling Frequency	Minimum Analysis Frequency	Type of Activity Analysis	Lower Limit of Detection (LLD)[a] (μCi/ml)
Main Stack and Refuel Floor Vent and Reactor Building Vent and Turbine Building Vent and Radwaste Building Vent	Monthly Grab Sample[d]	Monthly Noble Gases[b]	Principal Gamma Emitters[b]	1×10^{-4}
	Quarterly Grab Sample	Quarterly	H-3	1×10^{-6}
	Continuous[c]	Weekly Charcoal Sample[e]	I-131	1×10^{-12}
			I-133	None
	Continuous[c]	Weekly Particulate Sample[e]	Principal Gamma Emitters[b] (I-131, I-133, others)	1×10^{-11}
				None
	Continuous[c]	1 Wk/Mo Particulate Sample	Gross Alpha	1×10^{-11}
	Continuous[c]	4 Wk/Qr Composite Particulate Sample	Sr-89, Sr-90	1×10^{-11}
	Continuous[c]	Noble Gas Monitor	Noble Gases Gross Beta or Gamma	1×10^{-5}
Incinerated Oil[f]	Prior to Each Batch[g]	Each Batch[g]	Principal Gamma Emitters[b]	5×10^{-7}
			I-131	1×10^{-6}

(d) Main stack gaseous sampling and analysis shall also be performed following shutdown, startup, or a thermal power change exceeding 20% of rated thermal power in one hour.

1. This requirement applies only if:

   - o Analysis shows that the dose equivalent I-131 concentration in the primary coolant has increased more than a factor of 3; and
   - o The noble gas monitor shows that effluent activity has increased more than a factor of 3; and
   - o Corrections for increases due to changes in thermal power level have been made in both cases.

(e) Main stack iodine and particulate sampling shall also be performed daily following each shutdown, startup or thermal power change exceeding 20% of rated thermal power in one hour.

1. Daily sampling is not required for thermal power changes if the off gas charcoal filters are in service.

2. In addition, this requirement applies only if:

   - o Analysis shows that the dose equivalent I-131 concentration in the primary coolant has increased more than a factor of 3; and
   - o The noble gas monitor shows that effluent activity has increased more than a factor of 3; and
   - o Corrections for increases due to changes in thermal power level have been made in both cases.

3. Daily sampling shall be performed until two consecutive samples show no increase in concentration but not to exceed 7 consecutive days.

4. LLDs may be increased by a factor of 10 for analysis of daily samples.

5. Analysis of daily and weekly samples shall be completed within 48 hours of changing.

(f) Incinerated oil may be discharged via points other than the main stack and building vents (i.e., auxiliary boiler). Whenever oil samples cannot be filtered such as No. 6 bunker fuel oil, raw oil samples shall be collected and analyzed.

(g) Samples of incinerated oil releases shall be collected from and representative of filtered oil in liquid form. Whenever oil samples cannot be filtered such as No. 6 bunker fuel oil, raw oils samples shall be collected and analyzed.

LIMITING CONDITIONS FOR OPERATION

3.5 MAIN CONDENSER STEAM JET AIR EJECTOR (SJAE)

Applicability

Applies to main condenser offgas discharge rate for noble gases.

Objective

To ensure that the SJAE release rates are maintained at a level compatible for further treatment and release.

Specifications

a. The gross radioactivity (beta and/or gamma) rate of noble gases measured at the SJAE is given on Table 3.10-1.

SURVEILLANCE REQUIREMENTS

3.5 MAIN CONDENSER STEAM JET AIR EJECTORS (SJAE)

Applicability

Applies to the point of discharge at the SJAE.

Objective

To ensure that the SJAE release rates are properly monitored.

Specifications

a. The gross radioactivity (beta and/or gamma) rate of noble gases from the SJAE shall be determined to be within the limits of Specification 3.5.a by performing an isotopic analysis of a representative sample of gases taken at the discharge (prior to dilution and/or discharge) of the SJAE, or at the recombiner discharge (prior to delay of the offgas to reduce the total radioactivity) as follows:

   1. At least monthly.

   2. Within 4 hours following an increase as indicated by the SJAE Monitor, of greater than 50% (after factoring out increases due to changes in thermal power level) in the nominal steady state fission gas release from the primary coolant.

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LIMITING CONDITIONS FOR OPERATION

3.6 OFFGAS TREATMENT SYSTEM

Applicability

Applies to the system installed for reduction of radioactive materials in gaseous waste prior to discharge.

Objective

To minimize concentration of radioactive materials released from the site.

Specifications

a. The offgas treatment system shall be used to reduce the concentration of radioactive materials in gaseous effluents prior to release from the plant within 24 hours after the start-up of the second turbine driven feedwater pump.

SURVEILLANCE REQUIREMENTS

3.6 OFFGAS TREATMENT SYSTEM

Applicability

Applies to the calculation of the radiation dose from gaseous effluents containing radioactive materials.

