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SUBJECT: "Annual Environ Operating Rept for 970101-1231 for Nine Mile Point Nuclear Station Unit 2." W/980501 ltr.

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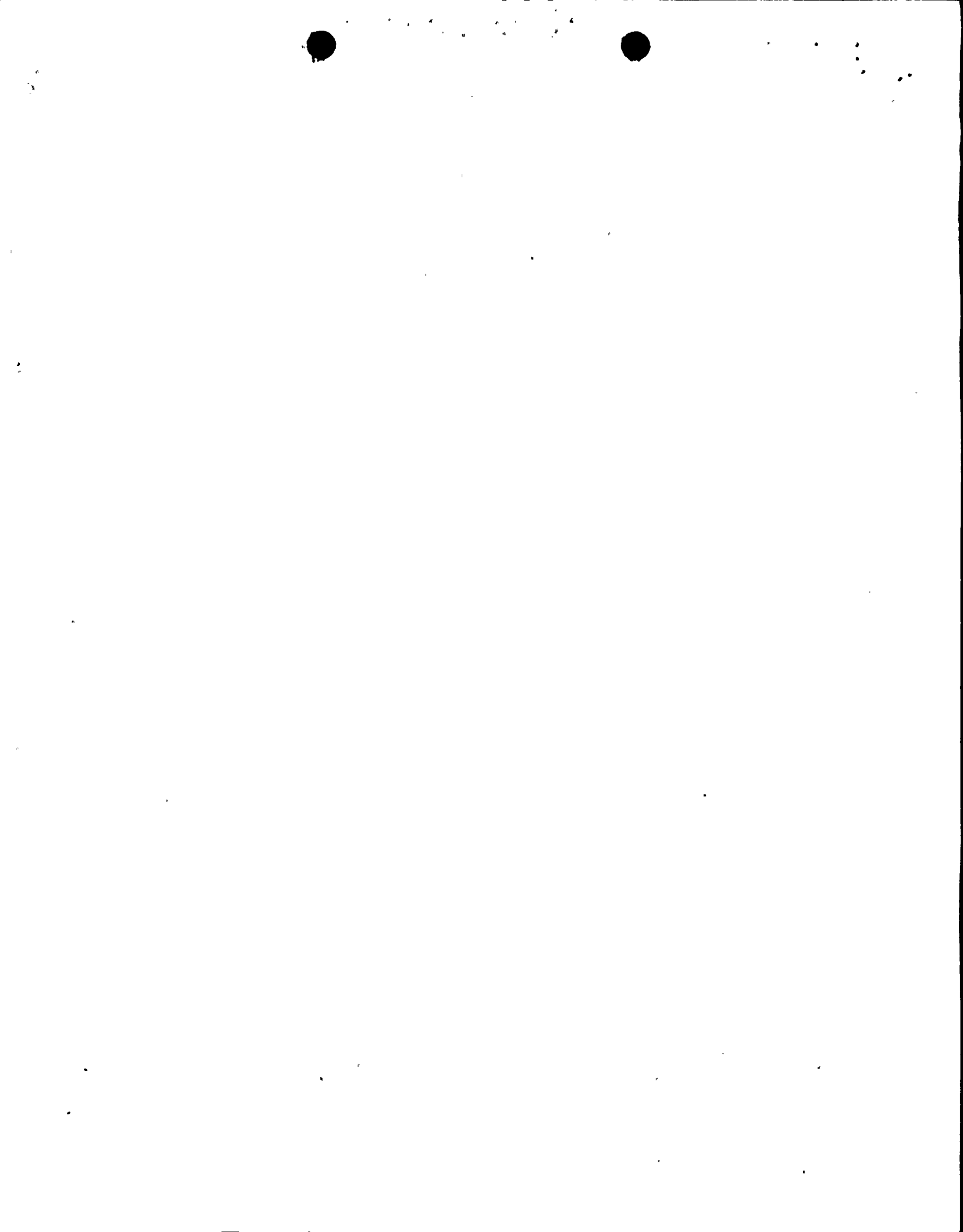
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NIAGARA MOHAWK

