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NUREG/CR-2907
BNL-NUREG-51581
Vol. 6

Radioactive Materials Released from Nuclear Power Plants

Annual Report 1985

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Prepared by J. Tichler, K. Norden, J. Congemi

Brookhaven National Laboratory

Prepared for
U.S. Nuclear Regulatory
Commission

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Radioactive Materials Released from Nuclear Power Plants

NUREG/CR--2907-Vol.6

TI88 005660

Annual Report 1985

Manuscript Completed: November 1987
Date Published: January 1988

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NRC FIN B2234

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PREVIOUS REPORTS IN THIS SERIES

1. "Report on Releases of Radioactivity in Effluents and Solid Wastes from Nuclear Power Plants for 1972," Directorate of Regulatory Operations, August 1973.
2. "Summary of Radioactivity Releases in Effluents from Nuclear Power Plants During 1973," NUREG-75/001, January 1975.
3. "Radioactive Materials Released from Nuclear Power Plants, 1974," NUREG-0077, June 1976.
4. "Radioactive Materials Released from Nuclear Power Plants, 1975," NUREG-0218, March 1977.
5. "Radioactive Materials Released from Nuclear Power Plants, 1976," NUREG-0367, March 1978.
6. "Radioactive Materials Released from Nuclear Power Plants, 1977," NUREG-0521, January 1979.
7. "Radioactive Materials Released from Nuclear Power Plants, 1978," NUREG/CR-1497, BNL-NUREG-51192, March 1981.
8. "Radioactive Materials Released from Nuclear Power Plants, 1979," NUREG/CR-2227, BNL-NUREG-51416, November 1981.
9. "Radioactive Materials Released from Nuclear Power Plants, 1980," NUREG/CR-2907, BNL-NUREG-51581, Vol. 1, January 1983.
10. "Radioactive Materials Released from Nuclear Power Plants, 1981," NUREG/CR-2907, BNL-NUREG-51581, Vol. 2, June 1984.
11. "Radioactive Materials Released from Nuclear Power Plants, 1982," NUREG/CR-2907, BNL-NUREG-51581, Vol. 3, February 1986.
12. "Radioactive Materials Released from Nuclear Power Plants, 1983," NUREG/CR-2907, BNL-NUREG-51581, Vol. 4, August 1986.
13. "Radioactive Materials Released from Nuclear Power Plants, 1984," NUREG/CR-2907, BNL-NUREG-51581, Vol. 5, August 1987.

ABSTRACT

Releases of radioactive materials in airborne and liquid effluents from commercial light water reactors during 1985 have been compiled and reported. Data on solid waste shipments as well as selected operating information have been included. This report supplements earlier annual reports issued by the former Atomic Energy Commission and the Nuclear Regulatory Commission. The 1985 release data are summarized in tabular form. Data covering specific radionuclides are summarized.

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1.0 Introduction

1.1 Purpose

This report, prepared annually for the staff of the U.S. Nuclear Regulatory Commission, presents measured data on radioactive materials in effluents released from licensed commercial reactor power plants. These data were reported by licensees for plant operations during 1985. This information supplements earlier annual reports issued by the former Atomic Energy Commission and Nuclear Regulatory Commission.¹

1.2 Scope

Releases of radioactive materials are governed by 10 CFR Part 20 and 50 and by limits established in the Technical Specifications for each facility. The requirement for reporting effluent releases by nuclear power plant operators is described in 10 CFR 50.36a. Through its Office of Nuclear Reactor Regulation, the Nuclear Regulatory Commission maintains a knowledge of radioactive releases from licensed nuclear reactors to ensure that they are within regulatory requirements. This report summarizes data from the licensed nuclear power plants that were declared by the utilities to be in commercial operation as of December 31, 1985. Data are included for several licensed facilities which are permanently or indefinitely shut down (Dresden 1, Humboldt Bay, Indian Point 1, Three Mile Island 2).

1.3 Source of Data

The information included in this report was obtained from data reported by the licensees. Individual licensee reports are available in the NRC Public Document Room, 1717 H Street, NW, Washington, D.C. 20555 and in local Public Document Rooms located near each licensed facility. Licensee reports varied in the format and extent of information provided. This variability will diminish as changes in the Technical Specification for each plant will require adoption of the reporting format of Regulatory Guide 1.21, "Measuring, Evaluating and Reporting Radioactivity in Solid Wastes and Releases of Radioactive Materials in Liquid and Gaseous Effluents from Light Water Cooled Nuclear Power Plants," June 1974.

Data from prior years used in the comparison tables were obtained from the thirteen previous annual summaries.

¹Previous reports in this series are listed on page i.

2.0 Tabulated Data

2.1 Airborne and Liquid Effluents

Table 1 through 4 list for each reactor, the measured quantities of total noble gases and of I-131 and particulates (with half lives greater than 8 days) released in effluents to the atmosphere during each of the years 1970 through 1985. Tables 5 through 8 list the total measured quantities of tritium and of mixed fission and activation products released in liquid effluents in each of the years.

2.2 Solid Waste

The total volumes, activity and the number of shipments of solid waste for each plant during 1985 are summarized in Tables 9 and 10. A comparison for the years 1976 through 1985 is made in Tables 11 and 12.

2.3 Energy Generation

Tables 15 and 16 present a summary of the thermal energy generated by each plant during 1985 and previous years from 1970. Tables 13 and 14 present a summary of net electrical energy generated by each plant during 1978-1985. The reader is cautioned against making simplistic comparisons of radioactive releases with the energy generated because of the many factors which affect the amount of radioactive materials released; factors such as the condition of the fuel, primary system integrity, effluent and radioactive waste treatment systems, and the extent to which these systems are used.

2.4 Individual Plant Summaries

Individual plant summaries are presented in alphabetical order. The summaries include general plant information, power production, effluent and solid waste data, and a summary of specific radionuclides measured in effluents. When the only type of solid waste reported is type "A", this may be because the plant did not break solid waste into different types but reported all types together. The activity released for each nuclide for the year for both airborne and liquid effluents is calculated by summing releases for each quarter. More detailed summaries in the format of Regulatory Guide 1.21 such as were used in the 1978 report² can be made available since all the data for 1978-1985 are stored in a computerized data base.

Copies of the summaries included in this report as well as the more detailed summaries maintained in the computer data base were submitted to the licensees for verification before publication. In most cases, the licensees responded either verifying the included data for their plants or providing corrections. Individuals interested in obtaining the more detailed summaries should contact the Office of Administration and Resources Management of the Nuclear Regulatory Commission.

²"Radioactive Materials Released from Nuclear Power Plants, 1978," NUREG/CR-1497, BNL-NUREG-51192, March, 1981.

2.5 Notation

The following notation is used:

$$1.86\text{E}+06 = 1.86 \times 10^6$$

$$1.86\text{E}-03 = 1.86 \times 10^{-3}$$

N/R = Not Reported

N/D = Not Detected

< may actually mean $\leq$

3.0 Summary

Nearly all of the radioactive material reported as being released in effluents are from planned releases. Planned releases result from normal operation or from anticipated operational occurrences. The latter include unplanned releases of radioactive materials from miscellaneous actions such as equipment failure, operator error or procedure error; these releases are not of such consequence as to be considered an accident.

At present, it is difficult to compare effluent releases with those of previous years due to, among other contributors, variability in reporting structure and release requirements. Comparisons with respect to power generation are similarly difficult due to factors which strongly affect the releases such as level of fuel cladding defects, design features of plant radioactive waste treatment systems, operational occurrences and equipment performance.

Though perhaps not identifiable as an important factor at any specific plant from the data in this report, the generic improvement in fuel performance over the last several years has either reduced or has had the potential to reduce the amount of radioactive material released in effluents from most plants. In addition, at Boiling Water Reactors (BWRs), the reduction in the amount of airborne radioactive materials being released at some plants since the early and mid-1970s is due in large part to the installation of augmented offgas (AOG) systems.

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ACKNOWLEDGMENTS

Carmen Benkovitz was responsible for the original design of the computer data base in which the effluent data, beginning with the 1978 data, is stored. She was involved in the redesign of the data base when, in 1982, the decision was made to transfer the data base from one computer to another and to change the data base management system being used. She presently functions in an advisory role in the annual preparation of this report.

TABLE 1

AIRBORNE EFFLUENTS COMPARISON BY YEAR

BOILING WATER REACTORS

FISSION AND ACTIVATION GASES (TOTAL CURIES)

FACILITY	1970	1971	1972	1973	1974	1975	1976	1977	1978	1979
BIG ROCK POINT 1	2.80E+05	2.84E+05	2.58E+05	2.30E+05	1.88E+05	5.06E+04	1.52E+04	1.34E+04	1.89E+04	6.67E+03
BROWNS FERRY 1,2,& 3					6.40E+04	9.24E+04	<8.05E+04	<1.66E+05	1.57E+05	<2.71E+05
BRUNSWICK 1&2						1.90E+02	1.90E+04	2.46E+05	9.14E+04	1.16E+05
COOPER					2.00E+03	1.98E+04	3.80E+04	1.27E+03	4.09E+03	3.04E+04
DRESDEN 1	9.00E+05	7.53E+05	8.77E+05	8.40E+05	9.80E+04	5.20E+05	4.52E+05	5.20E+05	8.50E+05	1.83E+02
DRESDEN 2-3		5.80E+05	4.29E+05	8.80E+05	6.27E+05	3.69E+05	3.23E+04	3.13E+05	4.06E+04	6.91E+04
DUANE ARNOLD						1.58E+03	5.26E+03	3.87E+03	1.56E+03	8.71E+03
EDWIN I. HATCH 1						2.70E+02	2.80E+03	1.90E+03	1.62E+03	1.71E+03
EDWIN I. HATCH 2										
GRAND GULF 1										
HUMBOLDT BAY 3	5.40E+05	5.14E+05	4.30E+05	3.50E+05	5.72E+05	2.97E+05	9.30E+04	4.40E+05	4.40E+05	<4.40E+05
JAMES A. FITZPATRICK						4.08E+03	4.41E+04	2.33E+04	5.88E+03	3.38E+03
LACROSSE	1.00E+03	1.00E+03	3.10E+04	9.10E+04	4.90E+04	5.71E+04	1.24E+05	4.25E+04	8.45E+03	1.04E+04
LASALLE 1&2										
LIMERICK 1										
MILLSTONE 1		2.76E+05	7.26E+05	7.90E+04	9.12E+05	2.97E+06	5.07E+05	6.20E+05	5.66E+05	2.06E+04
MONTICELLO		7.60E+04	7.51E+05	8.70E+05	1.57E+06	1.55E+05	1.14E+04	6.87E+03	6.42E+03	4.03E+03
NINE MILE POINT 1	1.00E+04	2.53E+05	5.17E+05	8.72E+05	5.58E+05	1.30E+06	1.76E+05	3.53E+03	3.02E+03	1.04E+03
OYSTER CREEK 1	1.10E+05	5.16E+05	8.66E+05	8.10E+05	2.79E+05	2.06E+05	1.67E+05	1.77E+05	9.98E+05	1.01E+06
PEACH BOTTOM 2&3				<1.00E+03	<1.00E+00	1.30E+04	2.09E+05	7.11E+04	3.85E+04	1.90E+05
PILGRIM 1			1.80E+04	2.30E+05	5.46E+05	4.60E+04	1.83E+05	4.13E+05	3.27E+04	1.39E+04
QUAD-CITIES 1&2			1.32E+05	9.00E+05	9.50E+05	1.10E+05	3.36E+04	2.56E+04	3.24E+04	3.48E+04
SUSQUEHANNA 1&2										
VERMONT YANKEE 1			5.50E+04	1.80E+05	6.40E+04	4.08E+03	3.03E+03	3.35E+03	4.94E+03	<8.08E+03
WNP-2										

FORT ST. VRAIN*

9.30E+01

* HIGH TEMPERATURE GAS COOLED REACTOR

TABLE 1

AIRBORNE EFFLUENTS COMPARISON BY YEAR

BOILING WATER REACTORS		FISSION AND ACTIVATION GASES (TOTAL CURIES)				
FACILITY	1980	1981	1982	1983	1984	1985
BIG ROCK POINT 1	2.15E+04	1.97E+04	1.29E+04	1.10E+04	1.41E+05	6.26E+04
BROWNS FERRY 1,2,& 3	<1.66E+05	4.52E+04	2.76E+05	4.79E+05	<6.64E+05	<2.64E+04
BRUNSWICK 1&2	6.93E+04	5.22E+05	4.65E+05	4.87E+05	1.67E+05	1.75E+04
COOPER	5.03E+03	2.48E+03	1.42E+04	1.54E+03	<1.44E+03	<1.39E+03
DRESDEN 1	7.03E+01	N/D	N/D	N/D	N/D	N/D
DRESDEN 2-3	4.30E+04	3.74E+04	1.04E+04	8.43E+03	1.81E+03	2.94E+03
DUANE ARNOLD	2.70E+03	<4.87E+02	9.99E+01	4.81E+02	4.16E+02	2.51E+02
EDWIN I. HATCH 1	3.82E+04	2.77E+04	4.23E+03	1.96E+04	1.02E+04	9.86E+03
EDWIN I. HATCH 2	2.95E+02	2.06E+02	1.04E+03	1.28E+04	2.36E+03	2.76E+03
GRAND GULF 1				4.51E+01	1.14E+02	1.51E+02
HUMBOLDT BAY 3	<4.40E-05	<4.40E-05	0.00E+00+	0.00E+00+	0.00E+00+	0.00E+00+
JAMES A. FITZPATRICK	7.68E+04	2.00E+05	2.11E+05	8.57E+04	3.41E+04	1.46E+04
LACROSSE	4.71E+03	5.03E+03	4.26E+03	7.08E+03	1.09E+04	8.58E+03
LASALLE 1&2			3.46E+00	1.17E+01	5.66E+02	1.77E+02
LIMERICK 1					0.00E+00	0.00E+00
MILLSTONE 1	1.19E+04	1.43E+04	8.33E+03	6.34E+03	2.80E+03	1.11E+03
MONTICELLO	3.83E+03	3.74E+03	7.22E+03	3.21E+03	5.15E+02	2.72E+03
NINE MILE POINT 1	5.87E+02	6.10E+02	5.11E+01	2.68E+02	1.02E+03	9.84E+02
OYSTER CREEK 1	3.12E+04	5.28E+04	2.29E+04	2.14E+03	3.93E+03	4.15E+04
PEACH BOTTOM 2&3	1.53E+04	1.58E+04	1.31E+04	3.48E+04	8.09E+04	1.29E+05
PILGRIM 1	2.62E+04	<5.30E+03	<1.94E+04	2.01E+04	<1.84E+01	3.26E+03
QUAD-CITIES 1&2	2.15E+04	3.20E+04	1.17E+04	1.20E+04	6.02E+03	2.95E+03
SUSQUEHANNA 1&2			<5.61E+02	1.03E+02	1.18E+02	5.15E+02
VERMONT YANKEE 1	1.63E+03	<3.17E+03	<3.07E+03	<3.13E+03	<3.18E+03	<3.44E+03
WNP-2					2.28E+02	2.12E+02
FORT ST. VRAIN*	9.13E+01	4.34E+01	2.96E+02	1.51E+02	1.17E+02	2.03E+00

* HIGH TEMPERATURE GAS COOLED REACTOR

+ NO RELEASE DUE TO DECAY TIME SINCE UNIT WAS SHUTDOWN ON 7/2/76.

N/D = NOT DETECTABLE

TABLE 2

AIRBORNE EFFLUENTS COMPARISON BY YEAR

PRESSURIZED WATER REACTORS

FISSION AND ACTIVATION GASES (TOTAL CURIES)

FACILITY	1970	1971	1972	1973	1974	1975	1976	1977	1978	1979
ARKANSAS ONE 1					1.96E+02	1.03E+03	5.69E+03	1.39E+04	7.50E+03	8.51E+03
ARKANSAS ONE 2										4.53E+03
BEAVER VALLEY 1							1.07E+00	4.73E+01	3.90E+02	1.75E+03
BYRON 1										
CALLAWAY 1										
CALVERT CLIFFS 1&2						7.72E+03	9.40E+03	2.23E+04	2.76E+04	1.02E+04
CATAWBA 1										
CRYSTAL RIVER 3								3.35E+03	6.86E+03	7.26E+04
DAVIS-BESSE 1								1.27E+03	2.10E+03	<1.68E+03
DIABLO CANYON 1&2										
DONALD C. COOK 1&2						2.64E+00	9.75E+02	3.80E+03	4.85E+04	1.09E+04
FORT CALHOUN 1				6.70E+01	3.03E+02	4.29E+02	1.94E+03	3.81E+03	1.36E+03	7.06E+02
H. B. ROBINSON 2		1.00E+00	<1.00E+00	3.10E+03	2.31E+03	1.17E+03	6.40E+02	4.76E+02	8.84E+02	1.52E+03
HADDAM NECK	1.00E+00	3.00E+00	1.00E+00	3.20E+01	7.00E+00	4.80E+02	4.52E+02	3.12E+03	2.14E+03	5.53E+03
INDIAN POINT 1-2				1.50E+01	5.58E+03	8.20E+03	1.16E+04	1.60E+04	1.41E+04	9.03E+03
INDIAN POINT 3							SHOWN W/OTHER UNIT		8.09E+02	2.47E+02
JOSEPH M. FARLEY 1									3.53E+03	3.18E+03
JOSEPH M. FARLEY 2										
KEWAUNEE					3.35E+03	2.45E+03	1.40E+03	2.43E+03	4.44E+02	1.52E+02
MAINE YANKEE			<1.00E+00	1.61E+02	6.36E+03	4.09E+03	1.30E+03	2.86E+02	1.43E+03	1.98E+03
MCGUIRE 1										
MCGUIRE 2										
MILLSTONE 2							1.57E+03	2.28E+03	7.64E+02	3.59E+02
NORTH ANNA 1&2									1.51E+04	6.28E+03
OCONEE 1,2,& 3				9.30E+03	1.94E+04	1.51E+04	4.39E+04	3.56E+04	4.33E+04	4.79E+04
PALISADES			1.00E+00	4.54E+02	<1.00E+00	2.61E+03	2.99E+01	5.99E+01	3.23E+02	6.84E+01
PALO VERDE 1										
POINT BEACH 1&2		<1.00E+00	3.00E+00	5.75E+03	9.74E+03	4.45E+04	1.91E+03	1.13E+03	5.16E+02	9.68E+02
PRAIRIE ISLAND 1&2				8.72E+00	3.62E+02	2.17E+03	1.74E+03	6.73E+02	1.26E+03	6.97E+02
R. E. GINNA	1.00E+01	3.20E+01	1.20E+01	5.76E+02	7.57E+02	1.04E+04	5.52E+03	3.20E+03	9.72E+02	7.62E+02
RANCHO SECO 1						1.18E+02	1.27E+02	2.00E+03	7.10E+03	8.81E+03
SALEM 1							<1.00E-02	1.96E+01	1.02E+01	2.49E+02
SALEM 2										
SAN ONOFRE 1	<1.00E+00	8.00E+00	1.90E+01	1.10E+04	1.78E+03	1.11E+03	4.16E+02	1.54E+02	1.81E+03	6.37E+02
SAN ONOFRE 2-3										
SEQUOYAH 1&2										
ST. LUCIE 1							1.72E+03	2.54E+04	2.93E+04	1.54E+04
ST. LUCIE 2										
SUMMER 1										
SURRY 1&2			<1.00E+00	8.66E+02	6.86E+03	8.04E+03	1.91E+04	1.90E+04	4.36E+03	1.78E+03
THREE MILE ISLAND 1					9.16E+02	3.63E+03	2.76E+03	1.66E+04	1.57E+04	2.24E+03
THREE MILE ISLAND 2									8.73E+00	9.97E+06
TMI 2/EPICOR										
TROJAN							6.66E+02	3.07E+03	3.05E+02	9.27E+02
TURKEY POINT 3&4				5.30E+02	4.66E+03	1.34E+04	1.56E+04	2.33E+04	2.35E+04	1.06E+04
TURKEY POINT 3										
TURKEY POINT 4										
WATERFORD 3										
WOLF CREEK 1										
YANKEE ROWE 1	<1.00E+00	<1.00E+00	<1.00E+00	3.50E+01	4.00E+01	2.24E+01	2.57E+01	1.25E+02	6.56E+02	1.82E+02
ZION 1&2				4.00E+00	2.99E+03	4.88E+04	1.14E+05	3.22E+04	6.77E+04	3.41E+04

TABLE 2

AIRBORNE EFFLUENTS COMPARISON BY YEAR
FISSION AND ACTIVATION GASES (TOTAL CURIES)

PRESSURIZED WATER REACTORS

FACILITY	1980	1981	1982	1983	1984	1985
ARKANSAS ONE 1	3.80E+04	3.73E+03	2.10E+03	9.83E+02	2.90E+03	8.10E+03
ARKANSAS ONE 2	9.37E+03	4.35E+03	9.78E+03	1.34E+03	3.26E+03	8.91E+03
BEAVER VALLEY 1	8.64E+01	8.06E+02	1.31E+02	1.98E+02	1.16E+03	3.92E+01
BYRON 1						7.83E+02
CALLAWAY 1					2.00E+02	1.67E+03
CALVERT CLIFFS 1&2	2.96E+03	2.18E+03	8.00E+03	9.75E+03	3.83E+03	3.98E+03
CATAWBA 1						2.77E+02
CRYSTAL RIVER 3	3.65E+04	3.96E+04	6.85E+03	3.38E+03	1.96E+03	1.05E+03
DAVIS-BESSE 1	<3.35E+03	1.01E+03	5.35E+02	9.15E+02	5.02E+02	1.18E+02
DIABLO CANYON 1&2					5.86E-02	5.72E+02
DONALD C. COOK 1&2	3.76E+03	5.42E+03	3.88E+03	3.28E+02	3.50E+03	4.94E+03
FORT CALHOUN 1	2.97E+02	1.22E+03	3.46E+02	8.79E+02	1.52E+03	1.48E+03
H. B. ROBINSON 2	5.82E+02	5.13E+02	1.75E+02	2.93E+02	4.90E+01	2.14E+03
HADDAM NECK	2.68E+03	1.83E+03	7.54E+02	2.76E+03	7.52E+03	2.76E+03
INDIAN POINT 1-2	9.38E+03	9.13E+03	7.27E+03	9.58E+03	3.78E+03	1.88E+03
INDIAN POINT 3	1.11E+03	6.57E+03	2.58E+03	5.60E+02	1.88E+03	1.54E+03
JOSEPH M. FARLEY 1	1.92E+04	2.21E+02	3.81E+04	2.20E+04	3.73E+03	1.70E+03
JOSEPH M. FARLEY 2		2.60E+00	3.54E+03	8.47E+02	3.99E+03	6.63E+02
KEWAUNEE	1.22E+02	1.18E+02	1.66E+02	<2.25E+02	<4.04E+01	<4.97E+01
MAINE YANKEE	3.87E+03	3.28E+02	1.53E+02	3.92E+01	1.23E+02	4.41E+02
MCGUIRE 1		1.58E-01	1.65E-03	1.60E+03	2.28E+03	1.93E+03
MCGUIRE 2				1.60E+03	2.28E+03	1.93E+03
MILLSTONE 2	1.33E+03	2.24E+03	9.09E+03	9.06E+03	4.19E+03	4.00E+02
NORTH ANNA 1&2	3.50E+03	5.30E+03	4.34E+03	2.22E+04	1.76E+04	8.05E+03
OCONEE 1,2,& 3	1.92E+04	1.63E+04	2.41E+04	2.40E+04	2.28E+04	2.35E+04
PALISADES	1.40E+02	3.00E+03	7.38E+03	3.00E+03	2.84E+01	3.68E+03
PALO VERDE 1						2.53E+02
POINT BEACH 1&2	6.41E+02	6.11E+02	9.93E+02	7.68E+02	9.30E+01	1.16E+02
PRAIRIE ISLAND 1&2	2.60E+02	4.65E+01	5.47E+02	2.76E+02	7.58E+01	4.59E+01
R. E. GINNA	8.61E+02	5.46E+02	1.95E+03	7.12E+02	2.96E+02	4.06E+02
RANCHO SECO 1	1.58E+03	1.37E+03	1.48E+03	6.89E+02	3.83E+03	4.67E+03
SALEM 1	7.82E+01	1.06E+03	2.34E+02	1.25E+02	1.95E+02	1.68E+03
SALEM 2	7.74E+00	6.09E+02	1.11E+03	7.44E+02	1.81E+03	1.15E+03
SAN ONOFRE 1	1.05E+03	4.17E+02	8.61E+01	1.06E+01	8.62E+01	3.83E+03
SAN ONOFRE 2-3			6.40E+00	7.43E+03	4.00E+04	2.53E+04
SEQUOYAH 1&2	3.01E+03	9.03E+03	5.74E+03	3.92E+03	6.68E+03	4.57E+03
ST. LUCIE 1	8.97E+03	2.30E+04	2.33E+04	2.16E+04	3.53E+04	5.08E+04
ST. LUCIE 2				1.25E+03	7.68E+03	9.55E+03
SUMMER 1			1.40E+02	3.88E+02	1.64E+01	1.40E+02
SURRY 1&2	6.17E+03	1.41E+04	2.11E+04	5.49E+03	6.95E+03	2.07E+03
THREE MILE ISLAND 1	4.64E-03	5.81E-02	7.56E-03	2.01E+01	3.62E-01	1.08E+02
THREE MILE ISLAND 2	4.72E+04	2.88E+02	4.89E+02	1.73E+02	2.07E+02	N/D
TMI 2/EPICOR	2.16E+00	1.84E+02	4.26E+02	3.61E+01	3.99E+01	**
TROJAN	3.91E+02	1.16E+03	8.64E+02	2.29E+02	8.37E+02	1.06E+03
TURKEY POINT 3&4	4.24E+03	4.33E+03	2.00E+04	1.61E+04	1.16E+04	
TURKEY POINT 3						1.32E+03
TURKEY POINT 4						1.80E+03
WATERFORD 3						8.21E+03
WOLF CREEK 1						1.72E+02
YANKEE ROWE 1	7.07E+01	1.72E+02	1.55E+02	7.51E+02	1.74E+03	1.47E+03
ZION 1&2	5.78E+03	6.91E+03	1.61E+04	6.34E+03	3.61E+03	3.81E+03

** INCLUDED WITH THREE MILE ISLAND 2 TOTAL FOR 1985

TABLE 3

AIRBORNE EFFLUENTS COMPARISON BY YEAR (CURIES)

I-131 AND PARTICULATES

BOILING WATER REACTORS

(HALF-LIFE EQUAL TO OR GREATER THAN 8 DAYS)

FACILITY	1970	1971	1972	1973	1974	1975	1976	1977	1978	1979
BIG ROCK POINT 1	1.30E-01	6.10E-01	1.50E-01	4.60E+00	1.60E-01	1.20E-01	5.00E-02	1.00E-02	8.91E-03	1.90E-03
BROWNS FERRY 1,2,& 3					1.20E-01	2.70E-01	<7.00E-02	1.04E-01	2.27E-01	5.03E-02
BRUNSWICK 1&2						<1.00E-02	4.60E-01	9.32E-01	4.07E-01	9.52E-01
COOPER					2.40E-01	5.00E-02	<4.00E-02	<1.91E-02	5.41E-03	<1.79E-01
DRESDEN 1	3.30E+00	6.70E-01	2.75E+00	4.00E-02	6.80E-01	9.60E-01	8.40E-01	4.93E+00	2.28E+00	2.38E-02
DRESDEN 2-3	1.60E+00	8.68E+00	5.89E+00	6.70E+00	6.50E+00	4.31E+00	5.49E+00	6.86E+00	3.13E+00	6.97E+00
DUANE ARNOLD						1.10E-03	8.18E-02	2.29E-02	3.65E-02	3.35E-02
EDWIN I. HATCH 1						<1.00E-02	<1.00E-02	5.67E-03	4.13E-03	2.59E-02
EDWIN I. HATCH 2										
GRAND GULF 1										
HUMBOLDT BAY 3	3.50E-01	3.00E-01	4.80E-01	2.90E-01	8.40E-01	1.06E+00	8.36E-02	4.04E-03	7.26E-04	1.07E-04
JAMES A. FITZPATRICK						<4.00E-02	6.80E-01	1.73E-01	2.79E-01	1.42E-02
LACROSSE	<6.00E-02	<1.00E-02	7.10E-01	2.00E-01	4.00E-02	1.00E-01	<7.06E-02	1.67E-01	2.79E-02	2.53E-02
LASALLE 1&2										
LIMERICK 1										
MILLSTONE 1		4.00E+00	1.32E+00	2.00E-01	3.26E+00	9.98E+00	2.33E+00	4.86E+00	4.55E+00	5.90E-01
MONTICELLO		3.60E-02	5.78E-01	1.20E+00	5.70E+00	3.71E+00	1.71E-01	8.51E-02	5.49E-02	3.39E-02
NINE MILE POINT 1	<1.00E-02	6.00E-02	9.70E-01	1.98E+00	8.90E-01	2.78E+00	2.20E+00	1.99E-01	1.35E-01	4.71E-02
OYSTER CREEK 1	3.20E-01	2.14E+00	6.48E+00	7.02E+00	3.51E+00	5.64E+00	6.39E+00	9.05E+00	1.81E+01	9.32E+00
PEACH BOTTOM 2&3				<1.00E-02	1.00E-02	4.00E-02	9.75E-01	2.73E-01	9.62E-02	2.58E-01
PILGRIM 1			3.00E-02	4.70E-01	1.45E+00	2.58E+00	6.74E-01	6.90E-01	1.81E-01	1.45E-01
QUAD-CITIES 1&2			7.50E-01	5.50E+00	8.88E+00	1.31E+00	1.33E+00	1.69E+00	2.15E+00	1.57E+00
SUSQUEHANNA 1&2										
VERMONT YANKEE 1			1.70E-01	7.00E-02	3.60E-01	1.00E-02	<1.00E-02	1.44E-02	2.18E-01	4.43E-01
WNP-2										
FORT ST. VRAIN*										6.89E-07

* HIGH TEMPERATURE GAS COOLED REACTOR

TABLE 3

AIRBORNE EFFLUENTS COMPARISON BY YEAR (CURIES)

I-131 AND PARTICULATES

BOILING WATER REACTORS

(HALF-LIFE EQUAL TO OR GREATER THAN 8 DAYS)

FACILITY	1980	1981	1982	1983	1984	1985
BIG ROCK POINT 1	2.94E-02	6.10E-03	4.71E-03	3.35E-03	1.32E-01	8.25E-02
BROWNS FERRY 1,2,& 3	1.05E-01	0.00E+00	1.89E-01	2.83E-01	<1.72E-01	<2.49E-02
BRUNSWICK 1&2	2.12E+00	8.89E-01	1.99E+00	6.25E+00	3.49E-01	6.32E-02
COOPER	<1.52E-01	<1.09E-02	<1.55E-01	<2.30E-02	<1.15E-02	<2.29E-02
DRESDEN 1	1.46E-02	9.94E-03	3.36E-04	7.56E-04	1.69E-03	9.23E-05
DRESDEN 2-3	1.10E+01	9.87E+00	9.50E-01	6.32E-01	1.30E-01	1.56E-01
DUANE ARNOLD	8.50E-02	3.25E-02	1.03E-02	1.50E-02	1.53E-02	8.89E-03
EDWIN I. HATCH 1	4.29E-01	2.12E-01	1.84E-01	6.96E-02	6.57E-02	3.98E-02
EDWIN I. HATCH 2	1.33E-02	9.42E-03	6.83E-02	1.95E-02	1.15E-02	3.47E-02
GRAND GULF 1				4.50E-05	1.86E-04	7.53E-04
HUMBOLDT BAY 3	5.11E-04	<3.82E-04	1.09E-04	2.68E-04	2.68E-04	7.62E-05
JAMES A. FITZPATRICK	1.25E-01	2.80E-01	7.71E-01	3.80E-01	2.10E-01	1.67E-01
LACROSSE	1.32E-02	1.69E-02	8.35E-03	1.08E-02	6.90E-03	7.53E-03
LASALLE 1&2			4.16E-03	1.80E-02	2.92E+00	2.14E+00
LIMERICK 1					0.00E+00	0.00E+00
MILLSTONE 1	3.32E-01	1.48E-01	2.09E-01	6.25E-02	6.24E-02	5.20E-02
MONTICELLO	2.83E-02	3.45E-02	8.85E-02	4.10E-02	2.93E-02	9.95E-02
NINE MILE POINT 1	2.55E-02	1.49E-02	2.71E-02	1.07E-02	1.75E-02	3.46E-02
OYSTER CREEK 1	1.25E+00	2.24E+00	1.04E+00	1.90E-02	4.37E-01	3.04E+00
PEACH BOTTOM 2&3	2.94E-02	<4.19E-02	3.90E-02	4.60E-02	1.02E-01	6.88E-02
PILGRIM 1	1.04E-01	<6.87E-02	<4.44E-02	<4.69E-02	<5.17E-03	<5.68E-02
QUAD-CITIES 1&2	5.90E-01	1.27E+00	4.12E-01	4.36E-01	8.86E-02	6.06E-01
SUSQUEHANNA 1&2			<8.70E-04	9.43E-04	1.48E-02	2.66E-02
VERMONT YANKEE 1	1.70E-02	4.53E-03	1.45E-03	4.14E-03	6.87E-03	<5.87E-03
WNP-2					3.77E-01	2.43E-01
FORT ST. VRAIN*	1.25E-06	1.40E-06	2.61E-01	7.40E-07	2.78E-06	6.31E-07

* HIGH TEMPERATURE GAS COOLED REACTOR

TABLE 4
AIRBORNE EFFLUENTS COMPARISON BY YEAR (CURIES)
I-131 AND PARTICULATES
(HALF-LIFE EQUAL TO OR GREATER THAN 8 DAYS)

PRESSURIZED WATER REACTORS

FACILITY	1970	1971	1972	1973	1974	1975	1976	1977	1978	1979
ARKANSAS ONE 1					5.00E-02	7.40E-01	5.73E-02	9.04E-03	3.19E-03	4.47E-03
ARKANSAS ONE 2										4.65E-03
BEAVER VALLEY 1							<1.00E-02*	1.52E-04	7.21E-02	4.07E-04
BYRON 1										
CALLAWAY 1										
CALVERT CLIFFS 1&2					7.00E-02	1.38E-01	3.07E-01	1.35E-01	2.05E+00	
CATAWBA 1										
CRYSTAL RIVER 3								2.53E-03	1.05E-03	1.88E-02
DAVIS-BESSE 1								2.57E-04	4.30E-04	5.69E-03
DIABLO CANYON 1&2										
DONALD C. COOK 1&2						<1.00E-02	<1.00E-02	7.45E-02	1.10E-01	7.36E-02
FORT CALHOUN 1				<1.00E-02	<1.00E-02	<1.00E-02	<2.04E-02	1.34E-02	8.30E-03	1.58E-03
H. B. ROBINSON 2			3.00E-02	3.00E-01	5.00E-02	2.00E-02	9.96E-02	3.88E-03	9.26E-04	4.10E-04
HADDAM NECK	<1.00E-02		2.00E-02	5.00E-02	<1.00E-02	<1.00E-02	<1.00E-02	1.74E-03	5.21E-03	4.77E-02
INDIAN POINT 1-2				<1.00E-02	4.30E-01	1.62E+00	2.42E-01	5.59E-02	2.05E-01	4.50E-01
INDIAN POINT 3							SHOWN W/OTHER UNIT		1.29E-02	3.89E-03
JOSEPH M. FARLEY 1									4.11E-02	2.20E-02
JOSEPH M. FARLEY 2										
KEWAUNEE					2.00E-02	6.60E-01	<1.00E-02	2.40E-02	5.48E-03	6.18E-04
MAINE YANKEE		<1.00E-02	9.40E-01	5.00E-02	<1.00E-02	<1.00E-02	5.05E-03	2.07E-03	5.52E-02	
MCGUIRE 1										
MCGUIRE 2										
MILLSTONE 2						1.00E-02	1.25E-02	4.47E-03	2.97E-03	9.79E-03
NORTH ANNA 1&2									3.19E-02	5.71E-02
OCONEE 1,2,& 3				1.00E-02	3.00E-02	1.00E-02	2.72E-01	5.35E-01	2.22E-01	2.28E-01
PALISADES		<1.00E-02	3.10E-01	1.00E-02	3.80E-01	4.16E-02	1.63E-02	2.07E-02	2.46E-02	
PALO VERDE 1										
POINT BEACH 1&2	<1.00E-02	3.00E-02	5.50E-01	1.60E-01	7.00E-02	1.85E-02	5.02E-03	2.88E-02	1.35E-02	
PRAIRIE ISLAND 1&2				<1.00E-02	<1.00E-02	2.12E-02	1.14E-02	7.56E-03	8.96E-04	3.86E-03
R. E. GINNA	5.00E-02	1.70E-01	4.00E-02	<1.00E-02	<1.00E-02	2.00E-02	3.17E-02	2.55E-02	1.04E-02	1.88E-02
RANCHO SECO 1						<1.00E-02	<1.00E-02	5.02E-03	3.21E-02	5.75E-03
SALEM 1							N/D	2.34E-07	4.01E-02	7.68E-03
SALEM 2										
SAN ONOFRE 1	<1.00E-02	<1.00E-02	<1.00E-02	1.61E+00	<1.00E-02	4.00E-02	<1.00E-02	1.86E-04	2.71E-03	1.43E-04
SAN ONOFRE 2-3										
SEQUOYAH 1&2										
ST. LUCIE 1							<1.00E-02	1.48E-01	5.17E-01	2.02E-01
ST. LUCIE 2										
SUMMER 1										
SURRY 1&2		<1.00E-02	4.00E-02	1.40E-01	5.00E-02	3.46E-01	1.20E-01	6.49E-02	7.61E-03	
THREE MILE ISLAND 1					<1.00E-02	<1.00E-02	1.07E-02	3.39E-02	1.35E-01	1.24E-02
THREE MILE ISLAND 2									2.30E-03	1.42E+01
TMI 2/EPICOR										
TROJAN							1.64E-02	5.05E-02	1.03E-02	3.39E-02
TURKEY POINT 3&4					6.00E-02	3.63E+00	4.30E-01	4.22E-01	1.04E+00	7.91E-02
TURKEY POINT 3										
TURKEY POINT 4										
WATERFORD 3										
WOLF CREEK 1										
YANKEE ROWE 1	<1.00E-02	<1.00E-02	<1.00E-02	1.90E-01	5.30E-01	1.00E-02	<1.00E-02	8.70E-05	2.25E-04	2.49E-04
ZION 1&2				<1.00E-02	1.00E-02	1.40E-01	9.00E-02	5.38E-02	8.91E-02	6.74E-02

* I-131 NOT INCLUDED

N/D = NOT DETECTABLE

TABLE 4
AIRBORNE EFFLUENTS COMPARISON BY YEAR (CURIES)
I-131 AND PARTICULATES
(HALF-LIFE EQUAL TO OR GREATER THAN 8 DAYS)

PRESSURIZED WATER REACTORS

FACILITY	1980	1981	1982	1983	1984	1985
ARKANSAS ONE 1	1.66E-01	5.58E-03	9.07E-04	1.15E-03	1.14E-03	3.50E-03
ARKANSAS ONE 2	6.90E-03	1.41E-02	4.92E-03	5.78E-03	2.54E-04	3.27E-03
BEAVER VALLEY 1	1.91E-03	6.85E-03	4.56E-03	5.25E-02	6.21E-03	1.58E-03
BYRON 1						2.18E-03
CALLAWAY 1					9.41E-07	3.23E-04
CALVERT CLIFFS 1&2	7.44E-02	4.69E-02	1.84E-01	1.02E-01	6.02E-02	5.36E-02
CATAWBA 1						5.71E-04
CRYSTAL RIVER 3	6.77E-03	1.78E-02	3.22E-03	1.58E-03	2.07E-04	7.31E-04
DAVIS-BESSE 1	2.01E-03	5.79E-02	5.28E-03	7.37E-03	1.66E-03	5.13E-04
DIABLO CANYON 1&2					1.20E-05	2.40E-04
DONALD C. COOK 1&2	6.88E-02	3.55E-01	1.28E-01	5.75E-02	2.09E-02	1.78E-01
FORT CALHOUN 1	2.42E-03	3.59E-03	1.56E-03	1.59E-03	1.25E-02	7.29E-03
H. B. ROBINSON 2	1.13E-03	3.32E-04	5.70E-04	1.31E-02	2.47E-04	1.37E-02
HADDAM NECK	8.01E-03	<1.28E-02	<5.41E-04	<1.02E-02	5.72E-02	1.13E-03
INDIAN POINT 1-2	6.42E-02	4.42E-02	4.17E-02	2.06E-02	<1.51E-01	5.67E+00
INDIAN POINT 3	2.53E-02	3.63E-03	<4.28E-03	<1.53E-04	3.43E-02	1.90E-03
JOSEPH M. FARLEY 1	2.37E-03	6.24E-01	9.09E-02	4.60E-02	5.87E-03	5.60E-03
JOSEPH M. FARLEY 2		3.22E-03	6.51E-05	5.06E-05	1.54E-03	2.97E-04
KEWAUNEE	2.61E-04	1.21E-04	5.97E-05	<2.16E-04	<4.05E-03	2.77E-04
MAINE YANKEE	1.88E-03	6.13E-04	1.26E-04	7.22E-05	2.44E-02	4.15E-04
MCGUIRE 1		1.21E-11	9.51E-04	1.89E-03	1.22E-02	1.29E-02
MCGUIRE 2				1.89E-03	1.22E-02	1.29E-02
MILLSTONE 2	1.94E-02	1.06E-01	3.19E-01	5.73E-02	3.71E-02	6.48E-03
NORTH ANNA 1&2	1.26E-02	4.81E-01	3.49E-02	3.28E-01	8.65E-02	8.57E-02
OCONEE 1,2,& 3	1.33E-01	3.24E-01	2.55E-01	1.13E-01	1.07E-01	4.92E-03
PALISADES	2.76E-02	4.15E-02	2.30E-02	3.44E-02	9.92E-04	4.92E-02
PALO VERDE 1						1.43E-03
POINT BEACH 1&2	1.28E-03	2.03E-01	8.46E-03	1.82E-02	1.25E-03	9.05E-03
PRAIRIE ISLAND 1&2	1.83E-03	4.49E-04	3.74E-03	1.40E-02	1.44E-03	7.35E-03
R. E. GINNA	9.00E-03	5.88E-03	1.36E-02	1.53E-02	1.62E-03	9.74E-04
RANCHO SECO 1	9.96E-03	4.65E-03	2.62E-02	2.26E-03	2.37E-02	7.84E-03
SALEM 1	2.17E-01	4.84E-01	7.85E-03	6.25E-02	5.16E-04	4.45E-02
SALEM 2	5.44E-05	6.31E-03	4.54E-03	3.53E-02	5.41E-03	8.95E-02
SAN ONOFRE 1	8.41E-01	1.18E-02	4.66E-07	5.44E-06	9.49E-06	1.17E-03
SAN ONOFRE 2-3			3.35E-05	1.56E-01	4.12E-01	4.47E-01
SEQUOYAH 1&2	2.57E-03	1.30E-02	1.23E-01	2.22E-03	2.12E-02	3.17E-03
ST. LUCIE 1	6.20E-02	7.69E-02	4.15E-01	2.13E-01	2.60E-01	7.91E-01
ST. LUCIE 2				1.27E-02	2.84E-01	1.92E-01
SUMMER 1			0.00E+00	4.74E-05	9.00E-06	2.55E-05
SURRY 1&2	1.85E-02	6.53E-02	5.96E-02	8.34E-02	5.87E-02	2.67E-02
THREE MILE ISLAND 1	2.93E-04	5.05E-04	1.65E-04	6.55E-05	1.27E-09	2.86E-05
THREE MILE ISLAND 2	5.67E-04	3.69E-05	6.46E-05	2.79E-05	1.61E-05	4.59E-05
TMI 2/EPICOR	6.83E-06	2.63E-06	3.71E-06	1.80E-06	7.93E-07	**
TROJAN	2.51E-02	7.67E-02	1.45E-02	6.12E-03	9.31E-03	5.49E-03
TURKEY POINT 3&4	7.05E-02	2.94E-02	2.20E-01	1.44E-01	2.77E-02	
TURKEY POINT 3						7.98E-03
TURKEY POINT 4						7.88E-03
WATERFORD 3						3.48E-03
WOLF CREEK 1						1.67E-06
YANKEE ROWE 1	9.56E-05	2.13E-04	<5.75E-04	3.11E-03	<6.49E-03	<7.61E-04
ZION 1&2	3.00E-03	1.25E-02	8.57E-02	2.28E-02	4.27E-02	2.55E-02

** INCLUDED WITH THREE MILE ISLAND 2 TOTAL FOR 1985

TABLE 5
LIQUID EFFLUENTS COMPARISON BY YEAR (CURIES)

TRITIUM

BOILING WATER REACTORS

FACILITY	1970	1971	1972	1973	1974	1975	1976	1977	1978	1979
BIG ROCK POINT 1	5.40E+01	1.03E+01	1.04E+01	1.97E+01	5.10E+00	5.73E+00	2.41E+00	8.83E+00	4.05E+00	5.45E+00
BROWNS FERRY 1,2,& 3					2.80E+00	1.04E+01	<4.02E+00	2.40E+01	3.08E+01	1.32E+01
BRUNSWICK 1&2						3.20E+00	5.90E+00	8.93E+00	1.41E+01	3.09E+01
COOPER					1.70E+00	8.25E+00	8.43E+00	9.04E+00	7.51E+00	6.63E+00
DRESDEN 1	5.00E+00	8.70E+00	4.33E+01	1.85E+01	1.88E+01	2.70E-01	2.00E-02	8.90E-02	1.31E+01	1.50E+00
DRESDEN 2-3	3.10E+01	3.85E+01	2.59E+01	2.58E+01	2.26E+01	5.40E+01	1.97E+01	5.00E+00	1.92E+01	1.93E+01
DUANE ARNOLD						3.30E-01	3.40E-01	2.13E-01	1.19E+02	2.90E-01
EDWIN I. HATCH 1						6.12E+00	8.98E+00	1.20E+01	9.00E+00	1.23E+01
EDWIN I. HATCH 2										
GRAND GULF 1										
HUMBOLDT BAY 3	7.00E+00	7.50E+00	1.30E+01	5.13E+01	3.17E+01	2.01E+01	1.30E+01	5.26E-01	3.63E-02	3.91E-02
JAMES A. FITZPATRICK						5.03E+00	4.20E+00	3.35E+00	1.90E+00	1.52E+00
LACROSSE	2.00E+01	9.14E+01	1.20E+02	1.03E+02	1.15E+02	1.27E+02	4.10E+01	4.86E+01	4.72E+01	3.54E+01
LASALLE 1&2										
LIMERICK 1		1.27E+01	2.09E+01	3.70E+00	2.41E+01	8.03E+01	2.01E+01	4.41E+00	3.20E+00	7.92E+00
MILLSTONE 1		5.92E-01	<1.00E-01	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
MONTICELLO										
NINE MILE POINT 1	2.00E+01	1.24E+01	2.78E+01	4.65E+01	1.87E+01	2.81E+01	2.46E+00	2.49E+00	0.00E+00	6.78E+00
OYSTER CREEK 1	2.20E+01	2.15E+01	6.16E+01	3.59E+01	1.41E+01	1.79E+01	3.86E+01	1.88E+01	1.96E+01	1.40E+00
PEACH BOTTOM 2&3				<1.00E-01	1.00E+01	3.08E+01	7.37E+01	7.09E+01	3.24E+01	4.28E+01
PILGRIM 1			4.20E+00	4.00E-01	1.05E+01	1.82E+01	4.67E+01	3.27E+01	2.98E+00	1.34E+01
QUAD-CITIES 1&2			4.70E+00	2.45E+01	3.40E+01	5.37E+01	4.98E+01	2.64E+01	1.72E+01	1.76E+01
SUSQUEHANNA 1&2										
VERMONT YANKEE 1				1.00E-01	0.00E+00	0.00E+00	1.60E+00	8.44E-01	0.00E+00	4.04E+00
WNP-2										
FORT ST. VRAIN*										1.23E+02

* HIGH TEMPERATURE GAS COOLED REACTOR
N/R = NOT REPORTED

TABLE 5

LIQUID EFFLUENTS COMPARISON BY YEAR (CURIES)

TRITIUM

BOILING WATER REACTORS

FACILITY	1980	1981	1982	1983	1984	1985
BIG ROCK POINT 1	6.18E+00	3.13E+00	2.98E+00	2.22E+01	1.11E+00	1.27E+00
BROWNS FERRY 1,2,& 3	2.18E+01	2.42E+01	2.39E+01	3.20E+01	3.18E+01	3.31E+01
BRUNSWICK 1&2	1.28E+01	2.26E+01	4.88E+01	1.04E+02	3.37E+01	9.88E+00
COOPER	8.77E+00	<8.37E+00	<9.08E+00	<7.60E+00	<7.20E+00	<5.05E+00
DRESDEN 1	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
DRESDEN 2-3	6.20E+01	6.05E+00	1.36E+00	1.45E-03	3.93E+01	7.45E+00
DUANE ARNOLD	0.00E+00	0.00E+00	2.25E-05	0.00E+00	1.41E-06	3.57E-02
EDWIN I. HATCH 1	1.42E+01	1.16E+01	1.03E+02	9.47E+01	8.02E+01	3.93E+01
EDWIN I. HATCH 2	1.07E+01	9.28E+00	3.68E+01	3.40E+01	2.13E+01	1.81E+01
GRAND GULF 1				3.89E-03	7.27E-01	5.17E+00
HUMBOLDT BAY 3	9.70E-02	<1.62E-01	5.99E-02	5.38E-02	2.93E-02	1.08E+00
JAMES A. FITZPATRICK	2.81E+00	4.11E+00	6.55E-01	2.72E+00	4.77E+00	4.20E+00
LACROSSE	7.20E+01	7.74E+01	5.92E+01	1.24E+02	1.25E+02	1.28E+02
LASALLE 1&2			9.26E-01	4.25E+00	1.10E+00	3.89E-01
LIMERICK 1					0.00E+00	1.15E+00
MILLSTONE 1	2.73E+01	2.62E+00	6.21E+00	8.38E+00	8.58E+00	1.79E+01
MONTICELLO	0.00E+00	4.17E-03	2.70E-05	0.00E+00	0.00E+00	0.00E+00
NINE MILE POINT 1	0.00E+00	5.05E+00	5.82E+00	7.89E+00	0.00E+00	0.00E+00
OYSTER CREEK 1	1.54E+02	2.67E+01	4.95E+00	8.76E+00	1.03E+01	0.00E+00
PEACH BOTTOM 2&3	3.73E+01	3.68E+01	2.37E+01	2.02E+01	3.58E+01	5.04E+01
PILGRIM 1	4.00E+01	3.41E+01	5.91E+00	1.56E+01	1.47E+01	7.81E+00
QUAD-CITIES 1&2	1.03E+01	1.19E+01	7.80E+00	3.88E+00	5.42E+00	3.41E+00
SUSQUEHANNA 1&2			<8.55E-01	8.98E+00	1.12E+01	9.14E+00
VERMONT YANKEE 1	0.00E+00	3.70E-01	0.00E+00	0.00E+00	0.00E+00	0.00E+00
WNP-2					5.40E-01	1.50E+00
FORT ST. VRAIN*	2.06E+02	2.19E+02	2.62E+02	3.69E+02	1.24E+02	1.53E+01

* HIGH TEMPERATURE GAS COOLED REACTOR
N/R = NOT REPORTED

TABLE 6
LIQUID EFFLUENTS COMPARISON BY YEAR (CURIES)
TRITIUM

PRESSURIZED WATER REACTORS

FACILITY	1970	1971	1972	1973	1974	1975	1976	1977	1978	1979
ARKANSAS ONE 1					2.56E+01	4.60E+02	2.12E+02	2.45E+02	2.94E+02	1.68E+02
ARKANSAS ONE 2										5.27E+01
BEAVER VALLEY 1							8.60E+00	1.08E+02	3.49E+02	9.59E+01
BYRON 1										
CALLAWAY 1										
CALVERT CLIFFS 1&2						2.63E+02	2.74E+02	5.75E+02	4.56E+02	5.14E+02
CATAWBA 1										
CRYSTAL RIVER 3								1.66E+02	1.54E+02	1.66E+02
DAVIS-BESSE 1								9.01E+00	2.15E+02	2.45E+02
DIABLO CANYON 1&2										
DONALD C. COOK 1&2						5.64E+01	1.92E+02	2.86E+02	6.24E+02	1.22E+03
FORT CALHOUN 1				1.58E+01	1.24E+02	1.11E+02	1.22E+02	1.57E+02	1.50E+02	2.58E+02
H. B. ROBINSON 2		1.18E+02	4.05E+02	4.32E+02	4.49E+02	6.24E+02	9.80E+02	6.85E+02	4.73E+02	4.29E+02
HADDAM NECK	7.40E+03	5.83E+03	5.89E+03	3.90E+03	2.24E+03	5.67E+03	4.85E+03	6.67E+03	3.94E+03	3.55E+03
INDIAN POINT 1-2				2.75E+01	4.79E+01	7.94E+01	3.32E+02	3.71E+02	5.12E+02	3.75E+02
INDIAN POINT 3							SHOWN W/OTHER UNIT		2.56E+02	1.15E+02
JOSEPH M. FARLEY 1									5.91E+01	9.40E+01
JOSEPH M. FARLEY 2										
KEWAUNEE					9.24E+01	2.77E+02	1.80E+02	2.95E+02	2.96E+02	2.49E+02
MAINE YANKEE			9.20E+00	1.54E+02	2.19E+02	1.77E+02	3.67E+02	1.53E+02	3.15E+02	2.02E+02
MCGUIRE 1										
MCGUIRE 2										
MILLSTONE 2						7.60E+00	2.77E+02	2.11E+02	2.01E+02	2.54E+02
NORTH ANNA 1&2									2.82E+02	3.13E+02
OCONEE 1,2,& 3				7.07E+01	3.50E+02	3.55E+03	2.19E+03	1.92E+03	1.17E+03	8.94E+02
PALISADES			2.08E+02	1.85E+02	8.10E+00	4.16E+01	9.63E+00	5.58E+01	1.01E+02	1.26E+02
PALO VERDE 1										
POINT BEACH 1&2		2.66E+02	5.63E+02	5.56E+02	8.33E+02	8.85E+02	6.94E+02	9.99E+02	1.29E+03	8.92E+02
PRAIRIE ISLAND 1&2				<1.00E-01	1.42E+02	4.54E-01	1.00E-01	1.35E+03	5.51E+02	6.25E+02
R. E. GINNA	1.10E+02	1.54E+02	1.19E+02	2.86E+02	1.95E+02	2.60E+02	2.42E+02	1.19E+02	2.42E+02	2.40E+02
RANCHO SECO 1						1.32E+02	0.00E+00	8.55E-02	0.00E+00	0.00E+00
SALEM 1							4.00E-02	2.96E+02	4.46E+02	7.26E+02
SALEM 2										
SAN ONOFRE 1	4.80E+03	4.57E+03	3.48E+03	4.07E+03	3.81E+03	4.00E+03	3.39E+03	1.79E+03	2.50E+03	2.32E+03
SAN ONOFRE 2-3										
SEQUOYAH 1&2										
ST. LUCIE 1							1.33E+01	2.42E+02	1.28E+02	1.28E+02
ST. LUCIE 2										
SUMMER 1										
SURRY 1&2			5.00E+00	4.88E+02	2.45E+02	4.42E+02	7.82E+02	4.08E+02	7.47E+02	3.57E+02
THREE MILE ISLAND 1					1.30E+02	4.63E+02	1.89E+02	1.92E+02	1.55E+02	5.59E+01
THREE MILE ISLAND 2									3.83E+01	7.81E+01
TMI 2/EPICOR										
TROJAN							3.60E+01	3.11E+02	1.59E+02	6.80E+01
TURKEY POINT 3&4				3.29E+02	5.80E+02	7.97E+02	7.71E+02	9.24E+02	1.17E+03	9.40E+02
TURKEY POINT 3										
TURKEY POINT 4										
WATERFORD 3										
WOLF CREEK 1										
YANKEE ROWE 1	1.50E+03	1.68E+03	8.03E+02	6.94E+02	3.14E+02	2.47E+02	1.56E+02	1.39E+02	1.96E+02	1.75E+02
ZION 1				1.00E-01	2.74E+02	1.03E+03	7.47E+02	7.24E+02	7.25E+02	6.01E+02
ZION 2										

N/R = NOT REPORTED

TABLE 6
LIQUID EFFLUENTS COMPARISON BY YEAR (CURIES)
TRITIUM

PRESSURIZED WATER REACTORS

FACILITY	1980	1981	1982	1983	1984	1985
ARKANSAS ONE 1	2.12E+02	4.42E+02	2.06E+02	1.09E+02	3.05E+02	3.27E+02
ARKANSAS ONE 2	2.89E+02	2.44E+02	1.39E+02	2.38E+02	3.09E+02	2.41E+02
BEAVER VALLEY 1	3.98E+01	1.40E+02	1.84E+02	4.60E+02	4.12E+02	1.50E+02
BYRON 1						2.61E+02
CALLAWAY 1					2.90E+01	5.88E+02
CALVERT CLIFFS 1&2	4.91E+02	1.00E+03	4.35E+02	7.56E+02	7.87E+02	4.83E+02
CATAWBA 1						1.75E+02
CRYSTAL RIVER 3	1.95E+02	2.71E+02	1.82E+02	1.99E+02	4.20E+02	1.76E+02
DAVIS-BESSE 1	1.08E+02	1.57E+02	5.68E+01	1.14E+02	1.22E+02	6.74E+01
DIABLO CANYON 1&2					1.07E+00	4.28E+02
DONALD C. COOK 1&2	7.82E+02	9.15E+02	1.23E+03	8.85E+02	1.37E+03	1.14E+03
FORT CALHOUN 1	5.44E+01	2.42E+02	3.08E+02	1.53E+02	2.35E+02	1.67E+02
H. B. ROBINSON 2	1.89E+02	1.86E+02	9.51E+01	2.40E+02	1.34E+01	3.09E+02
HADDAM NECK	3.29E+03	5.29E+03	4.05E+03	3.90E+03	3.66E+03	5.76E+03
INDIAN POINT 1-2	2.76E+02	2.41E+02	1.72E+02	3.43E+02	2.22E+02	3.51E+02
INDIAN POINT 3	4.27E+02	6.42E+02	1.94E+02	3.19E+01	5.87E+02	3.40E+02
JOSEPH M. FARLEY 1	5.70E+02	1.65E+02	3.37E+02	4.12E+02	4.23E+02	6.03E+02
JOSEPH M. FARLEY 2		6.34E+02	3.59E+02	3.17E+02	3.56E+02	5.02E+02
KEWAUNEE	2.33E+02	2.51E+02	3.18E+02	2.92E+02	4.40E+02	3.79E+02
MAINE YANKEE	2.18E+02	2.16E+02	1.85E+02	2.87E+02	1.72E+02	1.84E+02
MCGUIRE 1		6.25E+00	1.60E+02	1.49E+02	3.23E+02	4.02E+02
MCGUIRE 2				1.49E+02	3.23E+02	4.02E+02
MILLSTONE 2	2.68E+02	3.71E+02	2.91E+02	1.21E+02	3.97E+02	1.66E+02
NORTH ANNA 1&2	4.03E+02	1.28E+03	5.71E+02	1.61E+03	6.20E+02	1.48E+03
OCONEE 1,2,& 3	7.12E+02	5.07E+02	3.54E+02	1.28E+03	1.28E+03	1.24E+03
PALISADES	7.47E+01	2.78E+02	1.79E+02	2.35E+02	6.95E+01	4.29E+02
PALO VERDE 1						0.00E+00
POINT BEACH 1&2	7.61E+02	6.52E+02	5.03E+02	5.39E+02	2.10E+03	8.05E+02
PRAIRIE ISLAND 1&2	5.43E+02	5.62E+02	6.00E+02	5.20E+02	6.41E+02	6.96E+02
R. E. GINNA	1.60E+02	2.40E+02	3.08E+02	3.50E+02	4.59E+02	5.01E+02
RANCHO SECO 1	1.47E-02	8.35E+01	6.46E+01	7.43E+01	2.97E+02	9.00E+01
SALEM 1	0.00E+00	4.93E+02	7.22E+02	2.08E+02	3.30E+02	9.23E+02
SALEM 2	N/R	8.42E+02	5.25E+02	2.23E+02	3.08E+02	5.77E+02
SAN ONOFRE 1	1.03E+03	2.97E+02	5.45E+02	1.57E+01	3.39E+01	2.38E+03
SAN ONOFRE 2-3			8.92E+00	2.38E+02	4.55E+02	4.75E+02
SEQUOYAH 1&2	3.23E-01	7.65E+01	9.34E+02	7.35E+02	1.82E+03	6.33E+02
ST. LUCIE 1	2.72E+02	3.25E+02	3.21E+02	3.46E+02	2.21E+02	2.86E+02
ST. LUCIE 2				3.77E+01	2.21E+02	3.64E+02
SUMMER 1			3.19E-01	2.27E+02	2.25E+02	3.11E+02
SURRY 1&2	3.85E+02	5.31E+02	9.10E+02	7.17E+02	8.12E+02	7.50E+02
THREE MILE ISLAND 1	3.26E+01	7.11E+00	3.91E+00	3.09E+00	1.72E+00	9.06E+00
THREE MILE ISLAND 2	6.10E-04	5.06E-02	7.20E-02	3.75E-04	1.56E-04	2.22E-03
TMI 2/EPICOR	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	**
TROJAN	1.24E+02	1.03E+02	2.00E+02	2.34E+02	1.87E+02	2.65E+02
TURKEY POINT 3&4	7.49E+02	1.95E+02	6.27E+02	7.12E+02	8.91E+02	
TURKEY POINT 3						4.33E+02
TURKEY POINT 4						4.33E+02
WATERFORD 3						2.54E+01
WOLF CREEK 1						1.83E+02
YANKEE ROWE 1	5.84E+01	1.03E+02	1.86E+02	1.68E+02	1.64E+02	2.28E+02
ZION 1	7.45E+02	6.04E+02	6.76E+02	1.74E+02	1.74E+02	1.35E+02
ZION 2		2.66E+02	3.77E+02	2.56E+02	5.11E+02	5.21E+02

** INCLUDED WITH THREE MILE ISLAND 2 TOTAL FOR 1985

N/R = NOT REPORTED

TABLE 7

LIQUID EFFLUENTS COMPARISON BY YEAR (CURIES)

BOILING WATER REACTORS

MIXED FISSION AND ACTIVATION PRODUCTS

FACILITY	1970	1971	1972	1973	1974	1975	1976	1977	1978	1979
BIG ROCK POINT 1	4.70E+00	3.50E+00	1.10E+00	2.70E+00	1.10E+00	2.02E+00	7.70E-01	3.92E-01	2.74E-01	9.03E-01
BROWNS FERRY 1,2,& 3					8.00E-01	2.70E+00	<3.95E+00	1.19E+00	1.32E+01	1.02E+01
BRUNSWICK 1&2						1.89E+00	3.29E+00	6.22E+00	3.48E+00	5.10E+00
COOPER					1.40E+00	1.74E+00	7.00E-02	7.50E-01	3.05E+00	<2.48E+00
DRESDEN 1	8.20E+00	6.20E+00	6.80E+00	9.20E+00	6.90E+00	8.40E-01	3.60E-01	6.00E-01	3.26E-01	2.65E-02
DRESDEN 2-3		2.30E+01	2.20E+01	2.59E+01	3.31E+01	8.10E-01	1.21E+00	4.40E-01	3.99E-01	2.65E-01
DUANE ARNOLD						<1.00E-02	<1.00E-02	2.32E-03	2.73E-01	5.10E-04
EDWIN I. HATCH 1						6.00E-02	4.00E-02	2.50E+01	4.03E-02	4.82E-02
EDWIN I. HATCH 2										
GRAND GULF 1										
HUMBOLDT BAY 3	2.40E+00	1.80E+00	1.40E+00	2.40E+00	4.40E+00	3.79E+00	9.90E-01	9.17E-01	1.95E-01	9.55E-02
JAMES A. FITZPATRICK						5.32E+00	6.01E+00	8.85E-01	1.58E+00	6.46E-01
LACROSSE	6.40E+00	1.71E+01	4.85E+01	3.59E+01	1.31E+01	1.42E+01	<5.78E+00	2.13E+01	8.86E+00	1.67E+00
LASALLE 1&2										
LIMERICK 1										
MILLSTONE 1		1.97E+01	5.15E+01	3.34E+01	1.98E+02	1.99E+02	9.65E+00	5.27E-01	1.75E-01	2.10E-01
MONTICELLO		<1.00E-01	<1.00E-01	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
NINE MILE POINT 1	2.80E+01	3.22E+01	3.46E+01	4.08E+01	2.56E+01	2.10E+01	2.14E+00	3.03E-01	0.00E+00	1.89E+00
OYSTER CREEK 1	1.85E+01	1.20E+01	1.00E+01	4.20E+00	7.00E-01	4.10E-01	2.20E-01	9.81E-02	1.53E-02	6.59E-03
PEACH BOTTOM 2&3				<1.00E-01	9.00E-01	9.30E-01	3.38E+00	2.23E+00	5.11E+00	1.95E+01
PILGRIM 1			1.50E+00	9.00E-01	4.20E+00	8.01E+00	2.33E+00	3.41E+00	1.77E+00	5.12E-01
QUAD-CITIES 1&2			2.40E+00	2.14E+01	3.88E+01	1.71E+01	6.99E+00	1.34E+00	2.24E+00	1.31E+00
SUSQUEHANNA 1&2										
VERMONT YANKEE 1				<1.00E-01	0.00E+00	<1.00E-02	<1.00E-02	1.55E-01	0.00E+00	2.40E-04
WNP-2										
FORT ST. VRAIN*										1.89E-04

* HIGH TEMPERATURE GAS COOLED REACTOR
N/R = NOT REPORTED

TABLE 7

LIQUID EFFLUENTS COMPARISON BY YEAR (CURIES)

BOILING WATER REACTORS		MIXED FISSION AND ACTIVATION PRODUCTS				
FACILITY	1980	1981	1982	1983	1984	1985
BIG ROCK POINT 1	7.82E-01	3.91E-01	2.60E-01	7.82E-02	1.48E-01	1.53E-01
BROWNS FERRY 1,2,& 3	9.38E+00	2.24E+00	5.36E+01	1.28E+01	6.30E+00	1.34E+00
BRUNSWICK 1&2	1.26E+00	2.20E+00	2.32E+00	1.08E+00	5.65E-01	1.15E-01
COOPER	<1.10E+01	<3.61E+00	<5.44E+00	<1.23E+01	<6.30E+00	<1.30E+01
DRESDEN 1	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
DRESDEN 2-3	7.16E-01	6.12E-02	1.91E-02	1.24E-02	1.15E-01	2.03E+00
DUANE ARNOLD	0.00E+00	0.00E+00	4.16E-06	0.00E+00	1.90E-09	8.24E-04
EDWIN I. HATCH 1	6.83E-02	3.73E-01	7.00E-01	9.09E-01	1.05E+00	4.80E-01
EDWIN I. HATCH 2	4.57E-02	1.63E-01	1.83E-01	3.29E-01	2.67E-01	2.63E-01
GRAND GULF 1				4.42E-03	3.16E-02	2.13E-01
HUMBOLDT BAY 3	1.39E-01	1.55E-01	3.46E-01	9.89E-02	1.64E-01	1.25E-01
JAMES A. FITZPATRICK	1.51E+00	2.51E+00	6.50E-01	7.71E-01	9.79E-02	1.80E-01
LACROSSE	2.13E+00	2.26E-01	5.83E+00	3.75E+00	3.26E+00	1.83E+00
LASALLE 1&2			9.82E-01	8.60E+00	8.48E-02	3.84E+00
LIMERICK 1					6.45E-04	2.18E-02
MILLSTONE 1	7.24E-01	3.94E-01	1.15E+00	8.08E-01	3.78E-02	4.66E-01
MONTICELLO	0.00E+00	3.11E-06	5.80E-07	0.00E+00	0.00E+00	0.00E+00
NINE MILE POINT 1	0.00E+00	5.35E+00	2.51E-03	1.11E-02	0.00E+00	0.00E+00
OYSTER CREEK 1	5.06E-01	2.48E-01	8.10E-02	3.63E-03	6.84E-03	0.00E+00
PEACH BOTTOM 2&3	1.90E+00	1.97E+00	9.33E+00	2.24E+00	6.15E+00	2.16E+00
PILGRIM 1	2.73E+00	1.94E+00	8.72E-01	9.35E-01	4.75E+00	1.06E+00
QUAD-CITIES 1&2	1.31E+01	3.27E+00	4.03E-01	1.37E-01	7.23E-02	1.46E+00
SUSQUEHANNA 1&2			<1.99E-01	2.49E+00	1.45E-01	6.35E-01
VERMONT YANKEE 1	0.00E+00	1.02E-02	0.00E+00	0.00E+00	0.00E+00	0.00E+00
WNP-2					2.74E-02	1.09E-02
FORT ST. VRAIN*	6.37E-05	3.64E-04	4.34E-04	1.73E-02	1.27E-03	1.84E-03

