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February 29, 1984

Regional Administrator
 Region I
 U.S. Nuclear Regulatory Commission
 Docket No. 50219
 631 Park Avenue
 King of Prussia, PA 18406


Dear Sir:

Subject: Oyster Creek Nuclear Generating Station Effluent Release Report

Attached is a copy of the Oyster Creek Effluent Release report for the period covering June through December, 1983. This submittal is made in accordance with 10 CFR 50.36 a (a) 2 and our Operating License and Technical Specification.

If you have any questions, please do not hesitate to contact Mr. Douglas Moore of our Licensing and Regulatory Affairs Department at 609-971-4630.

Very Truly Yours,


 Robert Fiedler
 Vice President and Director
 Oyster Creek

/jc
 Atts.

c.c. Director
 Office of Inspection and Enforcement
 U.S. Nuclear Regulatory Commission
 Washington, D.C. 20555

NRC Resident Inspector
 Oyster Creek Nuclear Generating Station
 Forked River, N.J. 08731

N.J. Bureau of Radiation Protection
 Attention: Chief
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GPU NUCLEAR CORPORATION
OYSTER CREEK NUCLEAR GENERATING STATION
EFFLUENT RELEASE REPORT
1983-2

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SUMMARY

OYSTER CREEK NUCLEAR GENERATING STATION

1983-2 SEMIANNUAL EFFLUENT RELEASE REPORT

The Semiannual Effluent Release Report is submitted to the United States Nuclear Regulatory Commission (NRC) every six months in accordance with the Oyster Creek Nuclear Generating Station (OCNGS) Technical Specifications. It summarizes the radioactive liquid and gaseous effluents released and solid radioactive wastes shipped from the OCNGS. In addition, it describes the results of environmental measurements undertaken to assess the effects, if any, of such radioactive releases to the environment. Samples were collected of environmental media such as air, aquatic sediment, surface water, well water, soil, precipitation, vegetation, and shellfish. These media are sampled on a routine basis at semimonthly, monthly and/or quarterly frequencies at 37 locations. The annual magnitude of effort to collect and analyze the environmental samples is in excess of four man years at a cost exceeding \$200,000.00. This report concludes that exposures to man from OCNGS radioactive effluents are well below the federal limits contained in Title 10, Part 50 of the Code of Federal Regulations which are considered by the NRC to be acceptable limits to protect the health and welfare of the public.

For clarity, the report is organized into three parts. Section I provides a summary of plant operations for the reporting period. The reactor was shutdown during the entire period of June through December.

Section II summarizes the meteorological data and effluents released from the facility for the reporting period. It itemizes gaseous releases of 1.62 curies of Tritium and 1.27 E-3 curies of particulate radioactivity. No fission and activation gas activity or non-particulate halogen activity was detected in gaseous releases. In addition, 8.13 E-4 curies of fission and activation products and 1.62 curies of Tritium were released in 5 batch liquid releases. No dissolved gaseous activity was detected in liquid releases during the period. Section II also itemizes 2.92E2 curies of radioactivity, contained in 5.04E2 cubic meters of waste, which was shipped offsite in 37 shipments. These releases are similar to or less than releases of nuclear plants of comparable type, age, and size. The report underscores the fact that all effluents released were within the federal regulatory requirements of OCNGS Technical Specifications.

Section III summarizes the results of the Radiological Environmental Monitoring Program (REMP). This section concludes that no radioactive levels in the environment were attributable to facility operations for the reporting period. Natural radioactivity and weapon testing fallout were considered the causes of slightly higher than background readings, where detected. All levels of radioactivity in the environment fall well within the acceptable levels considered by the NRC to safeguard the health and welfare of the general public.

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I. INTRODUCTION

I. INTRODUCTION

The Oyster Creek Nuclear Generating Station has generated electricity since December, 1969. The operating license permits station operation up to a power level of 1930 megawatts (thermal) at a levelized, installed annual capacity of 620 megawatts (electrical). A more detailed description of the facility can be obtained from the Final Environmental Statement.

This report is submitted in accordance with Section 6.9.3 of the Technical Specifications - Appendix A of the Oyster Creek Unit Number 1 Provisional Operating License, DPR-16. Section I includes a brief summary of the plant operating status from June 1, 1983 through December 31, 1983. This summary reports dates of reactor scrams, controlled reactor shutdowns, reactor startups, and selected reactor power levels.

Section II follows the format of USNRC Regulatory Guide 1.21 for the provision of summaries of OCNCS gaseous effluents, liquid effluents and solid waste offsite shipments. In addition, this section provides information on meteorological data for the reporting period of July 1, 1983 through December 31, 1983. A description of the meteorological data collection system is provided, as well as joint frequency distribution tables for the various stability classes (in USNRC Regulatory Guide 1.21 format) and cumulative wind roses.

Section III provides a summary of the Oyster Creek Radiological Environmental Monitoring Program and its associated sampling data for the reporting period of June, 1983 through November, 1983 as required

by section 4.6.B(3) of the Technical Specifications - Appendix A. Radiological Environmental data are presented as recommended in proposed USNRC Regulatory Guide 4.8. This section also correlates plant effluent releases to radiological environmental data.

PLANT OPERATIONS SUMMARY

| | |
|--------------------|------------------|
| June 1, 1983 | Reactor Shutdown |
| June 15, 1983 | Reactor Shutdown |
| June 30, 1983 | Reactor Shutdown |
| July 15, 1983 | Reactor Shutdown |
| July 31, 1983 | Reactor Shutdown |
| August 15, 1983 | Reactor Shutdown |
| August 31, 1983 | Reactor Shutdown |
| September 15, 1983 | Reactor Shutdown |
| September 30, 1983 | Reactor Shutdown |
| October 15, 1983 | Reactor Shutdown |
| October 31, 1983 | Reactor Shutdown |
| November 15, 1983 | Reactor Shutdown |
| November 30, 1983 | Reactor Shutdown |
| December 15, 1983 | Reactor Shutdown |
| December 31, 1983 | Reactor Shutdown |

II. EFFLUENT AND WASTE DISPOSAL SUMMARY

EFFLUENT AND WASTE DISPOSAL SUMMARY

A. Gaseous Effluents

During the reporting period, July 1, 1983 through December 31, 1983, a total of 0.00 curies of fission and activation gases, 0.00 curies of non-particulate halogens (iodines) with half-lives greater than eight days, 1.27 E-3 curies of particulates with half-lives greater than eight days, and 1.62 curies of tritium were released. The maximum hourly release rate of gross activity from the stack was 0.00 microcuries per second due to the reactor being shutdown during the entire period. The airborne releases are summarized in Tables 1A through 1C.

B. Liquid Effluents

A total of 6.60 E6 liters of water was processed through the radwaste system. Of this, 3.88 E5 liters containing 1.62 curies of activity were released to the environment. The maximum concentration of gross radioactivity (beta-gamma) released to the unrestricted area (average over the period of release) was 6.35 E-9 microcuries per milliliter on September 3, 1983. The liquid releases are summarized in Tables 2A and 2B.

C. Solid

During the reporting period, a total volume of 5.04 E2 cubic meters of solid waste containing 2.92 E2 curies of radioactivity was shipped off site in 37 shipments. No irradiated fuel was shipped. The solid waste shipments are summarized in Table 3.

D. Meteorological Data

During the reporting period, onsite meteorological conditions were monitored and recorded. Joint frequency distribution of 116 meter (380 feet) and 10 meter (33 feet) wind speed and direction per atmospheric stability class per quarter is summarized. Also included are cumulative wind roses for 10 meter (33 feet) and 116 meter (380 feet) elevations. The meteorological data are summarized in Tables 4 through 9.

EFFLUENT AND WASTE DISPOSAL SEMIANNUAL REPORT

SUPPLEMENTAL INFORMATION

FACILITY - Oyster Creek Nuclear Generating Station

LICENSEE - Owner - Jersey Central Power & Light Company

Operator - General Public Utilities Nuclear Corporation

1. Regulatory Limits

a. Fission and Activation Gases:

Technical Specification 3.6.A.1

$$Q = \frac{0.21}{E} \text{ Ci/sec}$$

b. Iodines and particulates, halflives >8 days:

Technical Specification 3.6.A.2

4 uCi/sec

c. Liquid Effluents:

Technical Specification 3.6.B.1

Maximum permissible concentrations,

Appendix B, Table II, Column 2

of 10 CFR 20.

2. Maximum Permissible Concentrations (MPC)

a. Fission and Activation Gases:

1. Third Quarter - Shutdown

2. Fourth Quarter - Shutdown

b. Iodines and Particulates:

1. Third Quarter - 4.21 E-8 uCi/cc

2. Second Quarter - 4.21 E-8 uCi/cc

c. Liquid Effluents:

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

(NOTE: MPC's for nuclides detected are listed below)

Unit - uCi/ml

| | | | |
|-----|-------|-------|-------|
| H-3 | 3 E-3 | Co-60 | 5 E-5 |
|-----|-------|-------|-------|

3. Average Energy

- a. Third Quarter - Shutdown
- b. Fourth Quarter - Shutdown

4. Measurements and Approximation of Total Radioactivity

a. Fission and Activation Gases:

The incorporation of a weekly grab sample analysis using gamma ray spectrometry with a GeLi Detector, a conversion factor and the continuous recording of the stack effluent on a continuous activity monitor.

b. Iodines:

Semi-weekly sample analysis using gamma ray spectrometry with a GeLi Detector.

c. **Particulates:**

Semi-weekly sample analysis using gamma ray spectrometry with a GeLi Detector, low background internal proportional beta counter, and a single channel gamma counter.

d. **Liquid Effluents:**

Analysis per batch release using gamma ray spectrometry with a GeLi Detector, a low background beta counter, and a liquid scintillation counter.

Analysis of Error Associated with the Measurement of Radioactive Materials in Effluents and Solid Wastes

Effluents

All stages of the production of effluent estimates have been assigned an upwardly conservative error potential. Stages include sample collection, radiochemical analysis, and compilation of the effluent estimation process. The use of these error factors assures that facility effluents will not be underestimated.

Solid Waste

The process by which the levels of radioactive materials in solid wastes are estimated is one which requires conservatism throughout. Representative sample analyses and/or surface contamination surveys are combined with estimates of waste volume to provide the level of radioactive materials in solid wastes. Upwardly conservative techniques are used in all phases of this process to assure that the amount of radioactive material in solid wastes are not underestimated.

5. Batch Releases

a. Liquid

1. Number of batch releases:
 - a. Third Quarter - 5 releases
 - b. Fourth Quarter - 0 releases
2. Total time period for batch releases:
 - a. Third Quarter - 7.05 E2 minutes
 - b. Fourth Quarter - 0.00 minutes
3. Maximum time period for a batch release:
 - a. Third Quarter - 1.75 E2 minutes
 - b. Fourth Quarter - 0.00 minutes
4. Average time period for a batch release:
 - a. Third Quarter - 1.41 E2 minutes
 - b. Fourth Quarter - 0.00 minutes
5. Minimum time period for a batch release:
 - a. Third Quarter - 1.05 E2 minutes
 - b. Fourth Quarter - 0.00 minutes
6. Average stream flow during periods of release of effluent in a flowing stream:
 - a. Third Quarter - 1.97 E6 liters/minute
 - b. Fourth Quarter - - liters/minute

6. Abnormal Releases

a. Liquid

1. Number of releases:

None

2. Total activity released:

Not Applicable

b. Gaseous

1. Number of releases:

None

2. Total activity released:

Not Applicable

TABLE 1A
 EFFLUENT AND WASTE DISPOSAL SEMIANNUAL REPORT 1983-2
 GASEOUS EFFLUENTS-SUMMATION OF ALL RELEASES

| | Unit | Third Quarter | Fourth Quarter | Est. Total Error % |
|--|---------|------------------|-------------------|-----------------------|
| A. Fission & activation gases | | | | |
| 1. Total release | Ci | * | * | - |
| 2. Average release rate for period | uCi/sec | - | - | |
| 3. Percent of Tech Spec limit | % | - | - | |
| B. Iodines | | | | |
| 1. Total Iodine-131 | Ci | < LLD | < LLD | 2.5 E1 |
| 2. Average release rate for period | uCi/sec | - | - | |
| 3. Percent of Tech Spec limit | % | 3.65 E-3** | 3.55 E-4** | |
| C. Particulates | | | | |
| 1. Particulates with half-lives > 8 days | Ci | 1.16 E-3 | 1.13 E-4 | 2.5 E1 |
| 2. Average release rate for period | uCi/sec | 1.46 E-4 | 1.42 E-5 | |
| 3. Percent of Tech Spec limit | % | 3.65 E-3** | 3.55 E-4** | |
| 4. Gross alpha radioactivity | Ci | 8.03 E-6 | 7.90 E-6 | |
| D. Tritium | | | | |
| 1. Total release | Ci | 3.74 E-1 | 1.25 | 4.0 E1 |
| 2. Average release rate for period | uCi/sec | 4.70 E-2 | 1.57 E-1 | |

*Reactor Shutdown During This Period

**Percent of Tech. Spec. Limit for Iodines and Particulates as Required by Technical Specification 3.6.A.2

TABLE 1B
EFFLUENT AND WASTE DISPOSAL SEMIANNUAL REPORT 1983-2
GASEOUS EFFLUENTS-ELEVATED RELEASE

CONTINUOUS MODE

| Nuclides Released | Unit | Third Quarter | Fourth Quarter | LLD uCi/cc |
|-------------------------|-----------|------------------|-------------------|---------------|
| 1. Fission gases | | | | |
| Krypton-85m | Ci | * | * | 2.62 E-8 |
| Krypton-87 | Ci | * | * | 5.88 E-8 |
| Krypton-88 | Ci | * | * | 8.55 E-8 |
| Xenon-133 | Ci | * | * | 1.29 E-7 |
| Xenon-135 | Ci | * | * | 2.53 E-8 |
| Xenon-135m | Ci | * | * | 2.50 E-8 |
| Xenon-138 | Ci | * | * | 9.29 E-8 |
| others | | | | |
| Krypton-89 | Ci | * | * | 4.70 E-7 |
| Xenon-133m | Ci | * | * | 1.71 E-7 |
| Xenon-137 | Ci | * | * | 2.55 E-7 |
| | | | | |
| | | | | |
| | | | | |
| Total for period | Ci | * | * | |
| 2. Iodines | | | | |
| Iodine-131 | Ci | < LLD | < LLD | 1.10 E-13 |
| Iodine-133 | Ci | < LLD | < LLD | 1.09 E-13 |
| Iodine-135 | Ci | < LLD | < LLD | 1.72 E-13 |
| Total for period | Ci | < LLD | < LLD | |

*Reactor Shutdown During This Period

TABLE 1C
 EFFLUENT AND WASTE DISPOSAL SEMIANNUAL REPORT 1983-2
 GASEOUS EFFLUENTS-GROUND LEVEL RELEASE

| Nuclides Released | Unit | Third Quarter | Fourth Quarter | LLD uCi/cc |
|------------------------------|------|------------------|-------------------|---------------|
| 1. Fission Gases | | | | |
| TOTAL | Ci | * | * | |
| 2. Iodines | | | | |
| Iodine-131 | Ci | * | * | 2.29 E-14 |
| Iodine-133 | Ci | * | * | 2.50 E-14 |
| Iodine-135 | Ci | * | * | 1.27 E-13 |
| TOTAL | Ci | * | * | |
| 3. Particulates | | | | |
| Strontium-89 | Ci | * | * | 7.12 E-16 |
| Strontium-90 | Ci | * | * | 3.81 E-16 |
| Cesium-134 | Ci | * | * | 2.57 E-14 |
| Cesium-137 | Ci | * | * | 5.32 E-14 |
| Barium-140 | Ci | * | * | 1.13 E-13 |
| Lanthanum-140 | Ci | * | * | 1.91 E-14 |
| NO OTHER NUCLIDES IDENTIFIED | | | | |
| TOTAL FOR PERIOD | Ci | * | * | |

*SYSTEM SHUTDOWN DURING THIS PERIOD

TABLE 2A
EFFLUENT AND WASTE DISPOSAL SEMIANNUAL REPORT 1983-2
LIQUID EFFLUENTS-SUMMATION OF ALL RELEASES

| | Unit | Third Quarter | Fourth Quarter | Est. Total Error % |
|---|--------|------------------|-------------------|-----------------------|
| A. Fission & activation products | | | | |
| 1. Total releases (not including tritium, gases, alpha) | Ci | 8.13 E-4 | * | 3.0 E1 |
| 2. Average diluted concentration during period | uCi/ml | 5.21 E-10 | - | |
| 3. Percent of applicable limit | % | 1.04 E-3 | - | |
| B. Tritium | | | | |
| 1. Total release | Ci | 1.62 | * | 3.0 E1 |
| 2. Average diluted concentration during period | uCi/ml | 1.04 E-6 | - | |
| 3. Percent of applicable limit | % | 3.46 E-2 | - | |
| C. Dissolved and entrained gases | | | | |
| 1. Total release | Ci | < LLD | * | 3.0 E1 |
| 2. Average diluted concentration during period | uCi/ml | - | - | |
| 3. Percent of applicable limit | % | - | - | |
| D. Gross alpha radioactivity | | | | |
| 1. Total release | Ci | < LLD | * | 3.0 E1 |
| E. Volume of waste released (prior to dilution) | | | | |
| | liters | 3.88 E5 | * | 1.0 E1 |
| F. Volume of dilution water used during period | | | | |
| | liters | 5.87 E9 | 3.77 E9 | 1.0 E1 |

* NO RELEASES DURING THIS PERIOD

TABLE 2B
EFFLUENT AND WASTE DISPOSAL SEMIANNUAL REPORT 1983-2
LIQUID EFFLUENTS

| Nuclides Released | Unit | BATCH MODE | | LLD uCi/ml |
|------------------------------|------|------------------|-------------------|---------------|
| | | Third Quarter | Fourth Quarter | |
| Strontium-89 | Ci | < LLD | * | 3.00 E-8 |
| Strontium-90 | Ci | < LLD | * | 8.00 E-9 |
| Cesium-134 | Ci | < LLD | * | 2.47 E-7 |
| Cesium-137 | Ci | < LLD | * | 2.90 E-7 |
| Iodine-131 | Ci | < LLD | * | 2.65 E-7 |
| Cobalt-58 | Ci | < LLD | * | 3.27 E-7 |
| Cobalt-60 | Ci | 8.13 E-4 | * | 3.37 E-7 |
| Iron-59 | Ci | < LLD | * | 4.05 E-7 |
| Zinc-65 | Ci | < LLD | * | 8.00 E-7 |
| Manganese-54 | Ci | < LLD | * | 2.20 E-7 |
| Chromium-51 | Ci | < LLD | * | 1.72 E-6 |
| Zirconium-95 | Ci | < LLD | * | 4.72 E-7 |
| Niobium-95 | Ci | < LLD | * | 3.08 E-7 |
| Molybdenum-99 | Ci | < LLD | * | 2.47 E-6 |
| Technetium-99m | Ci | < LLD | * | 1.93 E-7 |
| Barium-140 | Ci | < LLD | * | 8.99 E-7 |
| Lanthanum-140 | Ci | < LLD | * | 1.20 E-7 |
| Cerium-141 | Ci | < LLD | * | 3.02 E-7 |
| NO OTHER NUCLIDES IDENTIFIED | | | * | |
| TOTAL FOR PERIOD | Ci | 8.13 E-4 | | |
| Xenon-133 | Ci | < LLD | * | 4.10 E-7 |
| Xenon-135 | Ci | < LLD | * | 1.75 E-7 |
| NO OTHER NUCLIDES IDENTIFIED | | | | |
| TOTAL FOR PERIOD | Ci | < LLD | * | |

* NO RELEASES DURING THIS PERIOD

TABLE 3
EFFLUENT AND WASTE DISPOSAL SEMIANNUAL REPORT 1983-2
SOLID WASTE AND IRRADIATED FUEL SHIPMENTS

A. Solid waste shipped offsite for burial or disposal (not irradiated fuel)

| 1. Type of waste | Unit | 6-month period | Est. Total Error, % |
|---|----------------------|--------------------|---------------------|
| a. Spent resins, filter sludges, evaporator bottoms, etc. | m ³ Ci | 9.00 E1 2.09 E2 | 5.0 E1 |
| b. Dry compressible waste, contaminated equip., etc. | m ³ Ci | 4.14 E2 8.25 E1 | 5.0 E1 |
| c. Irradiated components, control rods, etc. | m ³ Ci | None | - |
| d. Other (describe) | m ³ Ci | None | - |

| 2. Estimate of major nuclide composition (by type of waste) | Percentage | Activity(Ci) | LLD (uCi/cc) |
|---|------------|--------------|--------------|
| a. Cobalt-60 | 8.27 E1 | 1.73 E2 | 3.82 E-5 |
| Cesium-137 | 6.50 | 1.36 E1 | 2.21 E-5 |
| Strontium-90 | 5.34 | 1.12 E1 | 6.20 E-6 |
| Manganese-54 | 4.46 | 9.32 | 1.95 E-5 |
| Cesium-134 | 5.67 E-1 | 1.19 | 1.24 E-5 |
| b. Cobalt-60 | 8.14 E1 | 6.72 E1 | |
| Cesium-137 | 9.86 | 8.14 | |
| Manganese-54 | 7.49 | 6.18 | |
| Cesium-134 | 6.58 E-1 | 5.43 E-1 | |
| Strontium-89 | 2.36 E-1 | 1.95 E-1 | |
| c. | | | |
| | | | |
| | | | |
| | | | |
| d. | | | |
| | | | |
| | | | |

3. Solid Waste Disposition

| Number of Shipments | Mode of Transportation | Destination |
|---------------------|------------------------|--------------|
| 30 | Motor Vehicle | Barnwell, SC |
| 7 | Motor Vehicle | Richland, WA |
| | | |
| | | |

B. Irradiated Fuel Shipments (Disposition)

| Number of Shipments | Mode of Transportation | Destination |
|---------------------|------------------------|-------------|
| None | - | - |
| | | |
| | | |

Meteorological Data

Abstract

The Oyster Creek Nuclear Generating Station obtains meteorological data from the site meteorological instrument tower (Figure 1). The tower is 400 feet tall and located approximately west-northwest of the site at a distance of 2529 feet from the stack. The following instrumentation is located on the tower:

| HEIGHT OF INSTRUMENT ABOVE GROUND | INSTRUMENT |
|--------------------------------------|----------------|
| 33 feet (10 meters) | Wind Speed |
| | Wind Direction |
| | Temperature |
| | Dew Point |
| 150 feet (46 meters) | Wind Speed |
| | Wind Direction |
| | Temperature |
| 380 feet (116 meters) | Wind Speed |
| | Wind Direction |
| | Temperature |
| | Dew Point |

There are redundant wind speed, wind direction, and temperature sensors at the 33 and 380 foot levels to insure an efficient percentage of data recovery and to comply with regulatory requirements. In

addition, a processor calculates temperature differentials (ΔT) between (150-33) and (380-33)-foot levels. These data are then stored in the on-site computer and are used to determine atmospheric stability and, in turn, atmospheric dispersion. In addition, the 380' level wind speed and wind direction and the (380-33)-foot level temperature differential is monitored and recorded at the Oyster Creek Control Room.