Objective

To ensure that treatment of gaseous wastes by the offgas system is implemented when required.

Specifications

a. If the charcoal beds are not in service when the offgas treatment system is required, doses due to gaseous releases from the site shall be projected at least monthly in accordance with the ODCM.

b. The offgas charcoal beds shall be used, when offgas treatment system operation is required and the projected doses over a 31 day period due to gaseous effluent releases to a member of the public would exceed:

1. 0.2 mrad for gamma radiation

2. 0.4 mrad for beta radiation; or

3. 0.3 mrem to any organ

c. With gaseous effluent from the main condenser being discharged without use of the charcoal beds for greater than seven days when treatment is required, and projected doses are in excess of the above limits, prepare and submit to the Commission, within 30-days, a Special Report that includes the following information:

1. Explanation of why gaseous effluent is being discharged without charcoal bed treatment, identification of any inoperable equipment or subsystems, and the reason for the inoperability,

2. Action(s) taken to restore the inoperable equipment to operable status; and

3. Summary description of action(s) taken to prevent a recurrence.

LIMITING CONDITIONS FOR OPERATION	SURVEILLANCE REQUIREMENTS
treatment system under the following conditions: 1. The offgas dilution steam flow instrumentation shall alarm and automatically isolate the offgas recombiner system at low flow less than 6000 pounds per hour or high flow greater than 7200 pounds per hour. 2. The offgas recombiner inlet temperature sensor shall alarm and automatically isolate the offgas recombiner system at a temperature of not less than 125°C. 3. The offgas recombiner outlet temperature shall alarm and automatically isolate the offgas treatment system at a temperature of not less than 150°C.	1. An instrument check shall be performed daily when the offgas treatment system is in operation. 2. An instrument channel functional test shall be performed once per operating cycle. 3. An instrument channel calibration shall be performed once per operating cycle.
c. In lieu of continuous hydrogen or oxygen monitoring, the condenser offgas treatment system recombiner effluent shall be analyzed to verify that it contains less than or equal to 4% hydrogen by volume.	c. With condenser offgas treatment system recombiner in service, in lieu of continuous hydrogen or oxygen monitoring, the hydrogen content shall be verified weekly to be less than or equal to 4% by volume. In the event that the hydrogen content cannot be verified, operation of this system may continue for up to 14 days.
d. With the requirements of the above specifications not satisfied, restore the recombiner system to within operating specifications or suspend use of the charcoal treatment system within 48 hours.	

TABLE 3.10-1
RADIATION MONITORING SYSTEMS THAT INITIATE AND/OR ISOLATE SYSTEMS

Minimum No. of Operable Instrument Channels	Trip Function	Trip Level Setting	Total Number of Instrument Channels Provided by Design	Action
1(a)	Refuel Area Exhaust Monitor	(b)	2	(c) or (d)
1(a)	Reactor Building Area Exhaust Monitors	(b)	2	(d)
1(a)	SJAE Radiation Monitors	$\leq$500,000 µCi/sec	2	(e)
1(a)	Turbine Building Exhaust Monitors	(b)	2	(f)
1(a)	Radwaste Building Exhaust Monitors	(b)	2	(f)
1(a)	Main Control Room Ventilation	$\leq 4 \times 10^9$ cpm(i)	1	(g)
(h)	Mechanical Vacuum Pump Isolation	$\leq$3 x Normal Full Power Background	4	(h)

NOTES FOR TABLE 3.10-1

(a) Whenever the systems are required to be operable, there shall be one operable or tripped instrument channel per system. From and after the time it is found that this cannot be met, the indicated action shall be taken.
(b) Trip level setting is in accordance with the methods and procedures of the ODCM
(c) Cease operation of the refueling equipment.
(d) Isolate secondary containment and start the SBGTS.
(e) Bring the SJAE release rate within the limit within 72 hours or be in hot standby within the next 12 hours.
(f) Refer to Appendix B LCO 3.1.d.
(g) Control room isolation is manually initiated.
(h) Uses same sensors as primary containment isolation on high main steam line radiation. Refer to Appendix A Table 3.2-1 for minimum number of operable instrument channels and action required.
(i) Conversion factor is 8.15×10^7 cpm - 1 µCi/cc.