* HIGH TEMPERATURE GAS COOLED REACTOR
N/R = NOT REPORTED

TABLE 8

LIQUID EFFLUENTS COMPARISON BY YEAR (CURIES)
MIXED FISSION AND ACTIVATION PRODUCTS

PRESSURIZED WATER REACTORS

FACILITY	1970	1971	1972	1973	1974	1975	1976	1977	1978	1979
ARKANSAS ONE 1					6.50E+00	3.11E+00	1.31E+01	4.50E+00	6.05E+00	3.09E+00
ARKANSAS ONE 2										1.30E+00
BEAVER VALLEY 1							1.70E-01	6.52E-01	2.63E-01	1.21E-01
BYRON 1										
CALLAWAY 1										
CALVERT CLIFFS 1&2					1.44E+00	1.18E+00	3.48E+00	6.13E+00	7.80E+00	
CATAWBA 1										
CRYSTAL RIVER 3								1.54E-02	2.96E-02	4.16E-01
DAVIS-BESSE 1								2.60E-02	9.01E-02	4.28E-02
DIABLO CANYON 1&2										
DONALD C. COOK 1&2						2.60E-01	1.87E+00	1.52E+00	1.48E+00	2.58E+00
FORT CALHOUN 1				<1.00E-01	2.30E+00	3.60E-01	5.50E-01	3.63E-01	5.95E-01	2.45E-01
H. B. ROBINSON 2		7.00E-01	8.00E-01	6.00E-01	2.50E+00	4.50E-01	3.80E-01	3.29E-01	1.78E-01	2.99E-01
HADDAM NECK	6.70E+00	5.90E+00	4.80E+00	3.00E+00	2.20E+00	1.20E+00	1.30E-01	1.71E+00	9.50E-01	8.67E-01
INDIAN POINT 1-2				2.20E+00	4.20E+00	4.93E+00	<4.98E+00	3.02E+00	1.99E+00	1.94E+00
INDIAN POINT 3							SHOWN W/OTHER UNIT		1.03E+00	4.02E-01
JOSEPH M. FARLEY 1									1.03E-01	5.86E-02
JOSEPH M. FARLEY 2										
KEWAUNEE					4.00E-01	7.20E-01	2.83E+00	1.26E+00	6.99E-01	8.94E-01
MAINE YANKEE			<1.00E-01	<1.00E-01	4.00E+00	3.21E+00	<2.84E+00	4.42E-01	1.04E-01	4.63E-01
MCGUIRE 1										
MCGUIRE 2						2.00E-02	2.60E-01	1.56E+00	2.79E+00	4.87E+00
MILLSTONE 2									2.68E-01	5.89E-01
NORTH ANNA 1&2				2.80E+00	1.90E+00	5.05E+00	7.93E+00	3.62E+01	6.51E+00	9.24E-01
OCONEE 1,2,& 3				6.80E+00	2.78E+01	5.90E+00	3.45E+00	4.40E-01	9.29E-02	9.65E-02
PALISADES									9.65E-02	1.28E-01
PALO VERDE 1										
POINT BEACH 1&2		1.00E-01	1.50E+00	8.00E-01	2.00E-01	2.34E+00	3.24E+00	1.50E+00	6.86E-01	7.25E-01
PRAIRIE ISLAND 1&2				<1.00E-01	<1.00E-01	4.50E-01	1.00E-01	1.33E-02	4.94E-03	9.00E-03
R. E. GINNA	1.00E+01	9.00E-01	3.00E-01	1.00E-01	1.00E-01	4.20E-01	6.90E-01	6.47E-02	6.07E-02	8.63E-02
RANCHO SECO 1						<1.00E-02	0.00E+00	0.00E+00	0.00E+00	0.00E+00
SALEM 1							<1.00E-02	2.88E+00	4.02E+00	3.98E+00
SALEM 2										
SAN ONOFRE 1	7.60E+00	1.50E+00	3.03E+01	1.60E+01	5.00E+00	1.22E+00	7.43E+00	9.84E+00	1.18E+01	1.10E+01
SAN ONOFRE 2-3										
SEQUOYAH 1&2										
ST. LUCIE 1							8.00E-02	5.80E+00	2.80E+00	2.67E+00
ST. LUCIE 2										
SUMMER 1										
SURRY 1&2			2.00E-01	1.00E-01	3.80E+00	9.27E+00	3.37E+01	6.55E+01	2.41E+00	2.53E+00
THREE MILE ISLAND 1					1.30E+00	7.00E-02	1.00E-01	1.94E-01	6.14E-01	4.91E-01
THREE MILE ISLAND 2									3.92E-01	3.31E-01
TMI 2/EPICOR										
TROJAN							2.77E+00	4.19E+00	7.07E-01	5.55E-01
TURKEY POINT 3&4				<1.00E-01	1.60E+00	3.07E+00	<8.65E+00	8.90E+00	3.32E+00	4.10E-01
TURKEY POINT 3										
TURKEY POINT 4										
WATERFORD 3										
WOLF CREEK 1										
YANKEE ROWE 1	<1.00E-01	<1.00E-01	<1.00E-01	<1.00E-01	<1.00E-01	2.00E-02	<1.00E-02	1.80E-02	8.14E-02	1.17E-02
ZION 1				<1.00E-01	<1.00E-01	<1.00E-02	1.60E-01	9.50E-01	9.51E-01	7.00E-01
ZION 2										

N/R = NOT REPORTED

TABLE 8

LIQUID EFFLUENTS COMPARISON BY YEAR (CURIES)
MIXED FISSION AND ACTIVATION PRODUCTS

PRESSURIZED WATER REACTORS

FACILITY	1980	1981	1982	1983	1984	1985
ARKANSAS ONE 1	3.42E+00	7.50E+00	5.80E+00	4.30E+00	4.10E+00	3.53E+00
ARKANSAS ONE 2	4.13E+00	2.95E+00	5.90E+00	3.70E+00	2.48E+00	4.36E+00
BEAVER VALLEY 1	1.04E-01	1.44E-01	1.47E-01	6.09E-02	2.03E-01	1.13E-01
BYRON 1						1.63E+01
CALLAWAY 1					1.07E-03	4.97E-03
CALVERT CLIFFS 1&2	4.53E+00	2.68E+00	5.26E+00	2.24E+00	1.64E+00	2.38E+00
CATAWBA 1						1.26E+00
CRYSTAL RIVER 3	1.46E-01	1.29E-01	1.07E-01	1.50E-01	2.34E-01	1.51E+00
DAVIS-BESSE 1	2.07E-01	7.92E-01	2.19E-01	5.39E-01	1.89E-01	1.85E-01
DIABLO CANYON 1&2					1.16E-02	3.20E+00
DONALD C. COOK 1&2	1.37E+00	1.86E+00	1.90E+00	6.83E-01	1.19E+00	2.26E+00
FORT CALHOUN 1	5.04E-01	1.65E-01	1.79E-01	1.42E-01	2.90E+00	2.86E-01
H. B. ROBINSON 2	3.58E-01	1.84E+00	1.20E+00	8.23E-01	3.90E-01	9.41E-02
HADDAM NECK	2.76E-01	7.12E-01	6.93E-02	4.80E-01	2.63E-01	8.44E-02
INDIAN POINT 1-2	1.26E+00	5.67E+00	2.41E+00	4.02E+00	2.67E+00	1.85E+00
INDIAN POINT 3	2.90E+00	2.62E+00	5.46E-01	5.44E-01	1.26E+00	4.18E-01
JOSEPH M. FARLEY 1	6.18E-02	1.31E-01	5.94E-02	5.75E+02	6.34E-02	6.72E-02
JOSEPH M. FARLEY 2		2.69E-02	2.90E-02	2.04E-02	8.63E-02	3.77E-02
KEWAUNEE	6.17E-01	8.15E-01	1.52E+00	5.43E-01	1.01E+00	1.35E+00
MAINE YANKEE	2.97E-01	4.36E-01	7.03E-01	1.99E-01	8.62E-02	3.11E-02
MCGUIRE 1		3.94E-01	1.75E+00	1.87E+00	1.51E+00	6.21E-01
MCGUIRE 2				1.87E+00	1.51E+00	6.21E-01
MILLSTONE 2	2.81E+00	4.18E+00	1.39E+01	7.81E+00	3.55E+00	4.60E+00
NORTH ANNA 1&2	1.05E+00	6.76E-01	1.32E+00	5.88E+00	4.51E+00	5.07E+00
OCONEE 1,2,& 3	1.54E+00	1.75E+00	1.04E+00	1.43E+00	1.58E+00	4.16E+00
PALISADES	8.73E-03	3.31E-02	1.27E-01	7.48E-02	3.68E-02	5.83E-02
PALO VERDE 1						0.00E+00
POINT BEACH 1&2	6.29E-01	1.01E+00	2.95E+00	1.27E+00	1.22E+01	1.90E+00
PRAIRIE ISLAND 1&2	1.32E-02	9.12E-03	2.23E-03	3.16E-02	1.91E-02	2.75E-02
R. E. GINNA	1.96E-02	3.85E-02	6.17E-01	1.93E-01	1.69E-01	5.22E-01
RANCHO SECO 1	3.78E-03	5.92E-01	2.16E-01	2.81E-01	6.33E-01	7.39E-03
SALEM 1	2.65E+00	2.80E+00	3.22E+00	2.97E+00	3.31E+00	2.88E+00
SALEM 2	3.89E-01	1.51E+00	3.21E+00	2.85E+00	2.75E+00	2.80E+00
SAN ONOFRE 1	1.12E+01	<5.53E+00	2.15E+00	1.22E+00	2.74E+00	7.79E+00
SAN ONOFRE 2-3			6.32E-01	2.79E+00	1.30E+01	1.12E+01
SEQUOYAH 1&2	N/R	2.76E+00	9.82E+00	4.61E+00	3.23E+00	1.45E+00
ST. LUCIE 1	2.36E+00	2.46E+00	3.07E+00	2.99E+00	1.93E+00	2.72E+00
ST. LUCIE 2					1.93E+00	2.75E+00
SUMMER 1			1.24E-04	1.47E+00	4.54E+00	7.09E-01
SURRY 1&2	3.85E+00	6.11E+00	6.68E+00	1.45E+01	9.73E+00	8.55E+00
THREE MILE ISLAND 1	1.83E-01	8.69E-02	5.29E-02	8.12E-02	3.41E-02	6.30E-03
THREE MILE ISLAND 2	1.45E-05	2.22E-05	4.25E-05	9.03E-05	6.46E-04	1.77E-04
TMI 2/EPICOR	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	**
TROJAN	7.87E-01	9.94E-01	8.56E-01	3.10E-01	3.49E-01	4.65E-01
TURKEY POINT 3&4	6.78E-01	3.03E-01	1.68E+00	1.13E+00	2.27E-01	
TURKEY POINT 3						4.48E-01
TURKEY POINT 4						4.48E-01
WATERFORD 3						2.88E-01
WOLF CREEK 1						6.35E-01
YANKEE ROWE 1	1.75E-02	1.43E-02	9.53E-03	1.30E-02	3.06E-02	1.69E-02
ZION 1	4.74E-01	1.61E+00	7.22E-01	1.50E+00	6.82E+00	3.24E-01
ZION 2		1.05E+00	1.65E+00	1.15E+00	7.06E+00	2.05E+00

** INCLUDED WITH THREE MILE ISLAND 2 TOTAL FOR 1985

N/R = NOT REPORTED

TABLE 9

BOILING WATER REACTORS

SOLID WASTE SUMMARY 1985

FACILITY	VOLUME (CUBIC METERS)	ACTIVITY (CURIES)	NO. OF SHIPMENTS
BIG ROCK POINT 1	5.22E+01	1.14E+02	5
BROWNS FERRY 1,2,& 3	2.30E+03	3.08E+03	182
BRUNSWICK 1&2	1.32E+03	2.50E+03	109
COOPER	6.35E+02	2.98E+04	50
DRESDEN 1,2,&3	1.05E+04	6.63E+04	343
DUANE ARNOLD	7.93E+02	5.24E+02	56
EDWIN I. HATCH 1	2.04E+03	3.83E+04	154
EDWIN I. HATCH 2	**	**	**
GRAND GULF 1	6.02E+02	2.60E+02	48
HUMBOLDT BAY 3	8.31E+02	2.60E+02	95
JAMES A. FITZPATRICK	7.77E+02	7.79E+02	72
LACROSSE	6.30E+01	2.35E+02	5
LASALLE 1&2	1.21E+03	4.87E+02	175
LIMERICK 1	3.06E+02	2.06E+01	12
MILLSTONE 1	1.17E+03	9.36E+04	82
MONTICELLO	5.44E+02	4.87E+03	66
NINE MILE POINT 1	5.75E+02	6.80E+03	85
OYSTER CREEK 1	4.62E+02	6.30E+02	44
PEACH BOTTOM 2&3	2.33E+03	1.21E+05	291
PILGRIM 1	1.41E+03	7.48E+04	100
QUAD-CITIES 1&2	1.33E+03	5.53E+04	147
SUSQUEHANNA 1&2	1.13E+03	2.16E+03	137
VERMONT YANKEE 1	5.43E+02	1.73E+04	45
WNP-2	4.02E+02	2.96E+02	46
 FORT ST. VRAIN*	 1.10E+02	 4.19E+02	 6

* HIGH TEMPERATURE GAS COOLED REACTOR

** INCLUDED WITH UNIT 1 TOTALS FOR 1985

TABLE 10

PRESSURIZED WATER REACTORS

SOLID WASTE SUMMARY 1985

FACILITY	VOLUME (CUBIC METERS)	ACTIVITY (CURIES)	NO. OF SHIPMENTS
ARKANSAS ONE 1&2	6.88E+02	1.75E+03	61
BEAVER VALLEY 1	1.56E+02	9.71E+01	18
BYRON 1	1.78E+02	1.39E+01	20
CALLAWAY 1	1.39E+02	6.29E+00	11
CALVERT CLIFFS 1&2	3.89E+02	1.51E+04	34
CATAWBA 1	3.48E+01	6.90E-02	1
CRYSTAL RIVER 3	4.98E+02	4.60E+03	46
DAVIS-BESSE 1	1.97E+02	9.58E+01	18
DIABLO CANYON 1&2	3.11E+01	4.40E+01	3
DONALD C. COOK 1&2	8.28E+02	2.00E+03	62
FORT CALHOUN 1	3.43E+02	2.24E+02	44
H. B. ROBINSON 2	6.42E+02	3.35E+03	43
HADDAM NECK	1.73E+02	5.33E+01	19
INDIAN POINT 1-2	6.89E+02	5.75E+02	53
INDIAN POINT 3	2.39E+02	5.49E+02	26
JOSEPH M. FARLEY 1&2	4.95E+02	8.20E+02	35
KEWAUNEE	7.77E+01	9.56E+02	13
MAINE YANKEE	3.59E+02	1.11E+02	22
MCGUIRE 1&2	6.60E+02	1.97E+02	46
MILLSTONE 2	2.87E+01	6.16E+03	7
NORTH ANNA 1&2	6.50E+02	2.90E+02	61
OCONEE 1,2,& 3	4.33E+02	1.41E+03	43
PALISADES	4.76E+02	1.83E+02	N/R
PALO VERDE 1	8.42E+01	6.80E+01	8
POINT BEACH 1&2	2.81E+02	1.25E+03	23
PRAIRIE ISLAND 1&2	1.73E+02	4.02E+02	14
R. E. GINNA	2.23E+02	1.19E+02	72
RANCHO SECO 1	9.76E+02	1.57E+03	77
SALEM 1&2	4.55E+02	2.02E+03	28
*SAN ONOFRE	1.56E+01	8.96E-01	40
SAN ONOFRE 1	1.80E+02	6.04E+00	0
SAN ONOFRE 2-3	5.45E+02	1.72E+03	0
SEQUOYAH 1&2	7.52E+02	2.45E+03	58
ST. LUCIE 1&2	5.45E+02	1.59E+03	35
SUMMER 1	4.46E+02	1.30E+02	31
SURRY 1&2	2.02E+03	1.21E+03	99
THREE MILE ISLAND 1	4.69E+02	1.94E+01	41
THREE MILE ISLAND 2	4.83E+02	6.35E+03	47
TMI 2/EPICOR	**	**	**
TROJAN	3.09E+02	3.52E+03	23
TURKEY POINT 3&4	6.08E+02	1.50E+03	38
WATERFORD 3	2.82E+02	3.39E+01	23
WOLF CREEK 1	0.00E+00	0.00E+00	0
YANKEE ROWE 1	2.00E+02	2.68E+02	13
ZION 1&2	6.73E+02	2.69E+03	75

* REPRESENTS SOLID WASTE SHIPPED BY PLANT BUT NOT BROKEN DOWN INTO UNITS 1, 2, & 3

** INCLUDED WITH THREE MILE ISLAND 2 TOTALS FOR 1985

TABLE 11

SOLID WASTE COMPARISON BY YEAR

BOILING WATER REACTORS

VOLUME(CUBIC METERS) - ACTIVITY(CURIES)

FACILITY	1976		1977		1978		1979		1980	
BIG ROCK POINT 1	2.88E+01	3.69E+00	7.22E+01	9.68E+02	3.10E+01	2.56E+01	8.99E+01	2.77E+02	4.20E+01	3.09E+01
BROWNS FERRY 1,2,& 3	3.20E+02	1.03E+02	1.82E+03	1.10E+04	2.90E+03	1.33E+03	2.29E+03	4.17E+03	2.49E+03	6.46E+03
BRUNSWICK 1&2	1.79E+03	6.46E+02	2.47E+03	3.24E+03	2.02E+03	2.14E+03	3.09E+03	4.29E+03	6.73E+03	7.55E+03
COOPER	3.01E+02	3.20E+02	2.83E+02	2.85E+02	3.29E+02	3.84E+02	5.65E+02	9.69E+01	4.35E+02	7.05E+02
DRESDEN 1,2,& 3	7.12E+03	4.33E+03	2.25E+03	1.13E+04	1.77E+03	1.88E+03	1.04E+03	8.45E+02	1.16E+03	4.46E+03
DUANE ARNOLD	5.95E+02	1.87E+02	5.45E+02	4.98E+02	1.10E+03	1.86E+03	7.99E+02	8.01E+02	7.35E+02	7.00E+02
EDWIN I. HATCH 1	4.12E+02	2.91E+02	5.39E+02	3.81E+02	7.50E+02	1.09E+04	9.78E+02	2.70E+02	4.64E+02	9.62E+02
EDWIN I. HATCH 2									2.59E+02	8.27E+01
GRAND GULF 1										
HUMBOLDT BAY 3	8.49E+01	4.09E+00	3.77E+02	2.00E+01	1.78E+02	7.91E-01	9.06E+01	3.35E+03	8.20E+01	6.95E+01
JAMES A. FITZPATRICK	6.19E+02	3.41E+02	1.23E+03	6.17E+03	8.70E+02	3.19E+02	8.04E+02	1.06E+03	7.50E+02	8.86E+02
LACROSSE	N/R	N/R	4.65E+00	5.88E+02	3.80E+01	6.18E+01	5.09E+00	1.25E+02	4.32E+01	2.02E+01
LASALLE 1&2										
LIMERICK 1										
MILLSTONE 1	1.33E+03	1.70E+03	1.77E+03	3.03E+03	2.00E+03	8.15E+04	2.11E+03	1.16E+03	2.30E+03	2.36E+03
MONTICELLO	2.85E+02	3.79E+03	5.73E+02	2.91E+04	4.99E+02	6.35E+04	4.74E+02	1.31E+04	7.42E+02	7.57E+02
NINE MILE POINT 1	5.38E+02	2.51E+03	6.65E+02	2.51E+04	3.85E+02	2.24E+04	4.97E+02	1.52E+03	8.14E+02	2.32E+04
OYSTER CREEK 1	1.20E+03	1.29E+03	1.74E+03	2.73E+02	1.54E+03	1.15E+03	1.13E+03	1.34E+03	2.03E+03	1.32E+03
PEACH BOTTOM 2&3	1.20E+03	5.85E+02	2.52E+03	1.82E+03	1.96E+03	4.97E+03	2.40E+03	8.03E+03	2.64E+03	6.69E+03
PILGRIM 1	9.12E+02	3.69E+04	5.84E+02	5.70E+03	1.97E+03	4.92E+04	3.03E+03	2.22E+04	2.94E+03	1.60E+03
QUAD-CITIES 1&2	1.00E+03	2.35E+03	1.20E+03	7.53E+03	1.34E+03	3.27E+03	7.82E+02	4.26E+03	1.67E+03	4.07E+03
SUSQUEHANNA 1&2										
VERMONT YANKEE 1	2.38E+02	2.93E+01	1.08E+02	1.76E+02	3.99E+02	5.39E+04	2.71E+02	9.99E+02	4.84E+02	9.20E+02
WNP-2										
FORT ST. VRAIN*							0.00E+00	0.00E+00	0.00E+00	0.00E+00

* HIGH TEMPERATURE GAS COOLED REACTOR

N/R = NOT REPORTED

TABLE 11

SOLID WASTE COMPARISON BY YEAR

BOILING WATER REACTORS

VOLUME(CUBIC METERS) - ACTIVITY(CURIES)

FACILITY	1981		1982		1983		1984		1985	
BIG ROCK POINT 1	1.44E+02	3.17E+02	1.09E+02	4.33E+00	1.01E+02	2.74E+02	3.67E+01	2.13E+00	5.22E+01	1.14E+02
BROWNS FERRY 1,2,& 3	2.23E+03	4.78E+03	5.91E+03	5.51E+03	3.72E+03	6.90E+03	1.92E+03	2.15E+03	2.30E+03	3.08E+03
BRUNSWICK 1&2	4.30E+03	7.47E+03	3.53E+03	5.50E+03	3.51E+03	8.36E+03	1.37E+03	3.45E+03	1.32E+03	2.50E+03
COOPER	4.99E+02	4.43E+02	4.45E+02	4.27E+02	5.03E+02	8.53E+02	4.37E+02	4.91E+02	6.35E+02	2.98E+04
DRESDEN 1,2,& 3	1.14E+03	4.59E+03	8.99E+02	1.66E+05+	1.42E+03	2.91E+03	1.26E+03	4.37E+03	1.05E+04	6.63E+04
DUANE ARNOLD	6.97E+02	1.07E+03	4.57E+02	1.27E+03	6.81E+02	1.44E+03	2.68E+02	9.13E+02	7.93E+02	5.24E+02
EDWIN I. HATCH 1	1.29E+03	4.46E+03	9.13E+02	3.10E+03	1.87E+03	2.27E+03	2.50E+03	2.58E+03	2.04E+03	3.83E+04
EDWIN I. HATCH 2	1.40E+03	3.05E+02	7.79E+02	9.40E+02	**	**	**	**	**	**
GRAND GULF 1					3.12E+02	7.21E+00	4.31E+02	9.09E+00	6.02E+02	2.60E+02
HUMBOLDT BAY 3	8.43E+01	5.46E-01	7.71E+01	1.34E+00	2.78E+01	1.75E+04	6.56E+01	7.29E+00	8.31E+02	2.60E+02
JAMES A. FITZPATRICK	8.61E+02	1.63E+03	1.64E+03	7.89E+02	7.11E+02	7.03E+02	4.31E+02	1.26E+03	7.77E+02	7.79E+02
LACROSSE	4.82E+00	6.11E+01	3.53E+01	5.26E+01	1.20E+01	1.88E+02	4.22E+01	1.93E+02	6.30E+01	2.35E+02
LASALLE 1&2			0.00E+00	0.00E+00	6.83E+02	3.01E+01	8.40E+02	1.80E+02	1.21E+03	4.87E+02
LIMERICK 1							0.00E+00	0.00E+00	3.06E+02	2.06E+01
MILLSTONE 1	1.96E+03	1.82E+03	9.77E+02	1.08E+03	6.93E+02	6.81E+02	9.40E+02	1.97E+03	1.17E+03	9.36E+04
MONTICELLO	5.54E+02	4.42E+02	7.50E+02	3.89E+03	3.57E+02	4.43E+04	1.24E+03	5.73E+02	5.44E+02	4.87E+03
NINE MILE POINT 1	5.31E+02	1.72E+03	5.76E+02	7.07E+03	7.21E+02	5.42E+04	6.29E+02	1.34E+04	5.75E+02	6.80E+03
OYSTER CREEK 1	1.78E+03	4.21E+02	9.96E+02	4.67E+03	1.00E+03	5.61E+02	1.39E+03	4.39E+04	4.62E+02	6.30E+02
PEACH BOTTOM 2&3	2.34E+03	5.33E+03	3.23E+03	4.51E+03	2.68E+03	2.24E+04	2.26E+03	9.22E+04	2.33E+03	1.21E+05
PILGRIM 1	1.06E+03	9.38E+02	2.28E+03	9.59E+02	6.65E+02	1.48E+03	3.12E+03	1.54E+03	1.41E+03	7.48E+04
QUAD-CITIES 1&2	1.72E+03	5.16E+03	1.46E+03	3.98E+03	1.58E+03	5.85E+03	1.35E+03	4.06E+04	1.33E+03	5.53E+04
SUSQUEHANNA 1&2			4.51E+01	6.52E-02	1.26E+03	2.84E+02	1.30E+03	9.27E+02	1.13E+03	2.16E+03
VERMONT YANKEE 1	4.39E+02	1.11E+03	4.51E+02	2.09E+02	4.15E+02	5.75E+04	3.48E+02	2.85E+02	5.43E+02	1.73E+04
WNP-2							3.87E+02	3.58E+01	4.02E+02	2.96E+02
FORT ST. VRAIN*	0.00E+00	0.00E+00	0.00E+00	0.00E+00	2.39E+01	1.84E+01	0.00E+00	0.00E+00	1.10E+02	4.19E+02

* HIGH TEMPERATURE GAS COOLED REACTOR

+ INCLUDES 12 SHIPMENTS OF POISON CURTAINS (IRRADIATED COMPONENTS) TO BARNWELL, SC

** INCLUDED WITH UNIT 1 TOTALS FOR 1983, 1984, & 1985

TABLE 12

SOLID WASTE COMPARISON BY YEAR

PRESSURIZED WATER REACTORS

VOLUME(CUBIC METERS) - ACTIVITY(CURIES)

FACILITY	1976		1977		1978		1979		1980	
	N/R	N/R			N/R	N/R	N/R	N/R	N/R	N/R
ARKANSAS ONE 1&2			3.17E+02	1.26E+02						
BEAVER VALLEY 1	4.30E+01	4.26E-02	2.67E+02	8.18E+00	4.39E+02	2.25E+02	2.44E+02	2.95E+02	2.84E+02	5.34E+02
BYRON 1										
CALLAWAY 1										
CALVERT CLIFFS 1&2	1.18E+02	1.22E+02	3.09E+02	9.83E+02	6.03E+02	1.12E+03	4.32E+02	9.71E+02	2.51E+02	1.48E+04
CATAMBA 1										
CRYSTAL RIVER 3			4.48E+02	3.48E+00	6.87E+02	2.72E+04	1.24E+03	1.20E+03	9.27E+02	2.05E+03
DAVIS-BESSE 1			0.00E+00	0.00E+00	3.40E+02	3.30E+00	2.60E+02	2.86E+00	3.30E+02	3.00E+01
DIABLO CANYON 1&2										
DONALD C. COOK 1&2	1.69E+02	2.62E-01	6.84E+02	8.28E+01	1.28E+03	2.25E+02	1.09E+03	3.37E+02	2.10E+03	1.04E+03
FORT CALHOUN 1	7.57E+02	1.27E+02	5.97E+02	6.46E+02	5.84E+02	1.06E+02	2.44E+02	2.99E+01	4.06E+02	1.32E+03
H. B. ROBINSON 2	3.16E+02	6.29E+01	2.59E+02	1.24E+03	8.22E+02	2.40E+02	8.34E+02	8.72E+01	3.99E+03	3.08E+02
HADDAM NECK	7.67E+02	7.46E+02	1.68E+03	8.41E+02	2.29E+02	1.44E+02	1.29E+03	3.05E+02	1.26E+03	4.89E+02
INDIAN POINT 1-2	9.19E+02	9.46E+02	1.06E+03	1.45E+03	8.43E+03	2.37E+03	1.17E+03	2.16E+03	1.03E+03	3.32E+02
INDIAN POINT 3	SHOWN W/OTHER UNIT		SHOWN W/OTHER UNIT		5.94E+02	6.49E+01	2.25E+02	1.63E+02	3.47E+02	2.02E+02
JOSEPH M. FARLEY 1&2					2.69E+02	5.72E+00	1.11E+03	2.32E+02	4.41E+02	2.26E+02
KEWAUNEE	5.94E+02	4.94E+01	3.37E+01	3.66E+02	7.98E+01	1.50E+03	1.70E+02	3.54E+02	1.03E+02	1.37E+03
MAINE YANKEE	1.84E+02	5.04E+02	1.84E+02	1.53E+04	5.81E+02	4.14E+03	3.63E+02	2.77E+03	4.57E+02	4.79E+03
MCGUIRE 1&2										
MILLSTONE 2	2.80E+02	1.80E+00	9.35E+01	5.80E+01	1.55E+02	1.70E+01	2.46E+02	1.78E+03	7.51E+00	2.28E+02
NORTH ANNA 1&2					2.14E+01	3.59E+00	2.95E+02	5.89E+01	2.64E+02	1.54E+02
OCONEE 1,2,& 3	2.22E+03	7.83E+02	1.07E+03	7.37E+03	1.58E+03	5.93E+03	1.63E+03	2.59E+03	1.32E+03	2.91E+03
PALISADES	6.81E+01	9.58E+01	4.43E+02	8.71E+01	7.17E+02	3.40E+03	6.84E+02	3.92E+02	7.31E+02	1.18E+02
PALO VERDE 1										
POINT BEACH 1&2	1.99E+02	3.04E+02	6.84E+03	5.68E+02	1.61E+02	1.51E+03	2.69E+02	1.22E+03	4.49E+02	9.35E+02
PRAIRIE ISLAND 1&2	1.52E+02	6.53E+01	6.43E+02	2.46E+02	1.95E+02	1.53E+02	1.99E+01	8.83E+01	5.25E+02	1.98E+02
R. E. GINNA	2.80E+02	9.78E+01	3.49E+02	6.90E+02	5.96E+01	6.27E+02	3.08E+02	1.53E+02	4.00E+02	4.60E+02
RANCHO SECO 1	1.11E+02	2.80E+01	5.06E+01	1.21E+03	1.29E+02	1.27E+03	1.01E+02	4.03E+00	4.60E+02	1.12E+02
SALEM 1&2	0.00E+00	0.00E+00	4.25E+02	2.20E+00	2.27E+02	1.94E+02	6.86E+02	1.28E+02	1.01E+03	4.59E+02
SAN ONOFRE										
SAN ONOFRE 1	1.45E+02	6.98E+02	3.68E+02	6.02E+01	1.31E+02	7.17E+00	8.35E+01	9.24E+01	7.12E+02	4.35E+02
SAN ONOFRE 2-3										
SEQUOYAH 1&2									N/R	N/R
ST. LUCIE 1&2	8.68E+01	1.57E+00	3.85E+02	3.27E+03	3.58E+02	1.26E+04	3.08E+02	1.79E+02	3.12E+02	7.46E+02
SUMMER 1										
SURRY 1&2	7.00E+02	6.17E+02	7.93E+02	6.10E+02	6.03E+02	5.66E+02	2.74E+03	3.45E+02	2.01E+03	7.06E+02
THREE MILE ISLAND 1	4.06E+02	1.85E+02	2.18E+02	4.73E+01	3.89E+02	2.34E+02	7.51E+02	3.12E+01	4.62E+02	2.30E+02
THREE MILE ISLAND 2					SHOWN W/OTHER UNIT	SHOWN W/OTHER UNIT			7.67E+02	1.26E+02
TMI 2/EPICOR									0.00E+00	0.00E+00
TROJAN	4.37E+01	4.32E+00	1.01E+02	8.31E+01	2.26E+02	4.48E+02	6.37E+02	3.30E+02	5.14E+02	4.59E+01
TURKEY POINT 3&4	1.44E+03	4.77E+02	1.07E+03	4.26E+02	1.75E+03	1.72E+03	9.20E+02	2.48E+02	7.24E+02	1.61E+02
WATERFORD 3										
WOLF CREEK 1										
YANKEE ROWE 1	3.60E+02	2.65E+01	2.81E+02	3.54E+00	2.60E+02	9.75E+00	2.36E+02	1.63E+02	2.07E+02	9.57E+01
ZION 1&2	2.06E+03	6.82E+01	1.97E+03	2.25E+02	1.63E+03	1.86E+03	5.97E+02	2.69E+03	1.64E+03	2.55E+03

N/R = NOT REPORTED

TABLE 12

SOLID WASTE COMPARISON BY YEAR

PRESSURIZED WATER REACTORS

VOLUME(CUBIC METERS) · ACTIVITY(CURIES)

FACILITY	1981		1982		1983		1984		1985	
	N/R	N/R	N/R	N/R						
ARKANSAS ONE 1&2					7.06E+02	2.09E+03	8.10E+02	1.46E+03	6.88E+02	1.75E+03
BEAVER VALLEY 1	2.13E+02	9.30E+01	2.94E+02	3.83E+02	2.19E+02	4.75E+02	1.56E+02	7.11E+02	1.56E+02	9.71E+01
BYRON 1									1.78E+02	1.39E+01
CALLAWAY 1							0.00E+00	0.00E+00	1.39E+02	6.29E+00
CALVERT CLIFFS 1&2	5.00E+02	9.86E+01	1.57E+02	9.16E+02	5.06E+02	1.07E+02	5.28E+02	3.77E+04	3.89E+02	1.51E+04
CATAWBA 1									3.48E+01	6.90E-02
CRYSTAL RIVER 3	1.27E+03	1.38E+03	6.62E+02	6.28E+02	5.40E+02	1.55E+03	4.11E+02	1.15E+03	4.98E+02	4.60E+03
DAVIS-BESSE 1	3.25E+02	3.95E+01	0.00E+00	0.00E+00	1.13E+02	6.37E+02	1.51E+02	4.73E+02	1.97E+02	9.58E+01
DIABLO CANYON 1&2							0.00E+00	0.00E+00	3.11E+01	4.40E+01
DONALD C. COOK 1&2	9.63E+02	1.43E+03	7.14E+02	8.45E+02	6.68E+02	2.01E+03	4.94E+02	6.69E+02	8.28E+02	2.00E+03
FORT CALHOUN 1	2.53E+02	1.01E+02	3.42E+02	3.54E+01	4.65E+02	7.00E+02	3.93E+02	7.17E+01	3.43E+02	2.24E+02
H. B. ROBINSON 2	9.02E+02	1.88E+01	1.38E+03	6.38E+01	1.09E+03	4.62E+01	3.05E+03	1.95E+02	6.42E+02	3.35E+03
HADDAM NECK	4.38E+02	6.61E+02	3.12E+02	2.57E+02	6.52E+02	1.52E+03	4.28E+02	3.75E+02	1.73E+02	5.33E+01
INDIAN POINT 1-2	1.58E+03	1.71E+03	1.17E+03	6.46E+03	1.29E+03	2.12E+03	9.81E+02	2.03E+03	6.89E+02	5.75E+02
INDIAN POINT 3	3.17E+02	6.40E+01	3.79E+02	6.14E+01	3.16E+02	7.32E+02	1.53E+02	4.12E+02	2.39E+02	5.49E+02
JOSEPH M. FARLEY 1&2	5.64E+02	7.20E+02	3.46E+02	1.03E+02	4.41E+02	1.05E+03	5.62E+02	2.98E+02	4.95E+02	8.20E+02
KEWAUNEE	7.38E+01	1.98E+02	6.73E+01	2.74E+02	5.52E+01	6.85E+02	6.32E+01	1.60E+03	7.77E+01	9.56E+02
MAINE YANKEE	4.14E+02	1.67E+03	2.20E+02	3.09E+01	3.37E+02	1.03E+02	3.49E+02	3.59E+02	3.59E+02	1.11E+02
MCGUIRE 1&2	1.98E+01	1.31E-01	9.91E+01	6.43E+00	2.44E+02	2.82E+01	4.14E+02	1.89E+03	6.60E+02	1.97E+02
MILLSTONE 2	1.63E+01	3.21E+02	6.85E+00	4.84E+02	4.48E+01	2.58E+02	6.08E+01	1.10E+05	2.87E+01	6.16E+03
NORTH ANNA 1&2	3.02E+02	2.62E+03	4.21E+02	3.05E+02	5.39E+02	1.87E+03	9.00E+02	9.53E+02	6.50E+02	2.90E+02
OCONEE 1,2,& 3	2.48E+03	1.12E+04	3.06E+03	1.09E+04	1.16E+03	2.84E+03	9.36E+02	6.17E+03	4.33E+02	1.41E+03
PALISADES	8.54E+02	1.57E+04	7.08E+02	7.98E+01	5.75E+02	2.56E+04	4.48E+02	2.58E+02	4.76E+02	1.83E+02
PALO VERDE 1									8.42E+01	6.80E+01
POINT BEACH 1&2	1.77E+02	4.87E+02	2.52E+02	9.46E+02	7.11E+02	1.12E+03	7.12E+02	1.64E+03	2.81E+02	1.25E+03
PRAIRIE ISLAND 1&2	2.97E+02	5.64E+01	9.91E+01	3.64E+02	2.39E+02	1.92E+02	4.19E+01	1.19E+01	1.73E+02	4.02E+02
R. E. GINNA	3.76E+02	6.35E+02	4.89E+02	2.02E+02	3.36E+02	5.21E+02	2.52E+02	3.23E+02	2.23E+02	1.19E+02
RANCHO SECO 1	2.31E+02	1.44E+02	2.40E+02	4.66E+02	2.72E+02	2.25E+02	4.25E+02	4.60E+01	9.76E+02	1.57E+03
SALEM 1&2	9.36E+02	1.14E+03	1.91E+03	3.19E+02	2.07E+03	2.99E+02	1.52E+03	6.23E+02	4.55E+02	2.02E+03
*SAN ONOFRE									1.56E+01	8.96E-01
SAN ONOFRE 1	1.62E+03	1.26E+03	9.27E+02	7.52E+01	3.33E+02	2.27E+02	2.91E+02	1.54E+01	1.80E+02	6.04E+00
SAN ONOFRE 2-3			0.00E+00	0.00E+00	1.89E+02	7.98E+00	2.02E+02	5.49E+02	5.45E+02	1.72E+03
SEQUOYAH 1&2	1.61E+02	2.92E+01	3.58E+02	2.28E+02	6.93E+02	2.30E+03	9.67E+02	2.43E+03	7.52E+02	2.45E+03
ST. LUCIE 1&2	2.50E+02	2.96E+02	3.07E+02	7.95E+02	6.20E+02	9.39E+04	1.22E+03	6.36E+04	5.45E+02	1.59E+03
SUMMER 1			0.00E+00	0.00E+00	9.25E+01	1.37E+01	4.80E+02	1.55E+02	4.46E+02	1.30E+02
SURRY 1&2	2.80E+03	1.36E+03	2.17E+03	9.89E+02	3.08E+03	3.56E+03	9.45E+02	1.16E+03	2.02E+03	1.21E+03
THREE MILE ISLAND 1	7.98E+02	2.34E+02	5.32E+02	8.91E+00	6.05E+02	6.84E+02	4.34E+02	4.18E+02	4.69E+02	1.94E+01
THREE MILE ISLAND 2	2.74E+02	5.11E+01	1.80E+02	1.22E+01	3.16E+02	5.17E+05	2.56E+02	9.89E+03	4.83E+02	6.35E+03
TMI 2/EPICOR	1.51E+02	3.50E+02	0.00E+00	0.00E+00	2.23E+02	4.62E+04	4.53E+00	2.35E-01	**	**
TROJAN	3.75E+02	1.04E+03	2.17E+01	2.87E+02	2.28E+02	1.67E+03	2.30E+02	5.85E+01	3.09E+02	3.52E+03
TURKEY POINT 3&4	1.25E+03	1.17E+02	1.01E+03	1.13E+03	1.21E+03	9.26E+02	8.50E+02	1.91E+03	6.08E+02	1.50E+03
WATERFORD 3									2.82E+02	3.39E+01
WOLF CREEK 1									0.00E+00	0.00E+00
YANKEE ROWE 1	3.08E+02	6.79E+01	2.09E+02	2.81E+01	1.58E+02	5.12E+00	2.00E+02	1.63E+02	2.00E+02	2.68E+02
ZION 1&2	1.53E+03	3.44E+03	8.82E+02	2.17E+03	9.21E+02	2.97E+03	6.43E+02	2.62E+03	6.73E+02	2.69E+03

N/R = NOT REPORTED

* REPRESENTS SOLID WASTE SHIPPED BY PLANT BUT NOT BROKEN DOWN INTO UNITS 1, 2, & 3

** INCLUDED WITH THREE MILE ISLAND 2 TOTALS FOR 1985

TABLE 13

NET ELECTRICAL ENERGY GENERATION COMPARISON BY YEAR

BOILING WATER REACTORS			MEGAWATT HOURS									
FACILITY	INITIAL CRITICALITY	COMMERCIAL OPERATION	1970	1971	1972	1973	1974	1975	1976	1977	1978	1979
BIG ROCK POINT 1	09/27/62	03/29/63									4.01E+05	1.14E+05
BROWNS FERRY 1	08/17/73	08/01/74									1.69E+07	2.04E+07
BROWNS FERRY 2	07/20/74	03/01/75										
BROWNS FERRY 3	08/08/76	03/01/77										
BRUNSWICK 1	10/08/76	03/18/77									9.91E+06	6.82E+06
BRUNSWICK 2	03/20/75	11/03/75										
COOPER	02/21/74	07/01/74									4.89E+06	4.99E+06
DRESDEN 1	10/15/59	07/04/60									7.59E+05	0.00E+00
DRESDEN 2	01/07/70	06/09/70									9.53E+06	8.42E+06
DRESDEN 3	01/31/71	11/16/71										
DUANE ARNOLD	03/23/74	02/01/75									1.23E+06	2.90E+06
EDWIN I. HATCH 1	09/12/74	12/31/75									4.77E+06	5.10E+06
EDWIN I. HATCH 2	07/04/78	09/05/79										
GRAND GULF 1	08/18/82	07/01/85										
HUMBOLDT BAY 3	02/16/63	08/ /63									0.00E+00	0.00E+00
JAMES A. FITZPATRICK	11/17/74	07/28/75									4.20E+06	2.96E+06
LACROSSE	07/11/67	11/01/69									1.74E+05	2.01E+05
LASALLE 1	06/21/82	01/01/84										
LASALLE 2	03/10/84	10/19/84										
LIMERICK 1	12/22/84	02/01/86										
MILLSTONE 1	10/26/70	03/01/71									4.65E+06	4.22E+06
MONTICELLO	12/10/70	06/30/71									3.86E+06	4.40E+06
NINE MILE POINT 1	09/05/69	12/01/69									4.47E+06	3.00E+06
OYSTER CREEK 1	05/03/69	12/01/69									3.65E+06	4.56E+06
PEACH BOTTOM 2	09/16/73	07/05/74									1.38E+07	1.47E+07
PEACH BOTTOM 3	08/07/74	12/23/74										
PILGRIM 1	06/16/72	12/01/72									4.38E+06	4.84E+06
QUAD-CITIES 1	10/18/71	02/18/73									9.15E+06	8.76E+06
QUAD-CITIES 2	04/26/72	03/10/73										
SUSQUEHANNA 1	09/10/82	06/08/83										
SUSQUEHANNA 2	05/08/84	02/12/85										
VERMONT YANKEE 1	03/24/72	11/30/72									3.24E+06	3.45E+06
WNP-2	01/19/84	12/13/84										
FORT ST. VRAIN*	01/31/74	07/01/79									6.09E+05	1.24E+05

* HIGH TEMPERATURE GAS COOLED REACTOR

TABLE 13

NET ELECTRICAL ENERGY GENERATION COMPARISON BY YEAR

BOILING WATER REACTORS			MEGAWATT HOURS					
FACILITY	INITIAL CRITICALITY	COMMERCIAL OPERATION	1980	1981	1982	1983	1984	1985
BIG ROCK POINT 1	09/27/62	03/29/63	4.05E+05	4.70E+05	3.60E+05	3.49E+05	4.18E+05	3.62E+05
BROWNS FERRY 1	08/17/73	08/01/74	6.06E+06	4.41E+06	7.88E+06	2.18E+06	7.85E+06	1.54E+06
BROWNS FERRY 2	07/20/74	03/01/75	5.62E+06	7.47E+06	4.45E+06	6.39E+06	4.04E+06	0.00E+00
BROWNS FERRY 3	08/08/76	03/01/77	6.94E+06	6.26E+06	4.89E+06	5.39E+06	2.91E+05	1.47E+06
BRUNSWICK 1	10/08/76	03/18/77	3.94E+06	2.56E+06	2.92E+06	1.39E+06	5.03E+06	1.91E+06
BRUNSWICK 2	03/20/75	11/03/75	1.86E+05	3.28E+06	1.91E+06	3.94E+06	1.39E+06	5.02E+06
COOPER	02/21/74	07/01/74	3.79E+06	3.85E+06	5.28E+06	3.34E+06	3.47E+06	1.07E+06
DRESDEN 1	10/15/59	07/04/60	0.00E+00	0.00E+00	0.00E+00	0.00E+00	4.46E+06	0.00E+00
DRESDEN 2	01/07/70	06/09/70	4.58E+06	3.41E+06	5.12E+06	3.40E+06	2.11E+06	3.09E+06
DRESDEN 3	01/31/71	11/16/71	4.33E+06	5.18E+06	3.89E+06	4.15E+06	2.11E+06	4.39E+06
DUANE ARNOLD	03/23/74	02/01/75	2.80E+06	2.22E+06	2.28E+06	2.32E+06	2.72E+06	1.94E+06
EDWIN I. HATCH 1	09/12/74	12/31/75	4.79E+06	2.76E+06	2.88E+06	3.96E+06	3.60E+06	4.76E+06
EDWIN I. HATCH 2	07/04/78	09/05/79	3.64E+06	4.48E+06	3.73E+06	3.81E+06	1.88E+06	5.38E+06
GRAND GULF 1	08/18/82	07/01/85				0.00E+00	1.65E+05	2.65E+06
HUMBOLDT BAY 3	02/16/63	08/ /63	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
JAMES A. FITZPATRICK	11/17/74	07/28/75	4.33E+06	4.78E+06	4.96E+06	4.63E+06	4.90E+06	4.17E+06
LACROSSE	07/11/67	11/01/69	2.15E+06	2.41E+05	1.38E+05	2.01E+05	3.19E+05	3.23E+05
LASALLE 1	06/21/82	01/01/84			4.61E+05	1.64E+06	5.21E+06	4.81E+06
LASALLE 2	03/10/84	10/19/84					1.39E+06	3.43E+06
LIMERICK 1	12/22/84	02/01/86					0.00E+00	1.14E+06
MILLSTONE 1	10/26/70	03/01/71	3.40E+06	2.52E+06	4.08E+06	5.35E+06	4.32E+06	4.59E+06
MONTICELLO	12/10/70	06/30/71	3.45E+06	3.26E+06	2.42E+06	4.15E+06	2.63E+05	4.29E+06
NINE MILE POINT 1	09/05/69	12/01/69	4.54E+06	3.27E+06	1.13E+06	2.80E+06	3.64E+06	4.93E+06
OYSTER CREEK 1	05/03/69	12/01/69	1.96E+06	2.63E+06	2.01E+06	2.05E+05	2.79E+05	3.75E+06
PEACH BOTTOM 2	09/16/73	07/05/74	4.34E+06	6.63E+06	4.79E+06	4.45E+06	2.43E+06	2.33E+06
PEACH BOTTOM 3	08/07/74	12/23/74	7.23E+06	3.13E+06	8.53E+06	2.42E+06	7.45E+06	3.28E+06
PILGRIM 1	06/16/72	12/01/72	3.04E+06	3.44E+06	3.29E+06	4.71E+06	3.52E+03	4.95E+06
QUAD-CITIES 1	10/18/71	02/18/73	3.44E+06	5.73E+06	3.24E+06	5.78E+06	3.35E+06	6.07E+06
QUAD-CITIES 2	04/26/72	03/10/73	3.61E+06	3.77E+06	5.06E+06	3.15E+06	4.98E+06	4.56E+06
SUSQUEHANNA 1	09/10/82	06/08/83			3.21E+05	3.54E+06	6.09E+06	5.26E+06
SUSQUEHANNA 2	05/08/84	02/12/85					9.32E+05	6.95E+06
VERMONT YANKEE 1	03/24/72	11/30/72	2.98E+06	3.57E+06	4.17E+06	2.87E+06	3.34E+06	3.00E+06
WNP-2	01/19/84	12/13/84					4.10E+05	5.18E+06
FORT ST. VRAIN*	01/31/74	07/01/79	6.76E+05	7.55E+05	5.69E+05	7.48E+05	5.67E+04	0.00E+00

* HIGH TEMPERATURE GAS COOLED REACTOR

TABLE 14

NET ELECTRICAL ENERGY GENERATION COMPARISON BY YEAR

PRESSURIZED WATER REACTORS			MEGAWATT HOURS									
FACILITY	INITIAL CRITICALITY	COMMERCIAL OPERATION	1970	1971	1972	1973	1974	1975	1976	1977	1978	1979
ARKANSAS ONE 1	08/06/74	12/19/74									5.25E+06	3.32E+06
ARKANSAS ONE 2	12/05/78	03/26/80									3.98E+03	8.81E+05
BEAVER VALLEY 1	05/10/76	10/01/76									2.48E+06	1.79E+06
BYRON 1	02/02/85	09/16/85										
CALLAWAY 1	10/02/84	12/19/84										
CALVERT CLIFFS 1	10/07/74	05/08/75									9.91E+06	9.68E+06
CALVERT CLIFFS 2	11/30/76	04/01/77										
CATAWBA 1	01/07/85	06/29/85										
CRYSTAL RIVER 3	01/14/77	03/13/77									2.59E+06	3.76E+06
DAVIS-BESSE 1	08/12/77	07/31/78									2.61E+06	3.13E+06
DIABLO CANYON 1	04/29/84	05/07/85										
DIABLO CANYON 2	08/19/85	03/13/86										
DONALD C. COOK 1	01/18/75	08/27/75									1.01E+07	1.16E+07
DONALD C. COOK 2	07/01/78	07/01/78										
FORT CALHOUN 1	08/06/73	06/20/74									2.85E+06	3.67E+06
H. B. ROBINSON 2	09/20/70	03/07/71									3.98E+06	4.00E+06
HADDAM NECK	07/24/67	01/01/68									4.71E+06	4.12E+06
INDIAN POINT 1	08/02/62	10/ /62									4.37E+06	4.80E+06
INDIAN POINT 2	05/22/73	08/01/74										
INDIAN POINT 3	04/06/76	08/30/76									5.46E+06	4.79E+06
JOSEPH M. FARLEY 1	08/09/77	12/01/77									5.92E+06	1.74E+06
JOSEPH M. FARLEY 2	05/05/81	07/30/81										
KEWAUNEE	03/07/74	06/16/74									3.89E+06	3.44E+06
MAINE YANKEE	10/23/72	12/28/72									5.35E+06	4.54E+06
MCGUIRE 1	08/08/81	10/01/81										
MCGUIRE 2	08/05/83	03/01/84										
MILLSTONE 2	10/17/75	12/26/75									4.50E+06	4.36E+06
NORTH ANNA 1	04/05/78	06/06/78									3.66E+06	4.19E+06
NORTH ANNA 2	06/12/80	12/14/80										
OCONEE 1	04/19/73	07/15/73									1.59E+07	1.32E+07
OCONEE 2	11/11/73	09/09/74										
OCONEE 3	09/05/74	12/16/74										
PALISADES	05/24/71	12/31/71									2.62E+06	3.43E+06
PALO VERDE 1	05/25/85	02/13/86										
POINT BEACH 1	11/02/70	12/21/70									7.65E+06	6.77E+06
POINT BEACH 2	05/30/72	10/01/72										
PRAIRIE ISLAND 1	12/01/73	12/16/73									7.73E+06	7.10E+06
PRAIRIE ISLAND 2	12/17/74	12/21/74										
R. E. GINNA	11/08/69	07/01/70									3.22E+06	2.96E+06
RANCHO SECO 1	09/16/74	04/17/75									4.99E+06	5.71E+06
SALEM 1	12/11/76	06/30/77									4.53E+06	2.04E+06
SALEM 2	08/02/80	10/13/81										
SAN ONOFRE 1	06/14/67	01/01/68									2.68E+06	3.36E+06
SAN ONOFRE 2	07/26/82	08/08/83										
SAN ONOFRE 3	08/29/83	04/01/84										
SEQUOYAH 1	07/05/80	07/01/81										
SEQUOYAH 2	11/05/81	06/01/82										
ST. LUCIE 1	04/22/76	12/21/76									5.00E+06	4.88E+06
ST. LUCIE 2	06/02/83	08/08/83										
SUMMER 1	10/22/82	01/01/84										
SURRY 1	07/01/72	12/22/72									1.01E+07	2.87E+06
SURRY 2	03/07/73	05/01/73										

TABLE 14

NET ELECTRICAL ENERGY GENERATION COMPARISON BY YEAR

PRESSURIZED WATER REACTORS			MEGAWATT HOURS									
FACILITY	INITIAL CRITICALITY	COMMERCIAL OPERATION	1970	1971	1972	1973	1974	1975	1976	1977	1978	1979
THREE MILE ISLAND 1	06/05/74	09/02/74									5.67E+06	8.48E+05
THREE MILE ISLAND 2	03/28/78	12/30/78									5.77E+05	N/R
TROJAN	12/15/75	05/20/76									1.67E+06	5.27E+06
TURKEY POINT 3	10/20/72	12/14/72									8.29E+06	6.71E+06
TURKEY POINT 4	06/11/73	09/07/73										
WATERFORD 3	03/04/85	09/24/85										
WOLF CREEK 1	05/22/85	09/03/85										
YANKEE ROWE 1	08/19/60	07/01/61									1.19E+06	1.23E+06
ZION 1	06/19/73	12/31/73									1.35E+07	1.03E+07
ZION 2	12/24/73	09/17/74										

N/R = NOT REPORTED

TABLE 14

NET ELECTRICAL ENERGY GENERATION COMPARISON BY YEAR

PRESSURIZED WATER REACTORS			MEGAWATT HOURS					
FACILITY	INITIAL CRITICALITY	COMMERCIAL OPERATION	1980	1981	1982	1983	1984	1985
ARKANSAS ONE 1	08/06/74	12/19/74	3.78E+06	4.90E+06	3.72E+06	3.22E+06	4.60E+06	5.19E+06
ARKANSAS ONE 2	12/05/78	03/26/80	3.65E+06	4.32E+06	3.81E+06	4.43E+06	6.20E+06	4.70E+06
BEAVER VALLEY 1	05/10/76	10/01/76	3.01E+05	4.66E+06	2.69E+06	4.68E+06	4.75E+06	5.90E+06
BYRON 1	02/02/85	09/16/85						1.01E+06
CALLAWAY 1	10/02/84	12/19/84					3.23E+05	8.05E+06
CALVERT CLIFFS 1	10/07/74	05/08/75	4.53E+06	6.11E+06	5.36E+06	5.57E+06	6.22E+06	4.36E+06
CALVERT CLIFFS 2	11/30/76	04/01/77	6.41E+06	5.42E+06	5.00E+06	6.11E+06	5.34E+06	5.61E+06
CATAWBA 1	01/07/85	06/29/85						3.44E+06
CRYSTAL RIVER 3	01/14/77	03/13/77	3.35E+06	4.01E+06	4.92E+06	3.77E+06	6.48E+06	2.85E+06
DAVIS-BESSE 1	08/12/77	07/31/78	2.09E+06	4.36E+06	3.22E+06	4.88E+06	4.29E+06	1.94E+06
DIABLO CANYON 1	04/29/84	05/07/85					2.04E+05	5.23E+06
DIABLO CANYON 2	08/19/85	03/13/86						5.41E+05
DONALD C. COOK 1	01/18/75	08/27/75	6.46E+06	6.78E+06	5.35E+06	5.29E+06	7.75E+06	2.12E+06
DONALD C. COOK 2	07/01/78	07/01/78	6.70E+06	6.38E+06	7.00E+06	7.01E+06	5.36E+06	5.68E+06
FORT CALHOUN 1	08/06/73	06/20/74	2.01E+06	2.15E+06	3.48E+06	2.75E+06	2.33E+06	3.07E+06
H. B. ROBINSON 2	09/20/70	03/07/71	3.21E+06	3.50E+06	2.25E+06	3.35E+06	1.90E+05	5.24E+06
HADDAM NECK	07/24/67	01/01/68	3.56E+06	4.06E+06	4.54E+06	3.78E+06	3.36E+06	4.64E+06
INDIAN POINT 1	08/02/62	10/ /62	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
INDIAN POINT 2	05/22/73	08/01/74	4.26E+06	3.06E+06	4.45E+06	5.90E+06	2.89E+06	6.67E+06
INDIAN POINT 3	04/06/76	08/30/76	3.07E+06	3.03E+06	1.44E+06	6.07E+04	6.04E+06	4.73E+06
JOSEPH M. FARLEY 1	08/09/77	12/01/77	4.60E+06	2.62E+06	5.22E+06	5.26E+06	5.43E+06	5.87E+06
JOSEPH M. FARLEY 2	05/05/81	07/30/81		2.92E+06	5.30E+06	5.98E+06	6.62E+06	5.47E+06
KEWAUNEE	03/07/74	06/16/74	3.63E+06	3.77E+06	3.82E+06	3.71E+06	3.81E+06	3.70E+06
MAINE YANKEE	10/23/72	12/28/72	4.40E+06	5.21E+06	4.52E+06	0.00E+00	5.13E+06	5.35E+06
MCGUIRE 1	08/08/81	10/01/81		1.91E+04	4.30E+06	4.63E+06	6.42E+06	6.78E+06
MCGUIRE 2	08/05/83	03/01/84				0.00E+00	6.56E+06	5.60E+06
MILLSTONE 2	10/17/75	12/26/75	4.88E+06	6.09E+06	5.01E+06	2.45E+06	6.61E+06	3.50E+06
NORTH ANNA 1	04/05/78	06/06/78	5.63E+06	4.64E+06	5.01E+06	5.31E+06	3.78E+06	5.80E+06
NORTH ANNA 2	06/12/80	12/14/80	3.50E+05	5.65E+06	4.05E+06	5.80E+06	4.72E+06	6.81E+06
OCONEE 1	04/19/73	07/15/73	5.12E+06	3.00E+06	5.15E+06	5.67E+06	6.17E+06	7.07E+06
OCONEE 2	11/11/73	09/09/74	3.88E+06	5.19E+06	3.44E+06	5.14E+06	7.30E+06	5.06E+06
OCONEE 3	09/05/74	12/16/74	5.22E+06	5.64E+06	2.12E+06	7.10E+06	5.35E+06	4.86E+06
PALISADES	05/24/71	12/31/71	2.38E+06	3.46E+06	3.35E+06	3.77E+06	8.12E+05	5.30E+06
PALO VERDE 1	05/25/85	02/13/86						1.13E+06
POINT BEACH 1	11/02/70	12/21/70	2.48E+06	2.61E+06	2.70E+06	2.38E+06	3.11E+06	3.35E+06
POINT BEACH 2	05/30/72	10/01/72	3.59E+06	3.72E+06	3.61E+06	3.02E+06	3.51E+06	3.60E+06
PRAIRIE ISLAND 1	12/01/73	12/16/73	3.11E+06	3.84E+06	3.92E+06	3.89E+06	4.16E+06	3.68E+06
PRAIRIE ISLAND 2	12/17/74	12/21/74	3.47E+06	3.09E+06	3.86E+06	3.72E+06	3.91E+06	3.61E+06
R. E. GINNA	11/08/69	07/01/70	3.09E+06	3.32E+06	2.41E+06	3.04E+06	3.16E+06	3.62E+06
RANCHO SECO 1	09/16/74	04/17/75	4.42E+06	2.63E+06	3.37E+06	2.85E+06	3.77E+06	1.94E+06
SALEM 1	12/11/76	06/30/77	5.68E+06	6.19E+06	4.09E+06	5.38E+06	2.13E+06	9.01E+06
SALEM 2	08/02/80	10/13/81	0.00E+00	1.63E+06	7.94E+06	7.44E+05	3.20E+06	5.02E+06
SAN ONOFRE 1	06/14/67	01/01/68	8.17E+05	7.79E+05	5.10E+05	0.00E+00	2.62E+05	2.46E+06
SAN ONOFRE 2	07/26/82	08/08/83			1.26E+05	3.76E+06	5.27E+06	5.15E+06
SAN ONOFRE 3	08/29/83	04/01/84				9.97E+05	4.10E+06	3.71E+06
SEQUOYAH 1	07/05/80	07/01/81	5.18E+05	2.53E+06	4.91E+06	7.34E+06	6.10E+06	4.06E+06
SEQUOYAH 2	07/26/82	06/01/82				6.69E+06	6.40E+06	5.61E+06
ST. LUCIE 1	04/22/76	12/21/76	5.20E+06	4.95E+06	6.78E+06	1.07E+06	4.23E+06	5.87E+06
ST. LUCIE 2	06/02/83	08/08/83				2.40E+06	5.56E+06	6.11E+06
SUMMER 1	10/22/82	01/01/84			1.91E+05	4.33E+06	4.20E+06	5.23E+06
SURRY 1	07/01/72	12/22/72	2.47E+06	2.38E+06	5.48E+06	3.52E+06	3.33E+06	5.62E+06
SURRY 2	03/07/73	05/01/73	2.24E+06	5.15E+06	5.49E+06	4.09E+06	5.21E+06	4.07E+06

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NET ELECTRICAL ENERGY GENERATION COMPARISON BY YEAR

PRESSURIZED WATER REACTORS			MEGAWATT HOURS					
FACILITY	INITIAL CRITICALITY	COMMERCIAL OPERATION	1980	1981	1982	1983	1984	1985
THREE MILE ISLAND 1	06/05/74	09/02/74	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	8.12E+05
THREE MILE ISLAND 2	03/28/78	12/30/78	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
TROJAN	12/15/75	05/20/76	6.07E+06	6.42E+06	4.80E+06	4.08E+06	4.74E+06	6.91E+06
TURKEY POINT 3	10/20/72	12/14/72	4.39E+06	9.12E+05	3.77E+06	4.33E+06	4.78E+06	3.41E+06
TURKEY POINT 4	06/11/73	09/07/73	3.85E+06	4.50E+06	3.84E+06	2.97E+06	3.08E+06	5.18E+06
WATERFORD 3	03/04/85	09/24/85						1.81E+06
WOLF CREEK 1	05/22/85	09/03/85						2.94E+06
YANKEE ROWE 1	08/19/60	07/01/61	2.92E+05	8.85E+05	8.82E+05	1.34E+06	1.03E+06	1.18E+06
ZION 1	06/19/73	12/31/73	6.51E+06	6.19E+06	4.70E+06	4.02E+06	5.69E+06	4.81E+06
ZION 2	12/24/73	09/17/74	5.28E+06	5.26E+06	5.16E+06	6.18E+06	5.99E+06	5.11E+06

TABLE 15

THERMAL ENERGY GENERATION COMPARISON BY YEAR

BOILING WATER REACTORS		MEGAWATT HOURS										
FACILITY	INITIAL CRITICALITY	COMMERCIAL OPERATION	1970	1971	1972	1973	1974	1975	1976	1977	1978	1979
BIG ROCK POINT 1	09/27/62	03/29/63	1.18E+06	1.21E+06	1.20E+06	1.41E+06	1.13E+06	9.80E+05	8.30E+05	1.23E+06	1.37E+06	3.96E+05
BROWNS FERRY 1	08/17/73	08/01/74				1.37E+06	1.64E+07	8.75E+06	1.34E+07	5.37E+07	5.32E+07	6.31E+07
BROWNS FERRY 2	07/20/74	03/01/75										
BROWNS FERRY 3	08/08/76	03/01/77										
BRUNSWICK 1	10/08/76	03/18/77						4.72E+06	7.81E+06	1.59E+07	3.07E+07	2.12E+07
BRUNSWICK 2	03/20/75	11/03/75										
COOPER	02/21/74	07/01/74					6.90E+06	1.24E+07	1.19E+07	1.45E+07	1.54E+07	1.58E+07
DRESDEN 1	10/15/59	07/04/60	4.77E+06	2.38E+06	3.76E+06	2.43E+06	1.36E+06	2.56E+06	3.42E+06	2.21E+06	2.73E+06	0.00E+00
DRESDEN 2	01/07/70	06/09/70	4.11E+06	1.23E+07	2.52E+07	2.83E+07	2.18E+07	1.70E+07	2.74E+07	2.89E+07	3.13E+07	2.77E+07
DRESDEN 3	01/31/71	11/16/71										
DUANE ARNOLD	03/23/74	02/01/75						7.42E+06	8.02E+06	9.32E+06	3.96E+06	9.07E+06
EDWIN I. HATCH 1	09/12/74	12/31/75						9.75E+06	1.38E+07	1.22E+07	3.37E+07	1.62E+07
EDWIN I. HATCH 2	07/04/78	09/05/79										
GRAND GULF 1	08/18/82	07/01/85										
HUMBOLDT BAY 3	02/16/63	08/ /63	1.40E+06	1.14E+06	1.25E+06	1.47E+06	1.27E+06	1.32E+06	6.80E+05	0.00E+00	0.00E+00	0.00E+00
JAMES A. FITZPATRICK	11/17/74	07/28/75						6.81E+06	1.26E+07	1.18E+07	1.30E+07	8.97E+06
LACROSSE	07/11/67	11/01/69	4.50E+05	7.10E+05	8.20E+05	6.90E+05	1.08E+06	9.20E+05	6.10E+05	3.43E+05	6.54E+05	7.48E+05
LASALLE 1	06/21/82	01/01/84										
LASALLE 2	03/10/84	10/19/84										
LIMERICK 1	12/22/84	02/01/86										
MILLSTONE 1	10/26/70	03/01/71	2.60E+05	1.11E+07	9.69E+06	5.96E+06	1.12E+07	1.21E+07	1.16E+07	1.48E+07	1.43E+07	1.30E+07
MONTICELLO	12/10/70	06/30/71		4.37E+06	1.10E+07	9.90E+06	8.28E+06	8.88E+06	1.23E+07	1.10E+07	1.18E+07	1.35E+07
NINE MILE POINT 1	09/05/69	12/01/69	5.94E+06	9.94E+06	1.00E+07	1.10E+07	1.05E+07	9.68E+06	1.31E+07	9.15E+06	1.39E+07	9.67E+06
OYSTER CREEK 1	05/03/69	12/01/69	1.06E+07	1.17E+07	1.30E+07	1.09E+07	1.13E+07	9.81E+06	1.18E+07	9.82E+06	1.10E+07	1.38E+07
PEACH BOTTOM 2	09/16/73	07/05/74					1.23E+07	3.34E+07	3.72E+07	2.86E+07	4.39E+07	4.58E+07
PEACH BOTTOM 3	08/07/74	12/23/74										
PILGRIM 1	06/16/72	12/01/72			2.65E+06	1.25E+07	6.00E+06	8.10E+06	7.60E+06	8.26E+06	1.33E+07	1.47E+07
QUAD-CITIES 1	10/18/71	02/18/73			1.25E+07	3.17E+07	2.61E+07	2.31E+07	2.59E+07	2.68E+07	3.14E+07	3.00E+07
QUAD-CITIES 2	04/26/72	03/10/73										
SUSQUEHANNA 1	09/10/82	06/08/83										
SUSQUEHANNA 2	05/08/84	02/12/85										
VERMONT YANKEE 1	03/24/72	11/30/72			1.48E+06	6.08E+06	8.20E+06	1.13E+07	1.02E+07	1.11E+07	1.00E+07	1.08E+07
WNP-2	01/19/84	12/13/84										
FORT ST. VRAIN*	01/31/74	07/01/79									2.04E+06	4.78E+05

