Nuclear

GPU Nuclear Corporation
Post Office Box 388
Route 9 South
Forked River, New Jersey 08731-0388
609 971-4000
Writer's Direct Dial Number:

C321-92-2247
August 31, 1992

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

Dear Sir:

Subject: Oyster Creek Nuclear Generating Station
Docket No. 50-219
Semi-Annual Radiological Release Report

Attached is a copy of the Oyster Creek Effluent Release Report for the period covering January 1992 through June, 1992. This submittal is made in accordance with 10 CFR 50.36a(2) and our Operating License and Technical Specifications.

If you have any questions, please do not hesitate to contact Brenda DeMerchant, Oyster Creek Licensing Engineer at 609-971-4642.

Very truly yours,

for John J. Barton
Vice President & Director
Oyster Creek

JJB/BDEM/jc
Attachment

cc: Chief
Bureau of Nuclear Engineering
NJ Dept. of Environmental Protection & Energy
CN 411
Trenton, NJ 08623

Senior NRC Resident Inspector
Oyster Creek NRC Project Manager
Administrator, Region 1

bcc: Page 2

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1/1

American Nuclear Insurers
The Exchange, Suite 254
270 Farmington Avenue
Farmington, CT 06032

Mr. J.K. Pickard
Pickard, Lowe & Garrick, Inc.
Suite 612
1200 18th Avenue, NW
Washington, DC 20036

E. Blake, Esq.
Shaw, Pitman, Potts & Trowbridge
2300 N Street, NW
Washington, DC 20037

Ira Jolles, Esq.
Vice President & General Counsel
General Public Utilities, Inc.
Parsippany, NJ 07054

EXECUTIVE SUMMARY, 1992-1 SEMI-ANNUAL RELEASE REPORT

The Semiannual Effluent Release Report is submitted to the United States Nuclear Regulatory Commission (NRC) every six months in accordance with the Oyster Creek Nuclear Generating Station (OCNGS) Technical Specifications (Tech Specs). It summarizes the radioactive gaseous and liquid effluents released and solid radioactive wastes shipped from the OCNGS. In addition, meteorological data are presented in joint frequency tables per atmospheric stability class.

For the first half of 1992, gaseous releases were 205.7 curies of fission and activation gases, 0.278 curies of non-particulate halogens, 6.51 curies of tritium, and 5.73 curies of particulate radioactivity. In addition, .088 microcuries of fission and activation products were released in 1 unplanned liquid batch release. Attached Tables show that quantities of radioactive material released were well within the limits allowed by the OCNGS Tech Specs. Further limits for the release of radioactive effluents at OCNGS are based upon offsite exposure to members of the general public. These limits were compared to dose projections calculated using the methodology in the Offsite Dose Calculation Manual (ODCM). The waste shipped for the 1992-1 reporting period was 454 curies of radioactivity, contained in 284 cubic meters of waste, which was shipped offsite in 31 shipments. These shipments are similar to those of nuclear plants of comparable type, age and size. Concrete was used for solidification material during the reporting period. The report summarizes the fact that all effluents released were within federal regulatory requirements of the OCNGS Technical Specifications.

A summary of Oyster Creek's meteorological data for the reporting period is provided in tabular form. Also included is a description of changes made to the Offsite Dose Calculation Manual (ODCM) and the Process Control Plan (PCP) during the reporting period. Changes made were to procedure formats and some content of the PCP was removed to other procedures. Effluent monitoring instruments that were inoperative as per Technical Specification 3.15 for the reporting period are also discussed.

Maximum Offsite Dose Due to Radionuclides in Effluents

Tech. Spec.	3.6.J.1 Liquid Dose WB mrem	3.6.J.1 Liquid Dose Organ mrem	3.6.L.1 Air Dose (Gas) Beta mrem	3.6.L.1 Air Dose (Gas) Gamma mrem	3.6.K.1 Whole Body mrem	3.6.M.1 (Thyroid) Organ mrem	3.6.K.1 Skin mrem
Jan- June Total	1.53E-08	7.36E-06	1.56E-03	7.03E-03	4.34E-03	2.27E-01	4.73E-03
Tech. Spec. Limit	3	10	20	10	500	15	3000
Fraction of Limit	5.10E-09	7.36E-07	7.80E-05	7.03E-04	8.68E-06	1.51E-02	1.58E-06

Effluent and Waste Disposal Supplemental Information

FACILITY: Oyster Creek Nuclear Generating Station
LICENSEE: Owner - Jersey Central Power and Light Company
Operator - GPU Nuclear Corporation

1.) **Regulatory Limits**

a.) Fission and Activation Gases

Technical Specification 3.6.E.1
The gross radioactivity in noble gases discharged from the main condenser air ejector shall not exceed a 0.21/E Ci/sec after the holdup line ,where E is the average gamma energy (Mev per atomic transformation).

Technical Specification 3.6.K.1
The dose equivalent rate outside of the EXCLUSION AREA due to radioactive noble gas in gaseous effluent shall not exceed 500 mrem/year to the total body or 3000 mrem/year to the skin.

Technical Specification 3.6.L.1
The air dose outside of the EXCLUSION AREA due to noble gas released in gaseous effluent shall not exceed:

5 mrad/calendar quarter due to gamma radiation,
10 mrad/calendar quarter due to beta radiation,
10 mrad/calendar year due to gamma radiation, or
20 mrad/calendar year due to beta radiation

Technical Specification 3.6.N.1
The annual dose to a MEMBER OF THE PUBLIC due to radiation and radioactive material in effluents from the OCNGS outside of the EXCLUSION AREA shall not exceed 75 mrem to his thyroid or 25 mrem to his total body or to any other organ.

b. Iodines and Particulates

Technical Specification 3.6.K.2
The dose equivalent rate outside of the EXCLUSION AREA due to H-3, I-131, I--133, and to radioactive material in particulates having half-lives of 8 days or more in gaseous effluents shall not exceed 1500 mrem/year to any body organ when the dose rate due to H-3, Sr-89, Sr-90, and alpha-emitting radionuclides is averaged over no more than 3 months and the dose rate due to other radionuclides is averaged over no more than 31 days.