The meteorological tower sensors, chart recorders, and processors are calibrated four times a year, according to the draft NRC Regulatory Guide 1.23. Periodic tower inspections are done to insure maximum data integrity. 95% is the average data recovery for the six month period from July through December of 1983 (Table 9). Meteorological data are an integral part of the off-site dose assessment program. Occasionally - lower percentages of data recovery, as in the months of September and November, are the result of sensor, computer hardware, and/or chart recorder malfunctions.

Data Analysis

Tables 5 through 8 are the joint frequency distribution tables for the various stability classes as described in USNRC Regulatory Guide 1.21. These atmospheric stability classes are defined in Table 4. Joint frequency tables are represented in Figures 2 and 3 as cumulative semi-annual wind roses. Figures 2 and 3 represent wind roses at the 33-foot and 380-foot levels, respectively.

For the first quarter of the period (July through September) the predominant wind direction is from the southwest. This is primarily due to the normal climatological prevailing winds and little influence by the

jet stream which had retreated into Canada during late spring. With such a large data source many smaller scale meteorological phenomena are not likely to appear. However the first quarter wind rose at 33 feet does show a relative maximum frequency of southerly wind component. This wind flow which is parallel to the coast is the end result of the uneven heating between the land and water, more commonly referred to as a sea breeze. The common daytime summer sea breeze induces high atmospheric stability and thereby suppresses major effluent plume dispersion. This thermally-induced phenomenon disappears at night and ushers the return of normal climatologically prevailing winds. Another small maximum from the northeast is due to the air flow around large high pressure systems. Strangely enough, although a high pressure system is indicative of fair weather, this northeast flow will produce large stability, low clouds and drizzle.

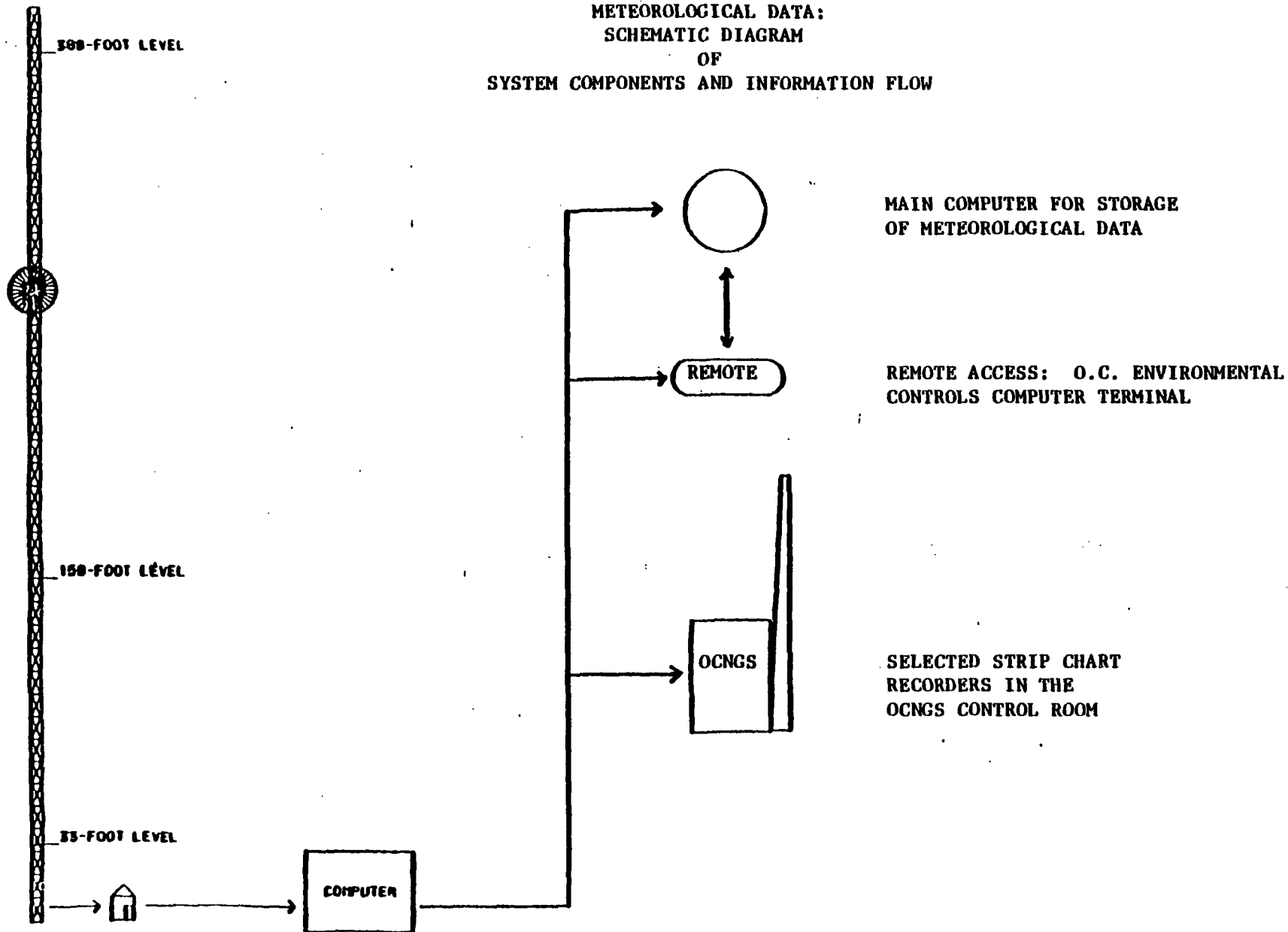
For the second quarter (October through December) the transition from summer to winter is quite evident. The predominant winds begin to veer to the west-southwest, west and west-northwest. In the fall and winter the mid-latitude climatological wind is from the west and northwest as the jet stream makes its way southward. The jet stream is the east-west dividing line between southwesterly flow to the south and northwesterly flow to the north. The jet stream is also known as a "breeding ground" for extratropical cyclones.

Precipitation for the period was above normal (23.11 inches). The normal 6-month rainfall from July through December is 22.01 inches. Figure 4 shows that most of the precipitation fell in November and

December. Even though the six-month rainfall was not well above normal, it was a period marked by extremes. The first quarter precipitation was well below normal especially through August. It was well above normal during November and December. Rainfall events were primarily due to extratropical storms of light to moderate intensity and long duration or violent convective uplift in the form of showers and thunderstorms. This condition is characteristic of heavy rainfall intensity of relatively short duration. Generally, the heavier the intensity (convective showers) the greater the particulate fallout (washout) from the atmosphere, which has implications for radionuclide deposition. Such convective showers are characteristic of late spring and summer weather patterns. Suppression of these summer precipitation events so close to the ocean is accomplished by the previously mentioned sea breeze effect. It is common for the showers to build up to the west, move east-northeast, but become stagnant and eventually decay up to 12 miles inland due to the highly stable sea breeze.

**FIGURE 1
GPU NUCLEAR CORPORATION
OYSTER CREEK NUCLEAR GENERATING STATION**

**METEOROLOGICAL DATA:
SCHEMATIC DIAGRAM
OF
SYSTEM COMPONENTS AND INFORMATION FLOW**



400' METEOROLOGICAL TOWER WITH INSTRUMENT TRANSMITTERS AT 3 LEVELS, SIGNAL PROCESSORS, COMPUTER, AND ALL STRIP CHART RECORDERS AT BASE

TABLE 4
METEOROLOGICAL CLASSIFICATION OF ATMOSPHERIC STABILITY

| Stability Classification | Pasquill Categories | σ_{θ}^1 (degrees) | Temperature Change With Height ($^{\circ}\text{F}/100 \text{ ft}$) |
|-----------------------------|------------------------|----------------------------------|---|
| Extremely Unstable | A | 25.0 | -1.0 |
| Moderately Unstable | B | 20.0 | -1.0 to -0.9 |
| Slightly Unstable | C | 15.0 | -0.9 to -0.8 |
| Neutral | D | 10.0 | -0.8 to -0.3 |
| Slightly Stable | E | 5.0 | -0.3 to 0.8 |
| Moderately Stable | F | 2.5 | 0.8 to 2.2 |
| Extremely Stable | G | 1.7 | 2.2 |

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

TABLE 5

Oyster Creek Meteorological Tower Joint Frequency Tables of Wind Speed and Wind Direction 33ft versus Delta Temperature 150-33ft for the Period 7/1/83 - 9/30/83

SITE: OYSTER CREEK

HOURS AT EACH WIND SPEED AND DIRECTION
 PERIOD OF RECORD = 03070101-03003024
 STABILITY CLASS: A DT/DZ
 ELEVATION: SPEED: SPD33A DIRECTION: DIR33A LAPSE: DT150

| WIND DIRECTION | WIND SPEED (MPH) | | | | | | TOTAL |
|----------------|------------------|-----|------|-------|-------|-----|-------|
| | 1-3 | 4-7 | 8-12 | 13-18 | 19-24 | >24 | |
| N | 3 | 16 | 2 | 0 | 0 | 0 | 21 |
| NNE | 0 | 14 | 7 | 0 | 0 | 0 | 21 |
| NE | 1 | 0 | 23 | 3 | 0 | 0 | 36 |
| ENE | 1 | 14 | 20 | 0 | 0 | 0 | 35 |
| E | 0 | 22 | 14 | 0 | 0 | 0 | 36 |
| ESE | 0 | 22 | 26 | 0 | 0 | 0 | 48 |
| SE | 0 | 11 | 41 | 0 | 0 | 0 | 52 |
| SSE | 0 | 11 | 40 | 4 | 0 | 0 | 55 |
| S | 1 | 3 | 34 | 33 | 0 | 0 | 71 |
| SSW | 1 | 4 | 10 | 4 | 0 | 0 | 19 |
| SW | 1 | 25 | 12 | 0 | 0 | 0 | 38 |
| WSW | 1 | 16 | 22 | 0 | 0 | 0 | 39 |
| W | 0 | 28 | 18 | 1 | 0 | 0 | 47 |
| WNW | 0 | 28 | 25 | 1 | 0 | 0 | 54 |
| NW | 0 | 14 | 14 | 7 | 0 | 0 | 35 |
| NNW | 0 | 25 | 7 | 0 | 0 | 0 | 32 |
| TOTAL | 0 | 262 | 315 | 53 | 0 | 0 | 630 |

PERIODS OF CALM (HOURS): 14
 VARIABLE DIRECTION: 3
 HOURS OF MISSING DATA: 112

SITE: OYSTER CREEK

HOURS AT EACH WIND SPEED AND DIRECTION
 PERIOD OF RECORD = 03070101-03003024
 STABILITY CLASS: 0 DT/DZ
 ELEVATION: SPEED: SPD33A DIRECTION: DIR33A LAPSE: DT150

| WIND DIRECTION | WIND SPEED (MPH) | | | | | | TOTAL |
|----------------|------------------|-----|------|-------|-------|-----|-------|
| | 1-3 | 4-7 | 8-12 | 13-18 | 19-24 | >24 | |
| N | 2 | 4 | 0 | 0 | 0 | 0 | 6 |
| NNE | 0 | 1 | 1 | 0 | 0 | 0 | 2 |
| NE | 0 | 0 | 11 | 1 | 0 | 0 | 12 |
| ENE | 2 | 4 | 0 | 0 | 0 | 0 | 6 |
| E | 2 | 0 | 0 | 0 | 0 | 0 | 2 |
| ESE | 0 | 0 | 1 | 0 | 0 | 0 | 1 |
| SE | 0 | 1 | 4 | 0 | 0 | 0 | 5 |
| SSE | 0 | 6 | 4 | 1 | 0 | 0 | 11 |
| S | 1 | 2 | 0 | 2 | 0 | 0 | 5 |
| SSW | 1 | 2 | 3 | 1 | 0 | 0 | 7 |
| SW | 1 | 2 | 1 | 0 | 0 | 0 | 4 |
| WSW | 0 | 3 | 1 | 0 | 0 | 0 | 4 |
| W | 0 | 3 | 0 | 0 | 0 | 0 | 3 |
| WNW | 0 | 4 | 2 | 0 | 0 | 0 | 6 |
| NW | 0 | 3 | 2 | 0 | 0 | 0 | 5 |
| NNW | 1 | 7 | 1 | 0 | 0 | 0 | 9 |
| TOTAL | 10 | 47 | 30 | 5 | 0 | 0 | 101 |

PERIODS OF CALM (HOURS): 14
 VARIABLE DIRECTION: 2
 HOURS OF MISSING DATA: 112

Table 5 - continued

SITE: OYSTER CREEK

HOURS AT EACH WIND SPEED AND DIRECTION
 PERIOD OF RECORD = 03070101-03003024
 STABILITY CLASS: C 01/02
 ELEVATION: SPEED: SPD33A DIRECTION: DIR33A LAPSE: DT100

| WIND DIRECTION | WIND SPEED (MPH) | | | | | | TOTAL |
|----------------|------------------|-----|------|-------|-------|-----|-------|
| | 1-3 | 4-7 | 8-12 | 13-18 | 19-24 | >24 | |
| N | 1 | 0 | 0 | 0 | 0 | 0 | 6 |
| NNE | 1 | 1 | 0 | 0 | 0 | 0 | 2 |
| NE | 0 | 1 | 4 | 0 | 0 | 0 | 6 |
| ENE | 0 | 1 | 0 | 0 | 0 | 0 | 1 |
| E | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| ESE | 0 | 1 | 2 | 0 | 0 | 0 | 3 |
| SE | 0 | 2 | 0 | 0 | 0 | 0 | 2 |
| SSE | 0 | 7 | 1 | 0 | 0 | 0 | 8 |
| S | 1 | 4 | 2 | 1 | 0 | 0 | 8 |
| SSW | 0 | 4 | 0 | 0 | 0 | 0 | 4 |
| SW | 0 | 0 | 2 | 0 | 0 | 0 | 2 |
| WSW | 0 | 1 | 1 | 0 | 0 | 0 | 2 |
| W | 0 | 1 | 0 | 0 | 0 | 0 | 1 |
| WNW | 1 | 1 | 0 | 0 | 0 | 0 | 2 |
| NW | 1 | 1 | 1 | 0 | 0 | 0 | 3 |
| NNW | 2 | 1 | 0 | 0 | 0 | 0 | 3 |
| TOTAL | 7 | 31 | 13 | 1 | 0 | 0 | 52 |

PERIODS OF CALM (HOURS): 14
 VARIABLE DIRECTION: 4
 HOURS OF MISSING DATA: 112

SITE: OYSTER CREEK

HOURS AT EACH WIND SPEED AND DIRECTION
 PERIOD OF RECORD = 03070101-03003024
 STABILITY CLASS: D 01/02
 ELEVATION: SPEED: SPD33A DIRECTION: DIR33A LAPSE: DT150

| WIND DIRECTION | WIND SPEED (MPH) | | | | | | TOTAL |
|----------------|------------------|-----|------|-------|-------|-----|-------|
| | 1-3 | 4-7 | 8-12 | 13-18 | 19-24 | >24 | |
| N | 1 | 12 | 7 | 0 | 0 | 0 | 15 |
| NNE | 3 | 15 | 0 | 0 | 0 | 0 | 27 |
| NE | 1 | 7 | 11 | 3 | 0 | 0 | 22 |
| ENE | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| E | 0 | 2 | 1 | 0 | 0 | 0 | 3 |
| ESE | 0 | 4 | 2 | 0 | 0 | 0 | 6 |
| SE | 2 | 10 | 3 | 0 | 0 | 0 | 15 |
| SSE | 2 | 10 | 1 | 1 | 0 | 0 | 14 |
| S | 4 | 26 | 16 | 4 | 0 | 0 | 50 |
| SSW | 3 | 20 | 23 | 2 | 0 | 0 | 57 |
| SW | 1 | 10 | 0 | 0 | 0 | 0 | 20 |
| WSW | 7 | 11 | 4 | 0 | 0 | 0 | 22 |
| W | 6 | 7 | 3 | 0 | 0 | 0 | 16 |
| WNW | 2 | 5 | 6 | 0 | 0 | 0 | 13 |
| NW | 0 | 7 | 10 | 0 | 0 | 0 | 17 |
| NNW | 1 | 12 | 1 | 0 | 0 | 0 | 14 |
| TOTAL | 33 | 101 | 101 | 10 | 0 | 0 | 325 |

PERIODS OF CALM (HOURS): 14
 VARIABLE DIRECTION: 3
 HOURS OF MISSING DATA: 112

Table 5 - continued

SITE: OYSTER CREEK

HOURS AT EACH WIND SPEED AND DIRECTION
 PERIOD OF RECORD = 03070101-03003024
 STABILITY CLASS: E D1/D2
 ELEVATION: SPEED, SPD33A DIRECTION, DIR33A LAPSE, DT100

| WIND DIRECTION | WIND SPEED (MPH) | | | | | | TOTAL |
|----------------|------------------|-----|------|-------|-------|-----|-------|
| | 1-3 | 4-7 | 8-12 | 13-10 | 10-24 | >24 | |
| N | 4 | 10 | 1 | 0 | 0 | 0 | 15 |
| NNE | 6 | 7 | 3 | 0 | 0 | 0 | 16 |
| NE | 2 | 6 | 0 | 0 | 0 | 0 | 8 |
| ENE | 4 | 2 | 0 | 0 | 0 | 0 | 6 |
| E | 2 | 4 | 0 | 0 | 0 | 0 | 6 |
| ESE | 0 | 2 | 0 | 0 | 0 | 0 | 2 |
| SE | 1 | 4 | 1 | 0 | 0 | 0 | 6 |
| SSE | 6 | 0 | 0 | 0 | 0 | 0 | 6 |
| S | 10 | 21 | 7 | 0 | 0 | 0 | 38 |
| SSW | 0 | 30 | 16 | 0 | 0 | 0 | 46 |
| SW | 0 | 70 | 6 | 0 | 0 | 0 | 76 |
| WSW | 12 | 30 | 4 | 0 | 0 | 0 | 46 |
| W | 10 | 17 | 0 | 0 | 0 | 0 | 27 |
| WNW | 1 | 0 | 2 | 0 | 0 | 0 | 3 |
| NW | 7 | 10 | 2 | 0 | 0 | 0 | 19 |
| NNW | 4 | 10 | 1 | 0 | 0 | 0 | 15 |
| TOTAL | 83 | 257 | 51 | 0 | 0 | 0 | 391 |

PERIODS OF CALM (HOURS): 14
 VARIABLE DIRECTION: 10
 HOURS OF MISSING DATA: 112

SITE: OYSTER CREEK

HOURS AT EACH WIND SPEED AND DIRECTION
 PERIOD OF RECORD = 03070101-03003024
 STABILITY CLASS: F D1/D2
 ELEVATION: SPEED, SPD33A DIRECTION, DIR33A LAPSE, DT100

| WIND DIRECTION | WIND SPEED (MPH) | | | | | | TOTAL |
|----------------|------------------|-----|------|-------|-------|-----|-------|
| | 1-3 | 4-7 | 8-12 | 13-10 | 10-24 | >24 | |
| N | 0 | 1 | 0 | 0 | 0 | 0 | 1 |
| NNE | 3 | 1 | 0 | 0 | 0 | 0 | 4 |
| NE | 1 | 0 | 0 | 0 | 0 | 0 | 1 |
| ENE | 1 | 0 | 0 | 0 | 0 | 0 | 1 |
| E | 2 | 0 | 0 | 0 | 0 | 0 | 2 |
| ESE | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| SE | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| SSE | 1 | 1 | 0 | 0 | 0 | 0 | 2 |
| S | 4 | 6 | 0 | 0 | 0 | 0 | 10 |
| SSW | 7 | 0 | 0 | 0 | 0 | 0 | 7 |
| SW | 0 | 21 | 0 | 0 | 0 | 0 | 21 |
| WSW | 14 | 44 | 0 | 0 | 0 | 0 | 58 |
| W | 12 | 2 | 0 | 0 | 0 | 0 | 14 |
| WNW | 4 | 10 | 0 | 0 | 0 | 0 | 14 |
| NW | 11 | 16 | 0 | 0 | 0 | 0 | 27 |
| NNW | 7 | 6 | 0 | 0 | 0 | 0 | 13 |
| TOTAL | 81 | 117 | 0 | 0 | 0 | 0 | 198 |

PERIODS OF CALM (HOURS): 14
 VARIABLE DIRECTION: 10
 HOURS OF MISSING DATA: 112

Table 5 - Continued

SITE: OYSTER CREEK

HOURS AT EACH WIND SPEED AND DIRECTION
 PERIOD OF RECORD = 03070101-03003024
 STABILITY CLASS: C D1/D2
 ELEVATION: SPEED: SPD33A DIRECTION: DIR33A LAPSE: DT100

| WIND DIRECTION | WIND SPEED (MPH) | | | | | | TOTAL |
|----------------|------------------|-----|------|-------|-------|-----|-------|
| | 1-3 | 4-7 | 8-12 | 13-18 | 19-24 | >24 | |
| N | 4 | 2 | 0 | 0 | 0 | 0 | 6 |
| NNE | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| NE | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| ENE | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| E | 1 | 0 | 0 | 0 | 0 | 0 | 1 |
| ESE | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| SE | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| SSE | 1 | 0 | 0 | 0 | 0 | 0 | 1 |
| S | 5 | 0 | 0 | 0 | 0 | 0 | 5 |
| SSW | 3 | 2 | 0 | 0 | 0 | 0 | 5 |
| SW | 16 | 0 | 0 | 0 | 0 | 0 | 16 |
| WSW | 42 | 72 | 0 | 0 | 0 | 0 | 114 |
| W | 61 | 33 | 0 | 0 | 0 | 0 | 94 |
| WNW | 30 | 20 | 0 | 0 | 0 | 0 | 50 |
| NW | 32 | 18 | 0 | 0 | 0 | 0 | 50 |
| NNW | 0 | 23 | 0 | 0 | 0 | 0 | 23 |
| TOTAL | 212 | 178 | 0 | 0 | 0 | 0 | 390 |