* HIGH TEMPERATURE GAS COOLED REACTOR

TABLE 15

THERMAL ENERGY GENERATION COMPARISON BY YEAR

BOILING WATER REACTORS			MEGAWATT HOURS					
FACILITY	INITIAL CRITICALITY	COMMERCIAL OPERATION	1980	1981	1982	1983	1984	1985
BIG ROCK POINT 1	09/27/62	03/29/63	1.40E+06	1.63E+06	1.20E+06	1.14E+06	1.37E+06	1.19E+06
BROWNS FERRY 1	08/17/73	08/01/74	1.92E+07	1.36E+07	2.49E+07	6.78E+06	2.45E+07	4.95E+06
BROWNS FERRY 2	07/20/74	03/01/75	1.74E+07	2.31E+07	1.38E+07	1.97E+07	1.31E+07	0.00E+00
BROWNS FERRY 3	08/08/76	03/01/77	2.13E+07	1.95E+07	1.55E+07	1.70E+07	9.11E+05	4.65E+06
BRUNSWICK 1	10/08/76	03/18/77	1.23E+07	8.29E+06	9.48E+06	4.53E+06	1.56E+07	6.06E+06
BRUNSWICK 2	03/20/75	11/03/75	5.38E+06	1.04E+07	6.30E+06	1.23E+07	4.53E+06	1.57E+07
COOPER	02/21/74	07/01/74	1.36E+07	1.39E+07	1.64E+07	1.05E+07	1.09E+07	3.42E+06
DRESDEN 1	10/15/59	07/04/60	0.00E+00	0.00E+00	0.00E+00	0.00E+00	1.46E+07	0.00E+00
DRESDEN 2	01/07/70	06/09/70	1.57E+07	1.13E+07	1.69E+07	1.13E+07	7.10E+06	1.03E+07
DRESDEN 3	01/31/71	11/16/71	1.42E+07	1.71E+07	1.27E+07	1.37E+07	7.10E+06	1.47E+07
DUANE ARNOLD	03/23/74	02/01/75	8.87E+06	7.05E+06	7.32E+06	7.38E+06	8.71E+06	6.15E+06
EDWIN I. HATCH 1	09/12/74	12/31/75	1.54E+07	8.97E+06	9.42E+06	1.29E+07	1.20E+07	1.53E+07
EDWIN I. HATCH 2	07/04/78	09/05/79	1.16E+07	1.47E+07	1.18E+07	1.19E+07	5.99E+06	1.70E+07
GRAND GULF 1	08/18/82	07/01/85				0.00E+00	8.80E+05	9.08E+06
HUMBOLDT BAY 3	02/16/63	08/ /63	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
JAMES A. FITZPATRICK	11/17/74	07/28/75	1.30E+07	1.42E+07	1.51E+07	1.42E+07	1.52E+07	1.28E+07
LACROSSE	07/11/67	11/01/69	8.00E+05	9.11E+05	5.27E+05	7.60E+05	1.07E+06	1.11E+06
LASALLE 1	06/21/82	01/01/84			2.09E+06	5.86E+06	2.30E+07	1.54E+07
LASALLE 2	03/10/84	10/19/84					4.51E+06	1.10E+07
LIMERICK 1	12/22/84	02/01/86					0.00E+00	4.42E+06
MILLSTONE 1	10/26/70	03/01/71	1.04E+07	8.60E+06	1.36E+07	1.64E+07	1.34E+07	1.42E+07
MONTICELLO	12/10/70	06/30/71	1.07E+07	1.01E+07	7.68E+06	1.30E+07	8.98E+05	1.31E+07
NINE MILE POINT 1	09/05/69	12/01/69	1.41E+07	1.01E+07	3.42E+06	8.72E+06	1.12E+07	1.52E+07
OYSTER CREEK 1	05/03/69	12/01/69	6.27E+06	8.44E+06	6.79E+06	9.23E+05	1.04E+06	1.16E+07
PEACH BOTTOM 2	09/16/73	07/05/74	1.37E+07	2.08E+07	1.53E+07	1.40E+07	7.87E+06	7.85E+06
PEACH BOTTOM 3	08/07/74	12/23/74	2.26E+07	9.85E+06	2.65E+07	7.82E+06	2.32E+07	1.08E+07
PILGRIM 1	06/16/72	12/01/72	9.20E+06	1.05E+07	9.90E+06	1.42E+07	4.99E+05	1.50E+07
QUAD-CITIES 1	10/18/71	02/18/73	1.17E+07	1.88E+07	1.12E+07	1.89E+07	1.06E+07	1.92E+07
QUAD-CITIES 2	04/26/72	03/10/73	1.22E+07	1.27E+07	1.67E+07	1.08E+07	1.61E+07	1.46E+07
SUSQUEHANNA 1	09/10/82	06/08/83			1.16E+06	1.12E+07	1.94E+07	1.70E+07
SUSQUEHANNA 2	05/08/84	02/12/85					3.23E+06	2.20E+07
VERMONT YANKEE 1	03/24/72	11/30/72	9.38E+06	1.13E+07	1.31E+07	9.12E+06	1.04E+07	9.55E+06
WNP-2	01/19/84	12/13/84					1.21E+06	1.64E+07
FORT ST. VRAIN*	01/31/74	07/01/79	2.23E+06	2.23E+06	1.86E+06	2.58E+06	3.40E+05	3.34E+04

* HIGH TEMPERATURE GAS COOLED REACTOR

TABLE 16

THERMAL ENERGY GENERATION COMPARISON BY YEAR

PRESSURIZED WATER REACTORS			MEGAWATT HOURS									
FACILITY	INITIAL CRITICALITY	COMMERCIAL OPERATION	1970	1971	1972	1973	1974	1975	1976	1977	1978	1979
ARKANSAS ONE 1	08/06/74	12/19/74					1.99E+06	1.54E+07	1.21E+07	1.64E+07	1.64E+07	1.05E+07
ARKANSAS ONE 2	12/05/78	03/26/80									4.45E+04	3.45E+06
BEAVER VALLEY 1	05/10/76	10/01/76							1.97E+06	1.01E+07	8.80E+06	6.11E+06
BYRON 1	02/02/85	09/16/85										
CALLAWAY 1	10/02/84	12/19/84										
CALVERT CLIFFS 1	10/07/74	05/08/75						1.40E+07	1.98E+07	2.97E+07	3.14E+07	3.15E+07
CALVERT CLIFFS 2	11/30/76	04/01/77										
CATAWBA 1	01/07/85	06/29/85										
CRYSTAL RIVER 3	01/14/77	03/13/77								1.26E+07	7.97E+06	1.17E+07
DAVIS-BESSE 1	08/12/77	07/31/78								1.66E+06	8.52E+06	1.00E+07
DIABLO CANYON 1	04/29/84	05/07/85										
DIABLO CANYON 2	08/19/85	03/13/86										
DONALD C. COOK 1	01/18/75	08/27/75						1.46E+07	2.15E+07	1.55E+07	3.29E+07	3.68E+07
DONALD C. COOK 2	07/01/78	07/01/78										
FORT CALHOUN 1	08/06/73	06/20/74				2.03E+06	7.58E+06	6.71E+06	7.15E+06	9.40E+06	8.98E+06	1.16E+07
H. B. ROBINSON 2	09/20/70	03/07/71	6.00E+04	7.85E+06	1.55E+07	1.25E+07	1.56E+07	1.36E+07	1.59E+07	1.43E+07	1.33E+07	1.30E+07
HADDAM NECK	07/24/67	01/01/68	1.14E+07	1.34E+07	1.38E+07	7.73E+06	1.42E+07	1.34E+07	1.30E+07	1.31E+07	1.51E+07	1.32E+07
INDIAN POINT 1	08/02/62	10/ /62				1.47E+06	1.15E+07	1.64E+07	7.60E+06	3.50E+07	1.48E+07	1.61E+07
INDIAN POINT 2	05/22/73	08/01/74										
INDIAN POINT 3	04/06/76	08/30/76									1.70E+07	1.57E+07
JOSEPH M. FARLEY 1	08/09/77	12/01/77									1.95E+07	5.77E+06
JOSEPH M. FARLEY 2	05/05/81	07/30/81										
KEWAUNEE	03/07/74	06/16/74					5.03E+06	1.08E+07	1.08E+07	1.11E+07	1.24E+07	1.09E+07
MAINE YANKEE	10/23/72	12/28/72			1.44E+06	1.08E+07	1.14E+07	1.47E+07	1.94E+07	1.65E+07	1.69E+07	1.41E+07
MCGUIRE 1	08/08/81	10/01/81										
MCGUIRE 2	08/05/83	03/01/84										
MILLSTONE 2	10/17/75	12/26/75						6.40E+05	1.52E+07	1.42E+07	1.44E+07	1.38E+07
NORTH ANNA 1	04/05/78	06/06/78									1.22E+07	1.41E+07
NORTH ANNA 2	06/12/80	12/14/80										
OCONEE 1	04/19/73	07/15/73				6.62E+06	1.70E+07	4.68E+07	3.97E+07	4.00E+07	4.84E+07	4.37E+07
OCONEE 2	11/11/73	09/09/74										
OCONEE 3	09/05/74	12/16/74										
PALISADES	05/24/71	12/31/71			5.91E+06	7.80E+06	4.00E+05	8.91E+06	9.66E+06	1.73E+07	9.44E+06	1.20E+07
PALO VERDE 1	05/25/85	02/13/86										
POINT BEACH 1	11/02/70	12/21/70	6.30E+05	1.00E+07	9.96E+06	1.84E+07	2.04E+07	2.09E+07	2.18E+07	2.23E+07	2.33E+07	2.08E+07
POINT BEACH 2	05/30/72	10/01/72										
PRAIRIE ISLAND 1	12/01/73	12/16/73				1.28E+05	5.26E+06	2.25E+07	2.06E+07	2.46E+07	2.52E+07	1.12E+08
PRAIRIE ISLAND 2	12/17/74	12/21/74										
R. E. GINNA	11/08/69	07/01/70	6.84E+06	8.50E+06	7.71E+06	1.08E+07	6.71E+06	9.71E+06	6.98E+06	1.11E+07	1.05E+07	9.35E+06
RANCHO SECO 1	09/16/74	04/17/75						4.11E+06	6.91E+06	1.81E+07	1.59E+07	1.79E+07
SALEM 1	12/11/76	06/30/77							5.00E+04	6.70E+06	1.43E+07	6.60E+06
SALEM 2	08/02/80	10/13/81										
SAN ONOFRE 1	06/14/67	01/01/68	9.19E+06	9.60E+06	8.53E+06	7.09E+06	9.73E+06	1.00E+07	7.75E+06	7.29E+06	8.54E+06	1.05E+07
SAN ONOFRE 2	07/26/82	08/08/83										
SAN ONOFRE 3	08/29/83	04/01/84										
SEQUOYAH 1	07/05/80	07/01/81										
SEQUOYAH 2	07/26/82	06/01/82										
ST. LUCIE 1	04/22/76	12/21/76							3.50E+05	1.75E+07	1.64E+07	1.60E+07
ST. LUCIE 2	06/02/83	08/08/83										
SUMMER 1	10/22/82	01/01/84										
SURRY 1	07/01/72	12/22/72			1.29E+06	2.26E+07	1.92E+07	2.90E+07	2.51E+07	3.10E+07	3.27E+07	9.32E+06
SURRY 2	03/07/73	05/01/73										7.26E+06

TABLE 16

THERMAL ENERGY GENERATION COMPARISON BY YEAR

PRESSURIZED WATER REACTORS			MEGAWATT HOURS									
FACILITY	INITIAL CRITICALITY	COMMERCIAL OPERATION	1970	1971	1972	1973	1974	1975	1976	1977	1978	1979
THREE MILE ISLAND 1	06/05/74	09/02/74					6.20E+06	1.76E+07	1.39E+07	1.76E+07	1.83E+07	2.83E+06
THREE MILE ISLAND 2	03/28/78	12/30/78									3.16E+06	N/R
TROJAN	12/15/75	05/20/76							7.54E+06	2.12E+07	5.63E+06	1.70E+07
TURKEY POINT 3	10/20/72	12/14/72			2.90E+05	1.53E+07	2.55E+07	2.78E+07	2.68E+07	2.70E+07	2.81E+07	2.28E+07
TURKEY POINT 4	06/11/73	09/07/73										
WATERFORD 3	03/04/85	09/24/85										
WOLF CREEK 1	05/22/85	09/03/85										
YANKEE ROWE 1	08/19/60	07/01/61	4.13E+06	5.02E+06	2.40E+06	3.57E+06	3.07E+06	4.02E+06	4.25E+06	3.52E+06	4.16E+06	4.17E+06
ZION 1	06/19/73	12/31/73				2.73E+06	1.69E+07	3.28E+07	3.11E+07	3.66E+07	4.30E+07	3.31E+07
ZION 2	12/24/73	09/17/74										

N/R = NOT REPORTED

TABLE 16

THERMAL ENERGY GENERATION COMPARISON BY YEAR

PRESSURIZED WATER REACTORS			MEGAWATT HOURS					
FACILITY	INITIAL CRITICALITY	COMMERCIAL OPERATION	1980	1981	1982	1983	1984	1985
ARKANSAS ONE 1	08/06/74	12/19/74	1.29E+07	1.54E+07	1.22E+07	1.02E+07	1.44E+07	1.62E+07
ARKANSAS ONE 2	12/05/78	03/26/80	1.18E+07	1.39E+07	1.25E+07	1.43E+07	1.95E+07	1.50E+07
BEAVER VALLEY 1	05/10/76	10/01/76	1.13E+06	1.55E+07	8.88E+06	1.51E+07	1.58E+07	1.96E+07
BYRON 1	02/02/85	09/16/85						3.34E+06
CALLAWAY 1	10/02/84	12/19/84					1.00E+06	2.49E+07
CALVERT CLIFFS 1	10/07/74	05/08/75	1.52E+07	1.96E+07	1.68E+07	1.75E+07	1.96E+07	1.35E+07
CALVERT CLIFFS 2	11/30/76	04/01/77	2.05E+07	1.71E+07	1.62E+07	1.96E+07	1.69E+07	1.78E+07
CATAWBA 1	01/07/85	06/29/85						1.07E+07
CRYSTAL RIVER 3	01/14/77	03/13/77	1.04E+07	1.27E+07	1.52E+07	1.14E+07	1.97E+07	1.17E+07
DAVIS-BESSE 1	08/12/77	07/31/78	6.71E+06	1.40E+07	1.03E+07	1.57E+07	1.39E+07	6.31E+06
DIABLO CANYON 1	04/29/84	05/07/85					9.48E+05	1.66E+07
DIABLO CANYON 2	08/19/85	03/13/86						2.12E+06
DONALD C. COOK 1	01/18/75	08/27/75	2.02E+07	2.11E+07	1.69E+07	1.68E+07	2.41E+07	6.83E+06
DONALD C. COOK 2	07/01/78	07/01/78	2.14E+07	2.04E+07	2.22E+07	2.22E+07	1.70E+07	1.82E+07
FORT CALHOUN 1	08/06/73	06/20/74	6.48E+06	6.98E+06	1.09E+07	9.14E+06	7.43E+06	9.56E+06
H. B. ROBINSON 2	09/20/70	03/07/71	1.07E+07	1.19E+07	7.67E+06	1.13E+07	7.84E+05	1.66E+07
HADDAM NECK	07/24/67	01/01/68	1.14E+07	1.31E+07	1.45E+07	1.22E+07	1.08E+07	1.49E+07
INDIAN POINT 1	08/02/62	10/ /62	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
INDIAN POINT 2	05/22/73	08/01/74	1.50E+07	1.05E+07	1.51E+07	1.96E+07	1.17E+07	2.21E+07
INDIAN POINT 3	04/06/76	08/30/76	1.15E+07	1.14E+07	5.06E+06	2.82E+05	1.93E+07	1.51E+07
JOSEPH M. FARLEY 1	08/09/77	12/01/77	1.54E+07	8.96E+06	1.75E+07	1.76E+07	1.78E+07	1.90E+07
JOSEPH M. FARLEY 2	05/05/81	07/30/81		9.47E+06	1.75E+07	1.99E+07	2.15E+07	1.74E+07
KEWAUNEE	03/07/74	06/16/74	1.15E+07	1.21E+07	1.23E+07	1.19E+07	1.21E+07	1.16E+07
MAINE YANKEE	10/23/72	12/28/72	1.41E+07	1.67E+07	1.47E+07	1.83E+07	1.62E+07	1.67E+07
MCGUIRE 1	08/08/81	10/01/81		8.50E+04	1.34E+07	1.39E+07	1.94E+07	2.06E+07
MCGUIRE 2	08/05/83	03/01/84				0.00E+00	1.94E+07	1.68E+07
MILLSTONE 2	10/17/75	12/26/75	1.55E+07	1.92E+07	1.60E+07	7.88E+06	2.14E+07	1.12E+07
NORTH ANNA 1	04/05/78	06/06/78	1.89E+07	1.51E+07	7.95E+06	1.68E+07	1.18E+07	1.81E+07
NORTH ANNA 2	06/12/80	12/14/80	1.12E+06	1.77E+07	1.29E+07	1.87E+07	1.51E+07	2.16E+07
OCONEE 1	04/19/73	07/15/73	1.52E+07	9.00E+06	1.57E+07	1.72E+07	1.86E+07	2.14E+07
OCONEE 2	11/11/73	09/09/74	1.20E+07	1.59E+07	1.06E+07	1.58E+07	2.23E+07	1.56E+07
OCONEE 3	09/05/74	12/16/74	1.59E+07	1.72E+07	6.53E+06	2.14E+07	1.63E+07	1.49E+07
PALISADES	05/24/71	12/31/71	8.19E+06	1.17E+07	1.12E+07	1.27E+07	2.72E+06	1.75E+07
PALO VERDE 1	05/25/85	02/13/86						4.39E+06
POINT BEACH 1	11/02/70	12/21/70	8.09E+06	8.51E+06	8.60E+06	7.59E+06	9.41E+06	1.02E+07
POINT BEACH 2	05/30/72	10/01/72	1.11E+07	1.15E+07	1.13E+07	9.38E+06	1.09E+07	1.11E+07
PRAIRIE ISLAND 1	12/01/73	12/16/73	1.06E+07	1.25E+07	1.27E+07	1.24E+07	1.33E+07	1.18E+07
PRAIRIE ISLAND 2	12/17/74	12/21/74	1.14E+07	1.01E+07	1.26E+07	1.19E+07	1.24E+07	1.15E+07
R. E. GINNA	11/08/69	07/01/70	9.93E+06	1.07E+07	7.68E+06	9.67E+06	1.00E+07	1.14E+07
RANCHO SECO 1	09/16/74	04/17/75	1.39E+07	8.92E+06	1.09E+07	9.16E+06	1.21E+07	6.26E+06
SALEM 1	12/11/76	06/30/77	1.84E+07	2.02E+07	1.31E+07	1.67E+07	6.95E+06	2.77E+07
SALEM 2	08/02/80	10/13/81	0.00E+00	5.11E+06	2.54E+07	2.95E+06	1.03E+07	1.60E+07
SAN ONOFRE 1	06/14/67	01/01/68	2.55E+06	2.59E+06	1.59E+06	0.00E+00	9.24E+05	8.12E+06
SAN ONOFRE 2	07/26/82	08/08/83			9.28E+05	1.23E+07	1.66E+07	1.65E+07
SAN ONOFRE 3	08/29/83	04/01/84				3.55E+06	1.29E+07	1.21E+07
SEQUOYAH 1	07/05/80	07/01/81	1.67E+06	8.06E+06	1.52E+07	2.22E+07	1.92E+07	1.24E+07
SEQUOYAH 2	07/26/82	06/01/82				2.03E+07	1.96E+07	1.71E+07
ST. LUCIE 1	04/22/76	12/21/76	1.70E+07	1.61E+07	2.18E+07	3.53E+06	1.35E+07	1.88E+07
ST. LUCIE 2	06/02/83	08/08/83				7.66E+06	1.77E+07	1.93E+07
SUMMER 1	10/22/82	01/01/84			7.95E+05	1.38E+07	1.33E+07	1.65E+07
SURRY 1	07/01/72	12/22/72	8.67E+06	7.94E+06	1.83E+07	1.22E+07	1.11E+07	1.79E+07
SURRY 2	03/07/73	05/01/73	1.68E+07	1.79E+07	1.35E+07	1.73E+07		1.33E+07

TABLE 16

THERMAL ENERGY GENERATION COMPARISON BY YEAR

PRESSURIZED WATER REACTORS			MEGAWATT HOURS						
FACILITY	INITIAL CRITICALITY	COMMERCIAL OPERATION	1980	1981	1982	1983	1984	1985	
THREE MILE ISLAND 1	06/05/74	09/02/74	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	2.82E+06	
THREE MILE ISLAND 2	03/28/78	12/30/78	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	
TROJAN	12/15/75	05/20/76	1.97E+07	2.10E+07	1.56E+07	1.34E+07	1.54E+07	2.25E+07	
TURKEY POINT 3	10/20/72	12/14/72	1.47E+07	3.03E+06	1.22E+07	1.41E+07	1.56E+07	1.11E+07	
TURKEY POINT 4	06/11/73	09/07/73	1.32E+07	1.48E+07	1.27E+07	9.83E+06	1.04E+07	1.69E+07	
WATERFORD 3	03/04/85	09/24/85						5.64E+06	
WOLF CREEK 1	05/22/85	09/03/85						8.87E+06	
YANKEE ROWE 1	08/19/60	07/01/61	1.13E+06	3.63E+06	3.69E+06	4.69E+06	3.61E+06	4.19E+06	
ZION 1	06/19/73	12/31/73	2.22E+07	1.98E+07	1.52E+07	1.34E+07	1.83E+07	1.85E+07	
ZION 2	12/24/73	09/17/74	1.75E+07	1.77E+07	1.71E+07	2.00E+07	1.92E+07	2.16E+07	

APPENDIX A

EFFLUENT AND WASTE DISPOSAL ANNUAL REPORT FOR YEAR 1985
AIRBORNE AND LIQUID EFFLUENTS

UNIT NUMBER: 1 LICENSEE:ARKANSAS POWER & LIGHT
TYPE:PWR LICENSED POWER (MWT):2568.00
DOCKET NO.:50-313 INITIAL CRITICALITY:08/06/74
COOLING WATER SOURCE:DARDANELLE RESERVOIR

AIRBORNE EFFLUENTS

NUCLIDES RELEASED	ACTIVITY (CI)
H-3	9.60E+00
K-40	7.70E-05
CO-58	4.88E-06
CO-60	8.11E-06
KR-85	2.36E+01
KR-85M	7.89E+00
KR-88	2.62E+00
SR-89	1.59E-04
SR-90	4.94E-05
I-131	3.18E-03
XE-131M	2.63E+02
I-132	2.78E-06
I-133	1.38E-04
XE-133	7.52E+03
XE-133M	2.18E+01
CS-134	1.57E-06
XE-135	1.51E+02
XE-135M	1.05E+02
CS-137	1.51E-05
TH-228	2.59E-06

LIQUID EFFLUENTS

NUCLIDES RELEASED	ACTIVITY (CI)
H-3	3.27E+02
NA-24	3.15E-03
K-40	6.56E-03
AR-41	4.03E-05
CR-51	5.74E-02
MN-54	1.73E-02
FE-55	2.74E-01
CO-57	3.06E-03
CO-58	8.60E-01
FE-59	9.32E-03
CO-60	4.01E-01
ZN-65	5.42E-05
SE-75	3.57E-04
KR-85	1.35E+00
KR-85M	7.77E-04
KR-87	3.08E-03
KR-88	9.70E-05
RB-88	2.36E-05
RB-89	2.93E-05
SR-89	3.57E-02
MO-90	4.31E-05

N/A=NOT APPLICABLE

N/D=NOT DETECTED

N/R=NOT REPORTED

EFFLUENT AND WASTE DISPOSAL ANNUAL REPORT FOR YEAR 1985
AIRBORNE AND LIQUID EFFLUENTS

LIQUID EFFLUENTS

NUCLIDES RELEASED	ACTIVITY (CI)
SR-90	2.12E-03
Y-91	8.36E-03
SR-92	5.05E-04
NB-95	2.56E-02
ZR-95	1.34E-02
NB-97	3.40E-03
ZR-97	1.59E-04
MO-99	4.20E-04
TC-99M	1.08E-03
RU-103	4.59E-03
RU-106	5.51E-03
AG-110M	2.85E-02
CD-113M	4.03E-02
SN-113	6.41E-03
SB-122	1.63E-03
SB-124	1.54E-02
SB-125	5.89E-01
SB-127	5.36E-05
I-131	2.29E-01
XE-131M	3.02E+00
TE-132	1.55E-04
BA-133	2.56E-05
I-133	6.49E-05
XE-133	3.33E+02
XE-133M	1.36E+00
CS-134	2.91E-01
XE-135	1.77E-01
CS-136	8.03E-05
CS-137	6.30E-01
CS-138	1.16E-04
BA-139	3.07E-03
BA-140	8.51E-05
LA-140	2.10E-03
CE-144	1.31E-03
W-187	5.60E-05
TH-228	4.50E-05

TOTAL AIRBORNE TRITIUM RELEASE 9.60E+00

TOTAL LIQUID TRITIUM RELEASE 3.27E+02

VOLUME OF LIQUID WASTE RELEASED (PRIOR TO DILUTION)	LITERS	7.39E+07
VOLUME OF DILUTION WATER USED DURING PERIOD	LITERS	1.33E+12

N/A=NOT APPLICABLE

N/D=NOT DETECTED

N/R=NOT REPORTED

EFFLUENT AND WASTE DISPOSAL ANNUAL REPORT FOR YEAR 1985
AIRBORNE AND LIQUID EFFLUENTSUNIT NUMBER: 2
TYPE:PWR
DOCKET NO.:50-368
COOLING WATER SOURCE:DARDANELLE RESERVOIRLICENSEE:ARKANSAS POWER & LIGHT
LICENSED POWER (MWT):2815.00
INITIAL CRITICALITY:12/05/78

AIRBORNE EFFLUENTS

NUCLIDES RELEASED	ACTIVITY (CI)
H-3	3.44E+00
K-40	4.24E-05
CO-57	4.49E-08
CO-58	7.17E-06
CO-60	3.68E-06
KR-85	1.67E+03
KR-85M	9.17E+00
KR-88	1.29E-01
SR-89	3.39E-05
SR-90	6.62E-08
ZR-97	1.41E-07
CD-109	4.09E-06
CD-113M	2.64E-05
SB-125	4.62E-07
I-131	3.00E-03
XE-131M	1.50E+01
I-132	1.75E-06
I-133	2.45E-04
XE-133	6.85E+03
XE-133M	3.16E+01
I-135	8.95E-07
XE-135	3.35E+02
XE-135M	5.35E-02
CS-137	7.98E-06
BI-214	3.85E-05
RA-226	2.82E-06
TH-228	1.23E-05

LIQUID EFFLUENTS

NUCLIDES RELEASED	ACTIVITY (CI)
H-3	2.41E+02
BE-7	7.96E-04
NA-24	1.73E-03
K-40	4.00E-03
AR-41	4.26E-04
CR-51	4.32E-01
MN-54	9.41E-03
FE-55	5.42E-02
CO-57	7.30E-04
CO-58	8.34E-01
FE-59	2.09E-02
CO-60	1.01E-01
ZN-65	4.64E-04
SE-75	1.47E-04

N/A=NOT APPLICABLE

N/D=NOT DETECTED

N/R=NOT REPORTED

EFFLUENT AND WASTE DISPOSAL ANNUAL REPORT FOR YEAR 1985
AIRBORNE AND LIQUID EFFLUENTS

LIQUID EFFLUENTS

NUCLIDES RELEASED	ACTIVITY (CI)
KR-85	1.38E-01
KR-85M	5.20E-03
KR-87	1.63E-04
KR-88	9.64E-05
Y-88	2.63E-04
SR-89	2.47E-03
SR-90	1.49E-04
Y-91M	1.65E-05
SR-92	6.96E-04
Y-92	8.09E-04
NB-94	1.01E-05
NB-95	8.30E-02
ZR-95	6.79E-02
NB-97	2.84E-03
ZR-97	2.33E-04
MO-99	4.44E-03
TC-99M	8.58E-03
RU-103	1.64E-02
RU-106	2.17E-03
CD-109	2.81E-03
AG-110M	3.79E-02
SN-113	7.04E-03
SB-122	5.68E-04
SB-124	8.56E-02
SB-125	5.71E-01
SB-127	2.15E-04
I-131	1.47E+00
XE-131M	8.73E-01
I-132	1.98E-03
TE-132	7.88E-04
BA-133	5.50E-04
I-133	1.66E-02
XE-133	1.13E+02
XE-133M	6.42E-01
CS-134	1.45E-01
I-134	9.46E-06
I-135	6.92E-04
XE-135	4.09E-01
XE-135M	1.79E-03
CS-136	2.43E-03
CS-137	3.34E-01
CS-138	2.80E-03
BA-139	2.24E-05
BA-140	3.16E-04
LA-140	2.16E-02
CE-141	5.74E-04
CE-144	3.82E-04
HG-203	1.89E-04

N/A=NOT APPLICABLE

N/D=NOT DETECTED

N/R=NOT REPORTED

EFFLUENT AND WASTE DISPOSAL ANNUAL REPORT FOR YEAR 1985
AIRBORNE AND LIQUID EFFLUENTS

LIQUID EFFLUENTS

NUCLIDES RELEASED	ACTIVITY (CI)
BI-214	2.95E-03
PB-214	4.63E-06
RA-226	3.02E-06
TH-228	7.18E-05

TOTAL AIRBORNE TRITIUM RELEASE 3.44E+00

TOTAL LIQUID TRITIUM RELEASE 2.41E+02

VOLUME OF LIQUID WASTE RELEASED (PRIOR TO DILUTION)	LITERS	1.05E+07
VOLUME OF DILUTION WATER USED DURING PERIOD	LITERS	1.33E+12

N/A=NOT APPLICABLE

N/D=NOT DETECTED

N/R=NOT REPORTED

EFFLUENT AND WASTE DISPOSAL ANNUAL REPORT FOR YEAR 1985
SOLID EFFLUENTS

SOLID WASTE DISPOSITION

NUMBER OF SHIPMENTS	MODE OF TRANSPORTATION	DESTINATION
32	CASK	HANFORD WA
29	UNSHIELDED VAN/TRUCK	HANFORD WA

IRRADIATED FUEL SHIPMENTS(DISPOSITION)

NUMBER OF SHIPMENTS	MODE OF TRANSPORTATION	DESTINATION
0	N/A	N/A

ESTIMATE OF MAJOR NUCLIDE COMPOSITION(BY TYPE OF WASTE)

JAN-JUNE JULY-DEC

A

AM-241	%	2.53E-04	5.21E-04
C-14	%	5.83E-02	3.45E-01
CD-109	%		5.64E-01
CE-144	%	1.04E-01	9.18E-02
CM-242	%	2.26E-03	1.46E-03
CM-244	%	3.54E-04	5.44E-04
CO-57	%	3.64E-02	6.89E-03
CO-58	%	3.00E+01	1.95E+00
CO-60	%	9.17E+00	3.62E+00
CR-51	%	2.32E-03	
CS-134	%	1.62E+01	2.75E+01
CS-137	%	3.25E+01	5.70E+01
FE-55	%	4.49E+00	2.20E+00
H-3	%	4.19E-03	4.84E-02
I-129	%	4.55E-02	1.41E-02
MN-54	%	6.31E-02	2.04E-01
NI-59	%	1.11E-01	3.27E-02
NI-63	%	5.71E+00	1.74E+00
PU-238	%	5.91E-04	1.73E-03
PU-239	%	4.09E-04	1.11E-03
PU-241	%	4.26E-02	3.18E-02
SB-122	%		2.30E-12
SB-125	%	5.28E-02	4.64E-01
SR-90	%	1.30E+00	4.15E+00
TC-99	%	9.43E-02	2.75E-02

B

AM-241	%	3.01E-04	6.15E-06
C-14	%	1.01E+00	1.77E-02
CE-144	%	1.39E-01	2.32E-02
CM-242	%	2.95E-03	4.39E-05
CM-244	%	4.80E-04	9.28E-06
CO-58	%	7.28E+00	
CO-60	%	3.00E+00	4.78E+00
CS-134	%	5.63E+00	8.81E-02
CS-137	%	1.75E+01	3.28E-01
FE-55	%	6.26E+01	9.14E+01

N/A=NOT APPLICABLE

N/D=NOT DETECTED

N/R=NOT REPORTED

EFFLUENT AND WASTE DISPOSAL ANNUAL REPORT FOR YEAR 1985
SOLID EFFLUENTS

ESTIMATE OF MAJOR NUCLIDE COMPOSITION(BY TYPE OF WASTE)		JAN-JUNE	JULY-DEC
I-129	%	2.46E-02	4.75E-04
MN-54	%		1.08E-03
NI-59	%	3.63E-02	8.03E-04
NI-59M	%		6.19E-02
NI-63	%	1.87E+00	3.72E-02
NI-63M	%		3.18E+00
PU-238	%	8.82E-04	2.61E-05
PU-239	%	5.17E-04	1.09E-05
PU-241	%	5.78E-02	1.05E-03
SB-125	%		1.78E-03
SR-90	%	7.02E-01	1.70E-02
TC-99	%	5.09E-02	9.56E-04
C			
AM-241	%	3.12E-04	
C-14	%	1.04E+00	
CE-144	%	1.36E-01	
CM-242	%	2.77E-03	
CM-244	%	4.96E-04	
CO-58	%	6.04E+00	
CO-60	%	3.08E+00	
CS-134	%	4.90E+00	
CS-137	%	1.81E+01	
FE-55	%	6.38E+01	
I-129	%	2.55E-02	
NI-59	%	3.76E-02	
NI-63	%	1.94E+00	
PU-238	%	1.19E-03	
PU-239	%	5.36E-04	
PU-241	%	5.96E-02	
SR-90	%	7.26E-01	
TC-99	%	5.27E-02	

TYPE OF WASTE	UNIT	YEAR TOTAL
A. SPENT RESINS, FILTER SLUDGES, EVAPORATOR BOTTOMS, ETC.	M3 CI	2.14E+02 1.33E+03
B. DRY COMPRESSIBLE WASTE, CONTAMINATED EQUIPMENT, ETC.	M3 CI	4.74E+02 4.16E+02
C. IRRADIATED COMPONENTS, CONTROL RODS, ETC.	M3 CI	
D. OTHER	M3	2.07E-01
ABSORBED OIL	CI	1.01E-03

N/A=NOT APPLICABLE
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N/R=NOT REPORTED

EFFLUENT AND WASTE DISPOSAL ANNUAL REPORT FOR YEAR 1985
AIRBORNE AND LIQUID EFFLUENTS

UNIT NUMBER: 1

LICENSEE:DUQUESNE LIGHT+OHIO EDISON+PA POWER

TYPE:PWR

LICENSED POWER (MWT):2652.00

DOCKET NO.:50-334

INITIAL CRITICALITY:05/10/76

COOLING WATER SOURCE:OHIO RIVER

AIRBORNE EFFLUENTS

NUCLIDES RELEASED	ACTIVITY (CI)
AR-41	1.91E-03
MN-54	1.71E-04
CO-58	2.76E-04
CO-60	1.67E-04
KR-85	7.01E-01
KR-85M	7.79E-03
KR-88	2.60E-03
SR-89	9.27E-06
SR-90	4.85E-04
NB-95	1.08E-06
I-131	4.30E-04
XE-131M	2.27E+01
I-133	3.62E-04
XE-133	1.53E+01
XE-133M	1.22E-02
CS-134	1.31E-06
XE-135	3.93E-01
CS-137	3.08E-05
UNIDENTIFIED	1.16E-05

LIQUID EFFLUENTS

NUCLIDES RELEASED	ACTIVITY (CI)
NA-24	5.89E-06
CR-51	1.52E-03
MN-54	8.51E-04
FE-55	1.43E-02
CO-57	5.98E-05
CO-58	2.01E-02
CO-60	5.36E-02
ZN-65	2.01E-04
KR-85	5.68E-04
SR-89	5.07E-05
SR-90	1.45E-06
SR-92	2.10E-04
ZR-NB-95	1.45E-03
NB-97	3.09E-04
AG-110M	1.29E-04
SB-124	2.07E-03
SB-125	6.57E-03
I-131	1.48E-05
XE-133	1.44E-03
CS-134	3.65E-03
XE-135	1.81E-05
CS-137	8.35E-03

N/A=NOT APPLICABLE

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N/R=NOT REPORTED

EFFLUENT AND WASTE DISPOSAL ANNUAL REPORT FOR YEAR 1985
AIRBORNE AND LIQUID EFFLUENTS

TOTAL AIRBORNE TRITIUM RELEASE 1.54E+01
TOTAL LIQUID TRITIUM RELEASE 1.50E+02

VOLUME OF LIQUID WASTE RELEASED (PRIOR TO DILUTION)	LITERS	2.28E+06
VOLUME OF DILUTION WATER USED DURING PERIOD	LITERS	1.09E+09

N/A=NOT APPLICABLE
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N/R=NOT REPORTED

EFFLUENT AND WASTE DISPOSAL ANNUAL REPORT FOR YEAR 1985
SOLID EFFLUENTS

SOLID WASTE DISPOSITION

NUMBER OF SHIPMENTS
18

MODE OF TRANSPORTATION
TRUCK

DESTINATION
BARNWELL SC

IRRADIATED FUEL SHIPMENTS(DISPOSITION)

NUMBER OF SHIPMENTS
0

MODE OF TRANSPORTATION
N/A

DESTINATION
N/A

ESTIMATE OF MAJOR NUCLIDE COMPOSITION(BY TYPE OF WASTE)

JAN-JUNE

JULY-DEC

A

AG-110M	%	2.01E-01	1.03E-01
AM-241	%	1.03E-04	1.10E-02
BA-140	%	6.74E-04	2.88E-02
C-14	%	7.25E-02	2.16E-02
CE-141	%	1.13E-03	5.56E-02
CE-144/PR-144	%	4.47E-02	2.44E-01
CM-242	%	9.36E-04	5.61E-03
CM-243/CM-244	%	1.88E-04	6.48E-04
CO-57	%	1.50E-01	1.48E-01
CO-58	%	1.71E+01	1.31E+01
CO-60	%	3.06E+01	3.36E+01
CR-51	%	2.98E-01	1.12E+00
GS-134	%	4.39E+00	2.93E+00
GS-137	%	8.82E+00	6.94E+00
FE-55	%	1.65E+01	9.46E+00
FE-59	%	1.02E-02	4.69E-02
H-3	%	6.35E+00	1.71E+01
I-129	%	3.95E-04	7.20E-03
I-131	%		1.18E-06
MN-54	%	1.68E+00	7.14E-01
NB-94	%	3.44E-05	8.54E-04
NB-95	%	4.65E-01	8.19E-01
NI-59	%	2.56E-01	4.23E-01
NI-63	%	1.18E+01	1.09E+01
NP-237/PU-242	%	8.11E-06	3.48E-06
P-32	%	6.20E-03	7.49E-03
PU-238	%	4.09E-04	2.19E-03
PU-239/PU-240	%	6.03E-04	1.63E-03
PU-241	%	2.85E-02	1.86E-01
RU-103	%	1.12E-02	7.86E-02
SB-124	%	5.61E-02	6.44E-02
SB-125	%	5.71E-02	1.71E-01
SN-113	%	2.14E-02	
SR-89	%	3.40E-02	6.15E-02
SR-90	%	5.22E-02	5.73E-02
TC-99	%	5.49E-04	1.75E-03
ZN-65	%	3.67E-01	3.39E-01

N/A=NOT APPLICABLE

N/D=NOT DETECTED

N/R=NOT REPORTED

INSTALLATION: BEAVER VALLEY

EFFLUENT AND WASTE DISPOSAL ANNUAL REPORT FOR YEAR 1985
SOLID EFFLUENTS

ESTIMATE OF MAJOR NUCLIDE COMPOSITION(BY TYPE OF WASTE)		JAN-JUNE	JULY-DEC
ZR-95	%	6.35E-01	9.73E-01
B			
AG-110M	%	3.28E-01	9.74E-01
AM-241	%	1.19E-03	5.26E-03
C-14	%	1.01E+00	4.19E-01
CE-144/PR-144	%	1.78E-02	
CM-242	%	6.30E-04	9.49E-04
CM-243/CM-244	%	6.16E-04	2.04E-03
CO-57	%	4.48E-03	
CO-58	%	5.84E-01	7.73E-01
CO-60	%	1.90E+01	3.34E+01
CS-134	%	6.94E-01	1.55E+00
CS-137	%	1.47E+00	4.64E+00
FE-55	%	6.08E+01	4.41E+01
H-3	%	6.92E-01	3.60E+00
I-129	%	2.36E-02	1.19E-01
MN-54	%	9.82E-02	
NI-63	%	1.39E+01	4.69E+00
NP-237/PU-242	%	3.60E-04	
PU-238	%	3.28E-03	1.09E-02
PU-239/PU-240	%	1.95E-03	7.48E-03
PU-241	%	8.32E-03	4.02E+00
SB-125	%	3.74E-01	1.55E+00
SR-90	%	1.66E-01	
TC-99	%	9.68E-03	3.60E-02
ZR-95	%	7.26E-02	8.85E-02

TYPE OF WASTE	UNIT	YEAR TOTAL
A. SPENT RESINS, FILTER SLUDGES, EVAPORATOR BOTTOMS, ETC.	M3	5.02E+01
	CI	9.36E+01
B. DRY COMPRESSIBLE WASTE, CONTAMINATED EQUIPMENT, ETC.	M3	1.06E+02
	CI	3.49E+00
C. IRRADIATED COMPONENTS, CONTROL RODS, ETC.	M3	0.00E+00
	CI	0.00E+00
D. OTHER	M3	
	CI	

N/A=NOT APPLICABLE
N/D=NOT DETECTED
N/R=NOT REPORTED

EFFLUENT AND WASTE DISPOSAL ANNUAL REPORT FOR YEAR 1985
AIRBORNE AND LIQUID EFFLUENTS

UNIT NUMBER: 1 LICENSEE:CONSUMERS POWER
TYPE:BWR LICENSED POWER (MWT): 240.00
DOCKET NO.:50-155 INITIAL CRITICALITY:09/27/62
COOLING WATER SOURCE:LAKE MICHIGAN

AIRBORNE EFFLUENTS

NUCLIDES RELEASED	ACTIVITY (CI)
N-13	1.40E+03
NA-24	1.62E-03
CR-51	5.26E-03
MN-54	1.58E-04
MN-56	2.35E-04
CO-58	3.62E-05
FE-59	4.08E-05
CO-60	4.29E-04
ZN-65	6.34E-04
BR-82	6.61E-03
KR-83M	1.41E+03
KR-85	5.60E+00
KR-85M	2.49E+03
KR-87	8.06E+03
KR-88	1.43E+04
KR-89	6.97E+02
SR-89	1.93E-03
KR-90	3.43E+02
SR-90	3.32E-06
SR-91	2.29E-04
NB-95	2.25E-07
MO-99	2.23E-03
AG-110M	5.35E-04
I-131	6.93E-02
XE-131M	5.27E+00
I-132	3.99E-02
I-133	7.69E-02
XE-133	5.38E+03
XE-133M	1.23E+02
CS-134	7.53E-04
I-135	7.62E-02
XE-135	1.16E+04
XE-135M	2.46E+03
CS-136	1.81E-04
CS-137	1.18E-03
XE-137	1.20E+03
CS-138	3.39E+00
XE-138	1.26E+04
BA-139	1.11E-03
XE-139	5.03E+02
BA-140	1.38E-03
LA-140	6.54E-03
CE-141	1.58E-06
HG-203	5.96E-05

N/A=NOT APPLICABLE

N/D=NOT DETECTED

N/R=NOT REPORTED

EFFLUENT AND WASTE DISPOSAL ANNUAL REPORT FOR YEAR 1985
AIRBORNE AND LIQUID EFFLUENTS

AIRBORNE EFFLUENTS

NUCLIDES RELEASED	ACTIVITY (CI)
NP-239	2.52E-03
UNIDENTIFIED	2.66E-04

LIQUID EFFLUENTS

NUCLIDES RELEASED	ACTIVITY (CI)
NA-24	5.26E-05
CR-51	1.13E-03
MN-54	1.75E-02
CO-58	1.03E-03
FE-59	1.60E-03
CO-60	2.85E-02
ZN-65	1.50E-03
SR-89	4.64E-04
SR-90	5.34E-04
SR-92	7.62E-05
NB-95	2.59E-05
MO-99	1.77E-04
AG-110M	1.11E-03
I-131	2.15E-02
I-133	2.12E-03
XE-133	2.25E-03
CS-134	1.03E-02
I-135	1.37E-04
CS-136	1.89E-04
CS-137	2.49E-02
LA-140	0.00E+00
HG-203	1.63E-04
NP-239	1.59E-03
UNIDENTIFIED	3.90E-02

TOTAL AIRBORNE TRITIUM RELEASE	2.52E+01
TOTAL LIQUID TRITIUM RELEASE	1.27E+00

VOLUME OF LIQUID WASTE RELEASED (PRIOR TO DILUTION)	LITERS	5.22E+05
VOLUME OF DILUTION WATER USED DURING PERIOD	LITERS	8.53E+10

N/A=NOT APPLICABLE
N/D=NOT DETECTED
N/R=NOT REPORTED

EFFLUENT AND WASTE DISPOSAL ANNUAL REPORT FOR YEAR 1985
SOLID EFFLUENTS

SOLID WASTE DISPOSITION

NUMBER OF SHIPMENTS	MODE OF TRANSPORTATION	DESTINATION
4	TRUCK	BARNWELL SC
1	TRUCK	RICHLAND WA

IRRADIATED FUEL SHIPMENTS(DISPOSITION)

NUMBER OF SHIPMENTS	MODE OF TRANSPORTATION	DESTINATION
0	N/A	N/A

TYPE OF WASTE

	UNIT	YEAR TOTAL
A. SPENT RESINS, FILTER SLUDGES, EVAPORATOR BOTTOMS, ETC.	M3	1.09E+01
	CI	1.09E+02
B. DRY COMPRESSIBLE WASTE, CONTAMINATED EQUIPMENT, ETC.	M3	4.13E+01
	CI	5.41E+00
C. IRRADIATED COMPONENTS, CONTROL RODS, ETC.	M3	0.00E+00
	CI	0.00E+00
D. OTHER	M3	0.00E+00
	CI	0.00E+00

N/A=NOT APPLICABLE
N/D=NOT DETECTED
N/R=NOT REPORTED

EFFLUENT AND WASTE DISPOSAL ANNUAL REPORT FOR YEAR 1985
AIRBORNE AND LIQUID EFFLUENTS

UNIT NUMBER: 1	LICENSEE:TENNESSEE VALLEY AUTHORITY
TYPE:BWR	LICENSED POWER (MWT):3293.00
DOCKET NO.:50-259	INITIAL CRITICALITY:08/17/73
COOLING WATER SOURCE:TENNESSEE RIVER	
UNIT NUMBER: 2	LICENSEE:TENNESSEE VALLEY AUTHORITY
TYPE:BWR	LICENSED POWER (MWT):3293.00
DOCKET NO.:50-260	INITIAL CRITICALITY:07/20/74
COOLING WATER SOURCE:TENNESSEE RIVER	
UNIT NUMBER: 3	LICENSEE:TENNESSEE VALLEY AUTHORITY
TYPE:BWR	LICENSED POWER (MWT):3293.00
DOCKET NO.:50-296	INITIAL CRITICALITY:08/08/76
COOLING WATER SOURCE:TENNESSEE RIVER	

AIRBORNE EFFLUENTS

NUCLIDES RELEASED	ACTIVITY (CI)
AR-41	8.19E+02
MN-54	3.09E-05
CO-60	8.04E-04
ZN-65	1.63E-04
KR-85	6.29E+02
KR-85M	5.29E+03
KR-87	2.94E+03
KR-88	9.97E+03
SR-89	1.12E-03
SR-90	1.57E-05
NB-95	2.53E-06
I-131	2.05E-02
I-133	5.59E-02
XE-133	6.21E+03
CS-134	<2.58E-04
I-135	4.68E-02
XE-135	4.77E+02
XE-135M	5.87E+01
CS-137	<3.09E-04
XE-138	<5.15E+01
BA-140	<2.18E-03
LA-140	<5.78E-04

LIQUID EFFLUENTS

NUCLIDES RELEASED	ACTIVITY (CI)
NA-24	2.72E-02
CR-51	<4.24E-02
MN-54	1.14E-02
CO-57	4.71E-06
CO-58	<3.30E-03
FE-59	<1.07E-02
CO-60	1.20E-01
ZN-65	2.12E-01
ZN-69M	2.30E-05
AS-76	7.33E-04
BR-84	2.15E-03

N/A=NOT APPLICABLE
N/D=NOT DETECTED
N/R=NOT REPORTED

EFFLUENT AND WASTE DISPOSAL ANNUAL REPORT FOR YEAR 1985
AIRBORNE AND LIQUID EFFLUENTS

LIQUID EFFLUENTS

NUCLIDES RELEASED	ACTIVITY (CI)
KR-85	2.45E-03
KR-85M	4.84E-05
KR-88	1.06E-04
SR-89	5.38E-03
SR-90	<1.82E-05
NB-95	<2.13E-03
ZR-95	<1.01E-02
MO-TC-99M	2.23E-03
RU-103	5.98E-05
TC-104	1.36E-04
AG-110M	2.07E-03
SB-124	6.62E-04
SB-125	1.58E-03
I-131	<1.19E-02
I-133	2.62E-02
XE-133	1.62E-01
XE-133M	1.58E-04
CS-134	2.00E-01
I-135	9.71E-03
XE-135	<1.61E-01
XE-135M	1.49E-04
CS-137	2.62E-01
BA-139	9.50E-05
BA-140	7.21E-04
LA-140	<7.28E-03
CE-141	<2.35E-02
CE-144	2.18E-04

TOTAL AIRBORNE TRITIUM RELEASE 7.49E+00

TOTAL LIQUID TRITIUM RELEASE 3.31E+01

VOLUME OF LIQUID WASTE RELEASED (PRIOR TO DILUTION)	LITERS	5.64E+07
VOLUME OF DILUTION WATER USED DURING PERIOD	LITERS	6.23E+11

N/A=NOT APPLICABLE

N/D=NOT DETECTED

N/R=NOT REPORTED

INSTALLATION: BROWNS FERRY

EFFLUENT AND WASTE DISPOSAL ANNUAL REPORT FOR YEAR 1985
SOLID EFFLUENTS

SOLID WASTE DISPOSITION

NUMBER OF SHIPMENTS
182

MODE OF TRANSPORTATION
SOLE USE TRUCK

DESTINATION
RICHLAND WA

IRRADIATED FUEL SHIPMENTS(DISPOSITION)

NUMBER OF SHIPMENTS
0

MODE OF TRANSPORTATION
N/A

DESTINATION
N/A

ESTIMATE OF MAJOR NUCLIDE COMPOSITION(BY TYPE OF WASTE)

		JAN-MARCH	APRIL-JUNE	JULY-SEPT	OCT-DE
A					
AG-110M	%	4.22E-01	7.37E-01	4.89E-01	6.78E-0
BA-140	%	1.71E+00	2.54E-01		
CE-141	%	2.28E-01	4.91E-02		
CO-58	%	2.45E-01	7.51E-01	8.26E-02	2.13E-0
CO-60	%	5.58E+00	1.15E+01	1.22E+01	9.68E+0
CR-51	%	6.22E+00	4.92E+00		
CS-134	%	1.90E+01	1.23E+01	1.75E+01	1.45E+0
CS-137	%	1.94E+01	1.39E+01	3.03E+01	2.08E+0
I-131	%	1.66E+00	5.96E-02		
LA-140	%	1.98E+00	2.06E-01		
MN-54	%	8.71E-01	1.56E+00	8.93E-01	6.34E-0
OTHERS	%	1.34E+00	4.28E-01	4.73E-01	9.14E-0
SR-90	%	3.78E-01	2.07E-01	4.56E-01	1.80E-0
ZN-65	%	4.06E+01	5.31E+01	3.77E+01	4.86E+0
B					
AG-110M	%	5.93E-01	9.52E-01	1.13E+00	1.34E+0
BA-140	%	1.32E+00	9.77E-01		
CE-141	%	1.22E-01	1.46E-01		
CO-58	%	6.30E-01	6.60E-01	2.85E-01	0.00E+0
CO-60	%	8.58E+00	1.29E+01	1.60E+01	1.87E+0
CR-51	%	1.85E+01	1.91E+01	1.03E+01	1.21E+0
CS-134	%	1.93E+01	4.02E+00	6.12E+00	7.16E+0
CS-137	%	1.86E+01	4.89E+00	6.12E+00	7.16E+0
FE-55	%			2.19E+01	2.57E+0
FE-59	%			1.14E+00	1.34E+0
I-131	%	7.00E-01	2.31E-01		
LA-140	%	1.43E+00	8.66E-01		
MN-54	%	8.40E-01	8.92E-01	3.77E+00	4.42E+0
OTHERS	%	1.59E+00	3.22E+00	1.67E+01	5.07E-0
SR-90	%	3.64E-01	2.57E-02		
ZN-65	%	2.75E+01	5.11E+01	1.66E+01	1.93E+0
D					
AG-110M	%	5.75E-01	9.19E-01	1.18E+00	1.32E+0
BA-140	%	1.30E+00	9.75E-01		
CE-141	%	9.86E-02	1.38E-01		
CO-58	%	5.46E-01	1.70E+00	1.84E-01	0.00E+0
CO-60	%	8.80E+00	1.27E+01	1.90E+01	1.88E+0

N/A=NOT APPLICABLE

N/D=NOT DETECTED

N/R=NOT REPORTED

EFFLUENT AND WASTE DISPOSAL ANNUAL REPORT FOR YEAR 1985
SOLID EFFLUENTS

ESTIMATE OF MAJOR NUCLIDE COMPOSITION (BY TYPE OF WASTE)

		JAN-MARCH	APRIL-JUNE	JULY-SEPT	OCT-DEC
CR-51	%	1.45E+01	1.86E+01	2.91E+00	1.21E+01
CS-134	%	2.11E+01	5.40E+00	6.79E+00	7.20E+00
CS-137	%	2.08E+01	6.18E+00	7.03E+00	7.20E+00
FE-55	%			1.98E+01	2.57E+01
FE-59	%			1.04E+00	1.34E+00
I-131	%	5.31E-01	2.56E-01		
LA-140	%	1.12E+00	8.77E-01		
MN-54	%	7.92E-01	2.37E+00	3.93E+00	4.42E+00
OTHERS	%	2.68E+00	8.60E-01	1.31E+01	1.66E+00
SR-90	%	4.07E-01	8.84E-02	1.33E-02	2.50E-03
ZN-65	%	2.80E+01	4.89E+01	2.68E+01	1.94E+01

TYPE OF WASTE	UNIT	YEAR TOTAL
A. SPENT RESINS, FILTER SLUDGES, EVAPORATOR BOTTOMS, ETC.	M3	4.18E+02
	GI	2.83E+03
B. DRY COMPRESSIBLE WASTE, CONTAMINATED EQUIPMENT, ETC.	M3	2.70E+02
	GI	6.24E+00
C. IRRADIATED COMPONENTS, CONTROL RODS, ETC.	M3	N/A
	GI	N/A
D. OTHER	M3	1.61E+03
NON-COMPRESSIBLE WASTE	GI	2.43E+02

N/A=NOT APPLICABLE

N/D=NOT DETECTED

N/R=NOT REPORTED

EFFLUENT AND WASTE DISPOSAL ANNUAL REPORT FOR YEAR 1985
AIRBORNE AND LIQUID EFFLUENTS

UNIT NUMBER: 1	LICENSEE:CAROLINA POWER &LIGHT
TYPE:BWR	LICENSED POWER (MWT):2436.00
DOCKET NO.:50-325	INITIAL CRITICALITY:10/08/76
COOLING WATER SOURCE:CAPE FEAR RIVER	
UNIT NUMBER: 2	LICENSEE:CAROLINA POWER &LIGHT
TYPE:BWR	LICENSED POWER (MWT):2436.00
DOCKET NO.:50-324	INITIAL CRITICALITY:03/20/75
COOLING WATER SOURCE:CAPE FEAR RIVER	

AIRBORNE EFFLUENTS

NUCLIDES RELEASED	ACTIVITY (CI)
H-3	3.82E+00
AR-41	2.97E+01
CR-51	9.40E-03
MN-54	1.50E-03
CO-58	1.67E-04
FE-59	1.43E-04
CO-60	3.72E-03
KR-85M	8.29E+01
KR-87	4.79E+01
KR-88	3.85E+01
SR-89	2.12E-03
SR-90	1.11E-05
Y-91	4.61E-04
RU-103	2.96E-06
I-131	<4.01E-02
I-132	7.57E-03
I-133	1.26E-01
XE-133	1.13E+04
XE-133M	5.49E+02
CS-134	1.86E-05
I-135	1.28E-01
XE-135	3.86E+03
XE-135M	2.44E+02
CS-137	1.03E-04
XE-137	8.63E+02
XE-138	3.82E+02
BA-LA-140	5.50E-03
CE-141	1.42E-06
CE-144	1.58E-05

LIQUID EFFLUENTS

NUCLIDES RELEASED	ACTIVITY (CI)
F-18	2.45E-06
NA-24	4.42E-05
CR-51	1.05E-02
MN-54	2.16E-02
FE-55	1.06E-02
MN-56	1.52E-05
CO-58	2.54E-03
FE-59	4.06E-05

N/A=NOT APPLICABLE

N/D=NOT DETECTED

N/R=NOT REPORTED

EFFLUENT AND WASTE DISPOSAL ANNUAL REPORT FOR YEAR 1985
AIRBORNE AND LIQUID EFFLUENTS

LIQUID EFFLUENTS

NUCLIDES RELEASED	ACTIVITY (CI)
CO-60	5.18E-02
ZN-69M	3.34E-06
AS-76	5.49E-04
KR-85	2.23E-03
KR-85M	3.79E-06
SR-90	1.73E-04
Y-91M	1.87E-04
SR-92	2.18E-04
Y-92	1.60E-03
NB-95	5.13E-06
NB-97	1.31E-03
TC-99M	1.77E-04
TC-104	9.12E-06
RU-105	5.13E-05
AG-110M	6.76E-04
AG-111	6.46E-05
TE-129	2.07E-05
TE-129M	3.50E-05
I-131	1.88E-04
XE-131M	1.02E-04
TE-132	7.65E-06
I-133	4.46E-04
XE-133	1.34E-01
XE-133M	3.74E-03
CS-134	1.44E-03
XE-135	4.08E-01
XE-135M	3.90E-04
CS-137	9.37E-03
CS-138	3.72E-05
BA-LA-140	7.13E-04
CE-141	1.96E-07
LA-142	5.15E-05
NP-239	5.49E-05

TOTAL AIRBORNE TRITIUM RELEASE	3.82E+00
TOTAL LIQUID TRITIUM RELEASE	9.88E+00

VOLUME OF LIQUID WASTE RELEASED (PRIOR TO DILUTION)	LITERS	3.31E+07
VOLUME OF DILUTION WATER USED DURING PERIOD	LITERS	7.87E+10

N/A=NOT APPLICABLE
N/D=NOT DETECTED
N/R=NOT REPORTED

EFFLUENT AND WASTE DISPOSAL ANNUAL REPORT FOR YEAR 1985
SOLID EFFLUENTS

SOLID WASTE DISPOSITION

NUMBER OF SHIPMENTS	MODE OF TRANSPORTATION	DESTINATION
190	SOLE USE	BARNWELL SC
28	SOLE USE	RICHLAND WA

IRRADIATED FUEL SHIPMENTS(DISPOSITION)

NUMBER OF SHIPMENTS	MODE OF TRANSPORTATION	DESTINATION
0	N/A	N/A

ESTIMATE OF MAJOR NUCLIDE COMPOSITION(BY TYPE OF WASTE)

JAN-JUNE JULY-DEC

A

CO-58	%	7.52E+00	3.04E+00
CO-60	%	1.14E+02	5.94E+01
CR-51	%	3.22E+00	3.44E+01
CS-134	%	5.36E+00	7.46E-01
CS-137	%	1.01E+01	2.16E+00
FE-55	%	1.33E+01	6.96E+01
MN-54	%	4.76E+01	3.22E+01
NI-63	%	1.38E+01	2.46E+00
SR-89	%		5.16E+00
XE-131	%		2.60E+00

B

BA-140	%	2.80E+00	3.10E+00
CO-60	%	4.76E+01	5.24E+01
CR-51	%	3.18E+00	3.18E+00
CS-134	%	3.90E+00	3.90E+00
CS-137	%	7.92E+00	5.72E+00
FE-55	%	1.14E+02	1.12E+02
MN-54	%	1.55E+01	2.00E+01

D

BA-140	%	5.46E+00	
CO-60	%	5.64E+01	4.04E+01
CR-51	%	3.16E+00	2.96E+00
CS-134	%	4.34E+00	
CS-137	%	1.08E+01	2.68E+00
FE-55	%	1.19E+02	1.07E+02
H-3	%	1.12E+00	
MN-54	%	5.66E+00	1.05E+01
NI-63	%		3.80E+00
PU-241	%		2.00E+00
SR-89	%		4.70E+01
SR-90	%		3.12E+00

N/A=NOT APPLICABLE

N/D=NOT DETECTED

N/R=NOT REPORTED

EFFLUENT AND WASTE DISPOSAL ANNUAL REPORT FOR YEAR 1985
SOLID EFFLUENTS

TYPE OF WASTE	UNIT	YEAR	TOTAL
A. SPENT RESINS, FILTER SLUDGES, EVAPORATOR	M3		6.28E+02
BOTTOMS, ETC.	CI		4.87E+03
B. DRY COMPRESSIBLE WASTE, CONTAMINATED	M3		1.62E+03
EQUIPMENT, ETC.	CI		1.03E+02
C. IRRADIATED COMPONENTS, CONTROL	M3		0.00E+00
RODS, ETC.	CI		0.00E+00
D. OTHER	M3		3.93E+02
	CI		2.56E+01

N/A=NOT APPLICABLE
N/D=NOT DETECTED
N/R=NOT REPORTED

EFFLUENT AND WASTE DISPOSAL ANNUAL REPORT FOR YEAR 1985
AIRBORNE AND LIQUID EFFLUENTSUNIT NUMBER: 1
TYPE:PWR
DOCKET NO.:50-454
COOLING WATER SOURCE:ROCK RIVERLICENSEE:COMMONWEALTH EDISON CO.
LICENSED POWER (MWT):3411.00
INITIAL CRITICALITY:02/02/85

AIRBORNE EFFLUENTS

NUCLIDES RELEASED	ACTIVITY (CI)
AR-41	2.19E+00
CO-58	5.80E-06
CO-60	5.28E-05
KR-85M	9.53E-01
KR-87	1.00E+01
KR-88	7.96E-01
I-131	2.11E-03
XE-131M	1.54E+01
I-132	2.48E-04
I-133	1.11E-03
XE-133	6.62E+02
XE-133M	5.28E-01
CS-134	7.52E-06
I-135	6.27E-04
XE-135	8.95E+01
XE-135M	3.63E-02
XE-138	3.33E-01
CE-143	3.31E-06

LIQUID EFFLUENTS

NUCLIDES RELEASED	ACTIVITY (CI)
BE-7	7.14E-04
NA-24	6.30E-01
AR-41	1.02E-03
CR-51	3.15E-01
MN-54	7.77E-01
MN-56	1.32E-04
CO-57	9.02E-03
CO-58	1.25E+01
FE-59	7.93E-02
CO-60	1.07E+00
ZN-65	4.93E-03
ZN-69M	5.64E-04
BR-82	1.07E-04
KR-85	2.20E-04
KR-85M	5.36E-01
KR-87	1.42E-04
KR-88	1.06E-01
RB-88	4.81E-03
SR-91	4.74E-03
Y-91	1.96E-04
Y-91M	6.13E-02
SR-92	1.98E-03
NB-95	5.71E-02

N/A=NOT APPLICABLE

N/D=NOT DETECTED

N/R=NOT REPORTED

EFFLUENT AND WASTE DISPOSAL ANNUAL REPORT FOR YEAR 1985
AIRBORNE AND LIQUID EFFLUENTS

LIQUID EFFLUENTS

NUCLIDES RELEASED	ACTIVITY (CI)
ZR-95	4.93E-02
ZR-97	3.16E-03
MO-99	1.90E-02
TC-99M	1.35E-03
RU-103	1.49E-03
SB-122	7.54E-03
SB-124	1.56E-02
SB-125	7.46E-04
I-131	1.92E-01
XE-131M	9.01E-03
I-132	1.83E-02
I-133	1.36E-02
XE-133	9.55E-01
XE-133M	1.06E-02
CS-134	6.09E-02
I-134	4.80E-04
I-135	6.52E-04
XE-135	7.10E-02
CS-136	2.88E-02
CS-137	2.29E-01
CS-138	3.67E-04
BA-LA-140	1.94E-01

TOTAL AIRBORNE TRITIUM RELEASE	9.32E-01
TOTAL LIQUID TRITIUM RELEASE	2.61E+02

VOLUME OF LIQUID WASTE RELEASED (PRIOR TO DILUTION)	LITERS	4.83E+07
VOLUME OF DILUTION WATER USED DURING PERIOD	LITERS	4.16E+10

N/A=NOT APPLICABLE
N/D=NOT DETECTED
N/R=NOT REPORTED

EFFLUENT AND WASTE DISPOSAL ANNUAL REPORT FOR YEAR 1985
SOLID EFFLUENTS

SOLID WASTE DISPOSITION			
	NUMBER OF SHIPMENTS	MODE OF TRANSPORTATION	DESTINATION
	20	N/A	N/A
TYPE OF WASTE		UNIT	YEAR TOTAL
A. SPENT RESINS, FILTER SLUDGES, EVAPORATOR		M3	1.78E+02
BOTTOMS, ETC.		CI	1.39E+01
B. DRY COMPRESSIBLE WASTE, CONTAMINATED		M3	
EQUIPMENT, ETC.		CI	
C. IRRADIATED COMPONENTS, CONTROL		M3	
RODS, ETC.		CI	
D. OTHER		M3	
		CI	

N/A=NOT APPLICABLE
N/D=NOT DETECTED
N/R=NOT REPORTED

EFFLUENT AND WASTE DISPOSAL ANNUAL REPORT FOR YEAR 1985
AIRBORNE AND LIQUID EFFLUENTS

UNIT NUMBER: 1 LICENSEE:UNION ELECTRIC COMPANY
TYPE:PWR LICENSED POWER (MWT):3411.00
DOCKET NO.:50-483 INITIAL CRITICALITY:10/02/84
COOLING WATER SOURCE:MISSOURI RIVER

AIRBORNE EFFLUENTS

NUCLIDES RELEASED	ACTIVITY (CI)
H-3	5.12E+00
AR-41	2.82E+00
CO-58	1.24E-05
KR-85	1.66E+00
KR-85M	2.49E+00
KR-87	2.16E-01
KR-88	2.24E+00
SR-90	3.39E-08
I-131	3.07E-04
XE-131M	1.41E+01
I-133	2.76E-05
XE-133	1.59E+03
XE-133M	1.33E+01
XE-135	3.75E+01

LIQUID EFFLUENTS

NUCLIDES RELEASED	ACTIVITY (CI)
H-3	5.88E+02
MN-54	7.43E-06
FE-55	4.34E-04
CO-58	3.54E-03
CO-60	3.74E-05
KR-85M	4.68E-05
NB-95	8.15E-05
ZR-95	2.36E-05
TC-99M	6.29E-06
I-131	5.89E-04
XE-131M	9.20E-03
I-133	7.81E-05
XE-133	1.39E+00
XE-133M	1.56E-02
I-135	1.44E-05
XE-135	1.10E-02
XE-135M	2.46E-04
CS-137	2.37E-05
CE-144	1.46E-04

TOTAL AIRBORNE TRITIUM RELEASE 5.13E+00
TOTAL LIQUID TRITIUM RELEASE 5.88E+02

N/A=NOT APPLICABLE
N/D=NOT DETECTED
N/R=NOT REPORTED

INSTALLATION:CALLAWAY

LOCATION:10 MI SE FULTON MO

EFFLUENT AND WASTE DISPOSAL ANNUAL REPORT FOR YEAR 1985
AIRBORNE AND LIQUID EFFLUENTS

VOLUME OF LIQUID WASTE RELEASED (PRIOR TO DILUTION)	LITERS	9.82E+07
VOLUME OF DILUTION WATER USED DURING PERIOD	LITERS	2.52E+09

N/A=NOT APPLICABLE
N/D=NOT DETECTED
N/R=NOT REPORTED

EFFLUENT AND WASTE DISPOSAL ANNUAL REPORT FOR YEAR 1985
SOLID EFFLUENTS

SOLID WASTE DISPOSITION

NUMBER OF SHIPMENTS	MODE OF TRANSPORTATION	DESTINATION
11	TRUCK	RICHLAND WA

IRRADIATED FUEL SHIPMENTS(DISPOSITION)

NUMBER OF SHIPMENTS	MODE OF TRANSPORTATION	DESTINATION
0	N/A	N/A

ESTIMATE OF MAJOR NUCLIDE COMPOSITION(BY TYPE OF WASTE)

JAN-JUNE JULY-DEC

A		
BE-7	%	2.00E+00
C-14	%	1.30E+01
CO-58	%	4.00E+00
CO-60	%	2.00E+00
CS-137	%	<1.00E+00
FE-55	%	3.00E+00
H-3	%	1.00E+02 6.90E+01
I-129	%	<1.00E+00
NI-63	%	<1.00E+00
SR-90	%	<1.00E+00
TC-99	%	<1.00E+00
B		
CO-57	%	4.00E+00
CO-60	%	<1.00E+00
CR-51	%	6.00E+01
CS-137	%	<1.00E+00
H-3	%	1.00E+00
NB-95	%	1.10E+01
NI-63	%	<1.00E+00
SR-90	%	<1.00E+00
TC-99	%	<1.00E+00

