



NIAGARA MOHAWK POWER CORPORATION/300 ERIE BOULEVARD WEST SYRACUSE N.Y. 13202/TELEPHONE (315) 474-1511

October 1, 1984

Mr. Darrell G. Eisenhut, Director
Division of Licensing
Office of Nuclear Reactor Regulation
U.S. Nuclear Regulatory Commission
Washington, DC 20555

Dear Mr. Eisenhut:

Re: Nine Mile Point Unit 2
Docket No. 50-410
Comments on Draft Environmental Statement

Enclosed are Niagara Mohawk Power Corporation's comments on the Draft Environmental Statement Related to the Operation of Nine Mile Point Nuclear Station, Unit No. 2.

Very truly yours,

A handwritten signature in cursive script, appearing to read 'C. V. Mangan'.

C. V. Mangan
Vice President
Nuclear Engineering & Licensing

JAM:ja
Enclosure

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NIAGARA MOHAWK POWER CORPORATION
COMMENTS ON DRAFT ENVIRONMENTAL
STATEMENT RELATED TO THE OPERATION
OF NINE MILE POINT NUCLEAR STATION, UNIT NO. 2

1. On Page vii of the Summary and Conclusions, on Page 4-7 (Section 4.2.7, line 6-8) and on Page 6-1 (Section 6.2, lines 3-5), it is stated that the impacts from construction of the transmission line are less than expected because the 365 kV Nine Mile 2-Volney line was realigned so that it is parallel to existing lines. Impacts from construction of the transmission line are less than expected at the Construction Permit stage because of the design change from 765 kV to 345 kV, not because the line was realigned so that it is parallel to existing lines. Both the originally proposed 765 kV and the currently proposed 345 kV Nine Mile 2-Volney transmission line parallel the existing transmission lines. Impacts associated with construction of the 345 kV design are less, since no additional right of way had to be acquired and since less clearing is required compared to the 765 kV alternative.
2. On Page vii of the Summary and Conclusions, Item (5)(e), it is stated that " The applicant will continue an infrared aerial photography program to assess potential salt drift impacts to vegetation." This statement contradicts the conclusion presented in Section 5.14.1, "With three more years of experience in analyzing effects of cooling tower drift, the staff no longer believes it is necessary to monitor for possible damage when the drift deposition is as low as predicted for NMP-2" and should, therefore, be deleted.
3. On page vi of the Summary and Conclusions, Item (5)(d), it is stated that "...construction activities have disturbed about 46.7 hectares (116 acres). In the same paragraph and on Page 6-1, Section 6.2, it is further indicated that construction activities disturbed more land than was anticipated during the Final Environmental Statement - Construction Permit Stage (FES-CP), in part resulting from the changes in the cooling system design. As indicated in Table 5.1.1 of the Unit 2 Environmental Report - Operating License Stage, the total area disturbed by construction is 56.02 hectares (138.40 acres). This compares to a

predicted disturbance of 40 acres in the Final Environmental Statement - Construction Permit Stage. The change in cooling system design accounts for only a small part of this discrepancy (about 3.7 acres). The major reasons for the difference between the actual area disturbed during construction and the predicted area disturbed is that the area required for construction laydown (79.35 acres), parking (10.44 acres) and spoil material (11.79 acres) was underestimated at the Construction Permit stage.

4. On Page 4-6, it is stated that "The SPDES permit limits the effluent (outfall 030) to a flow of 65,000 gpd... The applicant anticipates the flow limit will be revised to 120,000 gpd." Niagara Mohawk has received approval from the New York State Department of Environmental Conservation to increase the average flow associated with outfall 030 (sanitary wastewater) to 120,000 gpd. A revised State Pollutant Discharge Elimination System (SPDES) Permit reflecting this change is enclosed with these comments.
5. On page 4-7 (Section 4.2.7, lines 8-11), the types of supporting structures that will be employed along the Nine Mile 2-Volney transmission line are identified. This discussion should be revised to reflect the current design as approved by the New York State Public Service Commission. Between Scriba Substation and the Volney Substation, the supporting structures of the transmission line will be wood-pole, H-frame structures with tubular steel poles at angle locations. Between Scriba Substation and Unit 2, tubular steel poles will be employed.
6. No units are identified on Table 4.5 (Page 4-26). The appropriate units are mg/l.
7. In Section 4.2.2.1 (Page 4-2, lines 6-11), a discussion of soil types at the Unit 2 site is provided. This discussion should be clarified to indicate that the soil mapping units within the site boundary which are classified as prime farmland (Sodus) and farmland of statewide importance (Scriba, Ira and Ira-Sodus), by the U.S. Soil Conservation Service, are located along the transmission right of way south of Lake Road and are not affected by the main plant facilities. Further, since agriculture is not an incompatible use along transmission line rights-of-way, it is not



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reasonable to conclude that "this land [important farmland] is irreversibly committed."

8. On Page 4-16, Paragraph 4, lines 13-15, it is stated that "The timber rattlesnake (*Crotalus horridus*) is 'likely to occur on the Unit 2 site or environs (Environmental Report Table 2.4-13)' and is listed by the state as threatened." The information provided on the timber rattlesnake in Environmental Report - Operating License Stage Table 2.4-13 was based on a 1958 Field Guide to Reptiles and Amphibians of Eastern North America by R. A. Conant. This reference cited the Oswego County coastal zone area as being within the northern extent of this species' range.

More recent references indicate that the timber rattlesnake is not likely to occur in the Oswego County coastal zone area. A 1976 habitat and wildlife inventory of the Oswego County coastal zone area conducted by the Rice Creek Biological Field Station (Environmental Report - Operating License Stage Reference No. 1) did not identify the timber rattlesnake during literature and field investigations. In addition, a 1979 Audubon Society Field Guide to North American Reptiles and Amphibians authored by J. L. Behler identifies the northern tip of the timber rattlesnake's range in the vicinity of Syracuse-Cortland, more than 30 miles south of the site. Finally, an article appearing in the New York State Conservationist (July-August 1981 authored by William S. Brown) reports the timber rattlesnake as having only scattered distribution in northern New York. According to Brown, the availability of suitable wintering habitat is the limiting factor for this species in the northern extent of its range. Suitable wintering habitat does not exist in the Oswego County coastal zone area.