Technical Specification 3.6.M.1
The dose to a MEMBER OF THE PUBLIC from iodine-131, iodine-133, and from radionuclides in particulate form having half-lives of 8 days or more in gaseous effluents, outside of the EXCLUSION AREA shall not exceed 7.5 mrem to any body organ per calendar quarter or 15 mrem to any body organ per calendar year.

c. Liquid Effluents

Technical Specification 3.6.I.1
The concentration of radioactive material, other than noble gases, in liquid effluent in the discharge canal at the Route 9 bridge shall not exceed the concentrations specified in 10 CFR Part 20, Appendix B, Table II, Column 2.

Technical Specification 3.6.I.2
The concentration of noble gases dissolved or entrained in liquid effluent in the discharge canal at the Route 9 bridge shall not exceed $2X10^{-4}$ microcuries/milliliter.

Technical Specification 3.6.J.2
The dose to a MEMBER OF THE PUBLIC due to radioactive material in liquid effluents beyond the outside of the EXCLUSION AREA shall not exceed:

1.5 mrem to the total body during any calendar quarter,
5 mrem to any body organ during any calendar quarter,
3 mrem to the total body during any calendar year, or
10 mrem to any body organ during any calendar year.

2.) **Maximum Permissible Concentrations (MPC)**

a. Fission and Activation Gases:

Appendix B, Table II, Column 2 of 10 CFR 20

b. Iodines and Particulates:

Appendix B, Table II, Column 2 of 10 CFR 20

c. Liquid Effluents:

Appendix B, Table II, Column 2 of 10 CFR 20, except for dissolved or entrained noble gases where the limit is 2×10^{-4} uCi/ml

3.) **Measurements and Approximation of Total Radioactivity**

a. Fission and Activation Gases:

1. Stack

The continuous recording of gross activity and the incorporation of isotopic data obtained from a weekly grab sample analyzed using gamma spectroscopy.

2. Augmented Offgas (AOG) Vent

The continuous recording of gross activity and the incorporation of isotopic data obtained from a weekly grab sample analyzed using gamma spectroscopy.

3. Turbine Building Stack and Feedpump Room Vent

The continuous recording of gross activity and the incorporation of isotopic data obtained from a monthly grab sample analyzed using gamma spectroscopy.

b. Iodines

1. Stack

Filters are changed twice weekly and analyzed using gamma spectroscopy.

2. AOG Vent

Filters are changed twice weekly and analyzed using gamma spectroscopy.

3. Turbine Building Stack and Feedpump Room Vent

Filters are changed twice weekly and analyzed using gamma spectroscopy.

c. Particulates

1. Stack

Filters are changed twice weekly and analyzed using a low background beta counter and gamma spectroscopy.

2. AOG Vent

Filters are changed twice weekly and analyzed using gamma spectroscopy.

3. Turbine Building Stack and Feedpump Room Vent

Filters are changed twice weekly and analyzed using gamma spectroscopy.

d. Liquid Effluents

Analysis per batch release using gamma spectrometry with a germanium detector, a low background beta counter, and a liquid scintillation counter.

OYSTER CREEK NUCLEAR GENERATING STATION
GASEOUS EFFLUENT ELEVATED RELEASES
First Quarter 1992

FISSION GASES	QUANTITY (ci) *
KR85M	6.02E+00
KR87	2.27E+01
KR88	3.36E+01
XE135	4.53E+01

Total Fission Gases Released:	1.08E+02 ci
Gamma EBar:	0.8907 mev
Average Rate of Release:	1.37E+01 uCi/sec

IODINES	QUANTITY (ci)
I131	2.42E-02
I132	4.55E-03
I133	1.42E-02
I134	5.95E-03
I135	3.87E-03

Total Iodines Released:	5.28E-02 ci
Average Rate of Release:	6.71E-03 uCi/sec

PARTICULATES	QUANTITY (ci)
NA24	7.78E-04
MN54	1.36E-05
RB89	4.95E-01
SR89	5.19E-04
SR90	1.73E-06
SR91	1.56E-03
SR92	9.24E-04
Y91M	1.48E-02
TC99M	5.74E-03
CS137	7.33E-06
CS138	9.49E-01
BA139	5.62E-01
BA140	3.50E-04
LA140	2.09E-04
GROSSA	3.19E-06

Total Particulates Released:	2.03E+00 ci
Average Rate of Release:	2.58E-01 uCi/sec

RADIONUCLIDE	QUANTITY (ci)
H3	2.86E+00

Avg. Rate of Release for H3:	3.64E-01 uCi/sec

* Quantity of noble gases derived from gross activity.

OYSTER CREEK NUCLEAR GENERATING STATION
GASEOUS EFFLUENT GROUND LEVEL RELEASES
First Quarter 1992

FISSION GASES	QUANTITY (ci) *
KR85M	3.70E-04
KR87	1.39E-03
KR88	2.07E-03
XE133	2.05E-04
XE135	2.79E-03
Total Fission Gases Released:	6.82E-03 ci
Average Rate of Release:	8.67E-04 uCi/sec

IODINES	QUANTITY (ci)
I131	1.66E-05
I133	1.73E-04
Total Iodines Released:	1.90E-04 ci
Average Rate of Release:	2.42E-05 uCi/sec

PARTICULATES	QUANTITY (ci)
BA139	1.09E-03
CE141	7.09E-07
Total Particulates Released:	1.09E-03 ci
Average Rate of Release:	1.39E-04 uCi/sec

RADIONUCLIDE	QUANTITY (ci)
H3	0.00E+00
Avg. Rate of Release for H3:	0.00E+00 uCi/sec

* Quantity of noble gases derived from gross activity.

