

REGULATORY INFORMATION DISTRIBUTION SYSTEM (RIDS)

ACCESSION NBR: 8104210233 DOC. DATE: 81/04/14 NOTARIZED: NO DOCKET #
 FACIL: 50-220 Nine Mile Point Nuclear Station, Unit 1, Niagara Powe. 05000220
 AUTH. NAME AUTHOR AFFILIATION
 HANSEN, G.K. New York, State of
 RECIP. NAME RECIPIENT AFFILIATION
 IPPOLITO, T.A. Operating Reactors Branch 2.

SUBJECT: Notices of approval of util request for alternative thermal effluent limitations for cooling water discharge. Proposed mods re heat & heat differences listed. Draft State of NY pollutant discharge elimination sys permit encl.

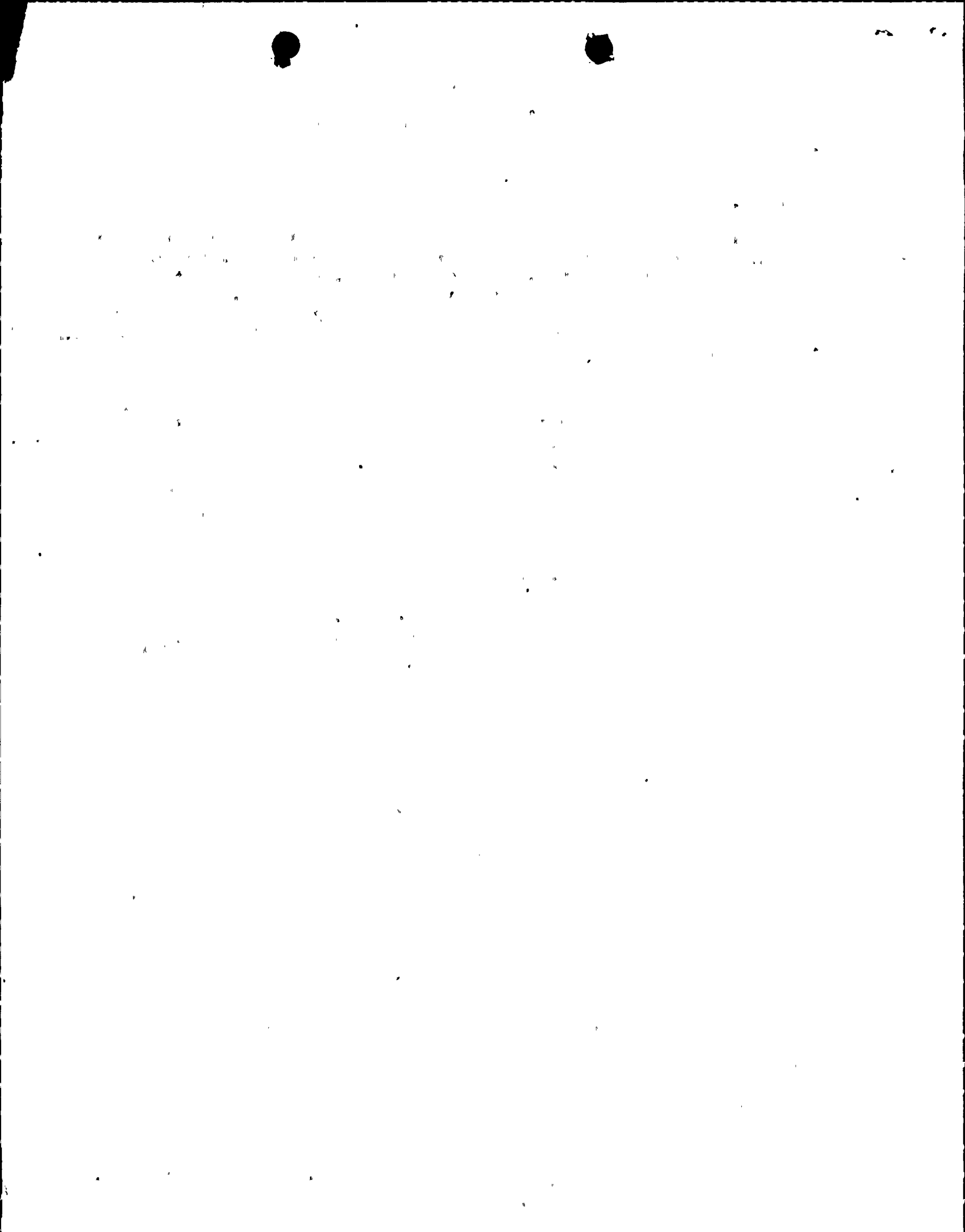
DISTRIBUTION CODE: C002S COPIES RECEIVED: LTR ENCL SIZE: 13
 TITLE: Environ. Comments.

