

REGULATORY INFORMATION DISTRIBUTION SYSTEM (RIDS)  
DISTRIBUTION FOR INCOMING MATERIAL 50-410

REC: SAMWORTH R  
NRC

ORG: GEISENDORFER A N  
NY ST DEPT OF ENVIRON CONSERV

DOCDATE: 04/17/78  
DATE RCVD: 05/02/78

DOCTYPE: LETTER NOTARIZED: NO COPIES RECEIVED  
SUBJECT: LTR 1 ENCL 1  
TRANSMITTAL OF REVISED CHRONOLOGY OF EVENTS CONCERNING ISSUANCE OF DISCHARGE PERMIT.

PLANT NAME: NINE MILE POINT - UNIT 2

REVIEWER INITIAL: XEF  
DISTRIBUTOR INITIAL:

\*\*\*\*\* DISTRIBUTION OF THIS MATERIAL IS AS FOLLOWS \*\*\*\*\*

ENVIRONMENTAL COMMENTS  
(DISTRIBUTION CODE CO02)

FOR ACTION: ASST DIR MOORE\*\*LTR ONLY  
PROJ MGR NORRIS\*\*W/ENCL

BR CHIEF REGAN\*\*W/ENCL  
LIC ASST DUNCAN\*\*W/ENCL

FOR INFO: VASSALLO\*\*LTR ONLY(1)  
FOR INFO: KANE\*\*~~LTR~~ ONLY(1)

VARGA\*\*LTR ONLY(1)  
SERVICE\*\*LTR ONLY(1)

INTERNAL: REG FILE\*\*W/ENCL  
I & E\*\*W/2 ENCL  
HANAUER\*\*W/ENCL  
ERNST\*\*LTR ONLY  
YOUNGBLOOD\*\*W/ENCL  
VOLLMER\*\*LTR ONLY  
J. COLLINS\*\*W/ENCL

NRC PDR\*\*W/ENCL  
OELD\*\*LTR ONLY  
DENTON/MULLER\*\*W/ENCL  
BALLARD\*\*W/ENCL  
GAMMILL\*\*W/2 ENCL  
BUNCH\*\*W/ENCL  
KREGER\*\*W/ENCL

EXTERNAL: LPDR'S  
OSWEGO, NY\*\*W/ENCL  
NATL LAB ANL\*\*W/6 ENCL  
NSIC\*\*W/ENCL  
TIC\*\*W/ENCL  
ACRS CAT B\*\*W/O ENCL

DISTRIBUTION: LTR 34 ENCL 26  
SIZE: 1P+4P

CONTROL NBR: 781220119

\*\*\*\*\* THE END \*\*\*\*\*

*Ernie Y*  
*W*

Faint header text at the top of the page, possibly containing a title or reference number.

First main paragraph of text, starting with a faint opening word.

Second main paragraph of text, continuing the narrative or report.

Third main paragraph of text, providing further details.

Fourth main paragraph of text, possibly a transition or a new section.

Fifth main paragraph of text, continuing the content.

Sixth main paragraph of text, providing more information.

Seventh main paragraph of text, possibly concluding a section.

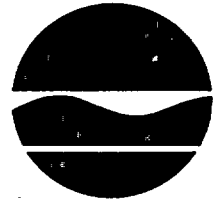
Eighth main paragraph of text, continuing the flow.

Ninth main paragraph of text, providing final details.

Tenth main paragraph of text, possibly a closing statement.

Faint footer text at the bottom of the page, possibly containing a date or page number.

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



Peter A. Berle,  
Commissioner

50-410

REC'D 4/21/78  
R.B. Samworth

April 17, 1978

US NRC  
DISTRICT OFFICE  
ALBANY

1978 MAY 2 AM 11 54

RECEIVED DISTRIBUTION  
SERVICES UNIT

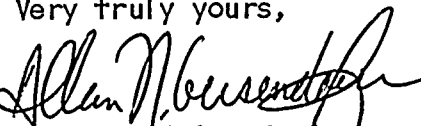
Mr. Robert Samworth  
Aquatic Resources Section  
U.S. Nuclear Regulatory Commission  
Washington, D. C. 20555

Dear Mr. Samworth:

Enclosed is a copy of a revised chronology of events concerning  
Nine Mile Point Power Plant, Unit #2.

