

THIS IS NOT A PERMIT

New York State Department of Environmental Conservation  
Notice of Complete Application

Date: August 09, 2002

Applicant: ROCHESTER GAS & ELECTRIC CORP.  
89 EAST AVE  
ROCHESTER, NY 14649

Facility: ROCHESTER GAS GINNA NUCLEAR POWER PLT  
1503 LAKE RD  
ONTARIO, NY 14519

Application ID: 8-5434-00010/00003

Permits(s) Applied for: 1 - Article 17 Titles 7 & 8 Industrial SPDES

Project is located in ONTARIO in WAYNE COUNTY

*Project Description:*

The Department has made a tentative determination to issue a permit modification for a State Pollutant Discharge Elimination System permit under Article 17 of the Environmental Conservation law. The applicant proposes to modify an existing discharge of approximately 490 million gallons per day of circulating cooling wastewater (Outfall 001) to Lake Ontario from the Rochester Gas and Electric Corporation Ginna Nuclear Power Plant - Station 13 facility, located at 1503 Lake Road, Ontario, NY. The proposed changes to the existing discharge includes adding a Reverse Osmosis Water Treatment System and adding ethanalamine (ETA) to the secondary system to prevent fouling of the steam generator tubes. The feedwater will contain 6 ppm to reduce Iron (Fe) transport to the steam generators and the concentration of ETA in Outfall 001 will be maintained at or below 0.7 mg/l to prevent chronic toxicity to fish species. In addition, the Department proposes to include a new study for monitoring entrainment (pass through of aquatic eggs and larvae into the cooling water intake). This tentative determination for the SPDES permit modification indicates that the discharge regulated under this statute is considered to satisfy regulatory standards for permit issuance, based on information available to the Department at this time. As a tentative determination, the Department seeks comments on the proposed regulated activity prior to making a final decision on permit issuance. You may contact the NYSDEC Region 8 office for review and comment by referring to the application number listed above.

*State Environmental Quality Review (SEQR) Determination*

Project is an Unlisted Action and will not have a significant impact on the environment. A Negative Declaration is on file. A coordinated review was not performed.

SEQR Lead Agency None Designated

*State Historic Preservation Act (SHPA) Determination*

The proposed activity is not subject to review in accordance with SHPA. The permit type is exempt or the activity is being reviewed in accordance with federal historic preservation regulations.

*Coastal Management*

This project is located in a Coastal Management area and is subject to the Waterfront Revitalization and Coastal Resources Act.

*Availability For Public Comment*

Comments on this project must be  
submitted in writing to the Contact  
Person no later than 09/13/2002

*Contact Person*

KIMBERLY A MERCHANT  
NYSDEC  
6274 EAST AVON-LIMA RD  
AVON, NY 14414  
(585) 226-2466

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**CC List for Complete Notice**

SUPERVISOR, TOWN OF ONTARIO

J. PRILL, RG&E

P. SAWYKO, RG&E

D. MONEY, RG&E

W. SCHAAF, U.S. NUCLEAR REGULATORY COMMISSION

V. BARR, NYSDOS

USEPA, PERMIT ADMIN. BRANCH, REGION II, NYC

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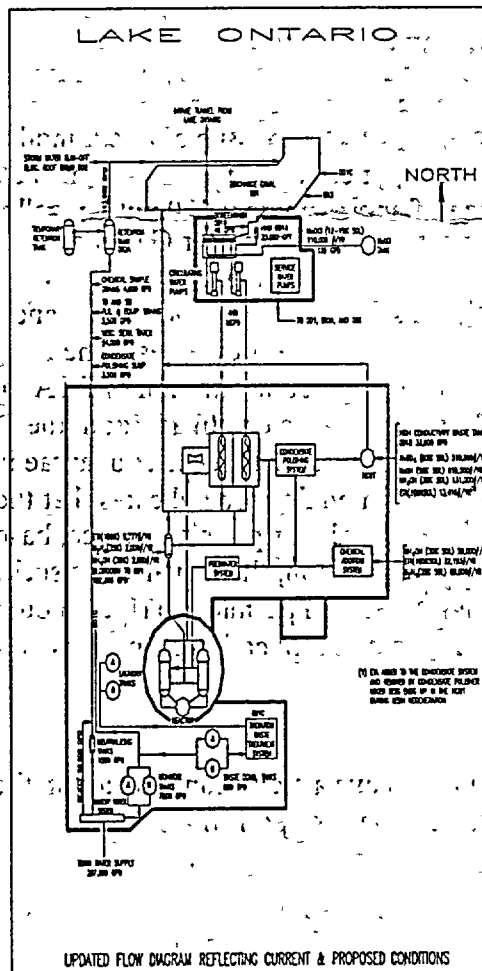
P. D'AMATO, LEGAL DIVISION, REGION 8