9. In Section 5.14 (Environmental Monitoring) and in other sections of the document, it is indicated that an Environmental Protection Plan will be included as an appendix to the operating license. Niagara Mohawk questions the need for including an Environmental Protection Plan as an appendix to the operating license for the following reasons.

- (a) With the exception of a radiological monitoring program (which will be defined in the Unit 2 Radiological Effluent Technical Specifications) and an aquatic ecological monitoring program (which

will be conducted in accordance with State Pollutant Discharge Elimination System Permit requirements), there are no environmental monitoring programs identified in the Draft Environmental Statement to warrant preparation of an Environmental Protection Plan.

- (b) General conditions such as prompt reporting to the Commission of any important or unusual events that could result in significant environmental impact causally related to station operation can be incorporated into the Appendix A Technical Specifications.

The delegation of responsibilities for nonradiological monitoring programs to other agencies such as the Environmental Protection Agency and state water resource agencies is consistent with the Commission's approach on other dockets. For example, on February 4, 1983, the Commission requested Niagara Mohawk to submit a change to the Nine Mile Point Unit 1 (Docket No. 50-220) Environmental Technical Specifications removing all portions of the specifications dealing with nonradiological issues. A change request was submitted and an amendment subsequently approved by the Commission.

10. In Appendix D, Table D-5, a transit time of 46 hours and a dilution factor of 263 are identified for the "nearest shoreline (Lake Ontario near discharge area)." Table D-5 should be revised to clarify that a transit time of 46 hours and dilution factor of 263 applies to the nearest accessible shoreline. (Reference Environmental Report - Operating License Stage Table 5A-2)
11. On Page 4-5, Section 4.2.6.1, lines 6-9, it is stated that "Waste waters from regeneration of ion exchange resins used in the makeup demineralization water treatment system are treated by self-neutralization of the acid and caustic components in a 227,000 liter (60,000 gallon) tank to pH 6.5 to 8.5." The State Pollutant Discharge Elimination System Permit effluent limitation imposed on this waste stream is pH 6.0 to 9.0, not 6.5 to 8.5.
12. Section 4.2.1 addresses changes/additions in respect to plant facilities made since the Final Environmental Statement - Construction Permit Stage. Besides the Energy Information Center and the cooling tower, the

new training center being constructed just west of the Energy Information Center should be identified in this section. Niagara Mohawk will provide a description and assessment of the new training center in the next Environmental Report - Operating License Stage Supplement.

13. On Page 1-2, the status of Unit 2 compliance with the requirements of the Federal Coastal Zone Management Act is addressed. Subsequent to the issuance of the Draft Environmental Statement, Niagara Mohawk submitted (on July 26, 1984) certification to the New York Department of State that the operation of Unit 2 will comply with the state's approved coastal management program. Under the provisions of the Federal Coastal Zone Management Act, the Department of State must respond to this consistency certification within six months.
14. Section 4.2.6.1, Page 4-5, Paragraph 1 should be clarified to indicate that treated liquid radwaste is discharged to Lake Ontario.
15. Section 4.2.6.2, Page 4-6, Paragraph 1 should be clarified to indicate that the primary nonradioactive solid wastes from Unit 2 will be cooling tower sludge, sanitary waste sludge and debris from the trash racks and traveling screens.
16. On Figures 5.13 and 5.15, arrows on the X-axis are pointing to the Wolf Creek plant rather than Nine Mile 2.
17. On Page 4-13, Paragraph 3, line 1, it is indicated that winds are measured at the site at the 10 meter and 61 meter levels. Winds at the site are also measured at the 30 meter level.
18. On Page vi, Section (5)(a), line 6, it is stated that "The design will include... a diversion and return system for impinged fishes;..." Since fish that are diverted and returned to the lake are not impinged, the word 'impinged' should be replaced by the word 'entrapped' in this sentence. (The same comment applies to Page 5-11, Paragraph 4, line 8.)
19. Section 4.3.1.1 (Page 4-8) and Section 5.3.3.1 (Page 5-4) should be clarified to indicate that the east and west berms, Lake Road berm and the southeast berm were constructed, as shown on Figure 4.1, to protect the Unit 1 and Unit 2 plant complex from flooding.



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20. On Page 4-12, line 3, it is stated that "The local water table varies from about 261 feet msl near the plant to about 244 feet msl (lake level) near the lake..." This statement should be revised to indicate that the local water table varies from about 255 feet msl near the plant to about 244 feet msl near the lake.
21. On page 5-31, Paragraph 2, line 11, the Draft Environmental Statement inaccurately indicates that a filtered exhaust system encloses the spent fuel pool. This statement should be deleted since the spent fuel pool area is part of the refueling floor ventilation system.
22. The Benefit Cost Summary contained in the Draft Environmental Statement (Section 6.4) should be clarified to reflect the following points:
- (a) The analysis conservatively assumes an annual average capacity factor of 55 percent. Based on the historical performance of boiling water reactors, a capacity factor of 65 percent would be a more reasonable approximation for Unit 2. Further, Unit 2's capacity factor can be expected to exceed the historical average on the basis of the estimated 24 month interval between scheduled outages for the unit. Assuming a capacity factor of 55 percent understates the economic benefits of Unit 2 by approximately 20 percent.
 - (b) The qualifier "(1987 dollars)" used in this section is misleading in that it infers that the benefits of Unit 2 will increase at the rate of inflation. The qualifier should read "(for the year 1987)."
 - (c) It should be emphasized in this section that the \$128 million annual production cost savings projected by the NRC staff, under the conservative assumptions identified above, exceeds the estimated total annual production cost of \$98 million.
23. Table 5.5 is entitled "Preoperational Radiological Environmental Monitoring Program Summary." The source of information for this table is Environmental Report - Operating License Stage Table 6.2-1 which describes the proposed operational radiological monitoring program for Unit 2. Although the proposed operational radiological monitoring program is essentially a continuation of the preoperational monitoring



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program, there is one significant difference in respect to the food products section. During the preoperational monitoring program, a total of six (6) samples (utilizing at least two sections) of fruits and/or vegetables will be collected from available off-site locations of highest calculated site average D/Q.