GENERATION
BUSINESS GROUP

NINE MILE POINT NUCLEAR STATION/LAKE ROAD, P.O. BOX 63, LYCOMING, NEW YORK 13093/TELEPHONE (315) 349-7263
FAX (315) 349-4753

CARL D. TERRY
Vice President
Nuclear Safety Assessment and Support

May 1, 1998
NMP2L 1778

U. S. Nuclear Regulatory Commission
Attn: Document Control Desk
Washington, DC 20555

RE: Nine Mile Point Unit 2
Docket No. 50-410
NPF-69

Subject: Transmittal of 1997 Annual Environmental Operating Report

Gentlemen:

In accordance with Appendix B of the Operating License (Environmental Protection Plan) for Nine Mile Point Nuclear Station (NMPNS) Unit 2, enclosed is the Annual Environmental Operating Report for the period January 1, 1997 through December 31, 1997.

In the event you have any questions concerning the report, please contact Kent E. Stoffle, Environmental Analyst at Nine Mile Point (315) 349-1364.

Very truly yours,

Carl D. Terry
Vice President

Nuclear Safety Assessment & Support

CDT/KES/kap
Enclosure

xc: Mr. H. J. Miller, Regional Administrator, Region I
Mr. B. S. Norris, Senior Resident Inspector
Mr. D. S. Hood, Senior Project Manager, NRR
William Holzhauser, Esq.
Records Management

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NIAGARA MOHAWK POWER CORPORATION

ANNUAL ENVIRONMENTAL OPERATING REPORT

January 1, 1997 - December 31, 1997

for

NINE MILE POINT NUCLEAR STATION UNIT 2

Facility Operating License NPF-69

Docket Number 50-410



ANNUAL ENVIRONMENTAL OPERATING REPORT

Section 5.4.1 of the Environmental Protection Plan (EPP), as contained in Appendix B of the Operating License for the Nine Mile Point Nuclear Station Unit 2, requires that an Annual Environmental Operating Report be submitted to the Commission prior to May 1 of each year. The following addresses the requirements found in Section 5.4.1 of the Environmental Protection Plan (EPP) for the submittal of the Annual Environmental Operating Report:

1. Provide summaries and analyses of the results of the environmental protection activities required by Section 4.2 (if any) of the EPP, including a comparison with related preoperational studies, operational controls (as appropriate), and previous non-radiological environmental monitoring reports; and an assessment of the observed impacts of plant operation on the environment. If harmful effects or evidence of trends toward irreversible damage to the environment are observed, a detailed analysis of the data and a proposed course of mitigating action shall be provided.

Section 4.2 of the EPP denotes three areas of monitoring:

- Section 4.2.1 (Aquatic Monitoring) has no specific monitoring requirements although it is noted that the Commission will rely on the decisions made by the State of New York under the authority of the Clean Water Act for any requirements. Aquatic monitoring is specified in the station's State Pollutant Discharge Elimination System Permit (SPDES Permit) which is a site permit applicable to Nine Mile Point Nuclear Station Unit 1 and Unit 2. The SPDES Permit requires a limited Aquatic Monitoring Program (referred to in the permit as a Biological Monitoring Program) which, at the present time, is only applicable to Unit 1. Therefore, no Aquatic Monitoring Program is presently required for Unit 2.
- Section 4.2.2 (Terrestrial Monitoring) and Section 4.2.3 (Noise Monitoring) of the EPP also do not contain any monitoring requirements.

2. Provide a list of EPP noncompliances and corrective actions.

A review of the EPP requirements showed that there were no conditions of noncompliance with these requirements during 1997.

3. Provide a list of all changes in station design or operation, or of any tests or experiments which involve a potentially significant unreviewed Environmental question (non-radiological).