Also enclosed is a copy of a page of the draft permit describing  
the conditions for discharging TDS. We are currently reviewing the ap-  
plicants cooling tower report to determine their ability to meet this  
requirement. Unless ambient TDS conditions are already near 200 mg/L,  
the applicant should be able to meet this requirement.

There is no condition in the permit requiring Niagara Mohawk to  
conduct a chlorine minimization study. Tom Quinn informs me that there  
are no plans to certify or add this requirement at this time.

Very truly yours,  
  
Allan N. Gelsendorfer  
Assistant Sanitary Engineer  
Energy Waste Coordination

ANG:ks  
cc: C. Dworkin, w/encs.  
Enclosures

REGULATORY DOCKET FILE COPY

781220119

COOK  
2/5/78

1

# Introduction

The purpose of this report is to provide a comprehensive overview of the current state of research in the field of artificial intelligence, with a particular focus on the development of intelligent systems capable of learning from data and making decisions based on that data. This report will discuss the various approaches to machine learning, including supervised, unsupervised, and reinforcement learning, and will explore the challenges and opportunities associated with each. It will also examine the applications of machine learning in a wide range of domains, from healthcare to finance, and will discuss the ethical and societal implications of these technologies. Finally, the report will provide a summary of the key findings and conclusions of the research, and will offer some thoughts on the future of the field.

1

Nine Mile Point History

June 29, 1971 -

Request to State to certify Nine Mile, Unit #1.

July 1, 1971 -

Niagara Mohawk requests Corps Permit.

November 8, 1971 -

EPA comments on application.

October 4, 1972 -

DEC requested to certify draft permit for Unit #1.

January 5, 1973 -

Niagara Mohawk request for Section 401 Certification.

August 31, 1973 -

Construction permits for Units 1 and 2 issued. Issued only for construction of circulating or cooling water disposal facilities.

