

NRC DISTRIBUTION FOR PART 50 DOCKET MATERIAL

FILE NUMBER

TO:  
Mr. A. Schwencer

FROM:  
Rochester Gas & Electric Corp.  
Rochester, New York  
L. D. White, Jr.

DATE OF DOCUMENT  
1/19/77

DATE RECEIVED  
1/24/77

LETTER  
 ORIGINAL  
 COPY

NOTORIZED  
 UNCLASSIFIED

PROP

INPUT FORM

NUMBER OF COPIES RECEIVED  
One signed

DESCRIPTION

Ltr. w/attached...re our 12/17/76 ltr...  
furnishing response to our request for  
additional information with regard to the  
Ginna Appendix I evaluation...  
PLANT NAME:  
R. E. Ginna #1  
APPENDIX I DISTRIBUTION AFTER ISSUANCE OF  
A LICENSE

(3-P)

ENCLOSURE

ACKNOWLEDGED

DO NOT REMOVE

SAFETY

FOR ACTION/INFORMATION 1/25/77

RJL

|                                     |                   |           |  |  |
|-------------------------------------|-------------------|-----------|--|--|
| <input checked="" type="checkbox"/> | BRANCH CHIEF: (3) | Schwencer |  |  |
| <input checked="" type="checkbox"/> | PROJECT MANAGER:  | Wambach   |  |  |
| <input checked="" type="checkbox"/> | LIC. ASST:        | Sheppard  |  |  |
|                                     |                   |           |  |  |
|                                     |                   |           |  |  |

INTERNAL DISTRIBUTION

|                                     |                 |  |  |  |  |
|-------------------------------------|-----------------|--|--|--|--|
| <input checked="" type="checkbox"/> | REG FILE        |  |  |  |  |
| <input checked="" type="checkbox"/> | NRC PDR         |  |  |  |  |
| <input checked="" type="checkbox"/> | I & E (2)       |  |  |  |  |
| <input checked="" type="checkbox"/> | OELD            |  |  |  |  |
| <input checked="" type="checkbox"/> | GOSSICK & STAFF |  |  |  |  |
| <input checked="" type="checkbox"/> | BUTLER          |  |  |  |  |
| <input checked="" type="checkbox"/> | GRIMES          |  |  |  |  |
| <input checked="" type="checkbox"/> | DENTON (LTR)    |  |  |  |  |
| <input checked="" type="checkbox"/> | BALLARD         |  |  |  |  |
| <input checked="" type="checkbox"/> | GAMMILL         |  |  |  |  |
| <input checked="" type="checkbox"/> | HULMAN          |  |  |  |  |
| <input checked="" type="checkbox"/> | MARKEE          |  |  |  |  |
| <input checked="" type="checkbox"/> | J. COLLINS (2)  |  |  |  |  |
| <input checked="" type="checkbox"/> | KREGER          |  |  |  |  |
| <input checked="" type="checkbox"/> | VERDERY         |  |  |  |  |
|                                     |                 |  |  |  |  |
|                                     |                 |  |  |  |  |

|                                     |                         |                       |  |  |
|-------------------------------------|-------------------------|-----------------------|--|--|
| <input checked="" type="checkbox"/> | LPDR:Rochester, N. Y.   | EXTERNAL DISTRIBUTION |  |  |
| <input checked="" type="checkbox"/> | LPDR:Lyons, N. Y.       |                       |  |  |
| <input checked="" type="checkbox"/> | TIC                     |                       |  |  |
| <input checked="" type="checkbox"/> | NSIC                    |                       |  |  |
| <input checked="" type="checkbox"/> | ACRS 16 HOLDING/SENT TO | Car. B. (1/25/77)     |  |  |
|                                     |                         |                       |  |  |

CONTROL NUMBER

756

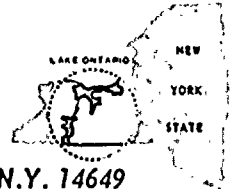
mm



( - )