TABLE 3.10-2

MINIMUM TEST AND CALIBRATION FREQUENCY FOR RADIATION MONITORING SYSTEMS[a]

Instrument Channels	Instrument Check[b]	Instrument Channel Functional Test[i]	Instrument Channel Calibration	Logic System Function Test[f][h]
Main Stack Exhaust Monitors	Daily	Quarterly	Quarterly	--
Refuel Area Exhaust Monitors	Daily	Quarterly	Quarterly	--
Reactor Building Area Exhaust Monitors/Isolation	Daily	Quarterly	Quarterly	Semiannually
Turbine Building Exhaust Monitors	Daily	Quarterly	Quarterly	--
Radwaste Building Exhaust Monitors	Daily	Quarterly	Quarterly	--
SJAE Radiation Monitors/Offgas Lin[illegible]olation	Daily	Quarterly	Quarterly	Semiannually
Main Control Room Ventilation Monitor	Daily	Quarterly	Quarterly	--
Mechanical Vacuum Pump Isolation[g]	--	--	--	Once per Operating Cycle
Liquid Radwaste Discharge Monitor/ Isolation[c][d][e][f]	Daily When Discharging	Quarterly	Quarterly	Semiannually
Liquid Radwaste Discharge Flow Rate Measuring Devices[d]	Daily	Quarterly	Once per Operating Cycle	--
Liquid Radwaste Discharge Radioactivity Recorder[d]	Daily	Quarterly	Once per Operating Cycle	--
Normal Service Water Effluent[f]	Daily	Quarterly	Quarterly	--
SBGTS Actuation	--	--	--	Semiannually

NOTES TO FIGURE 5.1-1

(a) NMP1 stack (height is 350 feet)

(b) NMP2 stack (height is 430 feet)

(c) JAFNPP stack (height is 385 feet)

(d) Building vents

(e) NMP1 radioactive liquid discharge (Lake Ontario, bottom)

(f) NMP2 radioactive liquid discharge (Lake Ontario, bottom)

(g) JAFNPP radioactive liquid discharge (Lake Ontario, bottom)

(h) Site boundary

(i) Lake Ontario shoreline

Additional Information:

-- NMP2 reactor building vent is located 187 feet above ground level

-- JAFNPP reactor and turbine building vents are located 173 feet above ground level

-- JAFNPP radwaste building vent is 112 feet above ground level

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TABLE 6.1-1 (continued)

Exposure Pathway and/or Sample	Number of Samples[a] and Locations	Sampling and Collection Frequency[a]	Type and Frequency of Analysis
Fish	a. 1 sample of each of 2 commercially or recreationally important species in the vicinity of a site discharge point. b. 1 sample of each of 2 species (same as in a. above or of a species with similar feeding habits) from an area at least 5 miles distant from the site[d].	Twice per year.	Gamma isotopic [c] analysis of edible portions.
Food Products	a. In lieu of the garden census as specified in 6.2, samples of at least 3 different kinds of broad leaf vegetation (such as vegetables) grown nearest each of two different offsite locations of highest predicted site average D/Q (Based on all licensed site Reactors). One (1) sample of each of the similar broad leaf vegetation grown at least 9.3 miles distant in a least prevalent wind direction sector[d].	Once during harvest season.	Gamma isotopic [c] analysis of edible portions. (Isotopic to include I-131.)

TABLE 6.1-2

REPORTING LEVEL FOR RADIOACTIVITY CONCENTRATIONS IN ENVIRONMENTAL SAMPLES
REPORTING LEVELS

Analysis	Water (μCi/l)	Airborne Particulate or Gases (pCi/m^3)	Fish (pCi/kg, wet)	Milk (pCi/l)	Food Products (pCi/kg, wet)
H-3	30,000				
Mn-54	1,000		30,000		
Fe-59	400		10,000		
Co-58	1,000		30,000		
Co-60	300		10,000		
Zn-65	300		20,000		
Zr/Nb-95	400				
I-131	20	0.9		3	100
Cs-134	30	10	1,000	60	1,000
Cs-137	50	20	2,000	70	2,000
Ba/La-140	200			300	

Amendment No. 95

TABLE 6.1-3

DETECTION CAPABILITIES FOR ENVIRONMENTAL SAMPLE ANALYSIS[a]
LOWER LIMIT OF DETECTION (LLD)[b]

Analysis	Water (pCi/l)	Airborne Particulate or Gases (pCi/m^3)	Fish (pCi/kg, wet)	Milk (pCi/l)	Food Products (pCi/kg, wet)	Sediment (pCi/kg, dry)
gross beta	4	0.01				
H-3	3,000					
Mn-54	15		130			
Fe-59	30		260			
Co-58,60	15		130			
Zn-65	30		260			
Zr/Nb-95	15					
I-131	15[c]	0.07		1	60	
Cs-134	15	0.05	130	15	60	150
Cs-137	18	0.06	150	18	80	180
Ba/La-140	15			15		

Amendment No. 93

NOTES FOR TABLE 6.1-3

(a) The LLD is the smallest concentration of radioactive material in a sample that will be detected with 95% probability and with 5% probability of falsely concluding that a blank observation represents a "real" signal.