OYSTER CREEK NUCLEAR GENERATING STATION
GASEOUS EFFLUENT ELEVATED RELEASES
Second Quarter 1992

FISSION GASES	QUANTITY (ci) *
KR85M	2.80E+01
KR87	1.57E+01
KR88	1.68E+01
XE133	1.82E+01
XE135	1.87E+01

Total Fission Gases Released: 9.75E+01 ci
Gamma EBar: 0.5664 mev
Average Rate of Release: 1.24E+01 uCi/sec

IODINES	QUANTITY (ci)
I131	9.16E-03
I132	4.39E-02
I133	3.92E-02
I134	6.71E-02
I135	6.49E-02

Total Iodines Released: 2.24E-01 ci
Average Rate of Release: 2.85E-02 uCi/sec

PARTICULATES	QUANTITY (ci)
NA24	1.36E-02
CR51	4.25E-03
MN54	2.14E-04
CO58	1.35E-04
CO60	4.08E-04
RB89	1.80E-01
SR89	1.10E-03
SR90	9.79E-06
SR91	1.54E-02
SR92	2.52E-02
Y91M	2.77E-01
Y92	1.13E-02
TC99M	2.14E-02
TE132	2.35E-05
CS138	1.86E+00
BA139	1.23E+00
BA140	6.43E-03
LA140	9.32E-04
CE141	5.49E-05
GROSSA	2.67E-06

Total Particulates Released: 3.65E+00 ci
Average Rate of Release: 4.64E-01 uCi/sec

RADIONUCLIDE	QUANTITY (ci)
H3	2.26E+00

Avg. Rate of Release for H3: 2.87E-01 uCi/sec

* Quantity of noble gases derived from gross activity.

OYSTER CREEK NUCLEAR GENERATING STATION
GASEOUS EFFLUENT GROUND LEVEL RELEASES
Second Quarter 1992

FISSION GASES	QUANTITY (ci) *
KR85M	9.71E-03
KR87	3.66E-02
KR88	5.42E-02
XE133	5.39E-03
XE135	7.31E-02

Total Fission Gases Released: 1.79E-01 ci
Average Rate of Release: 2.28E-02 uCi/sec

IODINES	QUANTITY (ci)
I131	3.17E-05
I132	2.41E-04
I133	3.83E-04
I135	2.22E-04

Total Iodines Released: 8.78E-04 ci
Average Rate of Release: 1.12E-04 uCi/sec

PARTICULATES	QUANTITY (ci)
NA24	8.60E-05
CR51	3.53E-06
MN54	6.18E-06
CO57	6.58E-07
CO60	2.27E-06
RB88	5.76E-04
SR89	2.71E-05
SR91	5.66E-05
Y91M	4.92E-02
TC99M	1.51E-04
TE132	4.16E-08
CS137	8.89E-07
CS138	1.88E-04
BA139	2.14E-03
BA140	4.34E-06

Total Particulates Released: 5.25E-02 ci
Average Rate of Release: 6.67E-03 uCi/sec

RADIONUCLIDE	QUANTITY (ci)
H3	0.00E+00

Avg. Rate of Release for H3: 0.00E+00 uCi/sec

* Quantity of noble gases derived from gross activity.

OYSTER CREEK NUCLEAR GENERATING STATION
LIQUID EFFLUENTS
Second Quarter 1992

NUCLIDE RELEASED	QUANTITY (Ci)
AG110M	8.80E-08
Total	8.80E-08
NOBLE GASES	
Total	0.00E+00
TRITIUM	0.00E+00
GROSS ALPHA	0.00E+00

Volume of Waste Released Prior to Dilution: 4.70E+01 gal
Volume of Dilution Water Released: 2.70E+07 gal

SOLID WASTE SHIPPED OFFSITE FOR DISPOSAL
** DURING PERIOD FROM 01/01/92 TO 06/30/92 **

WASTE STREAM :Resins, Filters, & Evap Bottoms.

WASTE CLASS	VOLUME FT^3	VOLUME M^3	CURIES SHIPPED	% ERROR (CI)
A	4674.3	132.3	2.22E+02	+/- 25%
B	341.6	9.7	1.19E+01	+/- 25%
C	120.3	3.4	2.15E+02	+/- 25%
All	5136.2	145.4	4.49E+02	+/- 25%

WASTE STREAM :Dry Active Waste.

WASTE CLASS	VOLUME FT^3	VOLUME M^3	CURIES SHIPPED	% ERROR (CI)
A	360.2	10.2	3.75E+00	+/- 25%
B	.0	.0	0.00E+00	+/- 25%
C	.0	.0	0.00E+00	+/- 25%
All	360.2	10.2	3.75E+00	+/- 25%

WASTE STREAM :Irradiated Components.

WASTE CLASS	VOLUME FT^3	VOLUME M^3	CURIES SHIPPED	% ERROR (CI)
A	.0	.0	0.00E+00	+/- 25%
B	.0	.0	0.00E+00	+/- 25%
C	.0	.0	0.00E+00	+/- 25%
All	.0	.0	0.00E+00	+/- 25%

WASTE STREAM :Other Waste.