TYPE OF WASTE

TYPE OF WASTE	UNIT	YEAR	TOTAL
A. SPENT RESINS, FILTER SLUDGES, EVAPORATOR	M3	1.17E+02	
BOTTOMS, ETC.	CI	5.85E+00	
B. DRY COMPRESSIBLE WASTE, CONTAMINATED	M3	2.23E+01	
EQUIPMENT, ETC.	CI	4.43E-01	
C. IRRADIATED COMPONENTS, CONTROL	M3	0.00E+00	
RODS, ETC.	CI	0.00E+00	
D. OTHER	M3	0.00E+00	
	CI	0.00E+00	

N/A=NOT APPLICABLE
N/D=NOT DETECTED
N/R=NOT REPORTED

EFFLUENT AND WASTE DISPOSAL ANNUAL REPORT FOR YEAR 1985
AIRBORNE AND LIQUID EFFLUENTS

UNIT NUMBER: 1	LICENSEE: BALTIMORE GAS & ELECTRIC
TYPE: PWR	LICENSED POWER (MWT): 2700.00
DOCKET NO.: 50-317	INITIAL CRITICALITY: 10/07/74
COOLING WATER SOURCE: CHESAPEAKE BAY	
UNIT NUMBER: 2	LICENSEE: BALTIMORE GAS & ELECTRIC
TYPE: PWR	LICENSED POWER (MWT): 2700.00
DOCKET NO.: 50-318	INITIAL CRITICALITY: 11/30/76
COOLING WATER SOURCE: CHESAPEAKE BAY	

AIRBORNE EFFLUENTS

NUCLIDES RELEASED	ACTIVITY (CI)
AR-41	6.12E-02
CR-51	7.24E-06
CO-57	1.00E-07
CO-58	1.27E-04
BR-82	1.61E-05
KR-85	1.23E+01
KR-85M	1.28E+00
KR-87	4.42E-03
KR-88	3.42E-02
RB-88	8.86E-03
SR-89	<2.40E-04
SR-90	9.74E-06
NB-95	1.82E-06
ZR-95	7.71E-07
TC-99M	3.41E-06
CD-109	4.33E-07
SN-113	7.47E-08
I-131	5.20E-02
XE-131M	1.79E+01
I-132	3.57E-04
I-133	9.57E-02
XE-133	3.77E+03
XE-133M	1.06E+02
CS-134	3.06E-04
I-134	1.41E-06
I-135	2.93E-03
XE-135	1.46E+02
CS-137	8.50E-04
CS-138	1.92E-04
BA-140	1.23E-05
LA-140	1.23E-05
CE-144	2.56E-06

LIQUID EFFLUENTS

NUCLIDES RELEASED	ACTIVITY (CI)
NA-24	1.63E-03
CR-51	2.06E-01
MN-54	2.45E-02
CO-58	9.06E-01
CO-60	1.03E-01

N/A=NOT APPLICABLE

N/D=NOT DETECTED

N/R=NOT REPORTED

EFFLUENT AND WASTE DISPOSAL ANNUAL REPORT FOR YEAR 1985
AIRBORNE AND LIQUID EFFLUENTS

LIQUID EFFLUENTS

NUCLIDES RELEASED	ACTIVITY (CI)
SR-89	3.21E-02
SR-90	1.47E-03
NB-95	7.96E-02
ZR-95	3.15E-02
NB-97	3.82E-03
MO-99	3.64E-04
TC-99M	6.87E-04
RU-103	1.92E-03
AG-110M	1.69E-01
SN-113	2.81E-03
SB-122	1.47E-03
I-124	1.31E-03
SB-124	2.25E-02
SB-125	1.81E-01
I-131	1.51E-01
XE-131M	8.31E-04
I-132	8.25E-04
TE-132	1.30E-03
I-133	6.42E-02
XE-133	2.10E-01
XE-133M	9.19E-04
CS-134	1.26E-01
I-135	3.63E-03
XE-135	1.09E-02
XE-135M	5.96E-03
CS-136	1.39E-03
CS-137	2.58E-01
CE-139	6.10E-05
BA-140	5.94E-03
LA-140	7.37E-03
CE-144	1.30E-03
UNIDENTIFIED	<8.44E-03

TOTAL AIRBORNE TRITIUM RELEASE	3.28E+00
TOTAL LIQUID TRITIUM RELEASE	4.83E+02

VOLUME OF LIQUID WASTE RELEASED (PRIOR TO DILUTION)	LITERS	3.38E+07
VOLUME OF DILUTION WATER USED DURING PERIOD	LITERS	2.15E+12

N/A=NOT APPLICABLE
N/D=NOT DETECTED
N/R=NOT REPORTED

EFFLUENT AND WASTE DISPOSAL ANNUAL REPORT FOR YEAR 1985
SOLID EFFLUENTS

SOLID WASTE DISPOSITION

NUMBER OF SHIPMENTS

28

6

MODE OF TRANSPORTATION

MOTOR SURFACE TRANSIT

MOTOR SURFACE TRANSIT

DESTINATION

BARNWELL SC

RICHLAND WA

ESTIMATE OF MAJOR NUCLIDE COMPOSITION (BY TYPE OF WASTE)

JAN-JUNE

JULY-DEC

A

CO-58

%

5.41E+00

1.00E+01

CO-60

%

4.56E+00

9.00E+00

CS-134

%

1.64E+01

8.00E+00

CS-137

%

4.06E+01

1.50E+01

MN-54

%

2.79E+00

3.00E+00

NI-63

%

2.70E+01

5.30E+01

OTHERS

%

1.80E+00

SB-125

%

1.57E+00

1.00E-01

SR-90

%

3.20E-01

1.00E-01

B

CO-60

%

2.00E+01

2.00E+01

CS-134

%

1.70E+01

4.40E+01

CS-137

%

4.40E+01

1.70E+00

NI-63

%

1.70E+01

1.70E+01

OTHERS

%

2.00E+00

SR-90

%

3.02E-01

3.00E-03

C

CO-60

%

3.01E+01

1.19E+01

FE-55

%

3.82E+01

MN-54

%

8.69E-01

1.50E+00

NI-63

%

7.62E+00

7.15E+01

OTHERS

%

1.50E+01

TYPE OF WASTE

UNIT YEAR TOTAL

A. SPENT RESINS, FILTER SLUDGES, EVAPORATOR
BOTTOMS, ETC.

M3

8.73E+01

CI

2.42E+02

B. DRY COMPRESSIBLE WASTE, CONTAMINATED
EQUIPMENT, ETC.

M3

2.97E+02

CI

1.06E+01

C. IRRADIATED COMPONENTS, CONTROL
RODS, ETC.

M3

1.47E+00

CI

1.48E+04

D. OTHER

M3

3.57E+00

CVCS FILTERS

CI

3.15E+01

N/A=NOT APPLICABLE

N/D=NOT DETECTED

N/R=NOT REPORTED

EFFLUENT AND WASTE DISPOSAL ANNUAL REPORT FOR YEAR 1985
AIRBORNE AND LIQUID EFFLUENTS

UNIT NUMBER: 1

LICENSEE: DUKE POWER CO

TYPE: PWR

LICENSED POWER (MWT): 3411.00

DOCKET NO.: 50-413

INITIAL CRITICALITY: 01/07/85

COOLING WATER SOURCE: LAKE WYLIE

AIRBORNE EFFLUENTS

NUCLIDES RELEASED	ACTIVITY (CI)
AR-41	8.78E+00
CO-58	4.96E-10
KR-85	1.72E-01
KR-85M	5.82E-01
KR-87	7.06E-02
KR-88	5.37E-01
SR-89	4.30E-08
I-131	5.71E-04
XE-131M	1.29E+00
I-133	6.93E-05
XE-133	2.52E+02
XE-133M	4.01E+00
XE-135	1.03E+01

LIQUID EFFLUENTS

NUCLIDES RELEASED	ACTIVITY (CI)
NA-24	1.36E-02
CR-51	1.66E-01
MN-54	2.43E-02
FE-55	1.07E-01
MN-56	5.70E-06
CO-57	1.25E-03
CO-58	6.74E-01
FE-59	3.29E-02
CO-60	4.31E-02
ZN-65	1.48E-04
SE-75	5.15E-04
BR-82	5.07E-05
KR-85M	1.05E-04
KR-88	1.03E-04
RB-88	1.19E-05
RB-89	3.91E-04
SR-89	6.58E-05
Y-92	4.51E-05
NB-95	9.98E-03
ZR-95	1.07E-02
NB-97	8.13E-05
MO-99	8.30E-04
TC-99M	2.24E-03
AG-108M	2.64E-05
AG-110M	1.50E-05
IN-115M	3.03E-05
SB-122	3.28E-04
SB-124	8.16E-03

N/A=NOT APPLICABLE

N/D=NOT DETECTED

N/R=NOT REPORTED

EFFLUENT AND WASTE DISPOSAL ANNUAL REPORT FOR YEAR 1985
AIRBORNE AND LIQUID EFFLUENTS

LIQUID EFFLUENTS

NUCLIDES RELEASED	ACTIVITY (CI)
SB-125	1.18E-03
I-131	9.63E-02
XE-131M	5.04E-04
I-132	9.53E-05
I-133	2.52E-02
XE-133	2.33E-01
XE-133M	5.89E-03
CS-134	4.85E-03
I-134	5.43E-06
I-135	2.12E-03
XE-135	7.00E-02
CS-136	5.61E-04
CS-137	1.17E-02
BA-140	2.98E-04
LA-140	4.05E-03
CE-141	5.43E-06
CE-144	3.24E-05
W-187	1.24E-02
BI-214	9.54E-05
PB-214	3.59E-04
NP-239	1.57E-03

TOTAL AIRBORNE TRITIUM RELEASE 1.55E-01

TOTAL LIQUID TRITIUM RELEASE 1.75E+02

VOLUME OF LIQUID WASTE RELEASED (PRIOR TO DILUTION)	LITERS	1.38E+07
VOLUME OF DILUTION WATER USED DURING PERIOD	LITERS	9.31E+10

N/A=NOT APPLICABLE

N/D=NOT DETECTED

N/R=NOT REPORTED

EFFLUENT AND WASTE DISPOSAL ANNUAL REPORT FOR YEAR 1985
SOLID EFFLUENTS

SOLID WASTE DISPOSITION

NUMBER OF SHIPMENTS
1

MODE OF TRANSPORTATION
N/A

DESTINATION
N/A

ESTIMATE OF MAJOR NUCLIDE COMPOSITION(BY TYPE OF WASTE)

JAN-JUNE

JULY-DEC

B

C-14	%	4.00E-01
CO-58	%	5.52E+01
CO-60	%	1.61E+01
CR-51	%	4.30E+00
FE-55	%	1.17E+01
MN-54	%	3.00E+00
NB-95	%	4.60E+00
NI-63	%	1.70E+00
PU-241	%	8.00E-01
ZR-95	%	2.40E+00

TYPE OF WASTE

UNIT YEAR TOTAL

A. SPENT RESINS, FILTER SLUDGES, EVAPORATOR
BOTTOMS, ETC.

M3 0.00E+00
CI 0.00E+00

B. DRY COMPRESSIBLE WASTE, CONTAMINATED
EQUIPMENT, ETC.

M3 3.48E+01
CI 6.90E-02

C. IRRADIATED COMPONENTS, CONTROL
RODS, ETC.

M3
CI

D. OTHER

M3
CI

N/A=NOT APPLICABLE

N/D=NOT DETECTED

N/R=NOT REPORTED

EFFLUENT AND WASTE DISPOSAL ANNUAL REPORT FOR YEAR 1985
AIRBORNE AND LIQUID EFFLUENTS

UNIT NUMBER: 1	LICENSEE:INDIANA & MICHIGAN ELECTRIC
TYPE:PWR	LICENSED POWER (MWT):3250.00
DOCKET NO.:50-315	INITIAL CRITICALITY:01/18/75
COOLING WATER SOURCE:LAKE MICHIGAN	
UNIT NUMBER: 2	LICENSEE:INDIANA & MICHIGAN ELECTRIC
TYPE:PWR	LICENSED POWER (MWT):3391.00
DOCKET NO.:50-316	INITIAL CRITICALITY:07/01/78
COOLING WATER SOURCE:LAKE MICHIGAN	

AIRBORNE EFFLUENTS

NUCLIDES RELEASED	ACTIVITY (CI)
AR-41	3.31E+00
CR-51	1.39E-02
MN-54	2.19E-03
CO-58	3.82E-02
FE-59	1.44E-04
CO-60	3.02E-03
KR-85	4.17E+02
KR-85M	7.84E-01
KR-87	2.77E-01
KR-88	1.09E+00
ZR-NB-95	8.93E-03
I-131	1.03E-01
XE-131M	3.83E+01
I-132	2.73E-04
I-133	1.55E-02
XE-133	4.36E+03
XE-133M	3.40E+01
CS-134	3.63E-03
I-135	1.01E-02
XE-135	9.02E+01
XE-135M	1.42E+00
CS-136	2.35E-05
CS-137	4.42E-03
XE-138	5.27E-01
CE-139	2.32E-05

LIQUID EFFLUENTS

NUCLIDES RELEASED	ACTIVITY (CI)
CR-51	1.21E-01
MN-54	2.35E-02
FE-55	1.81E-01
CO-57	2.19E-03
CO-58	1.30E+00
FE-59	9.95E-04
CO-60	1.71E-01
ZN-65	5.32E-03
KR-85	2.44E-02
SR-85	1.08E-04
SR-89	4.51E-03
SR-90	1.74E-04

N/A=NOT APPLICABLE

N/D=NOT DETECTED

N/R=NOT REPORTED

EFFLUENT AND WASTE DISPOSAL ANNUAL REPORT FOR YEAR 1985
AIRBORNE AND LIQUID EFFLUENTS

LIQUID EFFLUENTS

NUCLIDES RELEASED	ACTIVITY (CI)
SR-92	2.35E-03
ZR-NB-95	7.90E-02
ZR-97	1.55E-04
AG-110M	1.64E-02
SN-113	3.47E-04
SB-122	1.66E-03
SB-125	1.61E-03
I-131	2.20E-02
XE-131M	3.20E-03
I-132	6.71E-04
I-133	3.49E-02
XE-133	1.14E+00
XE-133M	6.52E-03
CS-134	1.19E-01
I-135	2.58E-02
XE-135	3.60E-02
CS-136	7.34E-04
CS-137	1.48E-01

TOTAL AIRBORNE TRITIUM RELEASE	2.17E+01
TOTAL LIQUID TRITIUM RELEASE	1.14E+03

VOLUME OF LIQUID WASTE RELEASED (PRIOR TO DILUTION)	LITERS	5.70E+08
VOLUME OF DILUTION WATER USED DURING PERIOD	LITERS	2.27E+12

N/A=NOT APPLICABLE
N/D=NOT DETECTED
N/R=NOT REPORTED

EFFLUENT AND WASTE DISPOSAL ANNUAL REPORT FOR YEAR 1985
SOLID EFFLUENTS

SOLID WASTE DISPOSITION

NUMBER OF SHIPMENTS	MODE OF TRANSPORTATION	DESTINATION
53	TRUCK	BARNWELL SC
9	TRUCK	RICHLAND WA

ESTIMATE OF MAJOR NUCLIDE COMPOSITION(BY TYPE OF WASTE)

		JAN-JUNE	JULY-DEC
A			
	CO-58	% 5.00E+00	6.00E+01
	CO-60	% 5.00E+00	1.00E+01
	CS-134	% 4.00E+01	1.50E+01
	CS-137	% 5.00E+01	1.50E+01
B			
	CO-58	% 5.00E+01	2.50E+01
	CO-60	% 5.00E+00	2.50E+01
	CS-134	% 2.00E+01	5.00E+00
	CS-137	% 2.50E+01	5.00E+00
	FE-55	%	4.00E+01
C			
	CO-58	%	4.00E+00
	CO-60	%	3.10E+01
	CR-51	%	4.00E+00
	FE-55	%	5.50E+01
	MN-54	%	2.00E+00
	NI-63	%	4.00E+00

TYPE OF WASTE

	UNIT	YEAR TOTAL
A. SPENT RESINS, FILTER SLUDGES, EVAPORATOR	M3	3.39E+02
BOTTOMS, ETC.	CI	8.27E+02
B. DRY COMPRESSIBLE WASTE, CONTAMINATED	M3	4.80E+02
EQUIPMENT, ETC.	CI	4.39E+01
C. IRRADIATED COMPONENTS, CONTROL	M3	8.60E+00
RODS, ETC.	CI	1.13E+03
D. OTHER	M3	
	CI	

N/A=NOT APPLICABLE
N/D=NOT DETECTED
N/R=NOT REPORTED

EFFLUENT AND WASTE DISPOSAL ANNUAL REPORT FOR YEAR 1985
AIRBORNE AND LIQUID EFFLUENTS

UNIT NUMBER: 1

LICENSEE:NEBRASKA PUBLIC PWR&IOWA PWR&LIGHT

TYPE:BWR

LICENSED POWER (MWT):2381.00

DOCKET NO.:50-298

INITIAL CRITICALITY:02/21/74

COOLING WATER SOURCE:MISSOURI RIVER

AIRBORNE EFFLUENTS

NUCLIDES RELEASED	ACTIVITY (CI)
CR-51	2.97E-03
MN-54	1.64E-03
CO-58	2.73E-06
CO-60	1.08E-02
ZN-65	2.70E-04
KR-83M	3.81E+01
KR-85	4.25E-01
KR-85M	9.77E+01
KR-87	1.83E+02
KR-88	2.39E+02
KR-89	5.76E+00
SR-89	1.85E-03
SR-90	6.37E-05
SB-125	1.76E-03
I-131	<2.44E-03
XE-131M	3.03E-01
I-133	<2.91E-03
XE-133	7.94E+01
XE-133M	3.12E+00
CS-134	<1.50E-04
I-135	<8.70E-03
XE-135	2.59E+02
XE-135M	5.53E+01
CS-137	<1.89E-04
XE-137	1.63E+01
XE-138	2.99E+02
BA-LA-140	<8.17E-04

LIQUID EFFLUENTS

NUCLIDES RELEASED	ACTIVITY (CI)
NA-24	1.52E-03
CR-51	<1.67E-01
MN-54	<3.57E-01
CO-58	<6.88E-02
FE-59	<4.41E-02
CO-60	<7.59E+00
ZN-65	<7.85E-02
SR-89	<3.47E-03
SR-90	<1.81E-03
ZR-NB-95	<4.76E-02
MO-99	<8.38E-03
TC-99M	<1.00E-02
AG-110M	<1.15E-02
SN-113	2.45E-03

N/A=NOT APPLICABLE

N/D=NOT DETECTED

N/R=NOT REPORTED

EFFLUENT AND WASTE DISPOSAL ANNUAL REPORT FOR YEAR 1985
AIRBORNE AND LIQUID EFFLUENTS

LIQUID EFFLUENTS

NUCLIDES RELEASED	ACTIVITY (CI)
SB-125	9.22E-01
I-131	<1.50E-02
XE-133	<2.85E-02
CS-134	<1.45E+00
XE-135	<1.14E-02
CS-137	<2.12E+00
BA-LA-140	<6.59E-02
CE-141	<1.49E-02
UNIDENTIFIED	<4.42E-02

TOTAL AIRBORNE TRITIUM RELEASE 5.03E-01
TOTAL LIQUID TRITIUM RELEASE <5.05E+00

VOLUME OF LIQUID WASTE RELEASED (PRIOR TO DILUTION)	LITERS	1.33E+07
VOLUME OF DILUTION WATER USED DURING PERIOD	LITERS	3.29E+10

N/A=NOT APPLICABLE
N/D=NOT DETECTED
N/R=NOT REPORTED

EFFLUENT AND WASTE DISPOSAL ANNUAL REPORT FOR YEAR 1985
SOLID EFFLUENTS

SOLID WASTE DISPOSITION

NUMBER OF SHIPMENTS	MODE OF TRANSPORTATION	DESTINATION
32	EXCLUSIVE USE VEHICLE	BEATTY NV
17	EXCLUSIVE USE VEHICLE	RICHLAND WA

IRRADIATED FUEL SHIPMENTS(DISPOSITION)

NUMBER OF SHIPMENTS	MODE OF TRANSPORTATION	DESTINATION
1	RAIL EXCLUSIVE USE VEHICLE	MORRIS IL

ESTIMATE OF MAJOR NUCLIDE COMPOSITION(BY TYPE OF WASTE)

A

	%	JAN-JUNE	JULY-DEC
AG-110M	%	1.12E-04	
BA-LA-140	%		1.81E-02
C-14	%	4.90E-02	8.39E-02
CO-58	%	1.38E+00	1.88E-01
CO-60	%	7.10E+01	6.93E+01
CR-51	%	7.74E-06	
CS-134	%	8.25E+00	3.61E+00
CS-137	%	9.81E+00	5.81E+00
CU-242	%	2.94E-03	1.74E-03
FE-55	%		1.78E+01
H-3	%	1.26E-02	2.14E-02
I-129	%	4.91E-04	2.91E-04
I-131	%		1.99E-02
MN-54	%	6.67E+00	1.76E+00
NI-63	%	1.42E+00	1.39E+00
PU-241	%	1.97E-03	1.16E-03
SR-90	%	2.55E-03	1.51E-03
TC-99	%	1.97E-05	1.16E-05
TRANSURANICS	%	5.88E-03	1.71E-03
XE-133	%		7.58E-04
ZN-65	%	1.35E+00	2.23E-03

B

	%	JAN-JUNE	JULY-DEC
C-14	%	1.85E-02	
CO-58	%	1.75E-02	
CO-60	%	4.90E+01	4.79E+01
CS-134	%	1.67E-01	1.71E-01
CS-137	%	2.09E-01	2.02E-01
CU-242	%	3.35E-05	3.07E-05
FE-55	%	4.20E+01	4.32E+01
H-3	%	3.94E-03	2.67E-04
I-129	%	1.01E-04	1.03E-04
MN-54	%	1.17E+00	1.03E+00
NI-63	%	6.93E+00	7.06E+00
PU-241	%	5.23E-04	5.35E-04
SB-125	%	4.15E-01	4.26E-01
SR-90	%	4.33E-05	4.13E-05

N/A=NOT APPLICABLE

N/D=NOT DETECTED

N/R=NOT REPORTED

EFFLUENT AND WASTE DISPOSAL ANNUAL REPORT FOR YEAR 1985
SOLID EFFLUENTS

ESTIMATE OF MAJOR NUCLIDE COMPOSITION(BY TYPE OF WASTE)		JAN-JUNE	JULY-DEC
TC-99	%	2.26E-05	2.30E-05
TRANSURANICS	%	4.20E-05	3.51E-05
C			
C-14	%		1.99E-04
CO-57	%		1.05E-03
CO-58	%		4.87E-03
CO-60	%		5.38E+01
CR-51	%		6.24E-01
CS-137	%		3.55E-02
CU-242	%		7.10E-07
FE-55	%		1.08E+01
H-3	%		1.91E-06
I-129	%		2.13E-08
MN-54	%		4.92E-01
NI-63	%		5.38E-01
PU-239	%		1.99E-06
PU-241	%		7.10E-06
SB-125	%		1.20E+01
SN-113	%		7.74E-01
SR-90	%		1.42E-05
TC-99	%		2.13E-07
TRANSURANICS	%		1.60E-07
U-235	%		1.13E-09
U-238	%		1.95E-11
ZR-NB-95	%		2.10E+01

TYPE OF WASTE	UNIT	YEAR TOTAL
A. SPENT RESINS, FILTER SLUDGES, EVAPORATOR BOTTOMS, ETC.	M3	4.28E+01
	CI	1.78E+02
B. DRY COMPRESSIBLE WASTE, CONTAMINATED EQUIPMENT, ETC.	M3	5.72E+02
	CI	1.59E+01
C. IRRADIATED COMPONENTS, CONTROL RODS, ETC.	M3	1.97E+01
	CI	2.96E+04
D. OTHER	M3	0.00E+00
	CI	0.00E+00

N/A=NOT APPLICABLE

N/D=NOT DETECTED

N/R=NOT REPORTED

EFFLUENT AND WASTE DISPOSAL ANNUAL REPORT FOR YEAR 1985
AIRBORNE AND LIQUID EFFLUENTS

UNIT NUMBER: 3 LICENSEE:FLORIDA POWER
TYPE:PWR LICENSED POWER (MWT):2452.00
DOCKET NO.:50-302 INITIAL CRITICALITY:01/14/77
COOLING WATER SOURCE:GULF OF MEXICO

AIRBORNE EFFLUENTS

NUCLIDES RELEASED	ACTIVITY (CI)
AR-41	5.61E-02
MN-54	<1.12E-04
CO-58	2.23E-06
FE-59	<3.25E-04
CO-60	<7.22E-05
ZN-65	<2.12E-04
KR-85	6.12E+00
KR-85M	1.25E+00
KR-87	<1.74E+02
KR-88	<1.02E+02
SR-89	<1.41E-02
SR-90	<2.60E-02
MO-99	<7.69E-05
I-131	<4.17E-04
XE-131M	8.08E+00
I-132	6.53E-05
I-133	4.92E-05
XE-133	<9.48E+02
XE-133M	<1.65E+02
CS-134	<3.17E-05
XE-135	<8.77E+01
XE-135M	3.20E-01
CS-137	<5.41E-05
XE-138	<3.12E+03
CE-141	<2.76E-04
CE-144	<4.37E-04
UNIDENTIFIED	2.89E-04

LIQUID EFFLUENTS

NUCLIDES RELEASED	ACTIVITY (CI)
NA-24	9.97E-04
AR-41	1.59E-04
CR-51	1.22E-02
MN-54	<2.50E-02
FE-55	2.27E-02
CO-58	<2.93E-01
FE-59	<5.50E-03
CO-60	<1.82E-01
ZN-65	<5.36E-03
KR-85	9.10E-03
KR-85M	2.60E-04
SR-89	<2.46E-03
SR-90	<1.56E-03
SR-92	2.68E-02

N/A=NOT APPLICABLE

N/D=NOT DETECTED

N/R=NOT REPORTED

EFFLUENT AND WASTE DISPOSAL ANNUAL REPORT FOR YEAR 1985
AIRBORNE AND LIQUID EFFLUENTS

LIQUID EFFLUENTS

NUCLIDES RELEASED	ACTIVITY (CI)
NB-95	1.32E-02
ZR-95	5.29E-03
ZR-97	4.61E-04
MO-99	<2.03E-02
TC-99M	7.43E-04
TC-101	4.16E-06
RU-103	3.28E-04
AG-110M	1.85E-02
I-131	<4.73E-03
XE-131M	7.24E-02
I-132	1.91E-04
TE-132	3.80E-04
I-133	8.25E-05
XE-133	5.01E+00
XE-133M	3.73E-02
CS-134	<2.28E-02
XE-135	2.89E-02
CS-137	<3.72E-02
BA-139	5.27E-03
LA-140	2.74E-03
CE-141	<4.29E-03
CE-144	<2.01E-03
PR-144	<6.60E-02
UNIDENTIFIED	7.79E-01

TOTAL AIRBORNE TRITIUM RELEASE	2.06E+01
TOTAL LIQUID TRITIUM RELEASE	1.76E+02

VOLUME OF LIQUID WASTE RELEASED (PRIOR TO DILUTION)	LITERS	3.03E+07
VOLUME OF DILUTION WATER USED DURING PERIOD	LITERS	2.37E+10

N/A=NOT APPLICABLE
N/D=NOT DETECTED
N/R=NOT REPORTED

INSTALLATION:CRYSTAL RIVER

EFFLUENT AND WASTE DISPOSAL ANNUAL REPORT FOR YEAR 1985
SOLID EFFLUENTS

SOLID WASTE DISPOSITION

NUMBER OF SHIPMENTS	MODE OF TRANSPORTATION	DESTINATION
1	EXCLUSIVE USE VEHICLE	RICHLAND WA
45	TRANSPORT TRUCK	BARNWELL SC

IRRADIATED FUEL SHIPMENTS(DISPOSITION)

NUMBER OF SHIPMENTS	MODE OF TRANSPORTATION	DESTINATION
0	N/A	N/A

ESTIMATE OF MAJOR NUCLIDE COMPOSITION(BY TYPE OF WASTE)

		JAN-JUNE	JULY-DEC
A			
	CO-58	% 2.00E+01	1.16E+01
	CO-60	% 5.30E+00	2.28E+01
	CS-134	% 1.12E+01	5.80E+00
	CS-137	% 2.53E+01	1.85E+01
	NI-63	% 3.00E+00	6.70E+00
B			
	CO-58	% 4.20E+01	2.09E+01
	CO-60	% 2.50E+01	2.67E+01
	CS-134	% 2.00E+00	
	CS-137	%	1.80E+00
	I-131	% 1.00E+00	
	MN-54	% 1.00E+00	
	NI-63	% 1.20E+01	1.63E+01
C			
	CO-58	%	1.20E+01
	CR-51	%	2.00E+01
	FE-55	%	5.80E+01
D			
	CS-137	%	6.39E+01
	H-3	%	2.30E+01

TYPE OF WASTE	UNIT	YEAR TOTAL
A. SPENT RESINS, FILTER SLUDGES, EVAPORATOR BOTTOMS, ETC.	M3	2.26E+02
	CI	1.04E+03
B. DRY COMPRESSIBLE WASTE, CONTAMINATED EQUIPMENT, ETC.	M3	2.69E+02
	CI	1.17E+01
C. IRRADIATED COMPONENTS, CONTROL RODS, ETC.	M3	3.70E-01
	CI	3.54E+03
D. OTHER	M3	2.34E+00
LIQUID SCINTILLATION VIALS	CI	7.71E-03

N/A=NOT APPLICABLE

N/D=NOT DETECTED

N/R=NOT REPORTED

INSTALLATION:DAVIS-BESSE

LOCATION:21 MI E TOLEDO, OH

EFFLUENT AND WASTE DISPOSAL ANNUAL REPORT FOR YEAR 1985
AIRBORNE AND LIQUID EFFLUENTS

UNIT NUMBER: 1

LICENSEE:TOLEDO EDISON & CLEVELAND ELECTRIC ILL

TYPE:PWR

LICENSED POWER (MWT):2772.00

DOCKET NO.:50-346

INITIAL CRITICALITY:08/12/77

COOLING WATER SOURCE:LAKE ERIE

AIRBORNE EFFLUENTS

NUCLIDES RELEASED	ACTIVITY (CI)
H-3	1.64E+01
AR-41	3.61E-02
KR-85	8.79E-01
KR-85M	2.88E-03
KR-87	8.56E-05
KR-88	1.18E-03
I-131	5.13E-04
XE-131M	7.85E-05
I-133	1.22E-04
XE-133	1.16E+02
XE-133M	8.57E-01
XE-135	5.22E-01

LIQUID EFFLUENTS

NUCLIDES RELEASED	ACTIVITY (CI)
CR-51	8.99E-04
MN-54	8.94E-04
FE-55	7.32E-03
CO-58	5.51E-02
FE-59	5.53E-04
CO-60	1.88E-02
ZR-95	9.95E-04
ZR-97	8.66E-06
TC-99M	8.43E-06
AG-110M	1.74E-02
SN-113	4.95E-04
SB-125	6.61E-03
I-131	1.38E-05
I-133	1.30E-05
CS-134	2.04E-02
CS-137	5.59E-02
LA-140	2.89E-05
CE-141	9.06E-07

TOTAL AIRBORNE TRITIUM RELEASE 1.64E+01

TOTAL LIQUID TRITIUM RELEASE 6.74E+01

VOLUME OF LIQUID WASTE RELEASED (PRIOR TO DILUTION)	LITERS	2.16E+06
VOLUME OF DILUTION WATER USED DURING PERIOD	LITERS	2.65E+10

N/A=NOT APPLICABLE

N/D=NOT DETECTED

N/R=NOT REPORTED

INSTALLATION: DAVIS-BESSE

EFFLUENT AND WASTE DISPOSAL ANNUAL REPORT FOR YEAR 1985
SOLID EFFLUENTS

SOLID WASTE DISPOSITION

NUMBER OF SHIPMENTS	MODE OF TRANSPORTATION	DESTINATION
18	TRUCK	BARNWELL SC

IRRADIATED FUEL SHIPMENTS(DISPOSITION)

NUMBER OF SHIPMENTS	MODE OF TRANSPORTATION	DESTINATION
0	N/A	N/A

ESTIMATE OF MAJOR NUCLIDE COMPOSITION(BY TYPE OF WASTE)

		JAN-JUNE	JULY-DEC
A			
	CO-58	% 4.95E+01	3.90E+01
	CO-60	% 1.66E+01	2.10E+01
	NI-63	% 1.66E+01	2.10E+01
B			
	CO-58	% 3.83E+00	
	CO-60	% 3.02E+01	1.60E+01
	CS-134	%	1.80E+01
	CS-137	%	4.60E+01
	NI-63	% 3.10E+00	
D			
	CO-60	%	3.20E+01
	CS-137	%	1.00E+00
	NI-63	%	6.40E+01

TYPE OF WASTE

	UNIT	YEAR TOTAL
A. SPENT RESINS, FILTER SLUDGES, EVAPORATOR	M3	3.83E+01
BOTTOMS, ETC.	CI	7.30E+00
B. DRY COMPRESSIBLE WASTE, CONTAMINATED	M3	1.54E+02
EQUIPMENT, ETC.	CI	3.65E+01
C. IRRADIATED COMPONENTS, CONTROL	M3	0.00E+00
RODS, ETC.	CI	0.00E+00
D. OTHER	M3	4.19E+00
DEWATERED CARTRIDGE FILTERS	CI	5.20E+01

N/A=NOT APPLICABLE
N/D=NOT DETECTED
N/R=NOT REPORTED

EFFLUENT AND WASTE DISPOSAL ANNUAL REPORT FOR YEAR 1985
AIRBORNE AND LIQUID EFFLUENTS

UNIT NUMBER: 1	LICENSEE:PACIFIC GAS & ELECTRIC COMPANY
TYPE:PWR	LICENSED POWER (MWT):3338.00
DOCKET NO.:50-275	INITIAL CRITICALITY:04/29/84
COOLING WATER SOURCE:PACIFIC OCEAN	
UNIT NUMBER: 2	LICENSEE:PACIFIC GAS & ELECTRIC COMPANY
TYPE:PWR	LICENSED POWER (MWT):3411.00
DOCKET NO.:50-323	INITIAL CRITICALITY:08/19/85
COOLING WATER SOURCE:PACIFIC OCEAN	

AIRBORNE EFFLUENTS

NUCLIDES RELEASED	ACTIVITY (CI)
AR-41	6.97E+00
MN-54	N/D
CO-58	N/D
FE-59	N/D
CO-60	N/D
ZN-65	N/D
KR-85	5.37E-03
KR-85M	3.94E-01
KR-87	N/D
KR-88	1.79E-01
SR-89	5.54E-10
SR-90	N/D
MO-99	N/D
I-131	2.40E-04
XE-131M	5.31E+00
I-133	6.11E-05
XE-133	5.45E+02
XE-133M	5.78E+00
I-135	N/D
XE-135	8.49E+00
XE-135M	N/D
CS-137	N/D
XE-138	N/D
CE-141	N/D
CE-144	N/D

LIQUID EFFLUENTS

NUCLIDES RELEASED	ACTIVITY (CI)
BE-7	3.47E-03
NA-24	1.67E-02
P-32	1.68E-02
CR-51	4.98E-02
MN-54	8.70E-02
FE-55	1.45E-02
CO-57	2.61E-03
CO-58	2.56E+00
FE-59	3.78E-02
CO-60	3.22E-01
ZN-65	8.94E-05
BR-82	1.09E-05

N/A=NOT APPLICABLE

N/D=NOT DETECTED

N/R=NOT REPORTED

EFFLUENT AND WASTE DISPOSAL ANNUAL REPORT FOR YEAR 1985
AIRBORNE AND LIQUID EFFLUENTS

LIQUID EFFLUENTS

NUCLIDES RELEASED	ACTIVITY (CI)
SR-89	1.16E-02
ZR-95	1.79E-02
MO-99	1.12E-02
SN-113	5.99E-05
SB-124	6.25E-04
I-131	2.21E-02
I-133	6.15E-03
XE-133	8.30E-03
CS-134	1.45E-03
I-135	4.02E-04
XE-135	5.21E-04
CS-136	2.02E-04
CS-137	4.29E-03
LA-140	2.43E-02
W-187	2.32E-03

TOTAL AIRBORNE TRITIUM RELEASE	9.90E+00
TOTAL LIQUID TRITIUM RELEASE	4.28E+02

VOLUME OF LIQUID WASTE RELEASED (PRIOR TO DILUTION)	LITERS	3.63E+07
VOLUME OF DILUTION WATER USED DURING PERIOD	LITERS	5.95E+11

N/A=NOT APPLICABLE
N/D=NOT DETECTED
N/R=NOT REPORTED

EFFLUENT AND WASTE DISPOSAL ANNUAL REPORT FOR YEAR 1985
SOLID EFFLUENTS

SOLID WASTE DISPOSITION

NUMBER OF SHIPMENTS	MODE OF TRANSPORTATION	DESTINATION
3	TRUCK	HANFORD WA

IRRADIATED FUEL SHIPMENTS(DISPOSITION)

NUMBER OF SHIPMENTS	MODE OF TRANSPORTATION	DESTINATION
0	N/A	N/A

ESTIMATE OF MAJOR NUCLIDE COMPOSITION(BY TYPE OF WASTE)

		JAN-JUNE	JULY-DEC
A			
	CO-58	%	4.20E+01
	CO-60	%	4.60E+01
B			
	H-3	%	9.80E+01
D			
	H-3	%	9.80E+01

TYPE OF WASTE

TYPE OF WASTE	UNIT	YEAR TOTAL
A. SPENT RESINS, FILTER SLUDGES, EVAPORATOR	M3	8.60E+00
BOTTOMS, ETC.	CI	4.02E+01
B. DRY COMPRESSIBLE WASTE, CONTAMINATED	M3	1.95E+01
EQUIPMENT, ETC.	CI	3.66E+00
C. IRRADIATED COMPONENTS, CONTROL	M3	0.00E+00
RODS, ETC.	CI	0.00E+00
D. OTHER	M3	2.97E+00
ABSORBED LIQ,SAND,RUBBLE,WASTE	CI	9.60E-02

N/A=NOT APPLICABLE
N/D=NOT DETECTED
N/R=NOT REPORTED

INSTALLATION:DRESDEN 1

LOCATION:14 MI SW JOLIET, IL

EFFLUENT AND WASTE DISPOSAL ANNUAL REPORT FOR YEAR 1985
AIRBORNE AND LIQUID EFFLUENTS

UNIT NUMBER: 1	LICENSEE:COMMONWEALTH EDISON
TYPE:BWR	LICENSED POWER (MWT): 700.00
DOCKET NO.:50-10	INITIAL CRITICALITY:10/15/59
COOLING WATER SOURCE:KANKAKEE RIVER	

AIRBORNE EFFLUENTS

NUCLIDES RELEASED	ACTIVITY (CI)
MN-54	8.32E-07
CO-58	2.37E-07
CO-60	6.41E-05
SR-89	4.05E-06
SR-90	3.25E-07
CS-134	2.17E-07
CS-137	2.26E-05

N/A=NOT APPLICABLE

N/D=NOT DETECTED

N/R=NOT REPORTED

EFFLUENT AND WASTE DISPOSAL ANNUAL REPORT FOR YEAR 1985
AIRBORNE AND LIQUID EFFLUENTS

UNIT NUMBER: 2	LICENSEE:COMMONWEALTH EDISON
TYPE:BWR	LICENSED POWER (MWT):2527.00
DOCKET NO.:50-237	INITIAL CRITICALITY:01/07/70
COOLING WATER SOURCE:KANKAKEE RIVER	
UNIT NUMBER: 3	LICENSEE:COMMONWEALTH EDISON
TYPE:BWR	LICENSED POWER (MWT):2527.00
DOCKET NO.:50-249	INITIAL CRITICALITY:01/31/71
COOLING WATER SOURCE:KANKAKEE RIVER	

AIRBORNE EFFLUENTS

NUCLIDES RELEASED	ACTIVITY (CI)
CR-51	1.88E-03
MN-54	2.69E-03
CO-58	6.35E-04
FE-59	1.08E-03
CO-60	1.76E-02
ZN-65	9.83E-05
KR-85	9.05E-02
KR-85M	4.10E+01
KR-87	6.89E+01
KR-88	9.54E+01
SR-89	1.44E-02
SR-90	2.81E-04
NB-95	7.51E-06
ZR-95	1.62E-05
RU-103	3.27E-05
AG-110M	2.05E-05
SB-124	7.08E-05
SB-125	1.47E-05
I-131	6.19E-02
I-133	3.18E-01
XE-133	9.52E+01
CS-134	3.49E-06
I-135	4.81E-01
XE-135	1.37E+03
XE-135M	1.88E+02
CS-136	4.20E-05
CS-137	4.48E-04
XE-138	1.08E+03
BA-140	4.48E-02
CE-141	9.05E-04
CE-144	6.29E-06

LIQUID EFFLUENTS

NUCLIDES RELEASED	ACTIVITY (CI)
AR-41	2.32E-04
CR-51	1.00E-03
MN-54	1.23E-02
CO-58	2.87E-03
FE-59	5.65E-03
CO-60	5.08E-01

N/A=NOT APPLICABLE

N/D=NOT DETECTED

N/R=NOT REPORTED

EFFLUENT AND WASTE DISPOSAL ANNUAL REPORT FOR YEAR 1985
AIRBORNE AND LIQUID EFFLUENTS

LIQUID EFFLUENTS

NUCLIDES RELEASED	ACTIVITY (CI)
SR-89	3.72E-03
SR-90	1.30E-02
TC-99M	3.78E-05
RU-103	1.04E-04
AG-110M	1.05E-05
SB-122	1.18E-02
SB-124	2.04E-04
I-131	2.48E-03
I-133	4.00E-08
CS-134	9.26E-02
I-135	2.30E-08
XE-135	1.19E-04
CS-137	1.34E+00
BA-140	1.69E-03
LA-140	4.29E-03
CE-141	2.91E-03

TOTAL AIRBORNE TRITIUM RELEASE	4.85E+01
TOTAL LIQUID TRITIUM RELEASE	7.45E+00

VOLUME OF LIQUID WASTE RELEASED (PRIOR TO DILUTION)	LITERS	1.12E+07
VOLUME OF DILUTION WATER USED DURING PERIOD	LITERS	9.08E+11

N/A=NOT APPLICABLE
N/D=NOT DETECTED
N/R=NOT REPORTED

EFFLUENT AND WASTE DISPOSAL ANNUAL REPORT FOR YEAR 1985
SOLID EFFLUENTS

SOLID WASTE DISPOSITION

NUMBER OF SHIPMENTS	MODE OF TRANSPORTATION	DESTINATION
270	MOTOR FREIGHT	BARNWELL SC
73	MOTOR FREIGHT	RICHLAND WA

IRRADIATED FUEL SHIPMENTS(DISPOSITION)

NUMBER OF SHIPMENTS	MODE OF TRANSPORTATION	DESTINATION
0	N/A	N/A

ESTIMATE OF MAJOR NUCLIDE COMPOSITION(BY TYPE OF WASTE)

A

		JAN-JUNE	JULY-DEC
CO-60	%	5.28E+01	5.28E+01
CS-137	%	3.10E+00	3.10E+00
FE-55	%	3.70E+01	3.70E+01
MN-54	%	4.40E+00	4.40E+00
OTHER	%	2.70E+00	2.70E+00

B

		JAN-JUNE	JULY-DEC
CO-60	%	6.40E+01	6.40E+01
CS-137	%	2.80E+00	2.80E+00
FE-55	%	2.88E+01	2.88E+01
MN-54	%	4.30E+00	4.30E+00
OTHER	%	1.00E-01	1.00E-01

C

		JAN-JUNE	JULY-DEC
CO-60	%		5.23E+01
FE-55	%		4.12E+01
NI-59	%		1.00E-01
NI-63	%		6.30E+00
OTHER	%		1.00E-01

TYPE OF WASTE

TYPE OF WASTE	UNIT	YEAR TOTAL
A. SPENT RESINS, FILTER SLUDGES, EVAPORATOR	M3	1.33E+03
BOTTOMS, ETC.	CI	3.06E+03
B. DRY COMPRESSIBLE WASTE, CONTAMINATED	M3	9.15E+03
EQUIPMENT, ETC.	CI	3.17E+01
C. IRRADIATED COMPONENTS, CONTROL	M3	1.66E+01
RODS, ETC.	CI	6.32E+04
D. OTHER	M3	
	CI	

N/A=NOT APPLICABLE
N/D=NOT DETECTED
N/R=NOT REPORTED

LOCATION: 8 MI NW CEDAR RAPIDS, IA

UNIT NUMBER: 1	LICENSEE:IOWA ELECTRIC LIGHT & POWER
TYPE:BWR	LICENSED POWER (MWT):1658.10
DOCKET NO.:50-331	INITIAL CRITICALITY:03/23/74
COOLING WATER SOURCE:CEDAR RAPIDS RIVER	

NUCLIDES RELEASED	ACTIVITY (CI)
H-3	1.97E+01
N-13	1.02E+01
CR-51	4.25E-04
MN-54	7.53E-04
CO-58	3.98E-05
FE-59	8.62E-06
CO-60	4.51E-03
KR-85	1.81E-04
SR-89	3.64E-05
SR-90	6.86E-07
I-131	8.00E-04
I-133	6.77E-04
I-135	2.82E-03
XE-135	9.64E+01
XE-135M	3.35E+01
CS-137	2.44E-07
XE-138	1.11E+02
BA-140	2.90E-06
UNIDENTIFIED	2.31E-03

NUCLIDES RELEASED	ACTIVITY (CI)
CO-60	6.45E-04
ZN-65	2.87E-05
SR-89	2.11E-06
SR-90	5.45E-07

VOLUME OF LIQUID WASTE RELEASED (PRIOR TO DILUTION)	LITERS	3.03E+04
VOLUME OF DILUTION WATER USED DURING PERIOD	LITERS	1.29E+09

A-55

EFFLUENT AND WASTE DISPOSAL ANNUAL REPORT FOR YEAR 1985
SOLID EFFLUENTS

SOLID WASTE DISPOSITION

NUMBER OF SHIPMENTS	MODE OF TRANSPORTATION	DESTINATION
20	N/R	BARNWELL SC
36	N/R	RICHLAND WA

TYPE OF WASTE	UNIT	YEAR TOTAL
A. SPENT RESINS, FILTER SLUDGES, EVAPORATOR	M3	1.03E+02
BOTTOMS, ETC.	CI	4.82E+02
B. DRY COMPRESSIBLE WASTE, CONTAMINATED	M3	4.23E+02
EQUIPMENT; ETC.	CI	2.19E+01
C. IRRADIATED COMPONENTS, CONTROL	M3	
RODS, ETC.	CI	
D. OTHER	M3	2.67E+02
	CI	2.02E+01

N/A=NOT APPLICABLE
N/D=NOT DETECTED
N/R=NOT REPORTED

EFFLUENT AND WASTE DISPOSAL ANNUAL REPORT FOR YEAR 1985
AIRBORNE AND LIQUID EFFLUENTS

UNIT NUMBER: 1 LICENSEE:ALABAMA POWER
TYPE:PWR LICENSED POWER (MWT):2652.00
DOCKET NO.:50-348 INITIAL CRITICALITY:08/09/77
COOLING WATER SOURCE:CHATAHOOCHEE RIVER

AIRBORNE EFFLUENTS

NUCLIDES RELEASED	ACTIVITY (CI)
AR-41	3.78E+01
CO-58	1.29E-06
CO-60	2.69E-06
KR-85	7.19E-01
KR-85M	4.90E+00
KR-87	3.79E+00
KR-88	7.34E+00
KR-89	3.94E-03
SR-89	2.04E-13
SR-90	6.82E-11
I-131	5.59E-03
XE-131M	8.89E-03
I-133	4.44E-03
XE-133	1.41E+03
XE-133M	9.38E+00
XE-135	2.22E+02
XE-135M	4.60E+00
CS-137	3.05E-06
XE-138	3.01E+00

LIQUID EFFLUENTS

NUCLIDES RELEASED	ACTIVITY (CI)
H-3	6.04E+02
CR-51	1.41E-03
MN-54	1.38E-04
FE-55	3.98E-02
CO-57	3.66E-06
CO-58	1.34E-03
FE-59	3.88E-05
CO-60	7.53E-03
CU-64	1.37E-04
ZN-65	2.28E-05
AS-76	8.61E-06
SR-91	9.71E-06
NB-95	7.66E-04
ZR-95	2.10E-04
ZR-97	3.84E-06
MO-99	4.21E-06
TC-99M	1.32E-05
RU-103	5.38E-04
RU-106	9.12E-04
AG-110M	2.20E-03
SB-124	5.36E-04
SB-125	7.54E-03

N/A=NOT APPLICABLE

N/D=NOT DETECTED

N/R=NOT REPORTED

EFFLUENT AND WASTE DISPOSAL ANNUAL REPORT FOR YEAR 1985
AIRBORNE AND LIQUID EFFLUENTS

LIQUID EFFLUENTS

NUCLIDES RELEASED	ACTIVITY (CI)
I-131	3.51E-05
I-132	2.14E-03
TE-132	6.76E-04
I-133	7.05E-05
XE-133	7.58E-02
CS-134	2.03E-05
I-135	6.53E-06
XE-135	1.10E-03
CS-136	4.32E-05
CS-137	2.18E-04
BA-140	1.76E-06
LA-140	7.43E-07
CE-141	3.83E-05
CE-144	4.63E-04
NP-239	3.74E-04

TOTAL AIRBORNE TRITIUM RELEASE	1.16E+02
TOTAL LIQUID TRITIUM RELEASE	6.03E+02

VOLUME OF LIQUID WASTE RELEASED (PRIOR TO DILUTION)	LITERS	1.49E+08
VOLUME OF DILUTION WATER USED DURING PERIOD	LITERS	6.92E+10

N/A=NOT APPLICABLE
N/D=NOT DETECTED
N/R=NOT REPORTED

EFFLUENT AND WASTE DISPOSAL ANNUAL REPORT FOR YEAR 1985
AIRBORNE AND LIQUID EFFLUENTS

UNIT NUMBER: 2 LICENSEE:ALABAMA POWER
TYPE:PWR LICENSED POWER (MWT):2652.00
DOCKET NO.:50-364 INITIAL CRITICALITY:05/05/81
COOLING WATER SOURCE:CHATAHOOCHEE RIVER

AIRBORNE EFFLUENTS

NUCLIDES RELEASED	ACTIVITY (CI)
AR-41	1.72E+02
CO-58	2.58E-06
CO-60	3.61E-06
KR-85	3.60E+00
KR-85M	3.86E-03
KR-89	2.66E-02
I-131	2.88E-04
XE-131M	1.45E+01
I-133	9.19E-06
XE-133	4.20E+02
XE-133M	7.84E-02
XE-135	3.46E+01
XE-135M	4.18E-01
XE-137	1.70E+01
XE-138	4.44E-02
CE-141	1.94E-06

LIQUID EFFLUENTS

NUCLIDES RELEASED	ACTIVITY (CI)
H-3	5.03E+02
CR-51	3.35E-04
MN-54	2.02E-04
FE-55	1.85E-02
CO-57	4.89E-05
CO-58	1.76E-03
FE-59	2.55E-05
CO-60	2.01E-03
AS-76	4.74E-06
SR-91	3.58E-06
NB-95	2.06E-04
ZR-95	2.55E-05
MO-99	8.78E-06
TC-99M	2.46E-06
RU-103	5.11E-05
RU-106	1.25E-04
AG-110M	7.45E-04
SB-124	3.28E-04
SB-125	4.84E-03
I-131	1.35E-06
I-132	4.35E-03
TE-132	2.11E-03
I-133	3.19E-05
XE-133	1.42E-01
CS-134	5.49E-04

N/A=NOT APPLICABLE

N/D=NOT DETECTED

N/R=NOT REPORTED

EFFLUENT AND WASTE DISPOSAL ANNUAL REPORT FOR YEAR 1985
AIRBORNE AND LIQUID EFFLUENTS

LIQUID EFFLUENTS

NUCLIDES RELEASED	ACTIVITY (CI)
I-135	3.32E-05
XE-135	5.35E-04
CS-136	3.97E-06
CS-137	1.01E-03
BA-140	1.66E-05
LA-140	6.58E-06
CE-141	9.34E-07
CE-144	1.13E-04
NP-239	2.97E-04

TOTAL AIRBORNE TRITIUM RELEASE	3.30E+02
TOTAL LIQUID TRITIUM RELEASE	5.02E+02

VOLUME OF LIQUID WASTE RELEASED (PRIOR TO DILUTION)	LITERS	6.05E+07
VOLUME OF DILUTION WATER USED DURING PERIOD	LITERS	5.72E+10

N/A=NOT APPLICABLE
N/D=NOT DETECTED
N/R=NOT REPORTED

EFFLUENT AND WASTE DISPOSAL ANNUAL REPORT FOR YEAR 1985
SOLID EFFLUENTS

SOLID WASTE DISPOSITION

NUMBER OF SHIPMENTS	MODE OF TRANSPORTATION	DESTINATION
21	CHEM-NUCLEAR TRANSPORT	BARNWELL SC
1	CHEM-NUCLEAR TRANSPORT	HANFORD WA
13	HITTMAN TRANSPORT	BARNWELL SC

IRRADIATED FUEL SHIPMENTS(DISPOSITION)

NUMBER OF SHIPMENTS	MODE OF TRANSPORTATION	DESTINATION
0	N/A	N/A

ESTIMATE OF MAJOR NUCLIDE COMPOSITION(BY TYPE OF WASTE)

JAN-JUNE JULY-DEC

A

C-14	%	1.50E+00	
CE-144	%	1.84E+00	
CO-58	%	2.82E+00	2.90E+01
CO-60	%	6.47E+01	4.70E+01
CS-137	%	1.05E+00	3.24E+00
H-3	%	4.99E+00	
MN-54	%	2.52E+00	5.77E+00
NI-63	%	1.93E+01	1.39E+01
SB-124	%		1.17E+00

B

CE-144	%	3.03E+00	
CO-58	%	1.44E+01	2.60E+00
CO-60	%	1.71E+01	2.33E+01
CR-51	%	4.86E+00	
CS-137	%	2.01E+00	
H-3	%	1.83E+01	6.80E+01
MN-54	%	2.75E+00	3.26E+00
NB-95	%		1.96E+00
NI-63	%	3.42E+01	
PU-241	%	2.75E+00	
ZR-95	%		1.00E+00

D

C-14	%		1.12E+01
CO-60	%		1.50E+00
H-3	%		8.61E+01
NI-63	%		1.12E+00

TYPE OF WASTE

A. SPENT RESINS, FILTER SLUDGES, EVAPORATOR BOTTOMS, ETC.	M3	7.11E+01
B. DRY COMPRESSIBLE WASTE, CONTAMINATED EQUIPMENT, ETC.	CI	8.00E+02
C. IRRADIATED COMPONENTS, CONTROL RODS, ETC.	M3	4.07E+02
	CI	2.04E+01
	M3	0.00E+00
	CI	0.00E+00

N/A=NOT APPLICABLE

N/D=NOT DETECTED

N/R=NOT REPORTED

INSTALLATION:JOSEPH M. FARLEY

EFFLUENT AND WASTE DISPOSAL ANNUAL REPORT FOR YEAR 1985
SOLID EFFLUENTS

D. OTHER	M3	1.72E+01
ABSORBED OIL	CI	2.20E-03

N/A=NOT APPLICABLE
N/D=NOT DETECTED
N/R=NOT REPORTED

EFFLUENT AND WASTE DISPOSAL ANNUAL REPORT FOR YEAR 1985
AIRBORNE AND LIQUID EFFLUENTS

UNIT NUMBER: 1

LICENSEE:POWER AUTHORITY OF THE STATE OF NY

TYPE:BWR

LICENSED POWER (MWT):2436.00

DOCKET NO.:50-333

INITIAL CRITICALITY:11/17/74

COOLING WATER SOURCE:LAKE ONTARIO

AIRBORNE EFFLUENTS

NUCLIDES RELEASED	ACTIVITY (CI)
N-13	7.22E+00
AR-41	4.34E+01
CR-51	1.55E-03
MN-54	2.16E-04
CO-58	1.12E-04
CO-60	1.84E-03
ZN-65	1.16E-04
KR-85	4.36E+02
KR-85M	3.47E+02
KR-87	1.58E+03
KR-88	1.14E+03
SR-89	6.86E-03
SR-90	3.13E-05
ZR-NB-95	3.76E-06
MO-99	2.61E-04
AG-110M	9.35E-05
I-131	4.68E-02
XE-131M	9.95E+02
I-133	3.22E-01
XE-133	3.40E+02
XE-133M	2.81E+01
CS-134	6.71E-06
I-135	2.24E-01
XE-135	2.39E+03
XE-135M	1.77E+03
CS-137	1.55E-04
XE-138	5.66E+03
BA-LA-140	9.79E-03
CE-141	1.01E-03

LIQUID EFFLUENTS

NUCLIDES RELEASED	ACTIVITY (CI)
NA-24	2.22E-05
CR-51	1.50E-04
MN-54	2.86E-02
FE-55	2.19E-03
CO-58	6.82E-03
FE-59	2.79E-04
CO-60	9.96E-02
ZN-65	6.14E-03
AS-76	2.24E-05
ZR-NB-95	7.02E-05
MO-99	2.32E-04
TC-99M	1.94E-05

N/A=NOT APPLICABLE

N/D=NOT DETECTED

N/R=NOT REPORTED

EFFLUENT AND WASTE DISPOSAL ANNUAL REPORT FOR YEAR 1985
AIRBORNE AND LIQUID EFFLUENTS

LIQUID EFFLUENTS

NUCLIDES RELEASED	ACTIVITY (CI)
AG-110M	5.84E-06
I-131	2.32E-05
I-133	9.72E-06
XE-133	5.27E-03
CS-134	8.71E-03
XE-135	9.86E-03
CS-137	1.27E-02
BA-LA-140	5.55E-04
CE-141	1.32E-04
CE-144	6.87E-04
NP-239	2.45E-04

TOTAL AIRBORNE TRITIUM RELEASE 2.35E+00

TOTAL LIQUID TRITIUM RELEASE 4.20E+00

VOLUME OF LIQUID WASTE RELEASED (PRIOR TO DILUTION)	LITERS	8.64E+06
VOLUME OF DILUTION WATER USED DURING PERIOD	LITERS	6.20E+11

N/A=NOT APPLICABLE

N/D=NOT DETECTED

N/R=NOT REPORTED

INSTALLATION:JAMES A. FITZPATRICK

EFFLUENT AND WASTE DISPOSAL ANNUAL REPORT FOR YEAR 1985
SOLID EFFLUENTS

SOLID WASTE DISPOSITION

NUMBER OF SHIPMENTS	MODE OF TRANSPORTATION	DESTINATION
52	TRUCK	BARNWELL SC
20	TRUCK	RICHLAND WA

IRRADIATED FUEL SHIPMENTS(DISPOSITION)

NUMBER OF SHIPMENTS	MODE OF TRANSPORTATION	DESTINATION
0	N/A	N/A

ESTIMATE OF MAJOR NUCLIDE COMPOSITION(BY TYPE OF WASTE)

A

		JAN-JUNE	JULY-DEC
CO-58	%	2.52E+00	1.40E+00
CO-60	%	5.01E+01	4.45E+01
CR-51	%		2.40E+00
CS-134	%	3.22E+00	3.60E+00
CS-137	%	6.54E+00	7.50E+00
FE-55	%	1.92E+01	2.66E+01
MN-54	%	1.12E+01	7.90E+00
NI-63	%	7.00E-01	5.00E-01
SR-89	%	1.49E+00	1.80E+00
SR-90	%	7.80E-01	5.00E-01
ZN-65	%	3.57E+00	2.80E+00

TYPE OF WASTE

UNIT YEAR TOTAL

A. SPENT RESINS, FILTER SLUDGES, EVAPORATOR	M3	2.31E+02
BOTTOMS, ETC.	CI	5.92E+02
B. DRY COMPRESSIBLE WASTE, CONTAMINATED	M3	5.02E+02
EQUIPMENT, ETC.	CI	1.87E+02
C. IRRADIATED COMPONENTS, CONTROL	M3	0.00E+00
RODS, ETC.	CI	0.00E+00
D. OTHER	M3	4.40E+01
OIL SOLIDIFIED IN CEMENT	CI	1.68E-01

N/A=NOT APPLICABLE

N/D=NOT DETECTED

N/R=NOT REPORTED

EFFLUENT AND WASTE DISPOSAL ANNUAL REPORT FOR YEAR 1985
AIRBORNE AND LIQUID EFFLUENTS

UNIT NUMBER: 1 LICENSEE:OMAHA PUBLIC POWER
TYPE:PWR LICENSED POWER (MWT):1500.00
DOCKET NO.:50-285 INITIAL CRITICALITY:08/06/73
COOLING WATER SOURCE:MISSOURI RIVER

AIRBORNE EFFLUENTS

NUCLIDES RELEASED	ACTIVITY (CI)
H-3	9.53E-01
AR-41	1.98E+00
KR-85	1.30E+01
KR-85M	2.49E-01
KR-87	6.64E-02
KR-88	1.57E-01
SR-89	1.42E-06
SR-90	9.27E-08
I-131	7.07E-03
XE-131M	2.08E+01
I-133	2.56E-03
XE-133	1.42E+03
XE-133M	1.09E+01
CS-134	4.36E-05
I-135	1.03E-04
XE-135	9.17E+00
XE-135M	6.40E-02
CS-137	5.68E-05
XE-138	2.52E-01
BA-140	8.62E-05
LA-140	2.62E-05

LIQUID EFFLUENTS

NUCLIDES RELEASED	ACTIVITY (CI)
ALPHA	1.74E-04
H-3	1.67E+02
CR-51	1.70E-02
MN-54	2.95E-03
CO-57	2.44E-03
CO-58	9.71E-02
FE-59	3.44E-03
CO-60	5.09E-03
ZN-65	3.98E-03
SR-89	1.43E-03
SR-90	1.19E-04
NB-95	1.93E-03
ZR-95	3.20E-03
MO-99	1.38E-02
TC-99M	1.52E-02
RU-103	1.99E-03
AG-110M	3.07E-03
SN-117M	2.06E-03
SB-124	2.88E-03
SB-125	9.83E-04

N/A=NOT APPLICABLE

N/D=NOT DETECTED

N/R=NOT REPORTED

INSTALLATION:FORT CALHOUN

LOCATION:19 MI N OMAHA, NE

EFFLUENT AND WASTE DISPOSAL ANNUAL REPORT FOR YEAR 1985
AIRBORNE AND LIQUID EFFLUENTS

LIQUID EFFLUENTS

NUCLIDES RELEASED	ACTIVITY (CI)
I-131	9.44E-03
I-133	1.52E-03
XE-133	1.70E+00
CS-134	3.08E-02
XE-135	6.49E-03
CS-136	2.51E-03
CS-137	4.78E-02
BA-140	6.99E-03
LA-140	1.78E-03
CE-141	3.81E-03

TOTAL AIRBORNE TRITIUM RELEASE	9.53E-01
TOTAL LIQUID TRITIUM RELEASE	1.67E+02

VOLUME OF LIQUID WASTE RELEASED (PRIOR TO DILUTION)	LITERS	6.25E+07
VOLUME OF DILUTION WATER USED DURING PERIOD	LITERS	5.23E+11

N/A-NOT APPLICABLE
N/D-NOT DETECTED
N/R-NOT REPORTED

INSTALLATION:FORT CALHOUN

EFFLUENT AND WASTE DISPOSAL ANNUAL REPORT FOR YEAR 1985
SOLID EFFLUENTS

SOLID WASTE DISPOSITION

NUMBER OF SHIPMENTS	MODE OF TRANSPORTATION	DESTINATION
20	CLOSED SOLE USE VEHICLE	BARNWELL SC
23	CLOSED SOLE USE VEHICLE	RICHLAND WA

IRRADIATED FUEL SHIPMENTS(DISPOSITION)

NUMBER OF SHIPMENTS	MODE OF TRANSPORTATION	DESTINATION
1	CLOSED SOLE USE VEHICLE	COLUMBUS OH

ESTIMATE OF MAJOR NUCLIDE COMPOSITION(BY TYPE OF WASTE)

		JAN-JUNE	JULY-DEC
A			
	CO-58	% 3.80E+00	3.30E+01
	CO-60	% 6.20E+00	1.53E+01
	CS-134	% 2.49E+01	1.35E+01
	CS-137	% 5.53E+01	2.71E+01
	H-3	% 8.20E+00	2.10E+00
	NI-63	%	3.40E+00
	SB-125	% 1.40E+00	1.80E+00
B			
	BI-207	% 2.00E+00	1.50E+00
	CO-58	% 3.50E+00	3.20E+00
	CO-60	% 3.50E+00	2.90E+00
	CS-134	% 2.63E+01	2.42E+01
	CS-137	% 6.36E+01	6.81E+01

TYPE OF WASTE

	UNIT	YEAR TOTAL
A. SPENT RESINS, FILTER SLUDGES, EVAPORATOR	M3	1.84E+02
BOTTOMS, ETC.	CI	1.31E+02
B. DRY COMPRESSIBLE WASTE, CONTAMINATED	M3	1.59E+02
EQUIPMENT, ETC.	CI	9.32E+01
C. IRRADIATED COMPONENTS, CONTROL	M3	0.00E+00
RODS, ETC.	CI	0.00E+00
D. OTHER	M3	0.00E+00
	CI	0.00E+00

N/A=NOT APPLICABLE
N/D=NOT DETECTED
N/R=NOT REPORTED

EFFLUENT AND WASTE DISPOSAL ANNUAL REPORT FOR YEAR 1985
AIRBORNE AND LIQUID EFFLUENTS

UNIT NUMBER: 1 LICENSEE:PUBLIC SERVICE CO OF COLORADO
TYPE:HTG LICENSED POWER (MWT): 842.00
DOCKET NO.:50-267 INITIAL CRITICALITY:01/31/74
COOLING WATER SOURCE:SOUTH PLATTE RIVER

AIRBORNE EFFLUENTS

NUCLIDES RELEASED	ACTIVITY (CI)
H-3	1.61E-01
KR-85	1.13E-01
KR-85M	5.78E-02
KR-87	2.36E-03
KR-88	4.54E-02
XE-133	1.38E+00
XE-133M	7.28E-03
XE-135	4.29E-01

LIQUID EFFLUENTS

NUCLIDES RELEASED	ACTIVITY (CI)
H-3	1.53E+01
S-35	4.44E-04
MN-54	3.14E-05
CO-58	2.33E-06
FE-59	6.07E-06
CO-60	5.13E-04
ZN-65	7.00E-06
AG-110M	6.68E-05
XE-133	2.92E-04
CS-134	6.92E-07
CS-137	1.74E-04

TOTAL AIRBORNE TRITIUM RELEASE 1.61E-01
TOTAL LIQUID TRITIUM RELEASE 1.53E+01

VOLUME OF LIQUID WASTE RELEASED (PRIOR TO DILUTION)	LITERS	7.09E+05
VOLUME OF DILUTION WATER USED DURING PERIOD	LITERS	2.07E+08

N/A=NOT APPLICABLE
N/D=NOT DETECTED
N/R=NOT REPORTED

EFFLUENT AND WASTE DISPOSAL ANNUAL REPORT FOR YEAR 1985
SOLID EFFLUENTS

SOLID WASTE DISPOSITION

NUMBER OF SHIPMENTS	MODE OF TRANSPORTATION	DESTINATION
1	TRUCK	BARNWELL SC
5	TRUCK	RICHLAND WA

IRRADIATED FUEL SHIPMENTS(DISPOSITION)

NUMBER OF SHIPMENTS	MODE OF TRANSPORTATION	DESTINATION
0	N/A	N/A

ESTIMATE OF MAJOR NUCLIDE COMPOSITION(BY TYPE OF WASTE)

A

	JAN-JUNE	JULY-DEC
C-14	§	3.24E-01
FE-55	§	2.71E+00
H-3	§	3.16E-01
NI-63	§	2.70E+00
S-35	§	7.21E-01

B

	JAN-JUNE	JULY-DEC
AG-110M	§	1.03E+00
FE-55	§	1.05E+00
H-3	§	1.20E+00
MN-54	§	1.03E+00
S-35	§	1.03E+00

C

	JAN-JUNE	JULY-DEC
CO-60	§	6.92E+00
CS-137	§	7.07E+00
FE-55	§	6.76E+00
MN-54	§	6.81E+00
NI-63	§	6.97E+00

TYPE OF WASTE

TYPE OF WASTE	UNIT	YEAR TOTAL
A. SPENT RESINS, FILTER SLUDGES, EVAPORATOR	M3	6.61E+01
BOTTOMS, ETC.	CI	1.78E+01
B. DRY COMPRESSIBLE WASTE, CONTAMINATED	M3	4.31E+01
EQUIPMENT, ETC.	CI	2.46E+00
C. IRRADIATED COMPONENTS, CONTROL	M3	7.36E-01
RODS, ETC.	CI	3.99E+02
D. OTHER	M3	0.00E+00
	CI	

N/A=NOT APPLICABLE

N/D=NOT DETECTED

N/R=NOT REPORTED

EFFLUENT AND WASTE DISPOSAL ANNUAL REPORT FOR YEAR 1985
AIRBORNE AND LIQUID EFFLUENTS

UNIT NUMBER: 1 LICENSEE:ROCHESTER GAS&ELEC
TYPE:PWR LICENSED POWER (MWT):1520.10
DOCKET NO.:50-244 INITIAL CRITICALITY:11/08/69
COOLING WATER SOURCE:LAKE ONTARIO

AIRBORNE EFFLUENTS

NUCLIDES RELEASED	ACTIVITY (CI)
AR-41	1.23E-01
KR-85	3.38E-01
KR-85M	3.57E-02
KR-87	6.77E-02
KR-88	9.28E-02
I-131	9.67E-04
XE-131M	1.54E-01
I-133	2.49E-04
XE-133	2.97E+02
XE-133M	8.38E-02
XE-135	1.07E+02
XE-135M	8.69E-01
XE-138	3.02E-01

LIQUID EFFLUENTS

NUCLIDES RELEASED	ACTIVITY (CI)
CR-51	9.60E-04
MN-54	1.81E-04
FE-55	3.67E-01
CO-58	1.04E-03
FE-59	2.51E-06
CO-60	6.78E-03
SR-89	8.74E-02
SR-90	4.08E-04
ZR-NB-95	1.27E-04
RU-103	2.95E-05
AG-110M	7.69E-05
I-131	1.38E-03
I-133	2.12E-04
XE-133	3.34E-04
CS-134	1.98E-02
XE-135	3.44E-05
CS-137	3.58E-02
BA-LA-140	5.84E-07
CE-144	1.29E-05

TOTAL AIRBORNE TRITIUM RELEASE 8.65E+01
TOTAL LIQUID TRITIUM RELEASE 5.01E+02

VOLUME OF LIQUID WASTE RELEASED (PRIOR TO DILUTION)	LITERS	8.33E+07
VOLUME OF DILUTION WATER USED DURING PERIOD	LITERS	6.92E+11

N/A=NOT APPLICABLE
N/D=NOT DETECTED
N/R=NOT REPORTED

EFFLUENT AND WASTE DISPOSAL ANNUAL REPORT FOR YEAR 1985
SOLID EFFLUENTS

SOLID WASTE DISPOSITION

NUMBER OF SHIPMENTS	MODE OF TRANSPORTATION	DESTINATION
4	TRUCK	BARNWELL SC
12	TRUCK	RICHLAND WA

IRRADIATED FUEL SHIPMENTS(DISPOSITION)

NUMBER OF SHIPMENTS	MODE OF TRANSPORTATION	DESTINATION
56	HIGHWAY CARRIER	GINNA STATION FRM WEST

ESTIMATE OF MAJOR NUCLIDE COMPOSITION(BY TYPE OF WASTE)

		JAN-JUNE	JULY-DEC
A			
	CO-58	% 2.45E+01	2.45E+01
	CO-60	% 4.29E+01	4.29E+01
	CS-137	% 1.63E+01	1.63E+01
	OTHERS	% 1.63E+01	1.63E+01
B			
	CO-58	% 2.14E+01	2.14E+01
	CO-60	% 3.00E+01	3.00E+01
	FE-55	% 4.00E+01	4.00E+01
	OTHERS	% 8.60E+00	8.60E+00

TYPE OF WASTE

TYPE OF WASTE	UNIT	YEAR TOTAL
A. SPENT RESINS, FILTER SLUDGES, EVAPORATOR	M3	1.16E+02
BOTTOMS, ETC.	CI	1.11E+02
B. DRY COMPRESSIBLE WASTE, CONTAMINATED	M3	1.07E+02
EQUIPMENT, ETC.	CI	8.10E+00
C. IRRADIATED COMPONENTS, CONTROL	M3	
RODS, ETC.	CI	
D. OTHER	M3	
	CI	

N/A=NOT APPLICABLE
N/D=NOT DETECTED
N/R=NOT REPORTED

EFFLUENT AND WASTE DISPOSAL ANNUAL REPORT FOR YEAR 1985
AIRBORNE AND LIQUID EFFLUENTS

UNIT NUMBER: 1 LICENSEE:MISSISSIPPI POWER & LIGHT CO.
TYPE:BWR LICENSED POWER (MWT):3833.00
DOCKET NO.:50-416 INITIAL CRITICALITY:08/18/82
COOLING WATER SOURCE:MISSISSIPPI RIVER

AIRBORNE EFFLUENTS

NUCLIDES RELEASED	ACTIVITY (CI)
AR-41	3.89E+00
CR-51	9.64E-05
MN-54	5.22E-05
CO-58	4.49E-05
FE-59	1.22E-05
CO-60	3.17E-05
KR-85M	1.18E-01
KR-87	1.05E-01
KR-88	3.15E+00
KR-89	1.20E+02
SR-89	4.26E-06
SR-90	8.61E-07
NB-95	1.21E-07
RU-106	2.85E-04
I-131	2.18E-04
I-133	6.24E-04
XE-133	2.77E-01
I-135	1.08E-04
XE-135	2.18E+01
XE-135M	5.89E-01
XE-138	1.26E+00
LA-140	2.59E-06

LIQUID EFFLUENTS

NUCLIDES RELEASED	ACTIVITY (CI)
NA-24	7.40E-02
CR-51	8.54E-03
MN-54	5.97E-02
FE-55	6.21E-04
MN-56	2.13E-04
CO-58	2.68E-02
FE-59	1.04E-03
CO-60	1.00E-02
CU-64	1.02E-02
ZN-65	1.53E-03
AS-76	1.26E-02
GE-77	2.39E-05
BR-82	2.48E-04
RB-86	8.74E-05
SR-89	9.72E-04
SR-90	2.93E-04
ZR-NB-95	1.44E-05
MO-99	3.37E-04
TC-99M	8.03E-04

N/A=NOT APPLICABLE
N/D=NOT DETECTED
N/R=NOT REPORTED

EFFLUENT AND WASTE DISPOSAL ANNUAL REPORT FOR YEAR 1985
AIRBORNE AND LIQUID EFFLUENTS

LIQUID EFFLUENTS

NUCLIDES RELEASED	ACTIVITY (CI)
RU-106	3.68E-03
SB-122	2.51E-04
SB-124	4.31E-05
I-131	4.81E-05
I-132	2.15E-06
I-133	5.45E-04
XE-133	1.98E-04
XE-135	3.79E-04
CS-136	3.20E-06
CS-138	3.54E-06
W-187	1.04E-04
NP-239	5.73E-05

TOTAL AIRBORNE TRITIUM RELEASE	2.11E+00
TOTAL LIQUID TRITIUM RELEASE	5.17E+00

VOLUME OF LIQUID WASTE RELEASED (PRIOR TO DILUTION)*	LITERS	5.72E+07
VOLUME OF DILUTION WATER USED DURING PERIOD	LITERS	2.27E+09

*GRAND GULF NUCLEAR STATION'S DEFINITION OF LIQUID RADIOACTIVE WASTE INCLUDES DISCHARGE FROM THE STANDBY SERVICE WATER (SSW) SYSTEM. ALTHOUGH THIS FACILITY IS NOT CONTAMINATED IT HAS THE POTENTIAL TO BE. THE VOLUME OF STANDBY SERVICE WATER RELEASED DURING 1985 WAS 2.865E+7 LITERS.

