



UNITED STATES
NUCLEAR REGULATORY COMMISSION
WASHINGTON, D. C. 20555

NIAGARA MOHAWK POWER CORPORATION

DOCKET NO. 50-220

NINE MILE POINT NUCLEAR STATION, UNIT 1

AMENDMENT TO FACILITY OPERATING LICENSE

Amendment No. 94
License No. DPR-63

1. The Nuclear Regulatory Commission (the Commission) has found that:
 - A. The application for amendment by Niagara Mohawk Power Corporation of New York, Inc. (the licensee) dated February 17, 1987 (corrected by letter dated July 27, 1987) and July 31, 1987 (corrected by letter dated September 11, 1987), complies with the standards and requirements of the Atomic Energy Act of 1954, as amended (the Act) and the Commission's rules and regulations set forth in 10 CFR Chapter I;
 - B. The facility will operate in conformity with the application, the provisions of the Act, and the rules and regulations of the Commission;
 - C. There is reasonable assurance (i) that the activities authorized by this amendment can be conducted without endangering the health and safety of the public, and (ii) that such activities will be conducted in compliance with the Commission's regulations;
 - D. The issuance of this amendment will not be inimical to the common defense and security or to the health and safety of the public; and
 - E. The issuance of this amendment is in accordance with 10 CFR Part 51 of the Commission's regulations and all applicable requirements have been satisfied.
2. Accordingly, the license is amended by changes to the Technical Specifications as indicated in the attachment to this license amendment, and paragraph 2.C.(2) of Facility Operating License No. DPR-63 is hereby amended to read as follows:

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(2) Technical Specifications

The Technical Specifications contained in Appendices A and B, as revised through Amendment No. 94, are hereby incorporated in the license. The licensee shall operate the facility in accordance with the Technical Specifications.

3. This license amendment is effective as of the date of its issuance.

FOR THE NUCLEAR REGULATORY COMMISSION

Robert A. Capra

Robert A. Capra, Director
Project Directorate I-1
Division of Reactor Projects, I/II

Attachment:
Changes to the Technical
Specifications

Date of Issuance: February 8, 1988

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UNITED STATES
NUCLEAR REGULATORY COMMISSION
WASHINGTON, D. C. 20555

ATTACHMENT TO LICENSE AMENDMENT

AMENDMENT NO. 94 TO FACILITY OPERATING LICENSE NO. DPR-63

DOCKET NO. 50-220

Revise Appendix A as follows:

Remove Pages

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Insert Pages

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LIMITING CONDITION FOR OPERATION

- (8) Mechanical Vacuum Pump Isolation - The system shall be isolated or the instrument channel shall be considered inoperable.
 - (9) Diesel Generator Initiation - The diesel generator shall be considered inoperable and Specification 3.6.3 shall be applied.
 - (10) Emergency Ventilation Initiation - The emergency ventilation system shall be considered inoperable and Specification 3.4.4 shall be applied.
 - (11) High Pressure Coolant Injection Initiation - The high pressure coolant injection system shall be considered inoperable and Specification 3.1.8.c shall be applied.
 - (12) Primary Containment Monitoring - The primary containment monitoring instrumentation shall be considered inoperable and Specification 3.3.2 shall be applied.
 - (13) Control Room Ventilation - The control room ventilation system shall be considered inoperable and Specification 3.4.5 shall be applied.
- b. During operation with a Maximum Total Peaking Factor (MTPF) greater than the design value, either:

SURVEILLANCE REQUIREMENT



TABLE 3.6.2h

VACUUM PUMP ISOLATION

Limiting Condition for Operation

<u>Parameter</u>	<u>Minimum No. of Tripped or Operable Trip Systems</u>	<u>Minimum No. of Operable Instrument Channels Per Operable Trip System</u>	<u>Set Point</u>	<u>Reactor Mode Switch Position in Which Function Must Be Operable</u>		
<u>MECHANICAL VACUUM PUMP</u>						
High Radiation Main Steam Line	2	2	≤5 times normal(a) background	x	x	x