WASTE CLASS	VOLUME FT^3	VOLUME M^3	CURIES SHIPPED	% ERROR (CI)
A	.0	.0	0.00E+00	+/- 25%
B	.0	.0	0.00E+00	+/- 25%
C	.0	.0	0.00E+00	+/- 25%
All	.0	.0	0.00E+00	+/- 25%

WASTE STREAM :Sum of All 4 Categories

WASTE CLASS	VOLUME FT^3	VOLUME M^3	CURIES SHIPPED	% ERROR (CI)
A	5034.5	142.5	2.25E+02	+/- 25%
B	341.6	9.7	1.19E+01	+/- 25%
C	120.3	3.4	2.15E+02	+/- 25%
All	5496.4	155.5	4.53E+02	+/- 25%

** ESTIMATES OF MAJOR NUCLIDES BY WASTE CLASS AND STREAM **
WASTE STREAM:Resins, Filters, & Evap Bottoms. WITH 1.0% CUTOFF.
** DURING PERIOD FROM 01/01/92 TO 06/30/92 **

WASTE CLASS	NUCLIDE NAME	PERCENT ABUNDANCE	CURIES
A	Co-60	42.100%	9.33E+01
	Fe-55	30.432%	6.75E+01
	Cs-137	14.389%	3.19E+01
	Mn-54	4.823%	1.07E+01
	Cr-51	2.553%	5.66E+00
	Cs-134	2.169%	4.81E+00
	Co-58	1.330%	2.95E+00
	Ni-63	.523%	1.16E+00
	Sr-90	.103%	2.29E-01
	Pu-241	.079%	1.75E-01
	Ni-59	.031%	6.83E-02
	C-14	.012%	2.64E-02
	H-3	.004%	8.37E-03
	Cm-242	.000%	7.45E-04
	I-129	.000%	0.00E+00
	Tc-99	.000%	0.00E+00
	Nb-94	.000%	0.00E+00
B	Cs-137	77.610%	9.25E+00
	Cs-134	17.158%	2.05E+00
	Co-60	3.499%	4.17E-01
	Ni-63	1.437%	1.71E-01
	Sr-90	.028%	3.30E-03
	H-3	.021%	2.52E-03
	Cm-242	.000%	0.00E+00
	Pu-241	.000%	0.00E+00
	I-129	.000%	0.00E+00
	Tc-99	.000%	0.00E+00
	C-14	.000%	0.00E+00
	Nb-94	.000%	0.00E+00
	Ni-59	.000%	0.00E+00

** ESTIMATES OF MAJOR NUCLIDES BY WASTE CLASS AND STREAM **
WASTE STREAM:Resins, Filters, & Evap Bottoms. WITH 1.0% CUTOFF.
** DURING PERIOD FROM 01/01/92 TO 06/30/92 **

WASTE CLASS	NUCLIDE NAME	PERCENT ABUNDANCE	CURIES
C	Co-60	50.138%	1.08E+02
	Fe-55	48.281%	1.04E+02
	Cs-137	1.226%	2.64E+00
	Ni-63	.163%	3.52E-01
	Sr-90	.117%	2.52E-01
	C-14	.001%	1.23E-03
	H-3	.001%	1.18E-03
	Pu-241	.000%	1.19E-04
	Cm-242	.000%	1.14E-08
	I-129	.000%	0.00E+00
	Tc-99	.000%	0.00E+00
	Nb-94	.000%	0.00E+00
	Ni-59	.000%	0.00E+00
All	Co-60	44.931%	2.02E+02
	Fe-55	38.189%	1.71E+02
	Cs-137	9.752%	4.38E+01
	Mn-54	2.389%	1.07E+01
	Cs-134	1.540%	6.92E+00
	Cr-51	1.261%	5.66E+00
	Ni-63	.375%	1.68E+00
	Sr-90	.108%	4.85E-01
	Pu-241	.039%	1.75E-01
	Ni-59	.015%	6.83E-02
	C-14	.006%	2.76E-02
	H-3	.003%	1.21E-02
	Cm-242	.000%	7.45E-04
	I-129	.000%	0.00E+00
	Tc-99	.000%	0.00E+00
	Nb-94	.000%	0.00E+00

** ESTIMATES OF MAJOR NUCLIDES BY WASTE CLASS AND STREAM **
WASTE STREAM:Dry Active Waste. WITH 1.0% CUTOFF.
** DURING PERIOD FROM 01/01/92 TO 06/30/92 **

WASTE CLASS	NUCLIDE NAME	PERCENT ABUNDANCE	CURIES
A	Fe-55	50.462%	1.89E+00
	Co-60	34.398%	1.29E+00
	Cs-137	9.126%	3.42E-01
	Mn-54	2.490%	9.33E-02
	Cs-134	1.847%	6.92E-02
	Cr-51	1.316%	4.93E-02
	Ni-63	.110%	4.11E-03
	Pu-241	.028%	1.06E-03
	Sr-90	.019%	7.16E-04
	Ni-59	.009%	3.53E-04
	H-3	.004%	1.47E-04
	C-14	.002%	7.63E-05
	Cm-242	.000%	4.85E-06
	I-129	.000%	0.00E+00
	Tc-99	.000%	0.00E+00
	Nb-94	.000%	0.00E+00
All	Fe-55	50.462%	1.89E+00
	Co-60	34.398%	1.29E+00
	Cs-137	9.126%	3.42E-01
	Mn-54	2.490%	9.33E-02
	Cs-134	1.847%	6.92E-02
	Cr-51	1.316%	4.93E-02
	Ni-63	.110%	4.11E-03
	Pu-241	.028%	1.06E-03
	Sr-90	.019%	7.16E-04
	Ni-59	.009%	3.53E-04
	H-3	.004%	1.47E-04
	C-14	.002%	7.63E-05
	Cm-242	.000%	4.85E-06
	I-129	.000%	0.00E+00
	Tc-99	.000%	0.00E+00
	Nb-94	.000%	0.00E+00

** ESTIMATES OF MAJOR NUCLIDES BY WASTE CLASS AND STREAM **
WASTE STREAM:Sum of All 4 Categories WITH 1.0% CUTOFF.
** DURING PERIOD FROM 01/01/92 TO 06/30/92 **

