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

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Forked River, NJ 08731-0388

Oyster Creek

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

2006 Annual Radioactive Effluent Release Report Enclosures:

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



2006

ANNUAL RADIOACTIVE EFFLUENT RELEASE REPORT OYSTER CREEK GENERATING STATION

AMERGEN ENERGY COMPANY

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EXECUTIVE SUMMARY

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.

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	ODCM	ODCM	ODCM	ODCM	ODCM	ODCM	ODCM
	3.11.1.2	3.11.1.2	3.11.2.1	3.11.2.1	3.11.2.1	3.11.2.2	3.11.2.2	3.11.2.3
	Liquid	Liquid	Noble Gas	Noble Gas	H-3, lodines, &	Noble Gas	Noble Gas	I-131, I-133, &
·.	Total Body	Liver	Total Body	Skin	Particulates	Gamma Dose	Beta Dose	Particulates
					Thyroid			Thyroid
	mrem ·	mrem	mrem	mrem	mrem	mRad	mRad	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	6.97E-04	7.96E-04	1.03E-03	2.18E-02	1.80E-03	4.04E-04	2.18E-02
	mrem	mrem	mrem	mrem	mrem	mRad 👘	mRad	mrem
Percent of Limit	1.18E-02	2.78E-03	1.59E-04	3.43E-05	1.45E-03	1.80E-02	2.02E-03	1.45E-01
	Percent	Percent	Percent	Percent	Percent	Percent	Percent	Percent

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Reference	ODCM	ODCM
	3.11.4	3.11.4
t	All Effluents	All Effluents
	Total Body	Thyroid
	mrem	mrem
ODCM Limit	25 mrem/year	75 mrem/year
2006 Dose	7.06E-04	1.64E-05
	mrem	mrem
Percent	2.82E-03	2.19E-05
ofiLimit	2.02E 00	
	Percent	Percent

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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.

ANNUAL RADIOACTIVE EFFLUENT RELEASE REPORT - 2006

SUPPLEMENTAL INFORMATION

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. lodines

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 1-131, 1-133, 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 mrent/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,

o in the 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.

OVISTER CREEK GENERATION STATION ANNUAL RADIOCITY EFFLUENT RELEASE REPORT-2006 SUPPLEMENTAL INFORMATION Officiant of the demining allowed release rates or concentrations: 1 1 1 1 1 1 2 1 2 1 2 1 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 3 3 3 3 3 4 4 5 5 5 5 5 5 5 5 6 6<		
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 b. Gaseous Number of batch releases: No batch releases Total time period for batch release: N/A Maximum time period for a batch release: N/A Average time period for batch releases: N/A Minimum time period for a batch release: N/A 6. Abnormal releases Liquid Number of releases: Two (2) (See No. 5 above) Total activity released: 5.54E-1 (0.554) Curies B. Gaseous Number of releases: None 		
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 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 		
 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 		
 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 		
 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 		
 Number of releases: Two (2) (See No. 5 above) Total activity released: 5.54E-1 (0.554) Curies Gaseous Number of releases: None 		
 2. Total activity released: 5.54E-1 (0.554) Curies b. Gaseous Number of releases: None 		
b. Gaseous 1. Number of releases: None		
1. Number of releases: None	(0.334) Curics	
6	6	