N/A=NOT APPLICABLE
N/D=NOT DETECTED
N/R=NOT REPORTED

EFFLUENT AND WASTE DISPOSAL ANNUAL REPORT FOR YEAR 1985
SOLID EFFLUENTS

SOLID WASTE DISPOSITION

NUMBER OF SHIPMENTS	MODE OF TRANSPORTATION	DESTINATION
39	TRUCK	BARNWELL SC
9	TRUCK	HANFORD WA

IRRADIATED FUEL SHIPMENTS(DISPOSITION)

NUMBER OF SHIPMENTS	MODE OF TRANSPORTATION	DESTINATION
0	N/A	N/A

ESTIMATE OF MAJOR NUCLIDE COMPOSITION(BY TYPE OF WASTE)

A

		JAN-JUNE	JULY-DEC
CO-58	%	2.16E+01	1.07E+01
CO-60	%	2.14E+01	1.40E+01
CR-51	%	3.00E+01	3.94E+01
MN-54	%	1.88E+01	2.26E+01
OTHERS	%	8.20E+00	1.33E+01

B

		JAN-JUNE	JULY-DEC
CO-58	%	1.15E+01	1.41E+01
CO-60	%	7.40E+00	8.40E+00
CR-51	%	5.40E+01	4.27E+01
FE-59	%	1.25E+01	1.56E+01
OTHERS	%	1.46E+01	1.92E+01

TYPE OF WASTE

- A. SPENT RESINS, FILTER SLUDGES, EVAPORATOR
BOTTOMS, ETC.
- B. DRY COMPRESSIBLE WASTE, CONTAMINATED
EQUIPMENT, ETC.
- C. IRRADIATED COMPONENTS, CONTROL
RODS, ETC.
- D. OTHER

UNIT	YEAR TOTAL
M3	5.45E+02
CI	2.60E+02
M3	5.66E+01
CI	6.74E-01
M3	0.00E+00
CI	0.00E+00
M3	0.00E+00
CI	0.00E+00

N/A=NOT APPLICABLE
N/D=NOT DETECTED
N/R=NOT REPORTED

EFFLUENT AND WASTE DISPOSAL ANNUAL REPORT FOR YEAR 1985
AIRBORNE AND LIQUID EFFLUENTS

UNIT NUMBER: 1

LICENSEE:CONNECTICUT YANKEE ATOMIC POWER

TYPE:PWR

LICENSED POWER (MWT):1825.00

DOCKET NO.:50-213

INITIAL CRITICALITY:07/24/67

COOLING WATER SOURCE:CONNECTICUT RIVER

AIRBORNE EFFLUENTS

NUCLIDES RELEASED	ACTIVITY (CI)
ALPHA	9.85E-09
H-3	8.89E+01
AR-41	6.44E-04
CO-60	5.89E-05
KR-85	2.06E+02
KR-85M	1.81E+01
KR-87	1.01E+01
KR-88	1.80E+01
I-131	7.54E-04
XE-131M	2.71E+01
I-133	3.08E-04
XE-133	2.09E+03
XE-133M	7.92E+01
XE-135	2.76E+02
XE-135M	1.17E+01
CS-137	1.29E-05
XE-137	1.39E+01
XE-138	1.33E+01

LIQUID EFFLUENTS

NUCLIDES RELEASED	ACTIVITY (CI)
ALPHA	3.03E-05
H-3	5.77E+03
NA-22	3.02E-05
CR-51	3.70E-04
MN-54	1.26E-03
CO-57	1.39E-04
CO-58	1.90E-03
CO-60	3.49E-02
KR-85	3.44E-02
SR-89	5.26E-04
SR-90	4.78E-04
ZR-NB-95	1.21E-05
RU-106	2.93E-04
SB-125	1.17E-03
I-131	1.24E-02
XE-131M	1.35E-02
I-133	6.55E-03
XE-133	2.30E+00
XE-133M	6.42E-02
CS-134	8.70E-03
XE-135	5.58E-02
CS-137	1.46E-02
BA-LA-140	3.24E-04

N/A=NOT APPLICABLE

N/D=NOT DETECTED

N/R=NOT REPORTED

INSTALLATION:HADDAM NECK

LOCATION:9.5 MI SE MIDDLETOWN, CT

EFFLUENT AND WASTE DISPOSAL ANNUAL REPORT FOR YEAR 1985
AIRBORNE AND LIQUID EFFLUENTS

LIQUID EFFLUENTS

NUCLIDES RELEASED	ACTIVITY (CI)
CE-143	1.55E-05
CE-144	6.00E-04

TOTAL AIRBORNE TRITIUM RELEASE 8.88E+01

TOTAL LIQUID TRITIUM RELEASE 5.76E+03

VOLUME OF LIQUID WASTE RELEASED (PRIOR TO DILUTION)	LITERS	1.37E+08
VOLUME OF DILUTION WATER USED DURING PERIOD	LITERS	7.49E+11

N/A=NOT APPLICABLE
N/D=NOT DETECTED
N/R=NOT REPORTED

INSTALLATION:HADDAM NECK

EFFLUENT AND WASTE DISPOSAL ANNUAL REPORT FOR YEAR 1985
SOLID EFFLUENTS

SOLID WASTE DISPOSITION

NUMBER OF SHIPMENTS	MODE OF TRANSPORTATION	DESTINATION
19	TRUCK	BARNWELL SC

IRRADIATED FUEL SHIPMENTS(DISPOSITION)

NUMBER OF SHIPMENTS	MODE OF TRANSPORTATION	DESTINATION
0	N/A	N/A

ESTIMATE OF MAJOR NUCLIDE COMPOSITION(BY TYPE OF WASTE)

A

	%	JAN-JUNE	JULY-DEC
CE-144	%		1.41E+00
CO-58	%	2.19E+01	8.21E+00
CO-60	%	7.01E+01	8.37E+01
CS-134	%	3.30E-01	1.07E+00
CS-137	%	8.90E-01	2.16E+00
MN-54	%	6.24E+00	3.45E+00

B

	%	JAN-JUNE	JULY-DEC
CO-58	%	2.45E+01	8.72E+00
CO-60	%	4.69E+01	8.09E+01
CS-134	%	6.60E+00	1.55E+00
CS-137	%	1.63E+01	4.12E+00
MN-54	%	5.68E+00	4.73E+00

TYPE OF WASTE

TYPE OF WASTE	UNIT	YEAR TOTAL
A. SPENT RESINS, FILTER SLUDGES, EVAPORATOR BOTTOMS, ETC.	M3	4.41E+01
	CI	3.05E+01
B. DRY COMPRESSIBLE WASTE, CONTAMINATED EQUIPMENT, ETC.	M3	1.29E+02
	CI	2.27E+01
C. IRRADIATED COMPONENTS, CONTROL RODS, ETC.	M3	N/A
	CI	N/A
D. OTHER	M3	
	CI	

N/A=NOT APPLICABLE

N/D=NOT DETECTED

N/R=NOT REPORTED

EFFLUENT AND WASTE DISPOSAL ANNUAL REPORT FOR YEAR 1985
AIRBORNE AND LIQUID EFFLUENTS

UNIT NUMBER: 1 LICENSEE:GEORGIA POWER
TYPE:BWR LICENSED POWER (MWT):2436.00
DOCKET NO.:50-321 INITIAL CRITICALITY:09/12/74
COOLING WATER SOURCE:ALTAMAHA RIVER

AIRBORNE EFFLUENTS

NUCLIDES RELEASED	ACTIVITY (CI)
N-13	1.02E+02
AR-41	1.02E+02
CR-51	6.44E-04
MN-54	7.34E-05
CO-58	1.06E-04
FE-59	4.20E-09
CO-60	6.32E-04
ZN-65	1.09E-03
KR-85	1.71E+02
KR-85M	8.00E+01
KR-87	3.58E+01
KR-88	9.29E+01
SR-89	4.35E-03
SR-90	1.59E-06
NB-95	2.50E-05
ZR-95	2.79E-06
I-131	3.02E-03
XE-131M	1.78E+01
I-133	1.58E-03
XE-133	8.82E+03
XE-133M	1.09E+01
CS-134	1.33E-04
I-135	5.91E-04
XE-135	3.00E+02
XE-135M	2.09E+01
CS-137	7.18E-04
XE-137	4.80E+01
XE-138	5.52E+01
BA-140	5.14E-05
LA-140	9.29E-05

LIQUID EFFLUENTS

NUCLIDES RELEASED	ACTIVITY (CI)
ALPHA	5.60E-06
F-18	8.05E-03
NA-24	4.58E-02
AR-41	1.86E-05
CR-51	1.09E-02
MN-54	1.36E-02
FE-55	5.16E-03
MN-56	9.02E-06
CO-58	9.06E-03
FE-59	4.99E-04
CO-60	4.91E-02

N/A=NOT APPLICABLE

N/D=NOT DETECTED

N/R=NOT REPORTED

EFFLUENT AND WASTE DISPOSAL ANNUAL REPORT FOR YEAR 1985
AIRBORNE AND LIQUID EFFLUENTS

LIQUID EFFLUENTS

NUCLIDES RELEASED	ACTIVITY (CI)
CU-64	1.24E-02
ZN-65	9.65E-02
ZN-69M	1.06E-05
AS-76	1.71E-04
KR-85M	3.90E-05
KR-87	1.53E-07
RB-88	6.76E-06
SR-89	2.24E-03
SR-91	2.60E-04
Y-91M	2.23E-04
SR-92	3.02E-04
NB-95	2.96E-04
ZR-95	1.06E-04
NB-97	2.72E-06
MO-99	4.02E-04
TC-99M	1.04E-03
AG-110M	1.03E-04
I-130	1.30E-05
I-131	2.78E-03
XE-131M	1.36E-04
I-132	4.67E-07
I-133	1.82E-03
XE-133	3.98E-03
CS-134	7.69E-02
I-134	4.20E-03
I-135	1.16E-04
XE-135	1.04E-02
XE-135M	5.97E-06
CS-136	3.30E-05
CS-137	1.38E-01
CS-138	5.67E-06
BA-140	3.71E-05
LA-140	4.28E-04
CE-144	2.88E-04
NP-239	1.81E-05

TOTAL AIRBORNE TRITIUM RELEASE 1.25E+01

TOTAL LIQUID TRITIUM RELEASE 3.93E+01

VOLUME OF LIQUID WASTE RELEASED (PRIOR TO DILUTION)	LITERS	2.90E+07
VOLUME OF DILUTION WATER USED DURING PERIOD	LITERS	6.19E+09

N/A=NOT APPLICABLE

N/D=NOT DETECTED

N/R=NOT REPORTED

EFFLUENT AND WASTE DISPOSAL ANNUAL REPORT FOR YEAR 1985
AIRBORNE AND LIQUID EFFLUENTS

UNIT NUMBER: 2 LICENSEE:GEORGIA POWER
TYPE:BWR LICENSED POWER (MWT):2436.00
DOCKET NO.:50-366 INITIAL CRITICALITY:07/04/78
COOLING WATER SOURCE:ALTAMAHA RIVER

AIRBORNE EFFLUENTS

NUCLIDES RELEASED	ACTIVITY (CI)
N-13	5.68E+01
AR-41	1.62E+02
CO-60	8.94E-06
ZN-65	1.39E-07
KR-85M	1.05E+02
KR-87	3.22E+01
KR-88	1.20E+02
SR-89	2.88E-03
SR-90	4.94E-07
SN-113	2.78E-07
I-131	2.97E-03
XE-131M	2.29E+01
I-133	1.26E-03
XE-133	1.85E+03
XE-133M	1.09E+01
CS-134	1.67E-05
I-135	2.49E-04
XE-135	3.11E+02
XE-135M	1.90E+01
CS-137	1.52E-05
XE-137	3.23E+01
XE-138	4.80E+01
BA-140	5.36E-05
LA-140	6.72E-05

LIQUID EFFLUENTS

NUCLIDES RELEASED	ACTIVITY (CI)
ALPHA	2.60E-06
F-18	8.13E-03
NA-24	2.91E-02
CR-51	5.25E-03
MN-54	2.77E-03
FE-55	5.87E-03
MN-56	2.33E-04
CO-58	1.84E-03
FE-59	6.21E-04
CO-60	1.39E-02
CU-64	1.25E-02
ZN-65	2.10E-02
ZN-69M	5.07E-06
AS-76	7.09E-04
KR-85	5.38E-03
KR-85M	1.47E-04
KR-87	5.87E-06

N/A=NOT APPLICABLE

N/D=NOT DETECTED

N/R=NOT REPORTED

EFFLUENT AND WASTE DISPOSAL ANNUAL REPORT FOR YEAR 1985
AIRBORNE AND LIQUID EFFLUENTS

LIQUID EFFLUENTS

NUCLIDES RELEASED	ACTIVITY (CI)
SR-89	1.57E-03
SR-91	9.74E-06
Y-91M	9.59E-04
NB-95	1.26E-04
ZR-95	8.66E-05
NB-97	3.77E-06
MO-99	4.45E-05
TC-99M	1.40E-03
AG-110M	1.97E-04
I-131	1.07E-02
XE-131M	4.56E-03
I-132	3.84E-04
I-133	8.06E-03
XE-133	5.88E-02
XE-133M	1.80E-03
CS-134	4.73E-02
I-134	2.15E-04
I-135	1.30E-03
XE-135	1.82E-02
XE-135M	4.57E-04
CS-136	1.94E-04
CS-137	8.76E-02
CS-138	8.34E-06
BA-139	6.81E-04
BA-140	1.83E-05
LA-140	4.51E-05
CE-141	1.70E-05
CE-144	1.36E-04
NP-239	1.09E-05

TOTAL AIRBORNE TRITIUM RELEASE	1.41E+01
TOTAL LIQUID TRITIUM RELEASE	1.81E+01

VOLUME OF LIQUID WASTE RELEASED (PRIOR TO DILUTION)	LITERS	2.36E+07
VOLUME OF DILUTION WATER USED DURING PERIOD	LITERS	5.67E+09

N/A=NOT APPLICABLE
N/D=NOT DETECTED
N/R=NOT REPORTED

EFFLUENT AND WASTE DISPOSAL ANNUAL REPORT FOR YEAR 1985
SOLID EFFLUENTS

SOLID WASTE DISPOSITION

NUMBER OF SHIPMENTS	MODE OF TRANSPORTATION	DESTINATION
93	CASK	BARNWELL SC
27	VAN	BARNWELL SC
34	VAN	HANFORD WA

IRRADIATED FUEL SHIPMENTS(DISPOSITION)

NUMBER OF SHIPMENTS	MODE OF TRANSPORTATION	DESTINATION
0	N/A	N/A

ESTIMATE OF MAJOR NUCLIDE COMPOSITION(BY TYPE OF WASTE)

		JAN-JUNE	JULY-DEC
A			
CO-60	%		1.25E+01
CR-51	%		2.19E+01
CS-134	%	1.42E+01	
CS-137	%	1.87E+01	
OTHERS	%	2.54E+01	2.29E+01
ZN-65	%	4.16E+01	4.27E+01
B			
CO-60	%	4.00E+01	4.21E+01
CS-137	%	1.13E+01	1.29E+01
OTHERS	%	1.15E+01	1.89E+01
ZN-65	%	3.72E+01	2.61E+01
C			
CO-60	%	4.71E+01	5.25E+01
FE-55	%	4.41E+01	4.18E+01
MN-54	%	4.16E+00	2.89E+00
OTHERS	%	4.65E+00	2.83E+00
D			
CO-60	%	5.51E+01	6.50E+01
CS-137	%	4.42E+00	8.30E-01
NI-63	%		3.71E+00
OTHERS	%	8.03E+00	5.39E+00
ZN-65	%	3.25E+01	2.51E+01

TYPE OF WASTE

	UNIT	YEAR TOTAL
A. SPENT RESINS, FILTER SLUDGES, EVAPORATOR	M3	4.85E+02
BOTTOMS, ETC.	CI	1.83E+03
B. DRY COMPRESSIBLE WASTE, CONTAMINATED	M3	1.37E+03
EQUIPMENT, ETC.	CI	2.61E+01
C. IRRADIATED COMPONENTS, CONTROL	M3	3.71E+00
RODS, ETC.	CI	3.65E+04
D. OTHER	M3	1.87E+02
SOLIDIFIED OIL, SOURCES	CI	3.81E+00

N/A=NOT APPLICABLE

N/D=NOT DETECTED

N/R=NOT REPORTED

INSTALLATION:HUMBOLDT BAY

LOCATION:4 MI SW EUREKA, CA

EFFLUENT AND WASTE DISPOSAL ANNUAL REPORT FOR YEAR 1985
AIRBORNE AND LIQUID EFFLUENTS

UNIT NUMBER: 3	LICENSEE:PACIFIC GAS &ELECTRIC
TYPE:BWR	LICENSED POWER (MWT): 220.00
DOCKET NO.:50-133	INITIAL CRITICALITY:02/16/63
COOLING WATER SOURCE:HUMBOLDT BAY	

AIRBORNE EFFLUENTS

NUCLIDES RELEASED	ACTIVITY (CI)
CO-60	5.17E-05
SR-90	1.76E-06
SB-125	<1.25E-05
CS-134	<1.25E-05
CS-137	2.42E-05
EU-154	<1.25E-05
UNIDENTIFIED	<2.26E-05

LIQUID EFFLUENTS

NUCLIDES RELEASED	ACTIVITY (CI)
MN-54	<6.46E-05
CO-60	4.91E-02
SR-90	4.57E-04
CS-134	1.65E-03
CS-137	7.41E-02
UNIDENTIFIED	<7.43E-05

TOTAL AIRBORNE TRITIUM RELEASE <3.96E-02

TOTAL LIQUID TRITIUM RELEASE 1.08E+00

VOLUME OF LIQUID WASTE RELEASED (PRIOR TO DILUTION)	LITERS	1.36E+06
VOLUME OF DILUTION WATER USED DURING PERIOD	LITERS	9.22E+10

N/A=NOT APPLICABLE
N/D=NOT DETECTED
N/R=NOT REPORTED

EFFLUENT AND WASTE DISPOSAL ANNUAL REPORT FOR YEAR 1985
SOLID EFFLUENTS

SOLID WASTE DISPOSITION

NUMBER OF SHIPMENTS	MODE OF TRANSPORTATION	DESTINATION
1	TRUCK	BARNWELL SC
94	TRUCK	RICHLAND WA

IRRADIATED FUEL SHIPMENTS(DISPOSITION)

NUMBER OF SHIPMENTS	MODE OF TRANSPORTATION	DESTINATION
0	N/A	N/A

ESTIMATE OF MAJOR NUCLIDE COMPOSITION(BY TYPE OF WASTE)

JAN-JUNE JULY-DEC

A

AM-241	%	2.09E-04	9.01E-02
AM-243	%		2.06E-06
C-14	%	2.38E-01	5.70E-02
CE-144	%	4.61E-01	6.98E-06
CM-242	%		1.89E-04
CM-243	%		4.24E-03
CM-244	%		6.27E-03
CO-60	%	1.65E+01	2.25E+01
CS-134	%	8.93E-01	1.04E-01
CS-137	%	3.85E+01	6.30E+00
EU-152	%	7.77E+00	3.25E-02
EU-154	%	2.75E-01	2.88E-02
EU-155	%	4.34E+00	2.08E-02
FE-55	%	2.82E+01	6.11E+01
FE-59	%		6.13E-02
H-3	%	5.33E-02	6.89E-02
I-129	%	3.61E-02	3.42E-02
MN-54	%		1.58E-02
NB-94	%		3.79E-04
NI-59	%	2.88E-05	6.98E-02
NI-63	%	1.56E+00	6.86E+00
PU-238	%	8.84E-05	3.17E-02
PU-239	%	6.65E-05	2.40E-02
PU-240	%	6.65E-05	2.40E-02
PU-241	%	8.11E-01	2.16E+00
PU-242	%		5.18E-07
SB-125	%		6.32E-02
SR-90	%	3.67E-01	1.07E-01
TC-99	%	4.44E-04	3.32E-02
U-234	%		1.43E-06
U-235	%	4.05E-08	7.72E-06
U-236	%		2.36E-07
U-238	%	2.93E-07	5.76E-07
ZN-65	%		1.37E-01

B

AM-241	%	4.01E-03
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N/A=NOT APPLICABLE

N/D=NOT DETECTED

N/R=NOT REPORTED

EFFLUENT AND WASTE DISPOSAL ANNUAL REPORT FOR YEAR 1985
SOLID EFFLUENTS

ESTIMATE OF MAJOR NUCLIDE COMPOSITION(BY TYPE OF WASTE)		JAN-JUNE	JULY-DEC
C-14	%	1.70E-01	2.35E-01
CE-144	%		1.25E-01
CO-60	%	3.46E+00	7.04E+00
CS-134	%		1.14E-01
CS-137	%	2.68E+01	1.00E+01
EU-152	%	1.40E+00	3.27E+00
EU-154	%		5.69E-02
EU-155	%		1.81E+00
FE-55	%	6.65E+01	7.07E+01
H-3	%	9.25E-02	2.32E-01
I-129	%	2.57E-02	2.32E-01
K-40	%		3.77E-02
MN-54	%		7.18E-03
NB-94	%		1.78E-01
NI-63	%	2.10E-01	1.93E+00
PU-241	%	5.11E-02	1.08E+00
SB-125	%	2.07E-03	
SR-90	%	1.13E+00	9.44E-01
TC-99	%	1.34E-01	1.92E+00
D			
C-14	%	1.08E-01	3.14E-02
CO-60	%	5.79E+00	6.69E+00
CS-137	%	1.56E+01	8.14E+00
EU-152	%	9.86E-02	2.97E+00
EU-155	%		8.47E-01
FE-55	%	7.61E+01	7.22E+01
H-3	%	9.74E-02	2.83E-02
I-129	%	3.08E-02	5.04E-01
NI-63	%		8.96E-01
PU-241	%		5.10E-01
SR-90	%	4.13E-01	7.52E-01
TC-99	%	1.85E+00	6.40E+00

TYPE OF WASTE	UNIT	YEAR TOTAL
A. SPENT RESINS, FILTER SLUDGES, EVAPORATOR BOTTOMS, ETC.	M3	2.09E+02
	CI	2.27E+02
B. DRY COMPRESSIBLE WASTE, CONTAMINATED EQUIPMENT, ETC.	M3	5.89E+02
	CI	3.32E+01
C. IRRADIATED COMPONENTS, CONTROL RODS, ETC.	M3	0.00E+00
	CI	0.00E+00
D. OTHER	M3	3.40E+01
ABSORBED LIQUIDS	CI	3.68E-01

N/A=NOT APPLICABLE

N/D=NOT DETECTED

N/R=NOT REPORTED

EFFLUENT AND WASTE DISPOSAL ANNUAL REPORT FOR YEAR 1985
AIRBORNE AND LIQUID EFFLUENTS

UNIT NUMBER: 1	LICENSEE:CONSOLIDATED EDISON
TYPE:PWR	LICENSED POWER (MWT): 615.00
DOCKET NO.:50-3	INITIAL CRITICALITY:08/02/62
COOLING WATER SOURCE:HUDSON RIVER	
UNIT NUMBER: 2	LICENSEE:CONSOLIDATED EDISON
TYPE:PWR	LICENSED POWER (MWT):2758.00
DOCKET NO.:50-247	INITIAL CRITICALITY:05/22/73
COOLING WATER SOURCE:HUDSON RIVER	

AIRBORNE EFFLUENTS

NUCLIDES RELEASED	ACTIVITY (CI)
H-3	1.75E+00
C-14	4.00E+00
AR-41	1.05E+00
FE-55	6.47E-06
CO-58	2.06E-05
CO-60	3.63E-04
NI-63	2.32E-06
KR-85	9.46E+00
KR-85M	5.51E-01
KR-87	4.61E-01
KR-88	1.28E+00
RB-88	1.44E+00
I-131	1.26E-03
XE-131M	3.43E+00
I-133	5.49E-03
XE-133	1.77E+03
XE-133M	3.95E+00
CS-134	1.99E-05
XE-135	9.33E+01
XE-135M	2.23E+00
CS-137	2.93E-04
XE-138	1.34E-01

LIQUID EFFLUENTS

NUCLIDES RELEASED	ACTIVITY (CI)
H-3	3.51E+02
NA-24	5.16E-02
MN-54	5.36E-04
FE-55	1.86E-01
CO-58	1.41E-02
CO-60	2.06E-01
NI-63	2.04E-01
SR-89	1.90E-03
SR-90	2.64E-03
TC-99M	4.83E-04
SB-125	2.25E-02
I-131	2.02E-01
XE-131M	3.07E-03
I-132	1.81E-02
I-133	2.49E-01

N/A=NOT APPLICABLE

N/D=NOT DETECTED

N/R=NOT REPORTED

EFFLUENT AND WASTE DISPOSAL ANNUAL REPORT FOR YEAR 1985
AIRBORNE AND LIQUID EFFLUENTS

LIQUID EFFLUENTS

NUCLIDES RELEASED	ACTIVITY (CI)
XE-133	1.44E+00
XE-133M	1.42E-03
CS-134	2.20E-01
I-135	2.55E-02
XE-135	9.44E-02
XE-135M	3.17E-01
CS-137	4.31E-01
BA-140	1.27E-03
LA-140	9.64E-03

TOTAL AIRBORNE TRITIUM RELEASE 1.75E+00

TOTAL LIQUID TRITIUM RELEASE 3.51E+02

VOLUME OF LIQUID WASTE RELEASED (PRIOR TO DILUTION)	LITERS	2.47E+08
VOLUME OF DILUTION WATER USED DURING PERIOD	LITERS	1.92E+12

N/A=NOT APPLICABLE

N/D=NOT DETECTED

N/R=NOT REPORTED

EFFLUENT AND WASTE DISPOSAL ANNUAL REPORT FOR YEAR 1985
SOLID EFFLUENTS

SOLID WASTE DISPOSITION

NUMBER OF SHIPMENTS
53

MODE OF TRANSPORTATION
TRUCK

DESTINATION
BARNWELL SC

ESTIMATE OF MAJOR NUCLIDE COMPOSITION (BY TYPE OF WASTE)

JAN-JUNE

JULY-DEC

A

CO-58	%	1.14E+01	
CO-60	%	1.49E+01	3.30E+01
CS-134	%	4.63E+00	9.00E+00
CS-137	%	1.05E+01	2.80E+01
FE-55	%	4.12E+00	1.60E+01
H-3	%	9.09E+00	
NI-63	%	3.49E+01	1.00E+01
OTHERS	%	1.05E+01	4.00E+00

B

CO-60	%	4.54E+01	4.50E+01
CS-137	%	6.81E+00	7.00E+00
FE-55	%	5.84E+00	6.00E+00
NI-63	%	3.48E+01	3.50E+01
OTHERS	%	7.15E+00	7.00E+00

TYPE OF WASTE

- A. SPENT RESINS, FILTER SLUDGES, EVAPORATOR
BOTTOMS, ETC.
- B. DRY COMPRESSIBLE WASTE, CONTAMINATED
EQUIPMENT, ETC.
- C. IRRADIATED COMPONENTS, CONTROL
RODS, ETC.
- D. OTHER

UNIT	YEAR	TOTAL
M3	1.53E+02	
CI	5.53E+02	
M3	5.22E+02	
CI	2.23E+01	
M3	1.42E+01	
CI	1.00E-02	
M3		
CI		

N/A=NOT APPLICABLE
N/D=NOT DETECTED
N/R=NOT REPORTED

EFFLUENT AND WASTE DISPOSAL ANNUAL REPORT FOR YEAR 1985
AIRBORNE AND LIQUID EFFLUENTS

UNIT NUMBER: 3

LICENSEE:POWER AUTHORITY OF THE STATE OF NY

TYPE:PWR

LICENSED POWER (MWT):2760.00

DOCKET NO.:50-286

INITIAL CRITICALITY:04/06/76

COOLING WATER SOURCE:HUDSON RIVER

AIRBORNE EFFLUENTS

NUCLIDES RELEASED	ACTIVITY (CI)
AR-41	2.26E-01
CR-51	1.77E-06
FE-55	6.09E-06
CO-57	1.60E-07
CO-58	4.33E-05
CO-60	1.04E-04
KR-85	2.26E+00
KR-85M	1.97E+01
SR-85	1.92E-07
KR-87	2.11E-02
KR-88	1.13E-01
SR-90	8.40E-08
NB-95	7.49E-08
RU-103	2.12E-07
CD-109	9.16E-06
SN-113	3.47E-07
SB-125	1.14E-06
I-131	1.81E-03
XE-131M	8.84E+00
BA-133	5.21E-07
I-133	4.20E-04
XE-133	1.34E+03
XE-133M	8.27E+00
CS-134	4.63E-07
XE-135	1.65E+02
XE-135M	3.37E-01
CS-137	1.71E-05
CE-139	9.58E-07
CE-141	9.58E-07
CE-144	4.51E-06

LIQUID EFFLUENTS

NUCLIDES RELEASED	ACTIVITY (CI)
NA-24	2.75E-05
AR-41	1.80E-05
CR-51	7.00E-03
MN-54	4.34E-03
FE-55	9.13E-02
MN-56	1.65E-05
CO-57	2.89E-04
CO-58	1.68E-01
FE-59	8.24E-04
CO-60	7.38E-02
NI-63	1.87E-02

N/A=NOT APPLICABLE

N/D=NOT DETECTED

N/R=NOT REPORTED

EFFLUENT AND WASTE DISPOSAL ANNUAL REPORT FOR YEAR 1985
AIRBORNE AND LIQUID EFFLUENTS

LIQUID EFFLUENTS

NUCLIDES RELEASED	ACTIVITY (CI)
CU-64	4.45E-04
ZN-65	1.20E-05
KR-85M	3.08E-04
SR-85	2.63E-05
KR-87	3.14E-05
RB-88	1.43E-03
Y-88	1.13E-04
SR-90	2.06E-06
Y-91	9.45E-04
Y-91M	1.89E-05
NB-95	2.07E-03
ZR-95	1.27E-04
ZR-97	4.69E-06
MO-99	5.05E-05
TC-99M	2.62E-04
RU-103	9.99E-05
RU-105	1.02E-04
RU-106	8.32E-04
CD-109	2.53E-04
AG-110M	6.87E-03
SN-113	3.47E-04
SB-122	1.72E-04
SB-124	2.30E-03
SB-125	1.10E-02
I-131	1.13E-02
XE-131M	3.53E-02
TE-132	2.75E-04
BA-133	7.16E-05
I-133	1.11E-03
XE-133	1.09E+01
XE-133M	4.03E-02
CS-134	6.38E-03
I-134	7.21E-04
I-135	2.23E-05
XE-135	9.80E-02
XE-135M	7.61E-05
CS-136	1.01E-05
CS-137	1.40E-02
CS-138	6.08E-06
CE-139	1.64E-03
BA-LA-140	1.57E-04
CE-141	1.43E-04
LA-142	5.43E-06
CE-144	3.52E-04
HG-203	3.71E-05

N/A=NOT APPLICABLE

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N/R=NOT REPORTED

EFFLUENT AND WASTE DISPOSAL ANNUAL REPORT FOR YEAR 1985
AIRBORNE AND LIQUID EFFLUENTS

TOTAL AIRBORNE TRITIUM RELEASE 1.81E+00
TOTAL LIQUID TRITIUM RELEASE 3.40E+02

VOLUME OF LIQUID WASTE RELEASED (PRIOR TO DILUTION)	LITERS	1.73E+07
VOLUME OF DILUTION WATER USED DURING PERIOD	LITERS	1.31E+12

N/A=NOT APPLICABLE
N/D=NOT DETECTED
N/R=NOT REPORTED

EFFLUENT AND WASTE DISPOSAL ANNUAL REPORT FOR YEAR 1985
SOLID EFFLUENTS

SOLID WASTE DISPOSITION

NUMBER OF SHIPMENTS	MODE OF TRANSPORTATION	DESTINATION
13	TRUCK	BARNWELL SC
13	TRUCK	RICHLAND WA

ESTIMATE OF MAJOR NUCLIDE COMPOSITION(BY TYPE OF WASTE)

	JAN-JUNE	JULY-DEC
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A		
CO-58	%	4.60E+01
CO-60	%	1.90E+01
CS-134	%	7.00E+00
CS-137	%	1.40E+01
FE-55	%	8.00E+00
MN-54	%	1.00E+00
NI-63	%	5.00E+00
B		
CO-58	%	1.40E+01
CO-60	%	3.50E+01
CS-137	%	3.00E+00
FE-55	%	4.40E+01
NI-63	%	4.00E+00

TYPE OF WASTE	UNIT	YEAR TOTAL
A. SPENT RESINS, FILTER SLUDGES, EVAPORATOR	M3	7.99E+01
BOTTOMS, ETC.	CI	5.41E+02
B. DRY COMPRESSIBLE WASTE, CONTAMINATED	M3	1.59E+02
EQUIPMENT, ETC.	CI	7.50E+00
C. IRRADIATED COMPONENTS, CONTROL	M3	0.00E+00
RODS, ETC.	CI	0.00E+00
D. OTHER	M3	0.00E+00
	CI	0.00E+00

N/A=NOT APPLICABLE
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N/R=NOT REPORTED

EFFLUENT AND WASTE DISPOSAL ANNUAL REPORT FOR YEAR 1985
AIRBORNE AND LIQUID EFFLUENTS

UNIT NUMBER: 1

LICENSEE:WISCONSIN PUBLIC SERVICE

TYPE:PWR

LICENSED POWER (MWT):1650.00

DOCKET NO.:50-305

INITIAL CRITICALITY:03/07/74

COOLING WATER SOURCE:LAKE MICHIGAN

AIRBORNE EFFLUENTS

NUCLIDES RELEASED	ACTIVITY (CI)
AR-41	1.79E+00
FE-55	7.77E-05
CO-57	2.17E-08
CO-58	4.53E-05
CO-60	6.37E-05
NI-63	7.77E-06
KR-87	2.20E-02
SR-89	2.71E-06
SR-90	1.49E-06
NB-95	1.21E-06
CD-109	3.88E-05
I-131	3.71E-05
XE-131M	6.03E-05
I-132	5.28E-04
I-133	3.82E-06
XE-133	<5.78E+00
XE-135	1.73E+00
CS-137	1.77E-06
RN-222	1.01E-02
UNIDENTIFIED	<4.03E+01

LIQUID EFFLUENTS

NUCLIDES RELEASED	ACTIVITY (CI)
NA-24	6.88E-01
CR-51	2.94E-02
MN-54	8.53E-03
CO-57	2.19E-04
CO-58	2.69E-01
FE-59	3.36E-03
CO-60	1.41E-01
NI-63	6.46E-04
SR-89	<4.40E-04
SR-90	<2.72E-04
NB-95	1.83E-02
ZR-95	1.05E-02
AG-110M	3.82E-02
SN-113	3.85E-03
SB-124	3.95E-02
SB-125	3.07E-02
I-131	4.40E-04
I-132	1.13E-03
I-133	1.94E-03
XE-133	1.72E-04
CS-134	5.62E-03

N/A=NOT APPLICABLE

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N/R=NOT REPORTED

EFFLUENT AND WASTE DISPOSAL ANNUAL REPORT FOR YEAR 1985
AIRBORNE AND LIQUID EFFLUENTS

LIQUID EFFLUENTS

NUCLIDES RELEASED	ACTIVITY (CI)
I-134	1.47E-04
XE-135	5.26E-04
CS-137	2.24E-02
LA-140	7.32E-05
CE-144	9.01E-06

TOTAL AIRBORNE TRITIUM RELEASE <8.51E+00

TOTAL LIQUID TRITIUM RELEASE 3.79E+02

VOLUME OF LIQUID WASTE RELEASED (PRIOR TO DILUTION)	LITERS	6.13E+06
VOLUME OF DILUTION WATER USED DURING PERIOD	LITERS	5.37E+10

N/A=NOT APPLICABLE

N/D=NOT DETECTED

N/R=NOT REPORTED

EFFLUENT AND WASTE DISPOSAL ANNUAL REPORT FOR YEAR 1985
SOLID EFFLUENTS

SOLID WASTE DISPOSITION

NUMBER OF SHIPMENTS	MODE OF TRANSPORTATION	DESTINATION
5	CHEM-NUCLEAR(CASK)	BARNWELL SC
3	CHEM-NUCLEAR(SHIELDED VAN)	BARNWELL SC
4	HITTMAN TRANSPORT(CASK)	BARNWELL SC
1	HITTMAN TRANSPRT(SHIELDED VAN)	BARNWELL SC

IRRADIATED FUEL SHIPMENTS(DISPOSITION)

NUMBER OF SHIPMENTS	MODE OF TRANSPORTATION	DESTINATION
0	N/A	N/A

ESTIMATE OF MAJOR NUCLIDE COMPOSITION(BY TYPE OF WASTE)

JAN-JUNE JULY-DEC

A

AG-110M	%	1.47E-03	
C-14	%	7.75E-03	8.69E-03
CM-242	%	5.83E-06	1.06E-03
CO-57	%	2.12E-01	1.38E-01
CO-58	%	4.68E+00	2.32E+00
CO-60	%	6.33E+01	6.52E+01
CS-134	%	6.36E-01	5.58E-01
CS-137	%	1.26E+00	1.12E+00
H-3	%		7.38E-06
MN-54	%	1.58E+00	1.20E+00
NB-94	%	7.45E-05	
NI-59	%	3.20E-01	3.30E-01
NI-63	%	2.78E+01	2.87E+01
PU-241	%	8.34E-04	1.17E-05
SB-125	%	1.47E-01	4.29E-01
SR-90	%	6.54E-03	5.80E-03
TRANSURANICS	%	9.22E-06	8.36E-05

B

C-14	%	2.36E+00	1.76E+00
CM-242	%	1.17E-03	1.03E-01
CO-57	%		3.18E-02
CO-58	%	2.33E+01	6.40E+00
CO-60	%	3.07E+01	4.97E+01
CR-51	%	1.75E+01	1.11E+00
CS-134	%		3.18E+00
CS-137	%	4.52E-01	7.09E+00
H-3	%		7.22E-04
MN-54	%	6.12E+00	4.26E+00
NB-94	%	2.27E-02	
NB-95	%	2.83E+00	3.56E-01
NI-59	%	1.55E-01	2.51E-01
NI-63	%	1.35E+01	2.19E+01
PU-241	%	1.67E-01	1.14E-03
SB-125	%		2.99E+00

N/A=NOT APPLICABLE

N/D=NOT DETECTED

N/R=NOT REPORTED

EFFLUENT AND WASTE DISPOSAL ANNUAL REPORT FOR YEAR 1985
SOLID EFFLUENTS

ESTIMATE OF MAJOR NUCLIDE COMPOSITION(BY TYPE OF WASTE)		JAN-JUNE	JULY-DEC
SN-113	%	6.16E-01	2.54E-01
SR-90	%	2.35E-03	3.69E-02
TRANSURANICS	%	1.85E-03	1.70E-02
ZR-95	%	2.28E+00	5.69E-01
D			
AG-110M	%	4.33E+00	
C-14	%	1.07E-02	2.03E-02
CM-242	%	3.08E-05	4.54E-03
CO-57	%	5.69E-01	1.19E-01
CO-58	%	2.05E+01	3.12E+00
CO-60	%	3.97E+01	6.50E+01
CR-51	%	5.87E+00	
CS-134	%		4.79E-01
CS-137	%		8.87E-01
FE-59	%	3.15E-01	
H-3	%		3.17E-05
MN-54	%	1.51E+00	9.71E-01
NB-94	%	1.03E-04	
NB-95	%	3.81E+00	
NI-59	%	2.01E-01	3.29E-01
NI-63	%	1.74E+01	2.86E+01
PU-241	%	4.41E-03	5.02E-05
SB-124	%	6.16E-01	
SB-125	%	8.95E-01	4.37E-01
SN-113	%	1.42E+00	
SR-90	%		4.61E-03
TRANSURANICS	%	4.88E-05	1.95E-04
ZR-95	%	2.86E+00	

TYPE OF WASTE	UNIT	YEAR	TOTAL
A. SPENT RESINS, FILTER SLUDGES, EVAPORATOR BOTTOMS, ETC.	M3	3.23E+01	
	CI	8.96E+02	
B. DRY COMPRESSIBLE WASTE, CONTAMINATED EQUIPMENT, ETC.	M3	4.10E+01	
	CI	6.50E+00	
C. IRRADIATED COMPONENTS, CONTROL RODS, ETC.	M3	0.00E+00	
	CI	0.00E+00	
D. OTHER	M3	4.48E+00	
CONTAM.SLUDGE SOLID.IN CONCRET	CI	5.34E+01	

N/A=NOT APPLICABLE
N/D=NOT DETECTED
N/R=NOT REPORTED

EFFLUENT AND WASTE DISPOSAL ANNUAL REPORT FOR YEAR 1985
AIRBORNE AND LIQUID EFFLUENTS

UNIT NUMBER: 1 LICENSEE:DAIRYLAND POWER
TYPE:BWR LICENSED POWER (MWT): 165.00
DOCKET NO.:50-409 INITIAL CRITICALITY:07/11/67
COOLING WATER SOURCE:MISSISSIPPI RIVER

AIRBORNE EFFLUENTS

NUCLIDES RELEASED	ACTIVITY (CI)
AR-41	6.04E+01
CR-51	1.08E-05
MN-54	8.22E-05
CO-57	1.79E-06
CO-58	3.21E-05
CO-60	2.33E-04
ZN-65	5.90E-06
KR-85M	3.95E+02
KR-87	3.73E+02
KR-88	9.26E+02
SR-89	4.72E-05
SR-90	7.51E-07
NB-95	1.06E-05
ZR-95	4.04E-06
RU-103	3.38E-06
RU-RH-106	4.34E-05
I-131	4.94E-03
XE-131M	3.83E+02
I-133	6.31E-03
XE-133	1.12E+03
XE-133M	1.40E-01
I-135	2.63E-03
XE-135	5.32E+03
XE-135M	1.52E+02
CS-137	5.74E-05
XE-137	2.13E+01
XE-138	1.33E+02
BA-LA-140	2.01E-03
CE-141	7.79E-06
CE-144	3.23E-05

LIQUID EFFLUENTS

NUCLIDES RELEASED	ACTIVITY (CI)
NA-24	3.87E-04
CL-38	1.82E-05
CR-51	1.06E-02
MN-54	1.15E-01
FE-55	2.98E-01
MN-56	8.33E-05
CO-57	7.19E-04
CO-58	2.03E-02
FE-59	6.29E-03
CO-60	9.08E-01
ZN-65	7.32E-03

N/A=NOT APPLICABLE
N/D=NOT DETECTED
N/R=NOT REPORTED

EFFLUENT AND WASTE DISPOSAL ANNUAL REPORT FOR YEAR 1985
AIRBORNE AND LIQUID EFFLUENTS

LIQUID EFFLUENTS

NUCLIDES RELEASED	ACTIVITY (CI)
KR-85M	1.10E-04
KR-87	1.63E-04
KR-88	1.60E-05
SR-89	2.44E-03
SR-90	4.02E-03
SR-91	1.53E-02
SR-92	2.44E-03
Y-92	1.50E-03
ZR-NB-95	3.50E-03
NB-97	4.77E-03
ZR-97	1.21E-04
MO-99	1.33E-02
TC-99M	4.40E-02
RU-103	7.30E-02
RU-RH-105	4.32E-03
RU-RH-106	3.88E-03
AG-110M	1.91E-03
I-131	6.88E-02
XE-131M	1.11E-02
I-132	6.14E-04
I-133	5.90E-02
XE-133	1.51E-02
XE-133M	7.63E-05
CS-134	3.06E-03
I-135	2.13E-02
XE-135	2.51E-02
XE-135M	7.69E-03
CS-136	1.83E-04
CS-137	8.35E-02
BA-139	9.99E-04
BA-LA-140	5.61E-02
CE-141	1.10E-03
CE-144	2.41E-03
W-187	1.99E-04
NP-239	2.69E-02

TOTAL AIRBORNE TRITIUM RELEASE	3.48E+01
TOTAL LIQUID TRITIUM RELEASE	1.28E+02

VOLUME OF LIQUID WASTE RELEASED (PRIOR TO DILUTION)	LITERS	2.55E+06
VOLUME OF DILUTION WATER USED DURING PERIOD	LITERS	1.68E+11

N/A=NOT APPLICABLE
N/D=NOT DETECTED
N/R=NOT REPORTED

INSTALLATION:LACROSSE

EFFLUENT AND WASTE DISPOSAL ANNUAL REPORT FOR YEAR 1985
SOLID EFFLUENTS

SOLID WASTE DISPOSITION

NUMBER OF SHIPMENTS	MODE OF TRANSPORTATION	DESTINATION
3	SOLE USE	BARNWELL SC
2	SOLE USE	RICHLAND WA

ESTIMATE OF MAJOR NUCLIDE COMPOSITION(BY TYPE OF WASTE)

JAN-JUNE JULY-DEC

A

AM-241	%	3.20E-03	3.18E-03
BA-LA-140	%		6.09E+00
C-14	%	1.22E-03	1.28E-02
CE-141	%	1.59E-02	2.60E-01
CE-PR-144	%	1.78E-01	
CM-242	%	1.70E-02	1.79E-02
CM-244/243	%	1.48E-03	1.40E-03
CO-57	%	1.18E-02	3.96E-02
CO-58	%	1.66E+00	4.88E+00
CO-60	%	4.71E+01	3.76E+01
CS-134	%	5.68E-01	6.35E-01
CS-137	%	9.20E+00	9.71E+00
FE-55	%	2.64E+01	2.50E+01
FE-59	%	9.83E-02	
H-3	%	5.14E-03	5.26E-03
I-129	%	2.75E-03	2.89E-03
I-131	%		3.18E-01
MN-54	%	7.10E+00	6.67E+00
NB-95	%	2.31E-02	
NI-59	%	5.63E-02	5.64E-02
NI-63	%	4.81E+00	4.92E+00
PU-238	%	7.50E-03	7.87E-03
PU-239/240	%	4.20E-03	4.41E-03
PU-241	%	3.36E-01	3.53E-01
RU-103	%	1.76E-02	
SR-89	%	1.64E-01	1.73E-01
SR-90	%	3.87E-01	4.09E-01
TC-99	%	5.91E-05	5.97E-05
U-235	%	7.95E-07	2.42E-06
U-238	%	6.70E-07	2.04E-06
ZN-65	%	1.37E+00	3.07E+00

B

AM-241	%		6.12E-03
CE-144	%		1.37E-01
CM-242	%		7.59E-03
CM-243/244	%		2.24E-03
CO-57	%		2.51E-02
CO-58	%		7.65E-01
CO-60	%		4.24E+01
CS-134	%		1.09E-01
CS-137	%		2.51E+00

N/A=NOT APPLICABLE

N/D=NOT DETECTED

N/R=NOT REPORTED

INSTALLATION:LACROSSE

EFFLUENT AND WASTE DISPOSAL ANNUAL REPORT FOR YEAR 1985
SOLID EFFLUENTS

ESTIMATE OF MAJOR NUCLIDE COMPOSITION(BY TYPE OF WASTE)		JAN-JUNE	JULY-DEC
FE-55	%		4.85E+01
FE-59	%		3.01E-01
H-3	%		6.56E-02
MN-54	%		3.72E+00
NB-95	%		2.95E-01
NP-237	%		1.58E-03
PU-238	%		7.76E-03
PU-239/240	%		4.64E-03
PU-241	%		3.66E-03
ZN-65	%		7.65E-01

TYPE OF WASTE	UNIT	YEAR	TOTAL
A. SPENT RESINS, FILTER SLUDGES, EVAPORATOR BOTTOMS, ETC.	M3	1.44E+01	
	CI	2.31E+02	
B. DRY COMPRESSIBLE WASTE, CONTAMINATED EQUIPMENT, ETC.	M3	4.86E+01	
	CI	3.27E+00	
C. IRRADIATED COMPONENTS, CONTROL RODS, ETC.	M3		
	CI		
D. OTHER	M3		
	CI		

N/A=NOT APPLICABLE
N/D=NOT DETECTED
N/R=NOT REPORTED

EFFLUENT AND WASTE DISPOSAL ANNUAL REPORT FOR YEAR 1985
AIRBORNE AND LIQUID EFFLUENTS

UNIT NUMBER: 1	LICENSEE: COMMONWEALTH EDISON COMPANY
TYPE: BWR	LICENSED POWER (MWT): 3323.00
DOCKET NO.: 50-373	INITIAL CRITICALITY: 06/21/82
COOLING WATER SOURCE: RESERVOIR	
UNIT NUMBER: 2	LICENSEE: COMMONWEALTH EDISON COMPANY
TYPE: BWR	LICENSED POWER (MWT): 3323.00
DOCKET NO.: 50-374	INITIAL CRITICALITY: 03/10/84
COOLING WATER SOURCE: RESERVOIR	

AIRBORNE EFFLUENTS

NUCLIDES RELEASED	ACTIVITY (CI)
F-18	9.90E-01
NA-24	1.00E+00
CL-38	4.40E-03
AR-41	4.00E+01
CR-51	4.70E-04
MN-54	4.43E-03
MN-56	1.80E-04
CO-58	1.00E-05
FE-59	4.50E-05
CO-60	7.75E-02
ZN-65	<3.10E-15
SE-75	6.30E-05
BR-82	1.70E-05
KR-85M	3.10E+00
KR-87	<5.20E-01
KR-88	<5.00E+01
SR-89	8.00E-08
SR-90	<2.00E-09
SR-91	6.40E-05
NB-95	5.30E-05
ZR-97	5.00E-05
TC-99M	8.00E-04
I-131	8.40E-03
I-132	2.28E-02
I-133	5.90E-02
XE-133	6.60E+01
CS-134	<1.20E-05
I-134	1.65E-02
I-135	1.55E-01
XE-135	2.12E+01
XE-135M	2.14E-02
CS-136	1.00E-05
CS-137	3.50E-05
CS-138	1.21E-01
XE-138	<1.10E-05
BA-139	2.19E-02
CE-141	<2.30E-15
CE-144	<8.50E-15
W-187	3.50E-05

N/A=NOT APPLICABLE

N/D=NOT DETECTED

N/R=NOT REPORTED

EFFLUENT AND WASTE DISPOSAL ANNUAL REPORT FOR YEAR 1985
AIRBORNE AND LIQUID EFFLUENTS

LIQUID EFFLUENTS

NUCLIDES RELEASED	ACTIVITY (CI)
P-32	5.60E-05
CR-51	4.10E-04
MN-54	<2.27E-02
FE-55	5.65E-04
CO-58	1.81E-03
FE-59	3.70E-05
CO-60	1.36E-02
ZN-65	5.80E-04
SR-89	2.39E-04
SR-90	5.08E-06
I-131	<6.80E-11
XE-133	<8.50E-11
XE-133M	<3.50E-10
CS-134	<5.30E-11
XE-135	<3.80E-11
CS-137	<5.60E-11
CE-141	<9.30E-11
CE-144	<4.10E-10

TOTAL AIRBORNE TRITIUM RELEASE 2.30E+00

TOTAL LIQUID TRITIUM RELEASE 3.89E-01

VOLUME OF LIQUID WASTE RELEASED (PRIOR TO DILUTION)	LITERS	8.38E+05
VOLUME OF DILUTION WATER USED DURING PERIOD	LITERS	7.71E+09

N/A=NOT APPLICABLE

N/D=NOT DETECTED

N/R=NOT REPORTED

EFFLUENT AND WASTE DISPOSAL ANNUAL REPORT FOR YEAR 1985
SOLID EFFLUENTS

SOLID WASTE DISPOSITION

NUMBER OF SHIPMENTS	MODE OF TRANSPORTATION	DESTINATION
52	CHEM NUCLEAR	RICHLAND WA
8	HITTMAN NUCLEAR DEV CO	BARNWELL SC
98	HITTMAN NUCLEAR DEV CO	RICHLAND WA
2	MC CORMACKS	RICHLAND WA
15	TRI-STATE M.T.	RICHLAND WA

TYPE OF WASTE

TYPE OF WASTE	UNIT	YEAR TOTAL
A. SPENT RESINS, FILTER SLUDGES, EVAPORATOR BOTTOMS, ETC.	M3	9.00E+02
	CI	4.80E+02
B. DRY COMPRESSIBLE WASTE, CONTAMINATED EQUIPMENT, ETC.	M3	3.10E+02
	CI	6.60E+00
C. IRRADIATED COMPONENTS, CONTROL RODS, ETC.	M3	
	CI	
D. OTHER	M3	
	CI	

N/A=NOT APPLICABLE
N/D=NOT DETECTED
N/R=NOT REPORTED

EFFLUENT AND WASTE DISPOSAL ANNUAL REPORT FOR YEAR 1985
AIRBORNE AND LIQUID EFFLUENTS

UNIT NUMBER: 1 LICENSEE:PHILADELPHIA ELEC.CO
TYPE:BWR LICENSED POWER (MWT): 165.00
DOCKET NO.:50-352 INITIAL CRITICALITY:12/22/84
COOLING WATER SOURCE:SCHUYLKILL RIVER

LIQUID EFFLUENTS

NUCLIDES RELEASED	ACTIVITY (CI)
H-3	1.15E+00
NA-24	1.49E-04
CR-51	8.26E-03
MN-54	1.63E-04
CO-58	6.77E-03
FE-59	1.65E-04
CO-60	1.04E-03
ZN-65	5.25E-03
AS-76	2.30E-04
XE-133	1.11E-03
XE-135	6.01E-04
TOTAL LIQUID TRITIUM RELEASE	1.15E+00

VOLUME OF LIQUID WASTE RELEASED (PRIOR TO DILUTION)	LITERS	2.27E+07
VOLUME OF DILUTION WATER USED DURING PERIOD	LITERS	9.03E+10

N/A=NOT APPLICABLE
N/D=NOT DETECTED
N/R=NOT REPORTED

EFFLUENT AND WASTE DISPOSAL ANNUAL REPORT FOR YEAR 1985
SOLID EFFLUENTS

SOLID WASTE DISPOSITION

NUMBER OF SHIPMENTS
12

MODE OF TRANSPORTATION
TRUCK

DESTINATION
BARNWELL SC

ESTIMATE OF MAJOR NUCLIDE COMPOSITION(BY TYPE OF WASTE)

JAN-JUNE

JULY-DEC

A

BA-140	%	7.08E-02
CE-141	%	1.78E-03
CO-58	%	2.36E+01
CO-60	%	2.70E+00
CR-51	%	2.95E+01
FE-55	%	6.40E+00
FE-59	%	7.88E-01
I-131	%	2.32E-02
MN-54	%	5.59E-01
NB-95	%	3.86E-03
NI-59	%	1.40E-05
NI-63	%	5.65E-05
ZN-65	%	3.60E+01
ZR-95	%	1.05E-01

TYPE OF WASTE

UNIT YEAR TOTAL

- A. SPENT RESINS, FILTER SLUDGES, EVAPORATOR
BOTTOMS, ETC.
- B. DRY COMPRESSIBLE WASTE, CONTAMINATED
EQUIPMENT, ETC.
- C. IRRADIATED COMPONENTS, CONTROL
RODS, ETC.
- D. OTHER

M3 3.06E+02
CI 2.06E+01
M3 0.00E+00
CI 0.00E+00
M3 0.00E+00
CI 0.00E+00
M3
CI

N/A=NOT APPLICABLE

N/D=NOT DETECTED

N/R=NOT REPORTED

EFFLUENT AND WASTE DISPOSAL ANNUAL REPORT FOR YEAR 1985
AIRBORNE AND LIQUID EFFLUENTS

UNIT NUMBER: 1	LICENSEE:MAINE YANKEE ATOMIC POWER
TYPE:PWR	LICENSED POWER (MWT):2630.00
DOCKET NO.:50-309	INITIAL CRITICALITY:10/23/72
COOLING WATER SOURCE:BACK RIVER	

AIRBORNE EFFLUENTS

NUCLIDES RELEASED	ACTIVITY (CI)
AR-41	2.85E-03
MN-54	2.30E-06
CO-58	4.07E-05
CO-60	7.81E-06
KR-85	8.82E-03
KR-85M	6.73E-04
AG-110M	2.02E-05
I-131	3.02E-04
XE-131M	1.37E-02
I-133	2.64E-04
XE-133	4.00E+02
XE-133M	3.91E-02
CS-134	1.55E-06
XE-135	3.09E+01
CS-137	9.87E-06
UNIDENTIFIED	9.86E+00

LIQUID EFFLUENTS

NUCLIDES RELEASED	ACTIVITY (CI)
NA-24	3.23E-04
CO-58	2.57E-04
CO-60	8.10E-03
I-131	1.10E-02
I-133	6.09E-03
TE-133M	3.88E-05
XE-133	1.47E-01
XE-133M	1.48E-03
XE-135	1.55E-02
CS-137	3.27E-03
CE-139	4.01E-05
UNIDENTIFIED	1.62E-03

TOTAL AIRBORNE TRITIUM RELEASE	2.73E+00
TOTAL LIQUID TRITIUM RELEASE	1.84E+02

VOLUME OF LIQUID WASTE RELEASED (PRIOR TO DILUTION)	LITERS	7.38E+07
VOLUME OF DILUTION WATER USED DURING PERIOD	LITERS	7.10E+11

N/A=NOT APPLICABLE
N/D=NOT DETECTED
N/R=NOT REPORTED

EFFLUENT AND WASTE DISPOSAL ANNUAL REPORT FOR YEAR 1985
SOLID EFFLUENTS

SOLID WASTE DISPOSITION

NUMBER OF SHIPMENTS	MODE OF TRANSPORTATION	DESTINATION
22	TRUCK	BARNWELL SC

IRRADIATED FUEL SHIPMENTS(DISPOSITION)

NUMBER OF SHIPMENTS	MODE OF TRANSPORTATION	DESTINATION
0	N/A	N/A

ESTIMATE OF MAJOR NUCLIDE COMPOSITION(BY TYPE OF WASTE)

		JAN-JUNE	JULY-DEC
A			
	CO-60	% 3.00E+01	3.50E+01
	CS-137	% 2.00E+01	2.60E+01
	H-3	% 2.00E+01	2.80E+01
	NI-63	% 3.00E+01	3.90E+01
B			
	CO-60	% 3.50E+01	2.50E+01
	CS-137	% 3.00E+01	1.10E+01
	NI-63	% 3.50E+01	3.60E+01

TYPE OF WASTE

	UNIT	YEAR TOTAL
A. SPENT RESINS, FILTER SLUDGES, EVAPORATOR	M3	8.18E+01
BOTTOMS, ETC.	CI	8.42E+01
B. DRY COMPRESSIBLE WASTE, CONTAMINATED	M3	2.77E+02
EQUIPMENT, ETC.	CI	2.66E+01
C. IRRADIATED COMPONENTS, CONTROL	M3	0.00E+00
RODS, ETC.	CI	0.00E+00
D. OTHER	M3	0.00E+00
	CI	0.00E+00

N/A=NOT APPLICABLE
N/D=NOT DETECTED
N/R=NOT REPORTED

EFFLUENT AND WASTE DISPOSAL ANNUAL REPORT FOR YEAR 1985
AIRBORNE AND LIQUID EFFLUENTS

UNIT NUMBER: 1

LICENSEE:DUKE POWER COMPANY

TYPE:PWR

LICENSED POWER (MWT):3411.00

DOCKET NO.:50-369

INITIAL CRITICALITY:08/08/81

COOLING WATER SOURCE:LAKE NORMAN

AIRBORNE EFFLUENTS

NUCLIDES RELEASED	ACTIVITY (CI)
AR-41	1.41E+01
CR-51	2.29E-05
MN-54	3.67E-05
CO-58	1.60E-04
CO-60	2.40E-05
KR-85	3.86E+01
KR-85M	4.10E+00
KR-87	4.45E-01
KR-88	2.86E+00
SR-89	4.78E-08
NB-95	2.17E-10
RU-103	1.63E-10
RU-106	9.39E-08
I-131	8.13E-03
XE-131M	1.06E+01
I-133	4.20E-03
XE-133	1.78E+03
XE-133M	2.30E+01
CS-134	1.13E-04
XE-135	5.86E+01
XE-135M	5.77E-04
CS-136	7.25E-09
CS-137	1.96E-04
GE-141	5.11E-07
GE-144	1.14E-05

LIQUID EFFLUENTS

NUCLIDES RELEASED	ACTIVITY (CI)
NA-24	3.04E-04
AR-41	1.39E-04
CR-51	2.40E-02
MN-54	1.79E-02
FE-55	1.24E-01
CO-57	5.02E-04
CO-58	2.36E-01
FE-59	2.14E-03
CO-60	8.85E-02
NI-65	1.32E-05
ZN-65	1.59E-04
ZN-69M	3.22E-06
BR-82	1.84E-04
BR-84	1.79E-05
KR-85M	1.82E-06
RB-86	1.06E-05

N/A=NOT APPLICABLE

N/D=NOT DETECTED

N/R=NOT REPORTED

EFFLUENT AND WASTE DISPOSAL ANNUAL REPORT FOR YEAR 1985
AIRBORNE AND LIQUID EFFLUENTS

LIQUID EFFLUENTS

NUCLIDES RELEASED	ACTIVITY (CI)
KR-87	1.26E-05
RB-88	6.89E-03
SR-89	2.50E-04
SR-90	3.18E-05
Y-91M	3.91E-07
SR-92	4.02E-04
Y-92	4.08E-06
Y-93	1.81E-05
NB-95	5.32E-03
ZR-95	2.45E-03
NB-97	2.19E-03
MO-99	1.08E-04
TC-99M	2.76E-04
RU-103	1.19E-05
RU-106	3.94E-04
AG-108M	8.26E-06
AG-110M	4.40E-04
CD-115	1.52E-05
IN-115M	5.26E-06
SB-122	4.60E-04
SB-124	2.70E-03
SB-125	1.05E-02
I-131	4.45E-02
TE-131M	2.04E-05
XE-131M	2.38E-03
I-132	1.87E-03
I-133	2.04E-02
XE-133	6.51E-02
XE-133M	5.68E-04
CS-134	7.74E-03
I-134	5.32E-05
I-135	5.20E-03
XE-135	4.34E-03
CS-136	2.05E-04
CS-137	1.13E-02
CS-138	7.59E-05
BA-140	3.83E-04
LA-140	2.45E-03
CE-141	2.02E-04
CE-143	5.60E-06
CE-144	5.58E-04
PB-214	8.38E-05
NP-239	1.11E-05

TOTAL AIRBORNE TRITIUM RELEASE 2.52E+01
TOTAL LIQUID TRITIUM RELEASE 4.02E+02

N/A=NOT APPLICABLE
N/D=NOT DETECTED
N/R=NOT REPORTED

INSTALLATION:MCGUIRE 1

LOCATION:17 MI N OF CHARLOTTE, NC

EFFLUENT AND WASTE DISPOSAL ANNUAL REPORT FOR YEAR 1985
AIRBORNE AND LIQUID EFFLUENTS

VOLUME OF LIQUID WASTE RELEASED (PRIOR TO DILUTION)	LITERS	2.90E+07
VOLUME OF DILUTION WATER USED DURING PERIOD	LITERS	2.94E+12

N/A=NOT APPLICABLE
N/D=NOT DETECTED
N/R=NOT REPORTED

EFFLUENT AND WASTE DISPOSAL ANNUAL REPORT FOR YEAR 1985
AIRBORNE AND LIQUID EFFLUENTS

UNIT NUMBER: 2

LICENSEE:DUKE POWER CO.