For a particular measurement system (which may include radiochemical separation),

$$LLD = \frac{4.66\ s_b}{E \cdot V \cdot 2.22 \cdot Y \cdot \exp(-\lambda \Delta t)}$$

Where:

LLD is the a priori lower limit of detection, as defined above (in picocurie per unit mass or volume);

s_b is the standard deviation of the background counting rate or of the counting rate of a blank sample, as appropriate (in counts per minute);

E is the counting efficiency (in counts per transformation);

V is the sample size (in units of mass or volume);

2.22 is the number of transformations per minute per picocurie;

Y is the fractional radiochemical yield (when applicable);

λ is the radioactive decay constant for the particular radionuclide;

Δt is the elapsed time between sample collection (or end of the sample collection period) and time of counting.

Typical values of E, V, Y, and Δt should be used in the calculations.

(b) It should be recognized that the LLD is defined as an a priori (before the fact) limit representing the capability of a measurement system and not as an a posteriori (after the fact) limit for a particular measurement. Analyses shall be performed in such a manner that the stated LLDs will be achieved under routine conditions. Occasionally background fluctuations, unavoidable small sample sizes, the presence of interfering nuclides, or other uncontrollable circumstances may render these LLDs unachievable. In such cases, the contributing factors shall be identified and described in the Annual Radiological Environmental Operating Report.

(c) No drinking water pathway exists at the Nine Mile Point Site under normal operating conditions due to the direction and distance of the nearest drinking water intake. Therefore, an LLD value of 15 pCi/liter is used.

7. The Radioactive Effluent Release Report shall contain the cause for unavailability of any environmental sample required by Table 6.1.1 and shall identify the locations for obtaining replacement samples. This shall also include a revised figure(s) and table for the ODCM reflecting the new location(s). Refer to Specification 6.1.c.

8. The Radioactive Effluent Release Report shall contain new locations identified in the land use census in accordance with Specifications 6.2.b or 6.2.c.

9. The Radioactive Effluent Release Report shall contain the events leading to the condition which resulted in exceeding 10 curies for tanks specified in the Limiting Conditions for Operation, Section 2.5.a.

d. Annual Radiological Environmental Operating Report

Routine Radiological Environmental Reports covering the operation of the unit during the previous calendar year shall be submitted prior to May 1 of each year.

The Annual Radiological Environmental Operating Reports shall include summaries, interpretations, and an analysis of trends of the results of the radiological environmental surveillance activities for the report period. The report shall include a comparison with preoperational studies, operational controls (as appropriate), and environmental surveillance reports from the previous five years, and an assessment of the observed impacts of the plant operation on the environment. The reports shall also include the results of the Land Use Census required by Specification 6.2

The Annual Radiological Environmental Operating Reports shall include the results of analysis of all radiological environmental samples and of all measurements taken during the period pursuant to Table 6.1-1, as well as summarized and tabulated results of these analyses and measurements in the format of the table in the Radiological Assessment Branch Technical Position, Revision 1, November 1979. In the event that some individual results are not available for inclusion in the report, the report shall note and explain the reasons for the missing results. The missing data shall be submitted as soon as possible in a supplementary report.

The reports shall also include the following: A summary description of the Radiological Environmental Monitoring Program; at least two legible maps* covering all sampling locations and keyed to a table giving distances and directions from the centerline of one reactor; the results of participation in the Interlaboratory Comparison Program required by Specification 6.3 (or appropriate EPA cross-check program code), and discussion of all analyses in which the LLD's required by Table 6.1-3 were not routinely achievable.

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* One map shall cover stations near the site boundary; a second shall include the more distant stations.

ATTACHMENT II
TO
JPN-88-021

PROPOSED CHANGE TO TECHNICAL SPECIFICATIONS APPENDIX A

NEW YORK POWER AUTHORITY

JAMES A. FITZPATRICK NUCLEAR POWER PLANT
DOCKET NO. 50-333
DPR-59

C. Revisions of the ODCM:

1. shall be submitted to the Commission in the Semiannual Radioactive Effluent Release Report for the period in which the revisions were made effective. This submittal shall contain:

   a. sufficiently detailed information to support the rationale for the revisions without benefit of additional information (information submitted shall consist of revised pages of the ODCM, with each page numbered and provided with an approval and date box, together with appropriate evaluations justifying the revisions);

   b. a determination that the revisions will not reduce the accuracy or reliability of dose calculations or setpoint determinations; and

   c. documentation that the revisions have been reviewed and found acceptable by the PORC.

2. shall become effective upon issue following review and acceptance by the PORC.

6.18 MAJOR MODIFICATIONS TO RADIOACTIVE LIQUID, GASEOUS AND SOLID WASTE TREATMENT SYSTEMS*

A. Major modifications to radioactive waste systems (liquid, gaseous and solid):

1. shall be reported to the Commission in the Semiannual Radioactive Effluent Release Report for the period in which the modification is completed and made operational. The discussion of each modification shall contain:

   a. a summary of the evaluation that led to the determination that the modification could be made in accordance with 10 CFR 50.59;

   b. sufficient information to support the reason for the modification without benefit of additional or supplemental information; and

   c. a description of the equipment, components and processes involved and the interfaces with other plant systems.