PERIODS OF CALM (HOURS): 14
 VARIABLE DIRECTION: 0
 HOURS OF MISSING DATA: 112

SITE: OYSTER CREEK

HOURS AT EACH WIND SPEED AND DIRECTION
 PERIOD OF RECORD = 03070101-03003024
 STABILITY CLASS: ALL D1/D2
 ELEVATION: SPEED: SPD33A DIRECTION: DIR33A LAPSE: DT100

| WIND DIRECTION | WIND SPEED (MPH) | | | | | | TOTAL |
|----------------|------------------|------|------|-------|-------|-----|-------|
| | 1-3 | 4-7 | 8-12 | 13-18 | 19-24 | >24 | |
| N | 20 | 50 | 5 | 0 | 0 | 0 | 75 |
| NNE | 13 | 30 | 20 | 0 | 0 | 0 | 72 |
| NE | 5 | 23 | 57 | 7 | 0 | 0 | 92 |
| ENE | 0 | 26 | 20 | 0 | 0 | 0 | 54 |
| E | 7 | 20 | 15 | 0 | 0 | 0 | 58 |
| ESE | 0 | 34 | 31 | 0 | 0 | 0 | 65 |
| SE | 3 | 20 | 40 | 0 | 0 | 0 | 63 |
| SSE | 10 | 43 | 46 | 6 | 0 | 0 | 105 |
| S | 26 | 62 | 67 | 40 | 0 | 0 | 195 |
| SSW | 24 | 80 | 52 | 7 | 0 | 0 | 172 |
| SW | 33 | 145 | 30 | 0 | 0 | 0 | 208 |
| WSW | 76 | 177 | 32 | 0 | 0 | 0 | 285 |
| W | 80 | 81 | 21 | 1 | 0 | 0 | 282 |
| WNW | 47 | 77 | 35 | 1 | 0 | 0 | 160 |
| NW | 51 | 60 | 20 | 7 | 0 | 0 | 158 |
| NNW | 23 | 92 | 10 | 0 | 0 | 0 | 125 |
| TOTAL | 435 | 1073 | 510 | 60 | 0 | 0 | 2096 |

PERIODS OF CALM (HOURS): 14
 VARIABLE DIRECTION: 40
 HOURS OF MISSING DATA: 112

TABLE 6

Oyster Creek Meteorological Tower Joint Frequency Tables of Wind Speed and Wind Direction 33ft versus Delta Temperature 150-33ft for the Period 10/1/83 - 12/31/83

SITE OYSTER CREEK

HOURS AT EACH WIND SPEED AND DIRECTION
 PERIOD OF RECORD = 03100101-03123124
 STABILITY CLASS: A DT/DZ
 ELEVATION: SPEED: SP033A DIRECTION: DIR33A LAPSE: DT150

| WIND DIRECTION | WIND SPEED (MPH) | | | | | | TOTAL |
|----------------|------------------|-----|------|-------|-------|-----|-------|
| | 1-3 | 4-7 | 8-12 | 13-18 | 19-24 | >24 | |
| N | 3 | 11 | 7 | 1 | 0 | 0 | 22 |
| NNE | 0 | 4 | 7 | 1 | 0 | 0 | 12 |
| NE | 0 | 0 | 12 | 0 | 0 | 0 | 21 |
| ENE | 0 | 5 | 6 | 0 | 0 | 0 | 11 |
| E | 0 | 4 | 2 | 6 | 0 | 0 | 12 |
| ESE | 0 | 11 | 3 | 2 | 1 | 0 | 17 |
| SE | 1 | 5 | 6 | 0 | 0 | 0 | 12 |
| SSE | 0 | 3 | 6 | 1 | 0 | 0 | 10 |
| S | 0 | 3 | 11 | 3 | 0 | 0 | 17 |
| SSW | 0 | 3 | 3 | 0 | 0 | 0 | 6 |
| SW | 0 | 5 | 2 | 4 | 0 | 0 | 11 |
| WSW | 0 | 13 | 10 | 6 | 0 | 0 | 29 |
| W | 1 | 16 | 32 | 11 | 3 | 0 | 63 |
| WNW | 0 | 10 | 36 | 13 | 0 | 0 | 59 |
| NW | 0 | 10 | 25 | 2 | 0 | 0 | 37 |
| NNW | 2 | 0 | 13 | 2 | 0 | 0 | 26 |
| TOTAL | 7 | 121 | 101 | 52 | 4 | 0 | 365 |

PERIODS OF CALM (HOURS): 10
 VARIABLE DIRECTION: 4
 HOURS OF MISSING DATA: 103

SITE OYSTER CREEK

HOURS AT EACH WIND SPEED AND DIRECTION
 PERIOD OF RECORD = 03100101-03123124
 STABILITY CLASS: B DT/DZ
 ELEVATION: SPEED: SP033A DIRECTION: DIR33A LAPSE: DT150

| WIND DIRECTION | WIND SPEED (MPH) | | | | | | TOTAL |
|----------------|------------------|-----|------|-------|-------|-----|-------|
| | 1-3 | 4-7 | 8-12 | 13-18 | 19-24 | >24 | |
| N | 0 | 2 | 0 | 1 | 0 | 0 | 3 |
| NNE | 0 | 3 | 7 | 0 | 0 | 0 | 10 |
| NE | 0 | 0 | 2 | 0 | 0 | 0 | 2 |
| ENE | 0 | 1 | 0 | 0 | 0 | 0 | 1 |
| E | 1 | 2 | 0 | 4 | 0 | 0 | 7 |
| ESE | 1 | 0 | 0 | 1 | 0 | 0 | 2 |
| SE | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| SSE | 0 | 2 | 3 | 1 | 0 | 0 | 6 |
| S | 0 | 1 | 3 | 1 | 0 | 0 | 5 |
| SSW | 0 | 1 | 1 | 0 | 0 | 0 | 2 |
| SW | 0 | 3 | 0 | 1 | 0 | 0 | 4 |
| WSW | 0 | 4 | 1 | 2 | 0 | 0 | 7 |
| W | 1 | 4 | 0 | 5 | 0 | 0 | 10 |
| WNW | 0 | 5 | 0 | 5 | 1 | 0 | 11 |
| NW | 0 | 1 | 0 | 1 | 0 | 0 | 2 |
| NNW | 1 | 5 | 0 | 1 | 0 | 0 | 7 |
| TOTAL | 4 | 34 | 42 | 23 | 1 | 0 | 104 |

PERIODS OF CALM (HOURS): 10
 VARIABLE DIRECTION: 1
 HOURS OF MISSING DATA: 103

Table 6 - continued

SITE: OYSTER CREEK

HOURS AT EACH WIND SPEED AND DIRECTION
 PERIOD OF RECORD - 03100101-03123124
 STABILITY CLASS C D1/D2
 ELEVATION: SPEED.SPDI33A DIRECTION.DIRI33A LAPSE.DT150

| WIND DIRECTION | WIND SPEED (MPH) | | | | | | TOTAL |
|----------------|------------------|-----|------|-------|-------|-----|-------|
| | 1-3 | 4-7 | 8-12 | 13-18 | 19-24 | >24 | |
| N | 0 | 2 | 0 | 0 | 0 | 0 | 2 |
| NNE | 0 | 3 | 0 | 0 | 0 | 0 | 3 |
| NE | 1 | 1 | 2 | 0 | 0 | 0 | 4 |
| ENE | 0 | 0 | 4 | 0 | 0 | 0 | 4 |
| E | 0 | 0 | 2 | 0 | 0 | 0 | 2 |
| ESE | 0 | 0 | 0 | 3 | 0 | 0 | 3 |
| SE | 0 | 1 | 0 | 0 | 0 | 0 | 1 |
| SSE | 0 | 2 | 2 | 0 | 0 | 0 | 4 |
| S | 0 | 1 | 1 | 1 | 0 | 0 | 3 |
| SSW | 0 | 0 | 1 | 0 | 0 | 0 | 1 |
| SW | 0 | 1 | 1 | 0 | 0 | 0 | 2 |
| WSW | 2 | 1 | 3 | 0 | 0 | 0 | 6 |
| W | 1 | 4 | 0 | 1 | 0 | 0 | 6 |
| WNW | 0 | 1 | 1 | 3 | 1 | 0 | 6 |
| NW | 0 | 2 | 2 | 1 | 0 | 0 | 5 |
| NNW | 1 | 0 | 1 | 0 | 0 | 0 | 2 |
| TOTAL | 5 | 10 | 25 | 0 | 1 | 0 | 60 |

PERIODS OF CALM (HOURS): 10
 VARIABLE DIRECTION: 2
 HOURS OF MISSING DATA: 103

SITE: OYSTER CREEK

HOURS AT EACH WIND SPEED AND DIRECTION
 PERIOD OF RECORD - 03100101-03123124
 STABILITY CLASS D D1/D2
 ELEVATION: SPEED.SPDI33A DIRECTION.DIRI33A LAPSE.DT150

| WIND DIRECTION | WIND SPEED (MPH) | | | | | | TOTAL |
|----------------|------------------|-----|------|-------|-------|-----|-------|
| | 1-3 | 4-7 | 8-12 | 13-18 | 19-24 | >24 | |
| N | 5 | 15 | 4 | 0 | 0 | 0 | 24 |
| NNE | 1 | 25 | 0 | 0 | 0 | 0 | 26 |
| NE | 1 | 15 | 20 | 2 | 0 | 0 | 47 |
| ENE | 0 | 0 | 20 | 10 | 0 | 0 | 30 |
| E | 1 | 7 | 17 | 12 | 1 | 0 | 38 |
| ESE | 0 | 5 | 15 | 14 | 0 | 0 | 34 |
| SE | 4 | 0 | 13 | 3 | 0 | 0 | 20 |
| SSE | 1 | 15 | 27 | 0 | 0 | 1 | 52 |
| S | 1 | 16 | 16 | 6 | 0 | 0 | 39 |
| SSW | 1 | 20 | 12 | 7 | 1 | 0 | 41 |
| SW | 2 | 0 | 6 | 2 | 0 | 0 | 10 |
| WSW | 2 | 10 | 17 | 0 | 1 | 0 | 30 |
| W | 5 | 12 | 10 | 11 | 0 | 0 | 47 |
| WNW | 0 | 21 | 27 | 14 | 0 | 0 | 78 |
| NW | 0 | 27 | 16 | 2 | 0 | 0 | 53 |
| NNW | 3 | 11 | 20 | 0 | 0 | 0 | 34 |
| TOTAL | 43 | 235 | 275 | 01 | 3 | 1 | 640 |

PERIODS OF CALM (HOURS): 10
 VARIABLE DIRECTION: 3
 HOURS OF MISSING DATA: 103

Table 6 - Continued

SITE: OYSTER CREEK

HOURS AT EACH WIND SPEED AND DIRECTION
 PERIOD OF RECORD = 03100101-03123124
 STABILITY CLASS E DT/DZ
 ELEVATION: SPEED: SPD33A DIRECTION: DIR33A LAPSE: DT100

| WIND DIRECTION | WIND SPEED (MPH) | | | | | | TOTAL |
|----------------|------------------|-----|------|-------|-------|-----|-------|
| | 1-3 | 4-7 | 8-12 | 13-18 | 19-24 | >24 | |
| N | 2 | 6 | 0 | 0 | 0 | 0 | 8 |
| NNE | 1 | 6 | 0 | 0 | 0 | 0 | 7 |
| NE | 4 | 13 | 6 | 0 | 0 | 0 | 23 |
| ENE | 0 | 4 | 10 | 0 | 0 | 0 | 14 |
| E | 1 | 6 | 6 | 0 | 0 | 0 | 13 |
| ESE | 2 | 6 | 1 | 0 | 0 | 0 | 9 |
| SE | 3 | 2 | 0 | 0 | 0 | 0 | 5 |
| SSE | 2 | 5 | 1 | 1 | 1 | 0 | 10 |
| S | 5 | 4 | 3 | 0 | 0 | 0 | 12 |
| SSW | 4 | 17 | 3 | 1 | 0 | 0 | 25 |
| SW | 6 | 36 | 21 | 4 | 2 | 0 | 69 |
| WSW | 3 | 42 | 23 | 4 | 0 | 0 | 72 |
| W | 4 | 21 | 13 | 3 | 0 | 0 | 41 |
| WNW | 7 | 20 | 1 | 2 | 0 | 0 | 30 |
| NW | 2 | 15 | 2 | 0 | 0 | 0 | 19 |
| NNW | 0 | 10 | 4 | 0 | 0 | 0 | 14 |
| TOTAL | 54 | 221 | 111 | 15 | 3 | 0 | 404 |

PERIODS OF CALM: 10
 VARIABLE DIRECTION: 6
 HOURS OF MISSING DATA: 103

SITE: OYSTER CREEK

HOURS AT EACH WIND SPEED AND DIRECTION
 PERIOD OF RECORD = 03100101-03123124
 STABILITY CLASS F DT/DZ
 ELEVATION: SPEED: SPD33A DIRECTION: DIR33A LAPSE: DT100

| WIND DIRECTION | WIND SPEED (MPH) | | | | | | TOTAL |
|----------------|------------------|-----|------|-------|-------|-----|-------|
| | 1-3 | 4-7 | 8-12 | 13-18 | 19-24 | >24 | |
| N | 6 | 1 | 0 | 0 | 0 | 0 | 7 |
| NNE | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| NE | 3 | 0 | 0 | 0 | 0 | 0 | 3 |
| ENE | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| E | 1 | 0 | 0 | 0 | 0 | 0 | 1 |
| ESE | 2 | 2 | 0 | 0 | 0 | 0 | 4 |
| SE | 1 | 0 | 0 | 0 | 0 | 0 | 1 |
| SSE | 1 | 0 | 0 | 0 | 0 | 0 | 1 |
| S | 0 | 2 | 0 | 0 | 0 | 0 | 2 |
| SSW | 2 | 4 | 0 | 0 | 0 | 0 | 6 |
| SW | 0 | 31 | 2 | 0 | 0 | 0 | 41 |
| WSW | 11 | 32 | 0 | 0 | 0 | 0 | 43 |
| W | 5 | 21 | 0 | 0 | 0 | 0 | 26 |
| WNW | 3 | 0 | 0 | 0 | 0 | 0 | 11 |
| NW | 4 | 6 | 0 | 0 | 0 | 0 | 19 |
| NNW | 5 | 0 | 0 | 0 | 0 | 0 | 14 |
| TOTAL | 52 | 116 | 2 | 0 | 0 | 0 | 170 |

PERIODS OF CALM: 10
 VARIABLE DIRECTION: 0
 HOURS OF MISSING DATA: 103

Table 6 - Continued

SITE: OYSTER CREEK

HOURS AT EACH WIND SPEED AND DIRECTION
 PERIOD OF RECORD = 03100101-03123124
 STABILITY CLASS: C DT/DZ
 ELEVATION: SPEED:SPD33A DIRECTION:DIR33A LAPSE:DT150

| WIND DIRECTION | WIND SPEED (MPH) | | | | | | TOTAL |
|----------------|------------------|-----|------|-------|-------|-----|-------|
| | 1-3 | 4-7 | 8-12 | 13-18 | 19-24 | >24 | |
| N | 5 | 3 | 0 | 0 | 0 | 0 | 0 |
| NNE | 2 | 0 | 0 | 0 | 0 | 0 | 2 |
| NE | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| ENE | 2 | 1 | 0 | 0 | 0 | 0 | 3 |
| E | 4 | 0 | 0 | 0 | 0 | 0 | 4 |
| ESE | 1 | 1 | 0 | 0 | 0 | 0 | 2 |
| SE | 1 | 0 | 0 | 0 | 0 | 0 | 1 |
| SSE | 2 | 0 | 0 | 0 | 0 | 0 | 2 |
| S | 6 | 0 | 0 | 0 | 0 | 0 | 6 |
| SSW | 7 | 3 | 0 | 0 | 0 | 0 | 10 |
| SW | 10 | 12 | 0 | 0 | 0 | 0 | 31 |
| WSW | 36 | 58 | 0 | 0 | 0 | 0 | 94 |
| W | 33 | 18 | 0 | 0 | 0 | 0 | 52 |
| WNW | 30 | 16 | 0 | 0 | 0 | 0 | 55 |
| NW | 36 | 20 | 0 | 0 | 0 | 0 | 64 |
| NNW | 18 | 11 | 0 | 0 | 0 | 0 | 21 |
| TOTAL | 293 | 152 | 0 | 0 | 0 | 0 | 355 |

PERIODS OF CALM (HOURS): 10
 VARIABLE DIRECTION: 16
 HOURS OF MISSING DATA: 103

SITE: OYSTER CREEK

HOURS AT EACH WIND SPEED AND DIRECTION
 PERIOD OF RECORD = 03100101-03123124
 STABILITY CLASS: ALL DT/DZ
 ELEVATION: SPEED:SPD33A DIRECTION:DIR33A LAPSE:DT150

| WIND DIRECTION | WIND SPEED (MPH) | | | | | | TOTAL |
|----------------|------------------|-----|------|-------|-------|-----|-------|
| | 1-3 | 4-7 | 8-12 | 13-18 | 19-24 | >24 | |
| N | 21 | 40 | 11 | 2 | 0 | 0 | 74 |
| NNE | 4 | 41 | 32 | 1 | 0 | 0 | 78 |
| NE | 0 | 30 | 51 | 2 | 0 | 0 | 100 |
| ENE | 2 | 20 | 64 | 10 | 0 | 0 | 96 |
| E | 8 | 10 | 27 | 22 | 1 | 0 | 77 |
| ESE | 6 | 25 | 10 | 20 | 1 | 0 | 71 |
| SE | 10 | 17 | 10 | 3 | 0 | 0 | 40 |
| SSE | 6 | 27 | 30 | 11 | 1 | 1 | 95 |
| S | 12 | 27 | 34 | 11 | 0 | 0 | 94 |
| SSW | 14 | 40 | 20 | 0 | 1 | 0 | 91 |
| SW | 35 | 07 | 32 | 11 | 2 | 0 | 177 |
| WSW | 54 | 160 | 54 | 12 | 1 | 0 | 200 |
| W | 58 | 07 | 70 | 31 | 3 | 0 | 250 |
| WNW | 57 | 00 | 73 | 37 | 2 | 0 | 250 |
| NW | 50 | 00 | 45 | 6 | 0 | 0 | 100 |
| NNW | 30 | 55 | 30 | 3 | 0 | 0 | 126 |
| TOTAL | 360 | 000 | 636 | 100 | 12 | 1 | 2105 |

PERIODS OF CALM (HOURS): 10
 VARIABLE DIRECTION: 41
 HOURS OF MISSING DATA: 103

TABLE 7

Oyster Creek Meteorological Tower Joint Frequency Tables of Wind Speed and
Wind Direction 380ft versus Delta Temperature 380-33ft
for the Period 7/1/83 - 9/30/83

SITE OYSTER CREEK

HOURS AT EACH WIND SPEED AND DIRECTION
PERIOD OF RECORD = 03070101-03093024
STABILITY CLASS: A DT/DZ
ELEVATION: SPEED: SP300A DIRECTION: DR300A LAPSE: DT300A

| WIND DIRECTION | WIND SPEED (MPH) | | | | | | TOTAL |
|-------------------|------------------|-----|------|-------|-------|-----|-------|
| | 1-3 | 4-7 | 8-12 | 13-18 | 19-24 | >24 | |
| N | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| NNE | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| NE | 0 | 0 | 1 | 7 | 2 | 0 | 10 |
| ENE | 0 | 0 | 2 | 7 | 0 | 0 | 9 |
| E | 0 | 0 | 3 | 0 | 0 | 0 | 3 |
| ESE | 0 | 0 | 2 | 0 | 0 | 0 | 2 |
| SE | 0 | 0 | 1 | 0 | 0 | 0 | 1 |
| SSE | 0 | 0 | 1 | 1 | 0 | 0 | 2 |
| S | 0 | 0 | 0 | 6 | 2 | 0 | 8 |
| SSV | 0 | 0 | 1 | 0 | 0 | 0 | 1 |
| SV | 0 | 0 | 2 | 1 | 0 | 0 | 3 |
| WSV | 0 | 0 | 0 | 2 | 0 | 0 | 2 |
| W | 0 | 0 | 3 | 12 | 2 | 1 | 18 |
| WNV | 0 | 0 | 1 | 10 | 1 | 0 | 12 |
| NW | 0 | 0 | 4 | 3 | 1 | 0 | 8 |
| NNV | 0 | 0 | 1 | 1 | 1 | 0 | 3 |
| TOTAL | 0 | 0 | 22 | 50 | 9 | 4 | 85 |

