

I 3/23/78

REGULATORY INFORMATION DISTRIBUTION SYSTEM (RIDS)
DISTRIBUTION FOR INCOMING MATERIAL 50-244

REC: GRIER B H
NRC

ORG: WHITE L D
ROCHESTER GAS & ELEC

DOCDATE: 03/14/78
DATE RCVD: 03/21/78

DOCTYPE: LETTER NOTARIZED: NO
SUBJECT:

COPIES RECEIVED
LTR 1 ENCL 1

SEMIANNUAL EFFLUENT RELEASE REPORT OF RADIOACTIVE EFFLUENT FOR THE PERIOD
JULY THROUGH DEC. 1977.

PLANT NAME: RE GINNA - UNIT 1

REVIEWER INITIAL: XRS
DISTRIBUTOR INITIAL: *ml*

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

ANNUAL ENVIRONMENTAL RPTS (OL STAGE).
(DISTRIBUTION CODE A007)

FOR ACTION:

BR CHIEF ZIEMANN**W/ENCL
~~LIC ASST BIGGS**W/5 ENCL~~

w/7 ENCL

~~PRG J MGR SHEA**W/ENCL~~

INTERNAL:

REG FILE**W/ENCL
~~I & E**W/2 ENCL~~
BALLARD**W/ENCL
KREGGER**W/ENCL

NRC PDR**W/ENCL
GRIMES**W/ENCL
J. COLLINS**W/ENCL
KASTNER**W/ENCL

EXTERNAL:

LPDR'S
ROCHESTER, NY**W/ENCL
TIC**W/ENCL
NSIC**W/ENCL
ACRS CAT B**W/ENCL

DISTRIBUTION: LTR 20 ENCL 20
SIZE: 1P+3P

CONTROL NBR: 780820097

***** THE END *****

100-100000-100000



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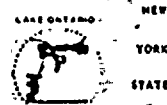
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ROCHESTER GAS AND ELECTRIC CORPORATION • 89 EAST AVENUE, ROCHESTER, N.Y. 14649



LEON D. WHITE, JR.
VICE PRESIDENT

REGULATORY DOCKET FILE COPY

TELEPHONE
AREA CODE 716 546-2700

March 14, 1978

Mr. Boyce H. Grier, Director
U. S. Nuclear Regulatory Commission
Office of Inspection and Enforcement
Region I
631 Park Avenue
King of Prussia, Pennsylvania 19406



Subject: Semiannual Effluent Release Report
R. E. Ginna Nuclear Power Plant, Unit No. 1
Docket No. 50-244

Dear Mr. Grier:

In accordance with the requirements of our Technical Specifications 6.9.3.b, attached is the semiannual report of radioactive effluent from Ginna Station for the period July through December 1977. These include the liquid and airborne effluent tables and a tabulation of shipments of solid waste.

During this period 664 curies were released through plant vents, 0.011 curies through liquid releases and 14.21 curies as solid waste. All five shipments went to the Barnwell, South Carolina burial ground operated by Chem-Nuclear Systems, Inc.

One additional copy of this letter and the attachment are enclosed.

Very truly yours,

L. D. White, Jr.
L. D. White, Jr.

Attachment

cc: Dr. Ernst Volgenau (6)

A007
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780820097

SOLID WASTE

July 1, 1977 through December 31, 1977

<u>DATE SHIPPED</u>	<u>CURIES</u>	<u>CUBIC FEET</u>
5 August	3.54	404
16 September	1.94	368
21 September	2.82	419
28 September	1.96	360
5 October	<u>3.95</u>	<u>481</u>
TOTAL	14.21	2,032