TYPE:PWR

LICENSED POWER (MWT):3411.00

DOCKET NO.:50-370

INITIAL CRITICALITY:08/05/83

COOLING WATER SOURCE:LAKE NORMAN

AIRBORNE EFFLUENTS

NUCLIDES RELEASED	ACTIVITY (CI)
AR-41	1.41E+01
CR-51	2.29E-05
MN-54	3.67E-05
CO-58	1.60E-04
CO-60	2.40E-05
KR-85	3.86E+01
KR-85M	4.10E+00
KR-87	4.45E-01
KR-88	2.86E+00
SR-89	4.78E-08
NB-95	2.17E-10
RU-103	1.63E-10
RU-106	9.39E-08
I-131	8.13E-03
XE-131M	1.06E+01
I-133	4.20E-03
XE-133	1.78E+03
XE-133M	2.30E+01
CS-134	1.13E-04
XE-135	5.86E+01
XE-135M	5.77E-04
CS-136	7.25E-09
CS-137	1.96E-04
CE-141	5.11E-07
CE-144	1.14E-05

LIQUID EFFLUENTS

NUCLIDES RELEASED	ACTIVITY (CI)
NA-24	3.04E-04
AR-41	1.39E-04
CR-51	2.40E-02
MN-54	1.79E-02
FE-55	1.24E-01
CO-57	5.02E-04
CO-58	2.36E-01
FE-59	2.14E-03
CO-60	8.85E-02
NI-65	1.32E-05
ZN-65	1.59E-04
ZN-69M	3.22E-06
BR-82	1.84E-04
BR-84	1.79E-05
KR-85M	1.82E-06
RB-86	1.06E-05

N/A=NOT APPLICABLE

N/D=NOT DETECTED

N/R=NOT REPORTED

EFFLUENT AND WASTE DISPOSAL ANNUAL REPORT FOR YEAR 1985
AIRBORNE AND LIQUID EFFLUENTS

LIQUID EFFLUENTS

NUCLIDES RELEASED	ACTIVITY (CI)
KR-87	1.26E-05
RB-88	6.89E-03
SR-89	2.50E-04
SR-90	3.18E-05
Y-91M	3.91E-07
SR-92	4.02E-04
Y-92	4.08E-06
Y-93	1.81E-05
NB-95	5.32E-03
ZR-95	2.45E-03
NB-97	2.19E-03
MO-99	1.08E-04
TC-99M	2.76E-04
RU-103	1.19E-05
RU-106	3.94E-04
AG-108M	8.26E-06
AG-110M	4.40E-04
CD-115	1.52E-05
IN-115M	5.26E-06
SB-122	4.60E-04
SB-124	2.70E-03
SB-125	1.05E-02
I-131	4.45E-02
TE-131M	2.04E-05
XE-131M	2.38E-03
I-132	1.87E-03
I-133	2.04E-02
XE-133	6.51E-02
XE-133M	5.68E-04
CS-134	7.74E-03
I-134	5.32E-05
I-135	5.20E-03
XE-135	4.34E-03
CS-136	2.05E-04
CS-137	1.13E-02
CS-138	7.69E-05
BA-140	3.83E-04
LA-140	2.45E-03
CE-141	2.02E-04
CE-143	5.60E-06
CE-144	5.58E-04
PB-214	8.38E-05
NP-239	1.11E-05

TOTAL AIRBORNE TRITIUM RELEASE	2.52E+01
TOTAL LIQUID TRITIUM RELEASE	4.02E+02

N/A=NOT APPLICABLE
N/D=NOT DETECTED
N/R=NOT REPORTED

EFFLUENT AND WASTE DISPOSAL ANNUAL REPORT FOR YEAR 1985
AIRBORNE AND LIQUID EFFLUENTS

VOLUME OF LIQUID WASTE RELEASED (PRIOR TO DILUTION)	LITERS	2.90E+07
VOLUME OF DILUTION WATER USED DURING PERIOD	LITERS	2.94E+12

N/A=NOT APPLICABLE
N/D=NOT DETECTED
N/R=NOT REPORTED

EFFLUENT AND WASTE DISPOSAL ANNUAL REPORT FOR YEAR 1985
SOLID EFFLUENTS

SOLID WASTE DISPOSITION

NUMBER OF SHIPMENTS

MODE OF TRANSPORTATION

DESTINATION

46

N/A

N/A

ESTIMATE OF MAJOR NUCLIDE COMPOSITION(BY TYPE OF WASTE)

JAN-JUNE

JULY-DEC

A

BA-140	%		1.70E-04
C-14	%	4.77E-02	3.16E-01
CM-242	%	9.00E-03	
CO-57	%	1.74E-01	1.02E-01
CO-58	%	4.28E+01	2.18E+01
CO-60	%	2.13E+01	3.10E+01
CR-51	%	4.10E-02	5.00E-04
CS-134	%	4.05E+00	6.88E+00
CS-136	%		7.00E-04
CS-137	%	4.17E+00	9.95E+00
FE-55	%	6.49E+00	9.42E+00
H-3	%	2.53E-01	2.17E-01
I-131	%	2.42E-01	5.00E-02
MN-54	%	2.59E+00	6.28E+00
NB-95	%		9.90E-02
NI-63	%	1.78E+01	1.37E+01
PU-241	%	9.00E-03	1.20E-02
RU-106	%		1.40E-03
TRANSURANICS	%	9.80E-03	1.50E-03
ZR-95	%		1.70E-04

B

C-14	%	4.40E-01	4.00E-01
CO-58	%	5.52E+01	5.52E+01
CO-60	%	1.61E+01	1.61E+01
CR-51	%	4.26E+00	4.30E+00
FE-55	%	1.17E+01	1.17E+01
MN-54	%	2.96E+00	3.00E+00
NB-95	%	4.59E+00	4.60E+00
NI-63	%		1.70E+00
PU-241	%	7.60E-01	8.00E-01
ZR-95	%	2.35E+00	2.40E+00

D

C-14	%	3.00E-02	
CE-144	%	1.02E+00	1.00E+00
CO-58	%	1.06E+01	1.06E+01
CO-60	%	3.26E+01	3.27E+01
CR-51	%	1.66E+00	1.70E+00
FE-55	%	4.38E+01	4.38E+01
FE-59	%	5.60E-01	6.00E-01
H-3	%	3.30E-01	3.00E-01
MN-54	%	2.78E+00	2.80E+00
NB-95	%	9.80E-01	1.00E+00

N/A=NOT APPLICABLE

N/D=NOT DETECTED

N/R=NOT REPORTED

EFFLUENT AND WASTE DISPOSAL ANNUAL REPORT FOR YEAR 1985
SOLID EFFLUENTS

ESTIMATE OF MAJOR NUCLIDE COMPOSITION(BY TYPE OF WASTE)		JAN-JUNE	JULY-DEC
NI-63	%	4.77E+00	4.80E+00
PU-241	%	7.10E-01	1.00E-01
ZR-95	%	7.10E-01	7.00E-01

TYPE OF WASTE	UNIT	YEAR TOTAL
A. SPENT RESINS, FILTER SLUDGES, EVAPORATOR BOTTOMS, ETC.	M3	1.53E+02
	CI	1.63E+02
B. DRY COMPRESSIBLE WASTE, CONTAMINATED EQUIPMENT, ETC.	M3	4.92E+02
	CI	4.38E+00
C. IRRADIATED COMPONENTS, CONTROL RODS, ETC.	M3	0.00E+00
	CI	0.00E+00
D. OTHER	M3	1.53E+01
DEWATERED MECHANICAL FILTERS	CI	3.01E+01

N/A=NOT APPLICABLE
N/D=NOT DETECTED
N/R=NOT REPORTED

EFFLUENT AND WASTE DISPOSAL ANNUAL REPORT FOR YEAR 1985
AIRBORNE AND LIQUID EFFLUENTS

UNIT NUMBER: 1 LICENSEE:NORTHEAST NUCLEAR ENERGY
TYPE:BWR LICENSED POWER (MWT):2011.00
DOCKET NO.:50-245 INITIAL CRITICALITY:10/26/70
COOLING WATER SOURCE:LONG ISLAND SOUND

AIRBORNE EFFLUENTS

NUCLIDES RELEASED	ACTIVITY (CI)
CR-51	2.07E-02
MN-54	4.36E-04
CO-58	5.22E-04
CO-60	4.47E-03
KR-85M	6.46E+01
KR-87	2.10E+01
SR-89	4.03E-03
SR-90	3.33E-05
RU-103	3.04E-06
I-131	1.17E-02
XE-131M	9.84E+00
I-133	7.76E-02
XE-133	4.56E+02
XE-133M	4.13E+00
CS-134	7.82E-06
I-135	1.40E-01
XE-135	1.11E+02
XE-135M	1.44E+02
CS-137	1.31E-03
XE-138	3.00E+02
BA-LA-140	8.26E-03

LIQUID EFFLUENTS

NUCLIDES RELEASED	ACTIVITY (CI)
NA-24	1.02E-03
CR-51	2.61E-03
MN-54	1.07E-02
CO-58	2.64E-03
FE-59	3.00E-04
CO-60	6.30E-02
SR-89	1.19E-03
SR-90	9.00E-04
NB-95	2.13E-05
TC-99M	2.95E-04
I-131	1.65E-02
BA-133	7.98E-04
I-133	8.26E-03
XE-133	2.42E-02
CS-134	3.34E-02
I-135	2.24E-04
XE-135	3.11E-02
XE-135M	5.02E-04
CS-137	3.26E-01
CS-138	4.50E-04

N/A=NOT APPLICABLE
N/D=NOT DETECTED
N/R=NOT REPORTED

EFFLUENT AND WASTE DISPOSAL ANNUAL REPORT FOR YEAR 1985
AIRBORNE AND LIQUID EFFLUENTS

TOTAL AIRBORNE TRITIUM RELEASE 8.30E+01
TOTAL LIQUID TRITIUM RELEASE 1.79E+01

VOLUME OF LIQUID WASTE RELEASED (PRIOR TO DILUTION)	LITERS	7.29E+06
VOLUME OF DILUTION WATER USED DURING PERIOD	LITERS	1.08E+12

N/A=NOT APPLICABLE
N/D=NOT DETECTED
N/R=NOT REPORTED

EFFLUENT AND WASTE DISPOSAL ANNUAL REPORT FOR YEAR 1985
SOLID EFFLUENTS

SOLID WASTE DISPOSITION

NUMBER OF SHIPMENTS	MODE OF TRANSPORTATION	DESTINATION
3	RAILCAR(SOLE USE VEHICLE)	RICHLAND WA
70	TRUCK(SOLE USE VEHICLE)	BARNWELL SC
9	TRUCK(SOLE USE VEHICLE)	RICHLAND WA

IRRADIATED FUEL SHIPMENTS(DISPOSITION)

NUMBER OF SHIPMENTS	MODE OF TRANSPORTATION	DESTINATION
0	N/A	N/A

ESTIMATE OF MAJOR NUCLIDE COMPOSITION(BY TYPE OF WASTE)

JAN-JUNE JULY-DEC

A			
CO-58	%	1.94E+01	2.93E+00
CO-60	%	3.83E+01	4.10E+01
CR-51	%	3.00E-02	1.44E+01
CS-134	%	7.00E-01	4.22E+00
CS-137	%	1.00E+01	1.90E+01
FE-55	%	1.68E+01	4.48E+00
LA-140,C-14,H-3,I-131,CE-141,SR-90,TC-99, ZN-65,BA-140,FE-59,I-129,I-133	%		2.38E+00
MN-54	%	1.37E+01	8.60E+00
NI-63	%		1.64E+00
NI-63,SR-90,TC-99,I-131	%	7.00E-01	
SR-89	%	2.00E-01	
SR-92	%		1.35E+00
B			
CO-58	%	4.30E+00	3.28E+00
CO-60	%	4.90E+01	6.26E+01
CR-51	%	9.81E-01	
CS-134	%	4.36E+00	4.09E-01
CS-137	%	1.72E+01	7.08E+00
FE-55	%	1.37E+01	3.70E+00
H-3,C-14	%		3.97E-02
MN-54	%	5.03E+00	1.90E+01
NI-63	%	1.89E+00	3.91E+00
SR-89	%	1.77E+00	
C			
C-14	%	3.40E-03	3.10E-03
CO-58	%	1.10E+00	6.64E-01
CO-60	%	3.80E+01	5.91E+01
CR-51	%	4.10E-02	1.49E-02
FE-55	%	4.90E+01	3.39E+01
FE-59	%	2.50E-02	1.30E-02
H-3	%	3.10E+00	1.44E-06
MN-54	%	5.50E+00	4.13E+00
NI-59	%	1.80E-02	2.42E-02
NI-63	%	2.70E+00	2.11E+00

N/A=NOT APPLICABLE

N/D=NOT DETECTED

N/R=NOT REPORTED

EFFLUENT AND WASTE DISPOSAL ANNUAL REPORT FOR YEAR 1985
SOLID EFFLUENTS

ESTIMATE OF MAJOR NUCLIDE COMPOSITION(BY TYPE OF WASTE)	JAN-JUNE	JULY-DEC
TC-99	% 3.00E-05	2.97E-05

TYPE OF WASTE	UNIT	YEAR	TOTAL
A. SPENT RESINS, FILTER SLUDGES, EVAPORATOR	M3		1.81E+02
BOTTOMS, ETC.	CI		1.06E+03
B. DRY COMPRESSIBLE WASTE, CONTAMINATED	M3		9.79E+02*
EQUIPMENT, ETC.	CI		6.73E+01*
C. IRRADIATED COMPONENTS, CONTROL	M3		6.23E+00
RODS, ETC.	CI		9.25E+04
D. OTHER	M3		0.00E+00
	CI		0.00E+00

*TYPE B. WASTE INCLUDES MILLSTONE 2 WASTE

N/A=NOT APPLICABLE
N/D=NOT DETECTED
N/R=NOT REPORTED

EFFLUENT AND WASTE DISPOSAL ANNUAL REPORT FOR YEAR 1985
AIRBORNE AND LIQUID EFFLUENTS

UNIT NUMBER: 2

LICENSEE:NORTHEAST NUCLEAR ENERGY

TYPE:PWR

LICENSED POWER (MWT):2700.00

DOCKET NO.:50-336

INITIAL CRITICALITY:10/17/75

COOLING WATER SOURCE:LONG ISLAND SOUND

AIRBORNE EFFLUENTS

NUCLIDES RELEASED	ACTIVITY (CI)
H-3	1.25E+02
AR-41	3.98E-02
CO-58	2.49E-05
CO-60	6.18E-05
KR-85	1.14E+01
KR-85M	9.64E-02
SR-85	5.96E-04
KR-87	8.79E-02
KR-88	8.31E-02
RB-88	3.10E-04
SR-89	<1.81E-06
SR-90	<5.11E-07
I-131	<5.94E-03
XE-131M	1.91E+00
I-132	6.72E-06
I-133	<2.94E-03
XE-133	3.65E+02
XE-133M	1.23E-01
CS-134	8.00E-07
I-135	<1.17E-03
XE-135	1.60E+01
XE-135M	7.86E+00
CS-137	1.20E-05
XE-137	1.61E-02
CS-138	5.12E-06
XE-138	9.05E-02
BA-LA-140	<1.97E-05

LIQUID EFFLUENTS

NUCLIDES RELEASED	ACTIVITY (CI)
H-3	1.66E+02
NA-24	6.50E-04
AR-41	1.33E-04
SC-46	2.72E-03
CR-51	6.84E-02
MN-54	3.04E-02
FE-55	<4.59E-01
CO-57	1.73E-03
CO-58	6.29E-01
FE-59	1.42E-03
CO-60	1.69E+00
KR-85	6.87E-01
SR-89	<6.51E-03
SR-90	<1.59E-03

N/A=NOT APPLICABLE

N/D=NOT DETECTED

N/R=NOT REPORTED

EFFLUENT AND WASTE DISPOSAL ANNUAL REPORT FOR YEAR 1985
AIRBORNE AND LIQUID EFFLUENTS

LIQUID EFFLUENTS

NUCLIDES RELEASED	ACTIVITY (CI)
SR-92	2.53E-03
NB-95	2.11E-02
ZR-95	7.11E-03
NB-97	2.01E-02
TC-99M	4.72E-04
RU-103	9.44E-03
RU-106	2.97E-04
AG-110M	6.55E-03
SB-124	7.51E-03
SB-125	4.57E-02
I-131	2.26E-01
XE-131M	7.40E-02
I-133	7.70E-02
XE-133	3.62E+00
XE-133M	2.99E-02
CS-134	4.77E-01
I-135	1.84E-02
XE-135	1.88E-02
XE-135M	1.34E-03
CS-136	1.46E-04
CS-137	1.07E+00
CS-138	5.06E-02
BA-140	1.03E-02
BA-LA-140	<5.22E-04
LA-140	1.03E-02
CE-141	1.07E-04
LA-141	2.49E-04
CE-144	9.71E-02
W-187	5.25E-04
NP-239	8.49E-04

TOTAL AIRBORNE TRITIUM RELEASE	1.25E+02
TOTAL LIQUID TRITIUM RELEASE	1.66E+02

VOLUME OF LIQUID WASTE RELEASED (PRIOR TO DILUTION)	LITERS	1.57E+08
VOLUME OF DILUTION WATER USED DURING PERIOD	LITERS	1.25E+12

N/A=NOT APPLICABLE
N/D=NOT DETECTED
N/R=NOT REPORTED

EFFLUENT AND WASTE DISPOSAL ANNUAL REPORT FOR YEAR 1985
SOLID EFFLUENTS

SOLID WASTE DISPOSITION

NUMBER OF SHIPMENTS	MODE OF TRANSPORTATION	DESTINATION
7	TRUCK(SOLE USE VEHICLE)	BARNWELL SC

IRRADIATED FUEL SHIPMENTS(DISPOSITION)

NUMBER OF SHIPMENTS	MODE OF TRANSPORTATION	DESTINATION
0	N/A	N/A

ESTIMATE OF MAJOR NUCLIDE COMPOSITION(BY TYPE OF WASTE)

	JAN-JUNE	JULY-DEC
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A		
CO-58	%	1.28E+00
CO-60	%	3.24E+01
CS-137	%	8.83E+00
FE-55	%	5.06E+01
MN-54	%	3.72E+00
NI-63	%	1.52E+00
TC-99,H-3,C-14	%	1.63E+00
C		
C-14	%	1.04E-08
CO-60	%	5.97E+01
FE-55	%	3.66E+01
H-3	%	8.45E-14
NI-59	%	2.55E-02
NI-63	%	3.72E+00

TYPE OF WASTE

	UNIT	YEAR TOTAL
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A. SPENT RESINS, FILTER SLUDGES, EVAPORATOR	M3	1.80E+01
BOTTOMS, ETC.	CI	4.84E+02
B. DRY COMPRESSIBLE WASTE, CONTAMINATED	M3	*
EQUIPMENT, ETC.	CI	*
C. IRRADIATED COMPONENTS, CONTROL	M3	1.07E+01
RODS, ETC.	CI	5.68E+03
D. OTHER	M3	0.00E+00
	CI	0.00E+00

*TYPE B WASTE IS INCLUDED IN MILLSTONE 1 REPORT

N/A=NOT APPLICABLE

N/D=NOT DETECTED

N/R=NOT REPORTED

EFFLUENT AND WASTE DISPOSAL ANNUAL REPORT FOR YEAR 1985
AIRBORNE AND LIQUID EFFLUENTS

UNIT NUMBER: 1 LICENSEE:NORTHERN STATES POWER
TYPE:BWR LICENSED POWER (MWT):1670.00
DOCKET NO.:50-263 INITIAL CRITICALITY:12/10/70
COOLING WATER SOURCE:MISSISSIPPI RIVER

AIRBORNE EFFLUENTS

NUCLIDES RELEASED	ACTIVITY (CI)
CR-51	2.88E-03
MN-54	5.19E-04
CO-58	2.47E-05
CO-60	1.81E-02
ZN-65	2.90E-03
KR-83M	5.27E+00
KR-85	2.09E+02
KR-85M	4.67E+00
KR-87	2.02E+01
KR-88	1.45E+01
KR-89	4.38E+02
SR-89	1.00E-03
KR-90	1.44E+01
SR-90	9.36E-05
I-131	6.73E-02
XE-131M	6.58E+00
I-133	3.45E-01
XE-133	8.59E+02
XE-133M	6.81E+00
CS-134	1.48E-04
I-135	4.54E-01
XE-135	3.54E+01
XE-135M	3.48E+01
CS-137	1.11E-03
XE-137	5.73E+02
XE-138	4.58E+02
XE-139	4.29E+01
BA-140	5.31E-03
CE-141	1.22E-05
CE-144	3.15E-05

TOTAL AIRBORNE TRITIUM RELEASE 7.31E+01

N/A=NOT APPLICABLE
N/D=NOT DETECTED
N/R=NOT REPORTED

INSTALLATION:MONTICELLO

EFFLUENT AND WASTE DISPOSAL ANNUAL REPORT FOR YEAR 1985
SOLID EFFLUENTS

SOLID WASTE DISPOSITION

NUMBER OF SHIPMENTS	MODE OF TRANSPORTATION	DESTINATION
20	RAIL	RICHLAND WA
14	TRUCK	BARNWELL SC
15	TRUCK	RICHLAND WA

IRRADIATED FUEL SHIPMENTS(DISPOSITION)

NUMBER OF SHIPMENTS	MODE OF TRANSPORTATION	DESTINATION
17	RAIL	MORRIS IL

ESTIMATE OF MAJOR NUCLIDE COMPOSITION(BY TYPE OF WASTE)

JAN-JUNE JULY-DEC

A

BA-140	%	1.36E-01	8.28E-01
CE-141	%	4.16E-03	
CE-144	%	7.17E-04	
CO-58	%	1.39E-01	1.97E+00
CO-60	%	1.65E+01	1.34E+01
CR-51	%	9.66E-01	1.19E+01
CS-134	%	1.24E+00	2.49E+00
CS-137	%	1.11E+01	9.69E+00
FE-55	%	4.78E+01	3.97E+01
FE-59	%	1.61E-03	
I-131	%	1.75E-01	1.42E+00
MN-54	%	4.06E+00	3.40E+00
SR-89	%	5.77E+00	2.19E+00
SR-90	%	2.34E+00	7.38E-01
ZN-65	%	6.35E+00	6.98E+00
ZR-95	%	3.26E-04	

B

BA-140	%		7.63E-03
CO-60	%	4.17E+01	5.91E+01
CS-137	%	1.89E+00	3.25E+00
FE-55	%	3.77E+01	2.08E+01
LA-140	%		8.15E-03
MN-54	%	1.32E+00	6.28E-01
SR-89	%	3.08E-01	1.63E-01
SR-90	%	1.00E-01	8.55E-02
ZN-65	%	7.07E+00	4.24E+00

C

CO-58	%		2.97E-02
CO-60	%		6.85E+01
CR-51	%		7.08E-01
FE-55	%		2.50E+01
FE-59	%		7.74E-02
MN-54	%		1.26E+00

N/A=NOT APPLICABLE
N/D=NOT DETECTED
N/R=NOT REPORTED

EFFLUENT AND WASTE DISPOSAL ANNUAL REPORT FOR YEAR 1985
SOLID EFFLUENTS

TYPE OF WASTE	UNIT	YEAR	TOTAL
A. SPENT RESINS, FILTER SLUDGES, EVAPORATOR	M3		1.81E+02
BOTTOMS, ETC.	CI		1.46E+03
B. DRY COMPRESSIBLE WASTE, CONTAMINATED	M3		3.56E+02
EQUIPMENT, ETC.	CI		6.07E+01
C. IRRADIATED COMPONENTS, CONTROL	M3		6.51E+00
RODS, ETC.	CI		3.35E+03
D. OTHER	M3		0.00E+00
	CI		0.00E+00

N/A=NOT APPLICABLE
N/D=NOT DETECTED
N/R=NOT REPORTED

INSTALLATION:NINE MILE POINT

LOCATION:8 MI NE OSWEGO, NY

EFFLUENT AND WASTE DISPOSAL ANNUAL REPORT FOR YEAR 1985
AIRBORNE AND LIQUID EFFLUENTS

UNIT NUMBER: 1

LICENSEE:NIAGARA MOHAWK POWER

TYPE:BWR

LICENSED POWER (MWT):1850.00

DOCKET NO.:50-220

INITIAL CRITICALITY:09/05/69

COOLING WATER SOURCE:LAKE ONTARIO

AIRBORNE EFFLUENTS

NUCLIDES RELEASED	ACTIVITY (CI)
AR-41	1.12E+01
CR-51	7.19E-04
MN-54	3.67E-05
CO-58	1.69E-04
CO-60	3.36E-03
KR-85M	2.06E+01
KR-87	1.10E+00
KR-88	3.66E+00
SR-89	2.42E-03
SR-90	1.62E-05
I-131	2.25E-02
I-133	1.72E-01
XE-133	2.90E+02
CS-134	6.33E-05
I-135	<2.88E-01
XE-135	8.14E+01
XE-135M	7.46E+01
CS-137	1.22E-03
XE-137	2.57E+02
XE-138	2.45E+02
BA-LA-140	4.13E-03
CE-141	3.75E-05

TOTAL AIRBORNE TRITIUM RELEASE 3.30E+01

N/A=NOT APPLICABLE

N/D=NOT DETECTED

N/R=NOT REPORTED

EFFLUENT AND WASTE DISPOSAL ANNUAL REPORT FOR YEAR 1985
SOLID EFFLUENTS

SOLID WASTE DISPOSITION

NUMBER OF SHIPMENTS	MODE OF TRANSPORTATION	DESTINATION
80	TRUCK	BARNWELL SC
4	TRUCK	HANFORD WA
1	TRUCK	OAKRIDGE TE

IRRADIATED FUEL SHIPMENTS(DISPOSITION)

NUMBER OF SHIPMENTS	MODE OF TRANSPORTATION	DESTINATION
0	N/A	N/A

ESTIMATE OF MAJOR NUCLIDE COMPOSITION(BY TYPE OF WASTE)

JAN-JUNE JULY-DEC

A

BA-140	%	3.40E+00	1.52E+00
C-14	%	6.60E+00	
CO-58	%	2.87E+00	7.69E+00
CO-60	%	4.52E+01	4.98E+01
CR-51	%	4.08E+00	2.62E+01
CS-134	%	1.80E+00	1.20E+00
CS-137	%	1.59E+01	5.73E+00
I-131	%	5.70E+00	1.15E+00
LA-140	%	6.53E+00	1.62E+00
MN-54	%	2.80E+00	1.61E+00
NI-63	%	1.92E+00	
OTHER	%	3.20E+00	1.03E+00
ZN-65	%		2.45E+00

B

CO-58	%	2.00E+00	
CO-60	%	5.21E+01	5.53E+01
CR-51	%	1.10E+00	
CS-134	%	2.20E+00	1.97E+00
CS-137	%	3.50E+01	3.80E+01
MN-54	%	3.00E+00	2.30E+00
NI-63	%	1.20E+00	
OTHER	%	1.30E+00	2.43E+00
SR-90	%	2.10E+00	

C

CO-60	%		7.08E+01
FE-55	%		2.59E+01
NI-63	%		3.01E+00
OTHER	%		2.90E-01

N/A=NOT APPLICABLE
N/D=NOT DETECTED
N/R=NOT REPORTED

INSTALLATION:NINE MILE POINT

EFFLUENT AND WASTE DISPOSAL ANNUAL REPORT FOR YEAR 1985
SOLID EFFLUENTS

TYPE OF WASTE	UNIT	YEAR TOTAL
A. SPENT RESINS, FILTER SLUDGES, EVAPORATOR	M3	2.96E+02
BOTTOMS, ETC.	CI	9.79E+02
B. DRY COMPRESSIBLE WASTE, CONTAMINATED	M3	2.78E+02
EQUIPMENT, ETC.	CI	6.10E+00
C. IRRADIATED COMPONENTS, CONTROL	M3	1.63E+00
RODS, ETC.	CI	5.81E+03
D. OTHER	M3	
	CI	

N/A=NOT APPLICABLE
N/D=NOT DETECTED
N/R=NOT REPORTED

EFFLUENT AND WASTE DISPOSAL ANNUAL REPORT FOR YEAR 1985
AIRBORNE AND LIQUID EFFLUENTS

UNIT NUMBER: 1	LICENSEE:VIRGINIA ELECTRIC &POWER
TYPE:PWR	LICENSED POWER (MWT):2893.00
DOCKET NO.:50-338	INITIAL CRITICALITY:04/05/78
COOLING WATER SOURCE:LAKE ANNA	
UNIT NUMBER: 2	LICENSEE:VIRGINIA ELECTRIC &POWER
TYPE:PWR	LICENSED POWER (MWT):2893.00
DOCKET NO.:50-339	INITIAL CRITICALITY:06/12/80
COOLING WATER SOURCE:LAKE ANNA	

AIRBORNE EFFLUENTS

NUCLIDES RELEASED	ACTIVITY (CI)
ALPHA	1.16E-04
H-3	8.92E+00
NA-24	4.81E-04
CL-38	2.71E-07
AR-41	2.65E+01
CR-51	2.79E-06
MN-54	8.38E-05
FE-55	1.89E-04
CO-58	3.19E-04
FE-59	1.75E-08
CO-60	1.71E-04
CU-64	1.37E-03
ZN-69M	3.07E-08
KR-85	6.32E+00
KR-85M	8.91E+00
KR-87	1.72E+01
KR-88	2.17E+01
RB-88	1.44E-01
RB-89	6.32E-02
SR-89	1.45E-04
SR-91	8.83E-09
Y-91	1.68E-02
NB-95	2.71E-06
ZR-95	2.83E-08
MO-99	3.11E-06
TC-99M	4.54E-06
AG-110M	2.28E-05
SB-122	1.27E-04
I-130	5.55E-06
I-131	2.44E-02
TE-131M	2.00E-02
XE-131M	1.63E+00
I-132	2.55E-03
TE-132	7.19E-04
I-133	1.13E-01
XE-133	7.52E+03
XE-133M	1.45E+01
CS-134	9.87E-04
I-134	8.39E-04
I-135	2.67E-03

N/A=NOT APPLICABLE

N/D=NOT DETECTED

N/R=NOT REPORTED

EFFLUENT AND WASTE DISPOSAL ANNUAL REPORT FOR YEAR 1985
AIRBORNE AND LIQUID EFFLUENTS

AIRBORNE EFFLUENTS

NUCLIDES RELEASED	ACTIVITY (CI)
XE-135	2.39E+02
XE-135M	1.26E+02
CS-136	1.02E-05
CS-137	2.28E-03
CS-138	2.71E-01
XE-138	7.15E+01
BA-140	7.73E-05
LA-140	1.50E-07
LA-142	4.48E-08

LIQUID EFFLUENTS

NUCLIDES RELEASED	ACTIVITY (CI)
ALPHA	7.87E-04
H-3	1.48E+03
NA-24	3.34E-01
CR-51	2.31E-03
MN-54	5.64E-03
FE-55	1.54E-01
CO-57	7.88E-06
CO-58	6.74E-02
CO-60	6.42E-02
SR-89	8.02E-03
SR-91	8.21E-04
NB-95	1.77E-03
ZR-95	8.48E-05
MO-99	1.57E-08
TC-99	3.93E-03
AG-110M	6.85E-03
SB-122	6.98E-02
SB-124	2.54E-03
I-130	3.15E-04
I-131	4.05E-01
TE-131M	6.74E-04
XE-131M	2.80E-03
I-132	9.35E-02
I-133	1.19E+00
XE-133	1.42E+00
XE-133M	7.67E-03
CS-134	6.46E-01
I-134	8.94E-03
I-135	5.69E-01
XE-135	4.64E-01
XE-135M	6.38E-01
CS-136	1.18E-02
CS-137	1.32E+00
CS-138	7.40E-05
BA-140	1.20E-02
LA-140	1.62E-02

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N/R=NOT REPORTED

EFFLUENT AND WASTE DISPOSAL ANNUAL REPORT FOR YEAR 1985
AIRBORNE AND LIQUID EFFLUENTSLIQUID EFFLUENTS
NUCLIDES RELEASED
LA-142ACTIVITY (CI)
7.35E-02TOTAL AIRBORNE TRITIUM RELEASE 8.92E+00
TOTAL LIQUID TRITIUM RELEASE 1.48E+03

VOLUME OF LIQUID WASTE RELEASED (PRIOR TO DILUTION)	LITERS	3.15E+08
VOLUME OF DILUTION WATER USED DURING PERIOD	LITERS	2.74E+12

N/A=NOT APPLICABLE
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N/R=NOT REPORTED

EFFLUENT AND WASTE DISPOSAL ANNUAL REPORT FOR YEAR 1985
SOLID EFFLUENTS

SOLID WASTE DISPOSITION

NUMBER OF SHIPMENTS	MODE OF TRANSPORTATION	DESTINATION
59	PRIVATE VEHICLE	BARNWELL SC
2	PRIVATE VEHICLE	RICHLAND WA

IRRADIATED FUEL SHIPMENTS(DISPOSITION)

NUMBER OF SHIPMENTS	MODE OF TRANSPORTATION	DESTINATION
0	N/A	N/A

ESTIMATE OF MAJOR NUCLIDE COMPOSITION(BY TYPE OF WASTE)

JAN-JUNE JULY-DEC

A			
	BA-140	%	3.00E-02
	C-14	%	2.76E+00
	CE-144	%	4.00E-02
	CM-242	%	2.11E+00
	CM-244	%	1.02E+00
	CO-58	%	1.72E+00
	CO-60	%	6.80E+00
	CS-134	%	2.75E+00
	CS-137	%	5.94E+00
	FE-55	%	1.30E+01
	H-3	%	3.86E+01
	I-129	%	6.00E-04
	I-131	%	8.00E-01
	LA-140	%	3.00E-02
	MN-54	%	7.10E-01
	NB-95	%	7.00E-03
	NI-63	%	2.24E+01
	PU-238	%	2.00E-03
	PU-239	%	8.00E-02
	PU-241	%	1.01E+00
	SB-122	%	1.30E-01
	SR-90	%	1.00E-02
	TC-99	%	1.00E-03
	XE-133	%	1.00E-02
	ZR-95	%	3.00E-03
B			
	AM-241	%	5.00E-03
	C-14	%	1.50E+00
	CE-144	%	5.08E+00
	CM-242	%	5.00E-01
	CM-243	%	3.00E-03
	CM-244	%	3.00E-03
	CO-58	%	1.10E+00
	CO-60	%	1.04E+01
	CS-134	%	1.45E+00
	CS-137	%	5.10E+00

N/A=NOT APPLICABLE

N/D=NOT DETECTED

N/R=NOT REPORTED

EFFLUENT AND WASTE DISPOSAL ANNUAL REPORT FOR YEAR 1985
SOLID EFFLUENTS

ESTIMATE OF MAJOR NUCLIDE COMPOSITION(BY TYPE OF WASTE)		JAN-JUNE	JULY-DEC
FE-55	%	5.11E+01	6.44E+01
H-3	%	1.51E+01	9.69E+00
I-129	%	6.00E-06	
MN-54	%	3.00E-01	3.20E-01
NB-95	%	1.35E+00	
NI-63	%	3.21E+00	5.70E-01
PU-238	%	1.00E-02	
PU-239	%	1.00E-02	
PU-241	%	2.20E+00	5.85E+00
PU-242	%	9.00E-04	
RU-103	%	1.00E-01	
SB-122	%	2.00E-03	
SR-90	%	1.00E+00	1.78E+00
TC-99	%	1.00E-03	1.00E-01
ZR-95	%	1.40E+00	
D			
C-14	%		1.23E+00
CM-242	%		1.00E-02
CS-137	%		3.00E-02
FE-55	%		7.65E+01
H-3	%		1.00E-01
NI-63	%		1.16E+01
PU-238	%		8.00E-02
PU-239	%		4.00E-02
PU-241	%		1.03E+01

TYPE OF WASTE	UNIT	YEAR TOTAL
A. SPENT RESINS, FILTER SLUDGES, EVAPORATOR BOTTOMS, ETC.	M3	2.61E+02
	CI	2.25E+02
B. DRY COMPRESSIBLE WASTE, CONTAMINATED EQUIPMENT, ETC.	M3	3.41E+02
	CI	6.17E+01
C. IRRADIATED COMPONENTS, CONTROL RODS, ETC.	M3	0.00E+00
	CI	0.00E+00
D. OTHER	M3	4.80E+01
ABSORBED OIL	CI	3.13E+00

N/A=NOT APPLICABLE
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EFFLUENT AND WASTE DISPOSAL ANNUAL REPORT FOR YEAR 1985
AIRBORNE AND LIQUID EFFLUENTS

UNIT NUMBER: 1	LICENSEE:DUKE POWER
TYPE:PWR	LICENSED POWER (MWT):2568.00
DOCKET NO.:50-269	INITIAL CRITICALITY:04/19/73
COOLING WATER SOURCE:KEOWEE LAKE	
UNIT NUMBER: 2	LICENSEE:DUKE POWER
TYPE:PWR	LICENSED POWER (MWT):2568.00
DOCKET NO.:50-270	INITIAL CRITICALITY:11/11/73
COOLING WATER SOURCE:KEOWEE LAKE	
UNIT NUMBER: 3	LICENSEE:DUKE POWER
TYPE:PWR	LICENSED POWER (MWT):2568.00
DOCKET NO.:50-287	INITIAL CRITICALITY:09/05/74
COOLING WATER SOURCE:KEOWEE LAKE	

AIRBORNE EFFLUENTS

NUCLIDES RELEASED	ACTIVITY (CI)
AR-41	2.04E+01
MN-54	1.16E-05
CO-58	4.34E-05
FE-59	1.41E-08
CO-60	8.15E-05
KR-85	9.12E+02
KR-85M	4.68E+01
KR-87	1.63E-01
KR-88	5.82E+00
SR-89	8.98E-11
SR-90	1.03E-11
NB-95	2.52E-07
ZR-95	7.52E-08
RU-103	1.76E-09
AG-110M	5.92E-07
I-131	3.73E-03
XE-131M	3.31E+02
I-133	1.22E-03
XE-133	2.16E+04
XE-133M	1.88E+02
CS-134	1.98E-04
XE-135	3.29E+02
CS-136	5.93E-11
CS-137	8.57E-04

LIQUID EFFLUENTS

NUCLIDES RELEASED	ACTIVITY (CI)
NA-24	2.22E-03
AR-41	1.86E-05
CR-51	8.81E-02
MN-54	1.28E-02
FE-55	1.06E+00
CO-57	9.71E-04
CO-58	3.63E-01
FE-59	6.46E-04
CO-60	1.36E-01

N/A=NOT APPLICABLE
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N/R=NOT REPORTED

EFFLUENT AND WASTE DISPOSAL ANNUAL REPORT FOR YEAR 1985
AIRBORNE AND LIQUID EFFLUENTS

LIQUID EFFLUENTS

NUCLIDES RELEASED	ACTIVITY (CI)
BR-84	1.19E-03
KR-85	5.17E-03
KR-85M	1.89E-04
SR-89	1.83E-03
SR-90	8.28E-04
SR-92	3.73E-03
Y-92	6.09E-04
NB-95	1.27E-02
ZR-95	1.73E-03
NB-97	7.15E-03
TC-99M	4.40E-05
RU-103	1.22E-03
RU-106	4.60E-04
AG-110M	2.36E-01
SB-122	5.97E-03
SB-124	8.77E-02
SB-125	1.62E+00
I-131	1.04E-01
XE-131M	2.40E-01
I-132	7.67E-03
I-133	3.39E-03
XE-133	1.65E+01
XE-133M	1.60E-01
CS-134	7.98E-02
I-134	4.20E-04
XE-135	3.73E-01
CS-136	5.49E-05
CS-137	2.37E-01
CS-138	4.02E-02
BA-139	2.21E-02
BA-140	4.14E-05
LA-140	1.94E-02
CE-141	1.34E-04
CE-144	6.92E-04
W-187	3.97E-04
NP-239	2.27E-03

TOTAL AIRBORNE TRITIUM RELEASE	4.28E+01
TOTAL LIQUID TRITIUM RELEASE	1.24E+03

VOLUME OF LIQUID WASTE RELEASED (PRIOR TO DILUTION)	LITERS	1.73E+08
VOLUME OF DILUTION WATER USED DURING PERIOD	LITERS	6.75E+11

N/A=NOT APPLICABLE
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N/R=NOT REPORTED

EFFLUENT AND WASTE DISPOSAL ANNUAL REPORT FOR YEAR 1985
SOLID EFFLUENTS

SOLID WASTE DISPOSITION

NUMBER OF SHIPMENTS	MODE OF TRANSPORTATION	DESTINATION
42	N/R	N/R

IRRADIATED FUEL SHIPMENTS(DISPOSITION)

NUMBER OF SHIPMENTS	MODE OF TRANSPORTATION	DESTINATION
1	N/R	N/R

ESTIMATE OF MAJOR NUCLIDE COMPOSITION(BY TYPE OF WASTE)

JAN-JUNE	JULY-DEC
----------	----------

A

AG-110M	%	4.99E-01
CM-242	%	3.03E-04
CO-50	%	3.03E-04
CO-57	%	2.00E-01
CO-58	%	1.64E+01
CO-60	%	2.00E+00
CR-51	%	4.99E-01
CS-134	%	1.67E+01
CS-136	%	9.98E-02
CS-137	%	1.89E+01
FE-55	%	1.90E+00
FE-59	%	9.98E-02
H-3	%	3.45E-02
I-129	%	9.98E-02
I-131	%	6.10E-01
MN-54	%	1.63E+01
NI-63	%	2.42E+01
PU-241	%	4.19E-01
SB-122	%	1.26E-03
SB-125	%	9.98E-01
SR-90	%	2.07E+00
TRANSURANICS	%	6.56E-04
XE-133	%	8.07E-04

B

AG-110M	%	8.00E-01
CO-58	%	2.75E+01
CO-60	%	5.50E+00
CR-51	%	4.00E+00
CS-134	%	1.63E+01
CS-137	%	2.79E+01
FE-55	%	1.40E+01
MN-54	%	1.90E+00
NB-95	%	9.00E-01
NI-63	%	1.10E+00

D

AG-110M	%	1.00E+00
CM-242	%	2.00E-01

N/A=NOT APPLICABLE

N/D=NOT DETECTED

N/R=NOT REPORTED

EFFLUENT AND WASTE DISPOSAL ANNUAL REPORT FOR YEAR 1985
SOLID EFFLUENTS

ESTIMATE OF MAJOR NUCLIDE COMPOSITION(BY TYPE OF WASTE)		JAN-JUNE	JULY-DEC
CO-58	%		4.30E+00
CO-60	%		5.00E+00
CS-134	%		2.03E+01
CS-137	%		3.10E+01
FE-55	%		3.00E+00
H-3	%		9.00E+00
I-131	%		7.00E+00
MN-54	%		2.00E-01
NI-63	%		7.00E+00
PU-241	%		1.01E+01
SR-90	%		1.10E+00
TRANSURANICS	%		3.00E-01
XE-133	%		5.00E-01

TYPE OF WASTE	UNIT	YEAR TOTAL
A. SPENT RESINS, FILTER SLUDGES, EVAPORATOR BOTTOMS, ETC.	M3	8.27E+01
	CI	1.98E+02
B. DRY COMPRESSIBLE WASTE, CONTAMINATED EQUIPMENT, ETC.	M3	3.41E+02
	CI	1.30E+01
C. IRRADIATED COMPONENTS, CONTROL RODS, ETC.	M3	1.62E+00
	CI	1.20E+03
D. OTHER	M3	7.81E+00
	CI	3.40E-02

N/A=NOT APPLICABLE
N/D=NOT DETECTED
N/R=NOT REPORTED

LOCATION: 9 MI S TOMS RIVER, NJ

UNIT NUMBER: 1 LICENSEE: JERSEY CENTRAL POWER & LIGHT
TYPE: BWR LICENSED POWER (MWT): 1930.00
DOCKET NO.: 50-219 INITIAL CRITICALITY: 05/03/69
COOLING WATER SOURCE: BARNEGAT BAY

NUCLIDES RELEASED	ACTIVITY (CI)
NA-22	4.48E-04
NA-24	2.06E-02
K-40	5.42E-03
CR-51	2.47E-03
MN-54	1.89E-02
CO-56	3.68E-03
CO-58	3.81E-05
FE-59	2.19E-02
CO-60	3.84E-04
KR-85M	1.35E+04
SR-85	8.23E-06
KR-87	2.60E+04
KR-88	3.40E+04
Y-88	2.25E-02
SR-89	2.49E-02
SR-90	1.35E-04
SR-91	4.75E-01
NB-95	8.36E-04
MO-99	1.15E-03
TC-99M	5.59E-01
AG-110M	2.65E-04
I-131	2.95E+00
XE-131M	2.03E+04
TE-132	1.85E-02
I-133	5.62E+00
XE-133	3.52E+04
CS-134	2.80E-03
I-135	5.80E+00
XE-135	6.31E+04
XE-135M	8.30E+03
CS-136	2.81E-04
CS-137	3.97E-03
XE-138	9.68E+03
CE-139	3.36E-03
BA-140	3.31E-02
LA-140	2.57E-02
CE-141	3.38E-04
NP-239	8.36E-03

N/A=NOT APPLICABLE
N/D=NOT DETECTED
N/R=NOT REPORTED

INSTALLATION:OYSTER CREEK

LOCATION:9 MI S TOMS RIVER, NJ

EFFLUENT AND WASTE DISPOSAL ANNUAL REPORT FOR YEAR 1985
AIRBORNE AND LIQUID EFFLUENTS

VOLUME OF LIQUID WASTE RELEASED (PRIOR TO DILUTION)	LITERS	0.00E+00
VOLUME OF DILUTION WATER USED DURING PERIOD	LITERS	1.67E+12

N/A=NOT APPLICABLE
N/D=NOT DETECTED
N/R=NOT REPORTED

INSTALLATION: OYSTER CREEK

EFFLUENT AND WASTE DISPOSAL ANNUAL REPORT FOR YEAR 1985
SOLID EFFLUENTS

SOLID WASTE DISPOSITION

NUMBER OF SHIPMENTS	MODE OF TRANSPORTATION	DESTINATION
23	MOTOR VEHICLE	BARNWELL SC
20	TRUCK	BARNWELL SC
1	TRUCK	RICHLAND WA

IRRADIATED FUEL SHIPMENTS(DISPOSITION)

NUMBER OF SHIPMENTS	MODE OF TRANSPORTATION	DESTINATION
0	N/A	N/A

ESTIMATE OF MAJOR NUCLIDE COMPOSITION(BY TYPE OF WASTE)

		JAN-JUNE	JULY-DEC
A			
	CO-60	% 5.08E+01	4.39E+01
	CS-134	% 3.42E+00	
	CS-137	% 1.42E+01	1.59E+01
	FE-55	% 2.29E+01	3.17E+01
	MN-54	% 3.76E+00	
	NI-63	%	6.49E-01
	SR-90	%	2.52E-01
B			
	CO-60	% 3.20E+01	3.10E+01
	CS-137	% 1.14E+00	1.14E+00
	FE-55	% 5.96E+01	5.83E+01
	NI-63	% 1.58E-01	1.54E-01
	PU-241	% 1.90E-01	1.85E-01

TYPE OF WASTE

	UNIT	YEAR TOTAL
A. SPENT RESINS, FILTER SLUDGES, EVAPORATOR	M3	1.63E+02
BOTTOMS, ETC.	CI	6.22E+02
B. DRY COMPRESSIBLE WASTE, CONTAMINATED	M3	2.99E+02
EQUIPMENT, ETC.	CI	7.75E+00
C. IRRADIATED COMPONENTS, CONTROL	M3	
RODS, ETC.	CI	
D. OTHER	M3	
	CI	

N/A=NOT APPLICABLE
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N/R=NOT REPORTED

EFFLUENT AND WASTE DISPOSAL ANNUAL REPORT FOR YEAR 1985
AIRBORNE AND LIQUID EFFLUENTS

UNIT NUMBER: 1
TYPE:PWR
DOCKET NO.:50-255
COOLING WATER SOURCE:LAKE MICHIGAN

LICENSEE:CONSUMERS POWER
LICENSED POWER (MWT):2530.00
INITIAL CRITICALITY:05/24/71

AIRBORNE EFFLUENTS

NUCLIDES RELEASED	ACTIVITY (CI)
UNIDENTIFIED	1.60E-04
AR-41	7.03E-03
CR-51	2.86E-05
CO-58	4.46E-05
CO-60	9.79E-06
KR-85	2.80E-01
KR-85M	2.09E-02
KR-87	3.04E-02
KR-88	1.88E-02
RB-88	3.26E-06
SR-89	1.90E-05
SR-90	8.22E-06
I-131	2.05E-02
XE-131M	2.76E+00
I-132	9.98E-03
I-133	1.37E-02
XE-133	3.67E+03
XE-133M	2.20E+00
I-135	4.74E-03
XE-135	3.11E+00
XE-135M	1.75E-01
CS-137	2.84E-05
CS-138	1.17E-02
XE-138	5.27E-02

LIQUID EFFLUENTS

NUCLIDES RELEASED	ACTIVITY (CI)
H-3	4.29E+02
CR-51	3.93E-03
MN-54	3.01E-03
CO-58	1.82E-02
CO-60	7.47E-03
KR-85M	1.36E-05
SR-89	2.13E-04
SR-90	1.25E-04
NB-95	1.83E-05
RB-103	2.33E-05
AG-110M	2.42E-05
I-131	8.71E-04
I-132	5.56E-05
XE-133	9.71E-02
XE-133M	6.66E-04
CS-134	4.94E-03
XE-135	3.27E-03

N/A=NOT APPLICABLE
N/D=NOT DETECTED
N/R=NOT REPORTED

EFFLUENT AND WASTE DISPOSAL ANNUAL REPORT FOR YEAR 1985
AIRBORNE AND LIQUID EFFLUENTS

LIQUID EFFLUENTS

NUCLIDES RELEASED	ACTIVITY (CI)
CS-137	1.36E-02
LA-140	3.29E-04
UNIDENTIFIED	5.49E-03

TOTAL AIRBORNE TRITIUM RELEASE	4.28E+00
TOTAL LIQUID TRITIUM RELEASE	4.29E+02

VOLUME OF LIQUID WASTE RELEASED (PRIOR TO DILUTION)	LITERS	4.68E+06
VOLUME OF DILUTION WATER USED DURING PERIOD	LITERS	7.96E+10

N/A=NOT APPLICABLE
N/D=NOT DETECTED
N/R=NOT REPORTED

EFFLUENT AND WASTE DISPOSAL ANNUAL REPORT FOR YEAR 1985
SOLID EFFLUENTS

TYPE OF WASTE	UNIT	YEAR	TOTAL
A. SPENT RESINS, FILTER SLUDGES, EVAPORATOR	M3		3.30E+02
BOTTOMS, ETC.	CI		1.73E+02
B. DRY COMPRESSIBLE WASTE, CONTAMINATED	M3		1.46E+02
EQUIPMENT, ETC.	CI		1.03E+01
C. IRRADIATED COMPONENTS, CONTROL	M3		
RODS, ETC.	CI		
D. OTHER	M3		
	CI		

N/A=NOT APPLICABLE
N/D=NOT DETECTED
N/R=NOT REPORTED

INSTALLATION:PALO VERDE

LOCATION:36 MI W OF PHOENIX ARIZONA

EFFLUENT AND WASTE DISPOSAL ANNUAL REPORT FOR YEAR 1985
AIRBORNE AND LIQUID EFFLUENTS

UNIT NUMBER: 1

LICENSEE:ARIZONA NUCLEAR PWR PROJECT

TYPE:PWR

LICENSED POWER (MWT):3800.00

DOCKET NO.:50-528

INITIAL CRITICALITY:05/25/85

COOLING WATER SOURCE:SEWAGE TREATMENT

AIRBORNE EFFLUENTS

NUCLIDES RELEASED	ACTIVITY (CI)
H-3	4.07E+00
AR-41	7.86E-01
CO-58	1.18E-06
BR-82	2.22E-05
KR-85	2.46E-02
KR-85M	1.03E-01
KR-88	6.69E-02
RB-88	1.36E-03
I-131	1.42E-03
XE-131M	3.10E-02
I-132	1.60E-07
I-133	1.14E-03
XE-133	2.39E+02
XE-133M	8.16E-01
I-135	2.52E-06
XE-135	1.29E+01
XE-135M	4.46E-03
CS-138	6.57E-06

TOTAL AIRBORNE TRITIUM RELEASE 4.08E+00

N/A=NOT APPLICABLE

N/D=NOT DETECTED

N/R=NOT REPORTED

EFFLUENT AND WASTE DISPOSAL ANNUAL REPORT FOR YEAR 1985
SOLID EFFLUENTS

SOLID WASTE DISPOSITION

NUMBER OF SHIPMENTS	MODE OF TRANSPORTATION	DESTINATION
8	TRUCK	RICHLAND WA

IRRADIATED FUEL SHIPMENTS(DISPOSITION)

NUMBER OF SHIPMENTS	MODE OF TRANSPORTATION	DESTINATION
0	N/A	N/A

ESTIMATE OF MAJOR NUCLIDE COMPOSITION(BY TYPE OF WASTE)

A		JAN-JUNE	JULY-DEC
CO-58	%		4.51E+01
CO-60	%		5.50E+00
CR-51	%		6.90E+00
FE-55	%		3.20E+00
FE-59	%		1.50E+00
NB-95	%		1.70E+00
NI-63	%		2.80E+00
SB-124	%		2.99E+01
ZR-95	%		1.80E+00

TYPE OF WASTE

TYPE OF WASTE	UNIT	YEAR TOTAL
A. SPENT RESINS, FILTER SLUDGES, EVAPORATOR	M3	8.42E+01
BOTTOMS, ETC.	CI	6.80E+01
B. DRY COMPRESSIBLE WASTE, CONTAMINATED	M3	
EQUIPMENT, ETC.	CI	
C. IRRADIATED COMPONENTS, CONTROL	M3	
RODS, ETC.	CI	
D. OTHER	M3	
	CI	

N/A=NOT APPLICABLE
N/D=NOT DETECTED
N/R=NOT REPORTED

EFFLUENT AND WASTE DISPOSAL ANNUAL REPORT FOR YEAR 1985
AIRBORNE AND LIQUID EFFLUENTS

UNIT NUMBER: 2	LICENSEE:PHILADELPHIA ELECTRIC
TYPE:BWR	LICENSED POWER (MWT):3293.00
DOCKET NO.:50-277	INITIAL CRITICALITY:09/16/73
COOLING WATER SOURCE:CONOWINGO POND/SUSQUEHANNA RIVER	
UNIT NUMBER: 3	LICENSEE:PHILADELPHIA ELECTRIC
TYPE:BWR	LICENSED POWER (MWT):3293.00
DOCKET NO.:50-278	INITIAL CRITICALITY:08/07/74
COOLING WATER SOURCE:CONOWINGO POND/SUSQUEHANNA RIVER	

AIRBORNE EFFLUENTS

NUCLIDES RELEASED	ACTIVITY (CI)
NA-24	5.31E-05
MN-54	2.29E-04
CO-58	6.86E-05
CO-60	5.91E-04
CU-64	4.30E-03
ZN-65	6.66E-04
KR-87	7.40E+02
KR-88	8.28E+02
RB-88	2.12E-02
RB-89	8.16E-04
SR-89	4.48E-03
SR-90	9.53E-05
SR-91	2.31E-03
Y-91M	2.54E-02
CD-109	1.44E-04
I-131	5.95E-02
I-133	1.25E-03
XE-133	1.13E+05
XE-133M	2.94E+03
CS-134	1.82E-03
XE-135	7.97E+03
XE-135M	9.94E+02
CS-136	8.59E-05
CS-137	1.68E-03
CS-138	2.94E-01
XE-138	9.76E+02
BA-139	2.59E-02
BA-140	1.57E-03
LA-140	8.54E-04

LIQUID EFFLUENTS

NUCLIDES RELEASED	ACTIVITY (CI)
NA-24	2.64E-02
P-32	1.76E-02
CR-51	4.83E-03
MN-54	2.03E-03
FE-55	2.26E-02
CO-58	2.50E-03
FE-59	9.81E-05
CO-60	1.43E-01

N/A=NOT APPLICABLE
N/D=NOT DETECTED
N/R=NOT REPORTED

EFFLUENT AND WASTE DISPOSAL ANNUAL REPORT FOR YEAR 1985
AIRBORNE AND LIQUID EFFLUENTS

LIQUID EFFLUENTS

NUCLIDES RELEASED	ACTIVITY (CI)
ZN-65	2.25E-01
SR-89	2.34E-03
SR-90	7.19E-04
SR-91	2.14E-04
Y-91M	1.39E-03
SR-92	4.90E-04
NB-95	1.59E-03
ZR-95	5.23E-04
MO-99	2.42E-03
TC-99M	3.72E-03
CD-109	1.85E-03
AG-110M	8.58E-04
SB-124	4.13E-04
I-131	1.22E-01
XE-131M	3.06E-02
I-132	1.33E-03
TE-132	2.55E-02
I-133	3.51E-02
XE-133	7.51E-01
XE-133M	1.33E-02
CS-134	2.19E-01
I-135	1.12E-02
XE-135	2.21E-01
XE-135M	1.57E-02
CS-136	1.16E-03
CS-137	2.33E-01
BA-140	2.67E-03
LA-140	1.00E-02
CE-144	1.01E-03
NP-239	4.73E-02

TOTAL AIRBORNE TRITIUM RELEASE	3.84E+01
TOTAL LIQUID TRITIUM RELEASE	5.04E+01

VOLUME OF LIQUID WASTE RELEASED (PRIOR TO DILUTION)	LITERS	3.21E+07
VOLUME OF DILUTION WATER USED DURING PERIOD	LITERS	2.43E+11

N/A=NOT APPLICABLE
N/D=NOT DETECTED
N/R=NOT REPORTED

INSTALLATION: PEACH BOTTOM

EFFLUENT AND WASTE DISPOSAL ANNUAL REPORT FOR YEAR 1985
SOLID EFFLUENTS

SOLID WASTE DISPOSITION

NUMBER OF SHIPMENTS	MODE OF TRANSPORTATION	DESTINATION
156	N/R	N/R
121	TRUCK	BARNWELL SC
14	TRUCK	RICHLAND WA

TYPE OF WASTE	UNIT	YEAR TOTAL
A. SPENT RESINS, FILTER SLUDGES, EVAPORATOR	M3	6.99E+02
BOTTOMS, ETC.	CI	3.83E+03
B. DRY COMPRESSIBLE WASTE, CONTAMINATED	M3	1.62E+03
EQUIPMENT, ETC.	CI	1.87E+01
C. IRRADIATED COMPONENTS, CONTROL	M3	1.12E+01
RODS, ETC.	CI	1.17E+05*
D. OTHER	M3	
	CI	

*CONTROL ROD BLADES

N/A=NOT APPLICABLE
N/D=NOT DETECTED
N/R=NOT REPORTED

EFFLUENT AND WASTE DISPOSAL ANNUAL REPORT FOR YEAR 1985
AIRBORNE AND LIQUID EFFLUENTS

UNIT NUMBER: 1	LICENSEE: BOSTON EDISON
TYPE: BWR	LICENSED POWER (MWT): 1998.00
DOCKET NO.: 50-293	INITIAL CRITICALITY: 06/16/72
COOLING WATER SOURCE: CAPE COD BAY	

AIRBORNE EFFLUENTS

NUCLIDES RELEASED	ACTIVITY (CI)
CR-51	1.07E-06
MN-54	5.08E-05
CO-60	<1.57E-03
KR-85	2.96E-02
KR-85M	<5.10E+02
KR-87	<1.86E+02
KR-88	<6.54E+02
SR-89	1.29E-03
SR-90	6.91E-06
I-131	<4.81E-02
I-133	<2.33E-01
XE-133	<1.50E+03
XE-133M	9.73E+00
CS-134	6.98E-06
I-135	<1.88E-01
XE-135	<3.72E+02
XE-135M	5.31E+00
CS-137	<6.64E-04
XE-138	2.73E+01
BA-LA-140	<5.10E-03
CE-141	6.21E-05

LIQUID EFFLUENTS

NUCLIDES RELEASED	ACTIVITY (CI)
CR-51	7.03E-04
MN-54	7.34E-03
FE-55	<1.91E-02
CO-58	1.49E-03
CO-60	7.22E-01
ZN-65	8.23E-05
SR-89	<3.45E-04
SR-90	<4.07E-04
ZR-NB-95	1.50E-05
MO-99-Tc-99M	1.83E-04
I-131	1.62E-03
I-133	7.64E-03
XE-133	1.58E-02
CS-134	1.11E-02
XE-135	4.87E-02
CS-137	1.92E-01
BA-LA-140	3.37E-04
CE-144	1.85E-05
UNIDENTIFIED	8.82E-02

N/A=NOT APPLICABLE
N/D=NOT DETECTED
N/R=NOT REPORTED

EFFLUENT AND WASTE DISPOSAL ANNUAL REPORT FOR YEAR 1985
AIRBORNE AND LIQUID EFFLUENTS

TOTAL AIRBORNE TRITIUM RELEASE 6.49E+00
TOTAL LIQUID TRITIUM RELEASE 7.81E+00

VOLUME OF LIQUID WASTE RELEASED (PRIOR TO DILUTION)	LITERS	1.05E+07
VOLUME OF DILUTION WATER USED DURING PERIOD	LITERS	1.91E+10

N/A=NOT APPLICABLE
N/D=NOT DETECTED
N/R=NOT REPORTED

INSTALLATION: PILGRIM

EFFLUENT AND WASTE DISPOSAL ANNUAL REPORT FOR YEAR 1985
SOLID EFFLUENTS

SOLID WASTE DISPOSITION

NUMBER OF SHIPMENTS	MODE OF TRANSPORTATION	DESTINATION
98	TRACTOR-TRAILER	BARNWELL SC
2	TRACTOR-TRAILER	RICHLAND WA

IRRADIATED FUEL SHIPMENTS(DISPOSITION)

NUMBER OF SHIPMENTS	MODE OF TRANSPORTATION	DESTINATION
0	N/A	N/A

ESTIMATE OF MAJOR NUCLIDE COMPOSITION(BY TYPE OF WASTE)

A

		JAN-JUNE	JULY-DEC
BA-139	%		1.00E-03
BA-140	%	3.57E-01	3.72E-01
C-14	%	5.00E-02	3.30E-02
CE-141	%	3.20E-02	6.00E-03
CE-144	%		3.00E-03
CM-242	%	6.00E-03	1.00E-02
CO-57	%		2.00E-02
CO-58	%	1.99E+00	3.12E+00
CO-60	%	5.31E+01	3.90E+01
CR-51	%	8.37E+00	2.89E+01
CS-134	%	1.67E+00	2.12E+00
CS-137	%	2.26E+01	1.02E+01
FE-59	%	4.74E-01	1.38E+00
H-3	%	3.10E-02	1.50E-02
I-129	%	7.00E-03	1.00E-02
I-131	%	6.10E-02	2.60E-02
I-132	%		2.00E-03
I-133	%	8.00E-03	2.30E-02
I-135	%		1.30E-02
LA-140	%	4.43E-01	4.42E-01
MN-54	%	4.03E+00	7.68E+00
MO-99	%	2.90E-02	1.20E-02
NA-24	%	2.20E-02	2.40E-02
NB-95	%	2.60E-02	4.10E-02
NI-63	%	4.88E+00	3.73E+00
PU-241	%	6.85E-01	2.87E-01
RU-103	%	9.00E-03	2.20E-02
SB-122	%		1.90E-02
SB-124	%	2.90E-02	8.40E-01
SN-113	%		1.70E-02
SR-90	%	2.77E-01	1.27E-01
SR-91	%	2.00E-03	7.60E-02
SR-92	%	1.00E-03	1.30E-01
TC-99	%	8.00E-03	1.00E-02
TC-99M	%	7.40E-02	8.00E-02
XE-131M	%		1.29E-01

N/A=NOT APPLICABLE

N/D=NOT DETECTED

N/R=NOT REPORTED

EFFLUENT AND WASTE DISPOSAL ANNUAL REPORT FOR YEAR 1985
SOLID EFFLUENTS

ESTIMATE OF MAJOR NUCLIDE COMPOSITION(BY TYPE OF WASTE)		JAN-JUNE	JULY-DEC
XE-133	%		5.10E-02
XE-135	%		1.00E-03
Y-91M	%	1.70E-02	5.70E-02
Y-92	%		3.10E-02
ZN-65	%	6.91E-01	1.66E+00
ZR-95	%		2.50E-02
B			
C-14	%	8.90E-02	1.54E-01
CM-242	%		7.50E-02
CM-246	%	2.00E-03	
CO-58	%	1.19E-01	9.85E-01
CO-60	%	6.39E+01	3.74E+01
CR-51	%	1.42E-01	1.47E+00
CS-134	%	1.27E+00	1.22E+00
CS-137	%	2.40E+01	2.04E+01
FE-59	%	4.00E-03	2.26E+01
H-3	%	6.20E+00	1.03E+01
I-129	%	1.00E-02	1.00E-02
MN-54	%	1.83E+00	3.03E+00
NI-63	%	8.95E-01	7.56E-01
PU-241	%	1.11E+00	8.23E-01
SB-124	%	9.00E-03	9.40E-02
SR-90	%	3.61E-01	3.08E-01
TC-99	%	1.50E-02	1.10E-02
ZN-65	%	4.00E-02	4.21E-01
C			
C-14	%	9.00E-03	7.00E-03
CM-242	%		1.00E-03
CO-58	%	7.30E-02	7.30E-02
CO-60	%	5.02E+01	5.02E+01
CS-134	%	1.04E-01	8.00E-02
CS-137	%	1.25E-01	9.60E-02
FE-55	%	4.38E+01	4.38E+01
I-129	%		1.00E-03
MN-54	%	5.03E-01	4.99E-01
NB-94	%		1.00E-03
NI-59	%	1.12E-01	1.10E-01
NI-63	%	4.75E+00	4.84E+00
PU-241	%		1.00E-03
SR-90	%		1.00E-03
TC-99	%		1.00E-03
ZN-65	%	3.27E-01	2.88E-01
D			
C-14	%		3.20E-02
CM-242	%		5.00E-04
CO-58	%		4.00E-04
CR-60	%		4.27E+01
CS-134	%		3.70E-01

N/A=NOT APPLICABLE

N/D=NOT DETECTED

N/R=NOT REPORTED

EFFLUENT AND WASTE DISPOSAL ANNUAL REPORT FOR YEAR 1985
SOLID EFFLUENTS

ESTIMATE OF MAJOR NUCLIDE COMPOSITION(BY TYPE OF WASTE)		JAN-JUNE	JULY-DEC
CS-137	%		1.09E+01
FE-55	%		3.41E+01
H-3	%		7.57E+00
I-129	%		1.09E-02
MN-54	%		2.08E+00
NI-63	%		1.50E+00
PU-241	%		4.36E-01
SR-90	%		3.06E-01
TC-99	%		1.86E-02

TYPE OF WASTE	UNIT	YEAR	TOTAL
A. SPENT RESINS, FILTER SLUDGES, EVAPORATOR BOTTOMS, ETC.	M3	2.54E+02	
	CI	1.00E+03	
B. DRY COMPRESSIBLE WASTE, CONTAMINATED EQUIPMENT, ETC.	M3	1.11E+03	
	CI	4.98E+00	
C. IRRADIATED COMPONENTS, CONTROL RODS, ETC.	M3	2.39E+01	
	CI	7.38E+04	
D. OTHER	M3	2.04E+01	
MISC. LOW-LEVEL WASTE	CI	5.39E-03	