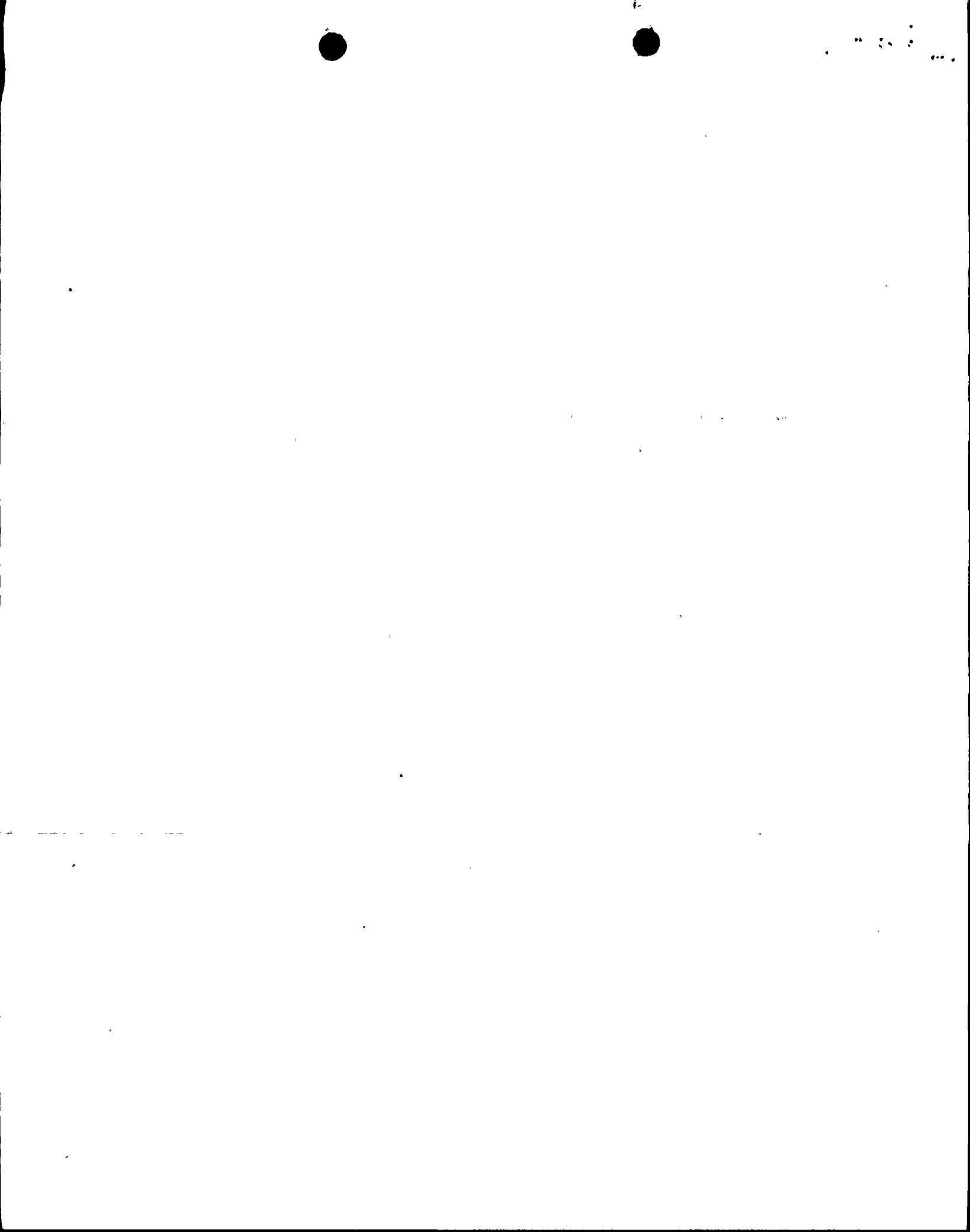
October 12, 1973 -

State certifies construction of <sup>Nine Mile</sup> ~~Niagara Mohawk~~ Unit #2. Following points made:

- 1) State was in the process of revising its thermal criteria.
- 2) Units #1 and #2 would be required to meet new criteria.
- 3) Unit #1 operation was resulting in large fish kills.
- 4) Therefore, Unit #2 design was unsatisfactory. Applicant was required to design alternative intake systems and evaluate them to Department's satisfaction.

October 15, 1973 -

Corps reviewing NPDES application for Unit #1.



April 5, 1974 -

DEC letter to EPA from Thomas E. Quinn contains following (concerning permit):

- 1) Process wastes should be treated before being diluted.
- 2) Non-conforming Unit #1 discharge would have precluded siting Unit #2 without adjustments, hence the combination of outfalls to a single diffuser.

April 9, 1974 -

Department issues 401 certification for Unit #1 which contains the following:

- 1) The present intake system is unacceptable. Redesign or different operation is required.
  - a) Must redesign the intake.
  - b) Unit #1 discharge must go through Unit #2.

May 31, 1974 -

Draft Permit Noticed.

June 28, 1974 -

Niagara Mohawk requests alternative thermal limitations for Unit #1 application.

July 15, 1974 -

Niagara<sup>Mohawk</sup> advises that construction of Unit #2 will be delayed until after determination by the Appeals Board (AEC Licensing Board).