ROCHESTER GAS AND ELECTRIC CORPORATION • 89 EAST AVENUE, ROCHESTER, N.Y. 14649



LEON D. WHITE, JR.  
VICE PRESIDENT

TELEPHONE  
AREA CODE 716 546-2700

January 19, 1977



Mr. A. Schwencer, Chief  
Operating Reactors Branch #1  
Division of Operating Reactors  
U.S. Nuclear Regulatory Commission  
Washington, D.C. 20555

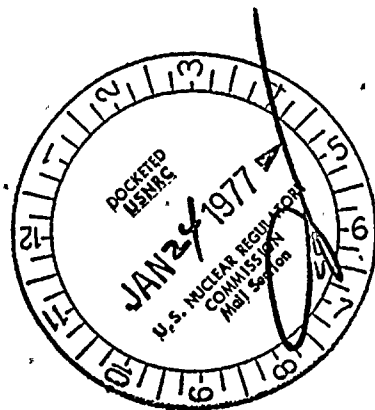
Dear Mr. Schwencer:

The enclosed material has been prepared in response to your letter of December 17, 1976 requesting additional information with regard to the Ginna Appendix I evaluation. Forty copies are being enclosed for your convenience.

Very truly yours,

L.D. White, Jr.

Enclosure



Regulatory Docket File



Response to NRC Additional  
Information Requests, Appendix I  
R. E. Ginna Nuclear Power Plant

Response to Item 1                      Condensate Demineralizer System

1.a Average flow rate through demineralizers

Based upon an expected flow fraction of 0.69 of the total steam flow, the average flow rate through the demineralizers is calculated to be  $4.6 \times 10^6$  lb/hr.

1.b Demineralizer type

Deep bed

1.c Number and size of demineralizers

Four units will be installed, three for simultaneous operation and one for standby. Each unit contains 204 ft<sup>3</sup> of 50/50 anion/cation resin.