A review of plant records showed that there were three changes in station design/operation that involved a potentially significant unreviewed environmental question (non-radiological). In all three instances, an environmental evaluation was performed and the changes did not create an unreviewed environmental question. A brief description of the changes is included below:

Change Number 1: Change to the lake water temperature limit for tempering from 38°F to 45°F.

Lake temperature fluctuations are causing plant operations to enter and exit tempering actions in the cool water months (October - May). To remedy this, a change to increase the tempering temperature to 45°F was instituted. A review of the environmental impact of raising the lake temperature limit for tempering from 38°F to 45°F was performed by Environmental Protection (EP). The change to the lake water temperature limit for tempering will not affect compliance with the State Pollutant Discharge Elimination System (SPDES) permit. Service water flow, delta temperature, discharge temperature, and copper limits are not significantly affected by tempering at lake water temperatures up to 45°F. It was concluded that there was no significant impact to the environment by increasing the lake water temperature limit for tempering.

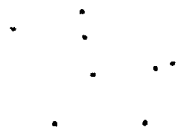
In addition, the New York State Department of Conservation (NYSDEC) expressed an interest in both Unit 1 and Unit 2 increasing tempering during the cool water months (October through May). The reason for the desire to increase the tempering was to reduce the amount of water withdrawn from lake Ontario thus reducing the potential to impinge or entrain small aquatic wildlife (e.g., minnows, plankton, etc.). A copy of the NYSDEC letter requesting NMPNS to evaluate the increase in tempering is attached.

Change Number 2: Change lake water intake temperature from 77°F to 82°F.

It was determined that the Service Water System (SWP) calculation A10.1-N-130 used 77°F lake water inlet temperature, rather than the technical specification analytical limit of 82°F (design maximum) to determine the maximum SWP effluent temperature following a reactor scram. A review of the calculation indicated that the maximum effluent temperature would be less than 110°F when SWP inlet temperature is 82°F instead of 77°F. The SPDES Permit allows for a maximum SWP effluent temperature of 110°F. It was, therefore, concluded that there was no significant impact to the environment by increasing the lake water inlet temperature limit from 77°F to 82°F.

Change Number 3: Evaluation of degraded fish return flow to the lake.

The Environmental Report and the Final Environmental Statement (FES) reference the fish diversion system as the major design component installed to minimize fish



impingement at the Unit 2 lake water intake structure. The FES references total fish diversion system flow at 13,400 to 14,900 gallons per minute (GPM). Following the recalibration of the fish diversion system flowmeter, current flow monitoring shows the system flow to be near 11,000 GPM. Operations procedures direct operators to check the system if the flow rate falls below 11,000 GPM. Although this flow is below the system flow referenced in the FES, levels of fish impingement indicate that the fish diversion system is performing satisfactorily with the reduced flow. It was concluded that there was no significant impact to the environment by the reduced fish diversion flow.

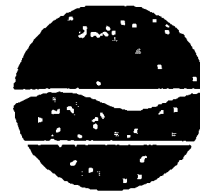
4. List all non-routine reports that were submitted during 1997 in accordance with Section 5.4.2 of the EPP.

During 1997, there were no non-routine reports were submitted to the Commission in accordance with Section 5.4.2 of the EPP.



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NEW YORK STATE DEPARTMENT OF ENVIRONMENTAL CONSERVATION
50 Wolf Road, Albany, New York 12233-4756



