Exelon Generation.
Oyster Creek Generating Station www.exeloncorp.com
Route 9 South
PO Box 388
Forked River, NJ 08731

72-15

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

RA-12-004B
December 5, 2012

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

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

Subject: Revised Annual Radioactive Effluent Release Report for 2007

Enclosed with this cover letter is the revised copy of the Annual Radioactive Effluent Release Report for 2007. The report includes the Oyster Creek Nuclear Generating Station Independent Spent Fuel Storage Facility. Revision bars have been used to indicate where changes were made to the reports.

If any further information or assistance is needed, please contact Dave Chernesky, Chemistry Manager, at 609-971-4217.

Sincerely,

Michael J. Massaro

Michael J. Massaro
Site Vice President
Oyster Creek Nuclear Generating Station

Enclosures: 2007 Annual Radioactive Effluent Release Report (Revision 1)

cc: Administrator, USNRC Region I
USNRC Senior Project Manager, Oyster Creek
USNRC Senior Resident Inspector, Oyster Creek
Craig Stewart, American Nuclear Insurers

IE48
NMSS26
NRR
NMSS

2007

ANNUAL RADIOACTIVE EFFLUENT RELEASE REPORT

OYSTER CREEK GENERATING STATION

AMERGEN ENERGY COMPANY

Revision 1

Issued 2012

TABLE OF CONTENTS

LIST OF TABLES

* Not changed and not included

EXECUTIVE SUMMARY

AMERGEN ENERGY COMPANY
OYSTER CREEK GENERATING STATION
ANNUAL RADIOACTIVE EFFLUENT RELEASE REPORT
JANUARY 1, 2007 THROUGH DECEMBER 31, 2007

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, 2007, through December 31, 2007.

During 2007, there were no radiological liquid releases. Since there were no liquid discharges in 2007, there was no dose attributable to liquid effluents.

Radiation monitors measure radioactive gases released from the plant. Utilizing gaseous effluent data, the maximum hypothetical dose to any individual in the south-east sector of the plant (sector of predominant wind direction) 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 calculations of the actual off-site doses. 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 2007 consisted of 87.2 curies of noble gases,1.28E-02 curies of radioiodines, 2.18E-02 curies of particulate activity, and 66.9 curies of tritium.

Seventeen (17) 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 17 shipments.

The maximum hypothetical calculated organ dose (bone) from iodines and particulates to any individual due to gaseous effluents was 2.52E-02 mrem which was approximately 1.68E-03 percent of the annual limit (Table 1). The maximum hypothetical calculated whole body dose to any individual due to gaseous effluents was 9.86E-04 mrem which was 1.97E-04 percent of the annual limit.

The total maximum hypothetical organ dose (bone) due to all radiological effluents of 2.62E-02 mrem received by any individual from gaseous effluents from the Oyster Creek Generating Station for the reporting period is over 12,000 times lower than the dose the average individual in the Oyster Creek area received from background radiation, including that from radon 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.

During 2007, there was no measurable direct radiation dose due to the operation of Oyster Creek beyond the site boundary in the southeast sector as shown by offsite thermoluminescent dosimeter (TLD) readings. The offsite dose due to effluents is an extremely small fraction of the 40CFR190 limits. Therefore, the combined direct radiation and effluent dose due to Oyster Creek was in compliance with 40CFR190 in 2007.

Joint Frequency Tables of meteorological data, per Pasquill Category, as well as for all stability classes, are included. All data was collected from the on-site Meteorological Facility. Data recoveries for the 380-foot data and the 33-foot data were 99.0 percent and 98.8 percent, respectively. The UFSAR commits to Regulatory Guide (RG) 1.23 for Meteorological Facility data recovery. RG 1.23 requires data recovery of at least 90% on an annual basis.

On April 7, 2010, the main stack Radioactive Gaseous Effluent Monitoring System (RAGEMS) sample line was discovered separated at a Swagelok union at the 260 foot elevation. The sample line was disconnected with the two ends separated by a distance of several inches, such that the sample line was open to the atmosphere. Subsequent investigations revealed a second sample line separation at a Swagelok union lower in the stack. The tubing was held in place by the insulation and the heat trace. A root cause analysis concluded that the sample line was first separated about January 1, 2006. Since the insulation was in place, the sample line continued to provide a partial sample of the stack gas. Over the four years, the data indicates that the sample line separation increased slowly.