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ANNUAL RADIOACTIVE EFFLUENT RELEASE REPORT - 2006

	SUPPLEMENTAL	
. Maximu	m Permissible Concentrations	
MPC	s used in determining allowable release rates or concentrations:	
a. Fis	ssion and activation gases:	
	Per OCGS ODCM limits, no MPCs are used to calculate allowable fi	ssion and activation gas release rates or concentrations.
b. lo	dines:	
	Per OCGS ODCM limits, no MPCs are used to calculate allowable ic	dine gaseous release rates or concentrations.
c. Pa	rticulates, half-lives > 8 Days:	C
	Per OCGS ODCM limits, no MPCs are used to calculate allowable pa	articulate gaseous release rates or concentrations.
d. Li	quid effluents:	
	The MPC for Tritium (H-3) is 1 E-3 u Ci/mL.	
. Average		
÷	verage energy (E) of the radionuclide mixture in releases of fission and	activation gases
	First Quarter: 3.72E-01 Mev (gamma - elevated release)	a detriation guses.
	Second Quarter: 4.47E-01 Mev (gamma - elevated release)	
1	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)	
	ements and Approximations of Total Radioactivity	
	nethods used to measure or approximate the total radioactivity in effluence	ents and the methods used to determine radionuclide composition
a. Fis	ssion and activation gases:	
	1. Stack - A continuous recording of gross radioactivity and the inco	rporation of isotopic data obtained from a weekly grab sample
·	analyzed using gamma spectroscopy.	
	2. Augmented Offgas (AOG) Vent - The continuous recording of gro	ess 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 continue	bus recording of gross activity and the incorporation of isotopic
	data obtained from a weekly grab sample analyzed using gamma s	
b. loo		
	1. Stack - Filters are changed weekly and analyzed using gamma spe	ctroscopy
	 Augmented Offgas (AOG) Vent - Filters are changed weekly and 	
a Da	3. Turbine Building Stack and Feedpump Room Vent - Filters are ch	
c. Pa	3. Turbine Building Stack and Feedpump Room Vent - Filters are ch rticulates:	anged weekly and analyzed using gamma spectroscopy.
c. Pa	 Turbine Building Stack and Feedpump Room Vent - Filters are ch rticulates: Stack - Filters are changed weekly and analyzed using gamma spe 	anged weekly and analyzed using gamma spectroscopy.
c. Pa	 Turbine Building Stack and Feedpump Room Vent - Filters are chriticulates: Stack - Filters are changed weekly and analyzed using gamma spe Augmented Offgas (AOG) Vent - Filters are changed weekly and 	anged weekly and analyzed using gamma spectroscopy. ctroscopy. analyzed using gamma spectroscopy.
•	 Turbine Building Stack and Feedpump Room Vent - Filters are chriticulates: Stack - Filters are changed weekly and analyzed using gamma spe Augmented Offgas (AOG) Vent - Filters are changed weekly and analyzed using gamma spe 	anged weekly and analyzed using gamma spectroscopy. ctroscopy. analyzed using gamma spectroscopy.
	 Turbine Building Stack and Feedpump Room Vent - Filters are chriticulates: Stack - Filters are changed weekly and analyzed using gamma spe Augmented Offgas (AOG) Vent - Filters are changed weekly and Turbine Building Vent and Feedpump Room Vent - Filters are changed using gamma spe 	anged weekly and analyzed using gamma spectroscopy. ctroscopy. analyzed using gamma spectroscopy. anged weekly and analyzed using gamma spectroscopy.
	 Turbine Building Stack and Feedpump Room Vent - Filters are chriticulates: Stack - Filters are changed weekly and analyzed using gamma spee Augmented Offgas (AOG) Vent - Filters are changed weekly and a Turbine Building Vent and Feedpump Room Vent - Filters are changed using gamma speetrometry with a germanical speetrometry speetrometry with a germanical speetrometry speetrometry speetrometry with a germanical speetrometry sp	anged weekly and analyzed using gamma spectroscopy. ctroscopy. analyzed using gamma spectroscopy. anged weekly and analyzed using gamma spectroscopy.
d. Lie	 Turbine Building Stack and Feedpump Room Vent - Filters are charticulates: Stack - Filters are changed weekly and analyzed using gamma spe Augmented Offgas (AOG) Vent - Filters are changed weekly and Turbine Building Vent and Feedpump Room Vent - Filters are charged using gamma spectrometry with a germanic counter. 	anged weekly and analyzed using gamma spectroscopy. ctroscopy. analyzed using gamma spectroscopy. anged weekly and analyzed using gamma spectroscopy.
d. Lie	 Turbine Building Stack and Feedpump Room Vent - Filters are charticulates: Stack - Filters are changed weekly and analyzed using gamma spe Augmented Offgas (AOG) Vent - Filters are changed weekly and Turbine Building Vent and Feedpump Room Vent - Filters are charged using gamma spectrometry with a germanic counter. 	anged weekly and analyzed using gamma spectroscopy. ctroscopy. analyzed using gamma spectroscopy. anged weekly and analyzed using gamma spectroscopy.
d. Lie	 Turbine Building Stack and Feedpump Room Vent - Filters are chriticulates: Stack - Filters are changed weekly and analyzed using gamma spee Augmented Offgas (AOG) Vent - Filters are changed weekly and a Turbine Building Vent and Feedpump Room Vent - Filters are changed iffluents: Analysis per batch release using gamma spectrometry with a germanic counter. 	anged weekly and analyzed using gamma spectroscopy. ctroscopy. analyzed using gamma spectroscopy. anged weekly and analyzed using gamma spectroscopy.
d. Lie Batch Re	 Turbine Building Stack and Feedpump Room Vent - Filters are chriticulates: Stack - Filters are changed weekly and analyzed using gamma spee Augmented Offgas (AOG) Vent - Filters are changed weekly and a Turbine Building Vent and Feedpump Room Vent - Filters are changed iffluents: Analysis per batch release using gamma spectrometry with a germanic counter. 	anged weekly and analyzed using gamma spectroscopy. ctroscopy. analyzed using gamma spectroscopy. anged weekly and analyzed using gamma spectroscopy.
d. Lie Batch Re	 Turbine Building Stack and Feedpump Room Vent - Filters are chriticulates: Stack - Filters are changed weekly and analyzed using gamma spe Augmented Offgas (AOG) Vent - Filters are changed weekly and a Turbine Building Vent and Feedpump Room Vent - Filters are charged using gamma spectrometry with a germanic counter. 	anged weekly and analyzed using gamma spectroscopy. ctroscopy. analyzed using gamma spectroscopy. anged weekly and analyzed using gamma spectroscopy.
d. Lie Batch Re	 Turbine Building Stack and Feedpump Room Vent - Filters are chriticulates: Stack - Filters are changed weekly and analyzed using gamma spe Augmented Offgas (AOG) Vent - Filters are changed weekly and a Turbine Building Vent and Feedpump Room Vent - Filters are charged weekly and reduid effluents:	anged weekly and analyzed using gamma spectroscopy. ctroscopy. analyzed using gamma spectroscopy. anged weekly and analyzed using gamma spectroscopy.
d. Lie Batch Re	 Turbine Building Stack and Feedpump Room Vent - Filters are chriticulates: Stack - Filters are changed weekly and analyzed using gamma spe Augmented Offgas (AOG) Vent - Filters are changed weekly and a Turbine Building Vent and Feedpump Room Vent - Filters are charged iffluents:	anged weekly and analyzed using gamma spectroscopy. ctroscopy. analyzed using gamma spectroscopy. anged weekly and analyzed using gamma spectroscopy.
d. Lie Batch Re	 Turbine Building Stack and Feedpump Room Vent - Filters are chriticulates: Stack - Filters are changed weekly and analyzed using gamma spe Augmented Offgas (AOG) Vent - Filters are changed weekly and a Turbine Building Vent and Feedpump Room Vent - Filters are charged iffluents:	anged weekly and analyzed using gamma spectroscopy. ctroscopy. analyzed using gamma spectroscopy. anged weekly and analyzed using gamma spectroscopy.
d. Lie Batch Re	 Turbine Building Stack and Feedpump Room Vent - Filters are chriticulates: Stack - Filters are changed weekly and analyzed using gamma spee Augmented Offgas (AOG) Vent - Filters are changed weekly and a 3. Turbine Building Vent and Feedpump Room Vent - Filters are charged id effluents:	anged weekly and analyzed using gamma spectroscopy. analyzed using gamma spectroscopy. anged weekly and analyzed using gamma spectroscopy. um detector, a low background beta counter, and a liquid scintilla
d. Lie Batch Re a. Lie	 Turbine Building Stack and Feedpump Room Vent - Filters are chriticulates: Stack - Filters are changed weekly and analyzed using gamma spee Augmented Offgas (AOG) Vent - Filters are changed weekly and a Turbine Building Vent and Feedpump Room Vent - Filters are charged iffluents:	anged weekly and analyzed using gamma spectroscopy. analyzed using gamma spectroscopy. anged weekly and analyzed using gamma spectroscopy. um detector, a low background beta counter, and a liquid scintilla
d. Lie Batch Re a. Lie	 Turbine Building Stack and Feedpump Room Vent - Filters are chriticulates: Stack - Filters are changed weekly and analyzed using gamma spee Augmented Offgas (AOG) Vent - Filters are changed weekly and a 3. Turbine Building Vent and Feedpump Room Vent - Filters are charged in the filters are charged weekly and a spectrometry with a germanic counter. Eleases Number of batch releases: Two releases Total time period for batch releases: 64 hours Maximum time period for a batch release: 32 hours Minimum time period for a batch release: 16 hours Average time period for a batch release: 16 hours Average stream flow during periods of release of effluent into a flow secous 	anged weekly and analyzed using gamma spectroscopy. analyzed using gamma spectroscopy. anged weekly and analyzed using gamma spectroscopy. um detector, a low background beta counter, and a liquid scintilla
d. Lie Batch Re a. Lie	 Turbine Building Stack and Feedpump Room Vent - Filters are chriticulates: Stack - Filters are changed weekly and analyzed using gamma spee Augmented Offgas (AOG) Vent - Filters are changed weekly and a 3. Turbine Building Vent and Feedpump Room Vent - Filters are charged in the filters are charged weekly and response to the second seco	anged weekly and analyzed using gamma spectroscopy. analyzed using gamma spectroscopy. anged weekly and analyzed using gamma spectroscopy. um detector, a low background beta counter, and a liquid scintilla
d. Lie Batch Re a. Lie	 Turbine Building Stack and Feedpump Room Vent - Filters are chriticulates: Stack - Filters are changed weekly and analyzed using gamma spee Augmented Offgas (AOG) Vent - Filters are changed weekly and a 3. Turbine Building Vent and Feedpump Room Vent - Filters are charged in the filters are charged weekly and a spectrometry with a germanic counter. Eleases Number of batch releases: Two releases Total time period for batch releases: 64 hours Maximum time period for a batch release: 32 hours Minimum time period for a batch release: 32 hours Minimum time period for a batch release: 16 hours Average time period for a batch release: 16 hours Number of batch releases: No batch releases Total time period for batch release: 17 hours Minimum time period for a batch release: 18 hours Mumber of batch releases: No batch releases Total time period for a batch release: 10 hours Average stream flow during periods of release of effluent into a flow secous Number of batch releases: No batch releases Total time period for batch release: N/A 	anged weekly and analyzed using gamma spectroscopy. analyzed using gamma spectroscopy. anged weekly and analyzed using gamma spectroscopy. um detector, a low background beta counter, and a liquid scintilla
d. Lie Batch Re a. Lie	 Turbine Building Stack and Feedpump Room Vent - Filters are chriticulates: Stack - Filters are changed weekly and analyzed using gamma spee Augmented Offgas (AOG) Vent - Filters are changed weekly and a 3. Turbine Building Vent and Feedpump Room Vent - Filters are charged in the filters are charged weekly and response to the second seco	anged weekly and analyzed using gamma spectroscopy. analyzed using gamma spectroscopy. anged weekly and analyzed using gamma spectroscopy. um detector, a low background beta counter, and a liquid scintilla
d. Lie Batch Re a. Lie	 Turbine Building Stack and Feedpump Room Vent - Filters are chriticulates: Stack - Filters are changed weekly and analyzed using gamma spee Augmented Offgas (AOG) Vent - Filters are changed weekly and a 3. Turbine Building Vent and Feedpump Room Vent - Filters are charged in the filters are charged weekly and a spectrometry with a germanic counter. Eleases Number of batch releases: Two releases Total time period for batch releases: 64 hours Maximum time period for a batch release: 32 hours Minimum time period for a batch release: 32 hours Minimum time period for a batch release: 16 hours Average time period for a batch release: 16 hours Number of batch releases: No batch releases Total time period for batch release: 17 hours Minimum time period for a batch release: 18 hours Mumber of batch releases: No batch releases Total time period for a batch release: 10 hours Average stream flow during periods of release of effluent into a flow secous Number of batch releases: No batch releases Total time period for batch release: N/A 	anged weekly and analyzed using gamma spectroscopy. analyzed using gamma spectroscopy. anged weekly and analyzed using gamma spectroscopy. um detector, a low background beta counter, and a liquid scintilla
d. Lie Batch Re a. Lie	 Turbine Building Stack and Feedpump Room Vent - Filters are chriticulates: Stack - Filters are changed weekly and analyzed using gamma spee Augmented Offgas (AOG) Vent - Filters are changed weekly and a 3. Turbine Building Vent and Feedpump Room Vent - Filters are charged in the filters are charged weekly and response to the second seco	anged weekly and analyzed using gamma spectroscopy. analyzed using gamma spectroscopy. anged weekly and analyzed using gamma spectroscopy. um detector, a low background beta counter, and a liquid scintilla
d. Lio Batch Re a. Lio b. Ga	 Turbine Building Stack and Feedpump Room Vent - Filters are chriticulates: Stack - Filters are changed weekly and analyzed using gamma spee Augmented Offgas (AOG) Vent - Filters are changed weekly and a 3. Turbine Building Vent and Feedpump Room Vent - Filters are charged in the second of the second of	anged weekly and analyzed using gamma spectroscopy. analyzed using gamma spectroscopy. anged weekly and analyzed using gamma spectroscopy. um detector, a low background beta counter, and a liquid scintilla
d. Lio Batch Re a. Lio b. Ga Abnorma	 Turbine Building Stack and Feedpump Room Vent - Filters are chriticulates: Stack - Filters are changed weekly and analyzed using gamma spee Augmented Offgas (AOG) Vent - Filters are changed weekly and a 3. Turbine Building Vent and Feedpump Room Vent - Filters are charged in the second off the second of the second o	anged weekly and analyzed using gamma spectroscopy. analyzed using gamma spectroscopy. anged weekly and analyzed using gamma spectroscopy. um detector, a low background beta counter, and a liquid scintilla
d. Lio Batch Re a. Lio b. Ga	 Turbine Building Stack and Feedpump Room Vent - Filters are chriticulates: Stack - Filters are changed weekly and analyzed using gamma spee Augmented Offgas (AOG) Vent - Filters are changed weekly and a 3. Turbine Building Vent and Feedpump Room Vent - Filters are charguid effluents:	anged weekly and analyzed using gamma spectroscopy. analyzed using gamma spectroscopy. anged weekly and analyzed using gamma spectroscopy. um detector, a low background beta counter, and a liquid scintilla
d. Lio Batch Re a. Lio b. Ga	 Turbine Building Stack and Feedpump Room Vent - Filters are chriticulates: Stack - Filters are changed weekly and analyzed using gamma spee Augmented Offgas (AOG) Vent - Filters are changed weekly and a 3. Turbine Building Vent and Feedpump Room Vent - Filters are charguid effluents:	anged weekly and analyzed using gamma spectroscopy. analyzed using gamma spectroscopy. anged weekly and analyzed using gamma spectroscopy. um detector, a low background beta counter, and a liquid scintilla
d. Lie Batch Re a. Lie b. Ga Abnorma a. Lie	 Turbine Building Stack and Feedpump Room Vent - Filters are chriticulates: Stack - Filters are changed weekly and analyzed using gamma spee Augmented Offgas (AOG) Vent - Filters are changed weekly and a 3. Turbine Building Vent and Feedpump Room Vent - Filters are charguid effluents:	anged weekly and analyzed using gamma spectroscopy. analyzed using gamma spectroscopy. anged weekly and analyzed using gamma spectroscopy. um detector, a low background beta counter, and a liquid scintilla
d. Lio Batch Re a. Lio b. Ga	 Turbine Building Stack and Feedpump Room Vent - Filters are chriticulates: Stack - Filters are changed weekly and analyzed using gamma spee Augmented Offgas (AOG) Vent - Filters are changed weekly and a 3. Turbine Building Vent and Feedpump Room Vent - Filters are charguid effluents:	anged weekly and analyzed using gamma spectroscopy. analyzed using gamma spectroscopy. anged weekly and analyzed using gamma spectroscopy. um detector, a low background beta counter, and a liquid scintilla
d. Lio Batch Re a. Lio b. Ga . Lio a. Lio	 Turbine Building Stack and Feedpump Room Vent - Filters are chriticulates: Stack - Filters are changed weekly and analyzed using gamma spee Augmented Offgas (AOG) Vent - Filters are changed weekly and a 3. Turbine Building Vent and Feedpump Room Vent - Filters are charguid effluents:	anged weekly and analyzed using gamma spectroscopy. analyzed using gamma spectroscopy. anged weekly and analyzed using gamma spectroscopy. um detector, a low background beta counter, and a liquid scintilla
d. Lio Batch Re a. Lio b. Ga . Lio a. Lio	 Turbine Building Stack and Feedpump Room Vent - Filters are chriticulates: Stack - Filters are changed weekly and analyzed using gamma spee Augmented Offgas (AOG) Vent - Filters are changed weekly and a 3. Turbine Building Vent and Feedpump Room Vent - Filters are charguid effluents:	anged weekly and analyzed using gamma spectroscopy. analyzed using gamma spectroscopy. anged weekly and analyzed using gamma spectroscopy. um detector, a low background beta counter, and a liquid scintilla
d. Lie Batch Re a. Lie b. Ga Abnorma a. Lie	 Turbine Building Stack and Feedpump Room Vent - Filters are chriticulates: Stack - Filters are changed weekly and analyzed using gamma spee Augmented Offgas (AOG) Vent - Filters are changed weekly and a 3. Turbine Building Vent and Feedpump Room Vent - Filters are charguid effluents:	anged weekly and analyzed using gamma spectroscopy. analyzed using gamma spectroscopy. anged weekly and analyzed using gamma spectroscopy. um detector, a low background beta counter, and a liquid scintilla