Michael D. Zagata
Commissioner

January 16, 1996

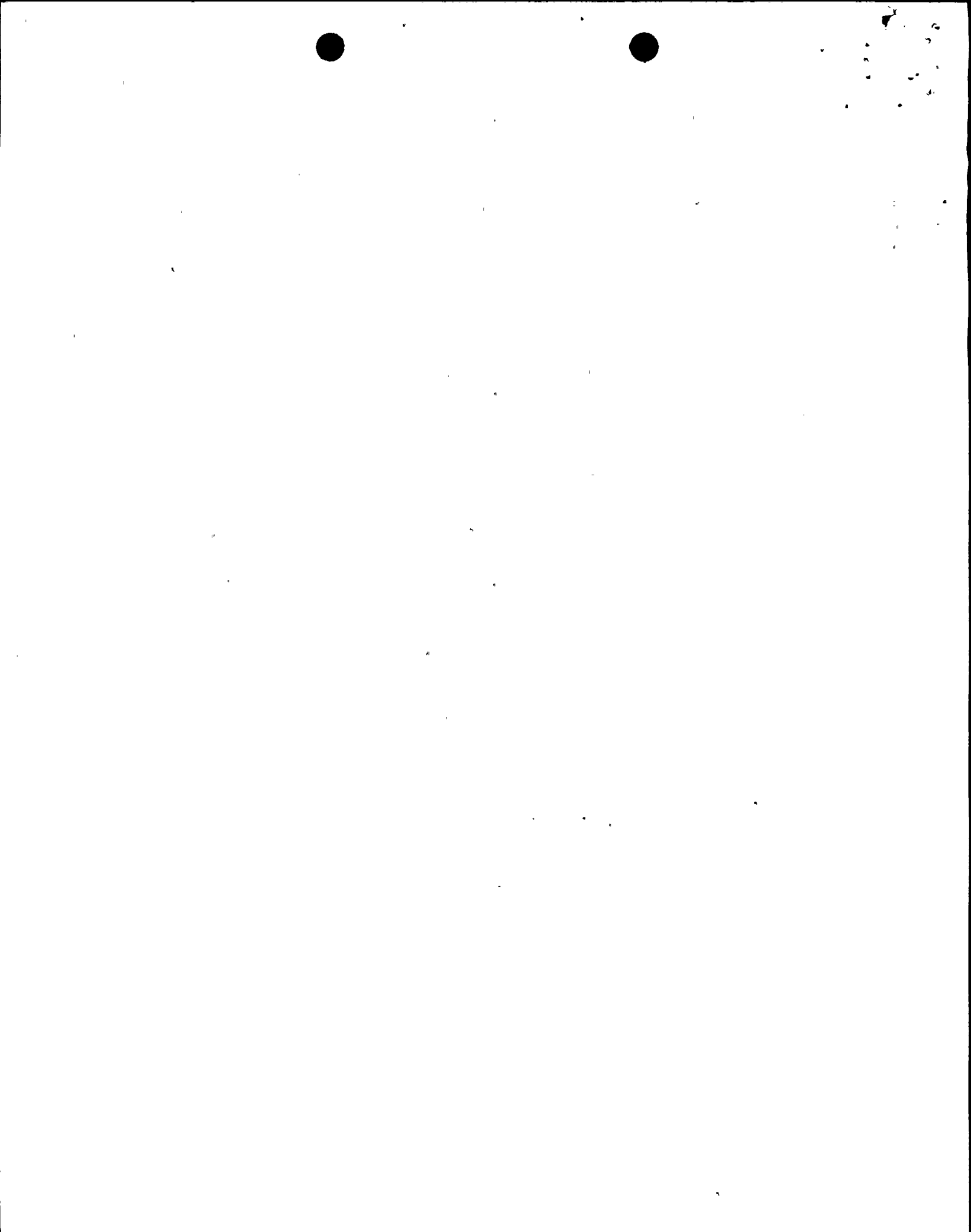
Mr. Carey M. Merritt
Supervisor of Environmental Protection
Nine Mile Point Nuclear Station
Operations Building - Unit 2
P.O. Box 63
Lycoming, NY 13093

Dear Mr. Merritt:

This letter is to follow up on our January 11, 1996 telephone conversation discussing the report entitled "Reduced Cooling Water Flow Evaluation for Nine Mile Point Nuclear Stations Unit 1 and Unit 2", submitted in December 1995 to fulfill SPDES permit additional requirement No. III. 6.

