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10 CFR 50.36a(a)(2)
10 CFR 72.44 (d)(3)
Technical Specification 6.9.1.d

2130-07-20467

February 28, 2007

U. S. Nuclear Regulatory Commission
Attn: Document Control Desk
Washington, DC 20555 - 0001

Oyster Creek Generating Station
Facility Operating License No. DPR-16
NRC Docket No. 50-219

Independent Spent Fuel Storage Facility
NRC Docket No. 72-15

Subject: Annual Radioactive Effluent Release Report for 2006

Enclosed with this cover letter is the Annual Radioactive Effluent Release Report for the period January 1 to December 31, 2006. This report includes the Oyster Creek Independent Spent Fuel Storage Facility.

If any further information or assistance is needed, please contact Robert J. Artz at 609-971-4006.

Sincerely,

Timothy S. Rausch
Vice President, Oyster Creek Generating Station

Enclosures: 2006 Annual Radioactive Effluent Release Report

cc: Administrator, USNRC Region I
USNRC Senior Project Manager, Oyster Creek
USNRC Senior Resident Inspector, Oyster Creek
File No. 07003

IE48
IE17

2006

ANNUAL RADIOACTIVE EFFLUENT RELEASE REPORT

OYSTER CREEK GENERATING STATION

AMERGEN ENERGY COMPANY

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AMERGEN ENERGY COMPANY
OYSTER CREEK GENERATING STATION
ANNUAL RADIOACTIVE EFFLUENT RELEASE REPORT
JANUARY 1, 2006 THROUGH DECEMBER 31, 2006

This report summarizes the radioactive liquid and gaseous effluents from the Oyster Creek Generating Station and the calculated maximum hypothetical radiation exposure to the public resulting from those effluents. This report covers the period of operation from January 1, 2006 through December 31, 2006.

During 2006, there were two radiological liquid releases. The first occurred during outage 1F09 and involved an unplanned release of 5.54E-1 (0.554) curies of mostly tritium from the Condensate system over a duration of 48 hours. The second discharge was also an unplanned release and occurred during 1R21 and involved a discharge of 2.57E-6 (0.00000257) curies of cobalt-60 over a 16-hour period. Both unplanned releases were due to human performance errors by contract employees. Corrective actions have been put into place to prevent the recurrence of either event.

Radioactive gaseous releases from the plant are monitored by radiation monitors and filtering systems installed in the plant stack and vents. Utilizing gaseous effluent data, the maximum hypothetical dose to any individual in the vicinity of the plant was calculated using a mathematical model, which is based on the methods defined by the U.S. Nuclear Regulatory Commission. These methods accurately determine the types and quantities of radioactive materials being released to the environment.

The maximum hypothetical doses (Table 1) are conservative overestimates of the actual off-site doses, which could occur. For example, wet deposition due to precipitation events decreases the off-site dose, but this phenomenon is not incorporated into the mathematical dose model.

Radioactive airborne discharges from the facility during 2006 consisted of 103 curies of noble gases, 1.87E-2 (0.0187) curies of radioiodines, 5.46E-3 (0.00546) curies of particulate activity, and 75.4 curies of tritium.

Sixteen (16) solid, low level radioactive waste shipments, totaling approximately 607 cubic meters, were shipped in Type IP-1 and IP-2 Containers and General Design Packages from the Oyster Creek Generating Station during the reporting period. This material went to either a licensed burial site or to a waste processor for volume reduction. No solidification agent was used in any of the 16 shipments.

The maximum hypothetical calculated organ dose (thyroid) from iodines and particulates to any individual due to gaseous effluents (0.0218 mRem/year) was approximately 0.0015 percent of the annual limit (Table 1). The maximum hypothetical calculated whole body dose to any individual due to gaseous effluents (7.96E-4 mRem/year) was 1.59E-4 percent of the annual limit.

The total maximum hypothetical organ dose (thyroid) due to all radiological effluents of 2.18E-02 mRem/year received by any individual from gaseous effluents from the Oyster Creek Generating Station for the reporting period is over 13,000 times lower than the dose the average individual in the Oyster Creek area received from background radiation, including that from radon (200 mRem) during the same time period. The background radiation dose averages approximately 300 mRem whole body per year in the Central New Jersey area, which is made up of contributions of approximately 100 mRem/year from background radiation and approximately 200 mRem/year from naturally occurring Radon gas.

Joint Frequency Tables of meteorological data, per Pasquill Category, as well as for all stability classes, are included. All data were collected from the on-site Meteorological Facility. Collection reliabilities for the 380-foot data and the 33-foot data were 98.63 percent and 97.6 percent, respectively. The UFSAR commits to Regulatory Guide (RG) 1.23 for Met Tower reliability. RG 1.23 requires 90% reliability over the year.

OYSTER CREEK GENERATING STATION

ANNUAL RADIOACTIVE EFFLUENT RELEASE REPORT - 2006

TABLE 1

ANNUAL OFFSITE DOSES DUE TO RADIONUCLIDES IN EFFLUENTS

January 1, 2006 through December 31, 2006

Reference	ODCM 3.11.1.2	ODCM 3.11.1.2	ODCM 3.11.2.1	ODCM 3.11.2.1	ODCM 3.11.2.1	ODCM 3.11.2.2	ODCM 3.11.2.2	ODCM 3.11.2.3
	Liquid Total Body mrem	Liquid Liver mrem	Noble Gas Total Body mrem	Noble Gas Skin mrem	H-3, Iodines, & Particulates Thyroid mrem	Noble Gas Gamma Dose mRad	Noble Gas Beta Dose mRad	I-131, I-133, & Particulates Thyroid mrem
ODCM Limit	3.0 mrem/year	10.0 mrem/year	500 mrem/year	3000 mrem/year	1500 mrem/year	10 mRad/year	20 mRad/year	15 mrem/year
2006 Dose	3.53E-04 mrem	6.97E-04 mrem	7.96E-04 mrem	1.03E-03 mrem	2.18E-02 mrem	1.80E-03 mRad	4.04E-04 mRad	2.18E-02 mrem
Percent of Limit	1.18E-02 Percent	2.78E-03 Percent	1.59E-04 Percent	3.43E-05 Percent	1.45E-03 Percent	1.80E-02 Percent	2.02E-03 Percent	1.45E-01 Percent

Reference	ODCM 3.11.4	ODCM 3.11.4
	All Effluents Total Body mrem	All Effluents Thyroid mrem
ODCM Limit	25 mrem/year	75 mrem/year
2006 Dose	7.06E-04 mrem	1.64E-05 mrem
Percent of Limit	2.82E-03 Percent	2.19E-05 Percent

OYSTER CREEK GENERATING STATION
ANNUAL RADIOACTIVE EFFLUENT RELEASE REPORT
JANUARY 1, 2006 THROUGH DECEMBER 31, 2006

YEAR 2006 EVENT REPORT

LIQUID EFFLUENT RELEASES

During 2006, there were two radiological liquid releases. The first occurred during outage 1F09 and involved an unplanned release of 5.54E-1 (0.554) curies of mostly tritium from the Condensate system. The amount of radioactive water discharged was 11,250 gallons that was diluted with 234,000 gallons of non-radioactive circulation water over a duration of 48 hours. The dose from this discharge was several orders of magnitude below limits contained in Oyster Creek's ODCM, Table 1.5.1-1.

The second radiological liquid discharge was also an unplanned release and occurred during 1R21 and involved discharge of 2.57E-6 (0.00000257) curies of cobalt-60. The amount of radioactive water discharged was 115,000 gallons over a 16-hour period.

CHANGES TO THE OFFSITE DOSE CALCULATION MANUAL

There were no changes to the ODCM during 2006.

EFFLUENT MONITORS OUT OF SERVICE GREATER THAN 30 DAYS

No radiological effluent monitors were out of service for longer than 30 days during 2006.

CHANGES TO THE PROCESS CONTROL PLAN

There were no changes to the Process Control Plan (PCP) (RW-AA-100) during 2006.

RELEASES FROM THE INDEPENDENT SPENT FUEL STORAGE FACILITY

The Independent Spent Fuel Storage Facility (ISFSI) is a closed system and the only exposure would be due to direct radiation. Because it is a sealed unit, no radioactive materials were released. This includes iodines, particulates and noble gases. Therefore there is no dose from effluents from the facility.

Facility: Oyster Creek Generating Station **Licensee: AmerGen Energy Company, L.L.C.**

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 0.21/E Ci/sec after the holdup line where E is the average gamma energy (Mev per atomic transformation).