*The Authority may elect to submit the information called for in this Specification as part of the annual 10 CFR 50.59 Safety Evaluation Report.

ATTACHMENT III
TO
JPN-88-021

SAFETY EVALUATION
FOR PROPOSED CHANGES RELATED TO
RADIOLOGICAL EFFLUENT TECHNICAL SPECIFICATIONS
APPENDICES A & B

NEW YORK POWER AUTHORITY

JAMES A. FITZPATRICK NUCLEAR POWER PLANT
DOCKET NO. 50-333
DPR-59

Section I DESCRIPTION OF PROPOSED CHANGES

This application for amendment proposes to revise certain portions of the FitzPatrick Radiological Effluent Technical Specifications (RETS), Appendix B, and Technical Specifications, Appendix A. These changes will further clarify and achieve consistency throughout RETS, and in no way change the intent of RETS.

Specifically, the following changes to RETS (Appendix B) are proposed:

[a] On page 5, Notes for Table 2.1-1, the current Note (b) defines the analysis required for gamma and beta emitters. This method is changed and the new Note (b) will read:

"With the number of operable channels less than the required minimum, effluent releases in this pathway may continue provided that, at least once per 12 hours, grab samples are collected and analyzed for principal gamma emitters at a limit of detection of at least 5×10^{-7} uCi/ml. The principal gamma emitters for which the LLD specification applies exclusively are described in Note (c) to Table 2.2-1."

[b] On page 21, Table 3.2-1, "Radioactive Gaseous Waste Sampling and Analysis Program," a new table entry for radioactive gaseous waste sampling and analysis "I-133" has been added. Type of Activity Analysis is "I-133"; and Lower Limit of Detection is "None."

[c] On page 23, Notes for Table 3.2-1, Note (d) has been reformatted for clarity as shown in Attachment I; Notes (e) and (f) have been combined and reformatted as shown in Attachment I; and the notes annotated (g) and (h) have been changed to read (f) and (g), respectively.

[d] On page 28, Section 3.5.a, a new condition for an isotopic analysis has been added (at the recombiner discharge) at the end of the first paragraph: "..or at the recombiner discharge (prior to delay of the offgases to reduce the total radioactivity)."

The following changes are proposed for Specification 3.6, "Offgas Treatment System," on pages 30 and 31.

[e] Limiting Condition for Operation (LCO), Section 3.6.b, is deleted and replaced with a new Limiting Condition for Operation (LCO) Specifications 3.6.b and 3.6.c, which contains requirements for charcoal beds to be in service when offgas treatment system operation is required.

[f] The surveillance requirement, Specification 3.6.a, is revised to correspond with the new LCOs.

The following changes are proposed for LCO Specification 3.7, "Offgas Treatment System Explosive Gas Mixture Instrumentation," on page 33.

[g] LCO Specifications 3.7.b.1, 3.7.b.2, and 3.7.b.3 have been changed to the following:

In Specifications 3.7.b.1, the word "primary" is deleted. Also, the word "system" is added after offgas recombiner.

LCO Specifications 3.7.b.2 and 3.7.b.3 have been changed to the following:

2. The offgas recombiner inlet temperature sensor shall alarm and automatically isolate the offgas recombiner system at a temperature not less than 125°C.

3. The offgas recombiner outlet temperature shall alarm and automatically isolate the offgas treatment system at a temperature of not less than 150°C."

[h] In Surveillance Requirement Specification 3.7.c, the following phrase has been added in the middle of the first sentence; "..in lieu of continuous hydrogen or oxygen monitoring." In addition, the word effluent is added after recombiner in LCO specification 3.6.c for clarity.

The following changes are proposed for Table 3.10-1 "Radiation Monitoring Systems That Initiate and/or Isolate Systems" on page 37.

[i] Note (a) is removed from the "Minimum No. of Operable Instrument Channels" title and placed at each individual numbered instrument channels in that column.

[j] In the "Minimum No. of Operable Instrument Channels" column for the Mechanical Vacuum Pump Isolation, "2" has been deleted and replaced with note "(h)."

[k] The words "for Both Channels" have been deleted from the "Total number of Instrument Channels Provided by Design" column.

[l] In Note (a), the phrase "..two operable or tripped instrument channels per trip system" is revised to read "..one operable or tripped instrument channel per system."

[m] In Note (h), the second sentence will read:

"Refer to Appendix A, Table 3.2-1, for minimum number of operable instrument channels and action required."

The following changes are to Table 3.10-2, "Minimum Test and Calibration Frequency for Radiation Monitoring Systems," on page 38.

[n] Note "(i)" in the Instrument Channel Calibration title is deleted.

[o] The calibration entry for instrument channels "Turbine and radwaste building monitors" have been changed from "Semiannually" to "Quarterly."