1.d Regeneration frequency

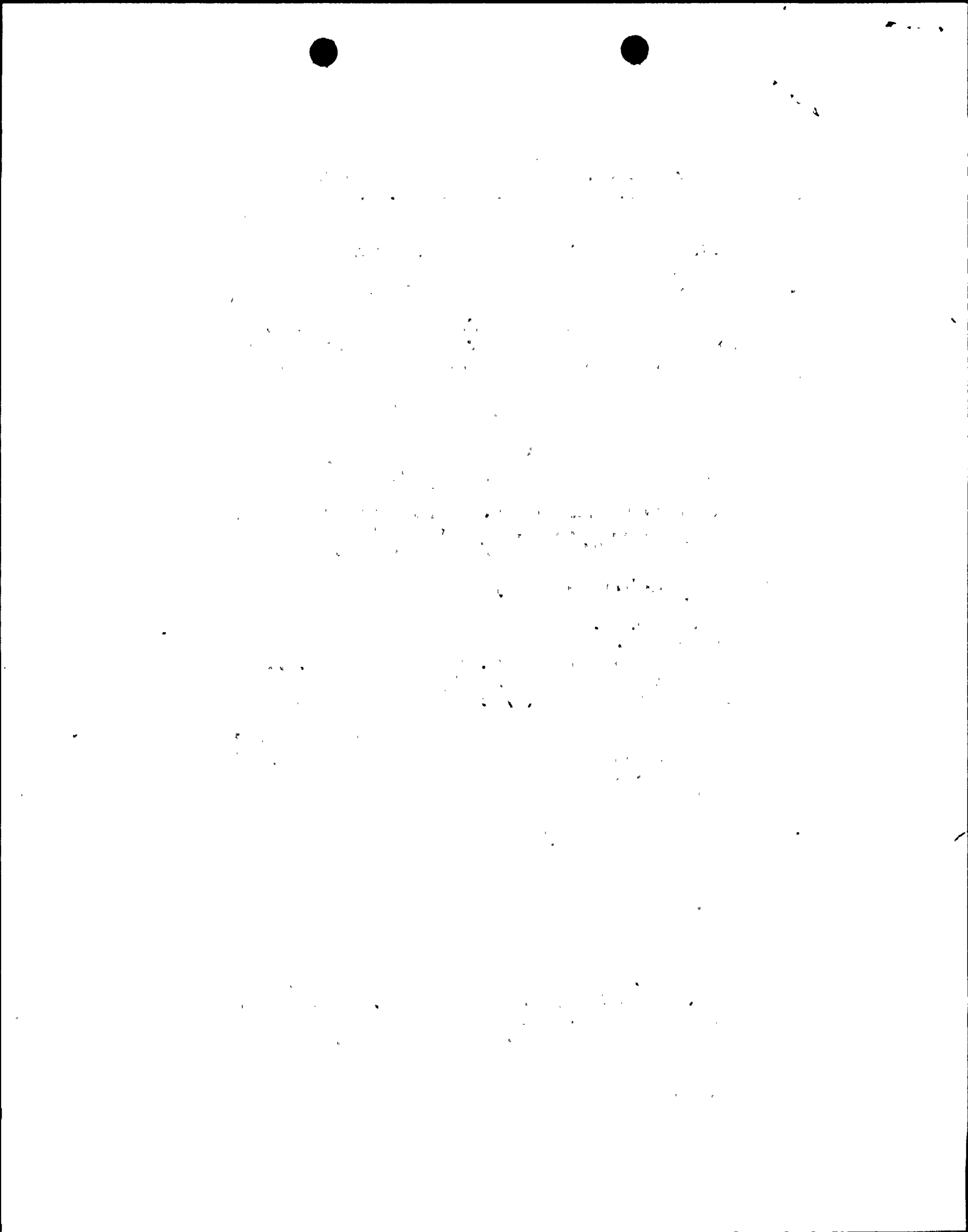
The regeneration frequency for the condensate demineralizer system is assumed to be 3.5 days per demineralizer according to NUREG-0017. This value is then multiplied by the number of demineralizer units (4) to obtain a regeneration time of 14 days for the entire system. It is estimated, however, that the actual condensate demineralizer regeneration frequency may be on the order of 10-14 days per demineralizer or a regeneration time of 40-56 days for the entire system.

1.e Indication whether ultrasonic resin cleaning is used and the waste liquid volume associated with its use.

No ultrasonic cleaning is planned for use.

1.f Regenerant volume and activity.

NUREG-0017 assumes a regenerant flow rate of 3400 gpd ( $1.24 \times 10^6$  gallons per year). If one assumes a regeneration frequency of 3.5 days per demineralizer according to NUREG-0017, this results in approximately 104 regenerations per year. The volume calculated for each demineralizer regeneration is then  $1.19 \times 10^4$  gallons. More realistic estimates indicate that



each regeneration will produce 20,000 gal. of low conductivity waste which is retained in a separate storage tank and reused in future regenerations as rinse and sluice water. Each regeneration will also produce from 28,250 gal. to 35,750 gal. of high conductivity waste which must be neutralized and disposed of. These volumes will be generated every 10 days to 2 weeks under normal operating conditions.

Using the assumptions of NUREG-0017, the total annual release from the plant due to regeneration waste is calculated to be 4.6 curies/yr. However, it is not expected that operation of the condensate demineralizer system would be maintained during periods of significant primary-to-second leakage in the plant.

Response to Item 2

Meteorological Parameter Adjustments

Extrapolation of wind speeds measured at the 50 ft. elevation to the 33 ft. level was performed using the mathematical relationship given in Appendix D, Volume 2 of the Ginna Environmental Report (1972).

Temperature differential data were adjusted to represent  $\Delta T$  150 ft-33 ft from actual  $\Delta T$  150 ft-10 ft measurements by employing a logarithmic correction factor of 0.56. The correction factor, F, was calculated in the following manner:

$$F = \frac{\ln \left[ \frac{150 \text{ ft}}{33 \text{ ft}} \right]}{\ln \left[ \frac{150 \text{ ft}}{10 \text{ ft}} \right]} = 0.56$$