24. In several locations of the Draft Environmental Statement (Pages 4-3, 5-2 and 5-4), it is stated that the maximum usage of water from the Oswego City Water Supply for the Unit 2 sanitary system, personnel safety and decontamination, emergency water supplies and humidifiers will be 3785 liters/day (1000 gallons/day). The source of this information was Environmental Report-Operating License Stage Section 5.2.1.2. This estimate has been revised. It is conservatively estimated that the maximum usage of city water during normal operations will be 83,270 liters/day (22,000 gallons/day). This revised estimate of city water usage does not alter the conclusion that the Unit 2 plant water requirements represent a negligible ($<0.4\%$) increase in demand on the Oswego City water supply.



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New York State Department of Environmental Conservation
Division of Regulatory Affairs, Region 7
7481 Henry Clay Boulevard
Liverpool, New York 13088
(315) 428-4697



HENRY G. WILLIAMS
Commissioner

December 2, 1983

CERTIFIED MAIL
RETURN RECEIPT REQUESTED

RE: MODIFICATION OF POLLUTANT DISCHARGE
ELIMINATION SYSTEM PERMIT
NO. NY- 000 1015
~~XXXX~~ Scriba
COUNTY OF OSWEGO
Nine Mile Point Nuclear Generation Station

Mr. J. M. Toennies, Envir. Affrs. Dir.
Niagara Mohawk Power Corporation
300 Erie Boulevard West
Syracuse, NY 13202

Dear Mr. Toennies:

This is to inform you that pursuant to Environmental Conservation Law (ECL), Article 17, Title 8 (McKinney's) and 6NYCRR, Part 757, the New York State Department of Environmental Conservation has made a determination to modify your referenced Pollutant Discharge Elimination System Permit as:

- ☐ indicated in the complete enclosed revised Permit which supersedes the previous permit
- ~~XXXX~~ indicated in the following enclosed revised permit page(s) which supersede (and/or supplement) previous corresponding pages. The remainder of the Permit continues in full force and effect.
- ~~XXXX~~ follows: the flow was modified to reflect the increase from 65,000 GPD to 120,000 GPD.

Unless otherwise specified, this modification will become effective immediately unless you petition, pursuant to ECL Section 17-0907, that you be given an opportunity to be heard in connection with this determination and where applicable, if no written objection is received by this office within 30 days after receipt of this modification by the Regional Administrator of EPA. Any such petition for a hearing shall contain specific evidence to support your contention that a hearing is necessary and that you were not previously given an opportunity to be heard.

Sincerely,

A. A. Coburn
Regional Permit Administrator

By:

Joanne L. March
Environmental Analyst Assistant

Enclosure

cc: Region No. 7-Technical
~~XXXXXXXXXXXXXXXXXXXX~~
Wm. Garvey

A. Adamczyk
R. Spear (EPA/NJ)

R. Baker (EPA)
County Health Department

New York State Department of Environmental Conservation
Division of Regulatory Affairs, Region 7
7481 Henry Clay Boulevard
Liverpool, New York 13088
(315) 428-4697



HENRY G. WILLIAMS
Commissioner

December 14, 1983

CERTIFIED MAIL
RETURN RECEIPT REQUESTED

Mr. J. M. Toennies, Envir. Affrs. Dir.
Niagara Mohawk Power Corporation.
300 Erie Boulevard West
Syracuse, NY 13202

RE: MODIFICATION OF POLLUTANT DISCHARGE
ELIMINATION SYSTEM PERMIT
NO. NY- 000 1015
(X)(T)(X) Scriba
COUNTY OF Oswego
Nine Mile Point Nuclear Generation Station

Dear Mr. Toennies:

This is to inform you that pursuant to Environmental Conservation Law (ECL), Article 17, Title 8 (McKinney's) and 6NYCRR, Part 757, the New York State Department of Environmental Conservation has made a determination to modify your referenced Pollutant Discharge Elimination System Permit as:

☐ indicated in the complete enclosed revised Permit which supersedes the previous permit

XXXX indicated in the following enclosed revised permit page(s) which supersede (and/or supplement) previous corresponding pages. The remainder of the Permit continues in full force and effect.

XXXX follows: The chlorine requirement for the contact tank is being deleted, as per agreement with Niagara Mohawk and DEC.

Unless otherwise specified, this modification will become effective immediately unless you petition, pursuant to ECL Section 17-0907, that you be given an opportunity to be heard in connection with this determination and where applicable, if no written objection is received by this office within 30 days after receipt of this modification by the Regional Administrator of EPA. Any such petition for a hearing shall contain specific evidence to support your contention that a hearing is necessary and that you were not previously given an opportunity to be heard.

Sincerely,

A. A. Coburn
Regional Permit Administrator

By:

Joanne L. March
Environmental Analyst Assistant

Enclosure

cc: Region No. 7-Technical
XXXXXX
Wm. Garvey, BPS, PAS

A. Adamczyk
R. Spear (EPA/NJ)

R. Baker (EPA)
County Health Department



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Copies: R7 - K. DelPrete

B. Garvey

R. Baker

R. Spear

Oswego County Hlth. Dept.

Niagara Mohawk - Lycoming

DRA - R7

Facility ID No.

: NY- 000 1015

Effective Date (EDP)

: July 1, 1983

Expiration Date (ExDP)

: July 1, 1988

Mr. Geisendorfer, Rm. 308, BWFD

NEW YORK STATE DEPARTMENT OF ENVIRONMENTAL CONSERVATION

STATE POLLUTANT DISCHARGE ELIMINATION SYSTEM (SPDES)

DISCHARGE PERMIT

Special Conditions

(Part I).

This SPDES permit is issued in compliance with Title 8 of Article 17 of the Environmental Conservation Law of New York State and in compliance with the Clean Water Act, as amended, (33 U.S.C. §1251 et. seq.) (hereinafter referred to as "the Act").

Permittee Name: Niagara Mohawk Power Corp.