N/A=NOT APPLICABLE
N/D=NOT DETECTED
N/R=NOT REPORTED

EFFLUENT AND WASTE DISPOSAL ANNUAL REPORT FOR YEAR 1985
AIRBORNE AND LIQUID EFFLUENTS

UNIT NUMBER: 1	LICENSEE:WISCONSIN ELECTRIC POWER COMPANY
TYPE:PWR	LICENSED POWER (MWT):1518.50
DOCKET NO.:50-266	INITIAL CRITICALITY:11/02/70
COOLING WATER SOURCE:LAKE MICHIGAN	
UNIT NUMBER: 2	LICENSEE:WISCONSIN ELECTRIC POWER COMPANY
TYPE:PWR	LICENSED POWER (MWT):1518.50
DOCKET NO.:50-301	INITIAL CRITICALITY:05/30/72
COOLING WATER SOURCE:LAKE MICHIGAN	

AIRBORNE EFFLUENTS

NUCLIDES RELEASED	ACTIVITY (CI)
H-3	6.71E+01
NA-24	1.39E-04
AR-41	1.27E+00
MN-54	1.99E-06
CO-57	2.10E-07
CO-58	1.57E-04
CO-60	7.94E-05
KR-85	1.67E+01
KR-85M	1.84E+01
KR-87	4.78E+00
KR-88	5.73E+00
RB-88	4.63E-05
SR-89	4.87E-08
SR-90	N/D
NB-95	2.52E-06
ZR-95	1.31E-06
ZR-97	2.97E-10
RU-103	1.91E-08
CD-109	8.92E-06
SN-113	2.16E-08
SB-125	1.25E-07
I-131	3.44E-03
XE-131M	8.54E-02
I-132	3.75E-03
I-133	1.37E-03
XE-133	3.45E+01
XE-133M	3.30E-01
CS-134	1.18E-03
I-134	1.33E-05
I-135	5.79E-04
XE-135	1.19E+01
XE-135M	5.76E+00
CS-137	4.02E-03
CS-138	9.64E-07
XE-138	1.65E+01
CE-141	8.48E-09

N/A=NOT APPLICABLE
N/D=NOT DETECTED
N/R=NOT REPORTED

EFFLUENT AND WASTE DISPOSAL ANNUAL REPORT FOR YEAR 1985
AIRBORNE AND LIQUID EFFLUENTS

LIQUID EFFLUENTS

NUCLIDES RELEASED	ACTIVITY (CI)
H-3	8.05E+02
NA-24	4.90E-01
CR-51	2.71E-02
MN-54	7.46E-03
CO-57	2.52E-03
CO-58	4.05E-01
CO-60	2.88E-01
KR-88	9.10E-04
RB-88	8.46E-05
SR-89	2.27E-04
SR-90	1.29E-03
NB-95	6.28E-03
ZR-95	7.95E-05
NB-97	1.35E-03
ZR-97	1.49E-06
TC-99M	1.75E-05
RU-103	3.59E-03
RU-106	8.07E-04
AG-110M	2.55E-05
SN-113	1.07E-03
SB-124	3.86E-02
SB-125	1.12E-02
I-131	1.02E-01
XE-131M	9.18E-05
I-132	6.15E-02
TE-132	5.83E-07
I-133	1.27E-01
XE-133	2.61E-02
XE-133M	4.05E-04
CS-134	4.76E-02
I-134	3.18E-02
I-135	1.04E-01
XE-135	7.41E-03
XE-135M	8.90E-03
CS-137	9.60E-02
CS-138	1.11E-03
BA-140	6.90E-06
CE-141	1.31E-03

TOTAL AIRBORNE TRITIUM RELEASE	6.71E+01
TOTAL LIQUID TRITIUM RELEASE	8.05E+02

VOLUME OF LIQUID WASTE RELEASED (PRIOR TO DILUTION)	LITERS	3.17E+08
VOLUME OF DILUTION WATER USED DURING PERIOD	LITERS	6.34E+11

N/A=NOT APPLICABLE
N/D=NOT DETECTED
N/R=NOT REPORTED

INSTALLATION:POINT BEACH

EFFLUENT AND WASTE DISPOSAL ANNUAL REPORT FOR YEAR 1985
SOLID EFFLUENTS

SOLID WASTE DISPOSITION

NUMBER OF SHIPMENTS	MODE OF TRANSPORTATION
23	N/R

DESTINATION
N/R

TYPE OF WASTE

- A. SPENT RESINS, FILTER SLUDGES, EVAPORATOR
BOTTOMS, ETC.
- B. DRY COMPRESSIBLE WASTE, CONTAMINATED
EQUIPMENT, ETC.
- C. IRRADIATED COMPONENTS, CONTROL
RODS, ETC.
- D. OTHER

UNIT	YEAR TOTAL
M3	7.26E+01
CI	1.24E+03
M3	2.08E+02
CI	6.43E+00
M3	
CI	
M3	
CI	

N/A=NOT APPLICABLE
N/D=NOT DETECTED
N/R=NOT REPORTED

EFFLUENT AND WASTE DISPOSAL ANNUAL REPORT FOR YEAR 1985
AIRBORNE AND LIQUID EFFLUENTS

UNIT NUMBER: 1	LICENSEE:NORTHERN STATES POWER
TYPE:PWR	LICENSED POWER (MWT):1650.00
DOCKET NO.:50-282	INITIAL CRITICALITY:12/01/73
COOLING WATER SOURCE:MISSISSIPPI RIVER	
UNIT NUMBER: 2	LICENSEE:NORTHERN STATES POWER
TYPE:PWR	LICENSED POWER (MWT):1650.00
DOCKET NO.:50-306	INITIAL CRITICALITY:12/17/74
COOLING WATER SOURCE:MISSISSIPPI RIVER	

AIRBORNE EFFLUENTS

NUCLIDES RELEASED	ACTIVITY (CI)
AR-41	4.49E-03
MN-54	7.61E-07
CO-58	1.61E-05
CO-60	2.59E-06
GA-72	8.06E-07
SE-75	2.07E-06
KR-85	2.24E+00
KR-85M	8.04E-04
KR-87	2.96E-04
KR-88	1.32E-03
SB-125	3.75E-04
I-131	7.32E-03
XE-131M	2.12E-02
I-133	1.88E-04
XE-133	4.32E+01
XE-133M	3.80E-03
CS-134	1.28E-06
XE-135	3.93E-01
XE-135M	1.60E-04
CS-137	1.39E-06

LIQUID EFFLUENTS

NUCLIDES RELEASED	ACTIVITY (CI)
NA-24	7.43E-06
SC-47	2.09E-04
MN-54	9.02E-05
FE-55	9.33E-03
CO-58	3.68E-03
FE-59	9.30E-05
CO-60	1.35E-03
GA-72	8.83E-05
KR-85	2.83E-03
SR-85	8.09E-06
SR-92	2.98E-04
ZR-NB-95	4.07E-05
NB-97	1.13E-05
ZR-97	4.56E-05
TC-99M	7.70E-06
AG-110M	1.35E-03
SN-113	4.96E-05

N/A=NOT APPLICABLE

N/D=NOT DETECTED

N/R=NOT REPORTED

EFFLUENT AND WASTE DISPOSAL ANNUAL REPORT FOR YEAR 1985
AIRBORNE AND LIQUID EFFLUENTS

LIQUID EFFLUENTS

NUCLIDES RELEASED	ACTIVITY (CI)
SB-122	1.84E-04
SB-124	6.83E-03
SB-125	2.86E-03
I-131	5.42E-04
XE-131M	9.32E-04
TE-132	3.08E-06
I-133	3.18E-06
XE-133	4.41E-02
XE-133M	3.12E-05
CS-134	4.37E-05
XE-135	1.09E-04
CS-136	6.41E-05
CS-137	2.49E-04
CS-138	1.76E-05

TOTAL AIRBORNE TRITIUM RELEASE	7.29E+01
TOTAL LIQUID TRITIUM RELEASE	6.96E+02

VOLUME OF LIQUID WASTE RELEASED (PRIOR TO DILUTION)	LITERS	1.98E+08
VOLUME OF DILUTION WATER USED DURING PERIOD	LITERS	5.75E+11

N/A=NOT APPLICABLE
N/D=NOT DETECTED
N/R=NOT REPORTED

EFFLUENT AND WASTE DISPOSAL ANNUAL REPORT FOR YEAR 1985
SOLID EFFLUENTS

SOLID WASTE DISPOSITION

NUMBER OF SHIPMENTS	MODE OF TRANSPORTATION	DESTINATION
3	TRUCK	BARNWELL SC
11	TRUCK	RICHLAND WA

IRRADIATED FUEL SHIPMENTS(DISPOSITION)

NUMBER OF SHIPMENTS	MODE OF TRANSPORTATION	DESTINATION
0	N/A	N/A

ESTIMATE OF MAJOR NUCLIDE COMPOSITION(BY TYPE OF WASTE)

		JAN-JUNE	JULY-DEC
A			
CO-58	%	4.10E+00	1.32E+01
CO-60	%	6.00E+01	5.90E+00
CS-134	%	3.00E+00	1.06E+01
CS-137	%	5.10E+00	2.08E+01
FE-55	%		1.47E+01
H-3	%		2.78E+01
NI-63	%	2.62E+01	1.20E+00
SB-124	%		1.30E+00
SB-125	%		3.30E+00
B			
AG-110M	%	5.00E-02	
CO-58	%	1.76E+01	
CO-60	%	1.35E+01	
CR-51	%	5.00E-02	
CS-134	%	9.05E+00	
CS-137	%	1.17E+01	
FE-55	%	2.45E+01	
MN-54	%	1.61E+00	
NB-95	%	1.87E+00	
NI-63	%	1.63E+01	
ZR-95	%	1.19E+00	
D			
AG-110	%	3.20E+00	
CO-58	%	6.10E+00	
CO-60	%	1.92E+01	
CS-134	%	1.24E+01	
CS-137	%	1.49E+01	
FE-55	%	2.50E+01	
MN-54	%	2.20E+00	
NI-63	%	1.69E+01	

N/A=NOT APPLICABLE
N/D=NOT DETECTED
N/R=NOT REPORTED

INSTALLATION:PRAIRIE ISLAND

EFFLUENT AND WASTE DISPOSAL ANNUAL REPORT FOR YEAR 1985
SOLID EFFLUENTS

TYPE OF WASTE	UNIT	YEAR TOTAL
A. SPENT RESINS, FILTER SLUDGES, EVAPORATOR	M3	3.28E+01
BOTTOMS, ETC.	CI	3.91E+02
B. DRY COMPRESSIBLE WASTE, CONTAMINATED	M3	1.26E+02
EQUIPMENT, ETC.	CI	2.21E+00
C. IRRADIATED COMPONENTS, CONTROL	M3	0.00E+00
RODS, ETC.	CI	0.00E+00
D. OTHER	M3	1.40E+01
	CI	8.80E+00

N/A=NOT APPLICABLE
N/D=NOT DETECTED
N/R=NOT REPORTED

EFFLUENT AND WASTE DISPOSAL ANNUAL REPORT FOR YEAR 1985
AIRBORNE AND LIQUID EFFLUENTS

UNIT NUMBER: 1	LICENSEE:COMMONWEALTH ED&IOWA-ILLINOIS GAS&ELEC
TYPE:BWR	LICENSED POWER (MWT):2511.00
DOCKET NO.:50-254	INITIAL CRITICALITY:10/18/71
COOLING WATER SOURCE:MISSISSIPPI RIVER	
UNIT NUMBER: 2	LICENSEE:COMMONWEALTH ED&IOWA-ILLINOIS GAS&ELEC
TYPE:BWR	LICENSED POWER (MWT):2511.00
DOCKET NO.:50-265	INITIAL CRITICALITY:04/26/72
COOLING WATER SOURCE:MISSISSIPPI RIVER	

AIRBORNE EFFLUENTS

NUCLIDES RELEASED	ACTIVITY (CI)
CR-51	3.25E-03
MN-54	9.90E-05
CO-58	9.94E-05
CO-60	1.30E-02
AS-76	1.40E-05
KR-85M	1.72E+02
KR-87	1.06E+02
KR-88	1.74E+02
SR-89	8.42E-03
SR-90	2.23E-04
RU-103	8.45E-04
AG-110M	9.96E-05
I-131	4.81E-02
I-133	2.81E-01
XE-133	1.12E+03
CS-134	3.58E-04
I-135	8.05E-01
XE-135	7.03E+02
XE-135M	2.19E+02
CS-137	5.09E-03
XE-138	4.61E+02
BA-140	1.45E-02

LIQUID EFFLUENTS

NUCLIDES RELEASED	ACTIVITY (CI)
CR-51	4.83E-03
MN-54	1.84E-03
FE-55	2.15E-02
CO-58	9.21E-04
FE-59	6.43E-05
CO-60	3.94E-02
ZN-65	1.64E-04
SR-89	6.01E-02
SR-90	6.48E-02
AG-110M	4.96E-04
I-131	1.28E-03
I-133	3.30E-06
XE-133	4.16E-04
CS-134	1.70E-01
XE-135	1.72E-02

N/A=NOT APPLICABLE

N/D=NOT DETECTED

N/R=NOT REPORTED

EFFLUENT AND WASTE DISPOSAL ANNUAL REPORT FOR YEAR 1985
AIRBORNE AND LIQUID EFFLUENTS

LIQUID EFFLUENTS

NUCLIDES RELEASED

ACTIVITY (CI)

CS-137

1.10E+00

TOTAL AIRBORNE TRITIUM RELEASE 5.22E+01

TOTAL LIQUID TRITIUM RELEASE 3.41E+00

VOLUME OF LIQUID WASTE RELEASED (PRIOR TO DILUTION) LITERS 1.81E+06

VOLUME OF DILUTION WATER USED DURING PERIOD LITERS 1.35E+12

N/A=NOT APPLICABLE

N/D=NOT DETECTED

N/R=NOT REPORTED

EFFLUENT AND WASTE DISPOSAL ANNUAL REPORT FOR YEAR 1985
SOLID EFFLUENTS

SOLID WASTE DISPOSITION

NUMBER OF SHIPMENTS	MODE OF TRANSPORTATION	DESTINATION
107	CHEM NUCLEAR CO	BARNWELL SC
6	CHEM NUCLEAR CO	RICHLAND WA
29	HACKE	RICHLAND WA
5	TRI-STATE	BARNWELL SC

TYPE OF WASTE	UNIT	YEAR TOTAL
A. SPENT RESINS, FILTER SLUDGES, EVAPORATOR	M3	1.33E+03
BOTTOMS, ETC.	CI	5.53E+04
B. DRY COMPRESSIBLE WASTE, CONTAMINATED	M3	
EQUIPMENT, ETC.	CI	
C. IRRADIATED COMPONENTS, CONTROL	M3	
RODS, ETC.	CI	
D. OTHER	M3	
	CI	

N/A=NOT APPLICABLE
N/D=NOT DETECTED
N/R=NOT REPORTED

EFFLUENT AND WASTE DISPOSAL ANNUAL REPORT FOR YEAR 1985
AIRBORNE AND LIQUID EFFLUENTS

UNIT NUMBER: 1 LICENSEE:SACRAMENTO MUNICIPAL UTILITY
TYPE:PWR LICENSED POWER (MWT):2772.00
DOCKET NO.:50-312 INITIAL CRITICALITY:09/16/74
COOLING WATER SOURCE:FOLSOM CANAL

AIRBORNE EFFLUENTS

NUCLIDES RELEASED	ACTIVITY (CI)
ALPHA	6.71E-06
AR-41	4.96E-02
CO-58	1.37E-05
CO-60	4.72E-04
KR-85	3.47E+00
KR-85M	7.03E+00
KR-87	2.25E+00
KR-88	6.67E+00
I-131	6.41E-03
XE-131M	8.44E+00
I-133	9.32E-04
XE-133	4.40E+03
XE-133M	2.54E+01
CS-134	2.33E-04
XE-135	2.22E+02
XE-135M	1.12E+00
CS-137	7.14E-04
XE-138	2.36E-01
UNIDENTIFIED	7.69E-05

LIQUID EFFLUENTS

NUCLIDES RELEASED	ACTIVITY (CI)
H-3	9.00E+01
CO-58	3.05E-05
CO-60	1.28E-04
NB-97	7.11E-05
AG-110M	6.62E-05
SB-124	3.35E-04
SB-125	4.44E-04
I-131	9.92E-05
CS-134	2.08E-03
CS-137	4.13E-03

TOTAL AIRBORNE TRITIUM RELEASE 3.31E+01
TOTAL LIQUID TRITIUM RELEASE 9.00E+01

VOLUME OF LIQUID WASTE RELEASED (PRIOR TO DILUTION)	LITERS	6.81E+07
VOLUME OF DILUTION WATER USED DURING PERIOD	LITERS	1.01E+10

N/A=NOT APPLICABLE
N/D=NOT DETECTED
N/R=NOT REPORTED

EFFLUENT AND WASTE DISPOSAL ANNUAL REPORT FOR YEAR 1985
SOLID EFFLUENTS

SOLID WASTE DISPOSITION

NUMBER OF SHIPMENTS 77
MODE OF TRANSPORTATION
SOLE-USE VEHICLE

DESTINATION
RICHLAND WA

ESTIMATE OF MAJOR NUCLIDE COMPOSITION(BY TYPE OF WASTE)

JAN-JUNE JULY-DEC

A

AG-110M	%		2.50E-01
C-14	%	3.06E-01	
CO-58	%	1.25E-01	5.90E-01
CO-60	%	7.85E+00	7.34E+00
CR-51	%		3.00E-01
CS-134	%	8.43E+00	1.34E+01
CS-137	%	4.23E+01	4.28E+01
FE-55	%	2.03E+01	1.80E+01
H-3	%	5.99E+00	6.02E+00
NI-63	%	1.46E+01	1.16E+01

B

AG-110M	%		1.37E+01
CO-58	%		3.58E+01
CO-60	%		8.06E+00
CR-51	%		6.69E+00
CS-134	%		4.00E-01
CS-137	%		5.40E-01
FE-55	%		2.07E+01
H-3	%		1.45E+00
MN-54	%		3.00E-01
NI-63	%		1.30E+01

D

AG-110M	%	7.20E-01
CO-58	%	7.34E-01
CO-60	%	6.87E+00
CS-134	%	1.53E+00
CS-137	%	3.56E+00
FE-55	%	1.73E+01
H-3	%	5.49E+01
MN-54	%	1.11E+00
NI-63	%	1.32E+01

TYPE OF WASTE

A. SPENT RESINS, FILTER SLUDGES, EVAPORATOR
BOTTOMS, ETC.
B. DRY COMPRESSIBLE WASTE, CONTAMINATED
EQUIPMENT, ETC.
C. IRRADIATED COMPONENTS, CONTROL
RODS, ETC.
D. OTHER

UNIT	YEAR TOTAL
M3	5.90E+02
CI	1.09E+03
M3	3.86E+02
CI	4.76E+02
M3	0.00E+00
CI	0.00E+00
M3	0.00E+00
CI	0.00E+00

N/A=NOT APPLICABLE
N/D=NOT DETECTED
N/R=NOT REPORTED

UNIT NUMBER: 2	LICENSEE:CAROLINA POWER &LIGHT
TYPE:PWR	LICENSED POWER (MWT):2300.00
DOCKET NO.:50-261	INITIAL CRITICALITY:09/20/70
COOLING WATER SOURCE:ROBINSON IMPOUNDMENT	

NUCLIDES RELEASED	ACTIVITY (CI)
F-18	7.90E-03
AR-41	6.77E-01
CO-60	1.34E-06
KR-85	1.37E+01
KR-85M	6.80E-01
KR-87	2.38E-02
KR-88	3.04E-02
CD-109	1.51E-06
I-131	1.35E-02
XE-131M	2.36E+01
I-133	1.38E-03
XE-133	2.05E+03
XE-133M	2.21E+01
CS-134	8.17E-05
XE-135	2.24E+01
CS-137	1.48E-04

NUCLIDES RELEASED	ACTIVITY (CI)
F-18	4.36E-07
NA-24	9.73E-04
MN-54	1.25E-04
FE-55	9.97E-03
CO-58	2.62E-04
CO-60	3.14E-02
SR-89	2.62E-05
SR-90	2.93E-04
NB-95	1.92E-05
AG-110M	9.74E-03
SB-124	7.36E-05
SB-125	6.04E-04
I-131	3.36E-03
XE-131M	2.86E-05
I-133	2.01E-04
XE-133	1.44E-01
XE-133M	1.81E-03
CS-134	1.35E-02
XE-135	2.70E-03
CS-136	7.13E-05
CS-137	2.34E-02

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EFFLUENT AND WASTE DISPOSAL ANNUAL REPORT FOR YEAR 1985
AIRBORNE AND LIQUID EFFLUENTS

TOTAL AIRBORNE TRITIUM RELEASE 8.85E+01
TOTAL LIQUID TRITIUM RELEASE 3.09E+02

VOLUME OF LIQUID WASTE RELEASED (PRIOR TO DILUTION)	LITERS	1.34E+07
VOLUME OF DILUTION WATER USED DURING PERIOD	LITERS	1.02E+12

N/A=NOT APPLICABLE
N/D=NOT DETECTED
N/R=NOT REPORTED

EFFLUENT AND WASTE DISPOSAL ANNUAL REPORT FOR YEAR 1985
SOLID EFFLUENTS

SOLID WASTE DISPOSITION

NUMBER OF SHIPMENTS	MODE OF TRANSPORTATION	DESTINATION
34	SOLE USE VEHICLE	BARNWELL SC
9	SOLE USE VEHICLE	RICHLAND WA

IRRADIATED FUEL SHIPMENTS(DISPOSITION)

NUMBER OF SHIPMENTS	MODE OF TRANSPORTATION	DESTINATION
0	N/A	N/A

ESTIMATE OF MAJOR NUCLIDE COMPOSITION(BY TYPE OF WASTE)

JAN-JUNE JULY-DEC

A			
	CO-60	%	1.16E+01 3.67E+01
	CS-134	%	2.82E+00 2.24E+00
	CS-137	%	7.36E+00 3.90E+00
	FE-55	%	3.34E+00 2.04E+01
	H-3	%	6.57E+01 2.92E+01
	NI-63	%	2.33E+00 5.53E+00
	OTHERS	%	4.46E+00 2.07E+00
	SR-90	%	2.39E+00
B			
	CO-58,MN-54,CM-244,CM-242,AM-241,PU-238, PU-239,PU-240,C-14,H-3,NI-63,U-234,NP-237	%	1.40E+00
	CO-60	%	4.73E+01 5.77E+00
	CS-134	%	4.85E+00 3.01E+01
	CS-136	%	2.15E+00
	CS-137	%	1.14E+01 4.72E+01
	FE-55	%	3.51E+01 5.51E+00
	I-131	%	3.02E+00
	OTHERS	%	9.90E-01
	XE-131M	%	5.22E+00
C			
	CO-60	%	3.50E+01
	FE-55	%	5.41E+01
	MN-54	%	3.15E+00
	NI-63	%	7.32E+00
	OTHERS	%	4.40E-01
D			
	CO-58/CO-60/CS-134/CS-137	%	8.90E-01
	FE-55	%	1.39E+01
	H-3	%	1.05E+00
	NI-63	%	3.57E+01
	SR-90	%	4.85E+01

N/A=NOT APPLICABLE
N/D=NOT DETECTED
N/R=NOT REPORTED

EFFLUENT AND WASTE DISPOSAL ANNUAL REPORT FOR YEAR 1985
SOLID EFFLUENTS

TYPE OF WASTE	UNIT	YEAR	TOTAL
A. SPENT RESINS, FILTER SLUDGES, EVAPORATOR	M3		1.50E+02
BOTTOMS, ETC.	CI		2.36E+02
B. DRY COMPRESSIBLE WASTE, CONTAMINATED	M3		4.41E+02
EQUIPMENT, ETC.	CI		9.80E+00
C. IRRADIATED COMPONENTS, CONTROL	M3		1.63E+00
RODS, ETC.	CI		3.10E+03
D. OTHER	M3		4.96E+01
OILY TRASH,SOL.OIL,SCINT.VIALS	CI		8.42E+00

N/A=NOT APPLICABLE
N/D=NOT DETECTED
N/R=NOT REPORTED

EFFLUENT AND WASTE DISPOSAL ANNUAL REPORT FOR YEAR 1985
AIRBORNE AND LIQUID EFFLUENTS

UNIT NUMBER: 1 LICENSEE:PSE&G
TYPE:PWR LICENSED POWER (MWT):3338.00
DOCKET NO.:50-272 INITIAL CRITICALITY:12/11/76
COOLING WATER SOURCE:DELAWARE RIVER

AIRBORNE EFFLUENTS

NUCLIDES RELEASED	ACTIVITY (CI)
AR-41	5.40E-04
MN-54	1.81E-04
CO-58	4.69E-03
CO-60	9.63E-04
KR-85	7.59E-01
KR-85M	3.73E-02
KR-87	1.39E-04
KR-88	2.25E-02
RB-88	3.08E-02
Y-88	1.83E-03
SR-90	9.95E-06
I-131	5.50E-03
XE-131M	1.17E+00
I-133	2.21E-04
XE-133	3.49E+02
XE-133M	1.52E+00
XE-135	2.20E+01
XE-135M	2.31E-01
CS-137	5.58E-04
UNIDENTIFIED	1.35E+03

LIQUID EFFLUENTS

NUCLIDES RELEASED	ACTIVITY (CI)
H-3	9.23E+02
NA-24	6.15E-03
CR-51	3.59E-02
MN-54	8.67E-02
FE-55	9.20E-01
CO-57	5.69E-04
CO-58	6.63E-01
FE-59	1.40E-03
CO-60	6.53E-01
ZN-65	7.40E-04
KR-87	6.47E-04
SR-89	1.67E-03
SR-90	1.70E-04
NB-95	1.26E-02
ZR-95	3.19E-03
NB-97	7.20E-03
MO-99	1.02E-04
SB-122	1.22E-02
SB-124	5.72E-03
I-131	7.93E-02
I-133	1.87E-02

N/A=NOT APPLICABLE
N/D=NOT DETECTED
N/R=NOT REPORTED

EFFLUENT AND WASTE DISPOSAL ANNUAL REPORT FOR YEAR 1985
AIRBORNE AND LIQUID EFFLUENTS

LIQUID EFFLUENTS

NUCLIDES RELEASED	ACTIVITY (CI)
XE-133	1.12E+00
CS-134	1.58E-01
XE-135	4.37E-03
CS-136	7.52E-03
CS-137	2.10E-01
LA-140	1.11E-04

TOTAL AIRBORNE TRITIUM RELEASE	2.56E+01
TOTAL LIQUID TRITIUM RELEASE	9.23E+02

VOLUME OF LIQUID WASTE RELEASED (PRIOR TO DILUTION)	LITERS	1.06E+07
VOLUME OF DILUTION WATER USED DURING PERIOD	LITERS	1.23E+12

N/A=NOT APPLICABLE
N/D=NOT DETECTED
N/R=NOT REPORTED

EFFLUENT AND WASTE DISPOSAL ANNUAL REPORT FOR YEAR 1985
AIRBORNE AND LIQUID EFFLUENTSUNIT NUMBER: 2
TYPE:PWR
DOCKET NO.:50-311
COOLING WATER SOURCE:DELAWARE RIVERLICENSEE:PSE&G
LICENSED POWER (MWT):3338.00
INITIAL CRITICALITY:08/02/80

AIRBORNE EFFLUENTS

NUCLIDES RELEASED	ACTIVITY (CI)
H-3	3.00E+01
AR-41	8.85E-03
MN-54	3.66E-03
CO-58	1.48E-02
CO-60	3.87E-04
KR-85	1.25E+00
KR-85M	3.91E-02
KR-87	4.80E-03
KR-88	2.75E-02
RB-88	6.65E-02
Y-88	3.68E-03
SR-90	1.57E-09
I-131	4.65E-04
XE-131M	1.41E+00
XE-133	2.76E+02
XE-133M	3.44E-01
XE-135	3.87E+00
XE-135M	1.87E-02
UNIDENTIFIED	8.70E+02

LIQUID EFFLUENTS

NUCLIDES RELEASED	ACTIVITY (CI)
H-3	5.77E+02
F-18	3.28E-02
NA-22	3.96E-02
NA-24	3.48E-03
CR-51	3.53E-02
MN-54	1.14E-01
FE-55	5.06E-01
CO-57	1.13E-03
CO-58	8.41E-01
FE-59	1.10E-03
CO-60	6.30E-01
ZN-65	6.62E-04
ZN-69M	3.69E-02
SR-89	1.54E-03
SR-90	1.04E-04
NB-95	1.43E-02
ZR-95	4.62E-03
NB-97	5.70E-03
MO-99	1.02E-04
SB-122	1.44E-02
SB-124	1.17E-03
I-131	8.36E-02

N/A=NOT APPLICABLE
N/D=NOT DETECTED
N/R=NOT REPORTED

EFFLUENT AND WASTE DISPOSAL ANNUAL REPORT FOR YEAR 1985
AIRBORNE AND LIQUID EFFLUENTS

LIQUID EFFLUENTS

NUCLIDES RELEASED	ACTIVITY (CI)
I-133	1.22E-02
XE-133	1.24E+00
CS-134	1.84E-01
XE-135	3.44E-03
CS-136	4.20E-03
CS-137	2.33E-01

TOTAL AIRBORNE TRITIUM RELEASE 3.00E+01

TOTAL LIQUID TRITIUM RELEASE 5.77E+02

VOLUME OF LIQUID WASTE RELEASED (PRIOR TO DILUTION)	LITERS	1.02E+07
VOLUME OF DILUTION WATER USED DURING PERIOD	LITERS	1.04E+12

N/A=NOT APPLICABLE

N/D=NOT DETECTED

N/R=NOT REPORTED

EFFLUENT AND WASTE DISPOSAL ANNUAL REPORT FOR YEAR 1985
SOLID EFFLUENTS

SOLID WASTE DISPOSITION

NUMBER OF SHIPMENTS	MODE OF TRANSPORTATION	DESTINATION
15	TRUCK	BARNWELL SC
13	TRUCK	HANFORD WA

IRRADIATED FUEL SHIPMENTS(DISPOSITION)

NUMBER OF SHIPMENTS	MODE OF TRANSPORTATION	DESTINATION
0	N/A	N/A

ESTIMATE OF MAJOR NUCLIDE COMPOSITION(BY TYPE OF WASTE)

		JAN-JUNE	JULY-DEC
A			
BA-140	%	2.43E+00	2.43E+00
C-14	%	2.00E-02	2.00E-02
CE-144	%	7.00E-02	7.00E-02
CO-57	%	2.30E-01	2.30E-01
CO-58	%	6.39E+01	6.40E+01
CO-60	%	1.32E+01	1.33E+01
CS-134	%	2.43E+00	2.43E+00
CS-137	%	2.51E+00	2.51E+00
FE-55	%	4.50E-01	4.48E+00
H-3	%	8.60E-01	8.60E-01
I-129/PU-238/PU-239/PU-240/AM-241/CM-242/ CM-243/CM-244	%	7.00E-02	7.00E-02
LA-140	%	3.00E-02	2.78E+00
MN-54	%	1.09E+00	1.09E+00
NI-63	%	5.56E+00	5.57E+00
PU-241	%	1.10E-01	1.10E-01
SR-90	%	2.00E-02	2.00E-02
TC-99	%	2.00E-02	2.00E-02
B			
BA-140	%	2.44E+00	2.45E+00
C-14	%	2.00E-02	4.00E-02
CE-144	%	7.00E-02	6.90E-01
CO-57	%	2.40E-01	2.20E-01
CO-58	%	6.41E+01	6.39E+01
CO-60	%	1.33E+01	1.33E+01
CS-134	%	2.44E+00	2.45E+00
CS-137	%	2.51E+00	2.55E+00
FE-55	%	4.47E+00	4.38E+00
H-3	%	8.60E-01	8.40E-01
I-129/PU-238/PU-239/PU-240/AM-241/CM-242/ CM-243/CM-244	%	7.00E-02	7.00E-02
LA-140	%	2.78E+00	2.77E+00
MN-54	%	3.49E+00	1.10E-01
NI-63	%	5.55E+00	5.47E+00
PU-241	%	1.20E-01	1.10E-01
SR-90	%	2.00E-02	4.00E-02

N/A=NOT APPLICABLE
N/D=NOT DETECTED
N/R=NOT REPORTED

EFFLUENT AND WASTE DISPOSAL ANNUAL REPORT FOR YEAR 1985
SOLID EFFLUENTS

ESTIMATE OF MAJOR NUCLIDE COMPOSITION(BY TYPE OF WASTE)		JAN-JUNE	JULY-DEC
TC-99	%	2.00E-02	4.00E-02
D			
C-14	%		2.00E+00
CE-144	%		4.01E+00
CO-58	%		5.11E+00
CO-60	%		3.71E+01
CS-134	%		5.07E+00
CS-137	%		8.10E+00
FE-55	%		1.20E+01
H-3	%		6.35E+00
MN-54	%		3.62E+00
NI-63	%		1.66E+01
PU-238	%		1.00E-02
PU-239/PU-240/AM-241/CM-243/CM-244	%		3.00E-02

TYPE OF WASTE	UNIT	YEAR	TOTAL
A. SPENT RESINS, FILTER SLUDGES, EVAPORATOR BOTTOMS, ETC.	M3	5.07E+01	
	CI	2.00E+03	
B. DRY COMPRESSIBLE WASTE, CONTAMINATED EQUIPMENT, ETC.	M3	3.90E+02	
	CI	6.92E+00	
C. IRRADIATED COMPONENTS, CONTROL RODS, ETC.	M3	0.00E+00	
	CI	0.00E+00	
D. OTHER	M3	1.44E+01	
SOLIDIFIED OIL	CI	5.44E+00	

N/A=NOT APPLICABLE
N/D=NOT DETECTED
N/R=NOT REPORTED

INSTALLATION:SAN ONOFRE 1

LOCATION:2.5 MI S SAN CLEMENTE, CA

EFFLUENT AND WASTE DISPOSAL ANNUAL REPORT FOR YEAR 1985
AIRBORNE AND LIQUID EFFLUENTS

UNIT NUMBER: 1

LICENSEE:SOUTHERN CA EDISON&SAN DIEGO GAS&ELEC

TYPE:PWR

LICENSED POWER (MWT):1347.00

DOCKET NO.:50-206

INITIAL CRITICALITY:06/14/67

COOLING WATER SOURCE:PACIFIC OCEAN

AIRBORNE EFFLUENTS

NUCLIDES RELEASED	ACTIVITY (CI)
AR-41	7.35E-02
CO-58	4.53E-06
BR-82	9.89E-05
KR-85	1.03E+01
KR-85M	1.04E+01
KR-87	2.59E+00
KR-88	9.87E+00
RB-88	1.22E-04
NB-95	4.42E-06
ZR-95	1.46E-06
I-131	1.14E-03
XE-131M	3.83E+00
I-133	1.04E-04
XE-133	3.57E+03
XE-133M	1.80E+01
XE-135	1.90E+02
XE-135M	1.92E+01
CS-137	6.29E-06
CE-141	1.29E-06
CE-144	6.84E-06

LIQUID EFFLUENTS

NUCLIDES RELEASED	ACTIVITY (CI)
NA-24	1.70E-02
CR-51	1.19E-01
MN-54	3.63E-02
FE-55	3.33E-01
CO-57	4.14E-04
CO-58	1.86E+00
FE-59	1.23E-02
CO-60	8.90E-01
KR-85M	7.47E-03
SR-89	6.65E-03
SR-90	3.96E-03
NB-95	1.06E-03
TC-99M	2.43E-03
RU-103	4.58E-04
SB-124	4.67E-02
I-131	4.84E-01
XE-131M	4.19E-01
I-133	9.93E-03
XE-133	3.04E+01
XE-133M	1.95E-01
CS-134	1.39E+00

N/A=NOT APPLICABLE

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N/R=NOT REPORTED

INSTALLATION:SAN ONOFRE 1

LOCATION:2.5 MI S SAN CLEMENTE, CA

EFFLUENT AND WASTE DISPOSAL ANNUAL REPORT FOR YEAR 1985
AIRBORNE AND LIQUID EFFLUENTS

LIQUID EFFLUENTS

NUCLIDES RELEASED	ACTIVITY (CI)
XE-135	1.88E-01
CS-136	4.79E-02
CS-137	2.73E+00
LA-140	4.48E-03

TOTAL AIRBORNE TRITIUM RELEASE	2.89E+01
TOTAL LIQUID TRITIUM RELEASE	2.38E+03

VOLUME OF LIQUID WASTE RELEASED (PRIOR TO DILUTION)	LITERS	5.48E+08
VOLUME OF DILUTION WATER USED DURING PERIOD	LITERS	6.34E+11

N/A=NOT APPLICABLE
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EFFLUENT AND WASTE DISPOSAL ANNUAL REPORT FOR YEAR 1985
SOLID EFFLUENTS

ESTIMATE OF MAJOR NUCLIDE COMPOSITION(BY TYPE OF WASTE)		JAN-JUNE	JULY-DEC
B			
C-14	%	1.00E-02	5.90E-01
CO-58	%	N/D	1.90E+00
CO-60	%	3.99E+01	2.70E+01
CR-51	%	N/D	2.80E-01
CS-134	%	4.79E+00	3.78E+00
CS-137	%	3.75E+01	3.80E+01
H-3	%	4.00E-01	1.38E+01
I-129	%	6.00E-02	6.00E-02
MN-54	%	4.60E-01	2.70E-01
NI-63	%	1.47E+01	1.28E+01
PU-241	%	2.17E+00	7.00E-01
SR-90	%	N/D	7.00E-02
TC-99	%	2.00E-02	7.60E-01
D			
AG-110M	%	2.00E-02	N/A
C-14	%	6.40E-01	4.50E-01
CE-141	%	N/D	3.25E+00
CE-144	%	7.00E-02	N/A
CO-57	%	1.00E-02	N/A
CO-58	%	2.00E-02	7.60E-01
CO-60	%	6.52E+01	2.50E+01
CS-134	%	2.46E+00	3.93E+00
CS-137	%	1.73E+01	1.86E+01
H-3	%	1.19E+00	3.39E+01
I-129	%	2.00E-02	5.10E-01
MN-54	%	2.00E-01	8.00E-02
NI-63	%	1.12E+01	1.13E+01
PU-241	%	1.52E+00	1.40E+00
RU-106	%	8.00E-02	8.00E-02
SR-90	%	6.00E-02	2.00E-02
TC-99	%	1.00E-02	7.20E-01
ZN-65	%	3.00E-02	N/A

TYPE OF WASTE	UNIT	YEAR TOTAL
A. SPENT RESINS, FILTER SLUDGES, EVAPORATOR BOTTOMS, ETC.	M3	0.00E+00
	CI	0.00E+00
B. DRY COMPRESSIBLE WASTE, CONTAMINATED EQUIPMENT, ETC.	M3	1.36E+02
	CI	5.05E+00
C. IRRADIATED COMPONENTS, CONTROL RODS, ETC.	M3	0.00E+00
	CI	0.00E+00
D. OTHER	M3	4.40E+01
FILTERS,SLUDGE,SAND/WET TRASH	CI	9.95E-01

N/A=NOT APPLICABLE

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N/R=NOT REPORTED

EFFLUENT AND WASTE DISPOSAL ANNUAL REPORT FOR YEAR 1985
AIRBORNE AND LIQUID EFFLUENTS

UNIT NUMBER: 2	LICENSEE:SOUTHERN CA EDISON&SAN DIEGO GAS&ELEC
TYPE:PWR	LICENSED POWER (MWT):3410.00
DOCKET NO.:361	INITIAL CRITICALITY:07/26/82
COOLING WATER SOURCE:PACIFIC OCEAN	
UNIT NUMBER: 3	LICENSEE:SOUTHERN CA EDISON&SAN DIEGO GAS&ELEC
TYPE:PWR	LICENSED POWER (MWT):3390.00
DOCKET NO.:362	INITIAL CRITICALITY:08/29/83
COOLING WATER SOURCE:PACIFIC OCEAN	

AIRBORNE EFFLUENTS

NUCLIDES RELEASED	ACTIVITY (CI)
NA-24	1.35E-04
AR-41	6.59E+00
CR-51	4.43E-05
MN-54	7.51E-05
FE-55	1.90E-03
CO-58	5.50E-04
CO-60	2.63E-04
BR-82	7.80E-05
KR-85	1.39E+02
KR-85M	4.08E+01
KR-87	1.06E+00
KR-88	4.51E-01
RB-88	4.75E-02
SR-89	2.81E-04
SR-90	4.46E-06
SR-92	9.84E-07
Y-92	1.25E-05
NB-95	2.10E-05
MO-99	4.33E-05
TC-99M	4.37E-05
RU-103	1.37E-06
SB-124	2.94E-06
I-131	4.42E-01
XE-131M	1.29E+02
I-132	1.30E-03
I-133	5.02E-02
XE-133	2.37E+04
XE-133M	1.00E+02
CS-134	4.30E-04
I-134	3.62E-06
I-135	9.47E-03
XE-135	1.22E+03
XE-135M	4.97E-02
CS-136	3.03E-05
CS-137	1.23E-03
CS-138	8.52E-03
BA-140	2.13E-06
LA-140	5.70E-07

N/A=NOT APPLICABLE

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EFFLUENT AND WASTE DISPOSAL ANNUAL REPORT FOR YEAR 1985
AIRBORNE AND LIQUID EFFLUENTS

LIQUID EFFLUENTS

NUCLIDES RELEASED	ACTIVITY (CI)
NA-24	2.49E-02
AR-41	2.72E-02
CR-51	1.13E+00
MN-54	2.01E-01
FE-55	3.70E-01
CO-57	3.46E-03
CO-58	1.71E+00
FE-59	8.75E-02
CO-60	9.29E-01
NI-65	5.92E-05
ZN-65	1.11E-02
KR-85	8.24E-02
KR-85M	2.51E-02
KR-87	2.67E-03
KR-88	1.48E-02
RB-88	2.84E-01
SR-89	3.02E-03
SR-90	9.73E-05
SR-92	3.54E-05
NB-95	4.90E-01
ZR-95	3.08E-01
NB-97	2.98E-03
ZR-97	3.43E-02
MO-99	6.54E-02
TC-99M	6.68E-02
RU-103	5.07E-02
RU-106	4.55E-02
AG-110M	1.53E-02
SN-113	4.09E-02
SN-117M	5.98E-04
SB-122	1.45E-04
SB-124	3.23E-02
SB-125	1.32E-01
I-131	5.94E-01
XE-131M	1.26E+00
I-132	3.08E-04
TE-132	3.66E-04
I-133	3.79E-02
XE-133	8.75E+01
XE-133M	1.43E+00
CS-134	1.43E+00
I-135	1.68E-03
XE-135	1.61E+00
XE-135M	5.21E-03
CS-136	1.02E-01
CS-137	2.84E+00
CS-138	8.96E-05
BA-139	1.98E-03

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EFFLUENT AND WASTE DISPOSAL ANNUAL REPORT FOR YEAR 1985
AIRBORNE AND LIQUID EFFLUENTS

LIQUID EFFLUENTS

NUCLIDES RELEASED	ACTIVITY (CI)
BA-140	1.01E-03
LA-140	4.63E-02
CE-141	2.16E-02
CE-144	1.04E-01
W-187	4.86E-03
NP-239	4.38E-02

TOTAL AIRBORNE TRITIUM RELEASE 7.98E+00

TOTAL LIQUID TRITIUM RELEASE 4.75E+02

VOLUME OF LIQUID WASTE RELEASED (PRIOR TO DILUTION)	LITERS	4.94E+10
VOLUME OF DILUTION WATER USED DURING PERIOD	LITERS	1.85E+12

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EFFLUENT AND WASTE DISPOSAL ANNUAL REPORT FOR YEAR 1985
SOLID EFFLUENTS

ESTIMATE OF MAJOR NUCLIDE COMPOSITION(BY TYPE OF WASTE)		JAN-JUNE	JULY-DEC
A			
C-14	%	7.00E-02	N/D
CE-144	%	N/D	1.00E-02
CO-57	%	6.00E-02	2.00E-02
CO-58	%	1.67E+01	5.29E+00
CO-60	%	3.84E+00	1.53E+00
CR-51	%	2.00E-01	N/D
CS-134	%	1.23E+01	1.98E+01
CS-137	%	5.15E+01	6.62E+01
FE-55	%	N/D	2.84E+00
FE-59	%	4.36E+00	N/D
H-3	%	N/D	2.00E-02
MN-54	%	7.76E+00	2.22E+00
NB-95	%	1.90E-01	3.00E-02
NI-59	%	N/D	3.30E-01
NI-63	%	2.81E+00	1.59E+00
PU-241	%	1.00E-02	N/D
SB-125	%	N/D	2.00E-02
SR-90	%	2.00E-02	6.00E-02
ZN-65	%	5.00E-02	1.00E-02
ZR-95	%	9.00E-02	2.00E-02
B			
C-14	%	5.00E-02	1.86E+00
CE-141	%	N/D	1.80E-01
CE-144	%	N/D	3.80E-01
CO-57	%	N/D	1.00E-01
CO-58	%	3.40E+01	3.59E+01
CO-60	%	9.37E+00	1.27E+01
CR-51	%	1.35E+01	1.46E+01
CS-134	%	2.97E+00	2.20E-01
CS-137	%	1.53E+01	1.00E+00
FE-59	%	2.44E+00	1.67E+00
H-3	%	2.00E-01	7.10E-01
I-129	%	4.00E-02	1.00E-02
I-131	%	6.42E+00	3.10E-01
MN-54	%	3.80E+00	4.81E+00
NB-95	%	6.01E+00	1.38E+01
NI-63	%	2.29E+00	2.33E+00
PU-241	%	N/D	5.00E-02
RU-106	%	N/D	6.70E-01
SB-124	%	N/D	5.00E-02
SB-125	%	N/D	2.70E-01
SR-90	%	N/D	5.00E-02
TC-99	%	7.00E-02	1.00E-02
ZN-65	%	N/D	3.60E-01
ZR-95	%	3.65E+00	8.01E+00
C			
C-14	%	2.00E-02	N/A

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EFFLUENT AND WASTE DISPOSAL ANNUAL REPORT FOR YEAR 1985
SOLID EFFLUENTS

ESTIMATE OF MAJOR NUCLIDE COMPOSITION(BY TYPE OF WASTE)		JAN-JUNE	JULY-DEC
CO-57	%	2.20E-01	N/A
CO-58	%	5.99E+01	N/A
CO-60	%	1.60E+01	N/A
CR-51	%	8.17E+00	N/A
CS-137	%	1.00E-01	N/A
FE-59	%	1.11E+00	N/A
H-3	%	1.00E-02	N/A
MN-54	%	1.13E+01	N/A
NB-95	%	8.80E-01	N/A
NI-63	%	3.30E-01	N/A
SB-125	%	7.00E-01	N/A
ZN-65	%	6.60E-01	N/A
ZR-95	%	5.50E-01	N/A
D			
C-14	%	4.70E-01	1.04E+00
CE-141	%	N/D	8.00E-02
CE-144	%	1.00E-02	4.50E-01
CO-57	%	8.00E-02	6.00E-02
CO-58	%	3.64E+01	3.26E+01
CO-60	%	9.58E+00	1.38E+01
CR-51	%	3.32E+01	1.70E+01
CS-134	%	1.10E-01	1.02E+00
CS-137	%	3.20E-01	3.29E+00
FE-55	%	N/D	3.19E+00
FE-59	%	2.62E+00	2.01E+00
H-3	%	6.00E-02	5.40E+00
I-129	%	N/D	3.00E-02
I-131	%	1.10E-01	2.80E-01
MN-54	%	3.85E+00	4.82E+00
NB-95	%	5.47E+00	7.65E+00
NI-63	%	3.91E+00	2.27E+00
PU-241	%	N/D	1.20E-01
RU-106	%	N/D	7.00E-02
SB-124	%	8.00E-02	4.00E-02
SB-125	%	N/D	1.80E-01
TC-99	%	N/D	6.00E-02
ZN-65	%	4.30E-01	4.10E-01
ZR-95	%	3.37E+00	4.16E+00

TYPE OF WASTE	UNIT	YEAR TOTAL
A. SPENT RESINS, FILTER SLUDGES, EVAPORATOR BOTTOMS, ETC.	M3	3.50E+01
	CI	1.47E+03
B. DRY COMPRESSIBLE WASTE, CONTAMINATED EQUIPMENT, ETC.	M3	4.03E+02
	CI	5.38E+01
C. IRRADIATED COMPONENTS, CONTROL RODS, ETC.	M3	1.49E+00
	CI	9.56E-01
D. OTHER	M3	1.05E+02
FILTERS, SLUDGE, SAND/WET TRASH	CI	1.99E+02
N/A=NOT APPLICABLE		
N/D=NOT DETECTED		
N/R=NOT REPORTED		

EFFLUENT AND WASTE DISPOSAL ANNUAL REPORT FOR YEAR 1985
SOLID EFFLUENTS

SOLID WASTE DISPOSITION

NUMBER OF SHIPMENTS	MODE OF TRANSPORTATION	DESTINATION
4	CHEM-NUCLEAR(CASK/TRUCK)	RICHLAND WA
12	TRI-STATE(CASK/TRUCK)	RICHLAND WA
24	TRI-STATE(TRAILER/TRUCK)	RICHLAND WA

IRRADIATED FUEL SHIPMENTS(DISPOSITION)

NUMBER OF SHIPMENTS	MODE OF TRANSPORTATION	DESTINATION
0	N/A	N/A

ESTIMATE OF MAJOR NUCLIDE COMPOSITION(BY TYPE OF WASTE)

		JAN-JUNE	JULY-DEC
B			
C-14	%	N/A	2.58E+00
CE-141	%	N/A	1.80E-01
CE-144	%	N/A	3.80E-01
CO-57	%	N/A	1.30E-01
CO-58	%	N/A	3.71E+01
CO-60	%	N/A	1.24E+01
CR-51	%	N/A	1.32E+01
CS-134	%	N/A	1.00E-01
CS-137	%	N/A	2.70E-01
FE-59	%	N/A	1.54E+00
H-3	%	N/A	9.50E-01
MN-54	%	N/A	4.67E+00
NB-95	%	N/A	1.51E+01
NI-63	%	N/A	2.25E+00
RU-106	%	N/A	6.90E-01
SB-125	%	N/A	2.60E-01
TC-99	%	N/A	1.00E-02
ZN-65	%	N/A	3.50E-01
ZR-95	%	N/A	7.91E+00
D			
C-14	%	1.33E+00	1.13E+01
CE-141	%	N/D	2.20E-01
CE-144	%	3.00E-02	N/D
CO-58	%	2.88E+01	2.95E+01
CO-60	%	3.76E+01	4.14E+01
CR-51	%	4.49E+00	5.80E-01
CS-134	%	N/D	8.00E-02
CS-137	%	8.16E+00	1.72E+00
FE-59	%	4.00E-02	N/D
H-3	%	1.69E+00	1.13E+01
I-129	%	N/D	4.00E-02
MN-54	%	5.22E+00	5.90E-01
NB-95	%	3.46E+00	N/D
NI-63	%	7.17E+00	1.80E+00
PU-241	%	2.30E-01	N/D

N/A=NOT APPLICABLE

N/D=NOT DETECTED

N/R=NOT REPORTED

EFFLUENT AND WASTE DISPOSAL ANNUAL REPORT FOR YEAR 1985
SOLID EFFLUENTS

ESTIMATE OF MAJOR NUCLIDE COMPOSITION(BY TYPE OF WASTE)		JAN-JUNE	JULY-DEC
RU-106	%	2.80E-01	N/D
TC-99	%	N/D	4.00E-02
ZN-65	%	3.00E-02	N/D
ZR-95	%	1.45E+00	1.53E+00

TYPE OF WASTE	UNIT	YEAR TOTAL
A. SPENT RESINS, FILTER SLUDGES, EVAPORATOR BOTTOMS, ETC.	M3	0.00E+00
	CI	0.00E+00
B. DRY COMPRESSIBLE WASTE, CONTAMINATED EQUIPMENT, ETC.	M3	4.25E-01
	CI	5.01E-01
C. IRRADIATED COMPONENTS, CONTROL RODS, ETC.	M3	0.00E+00
	CI	0.00E+00
D. OTHER	M3	1.52E+01
FLTRS, SLDGE, SAND, RUBBLE TRSH	CI	3.95E-01

N/A=NOT APPLICABLE
N/D=NOT DETECTED
N/R=NOT REPORTED

EFFLUENT AND WASTE DISPOSAL ANNUAL REPORT FOR YEAR 1985
AIRBORNE AND LIQUID EFFLUENTS

UNIT NUMBER: 1	LICENSEE:TENNESSEE VALLEY AUTHORITY
TYPE:PWR	LICENSED POWER (MWT):2815.00
DOCKET NO.:50-327	INITIAL CRITICALITY:07/05/80
COOLING WATER SOURCE:TENNESSEE RIVER	
UNIT NUMBER: 2	LICENSEE:TENNESSEE VALLEY AUTHORITY
TYPE:PWR	LICENSED POWER (MWT):2815.00
DOCKET NO.:50-328	INITIAL CRITICALITY:11/05/81
COOLING WATER SOURCE:TENNESSEE RIVER	

AIRBORNE EFFLUENTS

NUCLIDES RELEASED	ACTIVITY (CI)
AR-41	1.92E+00
CR-51	1.48E-05
MN-54	3.21E-07
CO-57	6.02E-08
CO-58	3.51E-04
CO-60	1.34E-04
KR-85	3.09E+01
KR-85M	5.24E+00
KR-87	2.56E+00
KR-88	2.05E+00
Y-88	1.70E-05
SR-89	1.26E-09
TC-99M	2.14E-08
RU-103	2.48E-06
I-131	2.57E-03
XE-131M	1.74E+01
TE-132	3.34E-07
I-133	3.46E-03
XE-133	4.38E+03
XE-133M	6.06E+01
CS-134	2.82E-05
XE-135	4.02E+01
CS-137	4.11E-05
CE-141	1.71E-06
CE-144	6.43E-06

LIQUID EFFLUENTS

NUCLIDES RELEASED	ACTIVITY (CI)
NA-24	3.57E-05
P-32	6.31E-02
AR-41	2.44E-04
CR-51	2.82E-02
MN-54	5.16E-02
FE-55	4.55E-01
CO-57	3.11E-03
CO-58	3.44E-01
FE-59	5.47E-03
CO-60	2.11E-01
ZN-65	2.67E-03
ZN-69M	6.03E-06

N/A=NOT APPLICABLE
N/D=NOT DETECTED
N/R=NOT REPORTED

EFFLUENT AND WASTE DISPOSAL ANNUAL REPORT FOR YEAR 1985
AIRBORNE AND LIQUID EFFLUENTS

LIQUID EFFLUENTS

NUCLIDES RELEASED	ACTIVITY (CI)
KR-85	2.61E-03
KR-85M	3.44E-04
RB-86	1.31E-04
KR-87	1.16E-06
SR-89	9.60E-04
SR-90	1.12E-05
Y-91	5.62E-03
Y-91M	3.42E-07
SR-92	3.00E-04
NB-95	9.12E-03
ZR-95	4.64E-03
ZR-NB-95	1.64E-03
NB-97	3.59E-04
TC-99M	1.10E-04
RU-103	1.05E-04
RU-106	2.37E-04
AG-110M	2.86E-03
SB-125	3.64E-04
I-131	2.47E-02
XE-131M	1.23E-02
TE-132	3.09E-04
I-133	1.23E-03
XE-133	1.74E+00
XE-133M	2.30E-02
CS-134	1.46E-01
XE-135	1.85E-02
XE-135M	7.55E-05
CS-136	3.22E-03
CS-137	1.47E-01
XE-138	1.47E-04
CE-141	1.18E-02
CE-144	1.19E-03

TOTAL AIRBORNE TRITIUM RELEASE 9.78E+01

TOTAL LIQUID TRITIUM RELEASE 6.33E+02

VOLUME OF LIQUID WASTE RELEASED (PRIOR TO DILUTION)	LITERS	1.18E+09
VOLUME OF DILUTION WATER USED DURING PERIOD	LITERS	6.65E+09

N/A=NOT APPLICABLE

N/D=NOT DETECTED

N/R=NOT REPORTED

EFFLUENT AND WASTE DISPOSAL ANNUAL REPORT FOR YEAR 1985
SOLID EFFLUENTS

SOLID WASTE DISPOSITION

NUMBER OF SHIPMENTS	MODE OF TRANSPORTATION	DESTINATION
42	MOTOR FREIGHT	BARNWELL SC
16	MOTOR FREIGHT	RICHLAND WA

ESTIMATE OF MAJOR NUCLIDE COMPOSITION(BY TYPE OF WASTE)

JAN-JUNE

JULY-DEC

		JAN-JUNE	JULY-DEC
A			
C-14	%	1.40E-01	2.78E-01
CO-58	%	6.01E+01	2.97E+01
CO-60	%	1.51E+01	3.35E+01
CR-51	%	3.51E-03	1.09E-01
CS-134	%	6.27E+00	7.96E+00
CS-137	%	8.53E+00	9.59E+00
FE-59	%	5.65E-03	1.94E-02
H-3	%	1.99E-01	1.31E+00
I-131	%	9.95E-03	3.68E-02
MN-54	%	9.14E+00	6.39E+00
NB-95	%	1.51E-02	2.53E-02
NI-63	%		9.87E+00
OTHERS	%	3.82E-01	1.13E+00
SR-90	%	6.99E-03	7.40E-03
ZR-95	%	8.20E-03	1.16E-02
B			
C-14	%	1.82E-01	1.71E-01
CO-58	%	3.98E+01	2.53E+01
CO-60	%	1.30E+01	4.10E+00
CR-51	%	3.11E-01	1.06E+00
CS-134	%	2.49E+00	3.09E-01
CS-137	%	2.80E+00	2.56E-01
FE-55	%		6.04E+01
FE-59	%	2.98E-01	5.26E-01
H-3	%	2.90E+01	5.65E+00
I-131	%	2.90E-01	6.64E-02
MN-54	%	7.41E+00	2.14E-01
NB-95	%	2.36E-01	2.42E-02
OTHERS	%	4.02E+00	1.88E+00
SR-90	%	1.05E-03	3.52E-03
ZR-95	%	8.78E-02	6.08E-02

TYPE OF WASTE	UNIT	YEAR TOTAL
A. SPENT RESINS, FILTER SLUDGES, EVAPORATOR	M3	2.30E+02
BOTTOMS, ETC.	CI	2.34E+03
B. DRY COMPRESSIBLE WASTE, CONTAMINATED	M3	5.22E+02
EQUIPMENT, ETC.	CI	1.04E+02
C. IRRADIATED COMPONENTS, CONTROL	M3	0.00E+00
RODS, ETC.	CI	0.00E+00
D. OTHER	M3	0.00E+00
	CI	0.00E+00

N/A=NOT APPLICABLE

N/D=NOT DETECTED

N/R=NOT REPORTED

EFFLUENT AND WASTE DISPOSAL ANNUAL REPORT FOR YEAR 1985
AIRBORNE AND LIQUID EFFLUENTS

UNIT NUMBER: 1

LICENSEE:FLORIDA POWER &LIGHT

TYPE:PWR

LICENSED POWER (MWT):2560.00

DOCKET NO.:50-335

INITIAL CRITICALITY:04/22/76

COOLING WATER SOURCE:ATLANTIC OCEAN

AIRBORNE EFFLUENTS

NUCLIDES RELEASED	ACTIVITY (CI)
AR-41	2.99E+00
CO-58	5.88E-05
CO-60	2.60E-05
KR-85	1.46E+01
KR-85M	4.06E+02
KR-87	9.67E+01
KR-88	3.35E+02
TC-99M	2.33E-03
I-131	1.81E-01
XE-131M	1.99E+01
I-132	2.78E-01
I-133	3.45E-01
XE-133	4.59E+04
XE-133M	3.76E+02
CS-134	1.22E-05
I-135	2.39E-01
XE-135	3.53E+03
XE-135M	2.55E+01
CS-136	9.81E-05
CS-137	3.73E-04
LA-140	1.02E-04

LIQUID EFFLUENTS

NUCLIDES RELEASED	ACTIVITY (CI)
NA-24	4.34E-04
AR-41	1.51E-03
CR-51	1.89E-01
MN-54	4.94E-02
FE-55	5.20E-01
CO-57	9.10E-05
CO-58	6.00E-01
FE-59	1.67E-02
CO-60	4.25E-01
KR-85	1.48E+01
KR-85M	1.04E-04
SR-89	1.61E-03
SR-90	1.14E-04
Y-90	1.14E-04
NB-95	7.32E-02
ZR-95	5.05E-02
NB-97	5.37E-03
MO-99	5.60E-04
TC-99M	3.18E-03
RU-103	7.46E-03

N/A=NOT APPLICABLE

N/D=NOT DETECTED

N/R=NOT REPORTED

EFFLUENT AND WASTE DISPOSAL ANNUAL REPORT FOR YEAR 1985
AIRBORNE AND LIQUID EFFLUENTS

LIQUID EFFLUENTS

NUCLIDES RELEASED	ACTIVITY (CI)
AG-110	4.57E-03
SN-113	1.09E-03
SB-122	3.60E-03
SB-124	7.58E-03
SB-125	3.11E-02
I-131	1.24E-01
XE-131M	6.57E-03
I-132	6.56E-04
I-133	1.97E-02
XE-133	1.12E+01
XE-133M	9.80E-02
CS-134	2.04E-01
I-135	4.66E-03
XE-135	5.30E-02
XE-135M	1.73E-03
CS-136	7.51E-03
CS-137	3.43E-01
LA-140	1.16E-02
CE-141	2.42E-03
CE-144	6.29E-03
NP-239	5.05E-03

TOTAL AIRBORNE TRITIUM RELEASE	4.00E+02
TOTAL LIQUID TRITIUM RELEASE	2.86E+02

VOLUME OF LIQUID WASTE RELEASED (PRIOR TO DILUTION)	LITERS	6.46E+06
VOLUME OF DILUTION WATER USED DURING PERIOD	LITERS	4.82E+11

N/A=NOT APPLICABLE
N/D=NOT DETECTED
N/R=NOT REPORTED

EFFLUENT AND WASTE DISPOSAL ANNUAL REPORT FOR YEAR 1985
AIRBORNE AND LIQUID EFFLUENTS

UNIT NUMBER: 2

LICENSEE:FLORIDA POWER &LIGHT

TYPE:PWR

LICENSED POWER (MWT):2700.00

DOCKET NO.:50-389

INITIAL CRITICALITY:06/02/83

COOLING WATER SOURCE:ATLANTIC OCEAN

AIRBORNE EFFLUENTS

NUCLIDES RELEASED	ACTIVITY (CI)
AR-41	7.99E+00
CO-57	1.37E-07
KR-85	2.52E-01
KR-85M	6.83E+01
KR-87	6.36E+00
KR-88	3.73E+01
I-131	1.07E-01
XE-131M	6.25E+00
I-132	3.43E-02
I-133	6.89E-02
XE-133	8.40E+03
XE-133M	3.91E+01
XE-135	9.76E+02

LIQUID EFFLUENTS

NUCLIDES RELEASED	ACTIVITY (CI)
NA-24	1.83E-03
AR-41	1.51E-03
CR-51	1.89E-01
MN-54	4.95E-02
FE-55	5.21E-01
CO-57	9.10E-05
CO-58	6.00E-01
FE-59	1.67E-02
CO-60	4.25E-01
KR-85	1.48E+01
KR-85M	1.04E-04
SR-89	1.61E-03
SR-90	1.14E-04
Y-90	1.14E-04
NB-95	7.32E-02
ZR-95	5.05E-02
NB-97	5.37E-03
MO-99	5.60E-04
TC-99M	3.18E-03
RU-103	7.46E-03
AG-110	4.57E-03
SN-113	1.09E-03
SB-122	3.60E-03
SB-124	7.58E-03
SB-125	3.11E-02
I-131	1.30E-01
XE-131M	6.57E-03
I-132	4.90E-03

N/A=NOT APPLICABLE

N/D=NOT DETECTED

N/R=NOT REPORTED

EFFLUENT AND WASTE DISPOSAL ANNUAL REPORT FOR YEAR 1985
AIRBORNE AND LIQUID EFFLUENTS

LIQUID EFFLUENTS

NUCLIDES RELEASED	ACTIVITY (CI)
I-133	2.97E-02
XE-133	1.12E+01
XE-133M	9.80E-02
CS-134	2.05E-01
I-135	4.66E-03
XE-135	5.36E-02
XE-135M	1.05E-02
CS-136	7.51E-03
CS-137	3.45E-01
CS-138	4.82E-02
BA-140	8.14E-06
LA-140	1.16E-02
CE-141	2.42E-03
CE-144	6.29E-03
NP-239	5.05E-03

TOTAL AIRBORNE TRITIUM RELEASE	1.62E+02
TOTAL LIQUID TRITIUM RELEASE	3.64E+02

VOLUME OF LIQUID WASTE RELEASED (PRIOR TO DILUTION)	LITERS	1.26E+07
VOLUME OF DILUTION WATER USED DURING PERIOD	LITERS	5.05E+11

N/A=NOT APPLICABLE
N/D=NOT DETECTED
N/R=NOT REPORTED

EFFLUENT AND WASTE DISPOSAL ANNUAL REPORT FOR YEAR 1985
SOLID EFFLUENTS

SOLID WASTE DISPOSITION

NUMBER OF SHIPMENTS	MODE OF TRANSPORTATION	DESTINATION
27	SOLE USE TRUCK	BARNWELL SC
6	SOLE USE TRUCK	HANFORD WA
2	SOLE USE TRUCK	RICHLAND WA

IRRADIATED FUEL SHIPMENTS(DISPOSITION)

NUMBER OF SHIPMENTS	MODE OF TRANSPORTATION	DESTINATION
0	N/A	N/A

ESTIMATE OF MAJOR NUCLIDE COMPOSITION(BY TYPE OF WASTE)

		JAN-JUNE	JULY-DEC
A			
	CO-58	% 1.30E+01	3.30E+01
	CO-60	% 5.60E+00	1.60E+01
	CS-134	% 2.10E+01	1.60E+01
	CS-137	% 4.20E+01	2.80E+01
	FE-55	% 8.40E+00	
B			
	CO-58	% 1.10E+01	1.60E+01
	CO-60	% 2.20E+01	2.60E+01
	CS-134	% 8.00E+00	8.00E+00
	CS-137	% 1.60E+01	9.00E+00
	FE-55	% 1.80E+01	1.80E+01
	H-3	% 1.50E+01	2.00E+00
D			
	C-14	%	3.10E+01
	CO-60	%	5.80E+01
	CS-137	%	3.00E+00
	H-3	%	1.00E+00
	NI-63	%	6.00E+00

TYPE OF WASTE

	UNIT	YEAR TOTAL
A. SPENT RESINS, FILTER SLUDGES, EVAPORATOR	M3	7.93E+01
BOTTOMS, ETC.	CI	1.55E+03
B. DRY COMPRESSIBLE WASTE, CONTAMINATED	M3	4.20E+02
EQUIPMENT, ETC.	CI	4.10E+01
C. IRRADIATED COMPONENTS, CONTROL	M3	0.00E+00
RODS, ETC.	CI	0.00E+00
D. OTHER	M3	4.53E+01
CONTAMINATED OIL	CI	2.19E+00

N/A=NOT APPLICABLE

N/D=NOT DETECTED

N/R=NOT REPORTED

EFFLUENT AND WASTE DISPOSAL ANNUAL REPORT FOR YEAR 1985
AIRBORNE AND LIQUID EFFLUENTS

UNIT NUMBER: 1 LICENSEE:SOUTH CAROLINA ELECTRIC & GAS CO.
TYPE:PWR LICENSED POWER (MWT):2775.00
DOCKET NO.:50-395 INITIAL CRITICALITY:10/22/82
COOLING WATER SOURCE:MONTICELLO RESERVOIR

AIRBORNE EFFLUENTS

NUCLIDES RELEASED	ACTIVITY (CI)
CO-58	5.50E-06
I-131	2.01E-05
XE-131M	2.50E-04
I-133	1.62E-05
XE-133	1.35E+02
XE-133M	8.87E-01
XE-135	4.38E+00

LIQUID EFFLUENTS

NUCLIDES RELEASED	ACTIVITY (CI)
NA-24	3.91E-02
CR-51	3.19E-02
MN-54	4.31E-02
FE-55	4.76E-02
NI-56	2.19E-08
CO-57	1.16E-03
CO-58	3.30E-01
FE-59	2.30E-03
CO-60	1.64E-01
CU-64	8.52E-05
ZN-65	6.12E-04
ZN-69M	2.15E-05
SR-89	1.99E-04
ZR-NB-95	1.72E-02
ZR-97	2.55E-06
MO-99	7.05E-05
TC-99M	5.05E-04
AG-110M	5.99E-05
SN-113	5.17E-04
SB-122	1.14E-05
SB-124	3.46E-03
SB-125	1.28E-02
SB-126	6.39E-06
I-131	3.56E-03
I-132	9.41E-04
I-133	4.83E-03
XE-133	5.50E-03
XE-133M	3.13E-05
CS-134	1.99E-03
I-134	7.94E-04
I-135	3.55E-04
XE-135	1.68E-04
CS-136	4.46E-05
CS-137	6.73E-04