NOTES:

ACTION:	RECIPIENT		COPIES		RECIPIENT	COPIES	
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ACTION:	IPPOLITO, T.	17	7	7	POLK, P.	05	1 1
INTERNAL:	ACCIDENT EVAL BR		1	1	EF TREAT SYS BR		1 1
	ENV ENG. BR	09	1	1	HYD/GEO BR		1 1
	HYDRO-GEO BR		1	1	I&E	07	2 2
	NRC PDR	02	1	1	QELD		1 0
	RAD ASSESSMT BR		1	1	<u>REG FILE</u>	01	1 1
	SIT ANAL BR	10	1	1	UTIL FINANCE BR		1 1
EXTERNAL:	ACRS		1	0	LPDR	03	1 1
	NATL LAB	20	5	5	NSIC	04	1 1

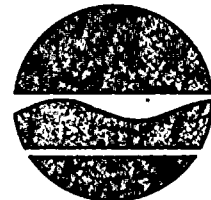
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New York State Department of Environmental Conservation
50 Wolf Road, Albany, New York 12233

Division of Water



Robert F. Flacke
Commissioner

April 14, 1981

Director of Nuclear
Reaction Regulation
Attn: Mr. Thomas A. Ippolito
Chief Operating Reactors
Branch #2
U. S. Nuclear Regulatory Commission
Washington, DC 20555

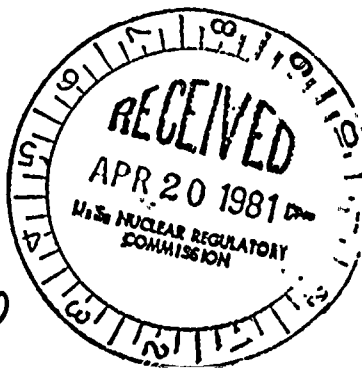
Re: Niagara Mohawk Power Corp.
Nine Mile Point Unit #1
SPDES NY 000 1015

Dear Mr. Ippolito:

Niagara Mohawk has requested alternative thermal effluent limitations for their Nine Mile Point Unit #1 facility cooling water discharge. Niagara Mohawk has determined that the existing limitations improperly characterize the circulating cooling water at this facility, and have proposed the following modifications.

	<u>Existing</u>	<u>Modification</u>
Discharge Temperature	112°F (44.5°C)	115°F (46.1°C)
Intake - Discharge Temperature Difference	32°F (17.8°C)	35°F (19.4°C)
Net Rate of Addition of Heat	4.2 x 10 ⁹ BTU/hr (1.06 x 10 ⁹ kcal/hr)	4.32 x 10 ⁹ BTU/hr (1.11 x 10 ⁹ kcal/hr)

Niagara Mohawk submitted a document entitled, "Assessment of Biological Impacts of Increasing the ΔT Limitations at Nine Mile Point Unit #1", and associated engineering calculations to support their request. Department biologists and engineers have reviewed this material and have determined that the environmental impacts of the modification are within acceptable limits.



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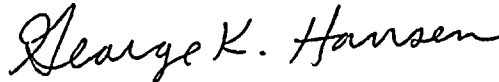
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The discharge will not violate State thermal water quality criteria or water quality standards. Therefore, we have made a tentative determination to approve this request and have included these proposed limitations in the modified draft SPDES permit (copy enclosed) for this facility. This draft SPDES permit will be subject to public notice pursuant to Part 753 of New York's permit program regulations. At the conclusion of the public notice period, a decision will be made to either issue the permit as originally drafted, issue the permit with modifications, or hold a public hearing.

If you have any questions, please call this office at (518) 457-4125.