February 24, 1975 -

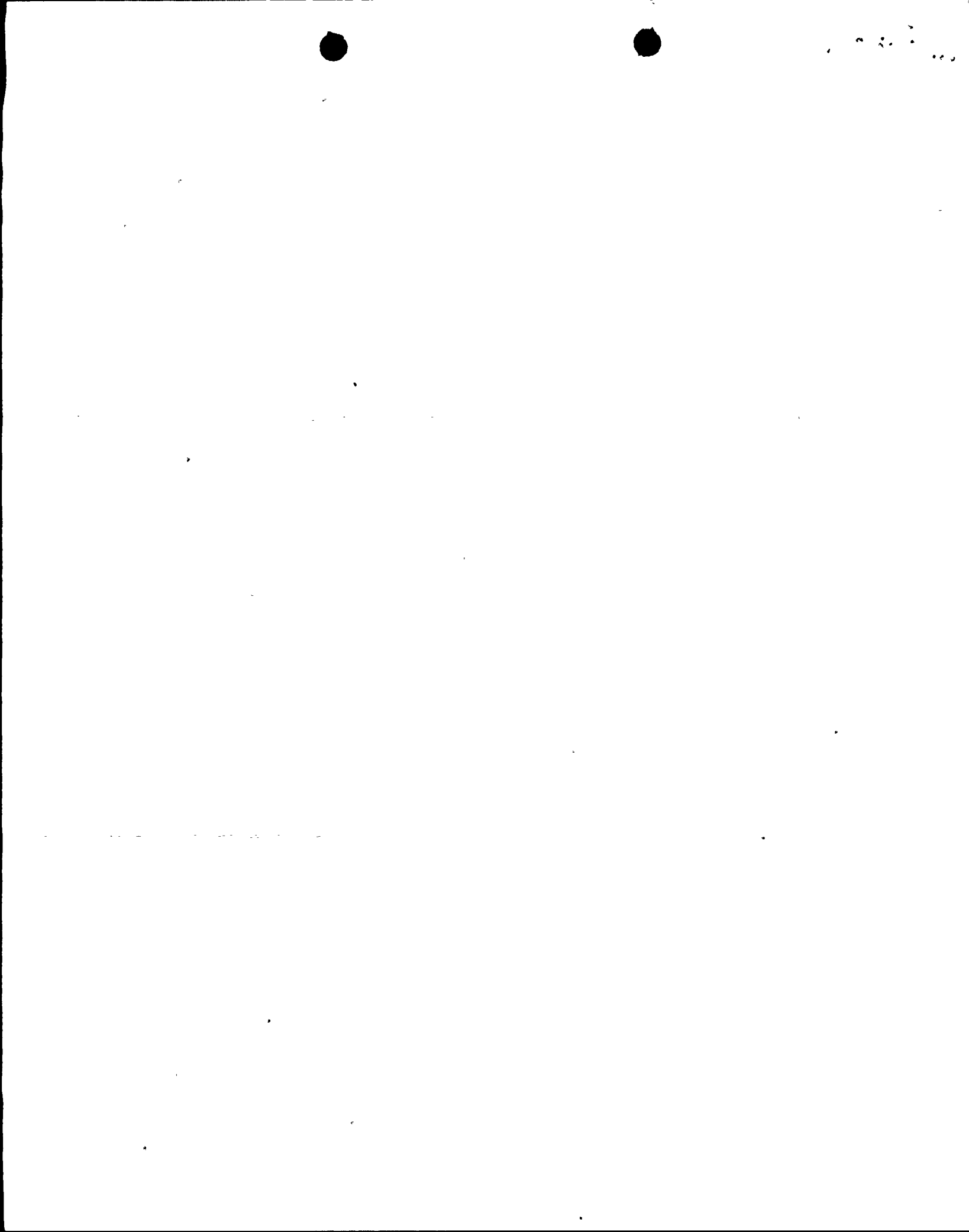
EPA issues NY 000 1015 for Nine Mile Point; Unit #1.

February 28, 1975 -

Public Notice of Final Determinations.

March 24, 1975 -

Niagara Mohawk requests an adjudicatory hearing for Unit #1.





March 31, 1975 -

Permit Effective Date.

May 20, 1975 -

Adjudicatory Hearing granted.

May 30, 1975 -

Public Notice #NPDES 75-418 granting adjudicatory hearing.

October 9, 1975 -

Niagara Mohawk applies for NPDES discharge permit for Unit #2.  
Material also amends previous application for Unit #1.

October 27, 1975 -

Public Notice for NPDES application (Public Notice #75-760).

November 25, 1975 -

Niagara Mohawk comments on public notice.

February 24, 1976 -

Niagara Mohawk requests amendment for 401 certification for  
Unit #1 and Unit #2.