This report estimates the 2007 releases based on the 2010 May to November releases that are corrected for 2007 power (all nuclides), 20076 Augmented Offgas System availability (nobles gases) and 2007 Offgas release rate (nobles gases and short lived fission products).

OYSTER CREEK GENERATING STATION

ANNUAL RADIOACTIVE EFFLUENT RELEASE REPORT - 2007

TABLE 1

ANNUAL OFFSITE DOSES DUE TO RADIONUCLIDES IN EFFLUENTS

January 1, 2007 through December 31, 2007

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 Bone mrem	Noble Gas Gamma Dose mRad	Noble Gas Beta Dose mRad	I-131, I-133, & Particulates Bone 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
2007 Dose	0.00E+00 mrem	0.00E+00 mrem	9.86E-04 mrem	1.37E-03 mrem	2.52E-02 mrem	2.04E-03 mRad	9.93E-04 mRad	2.52E-02 mrem
Percent of Limit	0.00E+00 Percent	0.00E+00 Percent	1.97E-04 Percent	4.57E-05 Percent	1.68E-03 Percent	2.04E-02 Percent	4.97E-03 Percent	1.68E-01 Percent

Reference	ODCM 3.11.4	ODCM 3.11.4	ODCM 3.11.4
	All Effluents Total Body mrem	All Effluents Thyroid mrem	All Effluents Bone mrem
ODCM Limit	25 mrem/year	75 mrem/year	25 mrem/year
2007 Dose	2.04E-03 mrem	2.34E-02 mrem	2.62E-02 mrem
Percent of Limit	8.16E-03 Percent	3.12E-02 Percent	1.05E-01 Percent

YEAR 2007 EVENT REPORT

LIQUID EFFLUENT RELEASES

There were no liquid radioactive releases from the facility in 2007. However, on July 17, 2007, a reactor SCRAM and cool-down resulted in the use of isolation condensers. Approximately 36,400 gallons of shell-side water were vented to the atmosphere as a ground-level release, with tritium being the principle radionuclide released. Any dose resulting from this release is well below limitations as specified in the Offsite Dose Calculation Manual and is included in the Table 1 summaries.

CHANGES TO THE OFFSITE DOSE CALCULATION MANUAL

Revision 2 to the ODCM was implemented during 2007. Changes included:

- Clarification to allow Drywell purge only when the radioactive noble gas monitor is operating,
- Clarification of radwaste sampling requirements,
- Clarification of when to take composite samples,
- Explanation of venting path of containment Drywell,
- Clarification to specified REMP samples and how they may not be substituted.
- Not allowing substitution of vegetation samples in the REMP program,
- Explanation of the meteorological monitoring program,
- Clarification of the requirements of liquid effluent monitoring,
- Allowance for use of alternate but approved computer code for effluents,
- Corrections to units and values used in example calculations,
- Use of additional symbols in dose rate factors,
- Correction to solid radwaste processing flow diagram.

EFFLUENT MONITORS OUT OF SERVICE GREATER THAN 30 DAYS

The AOG noble gas radiation monitor was out of service from May 31, 2007 to August 06, 2007 due to inappropriate prioritization by work scheduling. Once-per 48-hour compensatory sampling was performed during this time period. No other effluent monitors were out of service for greater than 30 days during 2007.

CHANGES TO THE PROCESS CONTROL PLAN

There were two changes to the Process Control Plan (PCP) (RW-AA-100) during 2007. Revision 4 clarified the phrase "Technical Specification" and added wording that changes in the PCP must be in the Annual Radioactive Effluents Release Report and revision 5 added wording to allow use of NUKEM's compression dewatering technology and added a definition statement to include Oil-Dry absorbent material.

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. Based on off site TLD readings, dose due to direct radiation from the ISFSI was < 1mRem for 2007.

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 uCi/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 uCi/mL.

3. Average Energy

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

First Quarter:	5.38E-01	Mev (gamma - elevated release)
Second Quarter:	5.38E-01	Mev (gamma - elevated release)
Third Quarter:	5.37E-01	Mev (gamma - elevated release)
Fourth Quarter:	5.37E-01	Mev (gamma - elevated release)
Annual:	5.38E-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 - The stack sample line was degraded during 2007. The releases were normalized to the releases of the last half of 2010. The releases are adjusted for AOG availability, plant power and offgas release rate as appropriate.
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 - The stack sample line was degraded during 2007. The releases were normalized to the releases of the last half of 2010. The releases are adjusted for plant power and offgas release rate. Values from 2007 report are used if greater than normalized values.
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 - The stack sample line was degraded during 2007. The releases were normalized to the releases of the last half of 2010. The releases are adjusted for plant power and offgas release rate. Values from 2007 report are used if greater than normalized values.
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 HPGe detector, a low background beta counter, and liquid scintillation.