ODCM 3.11.2.1

The dose equivalent rate in the UNRESTRICTED 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.

Note: The total body dose limit of 500 mrem/year has been superseded by 10 CFR 20.1301.a.1 which states:

The total effective dose equivalent to individual members of the public from the licensed operation does not exceed 0.1 rem (1 millisievert) in a year, exclusive of the dose contributions from background radiation, from any medical administration the individual has received, from exposure to individuals administered radioactive material and released in accordance with Sec. 35.75, from voluntary participation in medical research programs, and from the licensee's disposal of radioactive material into sanitary sewerage in accordance with Section 20.2003.

ODCM 3.11.2.2

The air dose in the UNRESTRICTED 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.

ODCM 3.11.4

The annual dose commitment to a MEMBER OF THE PUBLIC due to radioactive material in effluent and direct radiation from the OCNGS in the Unrestricted Area shall not exceed 75 mrem to his/her thyroid or 25 mrem to his/her total body or to any other organ.

b. Iodines

ODCM 3.11.2.1.

The dose equivalent rate in the UNRESTRICTED AREA due to tritium (H-3), I-131, I-133, and to radioactive material in particulate form 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.

ODCM 3.11.2.3.

The dose to a MEMBER OF THE PUBLIC from I-131, I-133, and from radionuclides in particulate form having half-lives of 8 days or more in gaseous effluent, in the UNRESTRICTED 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. Particulates, half-lives > 8 Days:

ODCM 3.11.2.1.

The dose equivalent rate in the UNRESTRICTED AREA due to tritium (H-3), I-131, I-133, and to radioactive material in particulate form 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.

ODCM 3.11.2.3.

The dose to a MEMBER OF THE PUBLIC from I-131, I-133, and from radionuclides in particulate form having half-lives of 8 days or more in gaseous effluent, in the UNRESTRICTED AREA shall not exceed 7.5 mrem to any body organ per calendar quarter or 15 mrem to any body organ per calendar year.

d. Liquid effluents:

ODCM 3.11.1.1.

The concentration of radioactive material, other than noble gases, in liquid effluents in the discharge canal at the U.S. Route 9 bridge shall not exceed 10 times the Liquid Effluent Concentrations specified in 10 CFR Part 20.1001-20.2401, Appendix B, Table II, Column 2.

ODCM 3.11.1.1.

The concentration of noble gases dissolved or entrained in liquid effluent in the discharge canal at the U.S. Route 9 bridge shall not exceed 2.0e-4 *u* Ci/mL.

ODCM 3.11.1.2.

The dose to a MEMBER OF THE PUBLIC due to radioactive material in liquid effluent in the UNRESTRICTED AREA shall not exceed:

1.5 mrem to the Total Body during any calendar quarter,
5.0 mrem to any body organ during any calendar quarter,
3.0 mrem to the Total Body during any calendar year, or
10.0 mrem to any body organ during any calendar year.

ODCM 3.11.4

The annual dose to a MEMBER OF THE PUBLIC due to radioactive material in effluents from the OCNGS in the Unrestricted Area shall not exceed 75 mrem to his/her thyroid or 25 mrem to his/her total body or to any other organ.

2. Maximum Permissible Concentrations

MPCs used in determining allowable release rates or concentrations:

a. Fission and activation gases:

Per OCGS ODCM limits, no MPCs are used to calculate allowable fission and activation gas release rates or concentrations.

b. Iodines:

Per OCGS ODCM limits, no MPCs are used to calculate allowable iodine gaseous release rates or concentrations.

c. Particulates, half-lives > 8 Days:

Per OCGS ODCM limits, no MPCs are used to calculate allowable particulate gaseous release rates or concentrations.

d. Liquid effluents:

The MPC for Tritium (H-3) is 1 E-3 *u* Ci/mL.

3. Average Energy

The average energy (E) of the radionuclide mixture in releases of fission and activation gases:

First Quarter:	3.72E-01	Mev (gamma - elevated release)
Second Quarter:	4.47E-01	Mev (gamma - elevated release)
Third Quarter:	4.09E-01	Mev (gamma - elevated release)
Fourth Quarter:	2.93E-01	Mev (gamma - elevated release)
Annual:	3.99E-01	Mev (gamma - elevated release)

4. Measurements and Approximations of Total Radioactivity

The methods used to measure or approximate the total radioactivity in effluents and the methods used to determine radionuclide composition:

a. Fission and activation gases:

1. Stack - A continuous recording of gross radioactivity 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 weekly grab sample analyzed using gamma spectroscopy

b. Iodines:

1. Stack - Filters are changed weekly and analyzed using gamma spectroscopy.
2. Augmented Offgas (AOG) Vent - Filters are changed weekly and analyzed using gamma spectroscopy.
3. Turbine Building Stack and Feedpump Room Vent - Filters are changed weekly and analyzed using gamma spectroscopy.

c. Particulates:

1. Stack - Filters are changed weekly and analyzed using gamma spectroscopy.
2. Augmented Offgas (AOG) Vent - Filters are changed weekly and analyzed using gamma spectroscopy.
3. Turbine Building Vent and Feedpump Room Vent - Filters are changed 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.

5. Batch Releases

a. Liquid

1. Number of batch releases: Two releases
2. Total time period for batch releases: 64 hours
3. Maximum time period for a batch release: 48 hours
4. Average time period for batch releases: 32 hours
5. Minimum time period for a batch release: 16 hours
6. Average stream flow during periods of release of effluent into a flowing stream: 234,000 gallons.

b. Gaseous

1. Number of batch releases: No batch releases
2. Total time period for batch release: N/A
3. Maximum time period for a batch release: N/A
4. Average time period for batch releases: N/A
5. Minimum time period for a batch release: N/A

6. Abnormal releases

a. Liquid

1. Number of releases: Two (2) (See No. 5 above)
2. Total activity released: 5.54E-1 (0.554) Curies

b. Gaseous

1. Number of releases: None
2. Total activity released: N/A

2. Maximum Permissible Concentrations

MPCs used in determining allowable release rates or concentrations:

a. Fission and activation gases:

Per OCGS ODCM limits, no MPCs are used to calculate allowable fission and activation gas release rates or concentrations.

b. Iodines:

Per OCGS ODCM limits, no MPCs are used to calculate allowable iodine gaseous release rates or concentrations.

c. Particulates, half-lives > 8 Days:

Per OCGS ODCM limits, no MPCs are used to calculate allowable particulate gaseous release rates or concentrations.

d. Liquid effluents:

The MPC for Tritium (H-3) is 1 E-3 uCi/mL.

3. Average Energy

The average energy (E) of the radionuclide mixture in releases of fission and activation gases:

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4. Measurements and Approximations of Total Radioactivity

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

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b. Gaseous

1. Number of batch releases: No batch releases
2. Total time period for batch release: N/A
3. Maximum time period for a batch release: N/A
4. Average time period for batch releases: N/A
5. Minimum time period for a batch release: N/A