Very truly yours,

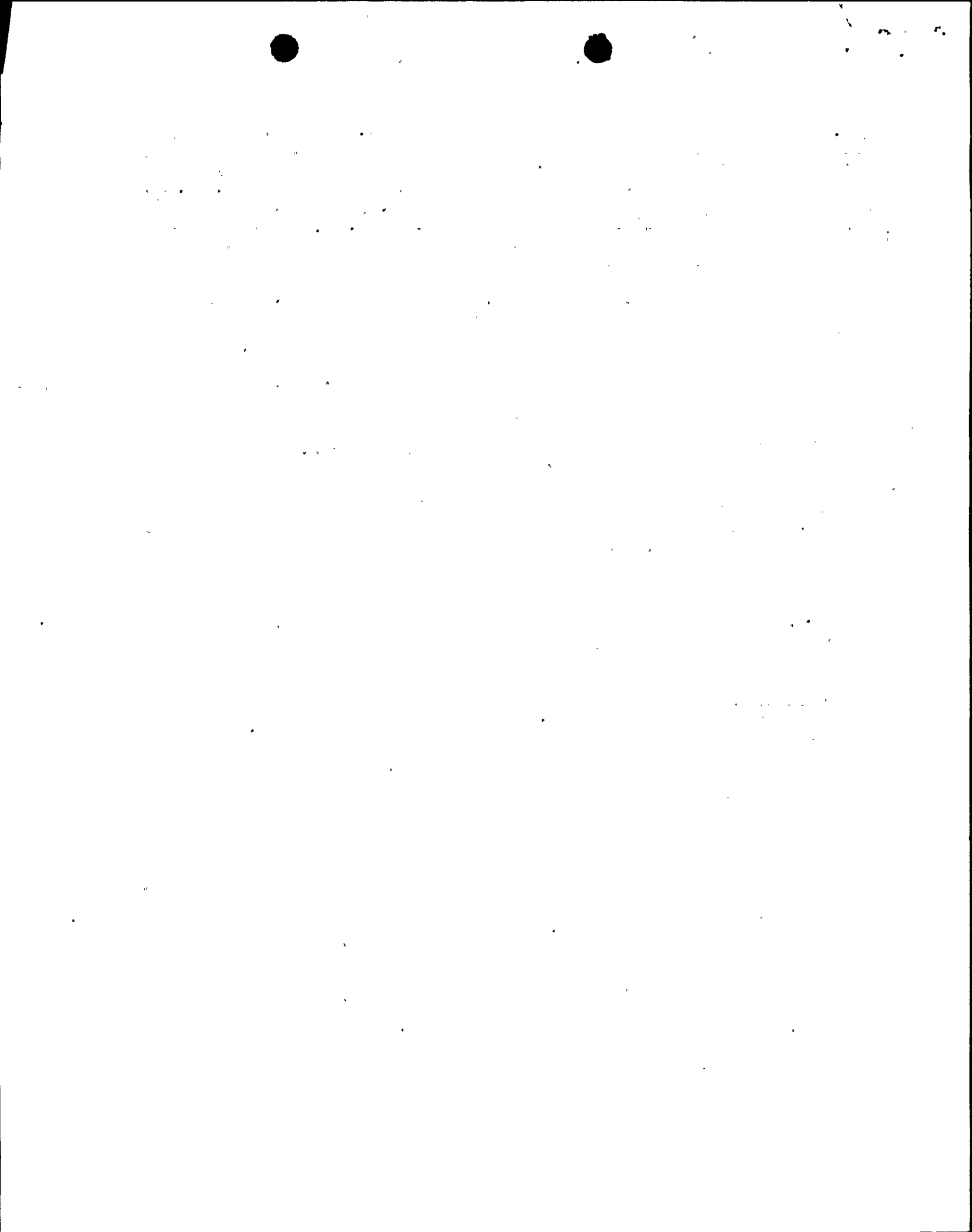


George K. Hansen, P.E.
Chief, P.D.E.S. Permit Section
Bureau of Permits & Compliance
Division of Water

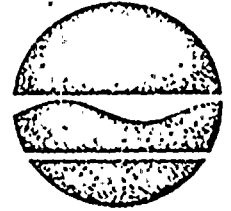
Enclosure

cc: Mr. Toennies
Niagara Mohawk Power Corp.
Oswego Co. Health Dept.
EPA Region II
Ed Horn, Env. Protection, DEC
Region #7
BIP

GKH/ANG/jrb



New York State Department of Environmental Conservation
PDES Permit Section, Room 201
50 Wolf Road, Albany, New York 12233



April 15, 1981

Robert F. Flacke,
Commissioner

Niagara Mohawk Power Corporation
300 Erie Boulevard West
Syracuse, New York 13202

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

Re: Application for Permit to
Discharge Under New York State
State Pollutant Discharge
Elimination System (SPDES)
Application No. NY-0001015
Scriba (T), Oswego County

Dear Mr. Toennies:

Enclosed is a "Notice of Application" which you are to have published in its entirety (except for bracketed material) one time only on any day during the week of April 27 - May 1, 1981 in the Syracuse, New York, Herald-Journal newspaper.

Read over the enclosed "Notice of Application" carefully before submitting it to the newspaper for publication, and contact this office immediately if there are any errors. The "Notice" should not be revised or edited unless authorized by this office.

Please request the newspaper publisher to provide you with a "proof of publication" for this notice. Upon receipt of the "proof of publication" promptly forward it to this office for filing with your application. You must pay for the cost of the publication directly to the newspaper.

Please be advised that any delay or failure to comply with requirements for publication may necessitate appropriate legal action if there are existing discharges from this facility; or cancellation of your application if this is a proposed project.

A copy of the draft SPDES permit is also enclosed for your review and comments. Comments (if any) may be submitted to this office prior to the "cut-off date" underlined on the enclosed "Notice". Do not send the draft permit to the newspaper for publication.

If you have any questions, please call Mr. George Hansen
at Area Code 518, 457-4125, 457-4126.