PERIODS OF CALM (HOURS): 1
VARIABLE DIRECTION: 0
HOURS OF MISSING DATA: 110

SITE: OYSTER CREEK

HOURS AT EACH WIND SPEED AND DIRECTION
PERIOD OF RECORD = 03070101-03093024
STABILITY CLASS: B DT/DZ
ELEVATION: SPEED: SP300A DIRECTION: DR300A LAPSE: DT300A

| WIND DIRECTION | WIND SPEED (MPH) | | | | | | TOTAL |
|-------------------|------------------|-----|------|-------|-------|-----|-------|
| | 1-3 | 4-7 | 8-12 | 13-18 | 19-24 | >24 | |
| N | 0 | 0 | 2 | 1 | 0 | 0 | 3 |
| NNE | 0 | 0 | 0 | 2 | 0 | 0 | 2 |
| NE | 0 | 1 | 1 | 2 | 2 | 0 | 6 |
| ENE | 0 | 0 | 5 | 7 | 0 | 0 | 12 |
| E | 0 | 0 | 5 | 3 | 0 | 0 | 8 |
| ESE | 0 | 1 | 0 | 1 | 0 | 0 | 2 |
| SE | 0 | 0 | 12 | 4 | 0 | 0 | 16 |
| SSE | 0 | 0 | 3 | 0 | 0 | 0 | 3 |
| S | 0 | 0 | 2 | 16 | 5 | 1 | 24 |
| SSV | 0 | 0 | 1 | 3 | 0 | 0 | 4 |
| SV | 0 | 0 | 3 | 2 | 0 | 0 | 5 |
| WSV | 0 | 1 | 10 | 3 | 0 | 0 | 14 |
| W | 0 | 0 | 7 | 3 | 1 | 0 | 11 |
| WNV | 0 | 1 | 0 | 3 | 2 | 0 | 6 |
| NW | 0 | 3 | 6 | 1 | 1 | 2 | 13 |
| NNV | 0 | 0 | 3 | 1 | 0 | 0 | 4 |
| TOTAL | 0 | 7 | 76 | 60 | 16 | 3 | 162 |

PERIODS OF CALM (HOURS): 1
VARIABLE DIRECTION: 0
HOURS OF MISSING DATA: 110

Table 7 - Continued

SITE: OYSTER CREEK

HOURS AT EACH WIND SPEED AND DIRECTION
 PERIOD OF RECORD = 03070101-03003024
 STABILITY CLASS: C 01/02
 ELEVATION: SPEED: SP300A DIRECTION: DR300A LAPSE: DT300A

| WIND DIRECTION | WIND SPEED (MPH) | | | | | | TOTAL |
|----------------|------------------|-----|------|-------|-------|-----|-------|
| | 1-3 | 4-7 | 8-12 | 13-18 | 19-24 | >24 | |
| N | 0 | 2 | 4 | 0 | 0 | 0 | 6 |
| NNE | 0 | 2 | 5 | 3 | 0 | 0 | 10 |
| NE | 0 | 1 | 2 | 2 | 1 | 2 | 8 |
| ENE | 0 | 1 | 3 | 3 | 0 | 0 | 7 |
| E | 0 | 0 | 12 | 0 | 0 | 0 | 12 |
| ESE | 0 | 6 | 0 | 2 | 0 | 0 | 8 |
| SE | 0 | 2 | 12 | 1 | 0 | 0 | 15 |
| SSE | 0 | 1 | 10 | 0 | 0 | 0 | 11 |
| S | 0 | 0 | 2 | 11 | 3 | 0 | 16 |
| SSW | 0 | 1 | 2 | 2 | 2 | 0 | 7 |
| SW | 0 | 6 | 6 | 4 | 0 | 0 | 16 |
| WSW | 0 | 3 | 3 | 3 | 0 | 0 | 9 |
| W | 0 | 4 | 5 | 4 | 1 | 0 | 14 |
| WNW | 0 | 0 | 0 | 4 | 2 | 1 | 7 |
| NW | 0 | 3 | 10 | 2 | 2 | 1 | 18 |
| NNW | 0 | 2 | 6 | 2 | 0 | 0 | 10 |
| TOTAL | 0 | 35 | 100 | 51 | 11 | 4 | 201 |

PERIODS OF CALM (HOURS): 1
 VARIABLE DIRECTION: 0
 HOURS OF MISSING DATA: 110

T OVER. (EX) TO EXIT

SITE: OYSTER CREEK

HOURS AT EACH WIND SPEED AND DIRECTION
 PERIOD OF RECORD = 03070101-03003024
 STABILITY CLASS: D 01/02
 ELEVATION: SPEED: SP300A DIRECTION: DR300A LAPSE: DT300A

| WIND DIRECTION | WIND SPEED (MPH) | | | | | | TOTAL |
|----------------|------------------|-----|------|-------|-------|-----|-------|
| | 1-3 | 4-7 | 8-12 | 13-18 | 19-24 | >24 | |
| N | 1 | 0 | 0 | 14 | 1 | 0 | 27 |
| NNE | 0 | 3 | 13 | 22 | 1 | 2 | 41 |
| NE | 1 | 4 | 10 | 10 | 10 | 22 | 57 |
| ENE | 0 | 4 | 0 | 6 | 0 | 0 | 10 |
| E | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| ESE | 1 | 15 | 13 | 4 | 1 | 0 | 34 |
| SE | 0 | 7 | 10 | 15 | 1 | 0 | 33 |
| SSE | 0 | 11 | 25 | 0 | 3 | 0 | 48 |
| S | 2 | 7 | 25 | 25 | 14 | 4 | 77 |
| SSW | 1 | 3 | 14 | 20 | 15 | 1 | 63 |
| SW | 2 | 7 | 12 | 13 | 4 | 0 | 38 |
| WSW | 0 | 4 | 10 | 14 | 2 | 0 | 30 |
| W | 0 | 1 | 11 | 0 | 1 | 0 | 21 |
| WNW | 1 | 6 | 5 | 10 | 5 | 1 | 28 |
| NW | 0 | 0 | 7 | 13 | 12 | 2 | 42 |
| NNW | 0 | 2 | 0 | 5 | 1 | 0 | 16 |
| TOTAL | 0 | 96 | 105 | 107 | 71 | 32 | 500 |

PERIODS OF CALM (HOURS): 1
 VARIABLE DIRECTION: 6
 HOURS OF MISSING DATA: 110

Table 7 - Continued

SITE: OYSTER CREEK

HOURS AT EACH WIND SPEED AND DIRECTION
 PERIOD OF RECORD - 03070101-03003024
 STABILITY CLASS: E DT/DZ
 ELEVATION: SPEED: SP300A DIRECTION: DR300A LAPSE: DT300A

| WIND DIRECTION | WIND SPEED (MPH) | | | | | | TOTAL |
|----------------|------------------|-----|------|-------|-------|-----|-------|
| | 1-3 | 4-7 | 8-12 | 13-16 | 16-24 | >24 | |
| N | 1 | 3 | 0 | 11 | 0 | 1 | 24 |
| NNE | 0 | 0 | 7 | 0 | 1 | 0 | 25 |
| NE | 0 | 2 | 4 | 0 | 0 | 4 | 22 |
| ENE | 0 | 3 | 2 | 2 | 0 | 0 | 7 |
| E | 3 | 1 | 4 | 1 | 0 | 0 | 9 |
| ESE | 2 | 2 | 1 | 0 | 0 | 0 | 5 |
| SE | 0 | 2 | 4 | 3 | 0 | 0 | 9 |
| SSE | 2 | 1 | 0 | 7 | 0 | 0 | 10 |
| S | 1 | 1 | 14 | 20 | 3 | 0 | 39 |
| SSW | 0 | 3 | 6 | 43 | 35 | 1 | 88 |
| SW | 1 | 1 | 11 | 16 | 36 | 2 | 67 |
| WSW | 0 | 2 | 4 | 0 | 13 | 4 | 32 |
| W | 2 | 2 | 5 | 11 | 3 | 1 | 24 |
| WNW | 0 | 3 | 5 | 0 | 6 | 2 | 24 |
| NW | 0 | 5 | 2 | 6 | 6 | 5 | 24 |
| NNW | 0 | 4 | 0 | 0 | 7 | 1 | 20 |
| TOTAL | 12 | 44 | 03 | 160 | 116 | 21 | 446 |

PERIODS OF CALM (HOURS): 1
 VARIABLE DIRECTION: 24
 HOURS OF MISSING DATA: 110

SITE: OYSTER CREEK

HOURS AT EACH WIND SPEED AND DIRECTION
 PERIOD OF RECORD - 03070101-03003024
 STABILITY CLASS: F DT/DZ
 ELEVATION: SPEED: SP300A DIRECTION: DR300A LAPSE: DT300A

| WIND DIRECTION | WIND SPEED (MPH) | | | | | | TOTAL |
|----------------|------------------|-----|------|-------|-------|-----|-------|
| | 1-3 | 4-7 | 8-12 | 13-16 | 16-24 | >24 | |
| N | 1 | 2 | 4 | 4 | 3 | 0 | 14 |
| NNE | 1 | 2 | 4 | 7 | 1 | 0 | 15 |
| NE | 1 | 3 | 1 | 0 | 0 | 0 | 13 |
| ENE | 0 | 3 | 1 | 0 | 0 | 0 | 4 |
| E | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| ESE | 1 | 0 | 0 | 0 | 0 | 0 | 1 |
| SE | 0 | 1 | 2 | 0 | 0 | 0 | 3 |
| SSE | 0 | 4 | 2 | 0 | 0 | 0 | 6 |
| S | 2 | 1 | 5 | 0 | 0 | 0 | 16 |
| SSW | 2 | 0 | 11 | 13 | 3 | 0 | 29 |
| SW | 0 | 1 | 5 | 0 | 17 | 0 | 23 |
| WSW | 0 | 1 | 7 | 13 | 14 | 24 | 59 |
| W | 1 | 1 | 5 | 11 | 15 | 0 | 33 |
| WNW | 1 | 4 | 1 | 11 | 4 | 2 | 23 |
| NW | 0 | 2 | 1 | 0 | 4 | 6 | 22 |
| NNW | 2 | 2 | 5 | 0 | 24 | 5 | 43 |
| TOTAL | 12 | 27 | 52 | 00 | 85 | 57 | 331 |

PERIODS OF CALM (HOURS): 1
 VARIABLE DIRECTION: 16
 HOURS OF MISSING DATA: 110

Table 7 - Continued

SITE: OYSTER CREEK

HOURS AT EACH WIND SPEED AND DIRECTION
 PERIOD OF RECORD - 03070101-03003024
 STABILITY CLASS: C DT/DZ
 ELEVATION: SPEED: SP300A DIRECTION: DR300A LAPSE: DT300A

| WIND DIRECTION | WIND SPEED (MPH) | | | | | | TOTAL |
|----------------|------------------|-----|------|-------|-------|-----|-------|
| | 1-3 | 4-7 | 8-12 | 13-18 | 19-24 | >24 | |
| N | 1 | 3 | 16 | 7 | 10 | 1 | 30 |
| NNE | 0 | 0 | 0 | 11 | 2 | 0 | 23 |
| NE | 0 | 2 | 0 | 3 | 1 | 0 | 6 |
| ENE | 0 | 2 | 0 | 0 | 0 | 0 | 2 |
| E | 0 | 0 | 0 | 1 | 0 | 0 | 1 |
| ESE | 0 | 0 | 4 | 1 | 0 | 0 | 5 |
| SE | 1 | 0 | 0 | 0 | 0 | 0 | 1 |
| SSE | 1 | 2 | 1 | 0 | 0 | 0 | 4 |
| S | 0 | 2 | 1 | 0 | 0 | 0 | 3 |
| SSW | 1 | 3 | 3 | 3 | 0 | 0 | 10 |
| SW | 0 | 4 | 11 | 6 | 1 | 0 | 22 |
| WSW | 1 | 4 | 0 | 12 | 5 | 2 | 32 |
| W | 0 | 7 | 7 | 15 | 10 | 2 | 41 |
| WNW | 2 | 3 | 6 | 11 | 7 | 4 | 33 |
| NW | 0 | 0 | 0 | 0 | 10 | 1 | 32 |
| NNW | 1 | 3 | 0 | 0 | 0 | 1 | 30 |
| TOTAL | 9 | 45 | 70 | 86 | 55 | 11 | 283 |

PERIODS OF CALM (HOURS): 1
 VARIABLE DIRECTION: 16
 HOURS OF MISSING DATA: 110

SITE: OYSTER CREEK

HOURS AT EACH WIND SPEED AND DIRECTION
 PERIOD OF RECORD - 03070101-03003024
 STABILITY CLASS: ALL DT/DZ
 ELEVATION: SPEED: SP300A DIRECTION: DR300A LAPSE: DT300A

| WIND DIRECTION | WIND SPEED (MPH) | | | | | | TOTAL |
|----------------|------------------|-----|------|-------|-------|-----|-------|
| | 1-3 | 4-7 | 8-12 | 13-18 | 19-24 | >24 | |
| N | 4 | 16 | 30 | 37 | 14 | 2 | 112 |
| NNE | 1 | 21 | 34 | 03 | 0 | 2 | 116 |
| NE | 2 | 13 | 10 | 30 | 22 | 20 | 122 |
| ENE | 0 | 13 | 24 | 25 | 0 | 0 | 62 |
| E | 3 | 10 | 32 | 5 | 0 | 0 | 50 |
| ESE | 4 | 24 | 36 | 0 | 1 | 0 | 73 |
| SE | 1 | 12 | 30 | 23 | 1 | 0 | 76 |
| SSE | 3 | 10 | 50 | 33 | 3 | 0 | 100 |
| S | 5 | 11 | 40 | 06 | 27 | 5 | 103 |
| SSW | 4 | 10 | 30 | 03 | 60 | 2 | 207 |
| SW | 3 | 10 | 50 | 01 | 50 | 22 | 203 |
| WSW | 1 | 15 | 42 | 06 | 34 | 30 | 178 |
| W | 3 | 15 | 43 | 64 | 33 | 4 | 162 |
| WNW | 4 | 17 | 34 | 07 | 27 | 10 | 140 |
| NW | 0 | 26 | 30 | 42 | 36 | 20 | 162 |
| NNW | 3 | 13 | 30 | 31 | 42 | 7 | 135 |
| TOTAL | 41 | 254 | 606 | 702 | 363 | 132 | 2000 |

PERIODS OF CALM (HOURS): 1
 VARIABLE DIRECTION: 61
 HOURS OF MISSING DATA: 110

TABLE 8

Oyster Creek Meteorological Tower Joint Frequency Tables of Wind Speed and
Wind Direction 380ft versus Delta Temperature 380-33ft
for the Period 10/1/83 - 12/31/83

SITE: OYSTER CREEK

HOURS AT EACH WIND SPEED AND DIRECTION
PERIOD OF RECORD = 03100101-03123124 |
STABILITY CLASS: A DT/DZ
ELEVATION: SPEED: 5P380A DIRECTION: DR380A LAPSE: DT380A

| WIND DIRECTION | WIND SPEED (MPH) | | | | | | TOTAL |
|-------------------|------------------|-----|------|-------|-------|-----|-------|
| | 1-3 | 4-7 | 8-12 | 13-18 | 19-24 | >24 | |
| N | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| NNE | 0 | 0 | 0 | 1 | 0 | 0 | 1 |
| NE | 0 | 0 | 0 | 1 | 0 | 0 | 1 |
| ENE | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| E | 0 | 0 | 0 | 0 | 0 | 1 | 1 |
| ESE | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| SE | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| SSE | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| S | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| SSW | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| SW | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| WSW | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| W | 0 | 0 | 0 | 1 | 4 | 0 | 5 |
| WNW | 0 | 0 | 0 | 1 | 3 | 1 | 5 |
| NW | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| NNW | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| TOTAL | 0 | 0 | 0 | 5 | 7 | 2 | 14 |

PERIODS OF CALM (HOURS): 1
VARIABLE DIRECTION: 0
HOURS OF MISSING DATA: 106

SITE: OYSTER CREEK

HOURS AT EACH WIND SPEED AND DIRECTION
PERIOD OF RECORD = 03100101-03123124 |
STABILITY CLASS: B DT/DZ
ELEVATION: SPEED: 5P380A DIRECTION: DR380A LAPSE: DT380A

| WIND DIRECTION | WIND SPEED (MPH) | | | | | | TOTAL |
|-------------------|------------------|-----|------|-------|-------|-----|-------|
| | 1-3 | 4-7 | 8-12 | 13-18 | 19-24 | >24 | |
| N | 0 | 0 | 0 | 1 | 0 | 0 | 1 |
| NNE | 0 | 0 | 2 | 0 | 0 | 0 | 2 |
| NE | 0 | 0 | 2 | 2 | 0 | 0 | 4 |
| ENE | 0 | 0 | 4 | 0 | 0 | 0 | 4 |
| E | 0 | 0 | 2 | 0 | 0 | 0 | 2 |
| ESE | 0 | 1 | 0 | 0 | 0 | 0 | 1 |
| SE | 0 | 0 | 1 | 0 | 0 | 0 | 1 |
| SSE | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| S | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| SSW | 0 | 0 | 0 | 1 | 0 | 0 | 1 |
| SW | 0 | 0 | 0 | 1 | 0 | 0 | 1 |
| WSW | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| W | 0 | 0 | 1 | 7 | 0 | 1 | 9 |
| WNW | 0 | 0 | 2 | 13 | 6 | 3 | 24 |
| NW | 0 | 0 | 3 | 0 | 7 | 1 | 11 |
| NNW | 0 | 0 | 1 | 3 | 2 | 1 | 7 |
| TOTAL | 0 | 1 | 10 | 38 | 15 | 6 | 70 |

PERIODS OF CALM (HOURS): 1
VARIABLE DIRECTION: 0
HOURS OF MISSING DATA: 106

Table 8 - Continued

SITE: OYSTER CREEK

HOURS AT EACH WIND SPEED AND DIRECTION
 PERIOD OF RECORD = 03100101-03123124
 STABILITY CLASS: C DT/DZ
 ELEVATION: SPEED: SP300A DIRECTION: DR300A LAPSE: DT300A

| WIND DIRECTION | WIND SPEED (MPH) | | | | | | TOTAL |
|----------------|------------------|-----|------|-------|-------|-----|-------|
| | 1-3 | 4-7 | 8-12 | 13-18 | 19-24 | >24 | |
| N | 0 | 0 | 4 | 3 | 0 | 0 | 7 |
| NNE | 0 | 0 | 3 | 0 | 0 | 0 | 3 |
| NE | 0 | 0 | 2 | 2 | 3 | 1 | 8 |
| ENE | 0 | 1 | 1 | 0 | 0 | 0 | 2 |
| E | 0 | 1 | 1 | 0 | 0 | 0 | 2 |
| ESE | 0 | 3 | 1 | 0 | 0 | 1 | 5 |
| SE | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| SSE | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| S | 0 | 0 | 2 | 1 | 0 | 0 | 3 |
| SSW | 0 | 1 | 1 | 0 | 0 | 0 | 2 |
| SW | 0 | 0 | 1 | 1 | 0 | 3 | 5 |
| WSW | 0 | 2 | 0 | 3 | 3 | 2 | 11 |
| W | 0 | 0 | 0 | 6 | 5 | 5 | 24 |
| WNW | 0 | 2 | 4 | 5 | 7 | 5 | 23 |
| NW | 0 | 0 | 4 | 1 | 4 | 1 | 10 |
| NNW | 0 | 2 | 5 | 0 | 1 | 1 | 9 |
| TOTAL | 0 | 12 | 46 | 22 | 23 | 10 | 122 |

PERIODS OF CALM (HOURS): 1
 VARIABLE DIRECTION: 1
 HOURS OF MISSING DATA: 106

SITE: OYSTER CREEK

HOURS AT EACH WIND SPEED AND DIRECTION
 PERIOD OF RECORD = 03100101-03123124
 STABILITY CLASS: D DT/DZ
 ELEVATION: SPEED: SP300A DIRECTION: DR300A LAPSE: DT300A

| WIND DIRECTION | WIND SPEED (MPH) | | | | | | TOTAL |
|----------------|------------------|-----|------|-------|-------|-----|-------|
| | 1-3 | 4-7 | 8-12 | 13-18 | 19-24 | >24 | |
| N | 0 | 1 | 11 | 16 | 4 | 1 | 33 |
| NNE | 0 | 1 | 11 | 18 | 1 | 0 | 32 |
| NE | 0 | 1 | 6 | 18 | 42 | 18 | 77 |
| ENE | 1 | 1 | 4 | 21 | 28 | 21 | 76 |
| E | 1 | 0 | 3 | 5 | 7 | 35 | 51 |
| ESE | 1 | 2 | 2 | 2 | 5 | 10 | 30 |
| SE | 0 | 2 | 3 | 2 | 13 | 3 | 23 |
| SSE | 0 | 2 | 15 | 7 | 16 | 0 | 40 |
| S | 0 | 3 | 15 | 20 | 10 | 7 | 64 |
| SSW | 0 | 1 | 18 | 15 | 11 | 6 | 51 |
| SW | 1 | 4 | 7 | 7 | 6 | 7 | 32 |
| WSW | 0 | 5 | 10 | 15 | 13 | 7 | 50 |
| W | 1 | 4 | 18 | 22 | 26 | 34 | 105 |
| WNW | 0 | 6 | 15 | 24 | 24 | 37 | 106 |
| NW | 0 | 2 | 0 | 27 | 15 | 0 | 62 |
| NNW | 1 | 1 | 6 | 12 | 18 | 1 | 39 |
| TOTAL | 6 | 36 | 162 | 232 | 248 | 285 | 880 |

PERIODS OF CALM (HOURS): 1
 VARIABLE DIRECTION: 3
 HOURS OF MISSING DATA: 106

Table 8 - Continued

SITE: OYSTER CREEK 01/10/04 10.26

HOURS AT EACH WIND SPEED AND DIRECTION
 PERIOD OF RECORD = 03100101-03123124
 STABILITY CLASS: E D1/D2
 ELEVATION: SPEED: SP300A DIRECTION: DR300A LAPSE: DT300A

| WIND DIRECTION | WIND SPEED (MPH) | | | | | | TOTAL |
|----------------|------------------|-----|------|-------|-------|-----|-------|
| | 1-3 | 4-7 | 8-12 | 13-18 | 19-24 | >24 | |
| N | 0 | 4 | 10 | 12 | 2 | 0 | 28 |
| NNE | 0 | 5 | 7 | 3 | 0 | 0 | 15 |
| NE | 1 | 0 | 6 | 4 | 5 | 0 | 16 |
| ENE | 0 | 0 | 0 | 0 | 13 | 1 | 14 |
| E | 0 | 0 | 1 | 2 | 7 | 10 | 20 |
| ESE | 1 | 0 | 7 | 6 | 2 | 14 | 30 |
| SE | 2 | 2 | 3 | 8 | 2 | 3 | 18 |
| SSE | 2 | 3 | 5 | 8 | 5 | 4 | 27 |
| S | 0 | 3 | 15 | 6 | 3 | 0 | 27 |
| SSW | 0 | 1 | 3 | 8 | 7 | 1 | 17 |
| SW | 0 | 1 | 4 | 10 | 12 | 7 | 42 |
| WSW | 1 | 1 | 2 | 14 | 41 | 20 | 79 |
| W | 0 | 3 | 10 | 6 | 10 | 5 | 42 |
| WNW | 1 | 1 | 7 | 20 | 10 | 4 | 52 |
| NW | 2 | 1 | 3 | 16 | 0 | 0 | 31 |
| NNW | 0 | 2 | 2 | 6 | 0 | 3 | 13 |
| TOTAL | 10 | 27 | 84 | 137 | 150 | 80 | 488 |