ANNUAL RADIOACTIVE EFFLU	ENT REL	EASE REP	ORT - 200	5			:
TABL	ALE			. •			· · ·
GASEOUS EFFLUENTS - SUM	MATION	OF ALL R	ELEASES			· .	• •
	Unit	Quarter	Quarter 2	Quarter 3	Quarter 4	Yearly Total	Est. Tota Error, %
	i su es			u, siyitaya		No Status	
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	, strategy
3. Percent of Technical Specification		19 ₂ -			1. 1. 1. 1. 1. 1. 1. 1. 1. 1. 1. 1. 1. 1. 1	a Saka Mat	
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 -							월 1992년 - 111 1976년 - 1213년
Total Body - 500 mrem/year	%	19-12-14 1				1.59E-04	에서 가용되었 같은 것이 같은 것이 같이
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		- <u>1</u> 2-40-001
10 mRad/calendar year due to gamma radiation	%	1 1				1.80E-02	
20 mRad/calendar year due to beta radiation	%					2.02 F -03	
			ەي 			gan teaning an Againtí	ild ^{a b} a e
B. lodines	te de faite	an a					
1. Total iodine-131	Ci	1.09E-03	1.42E-03	1,17E-03	9.26E-04	4.61E-03	+/- 16
	u Ci/sec	1.40E-03	1.42E-03	1.47E-03	9.26E-04	4.81E-03	
2. Average release rate for period 3. Percent of Technical Specification	u CU SCC				<u>1</u>		
a. Dose rate due to gaseous effluent -							
a. Dose rate due to gaseous enfluent - Any body organ - 1500 mrem/year (H-3, I-131, I-133, & Purt. T1/2 > 8 D)	· . %	در من پر من پر من				1.45E-03	
b. Dose due to radioiodine and particulates in gaseous effluent -							I
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					à chiến	r ettà ty	i Citati
					Six		
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	6.23
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	J
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< td=""><td><lld< td=""><td><ltd< td=""><td><u.d< td=""><td><u.d.< td=""><td></td></u.d.<></td></u.d<></td></ltd<></td></lld<></td></lld<>	<lld< td=""><td><ltd< td=""><td><u.d< td=""><td><u.d.< td=""><td></td></u.d.<></td></u.d<></td></ltd<></td></lld<>	<ltd< td=""><td><u.d< td=""><td><u.d.< td=""><td></td></u.d.<></td></u.d<></td></ltd<>	<u.d< td=""><td><u.d.< td=""><td></td></u.d.<></td></u.d<>	<u.d.< td=""><td></td></u.d.<>	
		$\overline{\mathbf{v}}$					
D. Tritium		1 1		<u> </u>		T	s=420
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	J
3. Percent of Technical Specification	•						
a. Dose rate due to gaseous effluent -	<u>.</u>						1
Any body organ - 1500 mrem/year (H-3, I-131, I-133, & Part. T1/2 > 8 D)	%	New York				1.45E-03	
						t kirk	
						un de la companya de La companya de la comp	