Attn: Mr. J. M. Toennies,
Env. Affairs Director

Permittee Street: 300 Erie Boulevard West

Permittee City: Syracuse

State: N.Y.

Zip Code: 13202

is authorized to discharge from the facility described below:

Facility Name: Nine Mile Pt. Nuclear Generating Station Units #1 and 2

Facility Location (C,T,V): Scriba (T)

County: Oswego

Facility Mailing Address (Street): Lake Road

Facility Mailing Address (City): Lycoming (T)

State: N.Y.

Zip Code: 13093

into receiving waters known as:

Lake Ontario Class A Special

in accordance with the effluent limitations, monitoring requirements and other conditions set forth in this permit.

This permit and the authorization to discharge shall expire on midnight of the expiration date shown above and the permittee shall not discharge after the expiration date unless this permit has been renewed, or extended pursuant to law. To be authorized to discharge beyond the expiration date, the permittee shall apply for permit renewal as prescribed by Sections 17-0803 and 17-0804 of the Environmental Conservation Law and Parts 621, 752, and 755 of the Departments' rules and regulations.

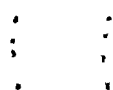
By Authority of Alternate Permit Administrator

Designated Representative of Commissioner of the
Department of Environmental Conservation

6-6-83

Date

Robert A. Porter
Signature



EFFLUENT LIMITATIONS AND MONITORING REQUIREMENTS

During the period beginning July 1, 1983
and lasting until July 1, 1988
the discharges from the permitted facility shall be limited and monitored by the
permittee as specified below:

<u>Outfall Number & Effluent Parameter</u>	<u>Discharge Limitations</u>		<u>Units</u>	<u>Monitoring Reqmts.</u>	
	<u>Daily Avg.</u>	<u>Daily Max.</u>		<u>Measurement Frequency</u>	<u>Sample Type</u>
<u>010 Condenser Cooling Water Unit #1</u>					
Flow*				Continuous	Calculated
Discharge Temperature		115	°F	Continuous	Metered
Intake - Discharge Temperature Difference ^a		35	°F	Continuous	Metered
Net Rate of addition of heat ^a		1.11	10 ⁹ kcal/hr.	Hourly	Calculated
Cyanide ^d		0.1	mg/l	Monthly	12.-hr. Composite

011 Unit #1 Wastewater

Flow*				Batch.	Calculated
				Batch before discharge	
Oil and Grease		15	mg/l	"	Grab
Suspended Solids	30	50	mg/l	"	"
pH	6.0 - 9.0 (Range) ^e		SU	"	"
Cyanide ^d	0.4		mg/l	"	"

020 Storm Drainage (No Monitoring Required) Unit #1

021 Filter Backwash & Makeup Demineralizer Water Supply

Flow*				Batch	Calculated
Oil & Grease		15	mg/l	Batch each	Grab
Suspended Solids	30	50	mg/l	" discharge	"
pH	6.0 - 9.0 (Range)		SU	"	"

022 Security Building Air Conditioning ^b

Oil and Grease		15	mg/l	Bimonthly	Grab
Suspended Solids	30	50	mg/l	"	"
pH	6.0 - 9.0 (Range)		SU	"	"



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EFFLUENT LIMITATIONS AND MONITORING REQUIREMENTS

During the period beginning with initiation of preoperational testing (Unit #2) and lasting until EDP + 5 Years the discharges from the permitted facility shall be limited and monitored by the permittee as specified below:

Outfall Number & Effluent Parameter	Discharge Limitations		Units	Monitoring Reqmts.	
	Daily Avg.	Daily Max.		Measurement Frequency	Sample Type
<u>001-006 Storm Drainage (No Monitoring Required)</u>					
<u>007 Floor and Equipment Drains</u>					
Oil and Grease		15	mg/l	2/Month	Grab
Suspended Solids	30	50	mg/l	"	"
pH	6.0 - 9.0 (Range)		SU	"	"
<u>008 Screen Well Fish Diversion System (No Monitoring Required)</u>					
<u>040 Cooling Tower Blowdown (Unit #2)^c</u>					
Flow*				Continuous	Recorder
Discharge Temperature		110(43.3)	°F(°C)	"	"
Intake - Discharge Temperature Difference		30(16.7)	"	"	"
Net Addition of Heat		0.12 x 10 ⁹	kcal/hr.	Daily	Calculated
Total Residual Chlorine	0.2	0.5	mg/l	Continuous	Recorder
pH	6.0 - 9.0 (Range)		SU	2/Week	Grab
<u>041 Unit #2 Wastewater (Including Demineralizer Regeneration Wastes, Filter Backwash, Floor Drains, & Treated Radioactive Wastes^e.)</u>					
Flow*				Batch	Calculated
Oil and Grease		15	mg/l	"	Grab (once before discharge)
Suspended Solids	30	50	mg/l	"	"
pH	6.0 - 9.0 (Range)		SU	"	"

FOOTNOTES

*Monitoring Requirement Only

^aThe intake temperature shall be considered that temperature existing after intake water tempering.

^bThese limits and monitoring requirements shall not apply if this wastewater is discharged upstream of the sewage treatment facility.

^cThere shall be no discharge of heat from the main condensers except heat may be discharged in-blowdown from recirculated cooling water systems provided the temperature at which the blowdown is discharged does not exceed at any time the lowest temperature of recirculated cooling water prior to the addition of the makeup water.

^dMonitoring and limits may be deleted following DEC evaluation of monitoring data.