Very truly yours,

George K. Hansen

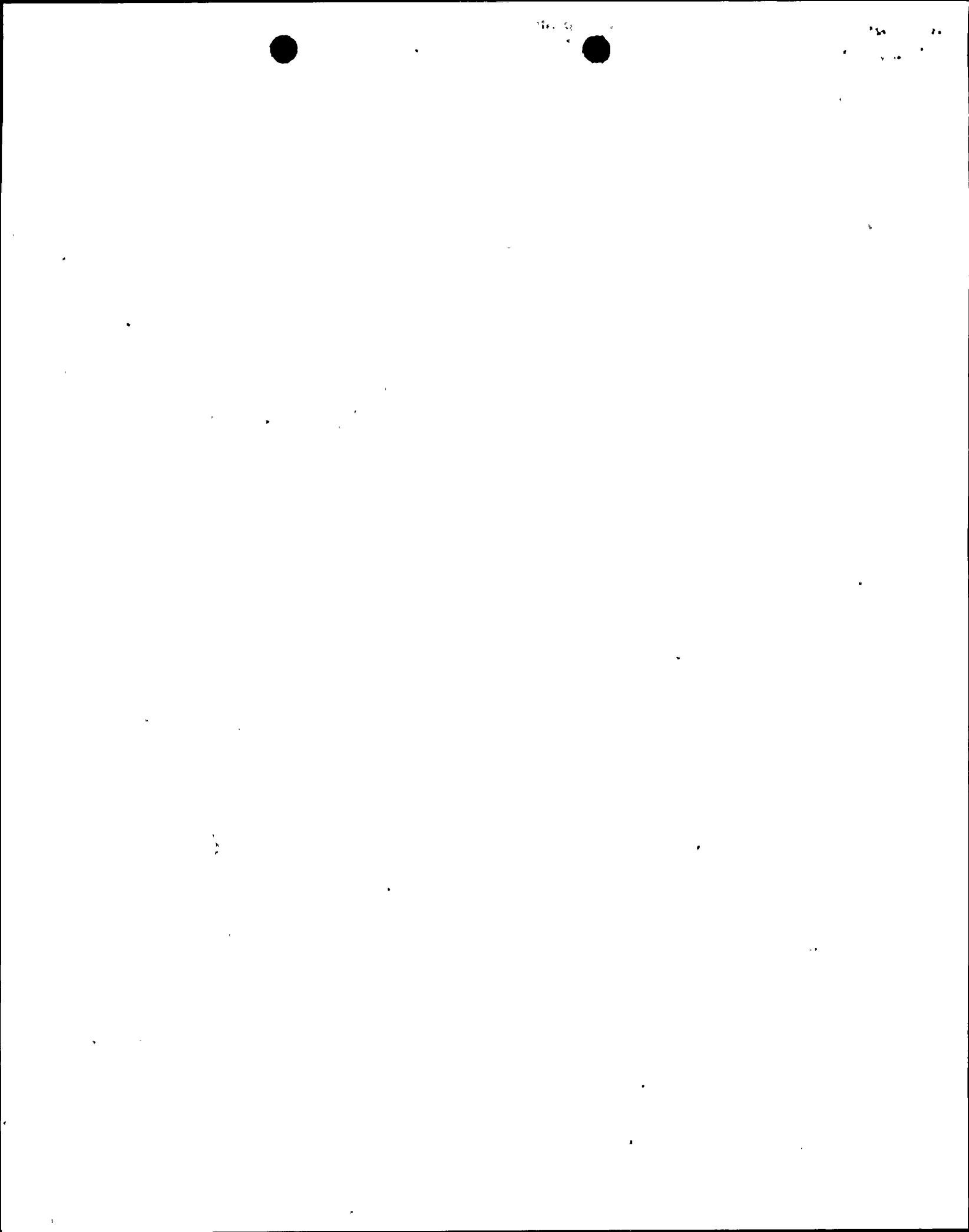
George K. Hansen, P.E.
Chief, P.D.E.S. Permit Section
Bureau of Permits & Compliance
Division of Water

Enclosure

cc: SPDES File
ENB
Region #7
Oswego Co. H.D.

Dr. Baker - EPA Region II

Mr. Ippolito - U.S. Nuclear Regulatory Commission ✓
Corps of Engineers (Buffalo)



NOTICE OF COMPLETE APPLICATION

THIS IS NOT A PERMIT

NOTE TO NEWSPAPER:
DO NOT PUBLISH MATERIAL
IN BRACKETS.

TO: Applicant Niagara Mohawk Power Corporation Date 4/15/81
 Address 300 Erie Boulevard West App. Nos. _____
Syracuse, New York 13202 NY-0001015 (SWI)
 Attn: Mr. J. M. Toennies, Env. Affairs Director

Permit(s) applied for: State Pollutant Discharge Elimination System (SPDES)

Project Description Town Scriba (T) County Oswego
 and Site Location: NINE MILE PT. NUCLEAR GENERATING STATION UNIT #1

The Department has made a tentative determination to approve this application for renewal and modification of a permit for an existing discharge of condenser cooling water, stormwater, treated filter backwash, treated sanitary wastes, treated floor and equipment drainage, and treated low volume radioactive wastes into Lake Ontario from the applicant's facility located at Lake Road in the Town of Scriba, Oswego County, New York, where the applicant operates a nuclear electric generating station.

The Department tentatively intends to allow a modification which would allow a three Fahrenheit degree temperature increase in the condenser cooling water discharge. The Department has determined that this increase will not violate State thermal water quality criteria or water quality standards.

PUBLIC COMMENT: Applications may be reviewed at the address listed below and specific comments on the project, or a request to become a party-in-interest if a public hearing is held, must be submitted in writing to the contact person named below no later than June 12, 1981.

LEAD AGENCY: N.Y.S. Department of Environmental Conservation

SEQR DETERMINATION:

SEQR-3 Project is an unlisted action, it has been determined that the project will not have a significant effect on the environment.

CONTACT: (name, agency, address, telephone number)

George K. Hansen, P.E.
 Chief, PDES Permit Section
 50 Wolf Road, Room 201
 Albany, New York 12233
 Phone Inquiries: Call (518) 457-4125 and ask for Mr. George Hansen

TO THE APPLICANT: This is to advise that your application is complete and a review has commenced. Additional information may be requested from you at a future date, if deemed necessary in order to process the application. The project has been classified non-minor. Accordingly, a decision will be made within 90 days of the date of this notice. If a public hearing is necessary, you will be notified within 60 days, and the hearing will commence with 90 days of the date of this notice. If a hearing is held, the final decision will be made within 60 days after the hearing is completed.

cc: Chief Executive Officer (Municipality)
 Environmental Notice Bulletin, Room 509, 50 Wolf Road, Albany, N. Y. 12233
 File

DEC Region #7, Oswego Co. H.D.
 Tickler, Dr. Baker - EPA Region 2
 Mr. Ippolito - USNRC
 Corps of Engrs. (Buffalo)

Copies:

Facility ID No. : NY- 000 1015

Effective Date (EDP) : EDP

Expiration Date (ExDP) : June 30, 1981

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: NY Zip Code: 13202

is authorized to discharge from the facility described below:

Facility Name: Nine Mile Pt. Nuclear Generating Station Unit #1
Facility Location (C,T,V): Scriba (T) County: Oswego
Facility Mailing Address (Street): Lake Road
Facility Mailing Address (City): Lycoming State: NY Zip Code:

DRAFT

into receiving waters known as:

Lake Ontario Class A-A Special

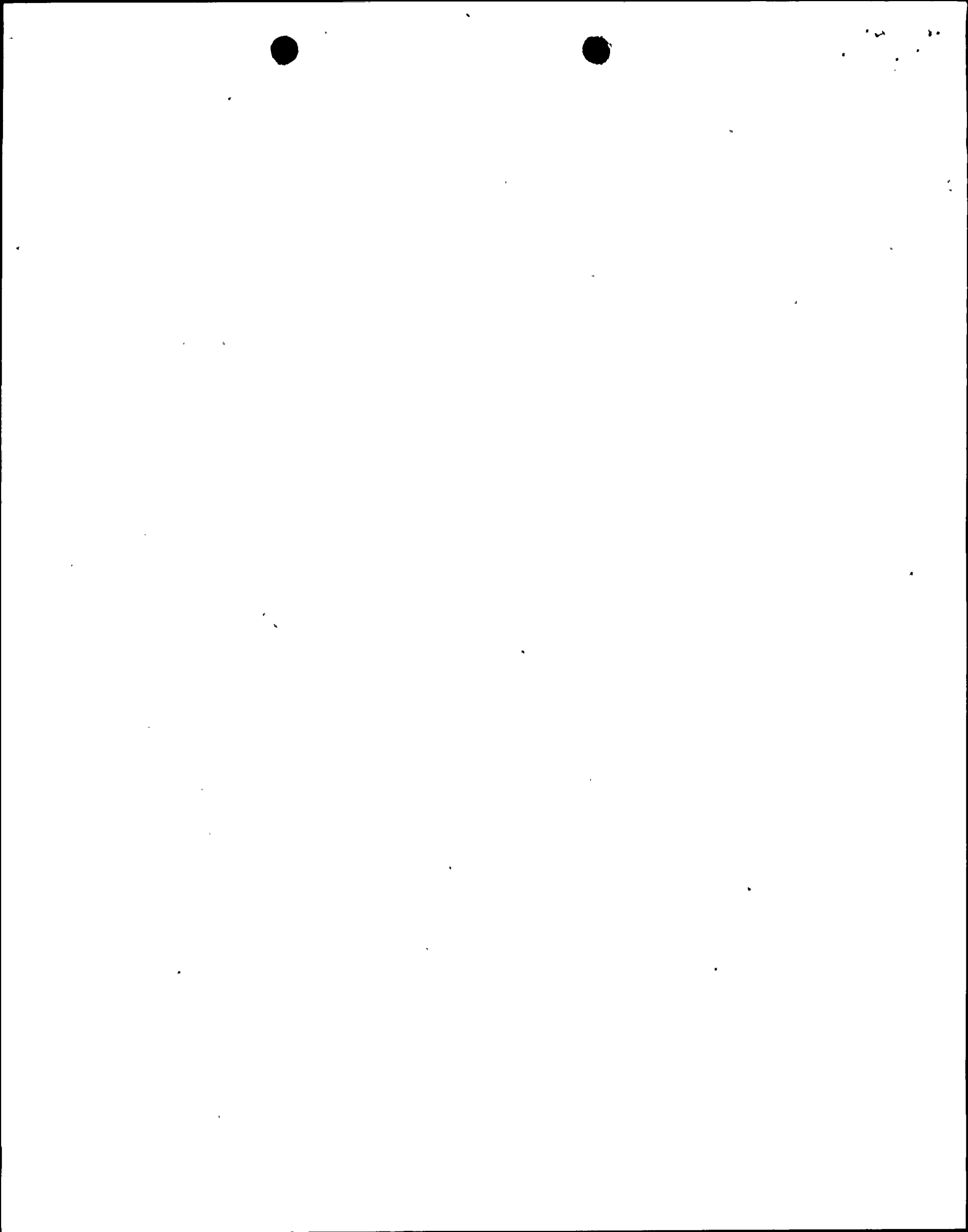
in accordance with the effluent limitations, monitoring requirements and other conditions set forth in this permit.

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 George K. Hansen, P.E., Chief, P.D.E.S. Permit Section
Designated Representative of Commissioner of the
Department of Environmental Conservation

Date

Signature



INITIAL EFFLUENT LIMITATIONS AND MONITORING REQUIREMENTS

During the period beginning EDP
 and lasting until June 30, 1981
 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
010 Condenser Cooling Water Unit #1					
Flow*				Continuous	Calculated
Discharge Temperature ^a		115	°F	"	Metered
Intake-Discharge Temperature Difference ^{a,b}		35	°F	"	"
Net Rate of addition of heat ^{a,b}		1.11	10 ⁹ Kcal/hr	Hourly	Calculated
011 Unit #1 Wastewater					
Flow*				Batch	Calculated
Oil and Grease		15	mg/l	Once before discharge	Grab
Suspended Solids	30	50	mg/l	"	"
pH	6.0 - 9.0 (Range)		SU	"	"
020 Storm Drainage (No Monitoring Required)					
021 Filter Backwash					
Flow*				Batch	Calculated
Oil and Grease		15	mg/l	Once before discharge	Grab
Suspended Solids	30	50	"	"	"
pH	6.0 - 9.0 (Range)		SU	"	"

*Monitoring Requirement Only

- (a) These limits will apply until the 316(a) study determination or decision is made. The Department may establish a compliance schedule implementing this decision.
- (b) The intake temperature shall be considered that temperature existing after intake water tempering.