After reviewing the report and from our conversation, I agree that nuclear power plant design does indeed present some rather formidable challenges when looking at flow management options. Although most of the items in the report were addressed satisfactorily, a couple of issues we discussed require some follow up. Briefly:

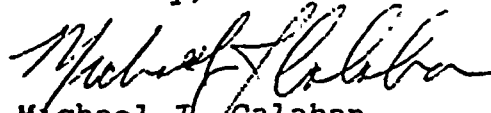
1. A discussion of the potential for use of variable speed pumps is needed, and should include information on both costs and benefits (water use reductions possible). Indian Point Nuclear Station, for example, has achieved some rather substantial reductions in winter cooling water use with variable speed pumps.
2. The report stated that continuous tempering would reduce station efficiency and is beyond the design basis of the plant. As other stations, such as J.A. FitzPatrick, utilize tempering quite regularly during the winter period (tempering up to 30 per cent of flow is possible), more detail is needed on the past use of tempering at Nine Mile Point (e.g. estimated tempering volumes), and the constraints that have prevented further use of tempering, including the impact of various tempering flows and intake temperatures on plant thermal efficiency.



I look forward to further discussing these matters with you.
If you have any questions, please call me at 518-457-9439.

Thank you.

Sincerely,



Michael J. Calaban
Conservation Biologist
(Ecology)

cc: E. Radle
L. Wedge, Region 7

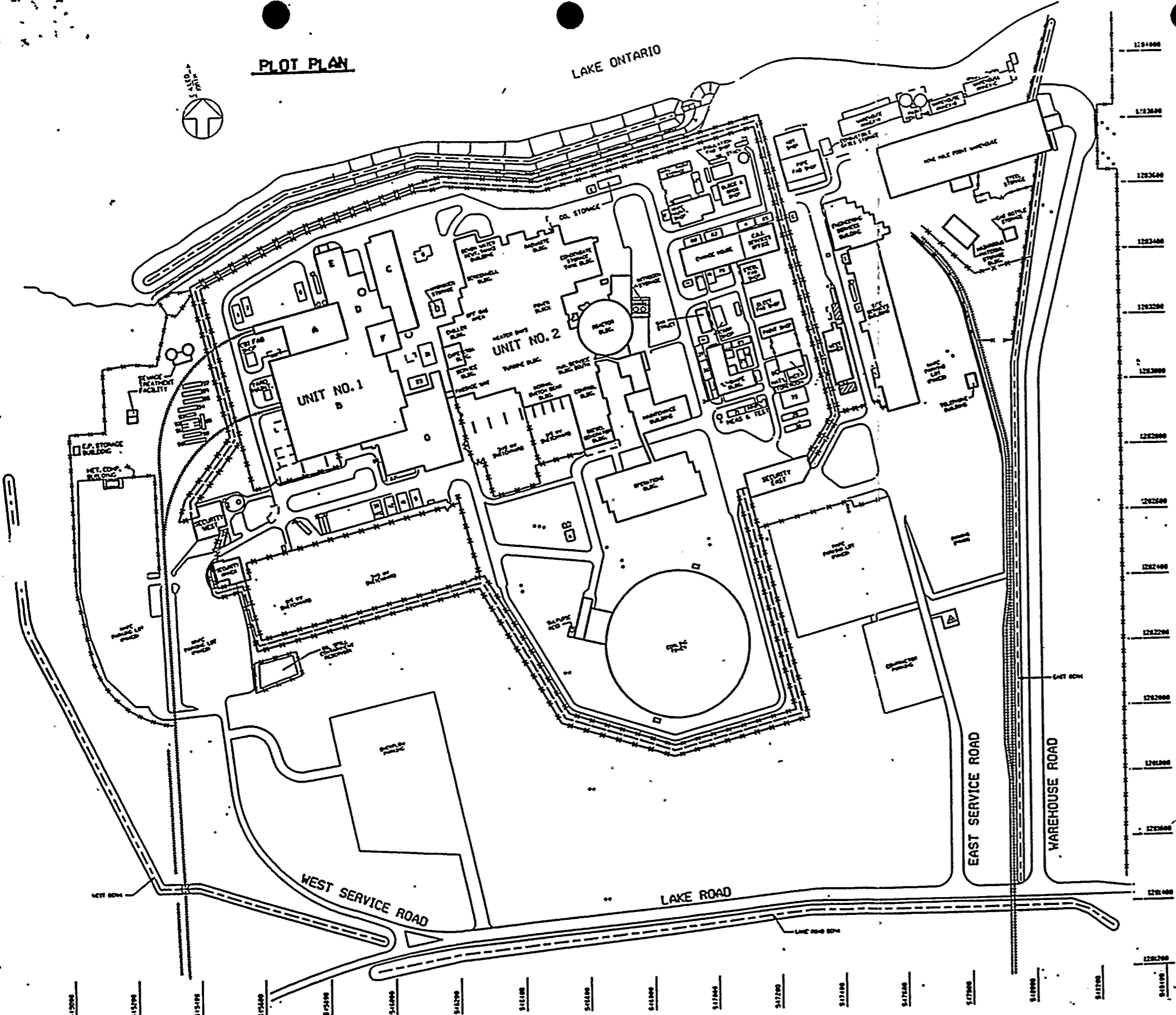
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PLOT PLAN