ANNUAL RADIOACTIVE EFF	LUENT RE	LEASE RE	PORT - 200)6 .		
ТА	BLE 1B		•	· ·		
GASEOUS EFFLUENT	S - ELEVAT	TED RELEA	SES	•		· · ·
			Co	ntinuous M	lode	
Nuclides Released	Unit	· Quarter	Quarter	Quarter 3	Quarter 4	Yearly Total
						i e e se
1. Fission gases						
krypton-85	Ci	< LLØ	< LLD	< LLD	< LLD	< LLD
krypton-85m	Ci	2.39E+00	9.45E-01	2.78E-02	. <lld< td=""><td>3.36E+00</td></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< td=""><td>2.07E+00</td><td>1.26E+00</td><td>4.18E-02</td><td>3.37E+00</td></lld<>	2.07E+00	1.26E+00	4.18E-02	3.37E+00
xenon-133	w Ci	< LLD	_ <lld< td=""><td><lld< td=""><td><lld< td=""><td><lld< td=""></lld<></td></lld<></td></lld<></td></lld<>	<lld< td=""><td><lld< td=""><td><lld< td=""></lld<></td></lld<></td></lld<>	<lld< td=""><td><lld< td=""></lld<></td></lld<>	<lld< td=""></lld<>
xenon-135	Ci	3.67E+01	2.14E+01	1.55E+01	1.95E+00	7.56E+01
xenon-135m	. Ci	< LLD	<lld.< td=""><td>3.74E+00</td><td><lld< td=""><td>3.74E+00</td></lld<></td></lld.<>	3.74E+00	<lld< td=""><td>3.74E+00</td></lld<>	3.74E+00
xenon-138	Ci	< LLD	< LLD	· < LLD	< LLD	< LLD
Others						· .
None		• .				
1		1	_			
				·		
Total for period	Ci	5.11E+01	2.85E+01	2.18E+01	2.03E+00	1.03E+02
						· · · · · · · · · · · · · · · · · · ·
	~ <u> </u>	1 1 1 1 1 1 1	40 S	* *		- 50
· · · · · · · · · · · · · · · · · · ·					· · ·	<u> </u>
iodine-131	Ci	1.09E-03	1.42E-03	1.17E-03	7.73E-04	4.45E-03
iodine-131 iodine-132	Ci	1.09E-03 < LLD	1.42E-03 < LLD	1.17E-03 < LLD	7.73E-04 < LLD	< LLD
iodine-131 iodine-132 iodine-133	Ci Ci	1.09E-03 < LLD 2.72E-03	1.42E-03 < LLD 4.87E-03	1.17E-03 < LLD 4.31E-03	7.73E-04 < LLD 2.13E-03	< LLD 1.40E-02
iodine-131 iodine-132 iodine-133 iodine-135	Ci Ci Ci	1.09E-03 < LLD 2.72E-03 < LLD	1.42E-03 < LLD 4.87E-03 < LLD	1.17E-03 < LLD 4.31E-03 < LLD	7.73E-04 < LLD 2.13E-03 < LLD	< LLD 1.40E-02 < LLD
iodine-132 iodine-133	Ci Ci Ci Ci	1.09E-03 < LLD 2.72E-03	1.42E-03 < LLD 4.87E-03	1.17E-03 < LLD 4.31E-03	7.73E-04 < LLD 2.13E-03	< LLD 1.40E-02
iodine-131 iodine-132 iodine-133 iodine-135 Total for period	Ci Ci Ci	1.09E-03 < LLD 2.72E-03 < LLD	1.42E-03 < LLD 4.87E-03 < LLD	1.17E-03 < LLD 4.31E-03 < LLD	7.73E-04 < LLD 2.13E-03 < LLD	< LLD 1.40E-02 < LLD
iodine-131 iodine-132 iodine-133 iodine-135 Total for period	Ci Ci Ci Ci	1.09E-03 < LLD 2.72E-03 < LLD	1.42E-03 < LLD 4.87E-03 < LLD	1.17E-03 < LLD 4.31E-03 < LLD	7.73E-04 < LLD 2.13E-03 < LLD	< LLD 1.40E-02 < LLD
iodine-131 iodine-132 iodine-133 iodine-135 Total for period	Ci Ci Ci Ci	1.09E-03 < LLD 2.72E-03 < LLD 3.81E-03	1.42E-03 < LLD 4.87E-03 < LLD 6.29E-03	1.17E-03 < LLD 4.31E-03 < LLD 5.48E-03	7.73E-04 < LLD 2.13E-03 < LLD 2.90E-03	< LLD 1.40E-02 < LLD 1.85E-02
iodine-131 iodine-132 iodine-133 iodine-135 Total for period 3. Particulates strontium-89	Ci Ci Ci Ci Ci	1.09E-03 < LLD 2.72E-03 < LLD 3.81E-03	1.42E-03 < LLD 4.87E-03 < LLD 6.29E-03	1.17E-03 < LLD 4.31E-03 < LLD 5.48E-03	7.73E-04 < LLD 2.13E-03 < LLD 2.90E-03	< LLD 1.40E-02 < LLD 1.85E-02 2.87E-03
iodine-131 iodine-132 iodine-133 iodine-135 Total for period 3. Particulates strontium-89 strontium-90	Ci Ci Ci Ci Ci Ci Ci Ci	1.09E-03 < LLD 2.72E-03 < LLD 3.81E-03 1.03E-03 <lld< td=""><td>1.42E-03 < LLD 4.87E-03 < LLD 6.29E-03</td><td>1.17E-03 < LLD 4.31E-03 < LLD 5.48E-03 6.02E-04 < LLD</td><td>7.73E-04 < LLD 2.13E-03 < LLD 2.90E-03 5.02E-04 <lld< td=""><td>< LLD 1.40E-02 < LLD 1.85E-02 2.87E-03 <lld< td=""></lld<></td></lld<></td></lld<>	1.42E-03 < LLD 4.87E-03 < LLD 6.29E-03	1.17E-03 < LLD 4.31E-03 < LLD 5.48E-03 6.02E-04 < LLD	7.73E-04 < LLD 2.13E-03 < LLD 2.90E-03 5.02E-04 <lld< td=""><td>< LLD 1.40E-02 < LLD 1.85E-02 2.87E-03 <lld< td=""></lld<></td></lld<>	< LLD 1.40E-02 < LLD 1.85E-02 2.87E-03 <lld< td=""></lld<>
iodine-131 iodine-132 iodine-133 iodine-135 Total for period 3. Particulates strontium-89 strontium-90 cesium-134	Ci Ci Ci Ci Ci Ci Ci Ci Ci	1.09E-03 < LLD 2.72E-03 < LLD 3.81E-03 1.03E-03 <lld < LLD</lld 	1.42E-03 < LLD 4.87E-03 < LLD 6.29E-03 7.33E-04 <lld < LLD</lld 	1.17E-03 < LLD 4.31E-03 < LLD 5.48E-03 6.02E-04 <lld < LLD</lld 	7.73E-04 < LLD 2.13E-03 < LLD 2.90E-03 5.02E-04 < LLD < LLD	< LLD 1.40E-02 < LLD 1.85E-02 2.87E-03 <lld < LLD</lld
iodine-131 iodine-132 iodine-133 iodine-135 Total for period 3. Particulates strontium-89 strontium-90 cesium-134 cesium-137	Ci Ci Ci Ci Ci Ci Ci Ci Ci Ci	1.09E-03 < LLD 2.72E-03 < LLD 3.81E-03 	1.42E-03 < LLD 4.87E-03 < LLD 6.29E-03 7.33E-04 <lld < LLD 2.99E-06</lld 	1.17E-03 < LLD 4.31E-03 < LLD 5.48E-03 6.02E-04 <lld < LLD 4.83E-06</lld 	7.73E-04 < LLD 2.13E-03 < LLD 2.90E-03 5.02E-04 <lld < LLD < LLD</lld 	< LLD 1.40E-02 < LLD 1.85E-02 2.87E-03 <lld < LLD 7.82E-06</lld
iodine-131 iodine-132 iodine-133 iodine-135 Total for period 3. Particulates strontium-89 strontium-90 cesium-134 cesium-137 barium-140	Ci Ci Ci Ci Ci Ci Ci Ci Ci Ci Ci Ci	1.09E-03 < LLD 2.72E-03 < LLD 3.81E-03 1.03E-03 <lld < LLD < LLD 5.37E-04</lld 	1.42E-03 < LLD 4.87E-03 < LLD 6.29E-03 7.33E-04 <lld < LLD 2.99E-06 9.44E-04</lld 	1.17E-03 < LLD 4.31E-03 < LLD 5.48E-03 6.02E-04 <lld < LLD 4.83E-06 7.81E-04</lld 	7.73E-04 < LLD 2.13E-03 < LLD 2.90E-03 5.02E-04 <lld < LLD < LLD 2.72E-04</lld 	< LLD 1.40E-02 < LLD 1.85E-02 2.87E-03 <lld < LLD 7.82E-06 2.53E-03</lld
iodine-131 iodine-132 iodine-133 iodine-135 Total for period 3. Particulates strontium-89 strontium-90 cesium-134 cesium-137 barium-140 gross alpha	Ci Ci Ci Ci Ci Ci Ci Ci Ci Ci Ci Ci Ci C	1.09E-03 < LLD 2.72E-03 < LLD 3.81E-03 .81E-03 .81E-03 .81E-03 .81E-03 .81E-04 .1.03E-03 .21D .21D .21D .21D .21D .21D .21D .21D	1.42E-03 < LLD 4.87E-03 < LLD 6.29E-03 7.33E-04 <lld 2.99E-06 9.44E-04 <lld< td=""><td>1.17E-03 < LLD 4.31E-03 < LLD 5.48E-03 6.02E-04 <lld 4.83E-06 7.81E-04 <lld< td=""><td>7.73E-04 < LLD 2.13E-03 < LLD 2.90E-03 5.02E-04 <lld < LLD 2.72E-04 < LLD 2.72E-04</lld </td><td>< LLD 1.40E-02 < LLD 1.85E-02 2.87E-03 <lld < LLD 7.82E-06 2.53E-03 <lld< td=""></lld<></lld </td></lld<></lld </td></lld<></lld 	1.17E-03 < LLD 4.31E-03 < LLD 5.48E-03 6.02E-04 <lld 4.83E-06 7.81E-04 <lld< td=""><td>7.73E-04 < LLD 2.13E-03 < LLD 2.90E-03 5.02E-04 <lld < LLD 2.72E-04 < LLD 2.72E-04</lld </td><td>< LLD 1.40E-02 < LLD 1.85E-02 2.87E-03 <lld < LLD 7.82E-06 2.53E-03 <lld< td=""></lld<></lld </td></lld<></lld 	7.73E-04 < LLD 2.13E-03 < LLD 2.90E-03 5.02E-04 <lld < LLD 2.72E-04 < LLD 2.72E-04</lld 	< LLD 1.40E-02 < LLD 1.85E-02 2.87E-03 <lld < LLD 7.82E-06 2.53E-03 <lld< td=""></lld<></lld
iodine-131 iodine-132 iodine-133 iodine-135 Total for period 3. Particulates strontium-89 strontium-90 cesium-134 cesium-137 barium-140 gross alpha nickel-63	Ci Ci Ci Ci Ci Ci Ci Ci Ci Ci Ci Ci Ci C	1.09E-03 < LLD 2.72E-03 < LLD 3.81E-03 	1.42E-03 < LLD 4.87E-03 < LLD 6.29E-03 7.33E-04 <lld 2.99E-06 9.44E-04 <lld <lld< td=""><td>1.17E-03 < LLD 4.31E-03 < LLD 5.48E-03</td><td>7.73E-04 < LLD 2.13E-03 < LLD 2.90E-03 5.02E-04 <lld < LLD 2.72E-04 < LLD 2.72E-04 < LLD</lld </td><td>< LLD 1.40E-02 < LLD 1.85E-02 2.87E-03 <lld < LLD 7.82E-06 2.53E-03 <lld < LLD</lld </lld </td></lld<></lld </lld 	1.17E-03 < LLD 4.31E-03 < LLD 5.48E-03	7.73E-04 < LLD 2.13E-03 < LLD 2.90E-03 5.02E-04 <lld < LLD 2.72E-04 < LLD 2.72E-04 < LLD</lld 	< LLD 1.40E-02 < LLD 1.85E-02 2.87E-03 <lld < LLD 7.82E-06 2.53E-03 <lld < LLD</lld </lld
iodine-131 iodine-132 iodine-133 iodine-135 Total for period 3. Particulates strontium-89 strontium-90 cesium-134 cesium-134 cesium-137 barium-140 gross alpha nickel-63 chromium-51	Ci Ci Ci Ci Ci Ci Ci Ci Ci Ci Ci Ci Ci C	1.09E-03 < LLD 2.72E-03 < LLD 3.81E-03 	1.42E-03 < LLD 4.87E-03 < LLD 6.29E-03 7.33E-04 <lld < LLD < LLD < LLD < LLD < LLD < LLD</lld 	1.17E-03 < LLD 4.31E-03 < LLD 5.48E-03 2.27 6.02E-04 <lld < LLD < LLD < LLD < LLD < LLD</lld 	7.73E-04 < LLD 2.13E-03 < LLD 2.90E-03 5.02E-04 <lld < LLD < LLD 2.72E-04 < LLD < LLD < LLD</lld 	< LLD 1.40E-02 < LLD 1.85E-02 2.87E-03 <lld < LLD 7.82E-06 2.53E-03 <lld <lld <lld< td=""></lld<></lld </lld </lld
iodine-131 iodine-132 iodine-133 iodine-135 Total for period 3. Particulates strontium-89 strontium-90 cesium-134 cesium-137 barium-140 gross alpha nickel-63 chromium-51 manganese-54	Ci Ci Ci Ci Ci Ci Ci Ci Ci Ci Ci Ci Ci C	1.09E-03 < LLD 2.72E-03 < LLD 3.81E-03 	1.42E-03 < LLD 4.87E-03 < LLD 6.29E-03 7.33E-04 <lld < LLD 2.99E-06 9.44E-04 <lld < LLD < LLD 1.76E-05</lld </lld 	1.17E-03 < LLD 4.31E-03 < LLD 5.48E-03 	7.73E-04 < LLD 2.13E-03 < LLD 2.90E-03 5.02E-04 <lld <lld <lld <lld <lld <lld <lld 1.84E-05</lld </lld </lld </lld </lld </lld </lld 	< LLD 1.40E-02 < LLD 1.85E-02 2.87E-03 <lld < LLD 7.82E-06 2.53E-03 <lld <lld <lld 4.88E-05</lld </lld </lld </lld
iodine-131 iodine-132 iodine-133 iodine-135 Total for period 3. Particulates strontium-89 strontium-90 cesium-134 cesium-137 barium-140 gross alpha nickel-63 chromium-51 manganese-54 cobalt-58	Ci Ci Ci Ci Ci Ci Ci Ci Ci Ci Ci Ci Ci C	1.09E-03 < LLD 2.72E-03 < LLD 3.81E-03 	1.42E-03 < LLD 4.87E-03 < LLD 6.29E-03 7.33E-04 <lld 2.99E-06 9.44E-04 <lld <lld <lld < LLD 1.76E-05 < LLD</lld </lld </lld </lld 	1.17E-03 < LLD 4.31E-03 < LLD 5.48E-03 6.02E-04 <lld < LLD 4.83E-06 7.81E-04 <lld < LLD < LLD < LLD</lld </lld 	7.73E-04 < LLD 2.13E-03 < LLD 2.90E-03 5.02E-04 <lld <lld <lld <lld <lld <lld <lld 1.84E-05 <lld< td=""><td>< LLD 1.40E-02 < LLD 1.85E-02 2.87E-03 <lld < LLD 7.82E-06 2.53E-03 <lld <lld <lld <lld <lld <lld< td=""></lld<></lld </lld </lld </lld </lld </lld </td></lld<></lld </lld </lld </lld </lld </lld </lld 	< LLD 1.40E-02 < LLD 1.85E-02 2.87E-03 <lld < LLD 7.82E-06 2.53E-03 <lld <lld <lld <lld <lld <lld< td=""></lld<></lld </lld </lld </lld </lld </lld