6. Abnormal releases

a. Liquid

1. Number of releases: None
2. Total activity released: N/A

b. Gaseous

1. Number of releases: None
2. Total activity released: N/A

OYSTER CREEK GENERATING STATION

ANNUAL RADIOACTIVE EFFLUENT RELEASE REPORT - 2006

TABLE 1A

GASEOUS EFFLUENTS - SUMMATION OF ALL RELEASES

	Unit	Quarter 1	Quarter 2	Quarter 3	Quarter 4	Yearly Total	Est. Total Error, %
A. Fission & activation gases							
1. Total release	Ci	5.11E+01	2.86E+01	2.18E+01	2.03E+00	1.03E+02	+/- 10
2. Average release rate for period	u Ci/sec	6.57E+00	3.64E+00	2.74E+00	2.55E-01	3.27E+00	
3. Percent of Technical Specification							
a. 0.21/Energy (average) - gamma (elevated release only)	%	1.16E-03	7.73E-04	5.34E-04	3.56E-05	6.27E-04	
b. Dose rate due to gaseous effluent -							
Total Body - 500 mrem/year	%					1.59E-04	
Skin - 3000 mrem/year	%					3.43E-05	
c. Air dose due to noble gas in gaseous effluent -							
5 mRad/calendar quarter due to gamma radiation	%	1.92E-02	1.07E-02	9.48E-03	9.46E-04		
10 mRad/calendar quarter due to beta radiation	%	2.67E-03	2.20E-03	1.31E-03	9.10E-05		
10 mRad/calendar year due to gamma radiation	%					1.80E-02	
20 mRad/calendar year due to beta radiation	%					2.02E-03	
B. Iodines							
1. Total iodine-131	Ci	1.09E-03	1.42E-03	1.17E-03	9.26E-04	4.61E-03	+/- 16
2. Average release rate for period	u Ci/sec	1.40E-04	1.81E-04	1.47E-04	1.16E-04	1.46E-04	
3. Percent of Technical Specification							
a. Dose rate due to gaseous effluent -							
Any body organ - 1500 mrem/year (H-3, I-131, I-133, & Part. T1/2 > 8 D)	%					1.45E-03	
b. Dose due to radioiodine and particulates in gaseous effluent -							
Any body organ per calendar quarter - 7.5 mrem	%	4.69E-02	1.00E-01	5.71E-02	1.01E-01		
Any body organ per calendar year - 15 mrem	%					1.45E-01	
C. Particulates							
1. Particulates with half-lives > 8 days	Ci	1.58E-03	1.70E-03	1.39E-03	7.92E-04	5.46E-03	+/- 10
2. Average release rate for period	u Ci/sec	2.03E-04	2.16E-04	1.75E-04	9.96E-05	1.73E-04	
3. Percent of Technical Specification							
a. Dose rate due to gaseous effluent -							
Any body organ - 1500 mrem/year (H-3, I-131, I-133, & Part. T1/2 > 8 D)	%					1.45E-03	
b. Dose due to radioiodine and particulates in gaseous effluent -							
Any body organ per calendar quarter - 7.5 mrem	%	4.69E-02	1.00E-01	5.71E-02	1.01E-01		
Any body organ per calendar year - 15 mrem	%					1.45E-01	
4. Gross alpha radioactivity	Ci	<LLD	<LLD	<LLD	<LLD	<LLD	
D. Tritium							
1. Total Release	Ci	2.10E+01	1.75E+01	3.04E+01	6.56E+00	7.54E+01	+/- 25
2. Average release rate for period	u Ci/sec	2.70E+00	2.22E+00	3.82E+00	8.25E-01	2.39E+00	
3. Percent of Technical Specification							
a. Dose rate due to gaseous effluent -							
Any body organ - 1500 mrem/year (H-3, I-131, I-133, & Part. T1/2 > 8 D)	%					1.45E-03	

OYSTER CREEK GENERATING STATION

ANNUAL RADIOACTIVE EFFLUENT RELEASE REPORT - 2006

TABLE 1B

GASEOUS EFFLUENTS - ELEVATED RELEASES

Nuclides Released	Unit	Continuous Mode				
		Quarter 1	Quarter 2	Quarter 3	Quarter 4	Yearly Total
1. Fission gases						
krypton-85	Ci	< LLD	< LLD	< LLD	< LLD	< LLD
krypton-85m	Ci	2.39E+00	9.45E-01	2.78E-02	<LLD	3.36E+00
krypton-87	Ci	1.20E+01	4.13E+00	1.25E+00	3.65E-02	1.74E+01
krypton-88	Ci	<LLD	2.07E+00	1.26E+00	4.18E-02	3.37E+00
xenon-133	Ci	< LLD	<LLD	<LLD	<LLD	<LLD
xenon-135	Ci	3.67E+01	2.14E+01	1.55E+01	1.95E+00	7.56E+01
xenon-135m	Ci	< LLD	<LLD	3.74E+00	<LLD	3.74E+00
xenon-138	Ci	< LLD	< LLD	< LLD	< LLD	< LLD
Others						
None						
Total for period	Ci	5.11E+01	2.85E+01	2.18E+01	2.03E+00	1.03E+02
2. Iodines						
iodine-131	Ci	1.09E-03	1.42E-03	1.17E-03	7.73E-04	4.45E-03
iodine-132	Ci	< LLD	< LLD	< LLD	< LLD	< LLD
iodine-133	Ci	2.72E-03	4.87E-03	4.31E-03	2.13E-03	1.40E-02
iodine-135	Ci	< LLD	< LLD	< LLD	< LLD	< LLD
Total for period	Ci	3.81E-03	6.29E-03	5.48E-03	2.90E-03	1.85E-02
3. Particulates						
strontium-89	Ci	1.03E-03	7.33E-04	6.02E-04	5.02E-04	2.87E-03
strontium-90	Ci	<LLD	<LLD	<LLD	<LLD	<LLD
cesium-134	Ci	< LLD	< LLD	< LLD	< LLD	< LLD
cesium-137	Ci	<LLD	2.99E-06	4.83E-06	<LLD	7.82E-06
barium-140	Ci	5.37E-04	9.44E-04	7.81E-04	2.72E-04	2.53E-03
gross alpha	Ci	<LLD	<LLD	<LLD	< LLD	<LLD
nickel-63	Ci	<LLD	<LLD	<LLD	<LLD	<LLD
chromium-51	Ci	< LLD	< LLD	< LLD	<LLD	<LLD
manganese-54	Ci	1.28E-05	1.76E-05	<LLD	1.84E-05	4.88E-05
cobalt-58	Ci	<LLD	< LLD	<LLD	<LLD	<LLD
cobalt-60	Ci	<LLD	<LLD	<LLD	<LLD	<LLD
technetium-99m	Ci	< LLD	< LLD	< LLD	< LLD	< LLD
Total for period	Ci	1.58E-03	1.70E-03	1.39E-03	7.92E-04	5.46E-03

OYSTER CREEK GENERATING STATION

ANNUAL RADIOACTIVE EFFLUENT RELEASE REPORT - 2006

TABLE 1C

GASEOUS EFFLUENTS - GROUND-LEVEL RELEASES

Nuclides Released	Unit	Continuous Mode Quarter 1	Quarter 2	Quarter 3	Quarter 4	Yearly Total
1. Fission gases						
krypton-85	Ci	< LLD	< LLD	< LLD	< LLD	<LLD
krypton-85m	Ci	< LLD	< LLD	< LLD	< LLD	<LLD
krypton-87	Ci	< LLD	< LLD	< LLD	< LLD	<LLD
krypton-88	Ci	< LLD	< LLD	< LLD	< LLD	<LLD
xenon-133	Ci	< LLD	< LLD	< LLD	< LLD	<LLD
xenon-135	Ci	5.14E-03	<LLD	< LLD	< LLD	5.14E-03
xenon-135m	Ci	< LLD	< LLD	< LLD	< LLD	< LLD
xenon-138	Ci	< LLD	< LLD	< LLD	< LLD	< LLD
Others						
None						
Total for period	Ci	5.14E-03	<LLD	< LLD	< LLD	5.14E-03
2. Iodines						
iodine-131	Ci	3.05E-08	<LLD	5.18E-08	1.53E-04	1.53E-04
iodine-133	Ci	< LLD	<LLD	<LLD	<LLD	<LLD
iodine-135	Ci	< LLD	< LLD	< LLD	< LLD	< LLD
Total for period	Ci	3.05E-08	<LLD	5.18E-08	1.53E-04	1.53E-04
3. Particulates						
strontium-89	Ci	<LLD	<LLD	< LLD	< LLD	<LLD
strontium-90	Ci	< LLD	< LLD	< LLD	< LLD	< LLD
cobalt-58	Ci	< LLD	< LLD	< LLD	< LLD	< LLD
cesium-137	Ci	< LLD	< LLD	< LLD	< LLD	< LLD
barium-140	Ci	< LLD	< LLD	< LLD	< LLD	< LLD
nickel-63	Ci	< LLD	< LLD	< LLD	< LLD	< LLD
gross alpha	Ci	< LLD	< LLD	< LLD	< LLD	< LLD
manganese-54	Ci	< LLD	< LLD	< LLD	< LLD	< LLD
cobalt-60	Ci	< LLD	< LLD	< LLD	< LLD	< LLD
Total for period	Ci	<LLD	<LLD	< LLD	< LLD	<LLD