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During the period beginning EDP and lasting until June 30, 1981, discharges from the permitted facility shall be limited and monitored by the permittee as specified below:

TABLE I

Outfall Number	Effluent Limitations (Maximum Limits except where otherwise indicated)
030	(X) Flow 30 day arithmetic mean <u>65,000 (030)</u> ()MGD (X)GPD
	(X) BOD ₅ 30 day arithmetic mean <u>25</u> mg/l and _____ lbs/day (1)
	() BOD ₅ 7 day arithmetic mean _____ mg/l and _____ lbs/day
	(X) BOD ₅ Daily <u>45</u> mg/l and _____ lbs/day
	() UOD ⁽²⁾ Daily _____ mg/l and _____ lbs/day
	(X) Suspended Solids 30 day arithmetic mean <u>25</u> mg/l and _____ lbs/day (1)
	() Suspended Solids 7 day arithmetic mean _____ mg/l and _____ lbs/day
	(X) Suspended Solids Daily <u>45</u> mg/l and _____ lbs/day
	(X) Effluent disinfection required: (X) all year
	() Seasonal from _____ to _____
	Fecal Coliform 30 day geometric mean shall not exceed 200/100 ml
	Fecal Coliform 7 day geometric mean shall not exceed 400/100 ml
	Fecal Coliform 6 hour geometric mean shall not exceed 800/100 ml (3)
	Fecal Coliform No individual sample may exceed 2400/100 ml (3)
	If chlorine is used for disinfection, a chlorine residual of 0.5-2.0 mg/l shall be maintained in the chlorine contact chamber whenever disinfection is required. If specified here, the chlorine residual in the final discharge shall not exceed <u>0.5</u> mg/l.
	() Total Coliform Daily _____ /100 ml
	() Total Kjeldahl Nitrogen Daily _____ /mg/l as N
	() Ammonia Daily _____ /mg/l as NH ₃
	() Dissolved Oxygen Minimum greater than _____ mg/l
	(X) pH Range <u>6.0</u> to <u>9.0</u>
	(X) Settleable Solids Daily <u>0.1</u> ml/l
	() Phosphorus Daily _____ mg/l as P
	() Total Nitrogen Daily _____ mg/l as N
	() _____

TABLE 2

Monitoring Requirements Parameter	Frequency	Sample Type	Sample Location	
			Influent	Effluent
(X) Total Flow, MGD	<u>2/Month</u>	<u>Grab</u>	_____	_____
(X) BOD ₅ , mg/l	"	"	_____	_____
(X) Suspended Solids, mg/l	"	"	_____	_____
(X) Fecal Coliform, No./100 ml	"	"	_____	_____
() Total Coliform, No./100 ml	_____	_____	_____	_____
() Total Kjeldahl Nitrogen, mg/l as N	_____	_____	_____	_____
() Ammonia, mg/l as NH ₃	_____	_____	_____	_____
() Dissolved Oxygen, mg/l	_____	_____	_____	_____
(X) pH	"	"	_____	_____
(X) Settleable Solids, ml/l	"	"	_____	_____
(X) Residual Chlorine, mg/l	"	"	_____	_____ (4)
() Phosphorus, mg/l as P	_____	_____	_____	_____
() Temperature, °C	_____	_____	_____	_____
() Total Nitrogen, mg/l as N	_____	_____	_____	_____
() Visual Observation	_____	_____	_____	_____
() _____	_____	_____	_____	_____

(1) and effluent values shall not exceed _____% of influent values.
 (2) UOD (Ultimate Oxygen Demand) shall be computed and reported as follows:
 UOD = 1½ x BOD₅ + 4½ x TKN (Total Kjeldahl Nitrogen).
 (3) applicable only in the Interstate Sanitation District.
 (4) sample contact chamber effluent and final effluent if limits are specified for both.



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ADDITIONAL REQUIREMENTS:

- I. The following requirements are applicable to Unit #1.
 1. There shall be no discharge of PCBS from this facility.
 2. In regard to general condition 11.4, 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 or boiler blowdown from this facility.
 4. Radioactivity
 - a. Gross Beta - Shall not exceed 1,000 picocuries per liter in the absence of Sr⁹⁰ 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:
 - a. Daily minimum, average, and maximum station electrical output shall be determined and logged.
 - b. Daily minimum, average, 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 intake velocity at the bar racks located at the opening(s) of the submerged intake tunnel shall be continuously monitored by recording the operating mode of the circulating water pumps, the discharge-intake temperature difference, and plant output.
 7. By EDP + 3 months, the company shall file for approval with the Department at its offices in Albany and Syracuse ^{an updated} report on all 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.



8. By EDP + 6 months, the permittee shall file for approval with the Department at its offices in Albany and Syracuse an engineering report examining the collection and treatment of Unit #1 wastewaters (Discharge 011) and filler backwash (Discharge 021) to meet the following effluent limitations.
 - a. Suspended Solids (mg/l) 30 average 50 maximum
Oil and Grease (mg/l) 15 maximum
pH (SU) 6.0 - 9.0 (Range)
9. The permittee shall continue with the existing biological monitoring program outlined in the NRC Technical Specifications. Following review of the permittee's 316(a) demonstration and biological sampling data, the Department may require the permittee to undertake additional impingement and entrainment monitoring.
10. Effluent limitations and requirements for Unit #2 were not included in this short-term permit since Unit #2 will not be operable until 1985. Effluent limitations for discharges during construction of Unit #2 are included in SPDES permit NY 009 4463. Unit #2 operating limitations will be included in the 5 year permit for this facility when it is issued.