PERIODS OF CALM (HOURS): 1
 VARIABLE DIRECTION: 6
 HOURS OF MISSING DATA: 106

SITE: OYSTER CREEK

01/10/04 10.27

HOURS AT EACH WIND SPEED AND DIRECTION
 PERIOD OF RECORD = 03100101-03123124
 STABILITY CLASS: F D1/D2
 ELEVATION: SPEED: SP300A DIRECTION: DR300A LAPSE: DT300A

| WIND DIRECTION | WIND SPEED (MPH) | | | | | | TOTAL |
|----------------|------------------|-----|------|-------|-------|-----|-------|
| | 1-3 | 4-7 | 8-12 | 13-18 | 19-24 | >24 | |
| N | 0 | 1 | 1 | 0 | 11 | 0 | 22 |
| NNE | 1 | 0 | 2 | 3 | 1 | 0 | 7 |
| NE | 0 | 2 | 4 | 1 | 0 | 0 | 7 |
| ENE | 0 | 1 | 1 | 1 | 0 | 0 | 3 |
| E | 0 | 1 | 0 | 1 | 1 | 0 | 3 |
| ESE | 0 | 0 | 3 | 1 | 0 | 0 | 4 |
| SE | 0 | 1 | 2 | 1 | 0 | 0 | 4 |
| SSE | 0 | 0 | 2 | 3 | 0 | 0 | 5 |
| S | 0 | 1 | 1 | 1 | 0 | 0 | 3 |
| SSW | 0 | 1 | 5 | 0 | 1 | 2 | 17 |
| SW | 0 | 1 | 5 | 4 | 10 | 16 | 44 |
| WSW | 0 | 1 | 1 | 5 | 10 | 21 | 46 |
| W | 0 | 0 | 2 | 10 | 16 | 3 | 31 |
| WNW | 0 | 1 | 7 | 11 | 25 | 4 | 48 |
| NW | 0 | 1 | 5 | 11 | 11 | 0 | 28 |
| NNW | 0 | 0 | 4 | 6 | 11 | 0 | 21 |
| TOTAL | 1 | 12 | 45 | 76 | 113 | 46 | 293 |

PERIODS OF CALM (HOURS): 1
 VARIABLE DIRECTION: 0
 HOURS OF MISSING DATA: 106

Table 8 - Continued

SITE: OYSTER CREEK

HOURS AT EACH WIND SPEED AND DIRECTION
 PERIOD OF RECORD - 03100101-03123124
 STABILITY CLASS. G D1/D2
 ELEVATION: SPEED: SP300A DIRECTION: DR300A LAPSE: DT300A

| WIND DIRECTION | WIND SPEED (MPH) | | | | | | TOTAL |
|----------------|------------------|-----|------|-------|-------|-----|-------|
| | 1-3 | 4-7 | 8-12 | 13-18 | 19-24 | >24 | |
| N | 0 | 2 | 3 | 3 | 13 | 1 | 22 |
| NNE | 0 | 3 | 1 | 0 | 0 | 0 | 5 |
| NE | 0 | 3 | 1 | 0 | 1 | 0 | 6 |
| ENE | 0 | 3 | 1 | 2 | 0 | 0 | 6 |
| E | 0 | 4 | 1 | 1 | 0 | 0 | 6 |
| ESE | 0 | 3 | 0 | 0 | 0 | 0 | 3 |
| SE | 0 | 1 | 3 | 0 | 0 | 0 | 4 |
| SSE | 0 | 4 | 0 | 0 | 2 | 0 | 12 |
| S | 1 | 4 | 1 | 0 | 0 | 0 | 6 |
| SSW | 1 | 0 | 7 | 0 | 0 | 0 | 16 |
| SW | 1 | 0 | 7 | 11 | 0 | 0 | 24 |
| WSW | 0 | 4 | 2 | 3 | 0 | 4 | 13 |
| W | 0 | 4 | 5 | 1 | 4 | 7 | 21 |
| WNW | 0 | 4 | 5 | 2 | 0 | 5 | 24 |
| NW | 0 | 1 | 5 | 10 | 0 | 0 | 24 |
| NNW | 0 | 2 | 1 | 5 | 11 | 3 | 22 |
| TOTAL | 3 | 55 | 48 | 47 | 47 | 28 | 228 |

PERIODS OF CALM (HOURS): 1
 VARIABLE DIRECTION: 12
 HOURS OF MISSING DATA: 106

SITE: OYSTER CREEK

HOURS AT EACH WIND SPEED AND DIRECTION
 PERIOD OF RECORD - 03100101-03123124
 STABILITY CLASS. ALL D1/D2
 ELEVATION: SPEED: SP300A DIRECTION: DR300A LAPSE: DT300A

| WIND DIRECTION | WIND SPEED (MPH) | | | | | | TOTAL |
|----------------|------------------|-----|------|-------|-------|-----|-------|
| | 1-3 | 4-7 | 8-12 | 13-18 | 19-24 | >24 | |
| N | 0 | 0 | 20 | 44 | 30 | 2 | 113 |
| NNE | 1 | 0 | 26 | 27 | 2 | 0 | 65 |
| NE | 1 | 0 | 20 | 20 | 01 | 11 | 117 |
| ENE | 1 | 0 | 11 | 20 | 41 | 22 | 119 |
| E | 1 | 0 | 0 | 0 | 10 | 64 | 93 |
| ESE | 2 | 0 | 10 | 0 | 7 | 33 | 70 |
| SE | 2 | 0 | 20 | 0 | 15 | 6 | 50 |
| SSE | 2 | 0 | 22 | 24 | 23 | 13 | 93 |
| S | 1 | 11 | 34 | 30 | 22 | 7 | 105 |
| SSW | 1 | 12 | 34 | 20 | 10 | 0 | 104 |
| SW | 2 | 11 | 24 | 42 | 36 | 33 | 140 |
| WSW | 1 | 13 | 20 | 40 | 75 | 54 | 200 |
| W | 1 | 11 | 44 | 53 | 60 | 55 | 233 |
| WNW | 1 | 14 | 40 | 78 | 03 | 50 | 202 |
| NW | 2 | 5 | 20 | 74 | 57 | 12 | 170 |
| NNW | 1 | 7 | 10 | 32 | 40 | 0 | 116 |
| TOTAL | 20 | 143 | 403 | 555 | 603 | 370 | 2102 |

PERIODS OF CALM (HOURS): 1
 VARIABLE DIRECTION: 31
 HOURS OF MISSING DATA: 106

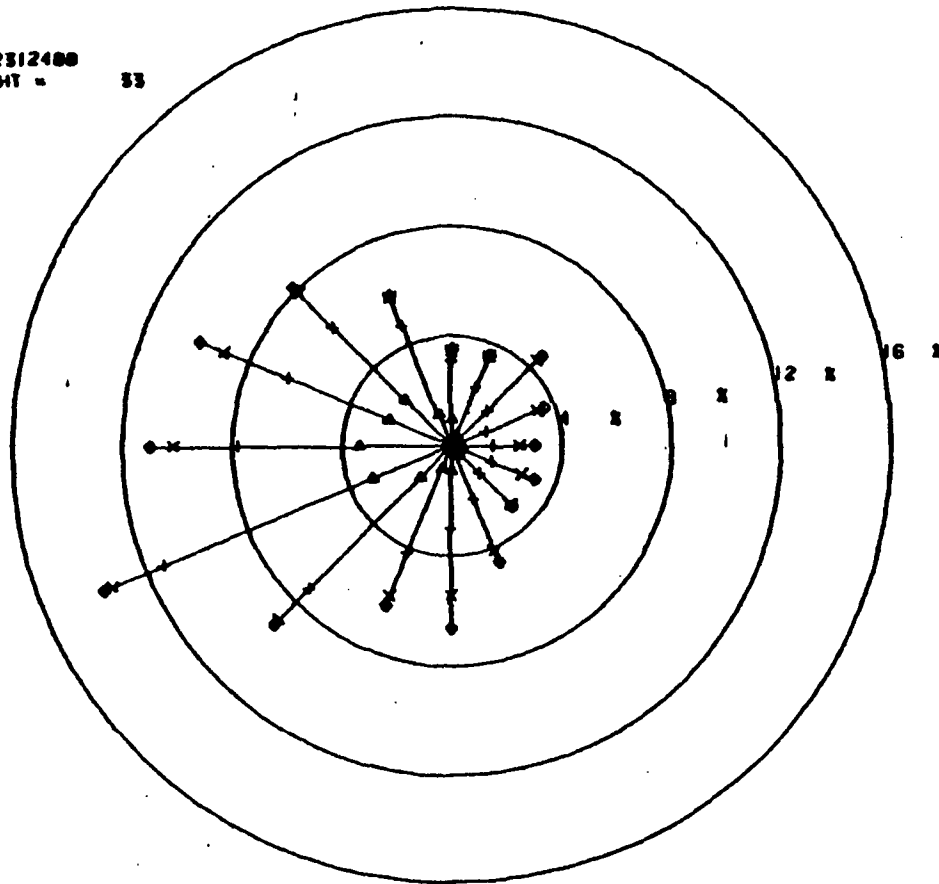
TABLE 9
 METEOROLOGICAL DATA RECOVERY PERCENTAGE
 FOR THE OYSTER CREEK NUCLEAR GENERATING STATION
 METEOROLOGICAL TOWER

| MONTH | 33' RECOVERY (%) | 380' RECOVERY (%) |
|-------------------|------------------------|-------------------------|
| JUL 83 | 96 | 97 |
| AUG 83 | 96 | 96 |
| SEP 83 | 93 | 92 |
| OCT 83 | 95 | 95 |
| NOV 83 | 94 | 93 |
| DEC 83 | <u>97</u> | <u>97</u> |
| SIX MONTH AVERAGE | 95 | 95 |

FIGURE 2
 GPU NUCLEAR CORPORATION
 OYSTER CREEK NUCLEAR GENERATING STATION
 JULY 1983 - DECEMBER 1983 (33' LEVEL)

SITE: OYSTER CREEK

0307010100 0312312400
 SPEED SENSOR HEIGHT = 33



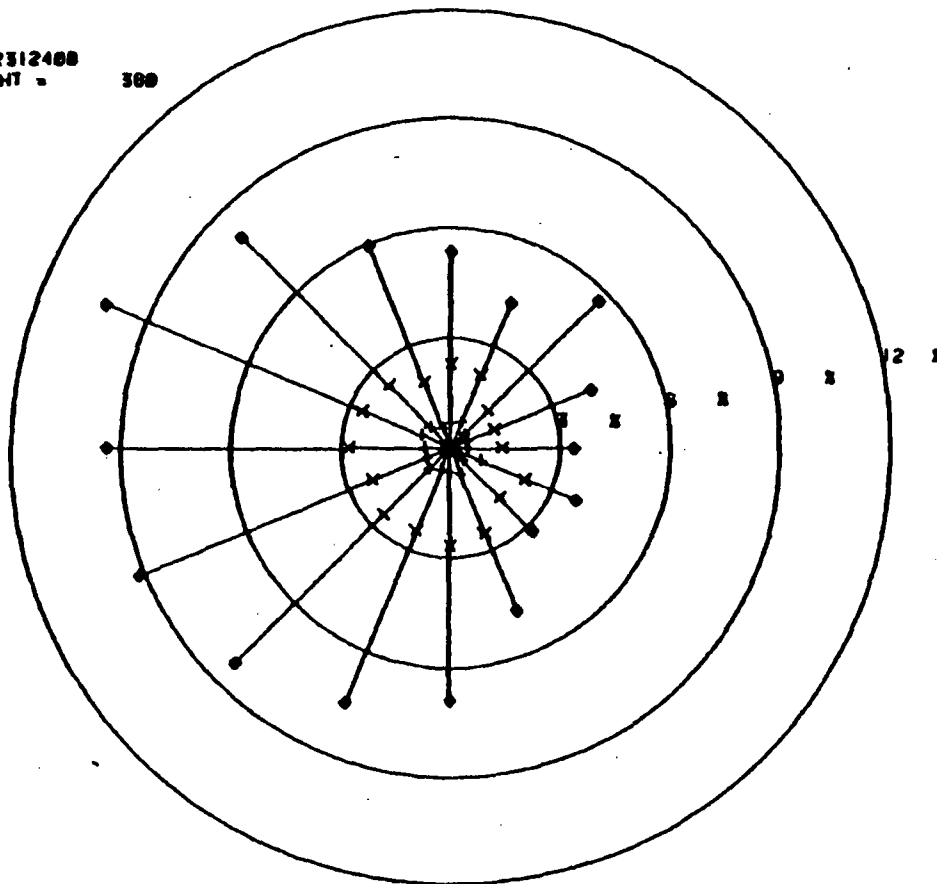
▲ WIND SPEED LESS THAN 3.5 MPH
 + WIND SPEED LESS THAN 7.5 MPH
 × WIND SPEED LESS THAN 12.0 MPH
 ● WIND SPEED GREATER THAN 12.0 MPH

0.0 PERCENT CALMS
 (CALMS DEFINED AS SPEED LESS THAN 0.5)

FIGURE 3
 GPU NUCLEAR CORPORATION
 OYSTER CREEK NUCLEAR GENERATING STATION
 JULY 1983 - DECEMBER 1983 (380' LEVEL)

SITE: OYSTER CREEK

0307010100 0312312400
 SPEED SENSOR HEIGHT = 300

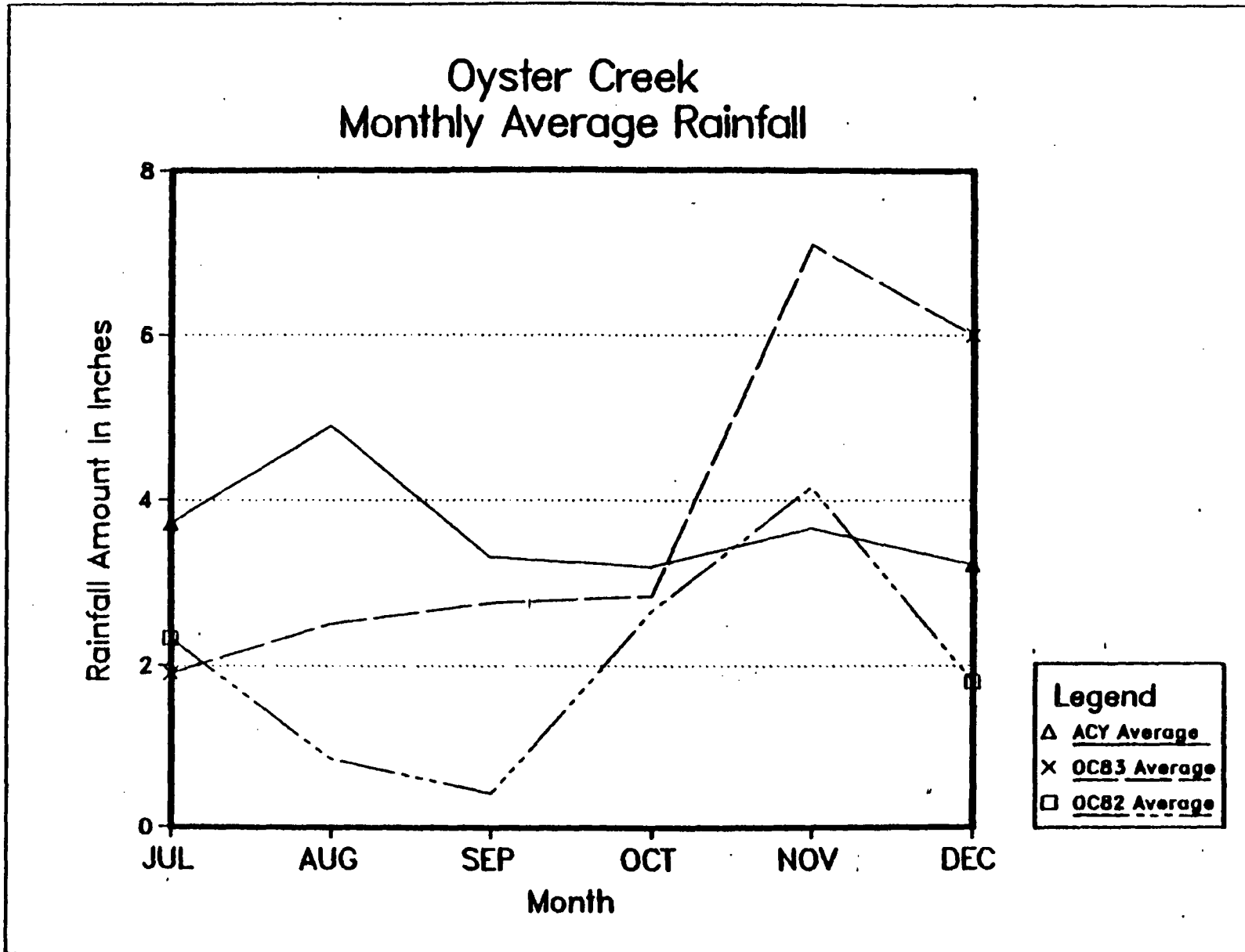


WIND ROSE
 (WINDS FROM)
 N
 ↑

▲ WIND SPEED LESS THAN 3.5 MPH
 + WIND SPEED LESS THAN 7.5 MPH
 x WIND SPEED LESS THAN 12.5 MPH
 ● WIND SPEED GREATER THAN 12.5 MPH

0.5 PERCENT CALMS
 (CALMS DEFINED AS SPEED LESS THAN 0.5)

FIGURE 4



III. RADIOLOGICAL ENVIRONMENTAL SUMMARY

SECTION III - RADIOLOGICAL ENVIRONMENTAL SUMMARY

Radiological Environmental Monitoring Program

Introduction

The Radiological Environmental Monitoring Program was conducted during the reporting period in accordance with Technical Specification 4.6.B.3. The Technical Specifications, which refer to the Application for Reactor License, Docket No. 50-219, Amendment No. 65, require five general types of monitoring: (1) atmospheric radiation, (2) fallout, (3) domestic water, (4) surface water, and (5) marine life. This monitoring was accomplished by collecting samples from the various environmental media at sample collection stations as outlined in Table 10 and Figures 5 and 6.

Specifically, film badges and thermoluminescent dosimeters (TLDs) were analyzed for immersion dose. Particulate filters, air iodine cartridges, precipitation, vegetation, soil, and crops were analyzed for atmospheric radiation and fallout. Well water, surface water, aquatic sediment, and clams, as well as the aforementioned media, were analyzed because of their close association with either plant effluents and/or man's consumption. All results from these analyses are reported in Tables 11 through 16.

Sampling Techniques

Radiological environmental sampling is conducted around the OCNGS as described below:

| <u>Environmental Media/Pathway</u> | <u>Mode of Sampling</u> |
|---|---|
| Atmosphere/direct radiation, inhalation | Composite of Air Particulates on filter Adsorption of air iodines on charcoal filter |
| Atmosphere/direct radiation | TLD and Film Badge |
| Surface Water/direct radiation | Grab Sample |
| Well Water/ingestion | Grab Sample |
| Precipitation/direct radiation | Composite |
| Vegetation, Crops/ingestion | Grab |
| Soil/direct radiation | Grab |
| Aquatic Sediment/direct radiation | Grab |
| Shellfish/ingestion | Grab |

All samples collected are processed and packed at an offsite lab near the OCNGS, then shipped to the vendor laboratories by overland courier for analysis. Vendor laboratories prepare samples as instructed by the Oyster Creek Environmental Controls Department. Radiochemical analyses are then performed by vendor laboratory, and results are sent to the Oyster Creek Environmental Controls Department.

Data

Tables 11 through 16 represent a summary of all radiological environmental data for the reporting period. Tables 14, 15, and 16 present the data in the manner prescribed in proposed USNRC Regulatory Guide 4.8 and USNRC Branch Technical Position.