WASTE CLASS	NUCLIDE NAME	PERCENT ABUNDANCE	CURIES
A	Co-60	41.972%	9.46E+01
	Fe-55	30.765%	6.94E+01
	Cs-137	14.301%	3.22E+01
	Mn-54	4.784%	1.08E+01
	Cr-51	2.533%	5.71E+00
	Cs-134	2.164%	4.88E+00
	Co-58	1.309%	2.95E+00
	Ni-63	.516%	1.16E+00
	Sr-90	.102%	2.30E-01
	Pu-241	.078%	1.76E-01
	Ni-59	.030%	6.86E-02
	C-14	.012%	2.65E-02
	H-3	.004%	8.52E-03
	Cm-242	.000%	7.50E-04
	I-129	.000%	0.00E+00
	Tc-99	.000%	0.00E+00
	Nb-94	.000%	0.00E+00
B	Cs-137	77.610%	9.25E+00
	Cs-134	17.158%	2.05E+00
	Co-60	3.499%	4.17E-01
	Ni-63	1.437%	1.71E-01
	Sr-90	.028%	3.30E-03
	H-3	.021%	2.52E-03
	Cm-242	.000%	0.00E+00
	Pu-241	.000%	0.00E+00
	I-129	.000%	0.00E+00
	Tc-99	.000%	0.00E+00
	C-14	.000%	0.00E+00
	Nb-94	.000%	0.00E+00
	Ni-59	.000%	0.00E+00

** ESTIMATES OF MAJOR NUCLIDES BY WASTE CLASS AND STREAM **
WASTE STREAM:Sum of All 4 Categories WITH 1.0% CUTOFF.
** DURING PERIOD FROM 01/01/92 TO 06/30/92 **

WASTE CLASS	NUCLIDE NAME	PERCENT ABUNDANCE	CURIES
C	Co-60	50.138%	1.08E+02
	Fe-55	48.281%	1.04E+02
	Cs-137	1.226%	2.64E+00
	Ni-63	.163%	3.52E-01
	Sr-90	.117%	2.52E-01
	C-14	.001%	1.23E-03
	H-3	.001%	1.18E-03
	Pu-241	.000%	1.19E-04
	Cm-242	.000%	1.14E-08
	I-129	.000%	0.00E+00
	Tc-99	.000%	0.00E+00
	Nb-94	.000%	0.00E+00
	Ni-59	.000%	0.00E+00
All	Co-60	44.844%	2.03E+02
	Fe-55	38.290%	1.73E+02
	Cs-137	9.747%	4.41E+01
	Mn-54	2.390%	1.08E+01
	Cs-134	1.543%	6.99E+00
	Cr-51	1.261%	5.71E+00
	Ni-63	.373%	1.69E+00
	Sr-90	.107%	4.85E-01
	Pu-241	.039%	1.76E-01
	Ni-59	.015%	6.86E-02
	C-14	.006%	2.77E-02
	H-3	.003%	1.22E-02
	Cm-242	.000%	7.50E-04
	I-129	.000%	0.00E+00
	Tc-99	.000%	0.00E+00
	Nb-94	.000%	0.00E+00

*** SOLID WASTE DISPOSITION SUMMARY ***

NUMBER OF SHIPMENTS	MODE OF TRANSPORTATION	DESTINATION
28	TRUCK	Barnwell
0	TRUCK	Richland
0	TRUCK	Beatty
0	TRUCK	Other

Regulatory Guide 1.21 Report
DAW Shipped To SEG, Oak Ridge, TN.
during the period from 01/01/92 to 06/30/92

Report Date: 7/13/1992
Waste Stream: Dry Activated Waste

WASTE CLASS	VOLUME $Ft.^3$	VOLUME m^3	CURRIES SHIPPED	% ERROR (CI)
A	4530	128.3	9.59 E-1	25%

Estimates of Major Nuclides by Waste Class
Waste Stream: Dry Activated Waste

Waste Class	Nuclide	% Abundance	Curies
A	Fe-55	50.2%	4.85E-1
	Co-60	34.0%	3.3 E-1
	Cs-137	9.0%	8.69E-2
	Mn-54	2.47%	2.61E-2
	Cr-51	1.30%	1.21E-2
	Cs-134	1.82%	1.77E-2
	Ni-63	.35%	3.13E-8
	H-3	0.0%	3.75E-5
	C-14	0.0%	1.95E-5
	Tc-99	0.0%	LLD
	I-129	0.0%	LLD
	Pu-241	.09%	8.06E-9
	Cm-242	0.0%	3.70E-11
	Sr-90	.06%	5.47E-9

Number of Shipments	Mode of Transportation	Destination
3	Truck	Oak Ridge, TN.

REGG.WAC

OYSTER CREEK
380 FOOT ELEVATED RELEASE DATA
JOINT FREQUENCY TABLES

HOURS AT EACH WIND SPEED AND DIRECTION
PERIOD OF RECORD 92010100 TO 92063023
STABILITY CLASS A

SECTOR TO	WINDS FROM	WIND SPEED 1-3	4-7	8-12	13-18	19-24	>24	TOTAL
N	S	0	0	0	5	8	1	14
NNE	SSW	0	0	2	1	0	0	3
NE	SW	0	1	0	0	0	0	1
ENE	WSW	0	1	1	4	2	4	12
E	W	0	0	1	0	5	2	8
ESE	WNW	0	0	0	2	14	12	28
SE	NW	0	0	1	10	16	9	36
SSE	NNW	0	0	1	3	6	1	11
S	N	0	1	0	0	0	0	1
SSW	NNE	0	1	0	0	0	0	1
SW	NE	0	1	0	4	2	0	7
WSW	ENE	0	0	2	17	6	1	26
W	E	0	1	3	7	1	0	12
WNW	ESE	0	1	4	0	0	0	5
NW	SE	0	0	4	0	0	0	4
NNW	SSE	0	0	0	3	2	0	5
TOTAL		0	7	19	56	62	30	174

STABILITY CLASS B

SECTOR TO	WINDS FROM	WIND SPEED 1-3	4-7	8-12	13-18	19-24	>24	TOTAL
N	S	0	1	1	9	9	2	22
NNE	SSW	0	1	1	1	3	3	9
NE	SW	0	0	1	0	0	0	1
ENE	WSW	0	0	1	1	4	4	10
E	W	0	0	1	3	5	3	12
ESE	WNW	0	0	2	7	6	3	18
SE	NW	0	0	2	7	7	12	28
SSE	NNW	0	0	1	5	3	1	10
S	N	0	0	4	1	1	0	6
SSW	NNE	0	0	0	0	0	0	0
SW	NE	0	1	4	10	2	2	19
WSW	ENE	0	0	7	6	2	1	16
W	E	0	1	12	5	0	0	18
WNW	ESE	0	0	10	0	0	0	10
NW	SE	0	0	11	3	0	0	14
NNW	SSE	0	0	4	12	0	0	16
TOTAL		0	4	62	70	42	31	209