OYSTER CREEK GENERATING STATION

ANNUAL RADIOACTIVE EFFLUENT RELEASE REPORT - 2006

TABLE 2A

LIQUID EFFLUENTS - SUMMATION OF ALL RELEASES

	Unit	Quarter 1	Quarter 2	Quarter 3	Quarter 4	Yearly Total	Est. Total Error, %
A. Fission & activation products							
1. Total release (not including tritium, gases, alpha)	Ci	1.41E-04	No Releases	No Releases	2.57E-06	1.44E-04	+/-10%
2. Average diluted concentration during period	u Ci/mL	5.53E-11	-	-	6.15E-12	-	
3. Percent of Technical Specification							
a. Radioactivity Concentration in Liquid Effluent The concentration of radioactive material, other than noble gases shall not exceed 10 times the liquid effluent concentrations specified in 10CFR Part 20.1001-20.2401, Appendix B, Table II, Column 2	%					3.14E-05	
b. Limit on Dose Due to Liquid Effluent							
Total Body - 1.5 mrem/calendar quarter	%	2.34E-02	-	-	1.47E-04		
Any Body Organ - 5.0 mrem/calendar quarter	%	1.40E-02	-	-	2.40E-04		
Total Body - 3.0 mrem/calendar year	%					1.18E-02	
Any Body Organ - 10.0 mrem/calendar year	%					7.14E+03	
B. Tritium							
1. Total release	Ci	5.54E-01	No Releases	No Releases	No Releases	5.54E-01	+/-10%
2. Average diluted concentration during period	u Ci/mL	2.17E-07	-	-	-	2.17E-07	
3. Percent of Technical Specification							
a. Shall not exceed 10 times the liquid effluent concentrations specified in 10CFR Part 20.1001-20.2401, Appendix B, Table II, Column 2	%					2.17E-02	
b. Limit on Dose Due to Liquid Effluent							
Total Body - 1.5 mrem/calendar quarter	%	1.47E-04	-	-	-		
Any Body Organ - 5.0 mrem/calendar quarter	%	2.40E-05	-	-	-		
Total Body - 3.0 mrem/calendar year	%					7.33E-05	
Any Body Organ - 10.0 mrem/calendar year	%					1.20E-04	
C. Dissolved and entrained gases							
1. Total release	Ci	No Releases	No Releases	No Releases	No Releases	No Releases	N/A
2. Average diluted concentration during period	u Ci/mL	-	-	-	-	-	
3. Percent of Technical Specification							
a. Shall not exceed 2.0 E-4 u Ci/mL	%					-	
b. Limit on Dose Due to Liquid Effluent							
Total Body - 1.5 mrem/calendar quarter	%	-	-	-	-		
Any Body Organ - 5.0 mrem/calendar quarter	%	-	-	-	-		
Total Body - 3.0 mrem/calendar year	%					-	
Any Body Organ - 10.0 mrem/calendar year	%					-	
D. Gross alpha radioactivity							
1. Total release	Ci	No Releases	No Releases	No Releases	No Releases	No Releases	N/A
E. Volume of waste released (prior to dilution)	liters	4.26E+04	0.00E+00	0.00E+00	0.00E+00	0.00E+00	N/A
F. Volume of dilution water used during period	liters	8.86E+05	4.76E+11	4.80E+11	4.30E+11	1.39E+12	N/A

OYSTER CREEK GENERATING STATION

ANNUAL RADIOACTIVE EFFLUENT RELEASE REPORT - 2006

TABLE 2B

LIQUID EFFLUENTS

Nuclides Released	Unit	Batch Mode				
		Quarter 1	Quarter 2	Quarter 3	Quarter 4	Yearly Total
strontium-89	Ci	No Releases	No Releases	No Releases	No Releases	No Releases
strontium-90	Ci	No Releases	No Releases	No Releases	No Releases	No Releases
cesium-134	Ci	No Releases	No Releases	No Releases	No Releases	No Releases
cesium-137	Ci	No Releases	No Releases	No Releases	No Releases	No Releases
iodine-131	Ci	No Releases	No Releases	No Releases	No Releases	No Releases
tritium (H-3)	Ci	5.54E-01	No Releases	No Releases	No Releases	5.54E-01
cobalt-60	Ci	4.24E-05	No Releases	No Releases	2.57E-06	4.50E-05
iron-59	Ci	No Releases	No Releases	No Releases	No Releases	0.00E+00
zinc-65	Ci	1.81E-05	No Releases	No Releases	No Releases	1.81E-05
manganese-54	Ci	8.01E-05	No Releases	No Releases	No Releases	8.01E-05
nickel-63	Ci	2.05E-07	No Releases	No Releases	No Releases	2.05E-07
zirconium-95	Ci	No Releases	No Releases	No Releases	No Releases	No Releases
niobium-95	Ci	No Releases	No Releases	No Releases	No Releases	No Releases
technetium-99m	Ci	No Releases	No Releases	No Releases	No Releases	No Releases
barium-140	Ci	No Releases	No Releases	No Releases	No Releases	No Releases
lanthanum-140	Ci	No Releases	No Releases	No Releases	No Releases	No Releases
cerium-141	Ci	No Releases	No Releases	No Releases	No Releases	No Releases
Other	Ci	No Releases	No Releases	No Releases	No Releases	No Releases
unidentified	Ci	No Releases	No Releases	No Releases	No Releases	No Releases
Total for period	Ci	5.54E-01	No Releases	No Releases	2.57E-06	5.54E-01
xenon-133	Ci	No Releases	No Releases	No Releases	No Releases	No Releases
xenon-135	Ci	No Releases	No Releases	No Releases	No Releases	No Releases
Total for period	Ci	No Releases	No Releases	No Releases	No Releases	No Releases

OYSTER CREEK GENERATING STATION

ANNUAL RADIOACTIVE EFFLUENT RELEASE REPORT - 2006

TABLE 3A

SOLID WASTE AND IRRADIATED FUEL SHIPMENTS - SUMMARY

A. SOLID WASTE SHIPPED OFFSITE FOR BURIAL OR DISPOSAL (Not irradiated fuel)

1. Type of waste	Unit	Yearly Total	Est. Total Error, %
a. Spent resins, filters, filter sludges, etc.	m^3	4.08E+01	+/- 25
Waste shipped in Type A containers.	Ci	1.98E+02	
b. Dry compressible waste, contaminated equipment, etc.	m^3	5.66E+02	+/- 25
Waste shipped in LSA containers.	Ci	5.51E-01	
c. Irradiated components, control rods, etc.	m^3	None	
	Ci	Shipped	
d. Other waste	m^3	None	
Waste shipped in LSA containers.	Ci	Shipped	

Note: No solidification agent was used during the reporting period

2. Estimate of major nuclear composition (by type of waste)	Percentage (%)	Activity (Ci)
a. Iron-55	7.18E+01	1.42E+02
Cesium-137	4.07E+00	9.29E+00
Cobalt-60	1.17E+01	2.30E+01
b. Iron-55	7.78E+00	4.29E-02
Cesium-137	5.35E+01	2.95E-01
Cobalt-60	2.85E+01	1.57E-01
c. Iron-55	N/A	N/A
Cobalt-60	N/A	N/A
Manganese-54	N/A	N/A
d. None shipped	N/A	N/A
None shipped	N/A	N/A
None shipped	N/A	N/A

Note - See attached tables (Table 3B) for additional data

3. Solid Waste Disposition

Number of Shipments	Mode of Transportation	Destination
2	Motor Vehicle	ALARON CORP
8	Motor Vehicle	Barnwell Waste Management Facility
3	Motor Vehicle	Duratek
3	Motor Vehicle	Duratek Radwaste Processing, Inc.

B. IRRADIATED FUEL SHIPMENTS (Disposition)

Number of Shipments	Mode of Transportation	Destination
None Shipped		

OYSTER CREEK GENERATING STATION

ANNUAL RADIOACTIVE EFFLUENT RELEASE REPORT - 2006

TABLE 3B

SOLID WASTE AND IRRADIATED FUEL SHIPMENTS

Waste Stream - Summary Of All Wastes

Period of Performance: January 1, 2006 through December 31, 2006

Waste Class	Volume Shipped (Ft^3)	Volume Shipped (M^3)	Activity Shipped (Curies)	Percent Error (Percent)
A	2.11E+04	5.98E+02	7.26E+01	+/- 25
B	0.0	0.0	0.00E+00	
C	3.59E+02	1.02E+01	1.25E+02	+/- 25
All	2.15E+04	6.08E+02	1.98E+02	+/- 25

OYSTER CREEK GENERATING STATION

ANNUAL RADIOACTIVE EFFLUENT RELEASE REPORT - 2006

TABLE 3B (cont.)