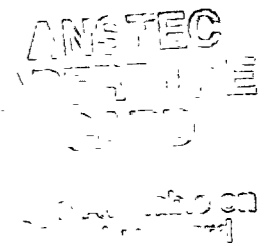
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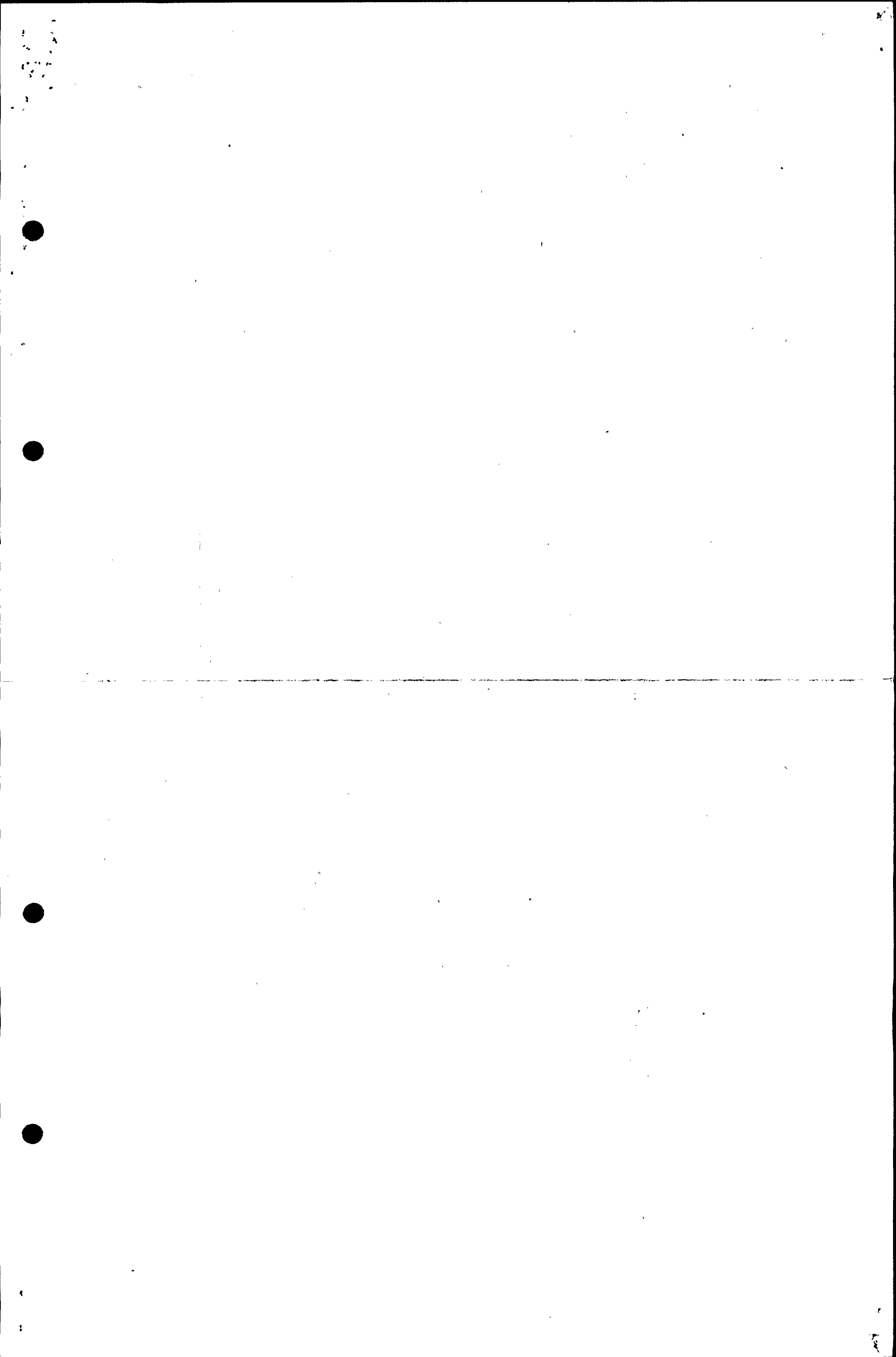
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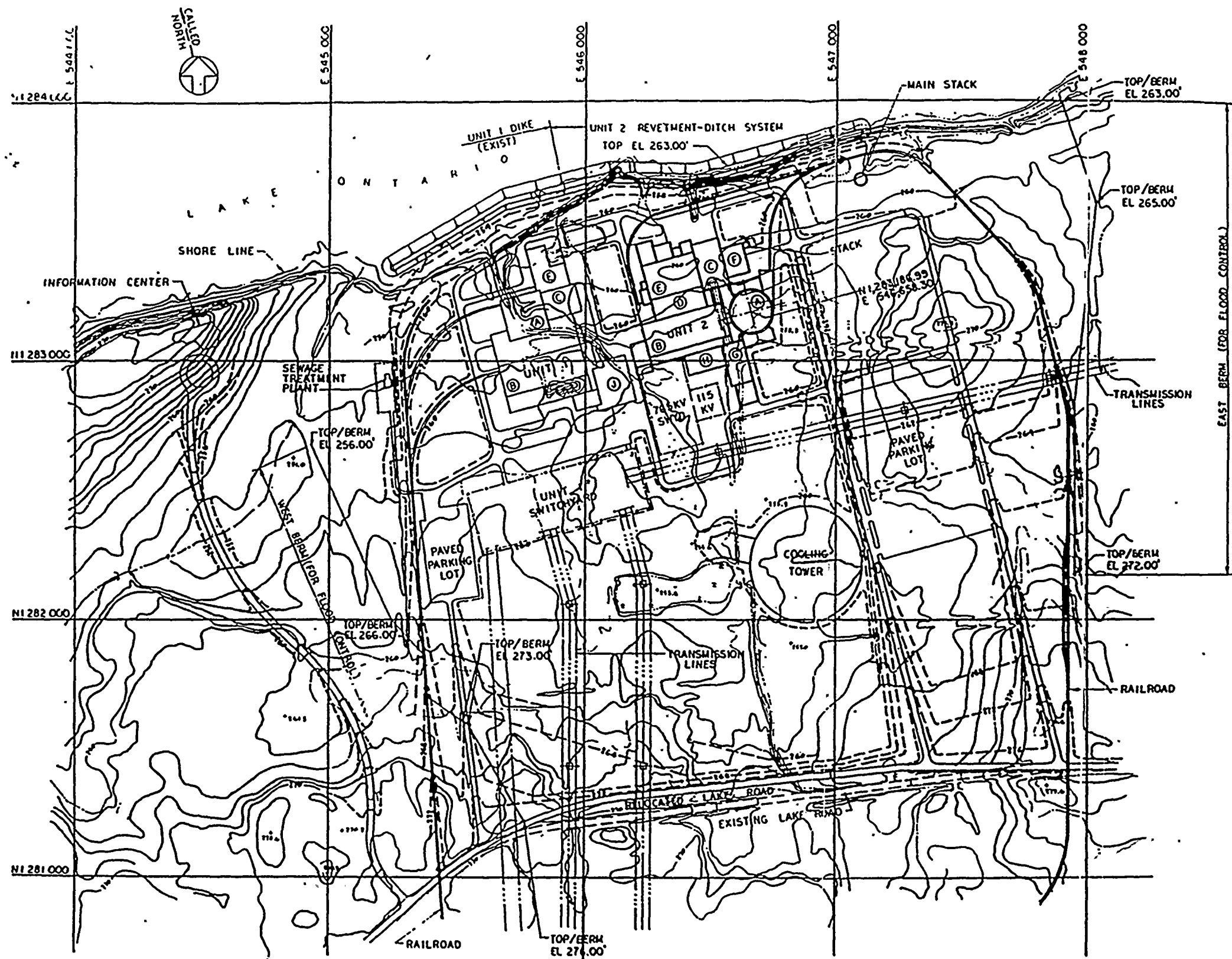
- KEY**
- PERMANENT STRUCTURES
 - TEMPORARY STRUCTURES
 - OFFICE TRAILER
 - JOINT STORAGE WALTERS
 - STORAGE TRAILERS
 - PERMANENT FENCE
 - CONSTRUCTION FENCE
 - RAILROAD TRAILS
 - TRANSMISSION LINE POLES
 - ELECTRIC SUBSTATION