OYSTER CREEK
380 FOOT ELEVATED RELEASE DATA
JOINT FREQUENCY TABLES

HOURS AT EACH WIND SPEED AND DIRECTION
PERIOD OF RECORD 92010100 TO 92063023
STABILITY CLASS C

SECTOR TO	WINDS FROM	WIND SPEED 1-3	4-7	8-12	13-18	19-24	>24	TOTAL
N	S	0	0	4	16	6	1	27
NNE	SSW	0	1	2	7	4	1	15
NE	SW	0	1	2	3	0	0	6
ENE	WSW	0	1	7	8	3	3	22
E	W	0	1	6	7	5	4	23
ESE	WNW	0	1	6	8	13	5	33
SE	NW	0	0	4	14	11	13	42
SSE	NNW	0	0	8	8	4	1	21
S	N	0	0	1	4	0	0	5
SSW	NNE	0	0	2	0	0	0	2
SW	NE	0	2	9	5	2	3	21
WSW	ENE	0	0	9	8	2	2	21
W	E	0	4	9	5	0	0	18
WNW	ESE	0	2	7	1	0	0	10
NW	SE	0	0	11	1	0	0	12
NNW	SSE	0	1	8	9	0	0	18
TOTAL		0	14	95	104	50	33	296

STABILITY CLASS D

SECTOR TO	WINDS FROM	WIND SPEED 1-3	4-7	8-12	13-18	19-24	>24	TOTAL
N	S	1	11	45	43	9	2	111
NNE	SSW	1	8	22	64	27	8	130
NE	SW	2	5	18	11	10	2	48
ENE	WSW	2	6	16	23	10	7	64
E	W	1	9	19	12	17	36	94
ESE	WNW	1	4	14	45	48	44	156
SE	NW	0	10	20	53	42	61	186
SSE	NNW	1	7	22	42	18	11	101
S	N	1	16	18	28	2	0	65
SSW	NNE	4	23	27	27	1	0	82
SW	NE	1	20	62	48	46	34	211
WSW	ENE	3	14	54	60	47	31	209
W	E	0	12	41	37	15	3	108
WNW	ESE	3	9	26	11	3	7	59
NW	SE	3	9	30	9	5	1	57
NNW	SSE	4	13	42	19	8	6	92
TOTAL		28	176	476	532	308	253	1773

OYSTER CREEK
380 FOOT ELEVATED RELEASE DATA
JOINT FREQUENCY TABLES

HOURS AT EACH WIND SPEED AND DIRECTION
PERIOD OF RECORD 92010100 TO 92063023
STABILITY CLASS E

SECTOR TO	WINDS FROM	WIND SPEED 1-3	4-7	8-12	13-18	19-24	>24	TOTAL
N	S	2	7	18	24	18	11	80
NNE	SSW	4	5	26	50	30	12	127
NE	SW	0	2	12	28	28	12	82
ENE	WSW	0	9	8	17	26	3	63
E	W	0	1	6	37	23	1	68
ESE	WNW	1	2	8	44	52	4	111
SE	NW	0	0	13	51	52	9	125
SSE	NNW	1	1	9	24	33	4	72
S	N	3	8	9	19	10	0	49
SSW	NNE	2	4	8	6	0	0	20
SW	NE	3	2	8	14	7	5	39
WSW	ENE	4	1	15	18	11	5	54
W	E	2	5	10	11	13	6	47
WNW	ESE	4	7	2	7	8	4	32
NW	SE	4	4	8	10	9	5	40
NNW	SSE	0	5	13	14	21	17	70
TOTAL		30	63	173	374	341	98	1079

STABILITY CLASS F

SECTOR TO	WINDS FROM	WIND SPEED 1-3	4-7	8-12	13-18	19-24	>24	TOTAL
N	S	1	2	6	8	1	0	18
NNE	SSW	0	3	6	11	4	0	24
NE	SW	2	6	14	22	20	9	73
ENE	WSW	0	4	9	15	21	7	56
E	W	0	9	6	16	20	7	58
ESE	WNW	0	2	10	19	26	9	66
SE	NW	2	2	7	23	32	6	72
SSE	NNW	1	4	6	17	14	3	45
S	N	0	5	6	17	7	1	36
SSW	NNE	0	1	0	9	3	0	13
SW	NE	0	4	3	6	0	0	13
WSW	ENE	0	0	0	3	1	0	4
W	E	2	0	0	1	1	0	4
WNW	ESE	1	3	2	1	0	0	7
NW	SE	1	1	3	2	0	0	7
NNW	SSE	0	2	4	6	0	0	12
TOTAL		10	48	82	176	150	42	508

OYSTER CREEK
380 FOOT ELEVATED RELEASE DATA
JOINT FREQUENCY TABLES

HOURS AT EACH WIND SPEED AND DIRECTION
PERIOD OF RECORD 92010100 TO 92063023
STABILITY CLASS G

SECTOR TO	WINDS FROM	WIND SPEED 1-3	4-7	8-12	13-18	19-24	>24	TOTAL
N	S	0	0	4	1	1	0	6
NNE	SSW	0	4	6	15	1	0	26
NE	SW	3	4	7	8	6	3	31
ENE	WSW	2	0	8	10	6	2	28
E	W	3	3	6	10	1	5	28
ESE	WNW	0	3	8	9	6	1	27
SE	NW	0	8	7	27	7	1	50
SSE	NNW	2	1	4	13	5	2	27
S	N	1	2	4	5	4	0	16
SSW	NNE	0	4	4	3	0	0	11
SW	NE	1	4	8	11	1	0	25
WSW	ENE	0	3	7	2	0	0	12
W	E	0	4	3	1	0	0	8
WNW	ESE	0	3	7	1	0	0	11
NW	SE	0	1	5	0	0	0	6
NNW	SSE	0	1	1	1	0	0	3
TOTAL		12	45	89	117	38	14	315