TABLE 10
OYSTER CREEK STATION
ENVIRONMENTAL MONITORING STATIONS
LOCATION AND SAMPLE TYPE COLLECTED

| <u>STATION NUMBER</u> | | <u>SAMPLE COLLECTED</u> |
|-----------------------|--|---------------------------------------|
| 1 | Forked River, N.J. - Oyster Creek Meteorological Tower | APT, AIO, RG, RWA, VGTN, SOIL, WWA |
| T1 | Forked River, N.J. - Oyster Creek Meteorological Tower | RG |
| 2 | Pinewald, N.J. - Route #9 at JCP&L Company Pinewald Substation north of Forked River, N.J. | APT, AIO, RG, RWA, VGTN, SOIL |
| 3 | Island Beach State Park, N.J. - Near old Coast Guard Station | APT, AIO, RG, RWA, VGTN, SOIL |
| 4 | Barneгат, N. J. - Route #534, Windward at Barneгат, first road West of Parkway Exit | APT, AIO, RG, RWA, VGTN, SOIL |
| 5 | Forked River, N.J. - Garden State Parkway Northbound Entrance to Holiday House | APT, AIO, RG, RWA, VGTN, SOIL |
| 6 | Forked River, N.J. - Lane Place behind St. Pius X Catholic Church | RG |
| 7 | Waretown, N.J. - Compass Road, second pole North of Bay Parkway | RG |
| 8 | Waretown, N.J. - Route #9 at the Waretown Substation | RG |
| 9 | Waretown, N.J. - Route #532, North side of road at Parkway | RG |
| 10 | Toms River, N.J. - Route #37 East, adjacent to "Eastern Off Road Supply" | RG |
| 11 | Harvey Cedars, N.J. - Long Beach Blvd. and East 70th Street, Long Beach Island | RG |
| 12 | Cedar Run, N.J. - Route #9, East of Assembly of God Church | RG |

TABLE 10
OYSTER CREEK STATION
ENVIRONMENTAL MONITORING STATIONS
LOCATION AND SAMPLE TYPE COLLECTED

| <u>STATION NUMBER</u> | | <u>SAMPLE COLLECTED</u> |
|-----------------------|--|-------------------------|
| 13 | South Toms River, N.J. - Dover Road, next to last pole traveling West on North side | RG |
| 14 | Lakewood, N.J. - Larrabee Substation, just off Route #547 on Randolph Road | RG |
| 15 | New Egypt, N.J. - Route #539, last pole on South side, adjacent to "Bomarc" Site | RG |
| 16 | Intersection of Route #563 and Route #72, two poles South | RG |
| 17 | New Gretna, N.J. - Route #563, 2 miles North, next to High Voltage Line | RG |
| 18 | Forked River, N.J. - Lacey Road, Townsend's Marina | WWA |
| 19 | Forked River, N.J. - 1015 Inland Road, Forked River Beach | WWA |
| 20 | Forked River, N.J. - Finninger Farm at Environmental Lab | WWA |
| 21 | Waretown, N.J. - 215 Dock Avenue, Sands Point Harbor | WWA |
| 22 | Waretown, N.J. - 1014 Long John, Silver Way, Skippers Cove | WWA |
| 23 | Barnegat Bay - Off Stouts Creek approximately 400 yards SE (150°) of FL "1" (Heading on BWN "D") | SWA, AQS, CLAM |
| 24 | Barnegat Bay - Approximately 250 yards SE (180°) of FL "3" (Heading on N "66") | SWA, AQS, CLAM |

TABLE 10
OYSTER CREEK STATION
ENVIRONMENTAL MONITORING STATIONS
LOCATION AND SAMPLE TYPE COLLECTED

| <u>STATION NUMBER</u> | | <u>SAMPLE COLLECTED</u> |
|-----------------------|--|-------------------------|
| 25 | Barnegat Bay - Off Holiday Harbor; approximately 200 yards SE (140°) of the Lagoon Mouth | SWA, AQS, CLAM |
| 26 | Forked River, N.J. - South Branch of Forked River, North of Bridge to Visitor Center | SWA, AQS |
| 27 | Forked River, N.J. - Downstream of Oyster Creek Fire Pond, approximately 10 yards | SWA, AQS |
| 28 | Forked River, N.J. - Lacey Road and the Garden State Parkway | CROP |
| 29 | Barnegat, N.J. - Route #534 and the Garden State Parkway | CROP |
| 30 | Forked River, N.J. - Finninger Farm along fence | CROP |
| 31 | Manahawkin Bay - Approximately 25 yards SE (140°) of C "23" and N "24" | SWA, AQS, CLAM |
| 32 | Oyster Creek - Mouth of Creek midway between Bulkhead on North Shore and South Shore of Creek | SWA, AQS |
| 33 | Oyster Creek - Approximately 1200 yards East of Route #9 Bridge, in middle of channel, directly South of Bulkhead running perpendicular to North Shore | SWA, AQS |
| A | Allenhurst, N.J. - JCP&L Company District Headquarters | APT, AIO, RG, RWA |
| C | Cookstown, N.J. - Route #528 Spur, at JCP&L Company District Dispatcher | APT, AIO, RG, RWA |

TABLE 10
 OYSTER CREEK STATION
 ENVIRONMENTAL MONITORING STATIONS
LOCATION AND SAMPLE TYPE COLLECTED

| <u>STATION NUMBER</u> | | <u>SAMPLE COLLECTED</u> |
|--------------------------------|--|-------------------------|
| H | Hammonton, N.J. - Egg Harbor Road, at the Atlantic City Electric District Dispatcher | APT, AIO, RG, RWA |
| APT = Air Particulate | | |
| AIO = Air Iodine | | |
| RG = Radiogas/Direct Radiation | | |
| RWA = Precipitation | | |
| WWA = Well Water | | |
| SWA = Surface Water | | |
| AQS = Aquatic Sediment | | |
| CLAM = Clams | | |
| CROP = Pasture/Crops | | |
| VGTN = Vegetation | | |
| SOIL = Soil | | |

FIGURE 5
 MAP OF REMP INDICATOR STATIONS

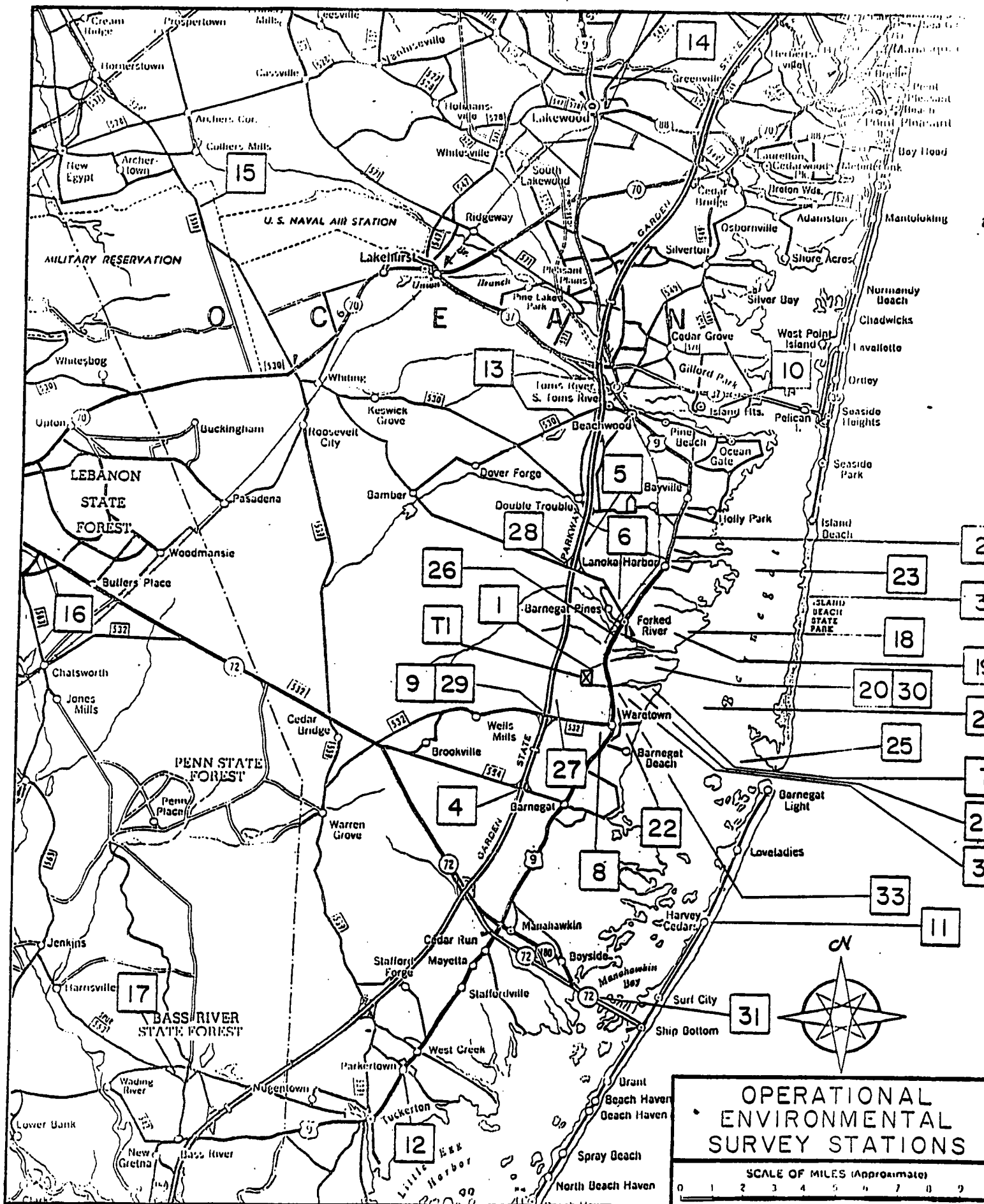
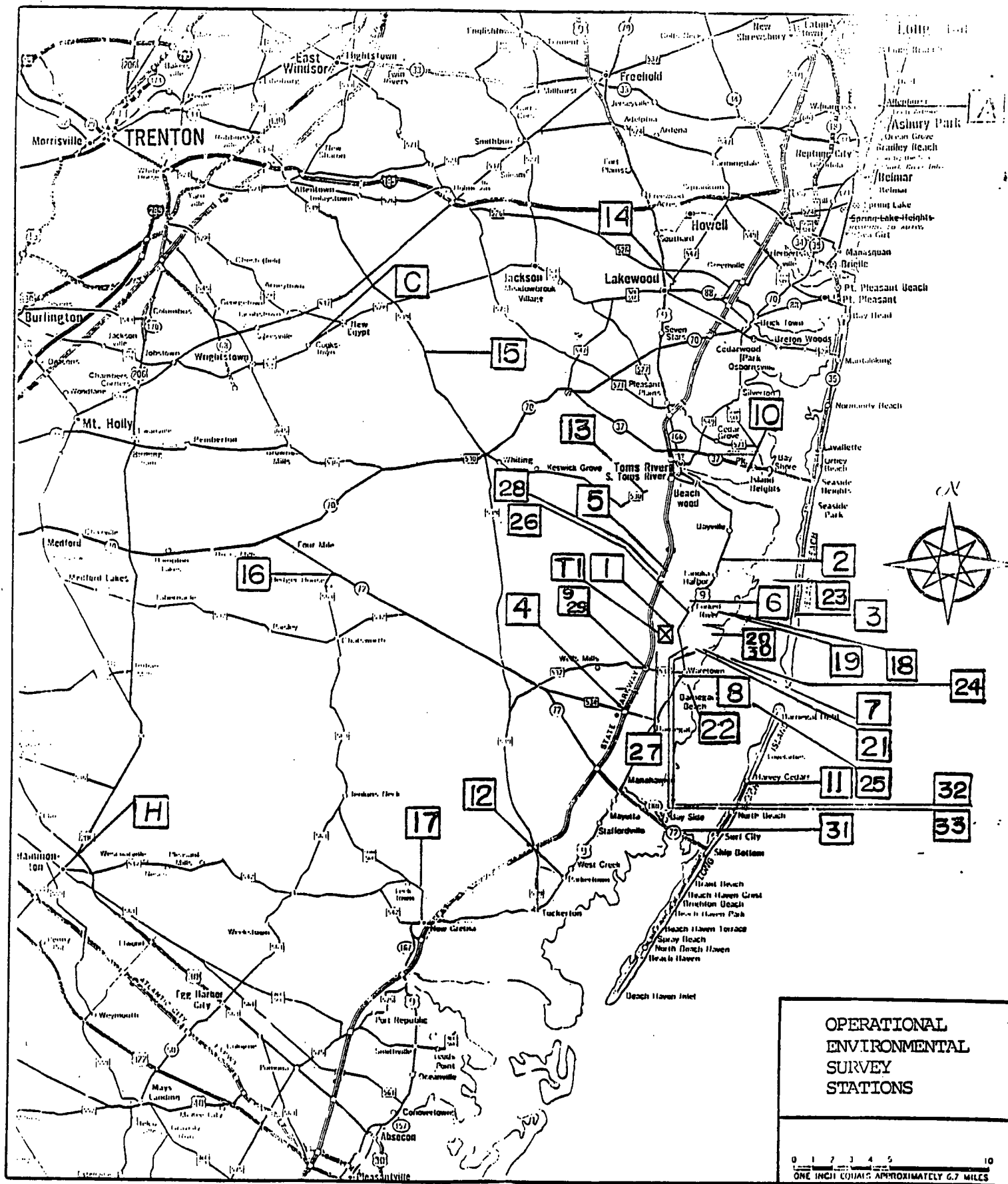


FIGURE 6

MAP OF REMP INDICATOR AND BACKGROUND STATIONS



OPERATIONAL ENVIRONMENTAL SURVEY STATIONS

0 1 2 3 4 5 10
ONE INCH EQUALS APPROXIMATELY 6.7 MILES

Table 11
Radiogas Film Badges
Scheduled Collection Period
June, 1983 Through November, 1983

| Collection Date | 6-20-83 | 7-18-83 | 8-15-83 | | Three | 9-12-83 | 10-11-83 | 11-7-83 | 12-5-83 | Four | Seven |
|-----------------|----------|---------|---------|---|-------|---------|----------|---------|---------|-------|-------|
| Station | Unit | | | | Month | | | | | Month | Month |
| | | | | | Total | | | | | Total | Total |
| 1 | Millirem | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| T1 | Millirem | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 2 | Millirem | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 3 | Millirem | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 4 | Millirem | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 5 | Millirem | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 6 | Millirem | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 7 | Millirem | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 8 | Millirem | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 9 | Millirem | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 10 | Millirem | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 11 | Millirem | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 12 | Millirem | 0 | 0 | 0 | 0 | 0 | 0 | LOST | 0 | 0 | - |
| 13 | Millirem | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 14 | Millirem | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 15 | Millirem | 0 | 0 | 0 | 0 | 0 | 0 | 0 | LOST | 0 | - |
| 16 | Millirem | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 17 | Millirem | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| A | Millirem | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| C | Millirem | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| H | Millirem | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |

TABLE 12
 GAMMA DOSE TO THE ENVIRONMENT (MR/STD. MONTH)

AS MEASURED BY
 THERMOLUMINESCENT DOSIMETER

FOR
 JUNE, 1983 THROUGH NOVEMBER, 1983

(MONTHLY TLD READINGS)

| DATE: | 30JUN83 | 29JUL83 | 24AUG83 | 28SEP83 | 21OCT83 | 16NOV83 | | | | | | | | | |
|---------|--------------|---------|--------------|---------|--------------|---------|------------|--------------|------|--------------|------|--------------|------|------------|------------|
| STATION | COLLECT DATE | DOSE | COLLECT DATE | DOSE | COLLECT DATE | DOSE | 3-MO TOTAL | COLLECT DATE | DOSE | COLLECT DATE | DOSE | COLLECT DATE | DOSE | 3-MO TOTAL | 6-MO TOTAL |
| A | 21JUN83 | 6.40 | 22JUL83 | 7.40 | 15AUG83 | 5.70 | 19.50 | 16SEP83 | 6.80 | 15OCT83 | 7.50 | 08NOV83 | 6.80 | 21.10 | 40.60 |
| C | 23JUN83 | 6.60 | 20JUL83 | 7.00 | 17AUG83 | 4.80 | 18.40 | 14SEP83 | 6.60 | 14OCT83 | 6.60 | 08NOV83 | 6.20 | 19.40 | 37.80 |
| H | 23JUN83 | 5.10 | 19JUL83 | 7.50 | 16AUG83 | 4.00 | 16.60 | 14SEP83 | 6.20 | 14OCT83 | 6.00 | 14NOV83 | 4.70 | 16.90 | 33.50 |
| 1 | 20JUN83 | 5.80 | 21JUL83 | 6.90 | 17AUG83 | 4.50 | 17.20 | 13SEP83 | 7.50 | 11OCT83 | 6.90 | 07NOV83 | 6.20 | 20.60 | 37.80 |
| 2 | 22JUN83 | 6.50 | 21JUL83 | 6.30 | 18AUG83 | 4.40 | 17.20 | 19SEP83 | 5.90 | 11OCT83 | 8.00 | 07NOV83 | 5.60 | 19.50 | 36.70 |
| 3 | 22JUN83 | 5.20 | 20JUL83 | 6.80 | 15AUG83 | 4.80 | 16.80 | 15SEP83 | 6.30 | 15OCT83 | 5.90 | 09NOV83 | 6.10 | 18.30 | 35.10 |
| 4 | 20JUN83 | 4.90 | 19JUL83 | 6.70 | 18AUG83 | 4.00 | 15.60 | 13SEP83 | 6.70 | 13OCT83 | 6.10 | 09NOV83 | 5.30 | 18.10 | 33.70 |
| 5 | 24JUN83 | 6.50 | 22JUL83 | 6.90 | 18AUG83 | 4.70 | 18.10 | 16SEP83 | 6.60 | 11OCT83 | 7.00 | 09NOV83 | 5.20 | 18.80 | 36.90 |
| 6 | 21JUN83 | 7.30 | 21JUL83 | 6.70 | 18AUG83 | 4.30 | 18.30 | 16SEP83 | 5.70 | 15OCT83 | 6.30 | 07NOV83 | 6.30 | 18.30 | 36.60 |
| 7 | 20JUN83 | 4.80 | 21JUL83 | 5.90 | 17AUG83 | 4.30 | 15.00 | TLD LOST | | 16OCT83 | 6.60 | 09NOV83 | 5.80 | 12.40 | 27.40 |
| 8 | 20JUN83 | 4.90 | 19JUL83 | 6.90 | 17AUG83 | 4.10 | 15.90 | 12SEP83 | 6.50 | 13OCT83 | 5.60 | 11NOV83 | 5.10 | 17.20 | 33.10 |
| 9 | 07JUL83 | 5.10 | 22JUL83 | 5.90 | 18AUG83 | 4.40 | 15.40 | 12SEP83 | 7.40 | 13OCT83 | 5.90 | 11NOV83 | 5.50 | 18.80 | 34.20 |
| T1 | 20JUN83 | 6.00 | 21JUL83 | 7.00 | 17AUG83 | 5.00 | 18.00 | 13SEP83 | 7.00 | 11OCT83 | 7.00 | 07NOV83 | 6.20 | 20.20 | 38.20 |
| 10 | 21JUN83 | 4.90 | 20JUL83 | 6.70 | 15AUG83 | 4.50 | 16.10 | 15SEP83 | 5.50 | 16OCT83 | 5.90 | 09NOV83 | 5.50 | 16.90 | 33.00 |
| 11 | 20JUN83 | 5.30 | 19JUL83 | 6.20 | 16AUG83 | 3.80 | 15.30 | 12SEP83 | 5.70 | 12OCT83 | 6.00 | 11NOV83 | 4.80 | 16.50 | 31.80 |
| 12 | 23JUN83 | 5.10 | 19JUL83 | 7.40 | 16AUG83 | 3.90 | 16.40 | 12SEP83 | 6.00 | TLD LOST | | 11NOV83 | 5.40 | 11.40 | 27.80 |
| 13 | 21JUN83 | 5.30 | 20JUL83 | 6.30 | 15AUG83 | 4.20 | 15.80 | 15SEP83 | 5.30 | 16OCT83 | 5.80 | 08NOV83 | 6.00 | 17.10 | 32.90 |
| 14 | 21JUN83 | 6.30 | 20JUL83 | 7.70 | 15AUG83 | 5.70 | 19.70 | 16SEP83 | 6.70 | 15OCT83 | 7.70 | 08NOV83 | 7.00 | 21.40 | 41.10 |
| 15 | 23JUN83 | 6.30 | 20JUL83 | 6.90 | 16AUG83 | 4.50 | 17.70 | 14SEP83 | 6.00 | 14OCT83 | 5.90 | TLD LOST | | 11.90 | 29.60 |
| 16 | 20JUN83 | 5.20 | 19JUL83 | 6.50 | 16AUG83 | 3.90 | 15.60 | 12SEP83 | 6.00 | 12OCT83 | 5.80 | 11NOV83 | 5.10 | 16.90 | 32.50 |
| 17 | 23JUN83 | 5.40 | 19JUL83 | 7.30 | 16AUG83 | 4.00 | 16.70 | 14SEP83 | 6.10 | 14OCT83 | 6.30 | 11NOV83 | 5.20 | 17.60 | 34.30 |

**TABLE 13
RADIOLOGICAL ENVIRONMENTAL MONITORING PROGRAM SUMMARY
OYSTER CREEK NUCLEAR GENERATING STATION
JUNE, 1982 THROUGH NOVEMBER, 1983**

THE FOLLOWING PAGES ARE A SUMMARY OF REMP DATA FOR THE SCHEDULED COLLECTION PERIOD JUNE, 1983 THRU NOVEMBER, 1983. DATA IS SUMMARIZED ON A SEMI-ANNUAL AND QUARTERLY BASIS, WHERE

- 1.) XXX-MEAN(N/TOTAL); MEAN AND RANGE BASED ON RANGE
DETECTABLE ACTIVITIES OF ALL XXX STATIONS
- 2.) XXX=BACKGROUND OR INDICATOR STATIONS
- 3.) (N/TOTAL)=FRACTION OF DETECTABLE ACTIVITIES/
TOTAL NUMBER OF ANALYSES PERFORMED
- 4.) STATION=STATION WITH HIGHEST SEMI-ANNUAL MEAN
- 5.) BACKGROUND STATIONS USED ARE:

| STATION | A, C, H | 31 |
|-------------|--|------------------------------------|
| SAMPLE TYPE | AIR PARTICULATE AIR IODINE PRECIPITATION | SEDIMENT CLAMS SURFACE WATER |

- 6.) IN ADDITION, THE FOLLOWING FOOD PRODUCTS WERE SAMPLED FOR GAMMA ISOTOPIC CONTENT DURING THE SUMMER MONTHS:

| SAMPLE TYPE | STATION |
|-------------|---------------------|
| ----- | ----- |
| CORN | A, C, H |
| TOMATOES | 1, 3, 4, 5, A, C, H |
| CUCUMBERS | 1, 4 |
| BROCCOLI | 3, 5 |