SOLID WASTE AND IRRADIATED FUEL SHIPMENTS

Estimate of Major Nuclide Composition - Summary of All Shipments
Period of Performance: January 1, 2006 through December 31, 2006

Waste Class: A

Nuclide	Activity (Curies)	Percent Abundance (Percent)
Fe-55	3.19E+01	4.40E+01
Co-60	1.54E+01	2.12E+01
Mn-54	1.10E+01	1.52E+01
Cs-137	8.75E+00	1.21E+01
Zn-65	4.19E+00	5.77E+00
Ni-63	3.82E-01	5.26E-01
Co-58	2.96E-01	4.08E-01
Cs-134	2.79E-01	3.85E-01
Ce-144	1.52E-01	2.09E-01
C-14	9.69E-02	1.34E-01
Sr-90	3.65E-02	5.03E-02
Fe-59	3.08E-02	4.24E-02
H-3	2.89E-02	3.98E-02
Pu-241	9.49E-03	1.31E-02
Other	7.31E-03	1.01E-02
Total	7.26E+01	1.00E+02

Waste Class: B

Nuclide	Activity (Curies)	Percent Abundance (Percent)
	N	
	O	
	N	
	E	
	S	
	H	
	I	
	P	
	P	
	E	
	D	
Total	N/A	N/A

Waste Class: C

Nuclide	Activity (Curies)	Percent Abundance (Percent)
Fe-55	1.10E+02	8.80E+01
Co-60	7.78E+00	6.22E+00
Mn-54	5.35E+00	4.28E+00
Cs-137	8.29E-01	6.63E-01
Pu-241	5.01E-01	4.01E-01
Zn-65	3.81E-01	3.05E-01
Ni-63	2.40E-01	1.92E-01
Fe-59	1.43E-01	1.14E-01
Cs-134	7.78E-02	6.22E-02
Co-58	4.06E-02	3.25E-02
Cm-244	3.02E-02	2.42E-02
Pu-238	1.89E-02	1.51E-02
Ce-144	1.29E-02	1.03E-02
Other	3.12E-02	2.50E-02
Total	1.25E+02	1.00E+02

Waste Class: All

Nuclide	Activity (Curies)	Percent Abundance (Percent)
Fe-55	1.42E+02	7.17E+01
Co-60	2.32E+01	1.17E+01
Mn-54	1.64E+01	8.28E+00
Cs-137	9.58E+00	4.83E+00
Zn-65	4.57E+00	2.31E+00
Ni-63	6.21E-01	3.13E-01
Pu-241	5.11E-01	2.58E-01
Cs-134	3.57E-01	1.80E-01
Co-58	3.37E-01	1.70E-01
Fe-59	1.74E-01	8.78E-02
Ce-144	1.64E-01	8.28E-02
C-14	9.69E-02	4.89E-02
Sr-90	3.82E-02	1.93E-02
H-3	3.55E-02	1.79E-02
Other	8.63E-02	4.35E-02
Total	1.98E+02	1.00E+02

TABLE 3B (cont.)

SOLID WASTE AND IRRADIATED FUEL SHIPMENTS

Waste Stream - Spent Resins, Filters, and Filter Sludge

Period of Performance: January 1, 2006 through December 31, 2006

Waste Class	Volume Shipped		Activity Shipped	Percent Error
	(Ft^3)	(M^3)	(Curies)	(Percent)
A	2.11E+04	5.98E+02	7.26E+01	
B	0.00E+00	0.00E+00	0.00E+00	
C	3.59E+02	1.02E+01	1.25E+02	
All	2.15E+04	6.08E+02	1.98E+02	

TABLE 3B (cont.)

SOLID WASTE AND IRRADIATED FUEL SHIPMENTS

Estimate of Major Nuclide Composition - Spent Resins, Filter Sludge and Evaportor Bottoms

Period of Performance: January 1, 2006 through December 31, 2006

Waste Class: A

Nuclide	Activity (Curies)	Percent Abundance (Percent)
Fe-55	3.18E+01	4.42E+01
Co-60	1.52E+01	2.11E+01
Mn-54	1.10E+01	1.53E+01
Cs-137	8.45E+00	1.18E+01
Zn-65	4.18E+00	5.81E+00
Ni-63	3.78E-01	5.26E-01
Co-58	2.96E-01	4.12E-01
Cs-134	2.69E-01	3.74E-01
Ce-144	1.50E-01	2.09E-01
C-14	8.33E-02	1.16E-01
Sr-90	3.57E-02	4.97E-02
Fe-59	3.08E-02	4.28E-02
H-3	2.76E-02	3.84E-02
Other	2.36E-02	3.28E-02
Total	7.19E1	1.00E2

Waste Class: B

Nuclide	Activity (Curies)	Percent Abundance (Percent)
	N	
	O	
	N	
	E	
	S	
	H	
	I	
	P	
	P	
	E	
	D	
Total	N/A	N/A

Waste Class: C

Nuclide	Activity (Curies)	Percent Abundance (Percent)
Fe-55	1.10E+02	8.77E+01
Co-60	7.78E+00	6.20E+00
Mn-54	5.35E+00	4.27E+00
Cs-137	8.29E-01	6.61E-01
Pu-241	5.01E-01	3.99E-01
Zn-65	3.81E-01	3.04E-01
Ni-63	2.40E-01	1.91E-01
Fe-59	1.43E-01	1.14E-01
Cs-134	7.78E-02	6.20E-02
Co-58	4.06E-02	3.24E-02
Cm-244	3.02E-02	2.41E-02
Pu-238	1.89E-02	1.51E-02
Ce-144	1.29E-02	1.03E-02
Other	3.12E-2	2.50E-2
Total	1.25E+02	1.00E+02

Waste Class: All

Nuclide	Activity (Curies)	Percent Abundance (Percent)
Fe-55	1.42E+02	7.18E+01
Co-60	2.30E+01	1.16E+01
Mn-54	1.64E+01	8.30E+00
Cs-137	9.29E+00	4.70E+00
Zn-65	4.56E+00	2.31E+00
Ni-63	6.18E-01	3.13E-01
Pu-241	5.11E-01	2.59E-01
Cs-134	3.46E-01	1.75E-01
Co-58	3.37E-01	1.71E-01
Fe-59	1.74E-01	8.80E-02
Ce-144	1.63E-01	8.25E-02
C-14	8.33E-02	4.21E-02
Sr-90	3.73E-02	1.89E-02
Others	1.20E-01	6.09E-02
Total	1.98E+02	1.00E+02

TABLE 3B (CONT.)

SOLID WASTE AND IRRADIATED FUEL SHIPMENTS

Waste Stream - Dry Activated Waste Shipped To An Offsite Waste Processor

Period of Performance: January 1, 2006 through December 31, 2006

Waste Class	Volume Shipped		Activity Shipped (Curies)	Percent Error (Percent)
	(Ft^3)	(M^3)		
A	2.77E+04	7.84E+02	8.04E-01	+/- 25
B	0.0	0.0	0.00E+00	
C	0.0	0.0	0.00E+00	
All	2.77E+04	7.84E+02	8.04E-01	+/- 25

Estimate of Major Nuclide Composition - Dry Activated Waste Shipped to an Offsite Processor

Period of Performance: January 1, 2006 through December 31, 2006

Waste Class: A

Nuclide	Activity (Curies)	Percent Abundance (Percent)
Cs-137	2.95E-01	5.35E+01
Co-60	1.57E-01	2.85E+01
Fe-55	4.29E-02	7.78E+00
Mn-54	1.40E-02	2.54E+00
C-14	1.36E-02	2.47E+00
Zn-65	1.14E-02	2.07E+00
Cs-134	1.05E-02	1.90E+00
Ni-63	3.70E-03	6.71E-01
H-3	1.37E-03	2.48E-01
Ce-144	1.06E-03	1.92E-01
Sr-90	8.43E-04	1.53E-01
Am-241	3.05E-06	5.53E-04
Cm-243	2.93E-06	5.31E-04
Other	3.60E-06	6.53E-04
Total	5.51E-01	1.00E+02

Waste Class: B

Nuclide	Activity (Curies)	Percent Abundance (Percent)
NONE SHIPPED		
Total	N/A	N/A

Waste Class: C

Nuclide	Activity (Curies)	Percent Abundance (Percent)
NONE SHIPPED		
Total	N/A	N/A

Waste Class: All

Nuclide	Activity (Curies)	Percent Abundance (Percent)
Cs-137	2.95E-01	5.35E+01
Co-60	1.57E-01	2.85E+01
Fe-55	4.29E-02	7.78E+00
Mn-54	1.40E-02	2.54E+00
C-14	1.36E-02	2.47E+00
Zn-65	1.14E-02	2.07E+00
Cs-134	1.05E-02	1.90E+00
Ni-63	3.70E-03	6.71E-01
H-3	1.37E-03	2.48E-01
Ce-144	1.06E-03	1.92E-01
Sr-90	8.43E-04	1.53E-01
Am-241	3.05E-06	5.53E-04
Cm-243	2.93E-06	5.31E-04
Other	3.60E-06	6.53E-04
Total	5.51E-01	1.00E+02

OYSTER CREEK GENERATING STATION

ANNUAL RADIOACTIVE EFFLUENT RELEASE REPORT - 2006

TABLE 3B (CONT.)