July 23, 1976 -

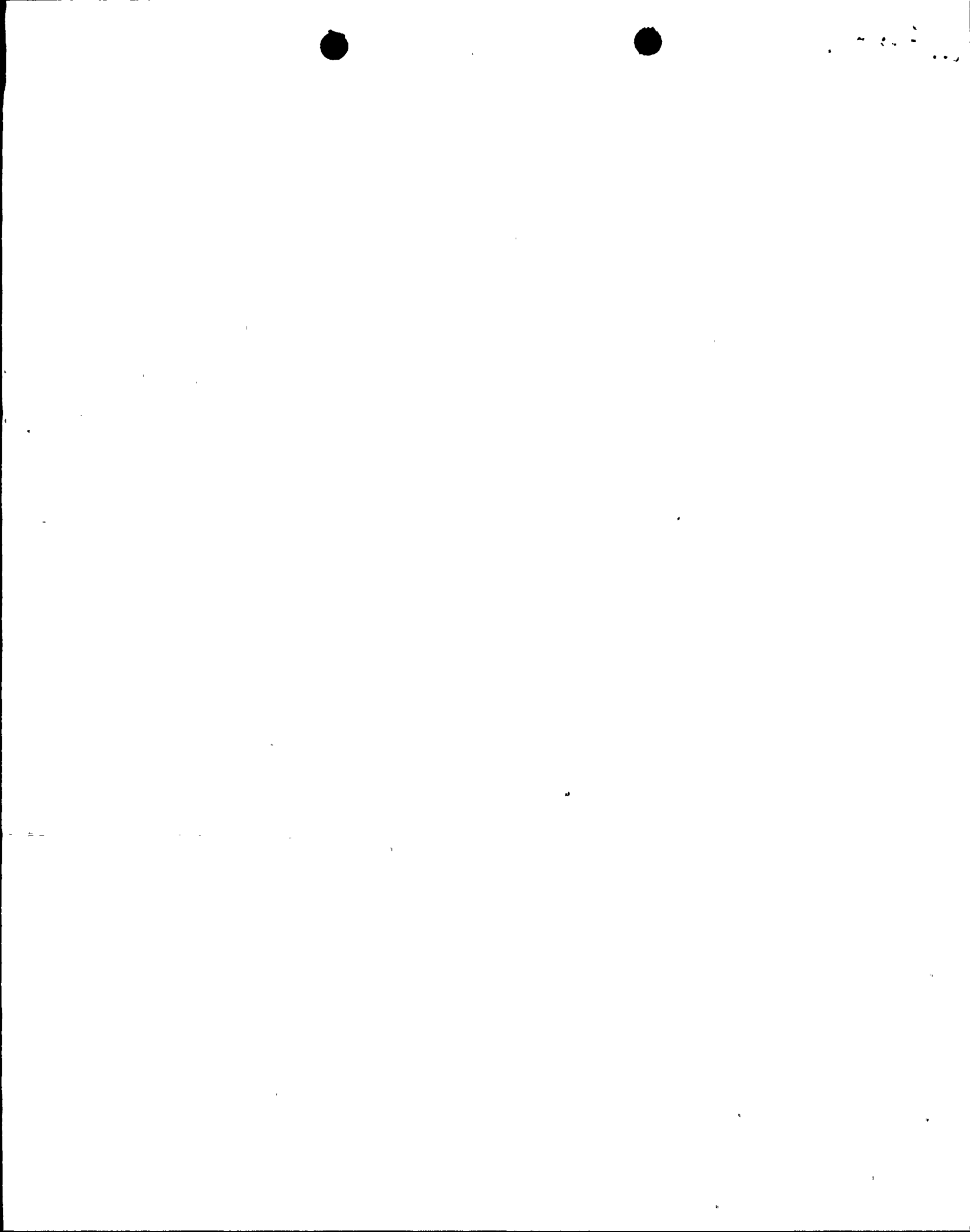
EPA requests the appointment of a law judge for adjudicatory  
hearing since some issues will require formal adjudication.

November 24, 1976 -

Order of filing.

December 20, 1976 -

EPA indicates that closed cycle is being installed for Unit #2.



February 23, 1977 -

Department recertifies original certification for NM Unit #2 of October 12, 1973 pursuant to Section 401. Public notice was given. Certification intended to apply to proceedings before NRC and EPA. Based on substitution of closed-cycle cooling for once-through cooling.

August 1, 1977 -

SPDES discharge permit for construction runoff from sanitary wastes and batch plant facilities issued.



11-11-11

Mr. J. M. Toennies, Director

February 23, 1977

4. Pursuant to Part 702 Special Classifications and Standards Section 702.1 Quality Standards for Class A Special Waters the following additional requirements shall be achieved in Lake Ontario outside the zone of active mixing induced by the turbulence of the discharge.

* Total Dissolved Solids	Should not exceed 200 milligrams per liter
pH	Should not be outside the range of 6.7 to 8.5
Radioactivity	Should be kept at the lowest practicable levels and in any event should be controlled to the extent necessary to prevent harmful effects on health.

5. 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.

\* 6. 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 definable numerical limits for the mixing zone, including linear distances from the point of discharge, surface area involvement, of volume of receiving water entrained in the thermal plume, as appropriate.

7. Not less than 180 days prior to the initiation of discharge from the Nine Mile Point Nuclear Generating Unit #2 Niagara Mohawk shall submit to the Department of Environmental Conservation, for approval, a plan of study for evaluating the environmental effects of such discharges on Lake Ontario, which shall include, but not be limited to the following:

A. Assessment of the effects of the intake on organisms entrained in the intake water flow.

B. Assessment of the effects of the intake on fishes impinged on any intake structure screens