[p] On page 49, Note (d) to Figure 5.1-1, the words "(ground level)*," and the corresponding (*) footnote stating that no credit taken for the elevations of these release points and therefore treated as ground level releases, is deleted.

[q] On page 56, Table 6.1-1 (Operational Radiological Environmental Monitoring Program) food product entries "a." and "b." are deleted. Also, entry item "c" is revised to read:

"a. In lieu of the garden census as specified in 6.2, samples of 3 of three different kinds of broad leaf vegetation (such as vegetables) grown nearest each of two different offsite locations of highest predicted site average D/Q (based on all licensed site reactors).

One (1) sample of each of the similar broad leaf vegetation grown at least 9.3 miles distant in a least prevalent direction sector(d)."

[r] On page 58, Table 6.1-2, "Reporting Level For Radioactivity Concentrations In Environmental Samples", the reporting level entry for water has been changed from "2" to "20" for Iodine-131.

[s] On page 59, Table 6.1-3, "Detection capabilities For Environmental Sample Analysis Lower Limit Of Detection", the detection capability entry for water has been changed from "1" to "15" for Iodine-131.

[t] On page 60, Notes for Table 6.1-3, Note (c) is revised to read:

"(c) No drinking water pathway exists at the Nine Mile Point Site under normal operating conditions due to the directions and distance of the nearest drinking water intake. Therefore, an LLD value of 15 pCi/liter is used."

[u] On page 68, Specification 7.3.d (Annual Radiological Environmental Operating Report), delete the word "the" from the fourth paragraph ("centerline of the reactor") and revise the phrase to read "centerline of one reactor."

The following change is proposed for the Technical Specifications (Appendix A):

[v] On page 258c, Specification 6.18 "Major Modifications To Radioactive Liquid, Gaseous And Solid Waste Treatment Systems," the asterisk footnote, which provides an alternative to submit the information in this Tech Specs as part of the FSAR update, is changed to provide the information called for as part of the 10 CFR 50.59 annual report.

Section II PURPOSE OF THE PROPOSED CHANGES

On July 1, 1985 the NRC issued RETS for FitzPatrick as Amendment 93 to the Operating License. Since the issuance of RETS, minor problems or errors that require clarification or correction have arisen. The proposed changes clarify or correct these minor items and in no way change the intent of RETS. The proposed changes are designed to improve and facilitate the use of RETS.

The proposed change (item [a]) to Note (b) for Table 2.2-1 redefines the method for analysis of gamma emitters. The current specification requires a "gross radioactivity (beta or gamma)" analysis if monitors do not meet operability requirements. However, a principal gamma emitter analysis

would be more appropriate. This is because gamma emitters are analyzed by gamma spectroscopy that is reliable, readily available, and more accurate than gross gamma analysis.

The proposed change (item [b]) to Table 3.2-1, "Radioactive Gaseous Waste Sampling and Analysis Program," on page 21, adds Iodine-133 for activity analysis (dose determination). This change is consistent with Section 3.2 for gaseous dose rates and FitzPatrick's Offsite Dose Calculation Manual (ODCM). A method for the dose determination of Iodine-133 is included in the ODCM. This change will clarify Table 3.2-1 for consistency.

The proposed changes (item [c]) to page 23 will clarify the notes. The intent of the notes, however, is not changed. The footnotes in Table 3.2-1, on page 21, are changed to correspond with the new footnotes.

The proposed change (item [d]) to Surveillance Requirement 3.5.a, on page 28, clarifies the noble gas sample location stated in this specification. Currently, the sampling location is at the discharge of the SJAE. This is too restrictive and non-conservative. During offgas recombiner operation, the most representative sample of gross radioactivity release rate of noble gases from the main condenser is obtained at the recombiner discharge. Therefore, sampling of offgas should also be allowed at the recombiner discharge.

The proposed changes (items [e] & [f]) to the "Offgas Treatment System," Specification 3.6, adds new LCOs and the corresponding surveillance requirement. The new Specifications (3.6.b and 3.6.c) address the charcoal bed bypass capability and clarifies Specification 3.6.

The Offgas Treatment System at the FitzPatrick plant includes the capability to bypass the charcoal beds. This bypass capability should be addressed in RETS. Specifically, the expected dose from gaseous effluent releases to a member of the public should be projected when the charcoal beds are bypassed. The dose impact from the one month release should be compared to 0.2 mrad for gamma radiation, 0.4 mrad for beta radiation, or 0.3 mrem to any organ. If the dose projection indicates that these values will be exceeded, then the charcoal beds must be used. The values for the projected impact correspond to approximately one forty-eighth of the annual design dose objective values of 10 CFR 50 Appendix I, in one month. If continued for one year, these values would correspond to less than one-fourth the corresponding annual limits.

Calculations for projected cumulative doses that could result from bypassing the charcoal beds will be performed according to the method provided in FitzPatrick's ODCM. This proposed change requires the use of the offgas treatment system during power operation or notification of the NRC.