5. Batch Releases

a. Liquid - There were no liquid releases during 2007.

1. Number of batch releases: N/A
2. Total time period for batch releases: 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. Average stream flow during periods of release of effluent into a flowing stream:N/A

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

There were no abnormal (liquid) releases during 2007

b. Gaseous

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

OYSTER CREEK GENERATING STATION
ANNUAL RADIOACTIVE EFFLUENT RELEASE REPORT - 2007
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	2.11E+01	3.01E+01	1.83E+01	1.77E+01	8.72E+01	+/- 10
2. Average release rate for period	u Ci/sec	2.71E+00	3.82E+00	2.31E+00	2.23E+00	2.76E+00	
3. Percent of Technical Specification							
a. 0.21/Energy (average) - gamma (elevated release only)	%	6.94E-04	9.77E-04	5.91E-04	5.73E-04	7.09E-04	
b. Dose rate due to gaseous effluent -							
Total Body - 500 mrem/year	%					1.97E-04	
Skin - 3000 mrem/year	%					4.57E-05	
c. Air dose due to noble gas in gaseous effluent -							
5 mRad/calendar quarter due to gamma radiation	%	1.70E-02	2.02E-02	9.54E-03	8.46E-03		
10 mRad/calendar quarter due to beta radiation	%	1.59E-03	9.71E-03	6.90E-04	5.40E-04		
10 mRad/calendar year due to gamma radiation	%					2.04E-02	
20 mRad/calendar year due to beta radiation	%					4.97E-03	
B. Iodines							
1. Total iodine-131	Ci	8.19E-04	8.55E-04	6.86E-04	6.62E-04	3.02E-03	+/- 16
2. Average release rate for period	u Ci/sec	1.05E-04	1.09E-04	8.63E-05	8.33E-05	9.58E-05	
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)	%					1.68E-03	
b. Dose due to radioiodine and particulates in gaseous effluent -							
Any body organ per calendar quarter - 7.5 mrem	%	1.19E-01	1.31E-01	6.85E-02	8.41E-02		
Any body organ per calendar year - 15 mrem	%					1.68E-01	
C. Particulates							
1. Particulates with half-lives > 8 days	Ci	5.68E-03	5.50E-03	5.23E-03	5.43E-03	2.18E-02	+/- 10
2. Average release rate for period	u Ci/sec	7.30E-04	7.00E-04	6.58E-04	6.83E-04	6.91E-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)	%					1.68E-03	
b. Dose due to radioiodine and particulates in gaseous effluent -							
Any body organ per calendar quarter - 7.5 mrem	%	1.19E-01	1.31E-01	6.85E-02	8.41E-02		
Any body organ per calendar year - 15 mrem	%					1.68E-01	
4. Gross alpha radioactivity	Ci	1.82E-06	1.77E-06	1.72E-06	1.82E-05	7.13E-06	
D. Tritium							
1. Total Release	Ci	1.83E+01	1.63E+01	1.63E+01	1.60E+01	6.69E+01	+/- 25
2. Average release rate for period	u Ci/sec	2.35E+00	2.07E+00	2.05E+00	2.02E+00	2.12E+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)	%					1.68E-03	