 - CONCRETE SLAB AND PAVES
- LEGEND**
- A. REACTOR BUILDING
 - B. TURBINE BUILDING
 - C. P.S.T.B. BUILDING
 - D. WASTE DISPOSAL BUILDING
 - E. SCREEN & PUMP HOUSE
 - F. OFF GAS BUILDING
 - G. ADMINISTRATION BUILDING



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- IDENTIFICATION LEGEND**
- A REACTOR BUILDING
 - B TURBINE BUILDING
 - C RADWASTE BUILDING
 - D HEATER BAYS
 - E SCREENWELL BUILDING
 - F CONDENSATE STORAGE TANK BLDG
 - G CONTROL BUILDING
 - H NORMAL SWITCHGEAR BUILDING
 - J ADMINISTRATION BUILDING

- LEGEND**
- ORIGINAL GROUND CONTOUR
 - - - NEW GROUND CONTOUR
 - FENCE LINE

- NOTES**
1. GRID COORDINATES REFER TO NEW YORK STATE COORDINATE SYSTEM
 2. ELEVATIONS REFER TO MEAN SEA LEVEL
 3. ORIGINAL CONTOUR INTERVAL - 2 FEET

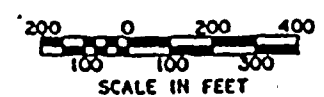


FIGURE 1.2-1

PLOT PLAN

NIAGARA MOHAWK POWER CORPORATION
NINE MILE POINT-UNIT 2
FINAL SAFETY ANALYSIS REPORT

9805180347-02