ENB

File

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

The permittee shall take samples and measurements, to comply with the monitoring requirements specified in this permit, at the location(s) indicated below: (Show sampling locations and outfalls with sketch or flow diagram as appropriate) (see page 7 of 13)



## Additional Requirements

1. The permittee shall submit written notification, which shall include detailed descriptions and appropriate figures, to the DEC Chief, Bureau of Environmental Protection, Regional Fisheries Manager and Regional Engineer at least 60 days in advance of any change which results in the alteration of the location, design, construction, operations or capacity of the cooling water intake structure. The permittee shall submit, with its written notification a demonstration that the change reflects the best technology currently available for minimizing adverse environmental impact. Prior DEC approval is required before initiating such change. A permit modification may be required.
2. Each impingement report submitted during this permit period shall include figures and a complete description of the cooling water intake system including trash racks; traveling screen type, size, mesh, and standard operating procedures; screen washwater discharge sluice configuration and disposition of screen washings, and the nature and estimated quantities of debris collected at this facility.
3. Impingement Monitoring Program.
  - a. An annual impingement monitoring program is required in order to document the impact of this facility on the aquatic environment of Lake Ontario. The methodologies described in Ginna Nuclear Power Station Impingement Plan of Study, RG&E Report No. B-13-293 (July 1985) are required with the following modification:
    - i. The wire mesh collection basket that fits into the screenwash sluiceway shall be constructed of mesh that is approximately 1/2 of the bar mesh of the traveling screens in order to minimize loss of organisms washed off the traveling screens.

- b. At the permittee's option a modified impingement abundance program may be submitted for DEC review and approval. The goal of the modified program would be to reduce the cost of impingement monitoring while continuing to provide adequate information for the department's determination to 6NYCRR 704 and the Clean Water Act Section 316. The impingement program identified in 3.a above shall continue in effect until an alternative is approved by the DEC.

#### 4. Impingement Mitigation

- a. During any time when a circulating pump is operational each traveling screen shall be washed for approximately fifteen (15) minutes each hour, excepting when a screen is inoperable due to required maintenance.
- b. No sampling gear other impediments to the return of impinged fish to Lake Ontario shall be placed into the washwater sluice excepting those necessary to conduct studies approved by the DEC.

- 5. The thermal discharge from this facility shall assure the protection and propagation of a balanced indigenous population of shellfish, fish and wildlife in and on Lake Ontario. In this regard, the Department has approved the permittee's request for alternative effluent limitations pursuant to Section 316(a) of the Clean Water Act for the 5 year life of the permit. The effluent limitations in this permit reflect this approval. 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 that in a mixing zone consisting of an area of 320 acres from the point of discharge, this temperature may be exceeded.

#### 6. Reporting

- a. A copy of all reports pertaining to environmental impacts on water resulting from this facility, which the applicant submits to any federal, state or local agency, shall also be submitted to the Department of Environmental Conservation offices in Avon and Albany. The permittee shall also notify the Department within one week from the time of submission to the Nuclear Regulatory Commission of any requested change in the environmental technical specifications which could effect the requirements of this permit.

- b. 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 shall identify the section(s) of the permit that it fulfills.
- c. The annual impingement monitoring report shall be submitted by July 1 of the following year. The analyses, content and appendices shall follow that provided in previous impingement abundance reports as in RG&E Report No. B-13-357- Rochester Gas and Electric Corporation Fish Impingement Program Analysis Report.

7. A one year study shall be conducted to monitor the entrainment of aquatic organisms in the station's cooling water flow. The goals of the study are to determine the abundance, species composition and life stage of organisms entrained, and help ascertain whether the operation of the cooling water intake system constitutes best technology available for minimizing adverse environmental impact. By EDM + 6 months, the permittee shall submit for review and approval a scope of work to conduct the study, consistent with the following guidelines.

- a. One 24 hour sample will be collected each week from April 1<sup>st</sup> through September 30<sup>th</sup>. Each collection will be scheduled to take place within the first two days of each seven day period, so that the remainder of the period is available for an alternate collection should plant operation or equipment malfunction prevent a collection on the day initially scheduled.
- b. Each sample shall be divided into four discrete 6 hour periods (sub-samples). Total daily sample volume is to be at least 200 cubic meters. The volume of water sampled is to be accurately recorded using calibrated flow meters. If a pump sampler is to be used (e.g. trash pump), excessive flow rates are to be avoided that may cause extrusion of organisms through the net mesh and loss of sample.
- c. At the beginning of each 6 hour subsample, water quality measurements (temperature and dissolved oxygen) are to be taken at both the intake and cooling water discharge canal.
- d. If samples are collected from within the screenhouse, they shall be taken from multiple depths unless it can be demonstrated to the Department's Satisfaction that adequate mixing exists and organisms are not stratified within the water column at that location.
- e. Ichthyoplankton nets used for sample collection shall have a mesh size of 505 microns or less.