The proposed changes (item [g]) to LCO Specifications 3.7.b.2 and 3.7.b.3 clarify two of the three conditions that govern the automatic isolation of the offgas treatment system. These two conditions deal primarily with the offgas recombiner inlet and outlet temperature sensor instrumentation limits. The current specifications are confusing, since the offgas recombiner is not properly described.

Surveillance Requirement 3.7.c verifies that offgas treatment system discharge hydrogen concentration be less than 4% by volume, weekly. This is intended to accompany the associated LCO requirement 3.7.c, which requires verification of the amount of hydrogen in the system. The proposed change (item [h]) will clarify this surveillance requirement.

The proposed changes (items [i] thru [m]) to Table 3.10-1 clarify the notation for footnote (a). Footnote (a) only applies to the first six trip functions listed in that table not including the Mechanical Vacuum Pump Isolation Trip Function. In addition, Note (a) is clarified to state that there shall be one operable or tripped instrument channel per system, since only one trip channel is required for operation. The words "for Both Channels" are deleted from the heading of the table for clarity.

The proposed changes (items [n] and [o]) to Table 3.10-2 delete note (i) from the calibration column, since it only applies to instrument channel functional testing. This was a typographical error. Also, the instrument channel calibration frequency, for the turbine and radwaste building exhaust, has been changed from "semiannually" to "quarterly" for consistency. This is in keeping with current procedures for channel calibration frequency.

The proposed change (item [p]) to Note (d) for Figure 5.1-1 (Site Boundary Map), on page 49, deletes the words "ground level*," with the corresponding footnote. The footnote (*) erroneously states, "No credit taken for the elevations of these release points and therefore treated as ground level releases." The release points from the building vents are commonly called ground level as opposed to stack releases which are called elevated. However, offsite dose calculations do

take into account the actual elevation of the vents. The procedure for calculating offsite doses is in the ODCM.

The proposed changes (item [q]) to Table 6.1-1, "Operational Radiological Environmental Monitoring Program," on page 56, are consistent with Nile Mile Point Units 1 & 2 RETS. The contents found under the subheading Food Products (items a. and b.) are deleted, since it provides an alternative for milk sampling. Milk sampling has been performed since 1974 and will be continued in the future. This program is a site program that includes NMP Units 1 & 2 and FitzPatrick. These changes also meet NRC criteria found in the Standard Technical Specification for boiling water reactors.

The proposed changes (items [r], [s], & [t]) to Tables 6.1-2 & 6.1-3, on pages 58, 59, & 60, delete the reporting levels of 1 and 2 pCi/liter for Iodine-131 in water samples. Due to the direction and distance of the nearest water intake, the Nine Mile Point site (NMP), which includes the FitzPatrick plant, does not have a drinking water pathway under normal operating conditions. To be consistent with the most recent NRC criteria and NMP site RETS, values of 15 and 20 pCi/liter for Iodine-131, in water samples, are used. Also, the corresponding footnote (c), on page 60, is revised to be consistent with the changes made in Table 6.1-3 for drinking water samples.

The proposed change (item [u]) to Specification 7.3.d, on page 68, clarifies the reactor centerline appointed for the environmental sample locations listed in the Annual Environmental Operating Report. The words "the reactor" are replaced with "one reactor" to allow the use of either the Nine Mile Point Unit 2 or FitzPatrick reactor centerline.

Previously, the distances and directions of environmental sample locations have been calculated using the NMP Unit 2 reactor centerline. The NRC guidance allows the use of center of reactors for sites with joint environmental programs for the calculation of distance and direction of environmental sample locations. The FitzPatrick plant will continue to use the Nine Mile Point Unit 2 reactor centerline in Annual Environmental Operating Reports.

Lastly, the proposed change (item [v]) to the Technical Specifications (Appendix A), eliminates the FSAR as an alternative for reporting modifications to the radioactive waste system. This requirement will be furnished in either the semiannual report or the annual 10 CFR 50.59 Safety Evaluation Report.

Section III IMPACT OF THE PROPOSED CHANGES

The proposed changes to the RETS, Appendix B, and Technical Specifications, Appendix A, will not impact plant safety or operation. All of the changes are administrative or editorial in nature. There are no setpoint changes regarding isolation or alarms. The proposed changes do not involve safety limit changes. These changes clarify or correct errors as currently written in the specifications. The proposed changes are designed to improve and facilitate the use of RETS. These changes will help the plant operators by achieving consistency and reducing the necessity for interpretation of RETS.

The proposed change, on page 5, to the current Note (b), does not impact plant operations, since it clarifies grab sample analysis for radionuclides.

The proposed change related to additional specification and reporting requirements, Specification 3.6, does not impact plant operation, since it clarifies the charcoal beds operability when bypassed. Projected cumulative doses that could result from bypassing the charcoal beds, will now be monitored.