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^epH range of 4.0 - 9.0 is allowable for wastewater having a conductivity of less than 10⁴ mho/cm



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Effluent Limitations (Maximum Limits except where otherwise indicated)

Monitoring Requirements

Sample Location

7-42-1 (2, 3)



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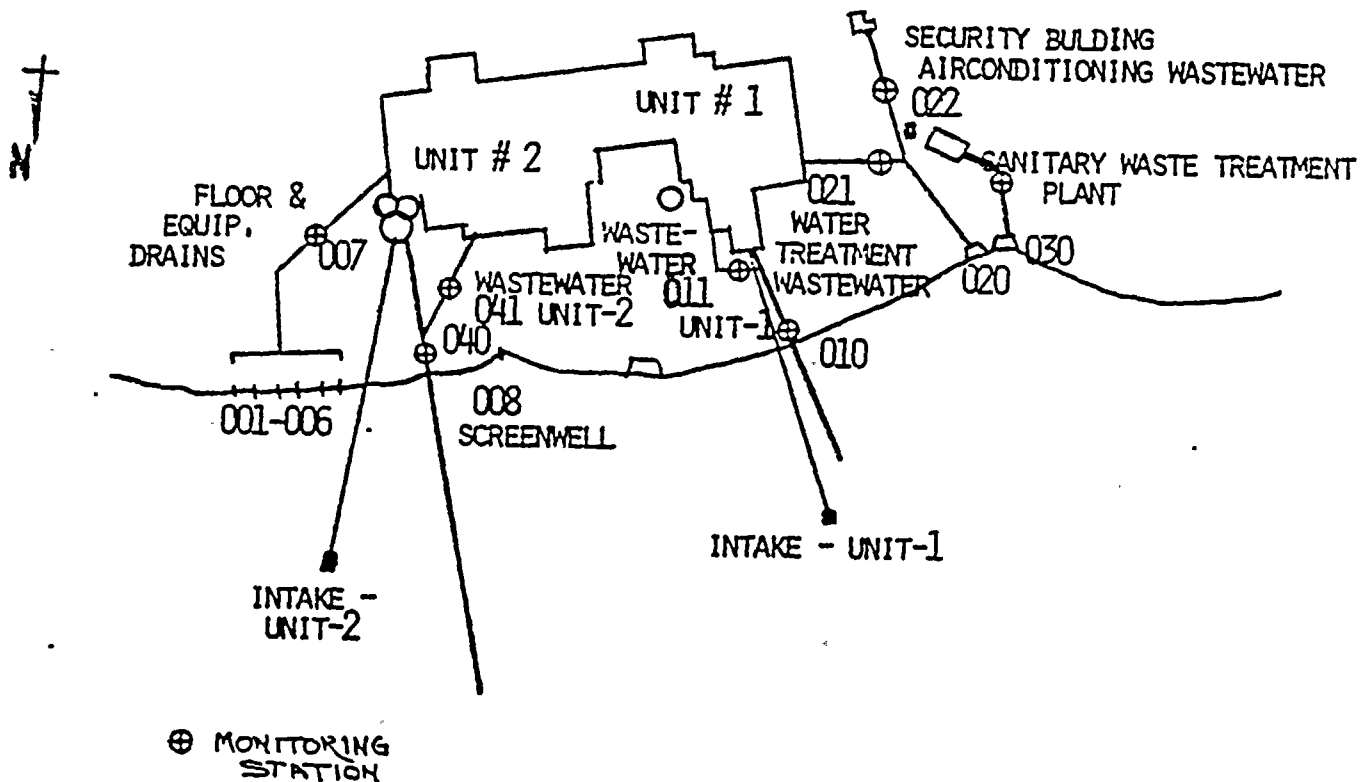
Definition of Daily Average and Daily Maximum

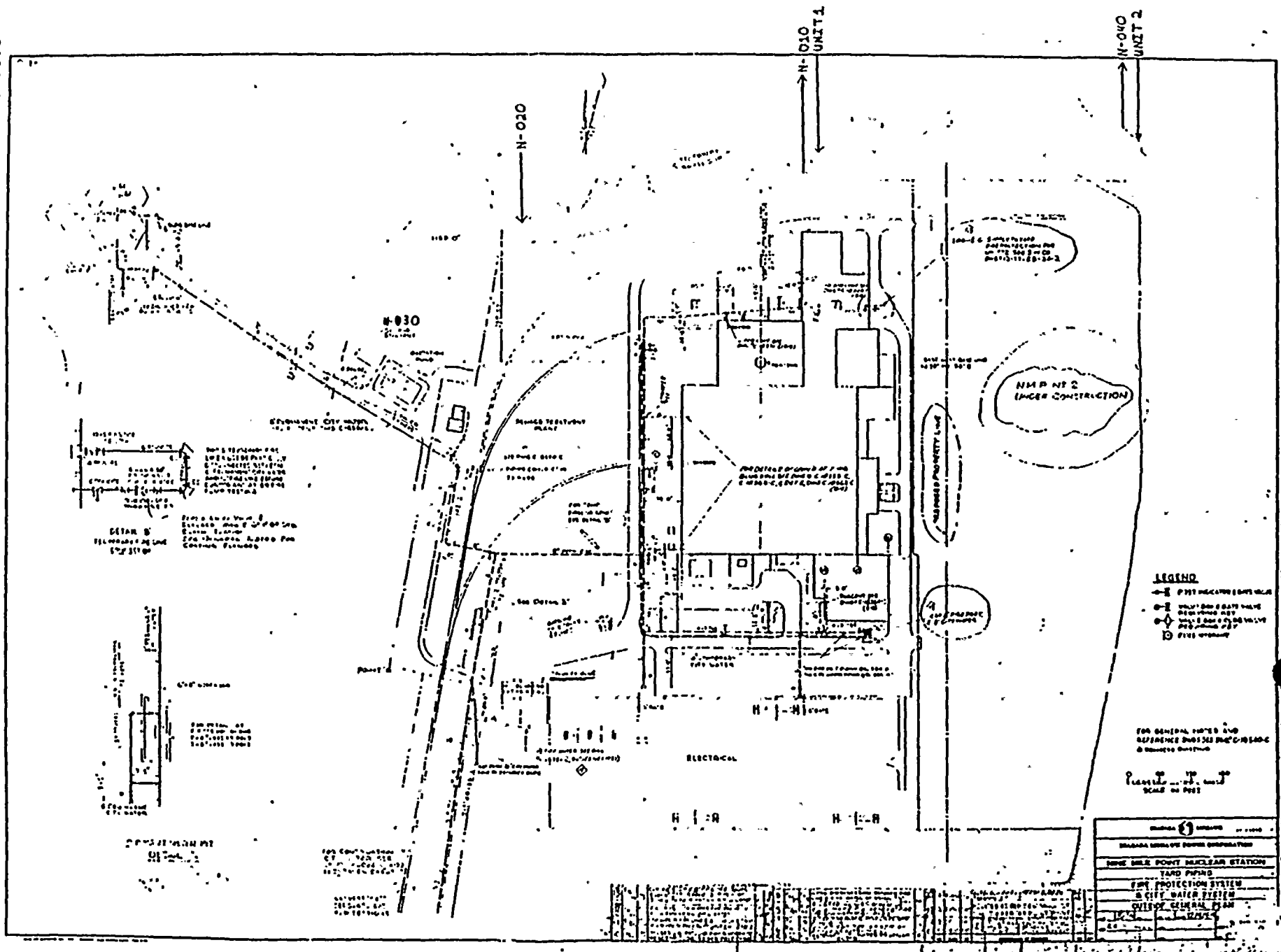
The daily average discharge is the total discharge by weight or in other appropriate units as specified herein, during a calendar month divided by the number of days in the month that the production or commercial facility was operating. Where less than daily sampling is required by this permit, the daily average discharge shall be determined by the summation of all the measured daily discharges in appropriate units as specified herein divided by the number of days during the calendar month when the measurements were made.