- f. All samples are to be analyzed for ichthyoplankton, *Mysis relicta*, and *Pontoporeia affinis*. Ichthyoplankton are to be identified by species and life stage (egg, yolk-sac larvae, post yolk-sac larvae, and juvenile). From each sample up to 30 individuals per life stage per species will be measured to the nearest 0.1 mm.
- g. All methods for sample collection and handling, sample processing, quality control and quality assurance shall be fully described in the scope of work.
8. Within 6 months after the completion of the study, a final report shall be submitted to DEC describing the results of the study. The report shall describe all methods used and present data on the density and abundance of species and life stages entrained over the diel cycle, making liberal use of tabular data. Plant operational data such as weekly cooling water flows, timing of outages etc. as well as all excursions or deviations from the approved scope of work shall also be included. All reports and all other required information shall be submitted to the following Department Offices: NYSDEC Chief, Bureau of Habitat, 625 Broadway - 5<sup>th</sup> Floor, Albany, NY 12233-4756; and a copy each to the NYSDEC Region 8 Supervisor of Natural Resources, Regional Fisheries Manager and Regional Water Engineer, 6274 East Avon-Lima Road, Avon, NY 14414.
9. DEC will review the results of the permittee's entrainment monitoring study, and any other relevant information, to determine whether the cooling water intake at the Ginna Nuclear Generating Station represents best technology available for minimizing adverse environmental impact as required under NYCRR Part 704.5, and section 316(b) of the Clean Water Act, 33 U.S.C. Section 1326(b).
- a. If DEC determines that the cooling water intake is causing an adverse environmental impact and requires mitigative action be taken, then the permittee must, within 9 months of DEC notification, submit an intake technology report to the offices listed in No. 2. The report shall discuss the range of mitigation alternatives available for reducing impacts in terms of their engineering feasibility, reliability, cost, and the degree of mitigation likely to be achieved.
- b. DEC shall determine, from the alternatives presented and from other relevant information available, appropriate mitigation for the facility that minimizes adverse environmental impact, consistent with the considerations listed above. Within 12 months of DEC approval, the permittee shall submit plans and a schedule for the construction, operation and maintenance of the selected alternative(s), and if determined to be necessary, a plan to verify the effectiveness of the alternative(s) to minimize adverse environmental impact.

10. Biological specimens may be required to be submitted to NYSDEC upon request if notice by the Department is given prior to collection.
11. There shall be no discharge of auxiliary boiler chemical cleaning wastes and other metal cleaning wastewaters other than those using boric acid.
12. In regards to general condition #11.5 items c and d shall be reported annually to NYSDEC offices in Avon.
13. The permittee shall submit on an annual basis a report to the Department's offices in Albany and Avon by the 28th of the month next following the end of the period:
  - 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. Measurement in a, b, and c shall be taken on an hourly basis.
14. There shall be no discharge of PCB's from this facility.
15. Radioactivity: Concentrations of radioactivity in effluent are subject to the requirements of the U.S. Nuclear Regulatory Commission license conditions.
16. Ethanolamine (ETA) used for iron transport control at the Ginna secondary system through the feed-water supply shall be maintained at a concentration in Outfall 001 of less than or equal to 0.7 mg/l. Method of determination of this concentration in outfall 00q shall be calculated by the feed rate. A log shall be maintained subject to the reporting requirements of the WTCFX.



**SCHEDULE OF COMPLIANCE**

a) The permittee shall comply with the following schedule.

Action Code	Outfall Number(s)	Compliance Action	Due Date
34599	001D	Annual impingement monitoring report on the program required in Additional Requirement #3 of this permit.	July 1 of the following year from data collection
01299	001D	Submit Scope of Work Plan as required for Entrainment Study (as required A.R. #7)	EDM + 6 months
01299	001D	Submit Final Report on Entrainment Program (A.R. #7.2)	Within 6 Months of Completion of Study

b) The permittee shall submit a written notice of compliance or non-compliance with each of the above schedule dates no later than 14 days following each elapsed date, unless conditions require more immediate notice under terms of the General Conditions (Part II), Section 5. All such compliance or non-compliance notification shall be sent to the locations listed under the section of this permit entitled RECORDING, REPORTING AND ADDITIONAL MONITORING REQUIREMENTS. Each notice of non-compliance shall include the following information:

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

c) The permittee shall submit copies of any document required by the above schedule of compliance to NYSDEC Regional Water Engineer at the location listed under the section of this permit entitled RECORDING, REPORTING AND ADDITIONAL MONITORING REQUIREMENTS, unless otherwise specified in this permit or in writing by the Department.