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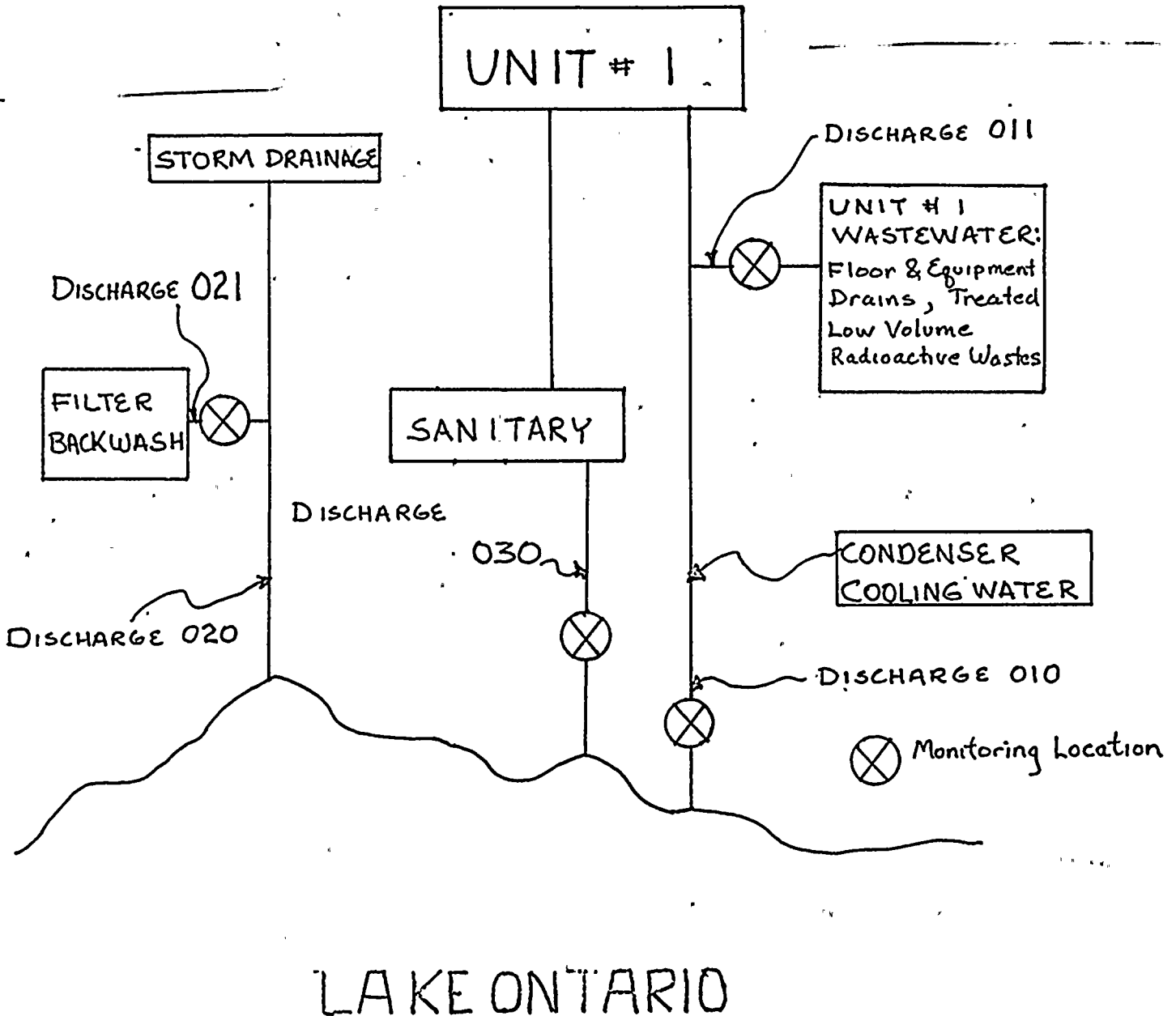
Definition of Daily Average and Daily Maximum

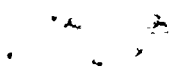
The daily average discharge is the total discharge by weight or in other appropriate units as specified herein, during a calendar month divided by the number of days in the month that the production or commercial facility was operating. Where less than daily sampling is required by this permit, the daily 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.