N/A=NOT APPLICABLE
N/D=NOT DETECTED
N/R=NOT REPORTED

INSTALLATION:SUMMER

LOCATION:26 MI NW OF COLUMBIA, SC

EFFLUENT AND WASTE DISPOSAL ANNUAL REPORT FOR YEAR 1985
AIRBORNE AND LIQUID EFFLUENTS

LIQUID EFFLUENTS

NUCLIDES RELEASED	ACTIVITY (CI)
BA-LA-140	6.67E-05
CE-144	2.21E-05
W-187	9.37E-05

TOTAL AIRBORNE TRITIUM RELEASE 2.76E-01

TOTAL LIQUID TRITIUM RELEASE 3.11E+02

VOLUME OF LIQUID WASTE RELEASED (PRIOR TO DILUTION)	LITERS	3.21E+08
VOLUME OF DILUTION WATER USED DURING PERIOD	LITERS	1.18E+12

N/A=NOT APPLICABLE
N/D=NOT DETECTED
N/R=NOT REPORTED

INSTALLATION:SUMMER

EFFLUENT AND WASTE DISPOSAL ANNUAL REPORT FOR YEAR 1985
SOLID EFFLUENTS

SOLID WASTE DISPOSITION

NUMBER OF SHIPMENTS	MODE OF TRANSPORTATION	DESTINATION
31	TRUCK	BARNWELL SC

IRRADIATED FUEL SHIPMENTS(DISPOSITION)

NUMBER OF SHIPMENTS	MODE OF TRANSPORTATION	DESTINATION
0	N/A	N/A

ESTIMATE OF MAJOR NUCLIDE COMPOSITION(BY TYPE OF WASTE)

JAN-JUNE JULY-DEC

A			
CO-58	%	1.70E+00	3.36E+01
CO-60	%	9.68E-01	2.63E+01
CR-51	%	6.76E-01	
FE-55	%	5.91E-01	9.63E+00
H-3	%	9.52E+01	1.32E+01
MN-54	%	2.34E-01	1.19E+01
NI-63	%	4.59E-01	
NI-63+C-14+SN-113	%		4.38E+00
B			
CO-58	%	3.07E+01	2.59E+01
CO-60	%	1.58E+01	1.71E+01
FE-55	%	3.82E+01	4.20E+01
MN-54	%	6.26E+00	
MN-54+NI-63+SR-89+NB-95+CR-51	%		1.41E+01
NB-95+FE-59+CR-51+ZR-95	%	4.51E+00	
NI-63	%	3.41E+00	
ZN-65+SB-125+CO-57+CS-137+H-3	%	1.07E+00	
D			
CO-58	%		2.75E+01
CO-60	%		2.14E+01
FE-55	%		3.79E+01
MN-54	%		5.49E+00
NI-63	%		4.06E+00
PU-241+ZR-95+SB-124+CR-51+CE-144	%		2.66E+00

TYPE OF WASTE

TYPE OF WASTE	UNIT	YEAR	TOTAL
A. SPENT RESINS, FILTER SLUDGES, EVAPORATOR	M3	2.43E+02	
BOTTOMS, ETC.	CI	1.01E+02	
B. DRY COMPRESSIBLE WASTE, CONTAMINATED	M3	2.01E+02	
EQUIPMENT, ETC.	CI	9.92E+00	
C. IRRADIATED COMPONENTS, CONTROL	M3	0.00E+00	
RODS, ETC.	CI	0.00E+00	
D. OTHER	M3	2.38E+00	
PROCESS FILTERS	CI	1.82E+01	

N/A=NOT APPLICABLE

N/D=NOT DETECTED

N/R=NOT REPORTED

EFFLUENT AND WASTE DISPOSAL ANNUAL REPORT FOR YEAR 1985
AIRBORNE AND LIQUID EFFLUENTS

UNIT NUMBER: 1	LICENSEE:VIRGINIA ELECTRIC &POWER
TYPE:PWR	LICENSED POWER (MWT):2441.00
DOCKET NO.:50-280	INITIAL CRITICALITY:07/01/72
COOLING WATER SOURCE:JAMES RIVER	
UNIT NUMBER: 2	LICENSEE:VIRGINIA ELECTRIC &POWER
TYPE:PWR	LICENSED POWER (MWT):2441.00
DOCKET NO.:50-281	INITIAL CRITICALITY:03/07/73
COOLING WATER SOURCE:JAMES RIVER	

AIRBORNE EFFLUENTS

NUCLIDES RELEASED	ACTIVITY (CI)
NA-24	1.83E-09
AR-41	3.98E+00
MN-54	5.54E-06
CO-57	2.15E-08
CO-58	1.54E-04
CO-60	3.77E-04
KR-85	8.93E+00
KR-85M	1.71E-01
KR-87	1.84E+00
KR-88	1.10E-01
RB-88	2.74E-03
SR-90	5.36E-09
SR-92	6.03E-08
SB-125	8.02E-07
I-131	2.55E-02
XE-131M	1.30E+01
I-132	1.40E-03
TE-132	2.10E-05
I-133	1.64E-02
XE-133	2.01E+03
XE-133M	3.07E+00
CS-134	1.27E-04
I-135	6.61E-03
XE-135	2.10E+01
CS-137	5.59E-04
CS-138	1.42E-03
ND-147	2.94E-08

LIQUID EFFLUENTS

NUCLIDES RELEASED	ACTIVITY (CI)
NA-22	1.40E-05
NA-24	8.33E-02
AR-41	5.79E-04
CR-51	5.78E-01
MN-54	8.38E-02
FE-55	3.79E-01
MN-56	1.94E-04
CO-57	5.26E-03
CO-58	2.17E+00
FE-59	1.28E-02

N/A=NOT APPLICABLE

N/D=NOT DETECTED

N/R=NOT REPORTED

EFFLUENT AND WASTE DISPOSAL ANNUAL REPORT FOR YEAR 1985
AIRBORNE AND LIQUID EFFLUENTS

LIQUID EFFLUENTS

NUCLIDES RELEASED	ACTIVITY (CI)
CO-60	1.82E+00
ZN-65	1.44E-03
KR-85M	1.54E-03
KR-87	1.20E-04
KR-88	1.08E-03
RB-88	2.76E-04
SR-89	3.56E-03
SR-90	1.18E-04
SR-92	1.72E-02
NB-95	6.00E-02
ZR-95	2.30E-02
MO-99	4.80E-03
TC-99M	7.67E-03
RU-103	1.70E-03
AG-110M	5.12E-02
SB-124	3.48E-02
SB-125	2.31E-01
I-131	5.04E-01
XE-131M	5.47E-02
I-132	1.39E-03
TE-132	1.15E-04
I-133	1.19E-01
XE-133	7.61E+00
XE-133M	3.83E-02
CS-134	6.31E-01
I-134	4.82E-04
I-135	1.33E-02
XE-135	9.23E-01
XE-135M	3.09E-02
CS-136	3.48E-03
CS-137	1.69E+00
CS-138	2.53E-04
BA-140	2.64E-04
LA-140	8.14E-03
CE-141	1.49E-04
CE-144	1.35E-02
ND-147	9.79E-05
W-187	2.95E-04
BI-207	1.97E-06

TOTAL AIRBORNE TRITIUM RELEASE 3.27E+01
TOTAL LIQUID TRITIUM RELEASE 7.50E+02

VOLUME OF LIQUID WASTE RELEASED (PRIOR TO DILUTION)	LITERS	4.22E+08
VOLUME OF DILUTION WATER USED DURING PERIOD	LITERS	2.16E+12

N/A=NOT APPLICABLE
N/D=NOT DETECTED
N/R=NOT REPORTED

EFFLUENT AND WASTE DISPOSAL ANNUAL REPORT FOR YEAR 1985
SOLID EFFLUENTS

SOLID WASTE DISPOSITION

NUMBER OF SHIPMENTS	MODE OF TRANSPORTATION	DESTINATION
60	TRUCK	BARNWELL SC
24	TRUCK	RICHLAND WA

IRRADIATED FUEL SHIPMENTS(DISPOSITION)

NUMBER OF SHIPMENTS	MODE OF TRANSPORTATION	DESTINATION
15	TRUCK	E G & G IDAHO

ESTIMATE OF MAJOR NUCLIDE COMPOSITION(BY TYPE OF WASTE)

JAN-JUNE JULY-DEC

A

CO-58	%	3.32E+01	2.44E+01
CO-60	%	3.87E+01	3.63E+01
CR-51	%	1.47E+00	
CS-134	%		4.19E+00
CS-137	%		1.29E+01
FE-55	%	6.82E+00	1.08E+01
H-3	%		1.44E+00
MN-54	%	2.31E+00	
NI-63	%	7.74E+00	7.91E+00
TE-125M	%	4.80E+00	

B

C-14	%		5.83E+00
CO-58	%	6.50E+00	4.55E+00
CO-60	%	2.23E+01	1.68E+01
CS-134	%	8.49E+00	5.60E+00
CS-137	%	2.18E+01	1.56E+01
FE-55	%	2.43E+01	1.64E+01
H-3	%	1.09E+01	2.92E+01
NI-63	%	4.62E+00	

D

C-14	%		3.76E+00
CO-60	%		1.50E+00
FE-55	%		1.41E+01
NI-63	%		7.68E+01
PU-241	%		1.50E+00

TYPE OF WASTE

UNIT YEAR TOTAL

A. SPENT RESINS, FILTER SLUDGES, EVAPORATOR	M3	7.11E+01
BOTTOMS, ETC.	CI	1.14E+03
B. DRY COMPRESSIBLE WASTE, CONTAMINATED	M3	1.88E+03
EQUIPMENT, ETC.	CI	6.10E+01
C. IRRADIATED COMPONENTS, CONTROL	M3	0.00E+00
RODS, ETC.	CI	0.00E+00
D. OTHER	M3	7.26E+01
ORGANIC WASTE	CI	4.41E+00

N/A=NOT APPLICABLE

N/D=NOT DETECTED

N/R=NOT REPORTED

EFFLUENT AND WASTE DISPOSAL ANNUAL REPORT FOR YEAR 1985
AIRBORNE AND LIQUID EFFLUENTS

UNIT NUMBER: 1	LICENSEE:PENNSYLVANIA POWER & LIGHT CO.
TYPE:BWR	LICENSED POWER (MWT):3293.00
DOCKET NO.:50-387	INITIAL CRITICALITY:09/10/82
COOLING WATER SOURCE:SUSQUEHANNA RIVER	
UNIT NUMBER: 2	LICENSEE:PENNSYLVANIA POWER & LIGHT CO.
TYPE:BWR	LICENSED POWER (MWT):3293.00
DOCKET NO.:50-388	INITIAL CRITICALITY:05/08/84
COOLING WATER SOURCE:SUSQUEHANNA RIVER	

AIRBORNE EFFLUENTS

NUCLIDES RELEASED	ACTIVITY (CI)
AR-41	7.66E+00
CR-51	2.42E-02
MN-54	2.22E-04
CO-58	3.22E-04
CO-60	3.89E-04
ZN-65	2.32E-04
KR-85M	2.61E+01
KR-88	6.35E-01
SR-89	2.24E-05
AG-110M	1.43E-04
I-131	1.15E-03
I-133	6.22E-04
XE-133	3.41E+02
XE-135	1.63E+02
CS-137	1.04E-06
XE-138	3.12E+01

LIQUID EFFLUENTS

NUCLIDES RELEASED	ACTIVITY (CI)
H-3	9.14E+00
NA-24	3.71E-03
AR-41	8.93E-06
CR-51	5.25E-01
MN-54	3.69E-02
MN-56	1.35E-06
CO-58	1.40E-02
FE-59	7.67E-03
CO-60	2.83E-02
ZN-65	4.10E-03
AS-76	2.11E-03
SR-89	7.12E-05
SR-92	1.28E-04
NB-97	1.13E-04
MO-99	8.31E-03
TC-99M	3.32E-03
AG-110M	7.52E-04
SB-124	1.18E-04
I-131	2.54E-04
XE-133	1.41E-03
XE-135	1.70E-03

N/A=NOT APPLICABLE
N/D=NOT DETECTED
N/R=NOT REPORTED

EFFLUENT AND WASTE DISPOSAL ANNUAL REPORT FOR YEAR 1985
AIRBORNE AND LIQUID EFFLUENTS

LIQUID EFFLUENTS

NUCLIDES RELEASED	ACTIVITY (CI)
CS-136	3.31E-05
W-187	4.12E-04

TOTAL AIRBORNE TRITIUM RELEASE 7.78E+01

TOTAL LIQUID TRITIUM RELEASE 9.14E+00

VOLUME OF LIQUID WASTE RELEASED (PRIOR TO DILUTION)	LITERS	1.17E+07
VOLUME OF DILUTION WATER USED DURING PERIOD	LITERS	7.31E+08

N/A=NOT APPLICABLE

N/D=NOT DETECTED

N/R=NOT REPORTED

EFFLUENT AND WASTE DISPOSAL ANNUAL REPORT FOR YEAR 1985
SOLID EFFLUENTS

SOLID WASTE DISPOSITION

NUMBER OF SHIPMENTS	MODE OF TRANSPORTATION	DESTINATION
120	TRUCK	BARNWELL SC
17	TRUCK	RICHLAND WA

IRRADIATED FUEL SHIPMENTS(DISPOSITION)

NUMBER OF SHIPMENTS	MODE OF TRANSPORTATION	DESTINATION
0	N/A	N/A

TYPE OF WASTE	UNIT	YEAR	TOTAL
A. SPENT RESINS, FILTER SLUDGES, EVAPORATOR BOTTOMS, ETC.	M3	8.37E+02	
	CI	8.32E+02	
B. DRY COMPRESSIBLE WASTE, CONTAMINATED EQUIPMENT, ETC.	M3	2.60E+02	
	CI	1.96E+01	
C. IRRADIATED COMPONENTS, CONTROL RODS, ETC.	M3		
	CI		
D. OTHER	M3	3.13E+01	
FUEL POOL CLEAN-UP(POWDEX)	CI	1.31E+03	

N/A=NOT APPLICABLE
N/D=NOT DETECTED
N/R=NOT REPORTED

EFFLUENT AND WASTE DISPOSAL ANNUAL REPORT FOR YEAR 1985
AIRBORNE AND LIQUID EFFLUENTS

UNIT NUMBER: 1 LICENSEE:METROPOLITAN ED&JERSEY CENTRAL PWR&LGH
TYPE:PWR LICENSED POWER (MWT):2535.00
DOCKET NO.:50-289 INITIAL CRITICALITY:06/05/74
COOLING WATER SOURCE:SUSQUEHANNA RIVER

AIRBORNE EFFLUENTS

NUCLIDES RELEASED	ACTIVITY (CI)
AR-41	4.77E-01
KR-85	1.36E+01
KR-85M	4.85E-01
KR-87	2.32E+00
KR-88	4.86E-01
SR-89	1.41E-05
SR-90	1.45E-05
XE-131M	3.63E-02
XE-133	8.02E+01
XE-133M	1.12E+00
XE-135	9.57E+00

LIQUID EFFLUENTS

NUCLIDES RELEASED	ACTIVITY (CI)
FE-55	5.50E-04
CO-60	6.44E-04
SR-90	1.09E-04
SB-125	1.22E-04
XE-133	3.37E-04
CS-134	2.45E-04
XE-135	2.15E-05
CS-137	4.63E-03

TOTAL AIRBORNE TRITIUM RELEASE	2.34E-02
TOTAL LIQUID TRITIUM RELEASE	9.06E+00

VOLUME OF LIQUID WASTE RELEASED (PRIOR TO DILUTION)	LITERS	5.52E+07
VOLUME OF DILUTION WATER USED DURING PERIOD	LITERS	4.04E+10

N/A=NOT APPLICABLE
N/D=NOT DETECTED
N/R=NOT REPORTED

EFFLUENT AND WASTE DISPOSAL ANNUAL REPORT FOR YEAR 1985
SOLID EFFLUENTS

SOLID WASTE DISPOSITION

NUMBER OF SHIPMENTS	MODE OF TRANSPORTATION	DESTINATION
4	TRACTOR-CASK	BARNWELL SC
1	TRACTOR-CASK	HANFORD WA
7	TRACTOR-CLOSED VAN	HANFORD WA
3	TRACTOR-FLATBED	BARNWELL SC
26	TRACTOR-FLATBED	HANFORD WA

ESTIMATE OF MAJOR NUCLIDE COMPOSITION(BY TYPE OF WASTE)

JAN-JUNE JULY-DEC

A			
C-14	%		6.31E+00
CS-134	%	1.27E+01	5.30E+00
CS-137	%	4.78E+01	4.77E+01
H-3	%	1.69E+01	3.34E+01
NI-63	%	1.84E+01	
B			
CO-60	%	1.46E+01	8.41E+00
CS-134	%	6.03E+00	1.60E+01
CS-137	%	5.58E+01	4.54E+01
NI-63	%	1.90E+01	1.57E+01
PU-241	%		2.53E+00
SR-90	%	1.13E+00	
D			
C-14	%	2.58E+01	
H-3	%	1.40E+01	
NI-63	%	4.85E+01	
TC-99	%	3.73E+00	

TYPE OF WASTE

TYPE OF WASTE	UNIT	YEAR	TOTAL
A. SPENT RESINS, FILTER SLUDGES, EVAPORATOR	M3		1.62E+02
BOTTOMS, ETC.	CI		1.81E+01
B. DRY COMPRESSIBLE WASTE, CONTAMINATED	M3		1.28E+02
EQUIPMENT, ETC.	CI		1.11E+00
C. IRRADIATED COMPONENTS, CONTROL	M3		N/A
RODS, ETC.	CI		N/A
D. OTHER	M3		1.79E+02
	CI		1.61E-01

N/A=NOT APPLICABLE
N/D=NOT DETECTED
N/R=NOT REPORTED

INSTALLATION:THREE MILE ISLAND 2*

LOCATION:10 MI SE HARRISBURG, PA

EFFLUENT AND WASTE DISPOSAL ANNUAL REPORT FOR YEAR 1985
AIRBORNE AND LIQUID EFFLUENTS

UNIT NUMBER: 2

LICENSEE:METROPOLITAN ED&JERSEY CENTRAL PWR&LGH

TYPE:PWR

LICENSED POWER (MWT):2772.00

DOCKET NO.:50-320

INITIAL CRITICALITY:03/28/78

COOLING WATER SOURCE:SUSQUEHANNA RIVER

AIRBORNE EFFLUENTS

NUCLIDES RELEASED

ACTIVITY (CI)

CS-137

2.56E-05

UNIDENTIFIED

2.02E-05

LIQUID EFFLUENTS

NUCLIDES RELEASED

ACTIVITY (CI)

SR-90

1.35E-04**

CS-137

4.19E-05

TOTAL AIRBORNE TRITIUM RELEASE 1.98E+01

TOTAL LIQUID TRITIUM RELEASE 2.22E-03

VOLUME OF LIQUID WASTE RELEASED (PRIOR TO DILUTION)

LITERS 4.34E+05

VOLUME OF DILUTION WATER USED DURING PERIOD

LITERS 4.03E+10

**THIS VALUE INCLUDES SR-90 AND ANY ACTIVITY NOT SPECIFICALLY IDENTIFIED.

*INCLUDES EPICOR II

N/A=NOT APPLICABLE

N/D=NOT DETECTED

N/R=NOT REPORTED

EFFLUENT AND WASTE DISPOSAL ANNUAL REPORT FOR YEAR 1985
SOLID EFFLUENTS

SOLID WASTE DISPOSITION

NUMBER OF SHIPMENTS	MODE OF TRANSPORTATION	DESTINATION
24	TRACTOR-CASK	HANFORD WA
2	TRACTOR-CASK	RICHLAND WA
9	TRACTOR-CLOSED VAN	HANFORD WA
12	TRACTOR-FLATBED	HANFORD WA

ESTIMATE OF MAJOR NUCLIDE COMPOSITION(BY TYPE OF WASTE)

		JAN-JUNE	JULY-DEC
A			
	CO-60	% 8.05E-03	
	CS-134	% 3.12E-02	
	CS-137	% 7.76E+01	1.12E+01
	H-3	% 1.85E-03	
	NI-63	% 7.89E-03	
	RU-106	% 6.88E-01	
	SB-125	% 1.75E-01	1.68E+01
	SR-90	% 1.75E+01	6.69E+01
	TE-125M	% 4.03E-02	3.87E+00
B			
	CS-134	% 4.12E+00	3.21E+00
	CS-137	% 9.12E+01	8.59E+01
	SB-125	% 5.50E-02	1.94E-01
	SR-90	% 4.31E+00	1.04E+01
	TC-99	% 5.40E-02	1.80E-02

TYPE OF WASTE

	UNIT	YEAR TOTAL
A. SPENT RESINS, FILTER SLUDGES, EVAPORATOR	M3	1.51E+02
BOTTOMS, ETC.	CI	6.34E+03
B. DRY COMPRESSIBLE WASTE, CONTAMINATED	M3	3.32E+02
EQUIPMENT, ETC.	CI	4.08E+00
C. IRRADIATED COMPONENTS, CONTROL	M3	
RODS, ETC.	CI	
D. OTHER	M3	
	CI	

*INCLUDES EPICOR II

N/A=NOT APPLICABLE

N/D=NOT DETECTED

N/R=NOT REPORTED

EFFLUENT AND WASTE DISPOSAL ANNUAL REPORT FOR YEAR 1985
AIRBORNE AND LIQUID EFFLUENTSUNIT NUMBER: 1
TYPE:PWR
DOCKET NO.:50-344
COOLING WATER SOURCE:COLUMBIA RIVERLICENSEE:PORTLAND GENERAL ELECTRIC
LICENSED POWER (MWT):3411.00
INITIAL CRITICALITY:12/15/75

AIRBORNE EFFLUENTS

NUCLIDES RELEASED	ACTIVITY (CI)
AR-41	1.30E+00
CR-51	5.42E-08
CO-58	3.24E-08
CO-60	6.49E-06
KR-85	4.20E+00
KR-85M	1.58E+00
KR-87	2.27E+00
KR-88	3.43E+00
SR-89	2.56E-04
SR-90	1.23E-04
NB-95	2.47E-08
RU-106	4.18E-07
I-131	5.05E-03
XE-131M	5.16E+00
I-132	1.96E-03
I-133	5.05E-03
XE-133	9.73E+02
XE-133M	5.98E+00
CS-134	7.16E-08
I-134	1.79E-06
I-135	1.55E-04
XE-135	5.10E+01
XE-135M	9.22E+00
CS-137	4.33E-05
XE-137	1.62E-01
XE-138	2.16E+00

LIQUID EFFLUENTS

NUCLIDES RELEASED	ACTIVITY (CI)
CR-51	4.04E-03
MN-54	3.26E-03
FE-55	1.81E-01
CO-57	1.89E-05
CO-58	1.77E-02
FE-59	5.51E-04
CO-60	8.43E-02
KR-85M	2.62E-04
KR-87	4.19E-05
KR-88	9.45E-05
RB-88	5.77E-05
SR-89	5.31E-04
SR-90	1.15E-04
NB-95	6.22E-03
ZR-95	2.40E-03

N/A=NOT APPLICABLE
N/D=NOT DETECTED
N/R=NOT REPORTED

EFFLUENT AND WASTE DISPOSAL ANNUAL REPORT FOR YEAR 1985
AIRBORNE AND LIQUID EFFLUENTS

LIQUID EFFLUENTS

NUCLIDES RELEASED	ACTIVITY (CI)
MO-99	1.16E-04
TC-99M	1.24E-04
RU-103	1.47E-03
RU-106	4.21E-02
AG-110M	1.42E-03
SN-113	1.13E-04
SB-124	1.37E-04
SB-125	1.05E-02
I-131	2.17E-02
XE-131M	7.55E-04
I-132	1.64E-05
TE-132	2.80E-05
I-133	4.28E-03
XE-133	2.27E-01
XE-133M	2.76E-03
CS-134	2.08E-02
I-135	6.74E-05
XE-135	3.70E-02
XE-135M	8.94E-02
CS-136	5.31E-04
CS-137	2.55E-02
CS-138	6.72E-07
BA-140	2.99E-03
LA-140	1.85E-02
CE-141	6.36E-05
CE-144	1.29E-02
UNIDENTIFIED	1.03E-03

TOTAL AIRBORNE TRITIUM RELEASE	2.39E+01
TOTAL LIQUID TRITIUM RELEASE	2.65E+02

VOLUME OF LIQUID WASTE RELEASED (PRIOR TO DILUTION)	LITERS	1.22E+07
VOLUME OF DILUTION WATER USED DURING PERIOD	LITERS	5.75E+10

N/A=NOT APPLICABLE
N/D=NOT DETECTED
N/R=NOT REPORTED

EFFLUENT AND WASTE DISPOSAL ANNUAL REPORT FOR YEAR 1985
SOLID EFFLUENTS

SOLID WASTE DISPOSITION

NUMBER OF SHIPMENTS	MODE OF TRANSPORTATION	DESTINATION
23	TRUCK	RICHLAND WA

IRRADIATED FUEL SHIPMENTS(DISPOSITION)

NUMBER OF SHIPMENTS	MODE OF TRANSPORTATION	DESTINATION
0	N/A	N/A

ESTIMATE OF MAJOR NUCLIDE COMPOSITION(BY TYPE OF WASTE)

A

		JAN-JUNE	JULY-DEC
AG-110M	%		4.00E-02
AM-241	%	3.00E-03	
BA-140	%	1.00E-04	7.00E-02
C-14	%	2.50E-02	6.90E-01
CE-144	%	2.58E-01	3.77E+00
CM-242	%	7.00E-04	
CM-243	%	6.00E-04	
CO-57	%	1.31E-01	4.00E-02
CO-58	%	6.70E-01	6.78E+00
CO-60	%	3.95E+01	1.69E+01
CR-51	%	5.50E-03	7.00E-02
CS-134	%	5.82E+00	5.13E+00
CS-137	%	1.76E+01	9.03E+00
FE-55	%	5.55E+00	2.97E+01
H-3	%	1.39E-01	1.08E+01
I-129	%	1.00E-04	
I-131	%	2.00E-04	1.90E-01
MN-54	%	1.71E-01	1.24E+00
NB-95	%	5.00E-04	2.10E-01
NI-59	%	2.50E-02	
NI-63	%	2.87E+01	8.45E+00
PU-238	%	1.00E-03	
PU-239/240	%	4.00E-03	
PU-241	%	1.92E-01	3.55E+00
RU-103	%		7.00E-03
RU-106	%	2.00E-03	2.33E+00
SB-124	%		0.00E+00
SB-125	%	6.20E-02	2.70E-01
SR-89	%	5.10E-02	2.70E-01
SR-90	%	1.02E+00	3.30E-01
TC-99	%	5.00E-05	
ZR-95	%	3.00E-04	1.10E-01

B

BA-140	%	2.44E-01	
C-14	%	1.20E-02	2.00E-02
CE-141	%		4.80E-01
CE-144	%	1.60E+00	2.53E+00

N/A=NOT APPLICABLE
N/D=NOT DETECTED
N/R=NOT REPORTED

EFFLUENT AND WASTE DISPOSAL ANNUAL REPORT FOR YEAR 1985
SOLID EFFLUENTS

ESTIMATE OF MAJOR NUCLIDE COMPOSITION(BY TYPE OF WASTE)		JAN-JUNE	JULY-DEC
CO-58	%	7.62E+00	6.25E+00
CO-60	%	2.36E+01	1.79E+01
CR-51	%	4.18E-01	2.70E+00
CS-134	%	3.20E+00	5.30E-01
CS-136	%	5.80E-02	
CS-137	%	4.11E+00	1.16E+00
FE-55	%	3.38E+01	2.54E+01
FE-59	%	1.63E-01	
H-3	%	6.29E+00	1.11E+01
MN-54	%	9.40E-01	7.00E-01
NB-95	%	2.90E-01	5.48E+00
NI-63	%	1.18E+01	8.98E+00
PU-241	%	4.87E-01	8.90E-01
RU-103	%	5.80E-02	4.51E+00
RU-106	%	2.80E+00	6.45E+00
SB-125	%	4.29E-01	1.00E-01
SR-89	%	5.69E-01	1.40E-01
SR-90	%	1.16E+00	2.90E-01
ZR-95	%	2.79E-01	4.39E+00

TYPE OF WASTE	UNIT	YEAR TOTAL
A. SPENT RESINS, FILTER SLUDGES, EVAPORATOR BOTTOMS, ETC.	M3	1.42E+02
	CI	3.50E+03
B. DRY COMPRESSIBLE WASTE, CONTAMINATED EQUIPMENT, ETC.	M3	1.68E+02
	CI	1.27E+01
C. IRRADIATED COMPONENTS, CONTROL RODS, ETC.	M3	0.00E+00
	CI	0.00E+00
D. OTHER	M3	0.00E+00
	CI	0.00E+00

N/A=NOT APPLICABLE
N/D=NOT DETECTED
N/R=NOT REPORTED

EFFLUENT AND WASTE DISPOSAL ANNUAL REPORT FOR YEAR 1985
AIRBORNE AND LIQUID EFFLUENTS

UNIT NUMBER: 3

LICENSEE:FLORIDA POWER & LIGHT

TYPE:PWR

LICENSED POWER (MWT):2200.00

DOCKET NO.:50-250

INITIAL CRITICALITY:10/20/72

COOLING WATER SOURCE:CLOSED CYCLE CANAL

AIRBORNE EFFLUENTS

NUCLIDES RELEASED	ACTIVITY (CI)
AR-41	1.56E+00
CR-51	3.28E-06
MN-54	6.07E-05
CO-58	2.55E-04
FE-59	8.10E-07
CO-60	1.28E-04
ZN-65	2.92E-06
KR-85	2.76E+00
KR-85M	1.46E-01
KR-87	1.06E-03
KR-88	7.97E-02
SR-89	1.93E-05
SR-90	2.21E-06
NB-95	2.68E-07
RU-103	2.52E-07
I-131	7.16E-03
XE-131M	5.68E+00
I-133	3.35E-03
XE-133	1.30E+03
XE-133M	4.41E+00
CS-134	2.06E-05
XE-135	6.55E+00
CS-136	4.35E-06
CS-137	4.23E-05
XE-138	7.05E-03
BA-140	1.74E-04
LA-140	8.90E-05
CE-141	2.04E-06
CE-144	1.18E-05

LIQUID EFFLUENTS

NUCLIDES RELEASED	ACTIVITY (CI)
NA-24	3.75E-05
CR-51	3.14E-02
MN-54	2.43E-03
FE-55	1.40E-01
CO-57	1.95E-05
CO-58	7.60E-02
FE-59	8.04E-03
CO-60	7.52E-02
ZN-65	5.05E-04
SR-89	<9.80E-08
SR-90	<1.30E-08
NB-95	6.59E-03

N/A=NOT APPLICABLE

N/D=NOT DETECTED

N/R=NOT REPORTED

EFFLUENT AND WASTE DISPOSAL ANNUAL REPORT FOR YEAR 1985
AIRBORNE AND LIQUID EFFLUENTS

LIQUID EFFLUENTS

NUCLIDES RELEASED	ACTIVITY (CI)
ZR-95	1.64E-03
ZR-97	3.45E-05
MO-99-TC-99M	2.58E-03
RU-103	1.52E-03
AG-110M	7.00E-03
SN-117M	1.10E-05
SB-124	6.60E-03
SB-125	4.73E-02
I-131	4.02E-03
XE-131M	1.30E-02
I-132	9.05E-05
TE-132	4.50E-06
I-133	7.00E-05
XE-133	6.66E-01
XE-133M	3.07E-03
CS-134	1.01E-02
I-135	4.80E-05
XE-135	3.07E-03
CS-137	2.39E-02
LA-140	3.16E-03
CE-144	4.55E-05

TOTAL AIRBORNE TRITIUM RELEASE	2.28E+02
TOTAL LIQUID TRITIUM RELEASE	4.34E+02

VOLUME OF LIQUID WASTE RELEASED (PRIOR TO DILUTION)	LITERS	1.19E+07
VOLUME OF DILUTION WATER USED DURING PERIOD	LITERS	2.87E+12

N/A=NOT APPLICABLE
N/D=NOT DETECTED
N/R=NOT REPORTED

EFFLUENT AND WASTE DISPOSAL ANNUAL REPORT FOR YEAR 1985
AIRBORNE AND LIQUID EFFLUENTSUNIT NUMBER: 4
TYPE: PWR
DOCKET NO.: 50-251
COOLING WATER SOURCE: CLOSED CYCLE CANALLICENSEE: FLORIDA POWER & LIGHT
LICENSED POWER (MWT): 2200.00
INITIAL CRITICALITY: 06/11/73

AIRBORNE EFFLUENTS

NUCLIDES RELEASED	ACTIVITY (CI)
AR-41	4.04E+00
CR-51	3.28E-06
MN-54	6.07E-05
CO-58	2.53E-04
FE-59	8.10E-07
CO-60	1.23E-04
ZN-65	2.92E-06
KR-85	4.04E+00
KR-85M	4.51E-01
KR-87	7.98E-03
KR-88	5.95E-01
SR-89	1.88E-05
SR-90	2.14E-06
NB-95	2.68E-07
RU-103	2.52E-07
I-131	7.07E-03
XE-131M	1.07E+01
I-133	3.35E-03
XE-133	1.76E+03
XE-133M	9.74E+00
CS-134	2.06E-05
XE-135	1.05E+01
CS-136	4.35E-06
CS-137	4.18E-05
XE-138	7.05E-03
BA-140	1.74E-04
LA-140	8.90E-05
CE-141	2.04E-06
CE-144	1.18E-05

LIQUID EFFLUENTS

NUCLIDES RELEASED	ACTIVITY (CI)
NA-24	3.75E-05
CR-51	3.14E-02
MN-54	2.43E-03
FE-55	1.40E-01
CO-57	1.95E-05
CO-58	7.60E-02
FE-59	8.04E-03
CO-60	7.52E-02
ZN-65	5.05E-04
SR-89	<9.80E-08
SR-90	<1.30E-08
NB-95	6.59E-03

N/A=NOT APPLICABLE

N/D=NOT DETECTED

N/R=NOT REPORTED

EFFLUENT AND WASTE DISPOSAL ANNUAL REPORT FOR YEAR 1985
AIRBORNE AND LIQUID EFFLUENTS

LIQUID EFFLUENTS

NUCLIDES RELEASED	ACTIVITY (CI)
ZR-95	1.64E-03
ZR-97	3.45E-05
MO-99-Tc-99M	2.58E-03
RU-103	1.52E-03
AG-110M	7.00E-03
SN-117M	1.10E-05
SB-124	6.60E-03
SB-125	4.73E-02
I-131	4.02E-03
XE-131M	1.30E-02
I-132	9.05E-05
TE-132	4.50E-06
I-133	7.00E-05
XE-133	6.66E-01
XE-133M	3.07E-03
CS-134	1.01E-02
I-135	4.80E-05
XE-135	3.07E-03
CS-137	2.39E-02
LA-140	3.16E-03
CE-144	4.55E-05

TOTAL AIRBORNE TRITIUM RELEASE	1.57E+02
TOTAL LIQUID TRITIUM RELEASE	4.34E+02

VOLUME OF LIQUID WASTE RELEASED (PRIOR TO DILUTION)	LITERS	1.19E+07
VOLUME OF DILUTION WATER USED DURING PERIOD	LITERS	2.87E+12

N/A=NOT APPLICABLE
N/D=NOT DETECTED
N/R=NOT REPORTED

EFFLUENT AND WASTE DISPOSAL ANNUAL REPORT FOR YEAR 1985
SOLID EFFLUENTS

SOLID WASTE DISPOSITION

NUMBER OF SHIPMENTS	MODE OF TRANSPORTATION	DESTINATION
37	SOLE USE TRUCK	BARNWELL SC
1	SOLE USE TRUCK	HANFORD WA

IRRADIATED FUEL SHIPMENTS(DISPOSITION)

NUMBER OF SHIPMENTS	MODE OF TRANSPORTATION	DESTINATION
0	N/A	N/A

ESTIMATE OF MAJOR NUCLIDE COMPOSITION(BY TYPE OF WASTE)

A

	%	JAN-JUNE	JULY-DEC
CO-58	%	6.00E+00	4.00E+00
CO-60	%	6.90E+01	6.20E+01
CS-134	%	3.00E+00	5.00E+00
CS-137	%	6.00E+00	1.00E+01
FE-55	%	2.00E+00	7.00E+00
H-3	%	1.00E+00	
NI-63	%		1.10E+01

B

	%	JAN-JUNE	JULY-DEC
CO-58	%		3.30E+01
CO-60	%	5.20E+01	1.80E+01
CR-51	%		6.00E+00
CS-134	%	2.00E+00	
CS-137	%	6.00E+00	2.00E+00
FE-55	%	2.70E+01	3.10E+01
NB-95	%		5.00E+00
NI-63	%	9.00E+00	3.00E+00

D

	%	JAN-JUNE	JULY-DEC
H-3	%		1.00E+02

TYPE OF WASTE

TYPE OF WASTE	UNIT	YEAR TOTAL
A. SPENT RESINS, FILTER SLUDGES, EVAPORATOR BOTTOMS, ETC.	M3	7.02E+01
B. DRY COMPRESSIBLE WASTE, CONTAMINATED EQUIPMENT, ETC.	CI	1.50E+03
C. IRRADIATED COMPONENTS, CONTROL RODS, ETC.	M3	5.38E+02
D. OTHER	CI	2.10E+00
SCINTILLATION FLUIDS	M3	0.00E+00
	CI	0.00E+00
	M3	2.30E-01
	CI	4.00E-04

N/A=NOT APPLICABLE

N/D=NOT DETECTED

N/R=NOT REPORTED

EFFLUENT AND WASTE DISPOSAL ANNUAL REPORT FOR YEAR 1985
AIRBORNE AND LIQUID EFFLUENTS

UNIT NUMBER: 1 LICENSEE:VERMONT YANKEE NUCLEAR POWER
TYPE:BWR LICENSED POWER (MWT):1593.00
DOCKET NO.:50-271 INITIAL CRITICALITY:03/24/72
COOLING WATER SOURCE:CONNECTICUT RIVER

AIRBORNE EFFLUENTS

NUCLIDES RELEASED	ACTIVITY (CI)
MN-54	<1.94E-04
CO-60	2.61E-03
ZN-65	<2.92E-03
KR-85M	<1.21E+01
KR-87	<5.41E+01
KR-88	<3.30E+01
SR-89	<1.04E-04
SR-90	<1.08E-06
I-131	<3.72E-04
I-133	<7.77E-04
XE-133	<8.62E+02
CS-134	<1.64E-04
I-135	<2.01E-02
XE-135	<6.74E+01
XE-135M	<4.77E+02
CS-137	1.52E-04
XE-138	<1.94E+03
BA-LA-140	<6.00E-04

TOTAL AIRBORNE TRITIUM RELEASE 8.83E+00

N/A=NOT APPLICABLE
N/D=NOT DETECTED
N/R=NOT REPORTED

EFFLUENT AND WASTE DISPOSAL ANNUAL REPORT FOR YEAR 1985
SOLID EFFLUENTS

SOLID WASTE DISPOSITION

NUMBER OF SHIPMENTS	MODE OF TRANSPORTATION	DESTINATION
33	TRUCK	BARNWELL SC
12	TRUCK	RICHLAND WA

IRRADIATED FUEL SHIPMENTS(DISPOSITION)

NUMBER OF SHIPMENTS	MODE OF TRANSPORTATION	DESTINATION
0	N/A	N/A

ESTIMATE OF MAJOR NUCLIDE COMPOSITION(BY TYPE OF WASTE)

A

		JAN-JUNE	JULY-DEC
CO-58	%	5.10E-01	1.77E+00
CO-60	%	2.35E+01	2.36E+01
CS-134	%	3.94E+00	1.06E+00
CS-137	%	5.04E+01	2.40E+01
FE-59	%		1.33E+00
H-3	%	5.10E-01	2.79E+00
MN-54	%	5.15E+00	8.62E+00
NB-95	%		4.10E+00
NI-63	%	5.30E-01	1.29E+00
PU-241	%	9.00E-01	
SB-125	%		1.45E+00
SR-90	%	3.60E-01	
ZN-65	%	1.34E+01	2.27E+01
ZR-95	%		4.87E+00

B

C-14	%	3.80E-01	
CO-58	%	1.34E+00	3.85E+00
CO-60	%	3.59E+01	3.23E+01
CS-134	%	1.84E+00	2.65E+00
CS-137	%	3.95E+01	3.82E+01
H-3	%	1.01E+00	
MN-54	%	4.58E+00	4.42E+00
NI-63	%		3.42E+00
PU-241	%	2.06E+00	
ZN-65	%	1.24E+01	1.23E+01
ZR-95	%	6.10E-01	

C

CO-58	%		1.59E+00
CO-60	%	4.58E+01	2.95E+01
CS-134	%		2.46E+00
CS-137	%	2.00E-02	3.20E+01
FE-55	%	4.55E+01	1.12E+01
H-3	%	2.98E+00	
MN-54	%	2.58E+00	4.07E+00
NI-53	%		2.95E+00
NI-59	%	2.00E-02	

N/A=NOT APPLICABLE

N/D=NOT DETECTED

N/R=NOT REPORTED

EFFLUENT AND WASTE DISPOSAL ANNUAL REPORT FOR YEAR 1985
SOLID EFFLUENTS

ESTIMATE OF MAJOR NUCLIDE COMPOSITION(BY TYPE OF WASTE)		JAN-JUNE	JULY-DEC
NI-63	%	3.10E+00	
PU-241	%		2.37E+00
ZN-65	%		1.14E+01

TYPE OF WASTE	UNIT	YEAR TOTAL
A. SPENT RESINS, FILTER SLUDGES, EVAPORATOR BOTTOMS, ETC.	M3 CI	9.58E+01 2.54E+02
B. DRY COMPRESSIBLE WASTE, CONTAMINATED EQUIPMENT, ETC.	M3 CI	2.82E+02 8.80E+00
C. IRRADIATED COMPONENTS, CONTROL RODS, ETC.	M3 CI	1.65E+02 1.70E+04
D. OTHER	M3 CI	

N/A=NOT APPLICABLE
N/D=NOT DETECTED
N/R=NOT REPORTED

EFFLUENT AND WASTE DISPOSAL ANNUAL REPORT FOR YEAR 1985
AIRBORNE AND LIQUID EFFLUENTS

UNIT NUMBER: 1 LICENSEE:LOUISIANA POWER & LIGHT
TYPE:PWR LICENSED POWER (MWT):3390.00
DOCKET NO.:50-382 INITIAL CRITICALITY:03/04/85
COOLING WATER SOURCE:MISSISSIPPI RIVER

AIRBORNE EFFLUENTS

NUCLIDES RELEASED	ACTIVITY (CI)
CO-58	1.02E-06
CO-60	2.03E-08
KR-85	5.84E-01
KR-85M	4.02E+01
KR-88	5.53E-03
RB-88	2.22E-04
I-131	3.48E-03
XE-131M	3.01E+00
TE-132	6.98E-08
I-133	9.94E-05
XE-133	7.85E+03
XE-133M	2.02E+01
XE-135	2.87E+02
CS-137	4.39E-07

LIQUID EFFLUENTS

NUCLIDES RELEASED	ACTIVITY (CI)
H-3	2.54E+01
NA-24	6.26E-05
AR-41	1.35E-03
CR-51	2.15E-02
MN-54	1.32E-03
FE-55	2.38E-03
CO-58	1.96E-01
FE-59	1.55E-03
CO-60	4.28E-03
CU-64	4.06E-04
ZN-65	3.21E-05
KR-85	1.31E-03
KR-85M	1.85E-04
KR-88	7.09E-05
RB-88	2.11E-04
SR-92	7.69E-06
NB-95	2.17E-03
ZR-95	1.53E-03
ZR-97	1.90E-05
MO-99	1.79E-03
TC-99M	2.91E-03
I-131	2.01E-02
XE-131M	3.21E-03
I-133	1.14E-03
XE-133	9.76E+00
XE-133M	9.03E-02
CS-134	7.92E-05

N/A=NOT APPLICABLE

N/D=NOT DETECTED

N/R=NOT REPORTED

INSTALLATION:WATERFORD

LOCATION:20 MI W NEW ORLEANS LA

EFFLUENT AND WASTE DISPOSAL ANNUAL REPORT FOR YEAR 1985
AIRBORNE AND LIQUID EFFLUENTS

LIQUID EFFLUENTS

NUCLIDES RELEASED	ACTIVITY (CI)
XE-135	3.54E-02
CS-136	1.57E-04
CS-137	1.63E-03
BA-140	4.64E-04
LA-140	3.78E-03
CE-144	1.12E-02
W-187	1.34E-02

TOTAL AIRBORNE TRITIUM RELEASE 0.00E+00

TOTAL LIQUID TRITIUM RELEASE 2.54E+01

VOLUME OF LIQUID WASTE RELEASED (PRIOR TO DILUTION)	LITERS	7.48E+07
VOLUME OF DILUTION WATER USED DURING PERIOD	LITERS	1.61E+11

N/A=NOT APPLICABLE

N/D=NOT DETECTED

N/R=NOT REPORTED

INSTALLATION:WATERFORD

EFFLUENT AND WASTE DISPOSAL ANNUAL REPORT FOR YEAR 1985
SOLID EFFLUENTS

SOLID WASTE DISPOSITION

NUMBER OF SHIPMENTS	MODE OF TRANSPORTATION	DESTINATION
7	TRUCK	BARNWELL SC
16	TRUCK	RICHLAND WA

IRRADIATED FUEL SHIPMENTS(DISPOSITION)

NUMBER OF SHIPMENTS	MODE OF TRANSPORTATION	DESTINATION
0	N/A	N/A

ESTIMATE OF MAJOR NUCLIDE COMPOSITION(BY TYPE OF WASTE)

JAN-JUNE JULY-DEC

A

CO-58	%	1.14E+01	4.52E+01
CO-60	%	6.05E-01	2.95E+00
CR-51	%	2.39E+00	
CS-137	%	1.44E+00	9.01E+00
H-3	%	3.24E+00	1.03E+01
I-131	%	7.79E+01	1.01E+01
MN-54	%	6.35E-01	

B

CO-58	%		3.00E-01
CO-60	%		1.60E-02
CS-137	%		3.20E-02
I-131	%		4.40E-01

TYPE OF WASTE

TYPE OF WASTE	UNIT	YEAR TOTAL
A. SPENT RESINS, FILTER SLUDGES, EVAPORATOR	M3	2.42E+02
BOTTOMS, ETC.	CI	3.30E+01
B. DRY COMPRESSIBLE WASTE, CONTAMINATED	M3	4.00E+01
EQUIPMENT, ETC.	CI	9.10E-01
C. IRRADIATED COMPONENTS, CONTROL	M3	
RODS, ETC.	CI	
D. OTHER	M3	
	CI	

N/A=NOT APPLICABLE

N/D=NOT DETECTED

N/R=NOT REPORTED

INSTALLATION:WNP-2

LOCATION:12 MI NW OF RICHLAND WA

EFFLUENT AND WASTE DISPOSAL ANNUAL REPORT FOR YEAR 1985
AIRBORNE AND LIQUID EFFLUENTS

UNIT NUMBER: 2

LICENSEE:WASHINGTON PUBLIC POWER SUPPLY SYSTEM

TYPE:BWR

LICENSED POWER (MWT):3323.00

DOCKET NO.:50-397

INITIAL CRITICALITY:01/19/84

COOLING WATER SOURCE:COLUMBIA RIVER

AIRBORNE EFFLUENTS

NUCLIDES RELEASED	ACTIVITY (CI)
AR-41	7.20E-01
CR-51	3.82E-02
MN-54	2.18E-02
CO-58	1.09E-02
FE-59	8.85E-03
CO-60	5.91E-03
ZN-65	2.19E-02
KR-85	<7.05E+00
KR-85M	<7.14E+00
KR-87	1.14E+01
KR-88	1.90E+01
SR-89	4.70E-05
SR-90	6.89E-05
ZR-95	6.78E-03
MO-99	2.66E-02
I-131	2.02E-03
XE-131M	1.49E+00
I-133	1.51E-02
XE-133	2.14E+01
XE-133M	3.63E+01
CS-134	4.43E-03
I-135	<3.93E-02
XE-135	2.17E+01
XE-135M	9.68E+00
CS-137	4.05E-03
XE-137	1.67E+01
XE-138	5.97E+01
BA-LA-140	1.53E-02
CE-141	4.56E-03
CE-144	1.86E-02

LIQUID EFFLUENTS

NUCLIDES RELEASED	ACTIVITY (CI)
H-3	1.50E+00
NA-24	<1.80E-05
CR-51	1.74E-03
MN-54	1.25E-04
FE-55	5.82E-04
CO-58	8.57E-04
FE-59	1.00E-04
CO-60	2.89E-04
CU-64	<6.49E-03
ZN-65	6.92E-04
AS-76	<4.75E-04

N/A=NOT APPLICABLE

N/D=NOT DETECTED

N/R=NOT REPORTED

EFFLUENT AND WASTE DISPOSAL ANNUAL REPORT FOR YEAR 1985
AIRBORNE AND LIQUID EFFLUENTS

LIQUID EFFLUENTS

NUCLIDES RELEASED	ACTIVITY (CI)
SR-89	7.07E-05
SR-90	1.76E-04
NB-95	8.90E-05
ZR-95	3.13E-05
MO-99	6.80E-05
TC-99M	8.80E-05
AG-110M	1.99E-05
SB-122	<1.43E-05
SB-124	<3.03E-06
I-131	6.91E-05
CS-134	7.49E-05
CS-137	7.28E-05
BA-LA-140	2.40E-04
CE-141	5.58E-04
CE-144	4.82E-04
W-187	<6.40E-05

TOTAL AIRBORNE TRITIUM RELEASE	7.73E+00
TOTAL LIQUID TRITIUM RELEASE	1.50E+00

VOLUME OF LIQUID WASTE RELEASED (PRIOR TO DILUTION)	LITERS	1.18E+06
VOLUME OF DILUTION WATER USED DURING PERIOD	LITERS	2.76E+09

N/A=NOT APPLICABLE
N/D=NOT DETECTED
N/R=NOT REPORTED

EFFLUENT AND WASTE DISPOSAL ANNUAL REPORT FOR YEAR 1985
SOLID EFFLUENTS

SOLID WASTE DISPOSITION

NUMBER OF SHIPMENTS	MODE OF TRANSPORTATION	DESTINATION
38	CASK	RICHLAND WA
8	FLAT BED TRAILER	RICHLAND WA

IRRADIATED FUEL SHIPMENTS(DISPOSITION)

NUMBER OF SHIPMENTS	MODE OF TRANSPORTATION	DESTINATION
0	N/A	N/A

ESTIMATE OF MAJOR NUCLIDE COMPOSITION(BY TYPE OF WASTE)

JAN-JUNE JULY-DEC

A			
	CO-57	%	8.00E-02
	CO-58	%	3.87E+01
	CO-60	%	5.34E+00
	CR-51	%	2.80E+01
	FE-59	%	7.10E-01
	MN-54	%	1.66E+00
	NB-95	%	8.00E-01
	SB-124	%	3.00E-02
	ZN-65	%	2.51E+01
	ZR-95	%	9.80E-01
B			
	CO-58	%	3.36E+01
	CO-60	%	1.23E+01
	CR-51	%	2.30E+01
	FE-59	%	2.74E+00
	MN-54	%	2.80E+00
	NB-95	%	5.32E+00
	ZN-65	%	1.84E+01
	ZR-95	%	3.29E+00
D			
	CO-58	%	1.88E+01
	CO-60	%	6.38E+00
	CR-51	%	1.29E+01
	MN-54	%	3.46E+00
	NB-95	%	5.11E+00
	ZN-65	%	2.73E+01
	ZR-95	%	1.83E+01

TYPE OF WASTE

TYPE OF WASTE	UNIT	YEAR TOTAL
A. SPENT RESINS, FILTER SLUDGES, EVAPORATOR	M3	2.28E+02
BOTTOMS, ETC.	CI	2.95E+02
B. DRY COMPRESSIBLE WASTE, CONTAMINATED	M3	1.53E+02
EQUIPMENT, ETC.	CI	3.84E-01
C. IRRADIATED COMPONENTS, CONTROL	M3	
RODS, ETC.	CI	

N/A=NOT APPLICABLE

N/D=NOT DETECTED

N/R=NOT REPORTED

EFFLUENT AND WASTE DISPOSAL ANNUAL REPORT FOR YEAR 1985
SOLID EFFLUENTS

D. OTHER	M3	2.06E+01
OIL	CI	1.38E-01

N/A=NOT APPLICABLE
N/D=NOT DETECTED
N/R=NOT REPORTED

EFFLUENT AND WASTE DISPOSAL ANNUAL REPORT FOR YEAR 1985
AIRBORNE AND LIQUID EFFLUENTS

UNIT NUMBER: 1 LICENSEE:KANSAS GAS & ELEC
TYPE:PWR LICENSED POWER (MWT):3411.00
DOCKET NO.:50-482 INITIAL CRITICALITY:05/22/85
COOLING WATER SOURCE:COOLING LAKE

AIRBORNE EFFLUENTS

NUCLIDES RELEASED	ACTIVITY (CI)
H-3	4.14E+01
AR-41	3.04E-01
MN-54	<1.08E-04
CO-58	<2.94E-05
FE-59	<7.63E-05
CO-60	<4.60E-05
ZN-65	<8.19E-05
KR-85M	7.63E-05
KR-87	<1.36E+02
KR-88	<1.34E+02
SR-89	<2.08E-07
SR-90	<1.66E-06
MO-99	<6.86E-04
I-131	<6.42E-05
XE-131M	4.89E-05
I-133	<1.60E-03
XE-133	<2.08E+02
XE-133M	<3.13E+02
CS-134	<3.93E-05
XE-135	<6.52E+01
CS-137	<2.92E-05
XE-138	<4.76E+02
CE-141	<3.32E-05
CE-144	<8.99E-05

LIQUID EFFLUENTS

NUCLIDES RELEASED	ACTIVITY (CI)
H-3	1.83E+02
BE-7	3.87E-02
NA-24	3.94E-01
AR-41	4.88E-05
SC-46	2.59E-05
CR-51	5.20E-02
MN-54	<4.34E-03
FE-55	<1.68E-04
CO-57	1.73E-05
CO-58	8.60E-02
FE-59	<4.68E-03
CO-60	<4.72E-03
ZN-65	<1.44E-03
BR-82	3.61E-05
BR-83	2.52E-06
KR-85	8.87E-02
KR-85M	5.34E-06

N/A=NOT APPLICABLE
N/D=NOT DETECTED
N/R=NOT REPORTED

EFFLUENT AND WASTE DISPOSAL ANNUAL REPORT FOR YEAR 1985
AIRBORNE AND LIQUID EFFLUENTS

LIQUID EFFLUENTS

NUCLIDES RELEASED	ACTIVITY (CI)
RB-88	6.52E-05
SR-89	<2.23E-05
SR-90	<1.25E-05
SR-91	1.37E-05
NB-95	1.14E-02
ZR-95	1.05E-02
NB-97	3.58E-05
ZR-97	1.57E-04
MO-99	<1.49E-03
TC-99M	9.02E-04
AG-110M	5.40E-05
SN-113	2.90E-04
SN-117M	3.74E-04
I-131	3.22E-03
XE-131M	8.63E-04
I-132	8.42E-06
I-133	5.12E-03
XE-133	3.76E-02
XE-133M	4.19E-04
CS-134	<9.64E-04
I-134	3.88E-06
I-135	7.51E-04
XE-135	2.96E-02
XE-135M	2.51E-04
CS-136	3.45E-06
CS-137	<1.36E-04
BA-140	5.13E-04
LA-140	6.30E-03
CE-141	<1.42E-03
CE-144	3.56E-03
W-187	5.05E-03
NP-239	1.61E-05

TOTAL AIRBORNE TRITIUM RELEASE 4.13E+01

TOTAL LIQUID TRITIUM RELEASE 1.83E+02

VOLUME OF LIQUID WASTE RELEASED (PRIOR TO DILUTION)	LITERS	2.63E+07
VOLUME OF DILUTION WATER USED DURING PERIOD	LITERS	7.00E+10

N/A=NOT APPLICABLE

N/D=NOT DETECTED

N/R=NOT REPORTED

EFFLUENT AND WASTE DISPOSAL ANNUAL REPORT FOR YEAR 1985
AIRBORNE AND LIQUID EFFLUENTS

UNIT NUMBER: 1 LICENSEE:YANKEE ATOMIC ELECTRIC
TYPE:PWR LICENSED POWER (MWT): 600.00
DOCKET NO.:50-29 INITIAL CRITICALITY:08/19/60
COOLING WATER SOURCE:DEERFIELD RIVER

AIRBORNE EFFLUENTS

NUCLIDES RELEASED	ACTIVITY (CI)
C-14	1.53E+00
AR-37	3.77E+00
AR-41	<2.88E+00
CR-51	<1.98E-05
MN-54	<1.97E-06
CO-58	<1.98E-06
FE-59	<5.77E-06
CO-60	<6.13E-06
ZN-65	<6.23E-06
KR-85	1.13E+01
KR-85M	<1.98E+01
KR-87	<1.98E+01
KR-88	<3.13E+01
SR-89	<7.82E-07
SR-90	<1.65E-07
ZR-NB-95	<3.48E-06
MO-99	<1.84E-05
AG-110M	<3.83E-06
SB-124	<3.74E-06
I-131	<7.06E-04
XE-131M	<1.35E+01
I-133	<1.17E-04
XE-133	9.38E+02
XE-133M	1.91E+01
CS-134	<2.22E-06
I-135	<3.70E-05
XE-135	2.06E+02
XE-135M	<1.89E+02
CS-137	<2.22E-06
XE-138	<1.48E+01
BA-LA-140	<7.76E-06
CE-141	<2.91E-06
CE-144	<1.19E-05

LIQUID EFFLUENTS

NUCLIDES RELEASED	ACTIVITY (CI)
C-14	9.83E-03
CR-51	<4.26E-04
MN-54	3.10E-04
FE-55	<2.48E-02
CO-58	<6.22E-05
FE-59	<1.09E-04
CO-60	8.36E-04
ZN-65	<1.70E-04

N/A=NOT APPLICABLE
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N/R=NOT REPORTED

EFFLUENT AND WASTE DISPOSAL ANNUAL REPORT FOR YEAR 1985
AIRBORNE AND LIQUID EFFLUENTS

LIQUID EFFLUENTS

NUCLIDES RELEASED	ACTIVITY (CI)
SE-75	<7.98E-05
SR-89	<1.16E-03
SR-90	<1.96E-04
ZR-NB-95	<4.18E-05
MO-99	<4.18E-04
TC-99M	<5.39E-05
RU-103	<4.81E-05
AG-110M	<7.71E-05
SB-124	<8.14E-05
SB-125	<2.88E-04
I-131	2.49E-03
TE-132	<3.71E-05
I-133	<3.60E-05
XE-133	<3.63E+00
CS-134	1.11E-03
XE-135	<1.88E-02
CS-136	<6.19E-05
CS-137	1.58E-03
BA-LA-140	<1.92E-04
CE-141	<4.30E-05
CE-144	<2.59E-04

TOTAL AIRBORNE TRITIUM RELEASE 5.26E+00

TOTAL LIQUID TRITIUM RELEASE 2.29E+02

VOLUME OF LIQUID WASTE RELEASED (PRIOR TO DILUTION)	LITERS	2.37E+07
VOLUME OF DILUTION WATER USED DURING PERIOD	LITERS	1.92E+11

N/A=NOT APPLICABLE

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N/R=NOT REPORTED

EFFLUENT AND WASTE DISPOSAL ANNUAL REPORT FOR YEAR 1985
SOLID EFFLUENTS

SOLID WASTE DISPOSITION

NUMBER OF SHIPMENTS	MODE OF TRANSPORTATION	DESTINATION
13	TRUCK	BARNWELL SC

IRRADIATED FUEL SHIPMENTS(DISPOSITION)

NUMBER OF SHIPMENTS	MODE OF TRANSPORTATION	DESTINATION
0	N/A	N/A

ESTIMATE OF MAJOR NUCLIDE COMPOSITION(BY TYPE OF WASTE)

		JAN-MARCH	APRIL-JUNE	JULY-SEPT	OCT-DEC
A					
C-14	%		4.00E+00		
CO-60	%	4.80E+00	5.00E+00	4.90E+00	4.90E+00
CS-134	%	3.60E+00	1.70E+01	1.79E+01	1.79E+01
CS-137	%	5.10E+00	1.80E+01	1.88E+01	1.88E+01
FE-55	%	2.84E+01		5.60E+00	5.60E+00
H-3	%	4.92E+01	6.00E+00	5.80E+00	5.80E+00
MN-54	%	4.00E+00		6.30E+00	6.30E+00
NB-95	%		2.00E+01	1.80E+01	1.80E+01
NI-63	%	2.10E+00	3.00E+00		
SR-89	%			4.20E+00	4.20E+00
B					
C-14	%		4.00E+00		
CO-58	%	5.00E+00			
CO-60	%	3.00E+00	5.00E+00	5.20E+00	5.20E+00
CR-51	%	2.30E+01			
CS-134	%		1.70E+01	1.88E+01	1.88E+01
CS-137	%		1.80E+01	1.94E+01	1.94E+01
FE-55	%	6.10E+01		5.60E+00	5.60E+00
FE-59	%	6.00E+00			
H-3	%		6.00E+00		
MN-54	%	2.00E+00		6.70E+00	6.70E+00
NB-95	%		2.00E+01	2.11E+01	2.11E+01
NI-63	%		3.00E+00		
SR-89	%			4.60E+00	4.60E+00
D					
CO-60	%			1.48E+01	
CS-134	%			1.22E+01	
CS-137	%			2.26E+01	
FE-55	%			3.27E+01	
MN-54	%			3.10E+00	
NI-63	%			1.00E+01	
SR-90	%			2.20E+00	

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EFFLUENT AND WASTE DISPOSAL ANNUAL REPORT FOR YEAR 1985
SOLID EFFLUENTS

TYPE OF WASTE	UNIT	YEAR	TOTAL
A. SPENT RESINS, FILTER SLUDGES, EVAPORATOR	M3		4.20E+01
BOTTOMS, ETC.	CI		3.83E+00
B. DRY COMPRESSIBLE WASTE, CONTAMINATED	M3		1.52E+02
EQUIPMENT, ETC.	CI		6.45E+00
C. IRRADIATED COMPONENTS, CONTROL	M3		
RODS, ETC.	CI		
D. OTHER	M3		6.84E+00
	CI		2.58E+02

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N/R=NOT REPORTED

INSTALLATION:ZION 1

LOCATION:6 MI N WAUKEGAN, IL

EFFLUENT AND WASTE DISPOSAL ANNUAL REPORT FOR YEAR 1985
AIRBORNE AND LIQUID EFFLUENTS

UNIT NUMBER: 1

LICENSEE:COMMONWEALTH EDISON

TYPE:PWR

LICENSED POWER (MWT):3250.00

DOCKET NO.:50-295

INITIAL CRITICALITY:06/19/73

COOLING WATER SOURCE:LAKE MICHIGAN

LIQUID EFFLUENTS

NUCLIDES RELEASED	ACTIVITY (CI)
MN-54	2.40E-04
CO-58	3.41E-02
FE-59	5.10E-05
CO-60	5.52E-02
RB-88	3.30E-03
AG-110M	3.61E-02
SB-124	7.98E-03
SB-125	2.13E-02
I-131	2.70E-04
XE-133	4.13E-01
CS-134	9.76E-02
XE-135	6.70E-04
CS-136	2.40E-04
CS-137	6.97E-02
CS-138	1.10E-03
TOTAL LIQUID TRITIUM RELEASE	1.35E+02

VOLUME OF LIQUID WASTE RELEASED (PRIOR TO DILUTION)	LITERS	3.82E+07
VOLUME OF DILUTION WATER USED DURING PERIOD	LITERS	9.20E+11

N/A=NOT APPLICABLE
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N/R=NOT REPORTED

INSTALLATION:ZION 2

LOCATION:6 MI N WAUKEGAN, IL

EFFLUENT AND WASTE DISPOSAL ANNUAL REPORT FOR YEAR 1985
AIRBORNE AND LIQUID EFFLUENTS

UNIT NUMBER: 2

LICENSEE:COMMONWEALTH EDISON

TYPE:PWR

LICENSED POWER (MWT):3250.00

DOCKET NO.:50-304

INITIAL CRITICALITY:12/24/73

COOLING WATER SOURCE:LAKE MICHIGAN

LIQUID EFFLUENTS

NUCLIDES RELEASED	ACTIVITY (CI)
NA-24	1.49E-03
AR-41	3.80E-05
CR-51	1.24E-01
MN-54	1.57E-02
CO-58	7.31E-01
FE-59	1.45E-02
CO-60	4.86E-01
SR-89	8.70E-04
SR-90	3.30E-04
SR-92	1.50E-05
NB-95	7.30E-04
ZR-95	3.81E-03
AG-110M	1.17E-01
SB-122	1.30E-03
SB-124	8.64E-02
SB-125	9.30E-02
I-131	5.78E-02
XE-131M	8.50E-03
I-133	9.30E-04
XE-133	2.50E+00
XE-133M	1.11E-02
CS-134	1.46E-01
XE-135	5.83E-03
CS-136	6.68E-04
CS-137	1.49E-01
CS-138	1.84E-02
LA-140	1.02E-03
TOTAL LIQUID TRITIUM RELEASE	5.21E+02

VOLUME OF LIQUID WASTE RELEASED (PRIOR TO DILUTION)	LITERS	1.90E+08
VOLUME OF DILUTION WATER USED DURING PERIOD	LITERS	1.30E+12

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N/R=NOT REPORTED

EFFLUENT AND WASTE DISPOSAL ANNUAL REPORT FOR YEAR 1985
AIRBORNE AND LIQUID EFFLUENTS

UNIT NUMBER: 1	LICENSEE:COMMONWEALTH EDISON
TYPE:PWR	LICENSED POWER (MWT):3250.00
DOCKET NO.:50-295	INITIAL CRITICALITY:06/19/73
COOLING WATER SOURCE:LAKE MICHIGAN	
UNIT NUMBER: 2	LICENSEE:COMMONWEALTH EDISON
TYPE:PWR	LICENSED POWER (MWT):3250.00
DOCKET NO.:50-304	INITIAL CRITICALITY:12/24/73
COOLING WATER SOURCE:LAKE MICHIGAN	

AIRBORNE EFFLUENTS

NUCLIDES RELEASED	ACTIVITY (CI)
NA-24	2.18E-05
AR-41	1.52E+00
MN-54	1.49E-05
MN-56	1.80E-07
CO-58	3.89E-05
CO-60	2.69E-04
BR-82	3.27E-05
KR-85	7.33E+00
KR-85M	9.70E-03
KR-87	7.14E-01
KR-88	3.12E+01
RB-88	2.00E-02
SR-89	1.02E-03
SR-90	2.40E-06
SR-91	1.20E-07
SR-92	2.03E-05
MO-99	3.32E-07
TC-99M	9.72E-07
RU-103	1.59E-07
AG-110M	1.09E-08
SB-122	5.26E-07
XE-127	6.00E-08
I-131	1.88E-03
XE-131M	3.39E+00
I-132	1.47E-04
TE-132	1.45E-07
I-133	4.54E-04
XE-133	3.64E+03
XE-133M	1.37E+00
CS-134	6.66E-05
I-134	4.76E-06
I-135	1.99E-04
XE-135	1.64E+02
XE-135M	3.10E+00
CS-136	2.13E-06
CS-137	8.35E-05
CS-138	1.41E-03
BA-140	2.40E-07
LA-140	1.79E-07
CE-144	8.30E-07

N/A=NOT APPLICABLE

N/D=NOT DETECTED

N/R=NOT REPORTED

INSTALLATION:ZION 1&2

LOCATION:6 MI N WAUKEGAN, IL

EFFLUENT AND WASTE DISPOSAL ANNUAL REPORT FOR YEAR 1985
AIRBORNE AND LIQUID EFFLUENTS

AIRBORNE EFFLUENTS

NUCLIDES RELEASED
W-187

ACTIVITY (CI)
1.03E-07

TOTAL AIRBORNE TRITIUM RELEASE 1.86E+01

N/A=NOT APPLICABLE
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N/R=NOT REPORTED

EFFLUENT AND WASTE DISPOSAL ANNUAL REPORT FOR YEAR 1985
SOLID EFFLUENTS

SOLID WASTE DISPOSITION

	NUMBER OF SHIPMENTS 75	MODE OF TRANSPORTATION N/R	DESTINATION N/R
TYPE OF WASTE			
A. SPENT RESINS, FILTER SLUDGES, EVAPORATOR BOTTOMS, ETC.			UNIT YEAR TOTAL M3 6.73E+02 CI 2.69E+03
B. DRY COMPRESSIBLE WASTE, CONTAMINATED EQUIPMENT, ETC.			M3 CI
C. IRRADIATED COMPONENTS, CONTROL RODS, ETC.			M3 CI
D. OTHER			M3 CI

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