STABILITY CLASS ALL

SECTOR TO	WINDS FROM	WIND SPEED 1-3	4-7	8-12	13-18	19-24	>24	TOTAL
N	S	4	21	78	106	52	17	278
NNE	SSW	5	22	65	149	69	24	334
NE	SW	7	19	54	72	64	26	242
ENE	WSW	4	21	50	78	72	30	255
E	W	4	23	45	85	76	58	291
ESE	WNW	2	12	48	134	165	78	439
SE	NW	2	20	54	185	167	111	539
SSE	NNW	5	13	51	112	83	23	287
S	N	5	32	42	74	24	1	178
SSW	NNE	6	33	41	45	4	0	129
SW	NE	5	34	94	98	60	44	335
WSW	ENE	7	18	94	114	69	40	342
W	E	4	27	78	67	30	9	215
WNW	ESE	8	25	58	21	11	11	134
NW	SE	8	15	72	25	14	6	140
NNW	SSE	4	22	72	64	31	23	216
TOTAL		80	357	996	1429	991	501	4354

HOURS OF MISSING/INVALID DATA : 14

OYSTER CREEK
33 FOOT GROUND RELEASE DATA
JOINT FREQUENCY TABLES

HOURS AT EACH WIND SPEED AND DIRECTION
PERIOD OF RECORD 92010100 TO 92063023
STABILITY CLASS A

SECTOR TO	WINDS FROM	WIND SPEED 1-3	4-7	8-12	13-18	19-24	>24	TOTAL
N	S	1	8	22	53	1	0	85
NNE	SSW	0	3	10	11	0	0	24
NE	SW	1	10	8	6	0	0	25
ENE	WSW	0	13	23	11	0	0	47
E	W	0	10	27	13	0	0	50
ESE	WNW	0	15	55	17	0	0	87
SE	NW	1	8	74	38	1	0	122
SSE	NNW	0	14	36	6	0	0	56
S	N	0	10	10	0	0	0	20
SSW	NNE	2	9	6	0	0	0	17
SW	NE	0	18	25	4	0	0	47
WSW	ENE	1	22	53	5	0	0	81
W	E	0	20	51	1	0	0	72
WNW	ESE	0	25	27	0	0	0	52
NW	SE	1	16	53	1	0	0	71
NNW	SSE	0	7	40	14	0	0	61
TOTAL		7	208	520	180	2	0	917

STABILITY CLASS B

SECTOR TO	WINDS FROM	WIND SPEED 1-3	4-7	8-12	13-18	19-24	>24	TOTAL
N	S	0	6	10	3	0	0	19
NNE	SSW	0	3	4	3	0	0	10
NE	SW	0	4	5	1	0	0	10
ENE	WSW	0	4	6	1	0	0	11
E	W	0	5	9	3	0	0	17
ESE	WNW	2	8	16	4	0	0	30
SE	NW	0	11	13	5	0	0	29
SSE	NNW	1	9	2	1	0	0	13
S	N	1	4	3	0	0	0	8
SSW	NNE	0	2	1	0	0	0	3
SW	NE	0	14	9	1	0	0	24
WSW	ENE	0	9	12	2	0	0	23
W	E	0	10	4	0	0	0	14
WNW	ESE	0	4	4	0	0	0	8
NW	SE	0	3	4	0	0	0	7
NNW	SSE	1	6	14	0	0	0	21
TOTAL		5	102	116	24	0	0	247

OYSTER CREEK
33 FOOT GROUND RELEASE DATA
JOINT FREQUENCY TABLES

HOURS AT EACH WIND SPEED AND DIRECTION
PERIOD OF RECORD 92010100 TO 92063023
STABILITY CLASS C

SECTOR TO	WINDS FROM	WIND SPEED 1-3	4-7	8-12	13-18	19-24	>24	TOTAL
N	S	0	3	6	2	0	0	11
NNE	SSW	1	1	3	3	0	0	8
NE	SW	1	4	0	1	0	0	6
ENE	WSW	0	2	0	0	0	0	2
E	W	0	1	4	4	0	0	9
ESE	WNW	0	1	2	0	0	0	3
SE	NW	0	5	5	2	0	0	12
SSE	NNW	0	5	5	1	0	0	11
S	N	0	4	0	0	0	0	4
SSW	NNE	1	3	0	0	0	0	4
SW	NE	0	10	4	0	0	0	14
WSW	ENE	1	10	6	0	0	0	17
W	E	0	6	3	0	0	0	9
WNW	ESE	0	3	2	0	0	0	5
NW	SE	0	3	5	0	0	0	8
NNW	SSE	1	4	5	0	0	0	10
TOTAL		5	65	50	13	0	0	133

STABILITY CLASS D

SECTOR TO	WINDS FROM	WIND SPEED 1-3	4-7	8-12	13-18	19-24	>24	TOTAL
N	S	7	34	48	8	1	0	98
NNE	SSW	3	33	39	2	1	1	79
NE	SW	3	17	13	1	0	0	34
ENE	WSW	8	14	16	3	0	0	41
E	W	3	11	16	18	1	0	49
ESE	WNW	6	23	35	16	0	0	80
SE	NW	4	32	34	11	1	0	82
SSE	NNW	5	29	17	2	0	0	53
S	N	7	35	4	0	0	0	46
SSW	NNE	13	40	14	0	0	0	67
SW	NE	20	89	66	9	0	0	184
WSW	ENE	6	61	54	2	0	0	123
W	E	1	31	22	4	0	0	58
WNW	ESE	1	18	14	4	0	0	37
NW	SE	4	27	16	1	0	0	48
NNW	SSE	4	18	29	8	1	0	60
TOTAL		95	512	437	89	5	1	1139