Rochester Gas & Electric Corporation

Airborne

II AIRBORNE RELEASES

1977

July - Dec. 77

	UNITS	JULY	AUG.	SEPT.	OCT.	NOV.	DEC.	TOTAL
1. TOTAL NOBLE GASES	CURIES	187.17	143.91	73.29	5.28	204.31	50.37	664.33
2. TOTAL HALOGENS	CURIES	2.68E-4	1.63E-4	1.67E-4	1.41E-4	1.32 E-4	6.95 E-5	9.43 E-4
3. TOTAL PARTICULATE GROSS RADIOACTIVITY (B,Y)	CURIES	7.2E-6	1.85E-6	4.2E-7	8.92E-7	8.7 E-7	1.76 E-6	1.30 E-5
4. TOTAL TRITIUM	CURIES	5.343	3.725	2.76	2.236	2.097	1.27	17.43
5. TOTAL PARTICULATE GROSS ALPHA RADIOACTIVITY		ND	ND	3.5E-8	1.5E-8	2.3 E-8	5.2 E-8	1.25 E-7
6. MAXIMUM NOBLE GAS RELEASE RATE	UCI/SEC	3000	2950	3090	1910	3630	41.7	3630
7. PERCENT OF APPLICABLE LIMIT FOR:								
A. NOBLE GASSES	%	.119	.091	.048	.004	.136	.033	.072
B. HALOGENS	%	.367	.167	.122	.106	.122	.055	.156
C. PARTICULATES	%	<.001	<.001	<.001	<.001	.007	.025	.006
8. ISOTOPE RELEASED:	CURIES							
PARTICULATES								
CS-137		6.28E-8	9.05E-7	3.2E-7	ND	ND	8.45 E-7	2.13 E-6
BA-LA-140								
CO-60		1.94E-6	1.96E-7	ND	ND	1.54 E-5	7.54E-8	1.76 E-5
CS-134		1.76E-7	9.92E-8	9.8E-8	ND	ND	3.28E-6	3.65 E-6
SR-89								
CO-58		1.38E-6	ND	ND	ND	ND	1.65 E-8	1.40 E-6
HALOGENS								
I-131		2.53E-4	1.30E-4	9.15E-5	8.2E-5	9.21 E-5	4.26 E-5	6.91 E-4
I-133		1.83E-5	3.30E-5	7.54E-5	5.9E-5	3.92 E-5	2.69 E-5	2.52 E-4
I-135								
GASES								
KR-85		26.815	47.007	.889	.733	.491	43.88	119.815
XE-133		157.635	94.277	72.034	4.150	199.408	4.89	532.394
XE-133M		.092	ND	.0004	ND	ND	ND	.0924
XE-131M		.182	1.266	.027	ND	.846	.033	2.354
KR-85M		.489	ND	ND	.174	.604	.747	2.014
XF-138								
XE-135M								
XE-135		1.956	1.358	.339	.218	2.962	.855	7.688
AR-41								
OTHERS AS APPROPRIATE (SPECIFY)								
CE-141		4.6E-9	ND	ND	ND	ND	ND	4.6 E-9
CE-144		5.13E-7	ND	ND	3.46E-7	4.96 E-7	9.85 E-9	1.36 E-6
ZR-95		6.42E-7	3.41E-7	ND	ND	ND	ND	9.83 E-7
NB-95		8.11E-7	ND	ND	1.37E-7	ND	2.97 E-9	9.51 E-7
Cr-51		1.11E-6	6.59E-8	ND	ND	ND	ND	1.18 E-6
Ru-103		4.77E-7	1.16E-7	ND	ND	ND	ND	5.93 E-7
Fe-59		ND	ND	ND	ND	ND	ND	ND
Mn-54		1.25E-7	8.68E-8	ND	ND	ND	ND	2.12 E-7
Np-239		7.7E-9	ND	ND	ND	ND	ND	7.7 E-9
Te-132					4.1E-7	6.25 E-8		4.72 E-7
Ag 110m							2.08E-8	2.08 E-8

FACILITY Rochester Gas & Electric Corporation

DC

Liquids
Released
July-Dec. 77

1. LIQUID RELEASES

	UNITS	JULY	AUG.	SEPT.	OCT.	NOV.	DEC.	TOTAL
1. GROSS RADIOACTIVITY (B.Y)								
A) TOTAL RELEASE	CURIES	.00406	.00120	.00333	.00035	.00083	.00130	.01107
B) AVERAGE CONCENTRATION RELEASED	UCI/ML	6.01E-11	1.78E-11	5.09E-11	5.18E-12	1.33 E-11	2.0 E-11	2.78 E-11
C) MAXIMUM CONCENTRATION RELEASED	UCI/ML	4.44E-9	3.37E-9	8.78E-9	1.24E-9	1.74 E-9	2.51 E-9	8.78 E-9
2. TRITIUM								
A) TOTAL RELEASE	CURIES	4.80	3.39	4.24	4.23	6.59	19.408	42.66
B) AVERAGE CONCENTRATION RELEASED	UCI/ML	7.10E-8	5.00E-8	6.49E-8	6.25E-8	1.03 E-7	2.97 E-7	4.8 E-7
3. DISSOLVED NOBLE GASES								
A) TOTAL RELEASE	CURIES	N.D.	N.D.	ND	ND	ND	ND	ND
B) AVERAGE CONCENTRATION RELEASED	UCI/ML							
4. GROSS ALPHA RADIOACTIVITY								
A) TOTAL RELEASE	CURIES	1.00E-6	N.D.	4.12E-6	ND	ND	ND	5.12 E-6
B) AVERAGE CONCENTRATION RELEASED	UCI/ML	1.48E-14		6.09E-14				1.26 E-14
5. VOLUME OF LIQUID WASTE TO DISCHARGE CANAL	LITERS							
		2.47E 6	6.51E 4	8.05E 4	6.13E 4	1.81 E5	1.30 E5	2.988 E 6
6. VOLUME OF DILUTION WATER	LITERS	6.76E 10	6.76E 10	6.54E 10	6.76E 10	6.39 E10	6.53 E10	3.974 E 11
7. ISOTOPES RELEASED	CURIES							
NA-24 (Steam Gen. carry-over test)		N.D.	N.D.	ND	ND	ND	ND	ND
SR-89								
I-131		.00008	.00002	ND	.000009	ND	.000007	.00012
CE-141		N.D.	N.D.	ND	ND	ND	ND	ND
RU-103		.00025	.000004	.00003	.000008	ND	ND	.00029
CS-137		.00132	.00063	.00145	.00015	.00053	.00085	.00493
CS-134		.00037	.00017	.00038	.00002	.00015	.00033	.00142
CO-60		.00109	.00027	.00072	.00008	.000096	.00008	.00234
CO-58		.00049	.00005	.00012	.00001	ND	.00002	.00069
CR-51		N.D.	N.D.	ND	ND	ND	ND	ND
MN-54		.00005	.00002	.00007	ND	ND	ND	.00014
NB-95		.00010	.00002	.00003	ND	ND	.000003	.00015
AG-110M		.00005	N.D.	ND	ND	ND	.00002	.00007
Ce-Pr 144		.00016	.00001	.00001	.00005	.000046	.00001	.00029
8. PERCENT OF TECHNICAL SPECIFICATION LIMIT FOR TOTAL ACTIVITY RELEASED	%	<.001	<.001	<.001	<.001	<.001	.0001	<.001
ZR-95		.00011	.00001	ND	.000002	ND	ND	.00012
Ba/La-140					.00002	7.E-7	ND	.00002



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