The daily maximum discharge means the total discharge by weight or in other appropriate units as specified herein, during any calendar day.

Monitoring Locations

Permittee shall take samples and measurements to meet the monitoring requirements at the location(s) indicated below: (Show locations of outfalls with sketch or flow diagram as appropriate).







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ADDITIONAL REQUIREMENTS:

I. The following requirements are applicable to Units #1 and #2.

1. There shall be no discharge of PCB's from this facility.
2. In regard to general conditions 11.5, items #3 and #4 shall be reported semi-annually to NYSDEC offices in Cortland and Albany.
3. There shall be no discharge of boiler chemical cleaning compounds, metal cleaning wastewater, or boiler blowdown from this facility.
4. Radioactivity
 - a. Gross Beta - Shall not exceed 1,000 picocuries per liter in the absence of Sr^{90} and alpha emitters.
 - b. Radium 226 - Shall not exceed 3 picocuries per liter.
 - c. Strontium 90 - Shall not exceed 10 picocuries per liter.
5. The permittee shall submit on a trimesterly basis a report to the Department's offices in Cortland and Albany by the 28th of the month following the end of the period. Submission of reports for Unit #2 shall commence with the initiation of reactor low power testing.
 - a. Daily minimum, average, and maximum station electrical output shall be determined and logged.
 - b. Daily minimum, average, and maximum water use shall be directly or indirectly measured or calculated and logged.
 - c. Daily minimum, average, and maximum intake and discharge temperatures shall be logged.
 - d. Measurements in a, b, and c shall be taken on an hourly basis.
6. The location, design, construction, and capacity of cooling water intake structures, in connection with point source thermal discharges, shall reflect the best technology available for minimizing adverse environmental impact.
7. All thermal discharges to the waters of the state shall assure the protection and propagation of a balanced indigenous population of shellfish, fish, and wildlife in and on the body of water.



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8. Niagara Mohawk shall notify the Department within one week from the time of submission to the Nuclear Regulatory Commission of any requested changes to the Environmental Technical Specifications requirements which could in any way affect the requirements of this permit.
9. Niagara Mohawk shall also submit concurrently to the Department any water-related report on the environment it submits to any federal, state, or local agency.
10. Niagara Mohawk shall provide access to the Nine Mile Point Site at any time to representatives of the Department subject to site security regulations to assess the environmental impact of the operation of the Nine Mile Point Nuclear Facility and to review any sampling program, methodology, and the gathering and reporting of any data.
11. No biocides, slimicides, or corrosion control chemicals are authorized for use, except for those listed by parameter in the permit. Prior Department approval is required for any additional use of these chemicals as well as for the use of any new water treatment chemicals.

II. The following requirements are applicable to Unit #1.

1. By August 1, 1983, the permittee shall submit final plans, signed and sealed by an engineer licensed to practice in New York State, describing the addition of storage capacity for discharges 011 and 021. Construction to be initiated by October 1, 1983.
2. The Department has approved the applicant's request pursuant to Section 316(a) of the Clean Water Act (CWA) for alternative effluent limitations at this facility. The thermal effluent limitations on page 2 of this permit reflect this approval.
3. The water temperature at the surface of Lake Ontario shall not be raised more than three Fahrenheit degrees over the temperature that existed before the addition of heat of artificial origin except in a mixing zone consisting of an area of 425 acres from the point of discharge, this temperature may be exceeded.
4. The Department has contingently approved the applicant's consideration of intake impacts submitted pursuant to Section 316(b) of the CWA. Completion of the biological monitoring program described in Additional Requirement Section IV and demonstration of impacts similar to previous studies is required to obtain final approval of the 316(b) request.

III. The following requirements are applicable to Unit #2.

1. By initiation of reactor lower power testing, the company shall file for approval with the Department at its offices in Albany and Syracuse an updated report on all Unit #2 water treatment, corrosion inhibitor, anti-fouling, slimicide, biocide, and boiler cleaning chemicals or compounds. Such report shall identify each product by chemical formula and/or composition, annual consumption, frequency of use, maximum use per incident, effluent concentration, bioassay and toxicity limits, and procedures for use. Approval shall only be granted for those circumstances and uses which do not contravene New York State Water Quality Standards. No substitutions will be allowed without prior approval. Wastewaters containing chemicals and oil shall be collected and treated prior to dilution with non-contact cooling water in facilities which shall be approved by the Department.
2. No discharge from this facility shall cause violation of the New York State Department of Health regulations contained in 10 NYCRR Part 170 at the source of intake of any water supply used for drinking, culinary or food processing purposes.
3. Pursuant to Part 704 Criteria Governing Thermal Discharges, Section 704.3-Mixing Zone Criteria, upon the presentation of a final design for the discharge, the Department shall specify, as appropriate, definable numerical limits for the mixing zone, including linear distances from the point of discharge, surface area involvement, and volume of receiving water entrained in the thermal plume.
4. Not less than 180 days prior to the initiation of discharge from the Nine Mile Point Nuclear Generating Station Unit #2, Niagara Mohawk shall submit for approval to the Department of Environmental Conservation a plan of study for:

Verification of the extent of the thermal plume in the receiving waters by conducting thermal surveys in alternate months except for December through March during the first two years of operation.
5. Existing biological studies in Lake Ontario as required by regulatory agencies shall continue. Such study programs shall be adjusted as required by regulatory agencies to assess the operating impact of Unit #2. Requirements to submit reports, frequency of submission, and content shall be established at the time of approval of the study programs.