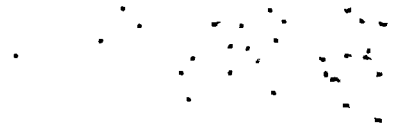


TABLE 4.6.2h

VACUUM PUMP ISOLATION

Surveillance Requirement

<u>Parameter</u>	<u>Sensor Check</u>	<u>Instrument Channel Test</u>	<u>Instrument Channel Calibration</u>
<u>MECHANICAL VACUUM PUMP</u>			
High Radiation Main Steam Line	Once/shift	Once per week	Once per 3 months



NOTES FOR TABLE 3.6.14-1

- (a) Provide alarm, but do not provide automatic termination of release.
- (b) An operator shall be present in the Radwaste Control Room at all times during a release.
- (c) With the number of channels operable less than required by the minimum channels operable requirement, effluent releases may continue provided that prior to initiating a release:
 - 1. At least two independent samples are analyzed in accordance with Specification 4.6.15.a, and
 - 2. At least two technically qualified members of the Facility Staff independently verify the release rate calculations and discharge line valving.

Otherwise suspend release of radioactive effluents via this pathway.

- (d) With the number of channels operable less than required by the minimum channels operable requirement, effluent releases via this pathway may continue provided that, at least once per 12 hours, grab samples are collected and analyzed for gamma radioactivity at a lower limit of detection of at least 5×10^{-7} microcurie/ml.
- (e) During discharge, with the number of channels operable less than required by the minimum channels operable requirement, effluent releases via this pathway may continue provided the flow rate is estimated at least once per 4 hours during actual releases.
- (f) With the number of channels operable less than required by the minimum channels operable requirement, liquid additions to this tank may continue provided the tank liquid level is estimated during liquid additions to the tank.
- (g) Tanks included in this specification are those outdoor tanks that are not surrounded by liners, dikes or walls capable of holding the tank contents.
- (h) deleted
- (i) Monitoring will be conducted continuously by alternately sampling the reactor building and turbine building service water return lines for approximately 15-minute intervals.



Table 3.6.14-2
RADIOACTIVE GASEOUS PROCESS AND EFFLUENT MONITORING INSTRUMENTATION

Limiting Condition for Operation

<u>Instrument</u>	<u>Minimum Channels Operable</u>	<u>Applicability</u>	<u>Action</u>
1. Stack Effluent Monitoring			
a. Noble Gas Activity Monitor	1	*	(a)
b. Iodine Sampler Cartridge	1	*	(b)
c. Particulate Sampler Filter	1	*	(b)
d. Sample Flow Rate Measuring Device	1	*	(c)
e. Stack Gas Flow Rate Measuring Device	1	*	(d)
2. Main Condenser Offgas Treatment Explosive Gas Monitoring System			
a. Hydrogen Monitor (f)	1	**	(e)

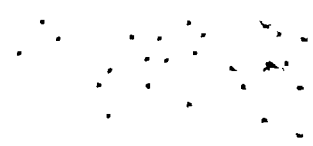
* At all times.
 ** During Offgas System Operation.



Table 3.6.14-2
RADIOACTIVE GASEOUS EFFLUENT MONITORING INSTRUMENTATION (Continued)

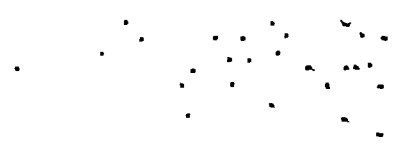
<u>Instrument</u>	<u>Minimum Channels Operable</u>	<u>Applicability</u>	<u>Action</u>
3. Condenser Air Ejector Radioactivity Monitor (Recombiner discharge or air ejector discharge)			
a. Noble Gas Activity	1	***	(g)
b. Offgas System Flow Rate Measuring Devices	1	***	(c)
c. Sampler Flow Rate Measuring Devices	1	***	(c)
4. Emergency Condenser System			
a. Noble Gas Activity Monitor	1 per vent	****	(h)