OYSTER CREEK
33 FOOT GROUND RELEASE DATA
JOINT FREQUENCY TABLES

HOURS AT EACH WIND SPEED AND DIRECTION
PERIOD OF RECORD 92010100 TO 92063023
STABILITY CLASS E

SECTOR TO	WINDS FROM	WIND SPEED 1-3	4-7	8-12	13-18	19-24	>24	TOTAL
N	S	17	29	18	2	1	1	68
NNE	SSW	11	46	20	5	2	0	84
NE	SW	17	54	17	2	0	0	90
ENE	WSW	28	57	6	1	0	0	92
E	W	14	54	4	3	0	0	75
ESE	WNW	22	71	59	4	0	0	156
SE	NW	23	64	25	2	0	0	114
SSE	NNW	15	33	12	0	0	0	60
S	N	13	14	3	0	0	0	30
SSW	NNE	17	9	2	0	0	0	28
SW	NE	11	26	5	4	0	0	46
WSW	ENE	9	19	6	1	0	0	35
W	E	12	32	6	0	0	0	50
WNW	ESE	7	7	4	1	0	0	19
NW	SE	6	13	4	0	1	0	24
NNW	SSE	12	18	14	7	1	0	52
TOTAL		234	546	205	32	5	1	1023

STABILITY CLASS F

SECTOR TO	WINDS FROM	WIND SPEED 1-3	4-7	8-12	13-18	19-24	>24	TOTAL
N	S	7	1	2	0	0	0	10
NNE	SSW	14	5	0	0	0	0	19
NE	SW	9	21	4	0	0	0	34
ENE	WSW	29	41	0	0	0	0	70
E	W	33	29	0	0	0	0	62
ESE	WNW	15	24	0	0	0	0	39
SE	NW	13	13	1	0	0	0	27
SSE	NNW	18	8	0	0	0	0	26
S	N	4	3	0	0	0	0	7
SSW	NNE	6	0	0	0	0	0	6
SW	NE	4	4	0	0	0	0	8
WSW	ENE	2	2	0	0	0	0	4
W	E	2	2	0	0	0	0	4
WNW	ESE	2	3	0	0	0	0	5
NW	SE	2	0	0	0	0	0	2
NNW	SSE	5	1	0	0	0	0	6
TOTAL		165	157	7	0	0	0	329

OYSTER CREEK
33 FOOT GROUND RELEASE DATA
JOINT FREQUENCY TABLES

HOURS AT EACH WIND SPEED AND DIRECTION
PERIOD OF RECORD 92010100 TO 92063023
STABILITY CLASS G

SECTOR TO	WINDS FROM	WIND SPEED 1-3	4-7	8-12	13-18	19-24	>24	TOTAL
N	S	7	1	0	0	0	0	8
NNE	SSW	13	6	0	0	0	0	19
NE	SW	25	14	0	0	0	0	39
ENE	WSW	94	51	0	0	0	0	145
E	W	102	46	0	1	0	0	149
ESE	WNW	50	9	0	0	0	0	59
SE	NW	46	14	0	0	0	0	60
SSE	NNW	30	18	0	0	0	0	48
S	N	11	3	0	0	0	0	14
SSW	NNE	5	1	0	0	0	0	6
SW	NE	4	1	0	0	0	0	5
WSW	ENE	3	0	0	0	0	0	3
W	E	4	1	0	0	0	0	5
WNW	ESE	2	1	0	0	0	0	3
NW	SE	1	2	0	0	0	0	3
NNW	SSE	3	1	0	0	0	0	4
TOTAL		400	169	0	1	0	0	570

STABILITY CLASS ALL

SECTOR TO	WINDS FROM	WIND SPEED 1-3	4-7	8-12	13-18	19-24	>24	TOTAL
N	S	39	82	106	68	3	1	299
NNE	SSW	42	97	76	24	3	1	243
NE	SW	56	124	47	11	0	0	238
ENE	WSW	159	182	51	16	0	0	408
E	W	152	156	60	42	1	0	411
ESE	WNW	95	151	167	41	0	0	454
SE	NW	87	147	152	58	2	0	446
SSE	NNW	69	116	72	10	0	0	267
S	N	36	73	20	0	0	0	129
SSW	NNE	44	64	23	0	0	0	131
SW	NE	39	162	109	18	0	0	328
WSW	ENE	22	123	131	10	0	0	286
W	E	19	102	86	5	0	0	212
WNW	ESE	12	61	51	5	0	0	129
NW	SE	14	64	82	2	1	0	163
NNW	SSE	26	55	102	29	2	0	214
TOTAL		911	1759	1335	339	12	2	4358

HOURS OF MISSING/INVALID DATA : 10

Changes to the PCP and ODCM

During the First Half 1992 the Process Control Plan (PCP) was modified to remove the CNSI solidification and dewatering procedures from the PCP and place them into separate procedures. Changes to the new CNSI procedures will be reviewed in accordance with normal procedure review and approval methods. Administrative controls and valve lineups to deliver the waste to the CNSI solidification / dewatering remain in the PCP.

The Offsite Dose Calculation Manual (ODCM) was modified to place its document structure into corporate required procedural format. No changes to the technical content were made.

Instruments Out Of Service

During the First Half of 1992 two instruments required by Tech. Specs. were out of service for longer than 30 days, the Service Water Rad. Monitor and the Overboard Discharge Monitor.

The Overboard Discharge Monitor has been long out of service and is in the process of being refurbished for return to service. No overboard discharges through that path occurred during the period from January through June of 1992.

The Service Water Rad. Monitor was out of service repeatedly as a result of mechanical failures and biological fouling of the equipment. The monitor is being refurbished for return to service. Daily station dicharge samples are collected as required while the monitor is out of service.