SOLID WASTE AND IRRADIATED FUEL SHIPMENTS

Waste Stream - Irradiated Fuel

Period of Performance: January 1, 2006 through December 31, 2006

Waste Class	Volume Shipped		Activity Shipped	Percent Error
	(Ft^3)	(M^3)	(Curies)	(Percent)
A	0.0	0.0	0.0	
B	0.0	0.0	0.0	
C	0.0	0.0	0.0	
All	0.0	0.0	0.0	

TABLE 3B (cont.)

SOLID WASTE AND IRRADIATED FUEL SHIPMENTS

Estimate of Major Nuclide Composition - Irradiated Fuel

Period of Performance: January 1, 2006 through December 31, 2006

Waste Class: A

Nuclide	Activity (Curies)	Percent Abundance (Percent)
	N	
	O	
	N	
	E	
	S	
	H	
	I	
	P	
	P	
	E	
	D	
Total	N/A	N/A

Waste Class: B

Nuclide	Activity (Curies)	Percent Abundance (Percent)
	N	
	O	
	N	
	E	
	S	
	H	
	I	
	P	
	P	
	E	
	D	
Total	N/A	N/A

Waste Class: C

Nuclide	Activity (Curies)	Percent Abundance (Percent)
	N	
	O	
	N	
	E	
	S	
	H	
	I	
	P	
	P	
	E	
	D	
Total	N/A	N/A

Waste Class: All

Nuclide	Activity (Curies)	Percent Abundance (Percent)
	N	
	O	
	N	
	E	
	S	
	H	
	I	
	P	
	P	
	E	
	D	
Total	N/A	N/A

OYSTER CREEK GENERATING STATION

ANNUAL RADIOACTIVE EFFLUENT RELEASE REPORT - 2006

TABLE 3B (CONT.)

SOLID WASTE AND IRRADIATED FUEL SHIPMENTS

Waste Stream - Other Waste

Period of Performance: January 1, 2006 through December 31, 2006

Waste Class	**Volume Shipped** (Ft³)	**Volume Shipped** (M³)	**Activity Shipped** (Curies)	**Percent Error** (Percent)
A	0.00E+00	0.00E+00	0.00E+00	+/- 25
B	0.0	0.0	0.00E+00	
C	0.0	0.0	0.00E+00	
All	0.00E+00	0.00E+00	0.00E+00	+/- 25

TABLE 3B (cont.)

SOLID WASTE AND IRRADIATED FUEL SHIPMENTS

Estimate of Major Nuclide Composition - Other Waste

Period of Performance: January 1, 2006 through December 31, 2006

Waste Class: A

Nuclide	Activity (Curies)	Percent Abundance (Percent)
	N	
	O	
	N	
	E	
	S	
	H	
	I	
	P	
	P	
	E	
	D	
Total	N/A	N/A

Waste Class: B

Nuclide	Activity (Curies)	Percent Abundance (Percent)
	N	
	O	
	N	
	E	
	S	
	H	
	I	
	P	
	P	
	E	
	D	
Total	N/A	N/A

Waste Class: C

Nuclide	Activity (Curies)	Percent Abundance (Percent)
	N	
	O	
	N	
	E	
	S	
	H	
	I	
	P	
	P	
	E	
	D	
Total	N/A	N/A

Waste Class: All

Nuclide	Activity (Curies)	Percent Abundance (Percent)
	N	
	O	
	N	
	E	
	S	
	H	
	I	
	P	
	P	
	E	
	D	

OYSTER CREEK GENERATING STATION
ANNUAL RADIOACTIVE EFFLUENT RELEASE REPORT - 2006
TABLE 4A

PERIOD OF RECORD: January 01, 2006 through December 31, 2006

STABILITY CLASS: Pasquill Class A
ELEVATION: 33 feet

SECTOR TO	WINDS FROM	WIND SPEED 1-3	4-7	8-12	13-18	19-24	>24	TOTAL
N	S	1	23	81	21	0	0	126
NNE	SSW	0	20	60	19	0	0	99
NE	SW	1	50	69	4	0	0	124
ENE	WSW	1	68	77	10	1	0	157
E	W	2	56	91	13	0	0	162
ESE	WNW	0	53	137	51	0	0	241
SE	NW	1	59	102	34	0	0	196
SSE	NNW	3	39	24	1	0	0	67
S	N	1	33	7	0	0	0	41
SSW	NNE	0	17	13	0	0	0	30
SW	NE	0	28	74	3	0	0	105
WSW	ENE	2	53	53	2	0	0	110
W	E	0	54	41	3	0	0	98
WNW	ESE	2	55	30	0	0	0	87
NW	SE	1	65	51	0	0	0	117
NNW	SSE	1	24	70	4	0	0	99
TOTAL		16	697	980	165	1	0	1859

OYSTER CREEK GENERATING STATION
ANNUAL RADIOACTIVE EFFLUENT RELEASE REPORT - 2006
TABLE 4A

PERIOD OF RECORD: January 01, 2006 through December 31, 2006

STABILITY CLASS: Pasquill Class B
ELEVATION: 33 feet

SECTOR TO	WINDS FROM	WIND SPEED 1-3	4-7	8-12	13-18	19-24	>24	TOTAL
N	S	1	9	17	4	0	0	31
NNE	SSW	2	11	16	4	0	0	33
NE	SW	0	12	22	1	0	0	35
ENE	WSW	3	18	13	3	0	0	37
E	W	1	26	7	5	0	0	39
ESE	WNW	2	16	15	7	0	0	40
SE	NW	3	21	16	7	0	0	47
SSE	NNW	0	5	9	0	0	0	14
S	N	2	10	1	0	0	0	13
SSW	NNE	1	5	4	0	0	0	10
SW	NE	1	13	9	0	0	0	23
WSW	ENE	1	7	11	0	0	0	19
W	E	0	12	3	2	0	0	17
WNW	ESE	2	3	2	0	0	0	7
NW	SE	0	8	1	0	0	0	9
NNW	SSE	0	14	1	3	0	0	18
TOTAL		19	190	147	36	0	0	392

OYSTER CREEK GENERATING STATION
ANNUAL RADIOACTIVE EFFLUENT RELEASE REPORT - 2006
TABLE 4A

PERIOD OF RECORD: January 01, 2006 through December 31, 2006

STABILITY CLASS: Pasquill Class C
ELEVATION: 33 feet

SECTOR TO	WINDS FROM	WIND SPEED 1-3	4-7	8-12	13-18	19-24	>24	TOTAL
N	S	0	5	6	1	0	0	12
NNE	SSW	1	7	7	2	0	0	17
NE	SW	0	6	9	0	0	0	15
ENE	WSW	1	10	7	1	0	0	19
E	W	1	9	4	2	0	0	16
ESE	WNW	3	10	9	2	0	0	24
SE	NW	1	10	5	2	0	0	18
SSE	NNW	1	7	2	0	0	0	10
S	N	0	4	0	0	0	0	4
SSW	NNE	2	2	0	0	0	0	4
SW	NE	1	3	4	0	0	0	8
WSW	ENE	1	4	7	1	0	0	13
W	E	2	2	2	2	0	0	8
WNW	ESE	0	7	1	0	0	0	8
NW	SE	0	5	1	0	0	0	6
NNW	SSE	0	6	3	0	0	0	9
TOTAL		14	97	67	13	0	0	191

OYSTER CREEK GENERATING STATION
ANNUAL RADIOACTIVE EFFLUENT RELEASE REPORT - 2006
TABLE 4A

PERIOD OF RECORD: January 01, 2006 through December 31, 2006

STABILITY CLASS: Pasquill Class D
ELEVATION: 33 feet

		WIND SPEED						
SECTOR TO	WINDS FROM	1-3	4-7	8-12	13-18	19-24	>24	TOTAL
N	S	8	63	48	4	0	0	123
NNE	SSW	8	47	42	12	3	0	112
NE	SW	10	33	29	1	0	0	73
ENE	WSW	8	53	28	5	0	0	94
E	W	9	53	22	9	0	0	93
ESE	WNW	14	49	37	15	0	0	115
SE	NW	5	57	57	10	0	0	129
SSE	NNW	10	30	21	0	0	0	61
S	N	6	25	5	2	0	0	38
SSW	NNE	6	33	21	3	0	0	63
SW	NE	6	60	73	5	0	0	144
WSW	ENE	5	45	31	8	1	0	90
W	E	6	34	22	7	1	0	70
WNW	ESE	3	31	13	1	0	0	48
NW	SE	5	39	8	4	0	0	56
NNW	SSE	3	53	29	7	0	0	92
TOTAL		112	705	486	93	5	0	1401