TABLE 14
 RADIOLOGICAL ENVIRONMENTAL MONITORING PROGRAM SUMMARY
 OYSTER CREEK NUCLEAR GENERATING STATION
 JUNE, 1983 THROUGH NOVEMBER, 1983
 SEMI-ANNUAL SUMMARY

| SAMPLE TYPE | ANALYSIS | ISOTOPE NUMBER | NUMBER OF ANALYSES PERFORMED | LLD | INDICATOR-MEAN(N/TOTAL) | BACKGROUND-MEAN(N/TOTAL) | STATIONS USED FOR INDICATOR MEAN | | | | | |
|------------------------------|-------------|----------------|------------------------------|----------|-------------------------|--------------------------|----------------------------------|-----------------------|-------|---|---|---|
| | | | | | RANGE | RANGE | STATION | STATION-MEAN(N/TOTAL) | RANGE | 1 | 2 | 3 |
| VEGETATION (PCI/KG(WET)) | GROSS BETA | | 30 | 1.89E+02 | 7.38E+03 (30 /30) | (. /.) | | 1 | 2 | 3 | 4 | 5 |
| | | | | | (2.50E+03 - 2.70E+04) | (. - .) | | | | | | |
| | | | | | | | 4 | | | | | |
| | | | | | | | 9.67E+03(6 /6) | | | | | |
| | | | | | | | (3.00E+03 - 2.70E+04) | | | | | |
| AIR PARTICULATE (PCI/M3) | GROSS ALPHA | | 104 | 9.83E-04 | 1.96E-03 (41 /65) | 1.67E-03(30 /39) | | 1 | 2 | 3 | 4 | 5 |
| | | | | | (8.30E-04 - 7.10E-03) | (7.70E-04 - 3.50E-03) | | | | | | |
| | | | | | | | | 4 | | | | |
| | | | | | | | 3.10E-03(3 /13) | | | | | |
| | | | | | | | (1.00E-03 - 7.10E-03) | | | | | |
| AIR PARTICULATE (PCI/M3) | GROSS BETA | | 104 | 2.60E-03 | 1.66E-02 (60 /65) | 1.61E-02(39 /39) | | 1 | 2 | 3 | 4 | 5 |
| | | | | | (2.40E-03 - 3.10E-02) | (9.00E-03 - 3.00E-02) | | | | | | |
| | | | | | | | | 5 | | | | |
| | | | | | | | 1.83E-02(13 /13) | | | | | |
| | | | | | | | (1.30E-02 - 2.50E-02) | | | | | |
| AIR PARTICULATE (PCI/M3) | GAMMA | CE-144 | 104 | 2.92E+00 | < LLD (0 /65) | < LLD (0 /39) | | 1 | 2 | 3 | 4 | 5 |
| | | | | | | | | | | | | |
| | | | | | | | | 5 | | | | |
| | | | | | | | < LLD (0 /13) | | | | | |
| AIR PARTICULATE (PCI/M3) | GAMMA | CS-134 | 104 | 6.38E-03 | < LLD (0 /65) | < LLD (0 /39) | | 1 | 2 | 3 | 4 | 5 |
| | | | | | | | | | | | | |
| | | | | | | | | 5 | | | | |
| | | | | | | | < LLD (0 /13) | | | | | |
| AIR PARTICULATE (PCI/M3) | GAMMA | CO-58 | 104 | 6.66E-03 | < LLD (0 /65) | < LLD (0 /39) | | 1 | 2 | 3 | 4 | 5 |
| | | | | | | | | | | | | |
| | | | | | | | | 5 | | | | |
| | | | | | | | < LLD (0 /13) | | | | | |

TABLE 14
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| SAMPLE TYPE | ANALYSIS | ISOTOPE NUMBER | NUMBER OF ANALYSES PERFORMED | LLD | INDICATOR-MEAN(N/TOTAL) RANGE | | BACKGROUND-MEAN(N/TOTAL) RANGE | | STATIONS USED FOR INDICATOR MEAN |
|--------------------------|----------|----------------|------------------------------|----------|--|---|---|---|----------------------------------|
| | | | | | STATION | STATION-MEAN(N/TOTAL) RANGE | STATION | STATION-MEAN(N/TOTAL) RANGE | |
| AIR PARTICULATE (PCI/M3) | GAMMA | MN-54 | 104 | 5.88E-03 | < LLD | (0 /65) | < LLD | (0 /39) | 1 2 3 4 5 |
| | | | | | | | | | 5 |
| AIR PARTICULATE (PCI/M3) | GAMMA | FE-59 | 104 | 1.63E-02 | < LLD | (0 /65) | < LLD | (0 /39) | 1 2 3 4 5 |
| | | | | | | | | | 5 |
| AIR PARTICULATE (PCI/M3) | GAMMA | ZN-65 | 104 | 1.39E-02 | < LLD | (0 /65) | < LLD | (0 /39) | 1 2 3 4 5 |
| | | | | | | | | | 5 |
| AIR PARTICULATE (PCI/M3) | GAMMA | CO-60 | 104 | 7.01E-03 | < LLD | (0 /65) | < LLD | (0 /39) | 1 2 3 4 5 |
| | | | | | | | | | 5 |
| AIR PARTICULATE (PCI/M3) | GAMMA | K-40 | 103 | 1.49E-01 | 1.63E-01 (3 /65) (8.00E-02 - 2.30E-01) | 1.20E-01(1 /38) (1.20E-01 - 1.20E-01) | 1.20E-01(1 /38) (1.20E-01 - 1.20E-01) | 1.20E-01(1 /38) (1.20E-01 - 1.20E-01) | 1 2 3 4 5 |
| | | | | | | | | | 5 |
| AIR PARTICULATE (PCI/M3) | GAMMA | BE-7 | 104 | 7.47E-02 | 1.12E-01 (23 /65) (4.90E-02 - 2.10E-01) | 1.10E-01(20 /39) (7.40E-02 - 1.80E-01) | 1.10E-01(20 /39) (7.40E-02 - 1.80E-01) | 1.10E-01(20 /39) (7.40E-02 - 1.80E-01) | 1 2 3 4 5 |
| | | | | | | | | | 2 |

TABLE 14
 RADIOLOGICAL ENVIRONMENTAL MONITORING PROGRAM SUMMARY
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| SAMPLE TYPE | ANALYSIS | ISOTOPE | NUMBER OF ANALYSES PERFORMED | LLD | INDICATOR-MEAN(N/TOTAL) RANGE | | BACKGROUND-MEAN(N/TOTAL) RANGE | | STATIONS USED FOR INDICATOR MEAN | | | | |
|-----------------------------|----------|---------|---------------------------------------|----------|----------------------------------|--------------------------------|-----------------------------------|----------|-------------------------------------|----------------|---|---|---|
| | | | | | STATION | STATION-MEAN(N/TOTAL) RANGE | | | | | | | |
| AIR PARTICULATE (PCI/M3) | GAMMA | ZR-95 | 104 | 1.45E-02 | < LLD | (0 /65) | < LLD | (0 /39) | 1 | 2 | 3 | 4 | 5 |
| | | | | | | | | | 5 | < LLD (0 /13) | | | |
| AIR PARTICULATE (PCI/M3) | GAMMA | NB-95 | 104 | 7.61E-03 | < LLD | (0 /65) | < LLD | (0 /39) | 1 | 2 | 3 | 4 | 5 |
| | | | | | | | | | 5 | < LLD (0 /13) | | | |
| AIR PARTICULATE (PCI/M3) | GAMMA | CE-141 | 104 | 7.69E+01 | < LLD | (0 /65) | < LLD | (0 /39) | 1 | 2 | 3 | 4 | 5 |
| | | | | | | | | | 5 | < LLD (0 /13) | | | |
| AIR PARTICULATE (PCI/M3) | GAMMA | RU-103 | 104 | 7.84E-03 | < LLD | (0 /65) | < LLD | (0 /39) | 1 | 2 | 3 | 4 | 5 |
| | | | | | | | | | 5 | < LLD (0 /13) | | | |
| AIR PARTICULATE (PCI/M3) | GAMMA | BA-140 | 104 | 4.64E-02 | < LLD | (0 /65) | < LLD | (0 /39) | 1 | 2 | 3 | 4 | 5 |
| | | | | | | | | | 5 | < LLD (0 /13) | | | |
| AIR PARTICULATE (PCI/M3) | GAMMA | LA-140 | 104 | 1.95E+00 | < LLD | (0 /65) | < LLD | (0 /39) | 1 | 2 | 3 | 4 | 5 |
| | | | | | | | | | 5 | < LLD (0 /13) | | | |

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| SAMPLE TYPE | ANALYSIS | ISOTOPE | NUMBER OF ANALYSES PERFORMED | LLD | INDICATOR-MEAN(N/TOTAL) RANGE | | BACKGROUND-MEAN(N/TOTAL) RANGE | | STATIONS USED FOR INDICATOR MEAN | | | | |
|-----------------------------|--------------|---------|---------------------------------------|----------|----------------------------------|--------------------------------|-----------------------------------|----------|-------------------------------------|---|---|---|---|
| | | | | | STATION | STATION-MEAN(N/TOTAL) RANGE | STATION-MEAN(N/TOTAL) RANGE | | | | | | |
| AIR PARTICULATE (PCI/M3) | GAMMA | RA-226 | 104 | 7.79E+00 | < LLD | (0 /65) | < LLD | (0 /39) | 1 | 2 | 3 | 4 | 5 |
| | | | | | | 5 | < LLD (0 /13) | | | | | | |
| AIR PARTICULATE (PCI/M3) | GAMMA | TH-228 | 104 | 1.02E-02 | < LLD | (0 /65) | < LLD | (0 /39) | 1 | 2 | 3 | 4 | 5 |
| | | | | | | 5 | < LLD (0 /13) | | | | | | |
| AIR PARTICULATE (PCI/M3) | GAMMA | I-131 | 104 | 4.26E-02 | < LLD | (0 /65) | < LLD | (0 /39) | 1 | 2 | 3 | 4 | 5 |
| | | | | | | 5 | < LLD (0 /13) | | | | | | |
| AIR PARTICULATE (PCI/M3) | GAMMA | RU-106 | 104 | 5.44E-02 | < LLD | (0 /65) | < LLD | (0 /39) | 1 | 2 | 3 | 4 | 5 |
| | | | | | | 5 | < LLD (0 /13) | | | | | | |
| AIR PARTICULATE (PCI/M3) | GAMMA | CS-137 | 104 | 6.61E-03 | < LLD | (0 /65) | < LLD | (0 /39) | 1 | 2 | 3 | 4 | 5 |
| | | | | | | 5 | < LLD (0 /13) | | | | | | |
| AIR PARTICULATE (PCI/M3) | STRONTIUM-89 | | 8 | 1.27E-03 | < LLD | (0 /5) | < LLD | (0 /3) | 1 | 2 | 3 | 4 | 5 |
| | | | | | | 5 | < LLD (0 /1) | | | | | | |

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 OYSTER CREEK NUCLEAR GENERATING STATION
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 SEMI-ANNUAL SUMMARY

| SAMPLE TYPE | ANALYSIS | ISOTOPE | NUMBER OF ANALYSES PERFORMED | LLD | INDICATOR-MEAN(N/TOTAL) RANGE | | BACKGROUND-MEAN(N/TOTAL) RANGE | | STATIONS USED FOR INDICATOR MEAN | | | | |
|-----------------------------|---------------|---------|------------------------------|----------|----------------------------------|--------------------------------------|-----------------------------------|--------------------------------------|----------------------------------|--|---|---|---|
| | | | | | STATION | STATION-MEAN(N/TOTAL) RANGE | STATION-MEAN(N/TOTAL) RANGE | 1 | 2 | 3 | 4 | 5 | |
| AIR PARTICULATE (PCI/M3) | STRONTIUM-90 | | 8 | 2.89E-04 | < LLD | (0 / 5) | < LLD | (0 / 3) | 1 | 2 | 3 | 4 | 5 |
| | | | | | | | | | 5 | < LLD (0 / 1) | | | |
| PRECIPITATION (PCI/L) | GROSS BETA-SS | | 48 | 6.47E-01 | 1.02E+00 | (11 / 30) (4.00E-01 - 2.30E+00) | 9.52E-01 | (5 / 18) (4.70E-01 - 1.30E+00) | 1 | 2 | 3 | 4 | 5 |
| | | | | | | | | | 5 | 1.50E+00(2 / 6) (7.10E-01 - 2.30E+00) | | | |
| PRECIPITATION (PCI/L) | GROSS BETA-DS | | 48 | 1.15E+00 | 5.06E+00 | (30 / 30) (1.50E+00 - 1.40E+01) | 7.59E+00 | (18 / 18) (1.00E+00 - 4.90E+01) | 1 | 2 | 3 | 4 | 5 |
| | | | | | | | | | 2 | 6.38E+00(6 / 6) (3.20E+00 - 1.40E+01) | | | |
| PRECIPITATION (PCI/L) | GAMMA | CE-144 | 48 | 3.52E+01 | < LLD | (0 / 30) | < LLD | (0 / 18) | 1 | 2 | 3 | 4 | 5 |
| | | | | | | | | | 5 | < LLD (0 / 6) | | | |
| PRECIPITATION (PCI/L) | GAMMA | CS-134 | 48 | 5.00E+00 | < LLD | (0 / 30) | < LLD | (0 / 18) | 1 | 2 | 3 | 4 | 5 |
| | | | | | | | | | 5 | < LLD (0 / 6) | | | |
| PRECIPITATION (PCI/L) | GAMMA | CO-58 | 48 | 5.01E+00 | < LLD | (0 / 30) | < LLD | (0 / 18) | 1 | 2 | 3 | 4 | 5 |
| | | | | | | | | | 5 | < LLD (0 / 6) | | | |

TABLE 14
 RADIOLOGICAL ENVIRONMENTAL MONITORING PROGRAM SUMMARY
 OYSTER CREEK NUCLEAR GENERATING STATION
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 SEMI-ANNUAL SUMMARY

| SAMPLE TYPE | ANALYSIS | ISOTOPE | NUMBER OF ANALYSES PERFORMED | LLD | INDICATOR-MEAN(N/TOTAL) RANGE | | BACKGROUND-MEAN(N/TOTAL) RANGE | | STATIONS USED FOR INDICATOR MEAN | | | | |
|--------------------------|----------|---------|------------------------------|----------|---|---|-----------------------------------|-----------|--|----------------|---|---|---|
| | | | | | STATION | STATION-MEAN(N/TOTAL) RANGE | | | | | | | |
| PRECIPITATION (PCI/L) | GAMMA | MN-54 | 48 | 4.57E+00 | < LLD | (0 /30) | < LLD | (0 /18) | 1 | 2 | 3 | 4 | 5 |
| | | | | | | | | | 5 | < LLD (0 /6) | | | |
| PRECIPITATION (PCI/L) | GAMMA | FE-59 | 48 | 9.85E+00 | < LLD | (0 /30) | < LLD | (0 /18) | 1 | 2 | 3 | 4 | 5 |
| | | | | | | | | | 5 | < LLD (0 /6) | | | |
| PRECIPITATION (PCI/L) | GAMMA | ZN-65 | 48 | 8.73E+00 | < LLD | (0 /30) | < LLD | (0 /18) | 1 | 2 | 3 | 4 | 5 |
| | | | | | | | | | 5 | < LLD (0 /6) | | | |
| PRECIPITATION (PCI/L) | GAMMA | CO-60 | 48 | 4.81E+00 | < LLD | (0 /30) | < LLD | (0 /18) | 1 | 2 | 3 | 4 | 5 |
| | | | | | | | | | 5 | < LLD (0 /6) | | | |
| PRECIPITATION (PCI/L) | GAMMA | K-40 | 48 | 8.15E+01 | 7.70E+01 (1 /30) (7.70E+01 - 7.70E+01) | < LLD | (0 /18) | 1 | 2 | 3 | 4 | 5 | |
| | | | | | | | | 3 | 7.70E+01(1 /6) (7.70E+01 - 7.70E+01) | | | | |
| PRECIPITATION (PCI/L) | GAMMA | BE-7 | 48 | 4.78E+01 | 1.50E+02 (4 /30) (6.80E+01 - 2.90E+02) | 7.27E+01(3 /18) (5.30E+01 - 1.00E+02) | (0 /18) | 1 | 2 | 3 | 4 | 5 | |
| | | | | | | | | 4 | 2.90E+02(1 /6) (2.90E+02 - 2.90E+02) | | | | |

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| SAMPLE TYPE | ANALYSIS | ISOTOPE | NUMBER OF ANALYSES PERFORMED | LLD | INDICATOR-MEAN(N/TOTAL) RANGE | | BACKGROUND-MEAN(N/TOTAL) RANGE | | STATIONS USED FOR INDICATOR MEAN | | | | |
|-----------------------|----------|---------|------------------------------|----------|-------------------------------|-----------------------------|--------------------------------|----------|----------------------------------|---------------|---|---|---|
| | | | | | STATION | STATION-MEAN(N/TOTAL) RANGE | STATION-MEAN(N/TOTAL) RANGE | 1 | 2 | 3 | 4 | 5 | |
| PRECIPITATION (PCI/L) | GAMMA | ZR-95 | 48 | 1.00E+01 | < LLD | (0 /30) | < LLD | (0 /18) | 1 | 2 | 3 | 4 | 5 |
| | | | | | | | | | 5 | < LLD (0 /6) | | | |
| PRECIPITATION (PCI/L) | GAMMA | NB-95 | 48 | 5.38E+00 | < LLD | (0 /30) | < LLD | (0 /18) | 1 | 2 | 3 | 4 | 5 |
| | | | | | | | | | 5 | < LLD (0 /6) | | | |
| PRECIPITATION (PCI/L) | GAMMA | CE-141 | 48 | 1.12E+01 | < LLD | (0 /30) | < LLD | (0 /18) | 1 | 2 | 3 | 4 | 5 |
| | | | | | | | | | 5 | < LLD (0 /6) | | | |
| PRECIPITATION (PCI/L) | GAMMA | RU-103 | 48 | 6.22E+00 | < LLD | (0 /30) | < LLD | (0 /18) | 1 | 2 | 3 | 4 | 5 |
| | | | | | | | | | 5 | < LLD (0 /6) | | | |
| PRECIPITATION (PCI/L) | GAMMA | BA-140 | 48 | 2.74E+01 | < LLD | (0 /30) | < LLD | (0 /18) | 1 | 2 | 3 | 4 | 5 |
| | | | | | | | | | 5 | < LLD (0 /6) | | | |
| PRECIPITATION (PCI/L) | GAMMA | LA-140 | 48 | 1.11E+01 | < LLD | (0 /30) | < LLD | (0 /18) | 1 | 2 | 3 | 4 | 5 |
| | | | | | | | | | 5 | < LLD (0 /6) | | | |

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|--------------------------|----------|---------|------------------------------|----------|--|--------------------------------|-----------------------------------|---|----------------------------------|---|---|---|---|
| | | | | | STATION | STATION-MEAN(N/TOTAL) RANGE | | | | | | | |
| PRECIPITATION (PCI/L) | GAMMA | RA-226 | 48 | 9.32E+01 | < LLD | (0 /30) | | < LLD (0 /18) | 1 | 2 | 3 | 4 | 5 |
| | | | | | | | 5 | < LLD (0 /6) | | | | | |
| PRECIPITATION (PCI/L) | GAMMA | TH-228 | 48 | 8.59E+00 | < LLD | (0 /30) | | < LLD (0 /18) | 1 | 2 | 3 | 4 | 5 |
| | | | | | | | 5 | < LLD (0 /6) | | | | | |
| PRECIPITATION (PCI/L) | GAMMA | I-131 | 48 | 2.29E+01 | < LLD | (0 /30) | | < LLD (0 /18) | 1 | 2 | 3 | 4 | 5 |
| | | | | | | | 5 | < LLD (0 /6) | | | | | |
| PRECIPITATION (PCI/L) | GAMMA | RU-106 | 48 | 3.66E+01 | < LLD | (0 /30) | | < LLD (0 /18) | 1 | 2 | 3 | 4 | 5 |
| | | | | | | | 5 | < LLD (0 /6) | | | | | |
| PRECIPITATION (PCI/L) | GAMMA | CS-137 | 48 | 6.11E+00 | < LLD | (0 /30) | | < LLD (0 /18) | 1 | 2 | 3 | 4 | 5 |
| | | | | | | | 5 | < LLD (0 /6) | | | | | |
| PRECIPITATION (PCI/L) | TRITIUM | | 48 | 1.49E+02 | 2.48E+02 (26 /30) (6.75E+01 - 8.80E+02) | | | 3.67E+02(14 /18) (1.01E+02 - 9.80E+02) | 1 | 2 | 3 | 4 | 5 |
| | | | | | | | 4 | 2.98E+02(5 /6) (6.75E+01 - 8.80E+02) | | | | | |

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| SAMPLE TYPE | ANALYSIS | ISOTOPE NUMBER OF ANALYSES PERFORMED | LLD | INDICATOR-MEAN(N/TOTAL) RANGE | | BACKGROUND-MEAN(N/TOTAL) RANGE | | STATIONS USED FOR INDICATOR MEAN | | | | |
|-------------------------|--------------|---|----------|----------------------------------|--------------------------------|-----------------------------------|------------|-------------------------------------|------------------|---|---|---|
| | | | | STATION | STATION-MEAN(N/TOTAL) RANGE | STATION-MEAN(N/TOTAL) RANGE | 1 | 2 | 3 | 4 | 5 | |
| PRECIPITATION () | STRONTIUM-89 | 48 | 2.92E+00 | < LLD | (0 / 30) | < LLD | (0 / 18) | 1 | 2 | 3 | 4 | 5 |
| | | | | | | | | 5 | < LLD (0 / 6) | | | |
| PRECIPITATION () | STRONTIUM-90 | 48 | 5.91E-01 | < LLD | (0 / 30) | < LLD | (0 / 18) | 1 | 2 | 3 | 4 | 5 |
| | | | | | | | | 5 | < LLD (0 / 6) | | | |
| AIR IODINE (PCI/M3) | IODINE-131 | 104 | 2.45E-02 | < LLD | (0 / 65) | < LLD | (0 / 39) | 1 | 2 | 3 | 4 | 5 |
| | | | | | | | | 5 | < LLD (0 / 13) | | | |
| CORN (PCI/KG(WET)) | GAMMA | CE-144 | 3 | 6.67E+01 | (. / .) | < LLD | (0 / 3) | 1 | 2 | 3 | 4 | 5 |
| | | | | | | | | 5 | (. / .) | | | |
| CORN (PCI/KG(WET)) | GAMMA | CS-134 | 3 | 9.00E+00 | (. / .) | < LLD | (0 / 3) | 1 | 2 | 3 | 4 | 5 |
| | | | | | | | | 5 | (. / .) | | | |
| CORN (PCI/KG(WET)) | GAMMA | CO-58 | 3 | 1.00E+01 | (. / .) | < LLD | (0 / 3) | 1 | 2 | 3 | 4 | 5 |
| | | | | | | | | 5 | (. / .) | | | |