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ANNUAL RADIOACTIVE EFFLUENT RELEASE REPORT - 2006

TABLE 1C

GASEOUS EFFLUENTS - GROUND-LEVEL RELEASES

		Continuous Mode						
Nuclides Released	Unit	Quarter	Quarter	Quarter	·Quarter	Yearly		
		+ 1	2	3	4	Total		
		· · · ·			· · ·			
1. Fission gases								
krypton-85	Ci	< LLÐ	< LLD	< LLD	< LLD	<lld< td=""></lld<>		
krypton-85m	Ci	< LLD	< LLD	< LLD	< LLD	<lld< td=""></lld<>		
krypton-87	' Ci	⊲ LLD [.]	< LLD	< LLD	< LLD	<lld< td=""></lld<>		
krypton-88	Ci	< LLD	< LLD	< LLD	< LLD	<lld< td=""></lld<>		
xenon-133	Ci	< LLD	< LLD	< LLD	< LLD	_ <lld< td=""></lld<>		
xenon-135	Ci	5.14E-03	<lld< td=""><td>< LLD</td><td>< LLD</td><td>5.14E-03</td></lld<>	< LLD	< LLD	5.14E-03		
xenon-135m	Ci	< LLD	< LLD	< LLD	< LLD	< LLD		
xenon-138	Ci	< LLD	< LLD	< LLD	< LLD	< LLD		
Others	_							
None				-				
1 1		. 1				\$.		
· · · · · · · · · · · · · · · · · · ·								
Total for period	Ci	5.14E-03	<lld< td=""><td>< LLD</td><td>< LLD</td><td>5.14E-03</td></lld<>	< LLD	< LLD	5.14E-03		
			() () ()					
2. lodines								
2. Iodines iodine-131	Ci	3.05E-08	<lld< td=""><td>5.18E-08</td><td>1.53E-04</td><td>1.53E-04</td></lld<>	5.18E-08	1.53E-04	1.53E-04		
2. Iodines iodine-131 iodine-133	Ci	3.05E-08 < LLD	<lld <lld< td=""><td><lld< td=""><td><lld< td=""><td><lld< td=""></lld<></td></lld<></td></lld<></td></lld<></lld 	<lld< td=""><td><lld< td=""><td><lld< td=""></lld<></td></lld<></td></lld<>	<lld< td=""><td><lld< td=""></lld<></td></lld<>	<lld< td=""></lld<>		
2. Iodines iodine-131 iodine-133 iodine-135	Ci Ci	3.05E-08 < LLD < LLD	<lld <lld < LLD</lld </lld 	<lld < LLD</lld 	<lld < LLD</lld 	<lld < LLD</lld 		
2. Iodines iodine-131 iodine-133 iodine-135 Total for period	Ci	3.05E-08 < LLD	<lld <lld< td=""><td><lld< td=""><td><lld< td=""><td><lld< td=""></lld<></td></lld<></td></lld<></td></lld<></lld 	<lld< td=""><td><lld< td=""><td><lld< td=""></lld<></td></lld<></td></lld<>	<lld< td=""><td><lld< td=""></lld<></td></lld<>	<lld< td=""></lld<>		
2. Iodines iodine-131 iodine-133 iodine-135	Ci Ci	3.05E-08 < LLD < LLD	<lld <lld < LLD</lld </lld 	<lld < LLD</lld 	<lld < LLD</lld 	<lld < LLD</lld 		
2. Iodines iodine-131 iodine-133 iodine-135 Total for period	Ci Ci	3.05E-08 < LLD < LLD	<lld <lld < LLD</lld </lld 	<lld < LLD</lld 	<lld < LLD</lld 	<lld < LLD</lld 		
2. Iodines iodine-131 iodine-133 iodine-135 Total for period 3. Particulates	Ci Ci Ci	3.05E-08 < LLD < LLD 3.05E-08	<lld <lld <lld <lld< td=""><td><lld < LLD 5.18E-08</lld </td><td><lld < LLD 1.53E-04</lld </td><td><lld < LLD 1.53E-04</lld </td></lld<></lld </lld </lld 	<lld < LLD 5.18E-08</lld 	<lld < LLD 1.53E-04</lld 	<lld < LLD 1.53E-04</lld 		
2. Iodines iodine-131 iodine-133 iodine-135 Total for period 3. Particulates strontium-89	Ci Ci Ci Ci	3.05E-08 < LLD 3.05E-08 3.05E-08	<lld <lld <lld <lld< td=""><td><lld < LLD 5.18E-08</lld </td><td><lld < LLD 1.53E-04 < LLD</lld </td><td><lld < LLD 1.53E-04 <lld< td=""></lld<></lld </td></lld<></lld </lld </lld 	<lld < LLD 5.18E-08</lld 	<lld < LLD 1.53E-04 < LLD</lld 	<lld < LLD 1.53E-04 <lld< td=""></lld<></lld 		
2. Iodines iodine-131 iodine-133 iodine-135 Total for period 3. Particulates strontium-89 strontium-90	Ci Ci Ci Ci Ci Ci Ci	3.05E-08 < LLD 3.05E-08 3.05E-08	<lld <lld <lld <lld <lld <lld <lld< td=""><td><lld < LLD 5.18E-08 < LLD < LLD < LLD</lld </td><td><lld < LLD 1.53E-04 < LLD < LLD</lld </td><td><lld < LLD 1.53E-04 <lld < LLD</lld </lld </td></lld<></lld </lld </lld </lld </lld </lld 	<lld < LLD 5.18E-08 < LLD < LLD < LLD</lld 	<lld < LLD 1.53E-04 < LLD < LLD</lld 	<lld < LLD 1.53E-04 <lld < LLD</lld </lld 		
2. Iodines iodine-131 iodine-133 iodine-135 Total for period 3. Particulates strontium-89 strontium-90 cobalt-58	Ci Ci Ci Ci Ci Ci Ci	3.05E-08 < LLD 3.05E-08 	<lld <lld <lld <lld <lld <lld <lld< td=""><td><lld < LLD 5.18E-08 < LLD < LLD < LLD</lld </td><td><lld < LLD 1.53E-04 < LLD < LLD < LLD</lld </td><td><lld < LLD 1.53E-04 <lld < LLD < LLD < LLD</lld </lld </td></lld<></lld </lld </lld </lld </lld </lld 	<lld < LLD 5.18E-08 < LLD < LLD < LLD</lld 	<lld < LLD 1.53E-04 < LLD < LLD < LLD</lld 	<lld < LLD 1.53E-04 <lld < LLD < LLD < LLD</lld </lld 		
2. Iodines iodine-131 iodine-133 iodine-135 Total for period 3. Particulates strontium-89 strontium-90 cobalt-58 cesium-137	Ci Ci Ci Ci Ci Ci Ci Ci Ci Ci	3.05E-08 < LLD 3.05E-08	<lld <lld <lld <lld <lld <lld <lld <lld< td=""><td><lld < LLD 5.18E-08 < LLD < LLD < LLD < LLD</lld </td><td><lld < LLD 1.53E-04 < LLD < LLD < LLD < LLD</lld </td><td><lld < LLD 1.53E-04 <lld < LLD < LLD < LLD</lld </lld </td></lld<></lld </lld </lld </lld </lld </lld </lld 	<lld < LLD 5.18E-08 < LLD < LLD < LLD < LLD</lld 	<lld < LLD 1.53E-04 < LLD < LLD < LLD < LLD</lld 	<lld < LLD 1.53E-04 <lld < LLD < LLD < LLD</lld </lld 		
2. Iodines iodine-131 iodine-133 iodine-135 Total for period 3. Particulates strontium-89 strontium-90 cobalt-58 cesium-137 barium-140	Ci Ci Ci Ci Ci Ci Ci Ci Ci Ci Ci	3.05E-08 < LLD < LLD 3.05E-08 II < LLD < LLD < LLD < LLD < LLD	<lld <lld <lld <lld <lld <lld <lld <lld< td=""><td><lld < LLD 5.18E-08 < LLD < LLD < LLD < LLD < LLD < LLD</lld </td><td><lld < LLD 1.53E-04 < LLD < LLD < LLD < LLD < LLD</lld </td><td><lld < LLD 1.53E-04 <lld < LLD < LLD < LLD < LLD</lld </lld </td></lld<></lld </lld </lld </lld </lld </lld </lld 	<lld < LLD 5.18E-08 < LLD < LLD < LLD < LLD < LLD < LLD</lld 	<lld < LLD 1.53E-04 < LLD < LLD < LLD < LLD < LLD</lld 	<lld < LLD 1.53E-04 <lld < LLD < LLD < LLD < LLD</lld </lld 		
2. Iodines iodine-131 iodine-133 iodine-135 Total for period 3. Particulates strontium-89 strontium-90 cobalt-58 cesium-137 barium-140 nickel-63	Ci Ci Ci Ci Ci Ci Ci Ci Ci Ci Ci Ci	3.05E-08 < LLD 3.05E-08 	<lld <lld <lld <lld <lld <lld <lld <lld< td=""><td><lld < LLD 5.18E-08 < LLD < LLD < LLD < LLD < LLD < LLD < LLD</lld </td><td><lld < LLD 1.53E-04 < LLD < LLD < LLD < LLD < LLD < LLD</lld </td><td><lld < LLD 1.53E-04 <lld < LLD < LLD < LLD < LLD < LLD < LLD</lld </lld </td></lld<></lld </lld </lld </lld </lld </lld </lld 	<lld < LLD 5.18E-08 < LLD < LLD < LLD < LLD < LLD < LLD < LLD</lld 	<lld < LLD 1.53E-04 < LLD < LLD < LLD < LLD < LLD < LLD</lld 	<lld < LLD 1.53E-04 <lld < LLD < LLD < LLD < LLD < LLD < LLD</lld </lld 		
2. Iodines iodine-131 iodine-133 iodine-135 Total for period 3. Particulates strontium-89 strontium-90 cobalt-58 cesium-137 barium-140 nickel-63 gross alpha	Ci Ci Ci Ci Ci Ci Ci Ci Ci Ci Ci Ci Ci C	3.05E-08 < LLD 3.05E-08 <lld <lld < LLD < LLD < LLD < LLD < LLD < LLD</lld </lld 	<lld <lld <lld <lld <lld <lld <lld <lld< td=""><td><lld < LLD 5.18E-08 < LLD < LLD < LLD < LLD < LLD < LLD < LLD</lld </td><td><lld < LLD 1.53E-04 < LLD < LLD < LLD < LLD < LLD < LLD < LLD < LLD</lld </td><td><lld < LLD 1.53E-04 <lld < LLD < LLD < LLD < LLD < LLD < LLD</lld </lld </td></lld<></lld </lld </lld </lld </lld </lld </lld 	<lld < LLD 5.18E-08 < LLD < LLD < LLD < LLD < LLD < LLD < LLD</lld 	<lld < LLD 1.53E-04 < LLD < LLD < LLD < LLD < LLD < LLD < LLD < LLD</lld 	<lld < LLD 1.53E-04 <lld < LLD < LLD < LLD < LLD < LLD < LLD</lld </lld 		
2. Iodines iodine-131 iodine-133 iodine-135 Total for period 3. Particulates strontium-89 strontium-90 cobalt-58 cesium-137 barium-140 nickel-63 gross alpha manganese-54	Ci Ci Ci Ci Ci Ci Ci Ci Ci Ci Ci Ci Ci C	3.05E-08 < LLD 3.05E-08	<lld <lld <lld <lld <lld <lld <lld <lld< td=""><td><lld < LLD 5.18E-08 < LLD < LLD < LLD < LLD < LLD < LLD < LLD < LLD < LLD</lld </td><td><lld < LLD 1.53E-04 < LLD < LLD < LLD < LLD < LLD < LLD < LLD < LLD</lld </td><td><lld < LLD 1.53E-04 <lld < LLD < LLD < LLD < LLD < LLD < LLD < LLD</lld </lld </td></lld<></lld </lld </lld </lld </lld </lld </lld 	<lld < LLD 5.18E-08 < LLD < LLD < LLD < LLD < LLD < LLD < LLD < LLD < LLD</lld 	<lld < LLD 1.53E-04 < LLD < LLD < LLD < LLD < LLD < LLD < LLD < LLD</lld 	<lld < LLD 1.53E-04 <lld < LLD < LLD < LLD < LLD < LLD < LLD < LLD</lld </lld 		