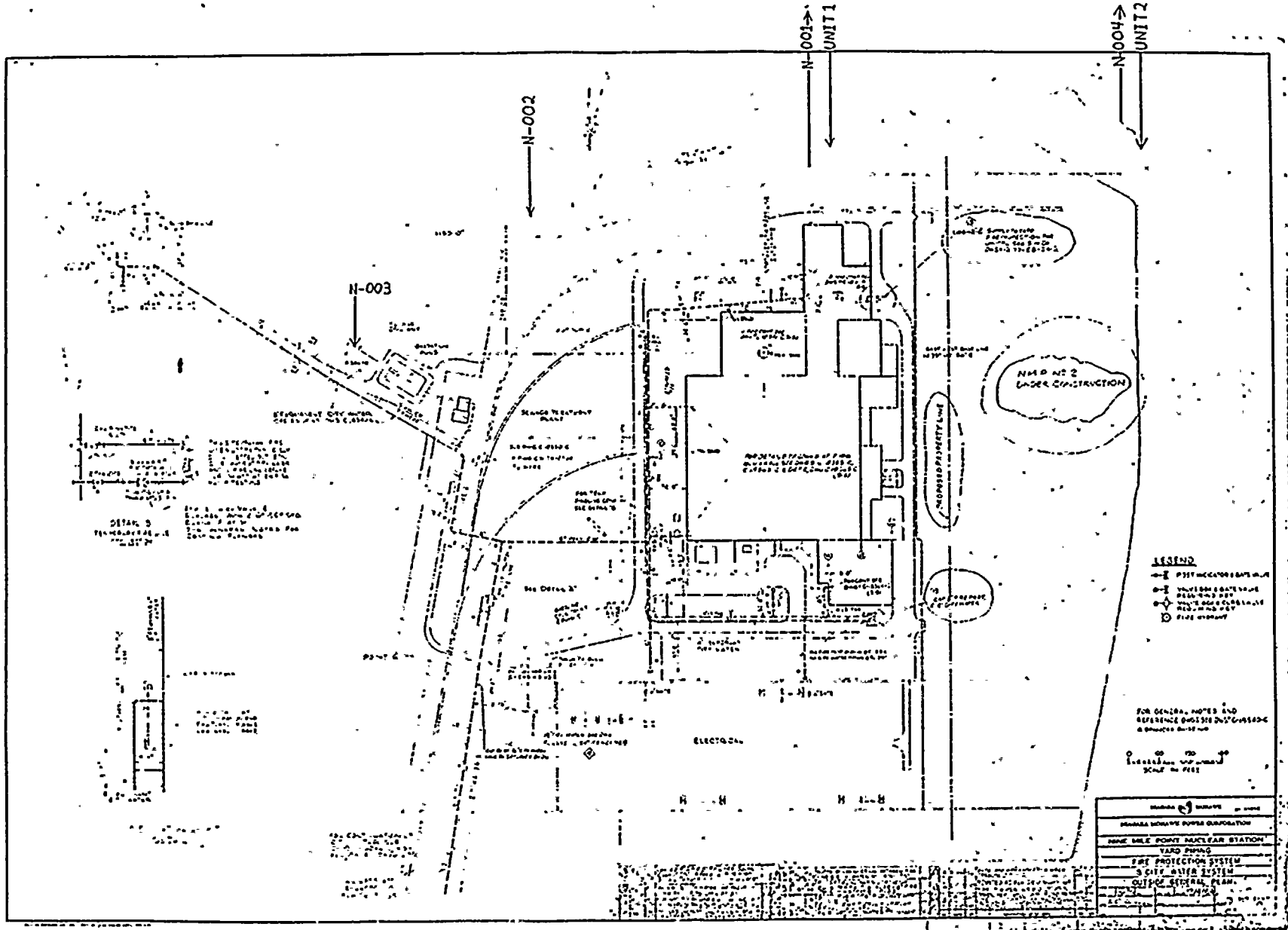
The daily maximum discharge means the total discharge by weight or in other appropriate units as specified herein, during any calendar day.

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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MONITORING, RECORDING AND REPORTING

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 1 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):

Chief, Waste Source Monitoring Section
New York State Department of Environmental Conservation
Room 300 - 50 Wolf Road - Albany, New York 12233

Regional Engineer - Region #7
New York State Department of Environmental Conservation
7481 Henry Clay Blvd., Liverpool, NY 13088

Oswego County Department of Health
70 Bunner Street - Oswego, N.Y. 13126

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) Each submitted Discharge Monitoring Report shall be signed as follows:

1. If submitted by a corporation, by a principal executive officer of at least the level of vice president, or his duly authorized representative, if such representative is responsible for the overall operation of the facility from which the discharge described in the Discharge Monitoring Report originates;

2. If submitted by a partnership, by a general partner;

3. If submitted by a sole proprietor, by the proprietor;

4. If submitted by a municipality, State or Federal agency, or other public entity; by a principal executive officer, ranking elected official, commanding officer, or other duly authorized employee.

e) 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.

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



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To: George Hansen, Chief, NPDES Permit Section
 From: Walter Loveridge, Chief, Physical Systems Section
 Date: March 30, 1981
 Permit No: NY 000 1015
 Name: Niagara Mohawk Power Corp.
 Nine Mile Point Nuclear Generating Station
 Location: Unit #1
 Scriba (T), Oswego County

Project Engineer: Allan Geisendorfer
 SIC Code: 4911
 Receiving Water: Lake Ontario
 Class: A - A Special
 Average Total Flow: 395 MGD

Type of Operation and Major Products:
 Nuclear electric generation

Production Levels if Effluent Guidelines Exist:

610 MW Unit #1

Rationale for Permit Conditions:

NYS Water Quality Criteria
 NYS Thermal Water Quality Criteria (Part 704).
 EPA - Effluent Guidelines and Standards - Steam Electric Generating Company
 Permit Conditions in existing NPDES permit.
 Draft stipulations between EPA, DEC, and Niagara Mohawk
 Request by permittee to increase temperature limitations to reflect
 current operating conditions.

Comments on Pertinent Data:

Department biologists have reviewed and approved the permittee's
 request for increased temperature limitations.

Unit 1 wastewater discharges include treated radioactive
 wastes which meet NRC specifications.

Reporting Frequency:

ANG/ag

Att.

cc: Ed Horn, Environmental Protection, DEC

Philip Polk, NRC

F. Grabowski, Niagara Mohawk Power Corp.