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6. Not less than 180 days prior to the initiation of discharges from the Nine Mile Point Nuclear Generating Station Unit #2, Niagara Mohawk shall submit to the NYSDEC office in Albany three copies of the following plans and specifications. Plans shall be stamped by an engineer licensed in New York State.
 - a. Plans of proposed structures, including intake structure, diffuser, tunnel cross section, cooling tower, screenwell building, and equipment (including pumps).
 - b. Plans of all on-site treatment facilities including oil/water separators.
 - c. Piping and/or flow diagrams for all facility waste streams, including any piping to or from Nine Mile Point Unit #1 and contaminated plant and site drainage.
 - d. Flow diagram of circulating cooling water system from the intake to the diffuser.

IV. Biological Monitoring and Related Matters - Unit #1

- A. Previous Biological Monitoring Data - EDP + 3 Months, the permittee shall file with the Chief, Bureau of Environmental Protection in Albany; Fishery Section head in Cape Vincent; and with the Regional Supervisor of Fish and Wildlife in Syracuse a report containing and/or identifying all previous reports regarding this facility which contain biological data relating to the ecological effects of plant operation from March 31, 1975 to the present. Previously submitted reports need not be duplicated, but title, date, and data location must be completely identified. A copy of all unsubmitted reports and data shall be sent to the above offices by EDP + 3 Months. Data to be reported should include, but is not necessarily limited to cooling water flows, dates, times, available operating and meteorological conditions, and species, numbers and other available biological information.
- B. Impingement Monitoring - The permittee shall conduct a program to determine the numbers and total weights by species of fish impinged on all intake traveling screens.
 1. Collections shall be made seventy-eight (78) days each year, provided that the circulating water pumps are in operation. When collection days coincide with shut down of the main circulating water pumps, collections need not be taken. Collections shall be obtained at the following intensity on days randomly selected within each month. Should the randomly selected dates result in a period in excess of 10 days during any month in which sampling does not occur,



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additional sampling is required so that periods in excess of 10 days without a sample do not occur.

<u>Month</u>	<u>Number of Sample Days</u>
January	4
February	4
March	4
April	16
May	20
June	4
July	4
August	6
September	4
October	4
November	4
December	4

2. Collections shall be conducted for a minimum period of 24 hours. The beginning of the 24-hour period shall be selected and held constant by the permittee for all collections. A collection period shall be no longer than 26 hours. Impingement collection shall be calculated and reported on a 24-hour basis.
3. Travelling screens shall be washed until they are clean prior to the start of the 24-hour collection period.
4. Individual length (cm) and weight (g) measurements shall be made on white perch, smallmouth bass, yellow perch, alewife, rainbow smelt, and each species of salmonid in order to characterize the size distribution for each 24-hour collection. No less than 25 organisms of each species shall be measured unless fewer than 25 individuals occur in the collection.

If more than 25 individuals of a single species are collected, except for smallmouth bass, yellow perch and each species of salmonid which are to be processed separately, a representative subsample of 25 fish shall be removed and lengths and weights recorded for the subsample. In the event of high impingement numbers, an estimate of the numbers and total weights by species fish shall be calculated as follows:

$$\text{Estimated No. of Fish} = \frac{(\text{Volume of Total Sample}) \times (\text{No. of Fish in Subsample})}{\text{Volume of Subsample}}$$

The total sample volume shall be determined by repeatedly filling a volumetrically graduated 20-gallon plastic container and then recording and summing the values. The total volume is then thoroughly mixed by hand or with a shovel and spread



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out evenly over a flat surface. An aliquot of the total sample is randomly selected and this sample portion is removed from the flat surface and measured in the graduated container to determine its approximate volume. The total number of fish in the subsample is then determined.

In the event of extremely large impingement loads, the permittee may request regional staff to make adjustments to or suspend the above subsampling procedures.

5. Electrical output and operation of the condenser cooling water system including intake and discharge temperature and total flow shall be recorded on a daily basis and tabulated as required in the following section on reporting.
6. By EDP + 3 Months, the permittee shall file for approval at the office in Section IV.A. above, a plan which will determine the collection efficiency of the following impinged organisms: white perch, smallmouth bass, yellow perch, alewife, and rainbow smelt. Prior collection efficiency data specific to this plant may be substituted for the above plan provided that it is submitted by EDP + 3 Months, to the NYSDEC and approved by the NYSDEC.

C. Reporting

1. All data required by Section IV or incorporated by reference in Section IV shall be included in an annual biological monitoring report.
2. The annual report shall be submitted by six months from the last month of data collection.
3. The following shall be included in the annual report in addition to (1) above:
 - a. Monthly and annual totals of impingement by species and grand total over all species. The calculations to be done are as follows:
 - Monthly "mean" is equal to the total number of fish impinged by species on the sampling days in the month divided by the total number of sampling days.
 - Annual "mean" is equal to the total number of fish impinged by species on the sampling days in the year divided by the total number of sampling days.



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Similar calculations shall be made for grand total over species. The total number of fish and sampling days shall be clearly indicated in any table reporting the "totals".