OYSTER CREEK GENERATING STATION
ANNUAL RADIOACTIVE EFFLUENT RELEASE REPORT - 2006
TABLE 4A

PERIOD OF RECORD: January 01, 2006 through December 31, 2006

STABILITY CLASS: Pasquill Class E
ELEVATION: 33 feet

SECTOR TO	WINDS FROM	WIND SPEED 1-3	4-7	8-12	13-18	19-24	>24	TOTAL
N	S	43	98	39	15	4	0	199
NNE	SSW	41	143	104	20	4	0	312
NE	SW	40	208	59	2	0	0	309
ENE	WSW	36	273	41	3	0	0	353
E	W	39	117	30	5	0	0	191
ESE	WNW	40	162	54	10	0	0	266
SE	NW	39	137	40	13	0	0	229
SSE	NNW	11	54	21	0	0	0	86
S	N	14	26	2	1	0	0	43
SSW	NNE	19	23	13	0	0	0	55
SW	NE	11	61	44	8	0	0	124
WSW	ENE	16	44	23	19	1	0	103
W	E	8	44	28	3	5	0	88
WNW	ESE	4	36	9	3	0	0	52
NW	SE	13	35	18	6	0	0	72
NNW	SSE	21	53	50	17	1	0	142
TOTAL		395	1514	575	125	15	0	2624

TABLE 4A

PERIOD OF RECORD: January 01, 2006 through December 31, 2006

STABILITY CLASS: Pasquill Class F
ELEVATION: 33 feet

SECTOR TO	WINDS FROM	WIND SPEED 1-3	4-7	8-12	13-18	19-24	>24	TOTAL
N	S	23	8	0	0	0	0	31
NNE	SSW	30	22	0	0	0	0	52
NE	SW	48	48	0	0	0	0	96
ENE	WSW	62	125	0	0	0	0	187
E	W	64	102	0	0	0	0	166
ESE	WNW	48	72	0	0	0	0	120
SE	NW	35	41	0	1	0	0	77
SSE	NNW	22	16	0	0	0	0	38
S	N	7	2	0	0	0	0	9
SSW	NNE	3	0	0	0	0	0	3
SW	NE	4	1	0	1	0	0	6
WSW	ENE	2	2	2	0	0	0	6
W	E	4	1	0	0	0	0	5
WNW	ESE	2	1	0	0	0	0	3
NW	SE	3	3	0	0	0	0	6
NNW	SSE	6	3	0	0	0	0	9
TOTAL		363	447	2	2	0	0	814

OYSTER CREEK GENERATING STATION
ANNUAL RADIOACTIVE EFFLUENT RELEASE REPORT - 2006
TABLE 4A

PERIOD OF RECORD: January 01, 2006 through December 31, 2006

STABILITY CLASS: Pasquill Class G
ELEVATION: 33 feet

		WIND SPEED						
SECTOR TO	WINDS FROM	1-3	4-7	8-12	13-18	19-24	>24	TOTAL
N	S	23	1	0	0	0	0	24
NNE	SSW	19	0	0	0	0	0	19
NE	SW	46	10	0	0	0	0	56
ENE	WSW	254	95	0	0	0	0	349
E	W	375	78	0	0	0	0	453
ESE	WNW	146	18	0	0	0	0	164
SE	NW	90	35	0	0	0	0	125
SSE	NNW	28	9	1	0	0	0	38
S	N	9	5	0	0	0	0	14
SSW	NNE	3	0	0	0	0	0	3
SW	NE	1	0	0	0	0	0	1
WSW	ENE	0	1	1	0	0	0	2
W	E	4	0	0	0	0	0	4
WNW	ESE	0	0	0	0	0	0	0
NW	SE	5	0	0	0	0	0	5
NNW	SSE	7	0	0	0	0	0	7
TOTAL		1010	252	2	0	0	0	1264

TABLE 4A

PERIOD OF RECORD: January 01, 2006 through December 31, 2006

STABILITY CLASS: Pasquill Class ALL
ELEVATION: 33 feet

		WIND SPEED						
SECTOR TO	WINDS FROM	1-3	4-7	8-12	13-18	19-24	>24	TOTAL
N	S	99	207	191	45	4	0	546
NNE	SSW	101	250	229	57	7	0	644
NE	SW	145	367	188	8	0	0	708
ENE	WSW	365	642	166	22	1	0	1196
E	W	491	441	154	34	0	0	1120
ESE	WNW	253	380	252	85	0	0	970
SE	NW	174	360	220	67	0	0	821
SSE	NNW	75	160	78	1	0	0	314
S	N	39	105	15	3	0	0	162
SSW	NNE	34	80	51	3	0	0	168
SW	NE	24	166	204	17	0	0	411
WSW	ENE	27	156	128	30	2	0	343
W	E	24	147	96	17	6	0	290
WNW	ESE	13	133	55	4	0	0	205
NW	SE	27	155	79	10	0	0	271
NNW	SSE	38	153	153	31	1	0	376
TOTAL		1929	3902	2259	434	21	0	8545

Hours of Missing/Invalid Data: 213

OYSTER CREEK GENERATING STATION
ANNUAL RADIOACTIVE EFFLUENT RELEASE REPORT – 2006
TABLE 4A
HOURS AT EACH WIND SPEED AND DIRECTION

PERIOD OF RECORD: January 01, 2006 through December 31, 2006

STABILITY CLASS: Pasquill Class A
ELEVATION: 380 feet

		WIND SPEED						
SECTOR TO	WINDS FROM	1-3	4-7	8-12	13-18	19-24	>24	TOTAL
N	S	0	0	2	6	4	0	12
NNE	SSW	0	0	6	8	1	0	15
NE	SW	0	0	3	9	3	0	15
ENE	WSW	0	0	2	11	3	1	17
E	W	0	0	1	22	1	0	24
ESE	WNW	0	0	4	16	28	24	72
SE	NW	0	0	2	20	19	5	46
SSE	NNW	0	0	3	2	1	0	6
S	N	0	0	3	0	0	0	3
SSW	NNE	0	0	0	3	1	0	4
SW	NE	0	0	4	14	17	0	35
WSW	ENE	0	0	8	10	4	0	22
W	E	0	0	13	2	1	0	16
WNW	ESE	0	0	17	1	0	0	18
NW	SE	0	0	5	6	0	0	11
NNW	SSE	0	0	3	2	1	0	6
TOTAL		0	0	76	132	84	30	322

OYSTER CREEK GENERATING STATION
ANNUAL RADIOACTIVE EFFLUENT RELEASE REPORT – 2006
TABLE 4A
HOURS AT EACH WIND SPEED AND DIRECTION

PERIOD OF RECORD: January 01, 2006 through December 31, 2006

STABILITY CLASS: Pasquill Class B
ELEVATION: 380 feet

SECTOR TO	WINDS FROM	WIND SPEED 1-3	4-7	8-12	13-18	19-24	>24	TOTAL
N	S	0	0	10	8	5	0	23
NNE	SSW	0	1	6	17	3	2	29
NE	SW	0	4	9	15	5	1	34
ENE	WSW	0	2	19	17	3	3	44
E	W	0	0	15	25	7	6	53
ESE	WNW	0	0	9	32	19	17	77
SE	NW	0	1	18	24	10	19	72
SSE	NNW	0	0	18	9	2	1	30
S	N	0	0	12	2	0	0	14
SSW	NNE	0	2	1	6	1	0	10
SW	NE	0	0	14	20	5	0	39
WSW	ENE	0	0	18	14	1	1	34
W	E	0	0	18	4	0	0	22
WNW	ESE	0	1	16	0	0	0	17
NW	SE	0	2	23	1	0	0	26
NNW	SSE	0	0	9	14	1	0	24
TOTAL		0	13	215	208	62	50	548

OYSTER CREEK GENERATING STATION
ANNUAL RADIOACTIVE EFFLUENT RELEASE REPORT – 2006
TABLE 4A
HOURS AT EACH WIND SPEED AND DIRECTION