*** During operation of the main condenser air ejector
**** During reactor power operating condition



NOTES FOR TABLE 3.6.14-2

- (a) With the number of channels operable less than required by the minimum channels operable requirement, effluent releases via this pathway may continue provided grab samples are taken once per 12 hours and these samples are analyzed for gross activity within 24 hours.
- (b) With the number of channels operable less than required by the minimum channels operable requirements, effluent releases via this pathway may continue provided that samples are continuously collected with auxiliary sampling equipment starting within 8 hours of discovery in accordance with the requirements of Table 4.6.15-2.
- (c) With the number of channels operable less than required by the minimum channels operable requirements, effluent releases via this pathway may continue provided the flow rate is estimated once per 8 hours.
- (d) Stack gas flow rate may be estimated by exhaust fan operating configuration.
- (e) With the number of channels operable less than required by the minimum channels operable requirement, operation of the main condenser offgas treatment system may continue provided gas samples are collected and analyzed once per 8 hours.
- (f) One monitor on each recombiner. The system is designed to withstand the effects of a hydrogen explosion.
- (g) With the number of channels operable less than required by the minimum channels operable requirement, gases from the main condenser offgas treatment system may be released provided:
 - 1. Offgas grab samples are collected and analyzed once per 12 hours.
 - 2. The stack monitor is operable.
 - 3. Otherwise, be in at least hot shutdown within 12 hours.
- (h) With the number of channels operable less than required by the minimum channels operable requirements, steam release via this pathway may commence or continue provided vent pipe radiation dose rates are monitored once per four hours.



LIMITING CONDITION FOR OPERATION

3.6.15 RADIOACTIVE EFFLUENTS (Continued)

d. Uranium Fuel Cycle

The annual (calendar year) dose or dose commitment to any member of the public due to releases of radioactivity and to radiation from uranium fuel cycle sources shall be limited to less than or equal to 25 mremS to the total body or any organ, except the thyroid, which shall be limited to less than or equal to 75 mremS.

With the calculated doses from the release of radioactive materials in liquid or gaseous effluents exceeding twice the limits of Specifications 3.6.15.a.2(b), 3.6.15.b.2(b) and 3.6.15.b.3(b), calculations shall be made including direct radiation contributions from the reactor units and from outside storage tanks to determine whether the above listed 40CFR190 limits have been exceeded. If such is the case, prepare and submit to the Commission within 30 days, pursuant to Specification 6.9.3, a Special Report that defines the corrective action to be taken to reduce subsequent releases to prevent recurrence of exceeding the above limits and includes the schedule for achieving conformance with the above limits. This Special Report, as defined in 10CFR Part 20.405c, shall include an analysis that estimates the radiation exposure (dose) to a member of the public from uranium fuel cycle sources, including all effluent pathways and direct radiation, for the

SURVEILLANCE REQUIREMENT

4.6.15 RADIOACTIVE EFFLUENTS (Continued)

d. Uranium Fuel Cycle

Cumulative dose contributions from liquid and gaseous effluents shall be determined in accordance with Specifications 4.6.15.a.(2), 4.6.15.b.(2) and 4.6.16.b.(3) and in accordance with the methodology and parameters in the Offsite Dose Calculation Manual.

Cumulative dose contributions from direct radiation from the reactor units and from radwaste storage tanks shall be determined in accordance with the methodology and parameters in the Offsite Dose Calculation Manual. This requirement is applicable only under conditions set forth in Specification 3.6.15.d.