- b. An estimate of the collection efficiencies to be determined pursuant to Section IV.B.6. above. If sufficient time is not available to include these estimates in the first annual report, the permittee may, upon written request and substantiation and with NYSDEC approval, extend this reporting requirement into an annual report other than the initial.
- c. Estimates shall be developed of the average monthly impingement rate based on the number of sampling days and total volume of water pumped during these days, and also of the total monthly impingement based on the average monthly rate and the volume of water pumped during the month, for each species impinged.
4. All measurements shall use the metric system, e.g., flows should be in cubic meters/sec. (m^3/s).
5. Copies of all reports regarding water and biological parameters related to intake and discharge considerations, whether generated for this permit or otherwise, shall be sent to the offices in Section IV.A. above.
6. Report(s) submitted in fulfillment of permit conditions shall clearly identify on the title page the permit number and the specific section(s) by character and number that the report(s) fulfill. Each section of the text of such report(s) shall identify the section(s) of the permit that it fulfills.
7. NYSDEC reserves the right to have more frequent submittal of the data required to be reported, provided that the permittee is given at least one (1) month prior notice of such more frequent reporting requirements.
8. The measures the permittee instituted, if any, in the reporting year to accomplish minimization of facility impacts on aquatic biota shall be sent to the offices in Section IV.A. above.
9. The formats for reporting the following data are included in Appendix A. Data sheets and formats for reporting the following data:
 - a. Flow
 - b. Temperature
 - c. Circulator operation
 - d. Electrical output

are available from the office of Environmental Protection.

- D. Biological specimens may be required to be submitted to the NYSDEC upon request.
- E. The facility shall be operated in such a manner as to minimize facility impacts on aquatic biota.
- F. As a result of the NYSDEC's review of the biological monitoring program, the permittee may be required to implement appropriate methods and procedures to reduce to the fullest extent possible the effects of facility operation on aquatic organisms.

SCHEDULE OF COMPLIANCE FOR EFFLUENT LIMITATIONS

(a) Permittee shall achieve compliance with the effluent limitations specified in this permit for the permitted discharge(s) in accordance with the following schedule:

<u>Action Code</u>	<u>Outfall Number(s)</u>	<u>Compliance Action</u>	<u>Due Date</u>
02	011 & 021	Approvable Final Plans-Waste Storage Tanks (Additional Requirement # II.1.)	8/1/83
04	011 & 021	Commencement of Construction (Additional Requirement #II.1)	10/1/83
01	A11	Chemical Use Report-Unit #2 (Additional Requirement #III.1)	Initiation of reactor low power testing.
44	040	Plan of Study-Thermal Plume Verification (Additional Requirement #III.4).	180 days prior to initiation of discharge.
02	040	Final Plans-Circulating Cooling Water & Waste Treatment (Additional Requirement #III.6)	180 days prior to initiation of discharge.
39	NA	Compilation of Reports containing Biological Data (Additional Requirement #IV.1.a)	EDP + 3 Months
44	NA	Plan of Study-Collection Efficiency (Additional Requirement #IV.6)	EDP + 3 Months

(b) The permittee shall submit to the Department of Environmental Conservation the required document(s) where a specific action is required in (a) above to be taken by a certain date, and a written notice of compliance or noncompliance with each of the above schedule dates, postmarked no later than 14 days following each elapsed date. Each notice of noncompliance shall include the following information:

1. A short description of the noncompliance;
2. A description of any actions taken or proposed by the permittee to comply with the elapsed schedule requirement without further delay;
3. A description of any factors which tend to explain or mitigate the noncompliance; and
4. An estimate of the date permittee will comply with the elapsed schedule requirement and an assessment of the probability that permittee will meet the next scheduled requirement on time.

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MONITORING, RECORDING AND REPORTING

Part I
Page 16 of 17
Facility ID No.: NY 000 1015

a) The permittee shall also refer to the General Conditions (Part II) of this permit for additional information concerning monitoring and reporting requirements and conditions.

b) The monitoring information required by this permit shall be summarized and reported by submitting a completed and signed Discharge Monitoring Report form once every months to the Department of Environmental Conservation and other appropriate regulatory agencies at the offices specified below. The first report will be due no later than
Thereafter, reports shall be submitted no later than the 28th of the following month(s):

Water Division
New York State Department of Environmental Conservation
50 Wolf Road - Albany, New York 12233

New York State Department of Environmental Conservation
Regional Engineer
7481 Henry Clay Blvd.
Liverpool, New York 13088

Oswego County Dept. of Health.
70 Bunner Street
Oswego, New York 13126

☒ (Applicable only if checked):

Dr. Richard Baker, Chief - Permits Administration Branch
Planning & Management Division
USEPA Region II
26 Federal Plaza
New York, New York 10278

c) If so directed by this permit or by previous request, Monthly Wastewater Treatment Plant Operator's Reports shall be submitted to the DEC Regional Office and county health department or county environmental control agency specified above.

d) Monitoring must be conducted according to test procedures approved under 40 CFR Part 136, unless other test procedures have been specified in this permit.

e) If the permittee monitors any pollutant more frequently than required by the permit, using test procedures approved under 40 CFR 136 or as specified in the permit, the results of this monitoring shall be included in the calculation and reporting of the data submitted in the Discharge Monitoring Reports.

f) Calculations for all limitations which require averaging of measurements shall utilize an arithmetic mean unless otherwise specified in the permit.

g) Unless otherwise specified, all information submitted on the Discharge Monitoring Form shall be based upon measurements and sampling carried out during the most recently completed reporting period.

h) Blank Discharge Monitoring Report Forms are available at the above addresses.



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SCHEDULE OF COMPLIANCE FOR EFFLUENT LIMITATIONS
(Continued)

c) The permittee shall submit copies of the written notice of compliance or noncompliance required herein to the following offices:

Chief, Compliance Section
New York State Department of Environmental Conservation
50 Wolf Road
Albany, New York 12233

Regional Engineer #7
New York State Department of Environmental Conservation
7481 Henry Clay Boulevard
Liverpool, NY 13038

Oswego County Dept. of Health
70 Bunner Street
Oswego, New York 13126

USEPA Region II
Planning and Management Division
26 Federal Plaza
New York, New York 10278

The permittee shall submit copies of any engineering reports, plans of study, final plans, as-built plans, infiltration-inflow studies, etc. required herein to the New York State Department of Environmental Conservation Regional Office specified above unless otherwise specified in this permit or in writing by the Department or its designated field office.

91-18-2 (9/76)



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