The addition of Iodine-133 proposed to Table 3.2-1 on page 21, and the rearrangement of the table footnotes on page 23, are needed to achieve consistency throughout RETS. These proposed changes, therefore, are administrative in nature and do not impact facility operation.

The proposed change related to the sampling location for gross radioactivity release rate of noble gases, Surveillance Requirement 3.5.a, provides an alternative location for better sampling. The current specification is too restrictive when sampling during different modes of offgas recombiner operations. This change will not affect plant operations.

The proposed changes to pages 56, 58, 59, 60, and 68 do not impact facility operation. They are administrative in nature and consistent with the Nile Mile Point RETS.

The proposed change in Appendix A, on page 258c, eliminates the FSAR as an alternative for reporting major modifications to radioactive waste systems. This change does not impact facility operation, since the reporting requirements will be included in either the semiannual radioactive effluent release report or the annual 10 CFR 50.59 safety evaluation report.

The proposed changes to RETS, Appendix B, and the Technical Specifications, Appendix A, do not change any system or subsystem and will not alter the conclusions of either the FSAR or SER accident analysis.

Section IV EVALUATION OF SIGNIFICANT HAZARDOUS CONSIDERATIONS

The proposed changes to the James A. FitzPatrick RETS, Appendix B, and Technical Specifications, Appendix A, involve no significant hazard considerations. They are administrative changes such as: correction of an error; a change in nomenclature; or clarification of a specification. Operation of the FitzPatrick plant in accordance with the proposed amendment would not involve significant hazards considerations as defined in 10 CFR 50.92, since it would not:

(1) involve a significant increase in the probability or consequences of an accident previously evaluated, because the changes are only designed to clarify and correct RETS. They are administrative changes such as: consolidating footnotes; clarifying wording; and correcting reporting levels to achieve consistency with Nile Mile Point. There is no impact on plant operations. There are no setpoint changes regarding isolation or alarms. There is no change to the environmental monitoring program. The changes will have no impact on previously evaluated accidents.

(2) create the possibility of a new or different kind of accident previously evaluated. As stated above, the proposed amendment does not involve physical changes to the facility. The changes are administrative in nature and do not involve safety limit changes. These proposed changes are intended to further clarify and improve RETS. The changes cannot create a new or different accident.

(3) involve a significant reduction in the margin of safety. The proposed amendment will achieve consistency throughout the specifications and clarify or correct errors. There is no impact on plant operations, nor are there any setpoint or safety limit changes regarding isolation or alarms. There is no change to the environmental monitoring program. The proposed changes are designed to improve and facilitate the use of RETS. The changes will assist the operator in better understanding of these specifications. The proposed changes do not reduce safety margins of any kind.

The Authority considers that the proposed changes can be classified as not likely to involve significant hazards considerations, since the changes are administrative in nature and do not involve hardware changes nor any changes to the plant's safety related structures, systems, or components. The proposed changes are designed to improve and facilitate the use of RETS.

Section V IMPLEMENTATION OF THE PROPOSED CHANGES

Implementation of these changes, as proposed, will not impact the ALARA, Security, or Fire Protection Programs at FitzPatrick, nor will the changes impact the environment.

Section VI CONCLUSION

The proposed changes do not constitute an unreviewed safety question as defined in 10 CFR 50.59. That is, they:

a. will not change the probability or the consequences of an accident or malfunction of equipment important to safety as previously evaluated in the Safety Analysis Report;

b. will not increase the possibility of an accident or malfunction of a type different from any previously evaluated in the Safety Analysis Report;

c. will not reduce the margin of safety as defined in the basis for any technical specification;

d. do not constitute an unreviewed safety question; and

e. involve no significant hazards consideration, as defined in 10 CFR 50.92.

Section VII REFERENCES

1. James A FitzPatrick Nuclear Power Plant Final Safety Analysis Report (FSAR).

2. James A. FitzPatrick Nuclear Power Plant Safety Evaluation Report (SER).

3. PASNY letter, L. Sinclair to D. Vassallo, dated April 29, 1983.

4. NYPA letter, C. McNeill, Jr. to D. Vassallo, dated December 21, 1984 (JPN-84-086) regarding RETS Amendment Application.

5. NRC letter, H. Abelson to C. McNeill, dated July 1, 1985 (JAF-85-202) regarding the issuance of RETS.

6. U. S. Nuclear Regulatory Commission, Rules and Regulations, Title 10, Code of Federal Regulations Part 50, Appendix I, "Numerical Guides for Design Objectives and Limiting Conditions for Operation to meet 'As Low As Reasonably Achievable' for Radioactive Material in Light-Water-Cooled Nuclear Power Reactor Effluents".

7. USNRC NUREG-0473, Standard Radiological Effluent Technical Specifications for Boiling Water Reactors, Rev. 3.