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Exposure Pathway
and/or Sample

Number of Samples^(a)
and Locations

Sampling and Collection
Frequency (a)

Type of Analysis
and Frequency

INGESTION

Milk

- 1) Samples from milk sampling locations in 3 locations within 3.5 miles distance having the highest calculated site average D/Q. If there are none, then 1 sample from milking animals in each of 3 areas 3.5-5.0 miles distant having the highest calculated site average D/Q (based on all site licensed reactors)
- 2) 1 sample from a milk sampling location at a control location (9-20 miles distant and in a least prevalent wind direction)^(d)

Twice per month, April-December (samples will be collected in January-March if I-131 is detected in November and December of the preceding year)

Gamma isotopic^(c) and I-131 analysis twice per month when animals are on pasture (April-December); once/month at other times (January-March) if required

Fish

- 1) 1 sample each of two commercially or recreationally important species in the vicinity of a plant discharge area^(h)
- 2) 1 sample each of the same species from an area at least 5 miles distant from the site.^(d)

Twice per year

Gamma isotopic analysis^(c) on edible portions twice per year

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Exposure Pathway
and/or Sample

Food Products

Number of Samples(a)
and Locations

- 1) Samples of three different kinds of broad leaf vegetation (such as vegetables) grown nearest to each of two different off-site locations of highest calculated site average D/Q (based on all licensed site reactors)
- 2) One sample of each of the similar broad leaf vegetation grown at least 9.3-20 miles distant in a least prevalent wind direction

Sampling and Collection
Frequency (a)

Once per year during harvest season

Type of Analysis
and Frequency

Gamma isotopic (c) analysis of edible portions (isotopic to include I-131 or a separate I-131 analysis may be performed)
Once during the harvest season

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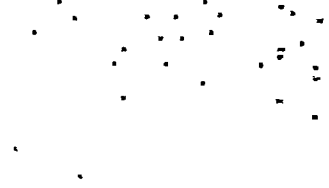


TABLE 4.6.20-1
DETECTION CAPABILITIES FOR ENVIRONMENTAL SAMPLE ANALYSIS^(a,b)
LOWER LIMIT OF DETECTION LLD (c)

Surveillance Requirement

<u>Analysis</u>	<u>Water (c)</u> (pCi/l)	<u>Airborne Particulate</u> <u>or Gases (pCi/m3)</u>	<u>Fish</u> (pCi/kg, wet)	<u>Milk</u> (pCi/l)	<u>Food Products</u> (pCi/kg, wet)	<u>Sediment</u> (pCi/kg, dry)
gross beta	4	0.01				
H-3	2000 *					
Mn-54	15		130			
Fe-59	30		260			
Co-58, Co-60	15		130			
Zn-65	30		260			
Zr-95, Nb-95	15					
I-131	1 **	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		

* If no drinking water pathway exists, a value of 3000 pCi/liter may be used.

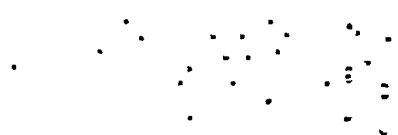
** If no drinking water pathway exists, a value of 15 pCi/liter may be used.

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NOTES FOR TABLE 4.6.20-1

It should be recognized that the LLD is defined as a before the fact limit representing the capability of a measurement system and not as an after the fact limit for the 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 pursuant to Specification 6.9.1.d.



LIMITING CONDITION FOR OPERATION

SURVEILLANCE REQUIREMENT

3.6.22 LAND USE CENSUS

Applicability:

Applies to the performance of a land use census in the vicinity of the Nine Mile Point Nuclear Facility.

Objective:

To determine the utilization of land within a distance of three miles from the Facility.

Specification:

A land use census shall be conducted and shall identify within a distance of three miles the location in each of the 16 meteorological sectors the nearest residence and within a distance of three miles the location in each of the 16 meteorological sectors of all milk animals. In lieu of a garden census, specifications for vegetation sampling in Table 3.6.20-1 shall be followed, including analysis of appropriate controls.