PERIOD OF RECORD: January 01, 2006 through December 31, 2006

STABILITY CLASS: Pasquill Class C
ELEVATION: 380 feet

		WIND SPEED						
SECTOR TO	WINDS FROM	1-3	4-7	8-12	13-18	19-24	>24	TOTAL
N	S	0	5	11	23	11	0	50
NNE	SSW	0	3	5	17	10	3	38
NE	SW	0	4	23	18	2	0	47
ENE	WSW	0	10	21	29	4	3	67
E	W	0	3	29	25	8	5	70
ESE	WNW	0	5	24	18	16	22	85
SE	NW	0	6	17	14	4	12	53
SSE	NNW	0	1	10	4	1	0	16
S	N	1	4	4	2	0	0	11
SSW	NNE	0	5	3	6	0	0	14
SW	NE	0	4	17	13	6	0	40
WSW	ENE	0	0	19	9	0	2	30
W	E	0	1	13	3	0	0	17
WNW	ESE	0	7	17	0	0	0	24
NW	SE	0	4	18	2	0	0	24
NNW	SSE	0	3	24	9	3	0	39
TOTAL		1	65	255	192	65	47	625

OYSTER CREEK GENERATING STATION
ANNUAL RADIOACTIVE EFFLUENT RELEASE REPORT – 2006
TABLE 4A
HOURS AT EACH WIND SPEED AND DIRECTION

PERIOD OF RECORD: January 01, 2006 through December 31, 2006

STABILITY CLASS: Pasquill Class D
ELEVATION: 380 feet

SECTOR TO	WINDS FROM	WIND SPEED 1-3	4-7	8-12	13-18	19-24	>24	TOTAL
N	S	4	19	59	72	32	4	190
NNE	SSW	3	24	68	89	57	29	270
NE	SW	3	11	38	82	36	3	173
ENE	WSW	1	19	65	72	37	11	205
E	W	1	18	62	74	23	36	214
ESE	WNW	3	21	45	69	56	79	273
SE	NW	1	11	43	84	71	68	278
SSE	NNW	1	13	26	41	28	1	110
S	N	1	17	31	27	3	3	82
SSW	NNE	2	13	32	40	28	7	122
SW	NE	0	17	49	86	75	44	271
WSW	ENE	3	16	40	50	39	49	197
W	E	2	16	43	27	18	21	127
WNW	ESE	0	27	39	12	16	3	97
NW	SE	0	27	46	12	12	9	106
NNW	SSE	3	21	64	21	19	11	139
TOTAL		28	290	750	858	550	378	2854

OYSTER CREEK GENERATING STATION
ANNUAL RADIOACTIVE EFFLUENT RELEASE REPORT – 2006
TABLE 4A
HOURS AT EACH WIND SPEED AND DIRECTION

PERIOD OF RECORD: January 01, 2006 through December 31, 2006

STABILITY CLASS: Pasquill Class E
ELEVATION: 380 feet

SECTOR TO	WINDS FROM	WIND SPEED 1-3	4-7	8-12	13-18	19-24	>24	TOTAL
N	S	1	17	35	49	25	22	149
NNE	SSW	4	13	49	124	78	36	304
NE	SW	2	10	39	108	108	14	281
ENE	WSW	2	9	29	87	125	24	276
E	W	3	4	25	83	69	15	199
ESE	WNW	1	10	28	96	90	8	233
SE	NW	0	11	34	87	111	8	251
SSE	NNW	1	3	9	34	28	2	77
S	N	2	5	21	34	8	0	70
SSW	NNE	2	9	19	12	5	0	47
SW	NE	3	8	16	21	5	11	64
WSW	ENE	1	9	15	27	9	11	72
W	E	0	5	18	26	12	8	69
WNW	ESE	2	8	13	14	11	4	52
NW	SE	2	5	19	13	11	19	69
NNW	SSE	3	10	21	18	26	22	100
TOTAL		29	136	390	833	721	204	2313

OYSTER CREEK GENERATING STATION
ANNUAL RADIOACTIVE EFFLUENT RELEASE REPORT – 2006
TABLE 4A
HOURS AT EACH WIND SPEED AND DIRECTION

PERIOD OF RECORD: January 01, 2006 through December 31, 2006

STABILITY CLASS: Pasquill Class F
ELEVATION: 380 feet

SECTOR TO	WINDS FROM	WIND SPEED 1-3	4-7	8-12	13-18	19-24	>24	TOTAL
N	S	0	5	10	4	0	0	19
NNE	SSW	1	5	6	28	8	1	49
NE	SW	2	15	16	31	31	14	109
ENE	WSW	3	4	20	49	54	18	148
E	W	2	1	14	38	77	12	144
ESE	WNW	2	5	24	44	72	23	170
SE	NW	0	11	22	47	91	15	186
SSE	NNW	0	4	13	21	29	6	73
S	N	0	2	6	21	15	0	44
SSW	NNE	2	4	8	20	4	0	38
SW	NE	2	5	15	2	2	0	26
WSW	ENE	0	3	0	1	1	1	6
W	E	3	3	2	0	0	0	8
WNW	ESE	1	0	3	0	1	0	5
NW	SE	2	4	5	3	0	0	14
NNW	SSE	1	6	5	4	1	0	17
TOTAL		21	77	169	313	386	90	1056

OYSTER CREEK GENERATING STATION
ANNUAL RADIOACTIVE EFFLUENT RELEASE REPORT – 2006
TABLE 4A
HOURS AT EACH WIND SPEED AND DIRECTION

PERIOD OF RECORD: January 01, 2006 through December 31, 2006

STABILITY CLASS: Pasquill Class G
ELEVATION: 380 feet

		WIND SPEED						
SECTOR TO	WINDS FROM	1-3	4-7	8-12	13-18	19-24	>24	TOTAL
N	S	3	12	12	7	1	0	35
NNE	SSW	1	16	13	10	6	0	46
NE	SW	7	14	8	24	31	2	86
ENE	WSW	3	12	24	38	17	13	107
E	W	2	16	22	41	24	10	115
ESE	WNW	1	15	34	40	19	5	114
SE	NW	1	14	19	29	19	1	83
SSE	NNW	1	5	16	30	8	6	66
S	N	1	9	21	33	7	0	71
SSW	NNE	0	11	17	16	6	0	50
SW	NE	3	5	16	12	3	0	39
WSW	ENE	2	3	9	7	2	0	23
W	E	2	3	6	2	1	0	14
WNW	ESE	2	1	12	0	0	0	15
NW	SE	0	2	13	1	0	0	16
NNW	SSE	2	7	19	5	2	0	35
TOTAL		31	145	261	295	146	37	915

OYSTER CREEK GENERATING STATION
ANNUAL RADIOACTIVE EFFLUENT RELEASE REPORT – 2006
TABLE 4A
HOURS AT EACH WIND SPEED AND DIRECTION

PERIOD OF RECORD: January 01, 2006 through December 31, 2006

STABILITY CLASS: Pasquill Class ALL
ELEVATION: 380 feet

SECTOR TO	WINDS FROM	WIND SPEED 1-3	4-7	8-12	13-18	19-24	>24	TOTAL
N	S	8	58	139	169	78	26	478
NNE	SSW	9	62	153	293	163	71	751
NE	SW	14	58	136	287	216	34	745
ENE	WSW	9	56	180	303	243	73	864
E	W	8	42	168	308	209	84	819
ESE	WNW	7	56	168	315	300	178	1024
SE	NW	2	54	155	305	325	128	969
SSE	NNW	3	26	95	141	97	16	378
S	N	5	37	98	119	33	3	295
SSW	NNE	6	44	80	103	45	7	285
SW	NE	8	39	131	168	113	55	514
WSW	ENE	6	31	109	118	56	64	384
W	E	7	28	113	64	32	29	273
WNW	ESE	5	44	117	27	28	7	228
NW	SE	4	44	129	38	23	28	266
NNW	SSE	9	47	145	73	53	33	360
TOTAL		110	726	2116	2831	2014	836	8633

Hours of Missing/Invalid Data: 126

OYSTER CREEK GENERATING STATION

ANNUAL RADIOACTIVE EFFLUENT RELEASE REPORT - 2006

TABLE 4B

CLASSIFICATION OF ATMOSPHERIC STABILITY

Stability Classification	Pasquill Categories	Sigma-Theta [a] (degrees)	Temperature change with height (degrees-C/100m)
Extremely unstable	A	25.0	< -1.9
Moderately unstable	B	20.0	-1.9 to - 1.7
Slightly unstable	C	15.0	-1.7 to - 1.5
Neutral	D	10.0	-1.5 to -0.5
Slightly stable	E	5.0	-0.5 to 1.5
Moderately stable	F	2.5	1.5 to 4.0
Extremely stable	G	1.7	> 4.0

[a] Standard deviation of horizontal wind direction fluctuation over a period of 15 minutes to 1 hour. The values shown are averages for each stability classification.