OYSTER CREEK GEN ANNUAL RADIOACTIVE EFFLU				6			
ANNUAL RADIOACTIVE EFFLU		EASE KEF	UK1 - 200	U .	•	•	·: .
LIOUID EFFLUENTS - SUMM			TEASES			· .	· .
		JF ALL KE	LEASES		ti sete i i		
	Unit	Quarter	Quarter 2	Quarter 3	Quarter 4	Yearly Total	Est. Total Error, %
		in de la compañía An de la compañía	1 - 7 (11)		1995-199 9 79		2.101, 10
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		47-1076 45-45
3. Percent of Technical Specification	u Come			L			
a. Radioactivity Concentration in Liquid Effluent		е — 1 ⁴ м		·	en la bina		Na tr
The concentration of radioactive material, other than noble gases					C. Salar		
shall not exceed 10 times the liquid effluent concentrations specified						an da Ma	
in 10CFR Part 20.1001-20.2401, Appendix B, Table II, Column 2	%		∎inini Gradigarja di			2 145 05	
b. Limit on Dose Due to Liquid Effluent	<i>N</i> .					3.14E-05	
Total Body - 1.5 mrem/calendar quarter	· %	2.34E-02	<u> </u>	<u> </u>	1.47E-04	1	- · · ·
Any Body Organ - 5.0 mrem/calendar quarter	70 %	1.40E-02			2.40E-04		
Total Body - 3.0 mrem/calendar year	70 %	1.405-02			2.40E-04	1.18E-02	
Any Body Organ - 10.0 mrem/calendar year	, %					7.14E+03	
Any Body Organ - 10.0 mileniscatendar year	. 70	L <u></u>		· · · · · ·	3321 <u>2</u> 12	7.14E+03	
3. Tritium			× 12		at e e		* *
	n en er	• •					ian Confinition (1985)
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			i i stati Li stati		· · · · ·		
a. Shall not exceed 10 times the liquid effluent concentrations							
specified in 10CFR Part 20.1001-20.2401, Appendix B,			and and	1947 1947 - 1947 1947 - 1947 - 1947	a sa		
Table II, Column 2	%			and a start of the second s		2.17E-02	
b. Limit on Dose Due to Liquid Effluent			an a				
Total Body - 1.5 mrem/calendar quarter	%	1.47E-04	· ·	-	er manen zinder im		
Any Body Organ - 5.0 mrem/calendar quarter	%	2.40E-05			-		
Total Body - 3.0 mrem/calendar year	%		1 			7.33E-05	
Any Body Organ - 10.0 mrem/calendar year	%					1.20E-04	
	<i>10</i>		- even (1529-events) All All All All All All All All All All				
2. Dissolved and entrained gases							
							일이 가운 것 (~~) 가 같아요
1. Total release	Ċi	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					0.0042		
a. Shall not exceed 2.0 E-4 u Ci/mL	%		Claudy States a			-	
b. Limit on Dose Due to Liquid Effluent		教 法的					
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	%					-	
		1		and a stand of the second s			
). Gross alpha radioactivity							
1. Total release	Ci	No Releases	No Releases	No Releases	No Releases	No Releases	N/A
	129.50mm	ng ang ing pang ang ang ang ang ang ang ang ang ang		nega epolo	• • • • • • • • • • • • • • • • • • • •		
. 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
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
10 III							

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ANNUAL RADIOACTIVE EFFLUENT RELEASE REPORT - 2006

TABLE 2B

LIQUID EFFLUENTS

				n de de de		
	*	ļ		Batch Mod	e	· ·
luclides Released	Unit	Quarter	Quarter	Quarter	Quarter	Yearly
		1	2	3	• 4	Total
		· ·			O'M ALL	
strontium-89	Ci	No Releases	No Releases	No Releases	No Releases	No Releas
strontium-90	Ci	No Releases	No Releases	No Releases	No Releases	No Release
cesium-134	Ci	No Releases	No Releases	No Releases	No Releases	No Release
cesium-137	Ci	No Releases	No Releases	No Releases	No Releases	No Release
iodine-131	Ci	NoiReleases	No Releases	No Releases	No Releases	No Release
					-	
tritium (H-3)	Ci	5.54E-01	No Releases	No Releases	No Releases	5.54E-0
cobalt-60	Ci	4.24E-05	No Releases	No Releases	2.57E-06	4.50E-0
iron-59	· Ci	No Releases	No Releases	No Releases	No Releases	0.00E+0
zinc-65	Ci	1.81E-05	No Releases	No Releases	No Releases	1.81E-0
manganese-54	Ci	8.01E-05	No Releases	No Releases	No Releases	8.01E-0
nickel-63	Ci	2.05E-07	No Releases	No Releases	No Releases	2.05E-0
ł		. •				þ.
zirconium-95	Ci	No Releases	No Releases	No Releases	No Releases	No Release
niobium-95	Ci	No Releases	No Releases	No Releases	No Releases	No Release
technetium-99m	Ci	No Releases	No Releases	No Réleases	No Releases	No Releas
barium-140	Ci	No Releases	No Releases	No Releases	No Releases	No Release
lanthanum-140	Ci	No Releases	No Releases	No Releases	No Releases	No Release
cerium-141	Ci	No Releases	No Releases	No Releases	No Releases	No Releas
						÷
Other	Ci	No Releases	No Releases	No Releases	No Releases	No Release
						· ·
						·
		[,				
		T .				
unidentified	Ci	No Releases	No Releases	No Releases	No Releases	No Release
······································		•	• • • • • • • • • • • • • • • • • • • •			•
Total for period	Ci	5.54E-01	No Releases	No Releases	2.57E-06	5.54E-0
				•		
xenon-133	Ci	No Releases	No Releases	No Releases	No Releases	No Releas
xenon-135	Ci	No Releases	No Releases	No Releases	No Releases	No Release
Total for period	Ci	No Releases	No Releases	No Releases	No Releases	No Release

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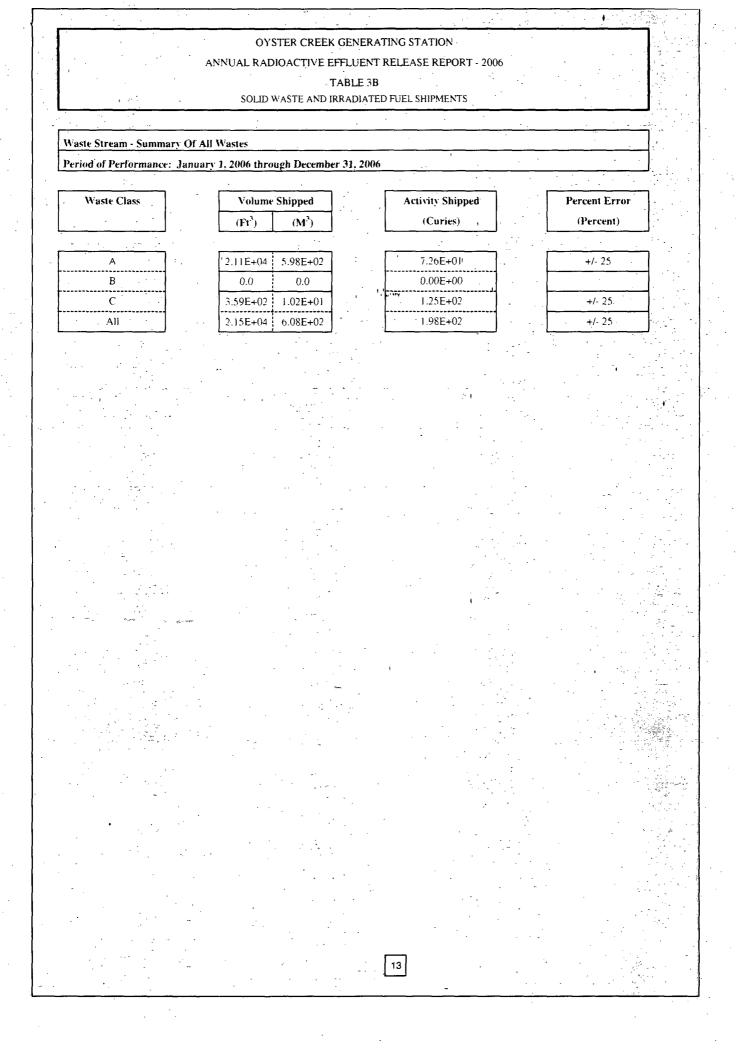
ANNUAL RADIOACTIVE EFFLUENT RELEASE REPORT - 2006

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TABLE 3A

SOLID WASTE AND IRRADIATED FUEL SHIPMENTS - SUMMARY

SOLID WASTE SHIPPED OFFSITE FOR BURIAL OR DISPOSAL (Not irradia	ated fuel)		·	·
					•
. Type of waste	Unit	Yearly	Esı.		· · ·
		Total	Total		•
			Error. %		
a. Spent resins, filters, filter sludges, etc.	³	4.08E+01	+/- 25		e je
aste shipped in Type A containers.	Ci	1.98E+02			
b. Dry compressible waste, contaminated equipment, etc.	m	5.66E+02	+/- 25	·. ·	
aste shipped in LSA containers.	Ci	5.51E-01	<u>·</u>		
c. Irradiated components, control rods, etc.	m	None			
	Ci	Shipped			
d. Other waste	m	None			·
aste shipped in LSA containers.	Ci	Shipped			
Noie: No solidification agent was used during the report	ing period				_
Estimate of major nuclear composition (by type of waste)	Percen	1ase (4)	Activ	ty (Ci)	
a. lron-55	7.18	3E+01	1.42	E+02	
Cesium 137	4.07	'E+00	9.29	E+00 ·]
Cobali-60	1.17	7E+01		E+01	<u>]</u>
b. lron-55	· 7.78	3E+00	4.29	E-02	-
Cesium-137	5.35	5E+01	2.95	E-01	1
Cabalt 60		5E+01	1.57	E-01	1
c. lron-\$5		J /A		/A	1.
Cobali-60		J /A		/A.	1
Manganese-54		J/A		/A	
d: None shipped		1/A ⁱ		/A	1
None shipped		J/A	t	/A	1
None shipped	<u> </u>	V/A		/A	1
	·'		<u>``</u>	······································	-
Note - See attached tables (Table 3B) for additional data	L		L		- • ^{**}
Solid Waste Disposition Number of Shipments Mode of Transportation			Destin	ation	
2 Motor Vehicle				ARON C	OPP
	• •	Dom	well Waste		
8 Motor Vehicle		Dam	well waste		ent raç
3 Motor Vehicle				Duratek	
3 Motor Vehicle			Duratek Ra	dwaste Pro	ocessin
				1 ·	
. IRRADIATED FUEL SHIPMENTS (Disposition)					· .
Number of Shipments Mode of Transportation			Destin	ation	
			• • •	•	
None Shipped					•
The second secon		N.			



OYSTER CREEK GENERATING STATION

ANNUAL RADIOACTIVE EFFLUENT RELEASE REPORT - 2006

 TABLE 3B (cont.)

 SOLID WASTE AND IRRADIATED FUEL SHIPMENTS

Waste Class: B

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	

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	1
Cs-134	2.79E-01	3.85E-01	
Ce-144	1.52E-01	2.09E-01	ŀ
C-14	9.69E-02	1.34E-01].
Sr-90	3.65E-02	5.03E-02	
Fe-59	3.08E-02	4.24E-02	1
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	
			1

	·
Activity	Percent
	Abundance
(Curies)	(Percent) ¹
·	
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D	
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	1
N/A	N/A
	O N E S H 1 P P E D

<u> </u>	Waste Class:	<u>C</u>
Nuclide	Activity	Percent
*		Abundance
	(Curies)	(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
21	··.	

Waste Class: All

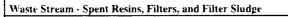
ſ	Nuclide	Activity ·	Percent
			Abundance
		(Curies)	(Percent)

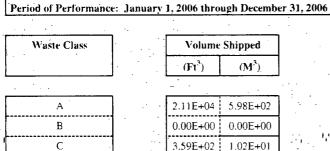
Fe-55	1.42E+02	7.17E+01
Co-60	2.32E+01	1.17E+01
Mn-54	1.64E+01	8.28E+00
Cs-137	9.58E+00	4.83E+00
Zn-65	4.57E+00	2.31E+00
Ni-63	6.21E-01	3.13E-01
Pu-241	5.11E-01	2.58E-01
Cs-134	3.57E-01	1.80E-01
Co-58	3.37E-01	1.70E-01
Fe-59	1.74E-01	8.78E-02
Ce-144	1.64E-01	8.28E-02
C-14	9.69E-02	4.89E-02
Sr-90	3.82E-02	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

ANNUAL RADIOACTIVE EFFLUENT RELEASE REPORT - 2006

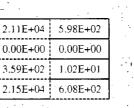
TABLE 3B (cont.)