With a land use census identifying a milk animal location(s) that represents a calculated D/Q value greater than the D/Q value currently being used in specification 4.6.15.b.3, identify the new location(s) in the next Semi-Annual Radioactive Effluent Release Report.

4.6.22 LAND USE CENSUS

Applicability:

Applies to assuring that current land use is known.

Objective:

To verify the appropriateness of the environmental surveillance program.

Specification:

The land use census shall be conducted during the growing season at least once per 12 months using that information that will provide the best results, such as conducting a door-to-door survey, aerial survey or consulting local agriculture authorities. The results of the land use census shall be included in the Annual Radiological Environmental Operating Report.



6.9.1 Routine Reports (cont'd)

e. Semi-annual Radioactive Effluent Release Report **

Routine Radioactive Effluent Release Reports covering the operation of the unit during the previous 6 months of operation shall be submitted within 60 days after January 1 and July 1 of each year. The period of the first report shall begin on January 1, 1985.

The Radioactive Effluent Release Reports shall include a summary of the quantities of radioactive liquid and gaseous effluents and solid waste released from the unit as outlined in Regulatory Guide 1.21, "Measuring, Evaluating, and Reporting Radioactivity in Solid Wastes and Releases of Radioactive materials in Liquid and Gaseous Effluents from Light-Water-Cooled Nuclear Power Plants," Revision 1, June 1974, with data summarized on a quarterly basis following the format of Appendix B thereof.

The Radioactive Effluent Release Report to be submitted within 60 days after January 1 of each year shall include an annual summary of hourly meteorological data collected over the previous year. This annual summary may be either in the form of an hour-by-hour listing on magnetic tape of wind speed, wind direction, atmospheric stability, and precipitation (if measured), or in the form of joint frequency distributions of wind speed, wind direction, and atmospheric stability.* This same report shall include an assessment of the radiation doses from radioactive liquid and gaseous effluents to members of the public due to their activities inside the site boundary (Figure 5.1-1) during the report period. All assumptions used in making these assessments, i.e., specific activity, exposure time and location, shall be included in these reports. The assessment of radiation doses shall be performed in accordance with the methodology and parameters in the Offsite Dose Calculation Manual.

The Radioactive Effluent Release Report to be submitted 60 days after January 1 of each year shall also include an assessment of radiation doses to the likely most exposed member of the public from reactor releases and other nearby uranium fuel cycle sources, including doses from primary effluent pathways and direct radiation, for the previous calendar year to show conformance with 40 CFR Part 190, Environmental Radiation Protection Standards for Nuclear Power Operation. Acceptable methods for calculating the dose contribution from liquid and gaseous effluents are given in the Offsite Dose Calculation Manual.

* In lieu of submission with the Semi-annual Radioactive Effluent Release Report, the licensee has the option of retaining this summary of required meteorological data on site in a file that shall be provided to the NRC upon request.

** A single submittal may be made for a multiple unit site. The submittal should combine those sections that are common to all units at the site; however, for units with separate radwaste systems, the submittal shall specify the releases of radioactive material from each unit.



TABLE 6.9.3-1
REPORTING LEVEL FOR RADIOACTIVITY CONCENTRATIONS IN ENVIRONMENTAL SAMPLES

REPORTING LEVELS

<u>Analysis</u>	<u>Water (pCi/l)</u>	<u>Airborne Particulate or Gases (pCi/m³)</u>	<u>Fish (pCi/kg, wet)</u>	<u>Milk (pCi/l)</u>	<u>Food Products (pCi/kg, wet)</u>
H-3	20,000 *				
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-95, Nb-95	400				
I-131	2 **	0.9		3	100
Cs-134	30	10.0	1,000	60	1,000
Cs-137	50	20.0	2,000	70	2,000
Ba/La-140	200			300	

* For drinking water samples. This is a 40 CFR 141 value. If no drinking water pathway exists, a value of 30,000 pCi/liter may be used.

** If no drinking water pathway exists, a value of 20 pCi/liter may be used.