OYSTER CREEK GENERATING STATION
ANNUAL RADIOACTIVE EFFLUENT RELEASE REPORT - 2007
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	8.47E-01	1.20E+00	7.36E-01	7.11E-01	3.50E+00
krypton-87	Ci	3.69E+00	5.24E+00	3.21E+00	3.10E+00	1.52E+01
krypton-88	Ci	2.45E+00	3.48E+00	2.13E+00	2.06E+00	1.01E+01
xenon-133	Ci	< LLD	<LLD	<LLD	<LLD	<LLD
xenon-135	Ci	1.41E+01	2.00E+01	1.23E+01	1.19E+01	5.83E+01
xenon-135m	Ci	< LLD	<LLD	< LLD	<LLD	< LLD
xenon-138	Ci	< LLD	< LLD	< LLD	< LLD	< LLD
Others						
None						
Total for period	Ci	2.11E+01	3.00E+01	1.83E+01	1.77E+01	8.71E+01
2. Iodines						
iodine-131	Ci	8.19E-04	8.55E-04	6.86E-04	6.61E-04	3.02E-03
iodine-132	Ci	< LLD	< LLD	< LLD	< LLD	< LLD
iodine-133	Ci	1.89E-03	4.76E-03	1.58E-03	1.53E-03	9.76E-03
iodine-135	Ci	< LLD	< LLD	< LLD	< LLD	< LLD
Total for period	Ci	2.71E-03	5.62E-03	2.27E-03	2.19E-03	1.28E-02
3. Particulates						
strontium-89	Ci	1.66E-03	1.60E-03	1.56E-03	1.65E-03	6.47E-03
strontium-90	Ci	5.85E-06	5.66E-06	5.52E-06	5.83E-06	2.29E-05
cesium-134	Ci	< LLD	< LLD	< LLD	< LLD	< LLD
cesium-137	Ci	2.70E-05	2.61E-05	2.55E-05	2.69E-05	1.05E-04
barium-140	Ci	1.08E-03	1.05E-03	9.06E-04	8.74E-04	3.91E-03
gross alpha	Ci	1.82E-06	1.77E-06	1.72E-06	1.82E-06	7.13E-06
nickel-63	Ci	<LLD	<LLD	<LLD	<LLD	<LLD
chromium-51	Ci	< LLD	< LLD	< LLD	<LLD	<LLD
manganese-54	Ci	8.38E-04	8.11E-04	7.90E-04	8.34E-04	3.27E-03
cobalt-58	Ci	4.70E-04	4.55E-04	4.43E-04	4.68E-04	1.84E-03
cobalt-60	Ci	1.26E-03	1.22E-03	1.19E-03	1.25E-03	4.91E-03
zinc-65	Ci	2.58E-04	2.49E-04	2.43E-04	2.57E-04	1.01E-03
molybdenum-99	Ci	8.13E-05	7.89E-05	6.81E-05	6.57E-05	2.94E-04
Total for period	Ci	5.68E-03	5.50E-03	5.23E-03	5.43E-03	2.18E-02

OYSTER CREEK GENERATING STATION

ANNUAL RADIOACTIVE EFFLUENT RELEASE REPORT - 2007

TABLE 1C

GASEOUS EFFLUENTS - GROUND-LEVEL RELEASES

		Continuous Mode				
Nuclides Released	Unit	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	2.34E-02	< LLD	< LLD	2.34E-02
krypton-88	Ci	< LLD	< LLD	< LLD	< LLD	<LLD
xenon-133	Ci	< LLD	< LLD	< LLD	< LLD	<LLD
xenon-135	Ci	2.16E-06	8.37E-02	< LLD	< LLD	8.37E-02
xenon-135m	Ci	< LLD	< LLD	< LLD	< LLD	< LLD
xenon-138	Ci	< LLD	< LLD	< LLD	< LLD	< LLD
Others						
None						
Total for period	Ci	2.16E-06	1.07E-01	< LLD	< LLD	1.07E-01
2. Iodines						
iodine-131	Ci	8.07E-08	<LLD	1.52E-07	6.44E-07	8.77E-07
iodine-133	Ci	1.68E-05	<LLD	4.25E-06	5.82E-06	2.69E-05
iodine-135	Ci	< LLD	< LLD	< LLD	< LLD	< LLD
Total for period	Ci	1.69E-05	<LLD	4.40E-06	6.46E-06	2.77E-05
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 - 2007

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	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. 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	%					-	
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	%					-	
B. Tritium							
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 10 times the liquid effluent concentrations specified in 10CFR Part 20.1001-20.2401, Appendix B, Table II, Column 2	%					-	
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	%					-	
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	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	N/A
F. Volume of dilution water used during period	liters	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	N/A

OYSTER CREEK GENERATING STATION

ANNUAL RADIOACTIVE EFFLUENT RELEASE REPORT - 2007

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	No Releases	No Releases	No Releases	No Releases	No Releases
cobalt-60	Ci	No Releases	No Releases	No Releases	No Releases	No Releases
iron-59	Ci	No Releases	No Releases	No Releases	No Releases	No Releases
zinc-65	Ci	No Releases	No Releases	No Releases	No Releases	No Releases
manganese-54	Ci	No Releases	No Releases	No Releases	No Releases	No Releases
nickel-63	Ci	No Releases	No Releases	No Releases	No Releases	No Releases
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	No Releases	No Releases	No Releases	No Releases	No Releases
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

Tables 3 and 4 were not changed and are not included in this submittal.