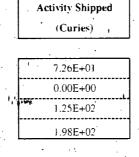
SOLID WASTE AND IRRADIATED FUEL SHIPMENTS



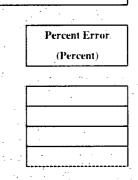


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ANNUAL RADIOACTIVE EFFLUENT RELEASE REPORT - 2006

TABLE 3B (cont.)

SOLID WASTE AND IRRADIATED FUEL SHIPMENTS

						aportor Bottoms
Period of 1	Performance:	January 1, 200	<u>16 through</u>	December 3	1,2006	
	<u> </u>	· · ·	٦	r	<u>.</u>	<u>, , , , , , , , , , , , , , , , , , , </u>
	Waste Class	: A	J .		Waste Class:	в
	<u> </u>	<u> </u>	۰ ۲	<u>.</u>		· · · · · · · · · · · · · · · · · · ·
Nuclide	Activity	Percent		Nuclide	Activity	Percent
		Abundance				Abundance
	(Curies)	(Percent)	J		(Curies)	(Percent)
			ר	· ·	1 · ·	
Fe-55	3.18E+01	4.42E+01	4	1	N	
20-60	1.52E+01	2.11E+01		I	<u>0 :</u>	
Mn-54	1.10E+01	1.53É+01			N i	_·
Cs-137	8.45E+00	1.18E+01	4	· · · · · ·	E i	
Zn-65	4.18E+00	5.81E+00	-		c ' '	· · · · ·
Ni-63 .	3.78E-01	5.26E-01	-		<u>S</u>	
Co-58 Cs-134	2.96E-01	4.12E-01 3.74E-01	-l. *		H :	· · · · · ·
					P	=
Ce-144	1.50E-01	2.09E-01	-		P	
C-14 Sr-90	8.33E-02	1.16E-01 4.97E-02	-		E L	
-e-59	3.57E-02 3.08E-02		-		D '	
-e-39 -1-3	2.76E-02	4.28E-02 3.84E-02	- ·		<u>D</u>	
Other	2.36E-02	3.28E-02				F.
Total	7.19E1	1.00E2	-	Total	N/A	N/A
TULAT	7.1921	1.0022	1	10(a)		
	Waste Class:	All	י ר			,
	· · · ·		_			
Nuclide	Activity	Percent	1		· ·	
		Abundance	· ·		· · ·	
	(Curies)	(Percent)		+	• • •	
			.			
Fe-55	1.42E+02	7.18E+01] .		1 T - 1	
Co-60	2.30E+01	1.16E+01	7			۰.
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	1		ана Алана • • •	
Co-58	3.37E-01	1.71E-01	- I			1
Fe-59	1.74E-01	8.80E-02				
Ce-144	1.63E-01	8.25E-02	1			
C-14	8.33E-02	4.21E-02	<u> </u>			• .
Sr-90	3.73E-02	1.89E-02				
Orb	1.20E-01	6.09E-02				
Others	1.202.01		-			

Nuclide Activity Percent Abundance (Curies) (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 6.61E-01 Cs-137 8.29E-01 Pu-241 5.01E-01 3.99E-01 3.04E-01 Zn-65 3.81E-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 3.24E-02 4.06E-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 · 2.50E-2 3.12E-2 1.25E+02 1.00E+02 Total

Waste Class: C

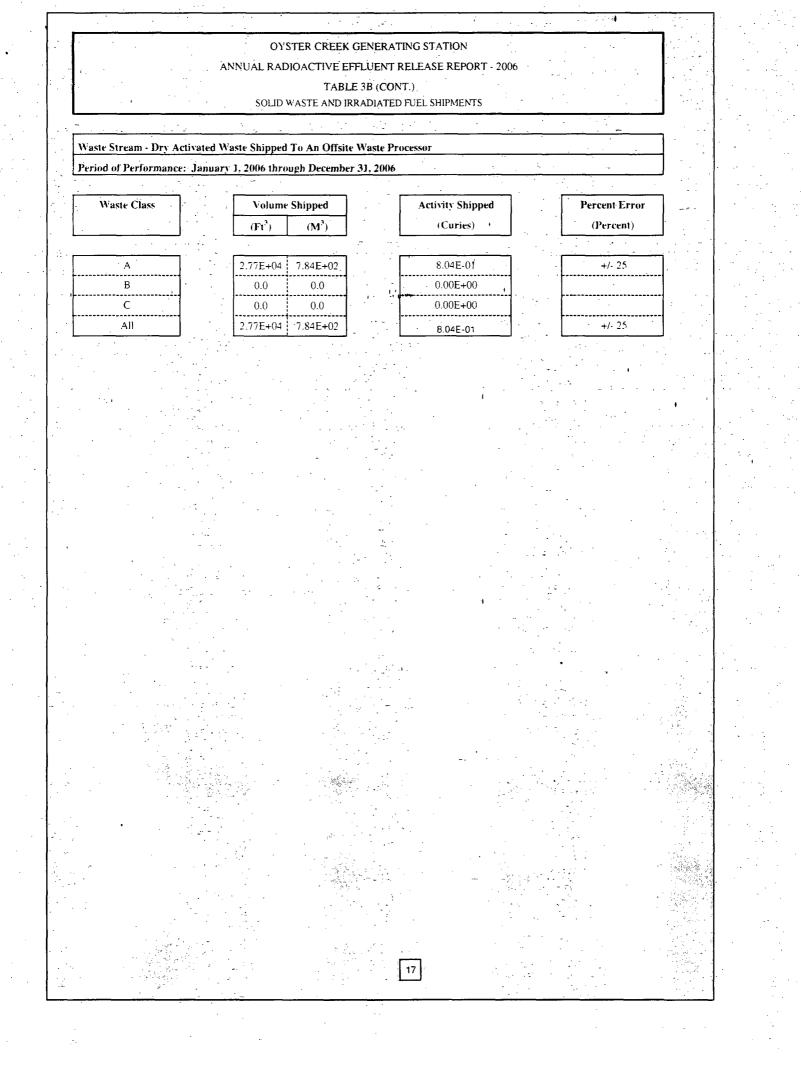


TABLE 3B (cont.)

SOLID WASTE AND IRRADIATED FUEL SHIPMENTS

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	<u>: A</u>
· · · · ·		. <u>.</u>
<u>Nuclide</u>	<u>Activity</u>	Percent
		Abundance
	(Curies)	(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:	All
· · · ·		
Nuclide	Activity	Percent
		Abundance
	(Curies)	(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

3.70E-03

1.37E-03

1.06E-03

8.43E-04

3.05E-06

2.93E-06

3.60E-06

5.51E-01

6.71E-01

2.48E-01 1.92E-01

1.53E-01

5.53E-04

5.31E-04

6.53E-04

1.00E+02

Ni-63

Н-3

Ce-144

Sr-90

Am-241

Cm-243

Other

Total

Nuclide	Activity	Percent
	· .	<u>Abundance</u>
	(Curies)	(Percent)
		1 .
	N	

Waste Class: B

	0			
	N			
	. E			
		•		
	S			
	H.			
	1	: <u>.</u>		(
-	Р			
	. P			
	. <u>.</u> E .			
	D.	•		
			•	
Total	N/A	·	N/A	

18

	Waste Class:	<u> </u>
	, ••	
Nuclide	Activity	Percent
•		<u>Abundance</u>
	(<u>Curies</u>)	(Percent)
	N	
•	0.	
	N	
•	. E	
· .	. S	
	••H •	
	1	
	Р	· · · · ·
· · · ·	P.	
	Ε.	i
	D	
· · · · · ·		<u>·</u>
		Nuclide Activity (Curies) N O N E S H I P P E E

-

. `·

N/A N/A Total

OYSTER CREE	K GENERATING STATION
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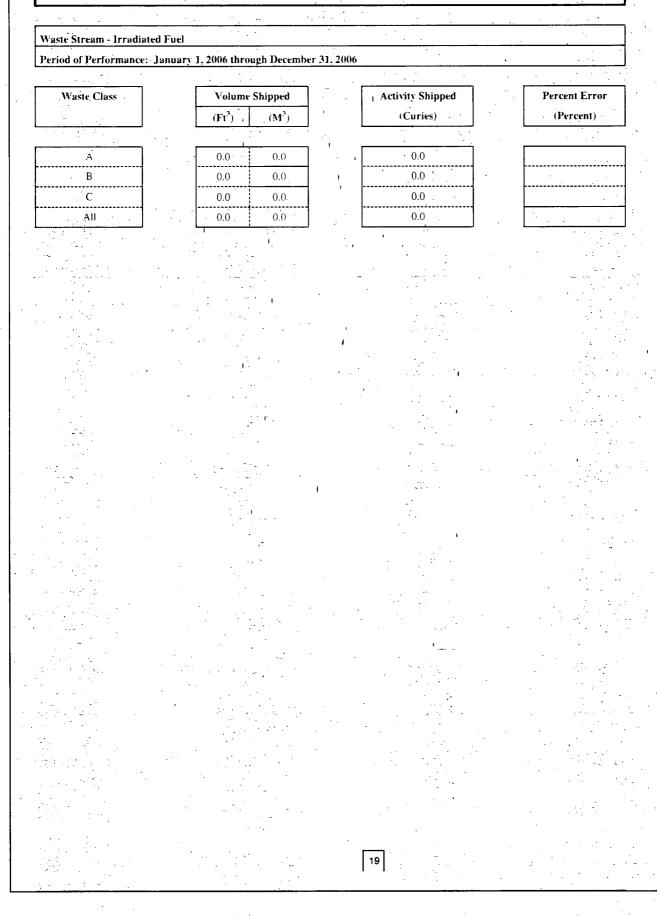
ANNUAL RADIOACTIVE EFFLUENT RELEASE REPORT - 2006

TABLE 3B (CONT.)

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SOLID WASTE AND IRRADIATED FUEL SHIPMENTS

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ANNUAL RADIOACTIVE EFFLUENT RELEASE REPORT - 2006

TABLE 3B (cont.)

SOLID WASTE AND IRRADIATED FUEL SHIPMENTS

		ide Composition January 1, 2000			1,2006	
		•	· ·	· .		
	Waste Class	: A	 2		Waste Class	: B
•	· · ·		•	· · · .	4	
Nuclide	Activity	Percent		Nuclide	Activity	
	· .	Abundance	۱ ۰	· .		.
•	(Curies)	(Percent)	÷.		(Curies)	
	·		-		1	÷.
	N		•		I N	
	0				' O .	

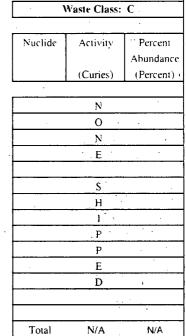
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۶.,	e ^r P	• .
	P	
·	E E	
	· · D	
-	• •	-
Total	N/A	N/A

Waste Class: All

·····	Waste Class	· All
•		
Nuclide	Activity	Percent
	• •	Abundance
	(Curies)	(Percent)
	N	
	0	
	N	
•	È	
	,	
	· S	
· ·	. Н	
	1	
	Р	
	P	-
-	· · E	
	D	
	ine in an	÷
Total	N/A	N/A

Nuclide	Activity	Percent Abundance
	(Curies)	(Percent)
	1 *	
	I N	•
•	' O .	. ·
•	· N	
	E	, · ·
	·	
	S	
	н	
	· 1	
1	Р	
. •	· P	
	E	-
	D	

20



Iotal N/A N/A

ANNUAL RADIOACTIVE EFFLUENT RELEASE REPORT - 2006

TABLE 3B (CONT.)

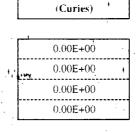
SOLID WASTE AND IRRADIATED FUEL SHIPMENTS

Waste Stream - Other Waste

• • ÷

Waste Class Volume Shipped (F1³) (M^3) .A 0.00E+00 0.00E+00 B 0.00.0----С 0.0 0.0 All 0.00E+00 0.00E+00

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

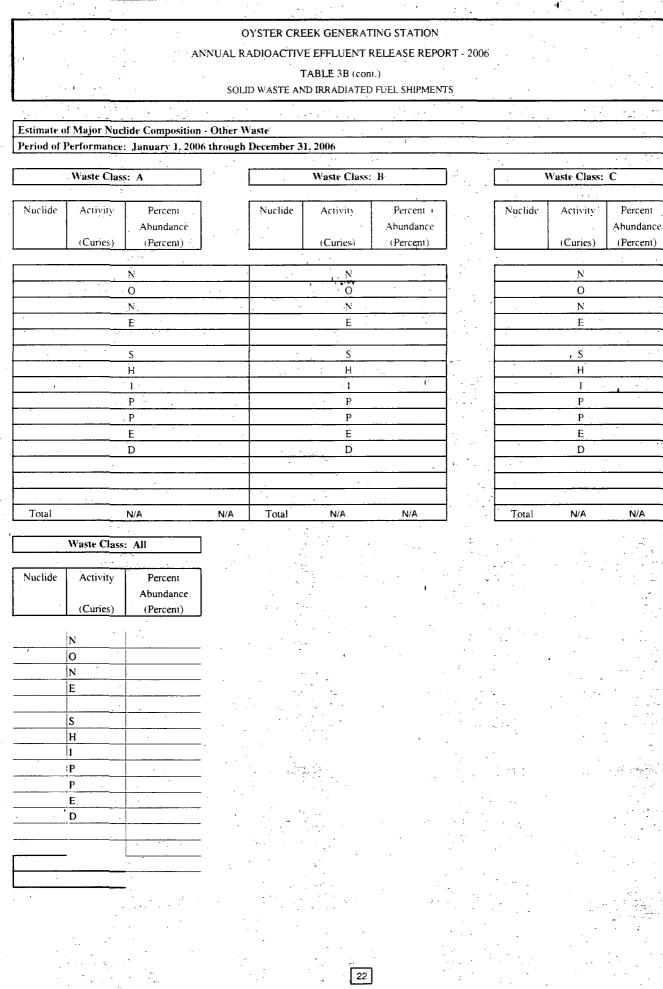


Activity Shipped

Percent Error (Percent) +/- 25 +/- 25

21

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

STABILITY CLASS:Pasquill Class AELEVATION:33 feet

		۰.	· .	WIND SPEE	D		· . ·	
SECTOR TO	WINDS FROM	1-3	4-7	8-12 1	.3-18	19-24	>24	TOTAL
N	S	1	23	81	21	0	0	126
NNÉ	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

PERIOD OF RECORD:

January 01, 2006 through December 31, 2006

STABILITY CLASS: Pasquill Class B

ELEVATION:	33 feet	•

				WIND SF	EED			
SECTOR TO	WINDS FROM	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
Е	W	1	26	7	5	0	0	39
ESE	WNW	2	, 16	15	. 7	0	0	40
SE	NW	3	21	16	7	O	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	1 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

PERIOD OF RECORD:

January 01, 2006 through December 31, 2006

STABILITY CLASS:Pasquill Class CELEVATION:33 feet

			•	WIND SPE	EED	- . /		
SECTOR TO	WINDS FROM	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

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

STABILITY CLASS: Pasquill Class D ELEVATION: 33 feet

ODOMO D	LUT NO C	•		WIND SH	PÉED			
SECTOR TO	FROM	1-3	4-7	8-12	13-18	19-24	>24	TOTAL
Ŋ	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,	ʻ5,	0	. 0	94
E	W.	9	: 53	22	9	0	0	93
ESE	WNW	14	ı 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	Е	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

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

STABILITY CLASS:Pasquill Class EELEVATION:33 feet

i Li se i	• .		• .	WIND SPE	ED			
SECTOR TO	FROM	1-3	4-7	8-12	13-18	19-24	>24	TOTAL
Ň	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
Е	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	Ő	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
<u> </u>			· · · .	•				· · · · · · · · · · · · · · · · · · ·
TOTAL	- - -	395	1514	575	125	15	0	2624

PERIOD OF RECORD:

January 01, 2006 through December 31, 2006

STABILITY CLASS: Pasquill Class F

ELEVATION:	33 feet	

· · · · · · · · · · · · · · · · · · ·		· •						
CECHOD	WINDO		W	IND SF	PEED			
SECTOR TO	FROM	1-3	4-7	8-12	13-18	19-24	>24	TOTAL
N	S	23	8 '	0 1	· 0 '	0	0 ·	31
NNE	SSW	30	22	0	. 0	0	, 0 ·	52
ŅE	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	172	. 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	Е	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

PERIOD OF RECORD:

January 01, 2006 through December 31, 2006

STABILITY CLASS:Pasquill Class GELEVATION:33 feet

ELEVATION:

· .				WIND SPI	EED		• .• •	
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	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 - 1	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

PERIOD OF RECORD:

January 01, 2006 through December 31, 2006

STABILITY CLASS: Pasquill Class ALL

ELEVATION: 33 feet

	<u>.</u>		W	IND SP	EED			····
SECTOR TO	WINDS FROM	1-3	4-7 8	3-12	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	ο'	0.	162
SSW	NNE	34	80	51	3	01	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

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

STABILITY CLASS: ELEVATION:

Pasquill Class A 380 feet

NNW	SSE	0	0	3	.2	1	0	6
NW	SE	0	0	5	6	• 0	0	11
WNW	ESE	0	0	17	1	0	. 0.	18
. W	Е	0	0	13	2	· '1	0	16
WSW	ENE	. 0	0	8	10	4	0	22
SW	NE	0	0	4	. 14	17	0	35
SSW	NNE	0	0	0	3	1	0	4
S	N	0	0	3	0	0	0	3
SSE	NNW	0	0	3	2	1	0	· 6
SE	NW	0	0	2	20	19	5	46
ESE	WNW	0	0	4	16	28	24	72
E	W	0	· 0	1	22	1	0 ·	24
ENE	WSW	0	. 0	2	11	3	1	. 17
NE	SW	0	0	3	.9	3	.0	15
NNE	SSW	0	0	6	8	1 '	0	15
Ν	s	0	0	2	6	4	0	12
SECTOR TO	WINDS FROM	1-3	4-7	8-12 1	3-18	19-24	>24	TOTAL
				WIND SPEE	D.	· · ·		•

PERIOD OF RECORD:

January 01, 2006 through December 31, 2006

STABILITY CLASS: Pasquill Class B ELEVATION: 380 feet

SECTOR	WINDO			WIND SI	PED			• .
TO	FROM	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	Ó	39
WSW	ENE	0	· 0	18	14	1	1	34'
W	Е	0	0	18	4	0	0	22
WNW	ESE	0	1	16	0	0	0	17
NW	SE	0	· 2	23	1	o	0	26
NNW	SSE	0	0	9	14	1	0	24
						÷		
TOTAL		0	13	215	208	62	50	548

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

STABILITY CLASS:Pasquill Class CELEVATION:380 feet

				WIND SPEE	D			· .
SECTOR TO	WINDS FROM	1-3	4-7	8-12 1	3-18	19-24	>24	TOTAL
N	s	0	5	11	23	11	0	5.0
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	Ô	· 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	Е	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

PERIOD OF RECORD:

January 01, 2006 through December 31, 2006

STABILITY CLASS:Pasquill Class DELEVATION:380 feet

SECTOR	WITNIDE			WIND SP	EED			
TO	FROM	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	48	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

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

STABILITY CLASS:

ELEVATION:

Pasquill Class E 380 feet

								· .*
CECIDOD	WINDS		т.	WIND SPEE	D		. .	
TO	FROM	1-3	4 - 7	8-12 1	3-18	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	Ν	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
ŃNW	SSE	3	10	21	18	26	22	100
TOTAL		29	136	390	833	721	204	2313
						, , , , ,		2010

	RECORD:			December	

STABILITY CLASS:	Pasquill Class F
ELEVATION:	380 feet

SECTOR	WINDO		. W	IND SF	EED			· ·
TO	FROM	1-3'	4-7 8	3-12	13-18	19-24	>24	TOTAL
N	S	0	5 '	10,	4	0	0	19
NNE	SSW	1	5	ţ	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	Ó	26
WSW	ENE	0	· 3	0	. 1	1	1	6 '
W	E.	3	3 1	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

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

STABILITY CLASS:	Pasquill Class G
ELEVATION:	380 feet

SECTOR	WINDS			WIND SPE	ED		· · ·	• • •
TO	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'i'u+W	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
Ŵ	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
•	· .	·······.				· . ·	<u> </u>	
TOTAL		31	145	261	295	146	- 37	915
TOTUD			T#J	ZUT	293	140	57	91

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

STABILITY CLASS: ELEVATION:

Pasquill Class ALL 380 feet

							· · ·	
	- -			WIND SP	ĐED			• •
SECTOR TO	WINDS FROM	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
Ē	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	Е	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

2831

836 2014

Hours of Missing/Invalid Data: 126

275

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TABLE 4B

CLASSIFICATION OF ATMOSPHERIC STABILITY

Stability Classification	Pasquill Categories	Sigma-Theta ^a (degrees)	Temperature change with height (degrees-C/100m)	
L			موجد می کور م موج می کور می	
Extremely unstable	. A	25.0	< -1.9	
Moderately unstable	В	20.0	-1.9 to - 1.7	
Slightly unstable	С	- 15.0	-1.7 to - 1.5	
Neutral	D	10.0	-1.5 to -0.5	
Slightly stable	Е	5.0	-0.5 to 1.5	
Moderately stable	F.	2.5	1.5 to 4.0	
Extremely stable	G	1.7	> 4.0	
,		1 649PM		

39

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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.

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