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| SAMPLE TYPE | ANALYSIS | ISOTOPE NUMBER | NUMBER OF ANALYSES PERFORMED | LLD | INDICATOR-MEAN(N/TOTAL) | BACKGROUND-MEAN(N/TOTAL) | STATIONS USED FOR INDICATOR MEAN |
|-----------------------|----------|----------------|------------------------------|----------|-------------------------|---|----------------------------------|
| | | | | | RANGE | RANGE | |
| | | | | | STATION | STATION-MEAN(N/TOTAL) | |
| | | | | | | RANGE | |
| CORN (PCI/KG(WET)) | GAMMA | MN-54 | 3 | 8.67E+00 | (. . .) | < LLD (0 / 3) | |
| | | | | | (. . .) | (. . .) | |
| CORN (PCI/KG(WET)) | GAMMA | FE-59 | 3 | 3.00E+01 | (. . .) | < LLD (0 / 3) | |
| | | | | | (. . .) | (. . .) | |
| CORN (PCI/KG(WET)) | GAMMA | ZN-65 | 3 | 2.00E+01 | (. . .) | < LLD (0 / 3) | |
| | | | | | (. . .) | (. . .) | |
| CORN (PCI/KG(WET)) | GAMMA | CO-60 | 3 | 8.33E+00 | (. . .) | < LLD (0 / 3) | |
| | | | | | (. . .) | (. . .) | |
| CORN (PCI/KG(WET)) | GAMMA | K-40 | 3 | 3.00E+02 | (. . .) | 2.60E+03(3 / 3) (2.50E+03 - 2.70E+03) | |
| | | | | | (. . .) | (. . .) | |
| CORN (PCI/KG(WET)) | GAMMA | BE-7 | 3 | 1.00E+02 | (. . .) | < LLD (0 / 3) | |
| | | | | | (. . .) | (. . .) | |

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|-----------------------|----------|----------------|------------------------------|----------|-------------------------------|-----------------------------|--------------------------------|-----------------------------|----------------------------------|
| | | | | | STATION | STATION-MEAN(N/TOTAL) RANGE | STATION-MEAN(N/TOTAL) RANGE | STATION-MEAN(N/TOTAL) RANGE | |
| CORN (PCI/KG(WET)) | GAMMA | ZR-95 | 3 | 2.07E+01 | (. .) | - (. / .)) | < LLD (0 / 3) | (. . / .)) | |
| | | | | | | | | | |
| CORN (PCI/KG(WET)) | GAMMA | NB-95 | 3 | 1.00E+01 | (. .) | - (. / .)) | < LLD (0 / 3) | (. . / .)) | |
| | | | | | | | | | |
| CORN (PCI/KG(WET)) | GAMMA | CE-141 | 3 | 3.00E+01 | (. .) | - (. / .)) | < LLD (0 / 3) | (. . / .)) | |
| | | | | | | | | | |
| CORN (PCI/KG(WET)) | GAMMA | RU-103 | 3 | 1.67E+01 | (. .) | - (. / .)) | < LLD (0 / 3) | (. . / .)) | |
| | | | | | | | | | |
| CORN (PCI/KG(WET)) | GAMMA | BA-140 | 3 | 1.67E+02 | (. .) | - (. / .)) | < LLD (0 / 3) | (. . / .)) | |
| | | | | | | | | | |
| CORN (PCI/KG(WET)) | GAMMA | LA-140 | 3 | 6.33E+01 | (. .) | - (. / .)) | < LLD (0 / 3) | (. . / .)) | |
| | | | | | | | | | |

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| SAMPLE TYPE | ANALYSIS | ISOTOPE NUMBER | NUMBER OF ANALYSES PERFORMED | LLD | INDICATOR-MEAN(N/TOTAL) | BACKGROUND-MEAN(N/TOTAL) | STATIONS USED FOR INDICATOR MEAN |
|----------------------------|----------|----------------|------------------------------|----------|-------------------------|-----------------------------|----------------------------------|
| | | | | | RANGE | RANGE | |
| | | | | | STATION | STATION-MEAN(N/TOTAL) RANGE | |
| CORN (PCI/KG(WET)) | GAMMA | RA-226 | 3 | 2.00E+02 | (. . .) | < LLD (0 / 3) | |
| | | | | | (. . .) | (. . .) | |
| CORN (PCI/KG(WET)) | GAMMA | TH-228 | 3 | 2.00E+01 | (. . .) | < LLD (0 / 3) | |
| | | | | | (. . .) | (. . .) | |
| CORN (PCI/KG(WET)) | GAMMA | I-131 | 3 | 2.67E+02 | (. . .) | < LLD (0 / 3) | |
| | | | | | (. . .) | (. . .) | |
| CORN (PCI/KG(WET)) | GAMMA | RU-106 | 3 | 8.00E+01 | (. . .) | < LLD (0 / 3) | |
| | | | | | (. . .) | (. . .) | |
| CORN (PCI/KG(WET)) | GAMMA | CS-137 | 3 | 9.33E+00 | (. . .) | < LLD (0 / 3) | |
| | | | | | (. . .) | (. . .) | |
| CUCUMBERS (PCI/KG(WET)) | GAMMA | CE-144 | 2 | 5.00E+01 | < LLD (0 / 2) | (. . .) | 1 4 |
| | | | | | (. . .) | (. . .) | |
| | | | | | 4 | < LLD (0 / 1) | |

TABLE 14
 RADIOLOGICAL ENVIRONMENTAL MONITORING PROGRAM SUMMARY
 OYSTER CREEK NUCLEAR GENERATING STATION
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 SEMI-ANNUAL SUMMARY

| SAMPLE TYPE | ANALYSIS | ISOTOPE NUMBER | NUMBER OF ANALYSES PERFORMED | LLD | INDICATOR-MEAN(N/TOTAL) RANGE | | BACKGROUND-MEAN(N/TOTAL) RANGE | | STATIONS USED FOR INDICATOR MEAN |
|----------------------------|----------|----------------|------------------------------|----------|-------------------------------|-----------------------------|--------------------------------|-----------------------------|----------------------------------|
| | | | | | STATION | STATION-MEAN(N/TOTAL) RANGE | STATION-MEAN(N/TOTAL) RANGE | STATION-MEAN(N/TOTAL) RANGE | |
| CUCUMBERS (PCI/KG(WET)) | GAMMA | CS-134 | 2 | 6.50E+00 | < LLD | (0 / 2) | (. . - . / .) | 1 4 | |
| | | | | | | | | | |
| CUCUMBERS (PCI/KG(WET)) | GAMMA | CO-58 | 2 | 8.50E+00 | < LLD | (0 / 2) | (. . - . / .) | 1 4 | |
| | | | | | | | | | |
| CUCUMBERS (PCI/KG(WET)) | GAMMA | MN-54 | 2 | 7.00E+00 | < LLD | (0 / 2) | (. . - . / .) | 1 4 | |
| | | | | | | | | | |
| CUCUMBERS (PCI/KG(WET)) | GAMMA | FE-59 | 2 | 2.00E+01 | < LLD | (0 / 2) | (. . - . / .) | 1 4 | |
| | | | | | | | | | |
| CUCUMBERS (PCI/KG(WET)) | GAMMA | ZN-65 | 2 | 1.50E+01 | < LLD | (0 / 2) | (. . - . / .) | 1 4 | |
| | | | | | | | | | |
| CUCUMBERS (PCI/KG(WET)) | GAMMA | CO-60 | 2 | 7.50E+00 | < LLD | (0 / 2) | (. . - . / .) | 1 4 | |
| | | | | | | | | | |

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| SAMPLE TYPE | ANALYSIS | ISOTOPE | NUMBER OF ANALYSES PERFORMED | LLD | INDICATOR-MEAN(N/TOTAL) | BACKGROUND-MEAN(N/TOTAL) | STATIONS USED FOR INDICATOR MEAN | |
|----------------------------|----------|---------|------------------------------|----------|-------------------------|--------------------------|----------------------------------|--|
| | | | | | RANGE | RANGE | | |
| | | | | | STATION | STATION-MEAN(N/TOTAL) | | |
| | | | | | | RANGE | | |
| CUCUMBERS (PCI/KG(WET)) | GAMMA | K-40 | 2 | 2.50E+02 | 1.14E+03 (2 / 2) | (. . - . .) | 1 4 | |
| | | | | | (9.80E+02 - 1.30E+03) | (. . - . .) | | |
| | | | | | 1 | 1.30E+03(1 / 1) | | |
| | | | | | | (1.30E+03 - 1.30E+03) | | |
| CUCUMBERS (PCI/KG(WET)) | GAMMA | BE-7 | 2 | 8.50E+01 | < LLD (0 / 2) | (. . - . .) | 1 4 | |
| | | | | | | (. . - . .) | | |
| | | | | | 4 | < LLD (0 / 1) | | |
| CUCUMBERS (PCI/KG(WET)) | GAMMA | ZR-95 | 2 | 2.00E+01 | < LLD (0 / 2) | (. . - . .) | 1 4 | |
| | | | | | | (. . - . .) | | |
| | | | | | 4 | < LLD (0 / 1) | | |
| CUCUMBERS (PCI/KG(WET)) | GAMMA | NB-95 | 2 | 9.50E+00 | < LLD (0 / 2) | (. . - . .) | 1 4 | |
| | | | | | | (. . - . .) | | |
| | | | | | 4 | < LLD (0 / 1) | | |
| CUCUMBERS (PCI/KG(WET)) | GAMMA | CE-141 | 2 | 2.00E+01 | < LLD (0 / 2) | (. . - . .) | 1 4 | |
| | | | | | | (. . - . .) | | |
| | | | | | 4 | < LLD (0 / 1) | | |
| CUCUMBERS (PCI/KG(WET)) | GAMMA | RU-103 | 2 | 1.00E+01 | < LLD (0 / 2) | (. . - . .) | 1 4 | |
| | | | | | | (. . - . .) | | |
| | | | | | 4 | < LLD (0 / 1) | | |

TABLE 14
 RADIOLOGICAL ENVIRONMENTAL MONITORING PROGRAM SUMMARY
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| SAMPLE TYPE | ANALYSIS | ISOTOPE NUMBER | NUMBER OF ANALYSES PERFORMED | LLD | INDICATOR-MEAN(N/TOTAL) RANGE | | BACKGROUND-MEAN(N/TOTAL) RANGE | | STATIONS USED FOR INDICATOR MEAN | |
|----------------------------|----------|----------------|------------------------------|----------|-------------------------------|-----------------------------|--------------------------------|-----------------------------|----------------------------------|---------------|
| | | | | | STATION | STATION-MEAN(N/TOTAL) RANGE | STATION | STATION-MEAN(N/TOTAL) RANGE | | |
| CUCUMBERS (PCI/KG(WET)) | GAMMA | BA-140 | 2 | 9.00E+01 | < LLD | (0 /2) | (. . - . / .) | 1 4 | 4 | < LLD (0 /1) |
| | | | | | | | | | | |
| CUCUMBERS (PCI/KG(WET)) | GAMMA | LA-140 | 2 | 3.50E+01 | < LLD | (0 /2) | (. . - . / .) | 1 4 | 4 | < LLD (0 /1) |
| | | | | | | | | | | |
| CUCUMBERS (PCI/KG(WET)) | GAMMA | RA-226 | 2 | 1.00E+02 | < LLD | (0 /2) | (. . - . / .) | 1 4 | 4 | < LLD (0 /1) |
| | | | | | | | | | | |
| CUCUMBERS (PCI/KG(WET)) | GAMMA | TH-228 | 2 | 1.00E+01 | < LLD | (0 /2) | (. . - . / .) | 1 4 | 4 | < LLD (0 /1) |
| | | | | | | | | | | |
| CUCUMBERS (PCI/KG(WET)) | GAMMA | I-131 | 2 | 9.00E+01 | < LLD | (0 /2) | (. . - . / .) | 1 4 | 4 | < LLD (0 /1) |
| | | | | | | | | | | |
| CUCUMBERS (PCI/KG(WET)) | GAMMA | RU-106 | 2 | 6.50E+01 | < LLD | (0 /2) | (. . - . / .) | 1 4 | 4 | < LLD (0 /1) |
| | | | | | | | | | | |

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| SAMPLE TYPE | ANALYSIS | ISOTOPE NUMBER | NUMBER OF ANALYSES PERFORMED | LLD | INDICATOR-MEAN(N/TOTAL) | BACKGROUND-MEAN(N/TOTAL) | STATIONS USED FOR INDICATOR MEAN | | | | |
|----------------------------|----------------|----------------|------------------------------|----------|-------------------------|--------------------------|----------------------------------|-------|--|--|--|
| | | | | | RANGE | RANGE | | | | | |
| | | | | | STATION | STATION-MEAN(N/TOTAL) | | | | | |
| | | | | | | RANGE | | | | | |
| CUCUMBERS (PCI/KG(WET)) | GAMMA | CS-137 | 2 | 9.00E+00 | 1.60E+01 (1 / 2) | (. / .) | 1 4 | | | | |
| | | | | | (1.60E+01 - 1.60E+01) | (. - .) | | | | | |
| SURFACE WATER (PCI/L) | GROSS ALPHA-SS | 48 | 4.45E-01 | 4.45E-01 | 3.68E+00 (6 / 42) | 4.10E+00(1 / 6) | 23 24 25 26 27 | | | | |
| | | | | | (3.00E+00 - 4.20E+00) | (4.10E+00 - 4.10E+00) | | 32 33 | | | |
| SURFACE WATER (PCI/L) | GROSS ALPHA-SS | 48 | 4.45E-01 | 4.45E-01 | 4.20E+00(1 / 6) | (4.20E+00 - 4.20E+00) | 26 | | | | |
| | | | | | (4.20E+00 - 4.20E+00) | (4.20E+00 - 4.20E+00) | | | | | |
| SURFACE WATER (PCI/L) | GROSS ALPHA-DS | 48 | 4.29E+01 | 4.29E+01 | 1.63E+01 (8 / 42) | < LLD (0 / 6) | 23 24 25 26 27 | | | | |
| | | | | | (9.70E-01 - 7.80E+01) | (7.80E+01 - 7.80E+01) | | 32 33 | | | |
| SURFACE WATER (PCI/L) | GROSS ALPHA-DS | 48 | 4.29E+01 | 4.29E+01 | 7.80E+01(1 / 6) | (7.80E+01 - 7.80E+01) | 23 | | | | |
| | | | | | (7.80E+01 - 7.80E+01) | (7.80E+01 - 7.80E+01) | | | | | |
| SURFACE WATER (PCI/L) | GROSS BETA-SS | 48 | 8.68E-01 | 8.68E-01 | < LLD (0 / 42) | < LLD (0 / 6) | 23 24 25 26 27 | | | | |
| | | | | | < LLD (0 / 42) | < LLD (0 / 6) | | 32 33 | | | |
| SURFACE WATER (PCI/L) | GROSS BETA-SS | 48 | 8.68E-01 | 8.68E-01 | < LLD (0 / 6) | < LLD (0 / 6) | 23 24 25 26 27 | | | | |
| | | | | | < LLD (0 / 6) | < LLD (0 / 6) | | | | | |
| SURFACE WATER (PCI/L) | GROSS BETA-DS | 48 | 3.72E+01 | 3.72E+01 | 2.18E+02 (42 / 42) | 3.38E+02(6 / 6) | 23 24 25 26 27 | | | | |
| | | | | | (1.20E+00 - 4.70E+02) | (2.50E+02 - 4.10E+02) | | 32 33 | | | |
| SURFACE WATER (PCI/L) | GROSS BETA-DS | 48 | 3.72E+01 | 3.72E+01 | 3.77E+02(6 / 6) | (2.30E+02 - 4.70E+02) | 24 | | | | |
| | | | | | (2.30E+02 - 4.70E+02) | (2.30E+02 - 4.70E+02) | | | | | |
| SURFACE WATER (MG/L) | CALCIUM BY AA | 48 | 1.00E+01 | 1.00E+01 | 3.84E+02 (35 / 42) | 6.20E+02(6 / 6) | 23 24 25 26 27 | | | | |
| | | | | | (4.70E+00 - 1.10E+03) | (3.90E+02 - 1.20E+03) | | 32 33 | | | |
| SURFACE WATER (MG/L) | CALCIUM BY AA | 48 | 1.00E+01 | 1.00E+01 | 5.62E+02(6 / 6) | (3.70E+02 - 1.10E+03) | 25 | | | | |
| | | | | | (3.70E+02 - 1.10E+03) | (3.70E+02 - 1.10E+03) | | | | | |

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| SAMPLE TYPE | ANALYSIS | ISOTOPE | NUMBER OF ANALYSES PERFORMED | LLD | INDICATOR-MEAN(N/TOTAL) RANGE | | BACKGROUND-MEAN(N/TOTAL) RANGE | | STATIONS USED FOR INDICATOR MEAN | | | | |
|-----------------------|----------|---------|------------------------------|----------|-------------------------------|-----------------------------|--------------------------------|---------|----------------------------------|-------|---------|----|----|
| | | | | | STATION | STATION-MEAN(N/TOTAL) RANGE | | | | | | | |
| SURFACE WATER (PCI/L) | GAMMA | CO-60 | 48 | 4.76E+00 | < LLD | (0 /42) | < LLD | (0 /6) | 23 | 24 | 25 | 26 | 27 |
| | | | | | | | | | 32 | 33 | | | |
| SURFACE WATER (PCI/L) | GAMMA | K-40 | 48 | 1.15E+02 | 1.68E+02 | (16 /42) | 2.80E+02 | (4 /6) | 23 | 24 | 25 | 26 | 27 |
| | | | | | | | | | 32 | 33 | | | |
| SURFACE WATER (PCI/L) | GAMMA | BE-7 | 48 | 5.22E+01 | < LLD | (0 /42) | < LLD | (0 /6) | 23 | 24 | 25 | 26 | 27 |
| | | | | | | | | | 32 | 33 | | | |
| SURFACE WATER (PCI/L) | GAMMA | ZR-95 | 48 | 1.08E+01 | < LLD | (0 /42) | < LLD | (0 /6) | 23 | 24 | 25 | 26 | 27 |
| | | | | | | | | | 32 | 33 | | | |
| SURFACE WATER (PCI/L) | GAMMA | NB-95 | 48 | 6.40E+00 | < LLD | (0 /42) | < LLD | (0 /6) | 23 | 24 | 25 | 26 | 27 |
| | | | | | | | | | 32 | 33 | | | |
| SURFACE WATER (PCI/L) | GAMMA | CE-141 | 48 | 1.23E+01 | < LLD | (0 /42) | < LLD | (0 /6) | 23 | 24 | 25 | 26 | 27 |
| | | | | | | | | | 32 | 33 | | | |
| | | | | | | | | | 33 | < LLD | (0 /6) | | |

TABLE 14
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| SAMPLE TYPE | ANALYSIS | ISOTOPE NUMBER | NUMBER OF ANALYSES PERFORMED | LLD | INDICATOR-MEAN(N/TOTAL) RANGE | | BACKGROUND-MEAN(N/TOTAL) RANGE | | STATIONS USED FOR INDICATOR MEAN | | | | |
|-----------------------|----------|----------------|------------------------------|----------|-------------------------------|-----------------------------|--------------------------------|---------|----------------------------------|----|----|----|----|
| | | | | | STATION | STATION-MEAN(N/TOTAL) RANGE | STATION-MEAN(N/TOTAL) RANGE | | | | | | |
| SURFACE WATER (PCI/L) | GAMMA | RU-103 | 48 | 6.67E+00 | < LLD | (0 /42) | < LLD | (0 /6) | 23 | 24 | 25 | 26 | 27 |
| | | | | | | | | | 32 | 33 | | | |
| | | | | | | | | | | | | | |
| SURFACE WATER (PCI/L) | GAMMA | BA-140 | 48 | 4.07E+01 | < LLD | (0 /42) | < LLD | (0 /6) | 23 | 24 | 25 | 26 | 27 |
| | | | | | | | | | 32 | 33 | | | |
| | | | | | | | | | | | | | |
| SURFACE WATER (PCI/L) | GAMMA | LA-140 | 48 | 1.61E+01 | < LLD | (0 /42) | < LLD | (0 /6) | 23 | 24 | 25 | 26 | 27 |
| | | | | | | | | | 32 | 33 | | | |
| | | | | | | | | | | | | | |
| SURFACE WATER (PCI/L) | GAMMA | RA-226 | 48 | 1.03E+02 | < LLD | (0 /42) | < LLD | (0 /6) | 23 | 24 | 25 | 26 | 27 |
| | | | | | | | | | 32 | 33 | | | |
| | | | | | | | | | | | | | |
| SURFACE WATER (PCI/L) | GAMMA | TH-228 | 48 | 8.89E+00 | < LLD | (0 /42) | < LLD | (0 /6) | 23 | 24 | 25 | 26 | 27 |
| | | | | | | | | | 32 | 33 | | | |
| | | | | | | | | | | | | | |
| SURFACE WATER (PCI/L) | GAMMA | I-131 | 48 | 4.48E+01 | < LLD | (0 /42) | < LLD | (0 /6) | 23 | 24 | 25 | 26 | 27 |
| | | | | | | | | | 32 | 33 | | | |
| | | | | | | | | | | | | | |

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| SAMPLE TYPE | ANALYSIS | ISOTOPE NUMBER | NUMBER OF ANALYSES PERFORMED | LLD | INDICATOR-MEAN(N/TOTAL) RANGE | | BACKGROUND-MEAN(N/TOTAL) RANGE | | STATIONS USED FOR INDICATOR MEAN | | | | |
|-----------------------|--------------|----------------|------------------------------|----------|-------------------------------|-----------------------------|--------------------------------|-------------------------|----------------------------------|----------|----|----|----|
| | | | | | STATION | STATION-MEAN(N/TOTAL) RANGE | | | | | | | |
| SURFACE WATER (PCI/L) | GAMMA | RU-106 | 48 | 4.38E+01 | < LLD | (0 /42) | < LLD | (0 /6) | 23 32 | 24 33 | 25 | 26 | 27 |
| | | | | | | | | | | | | | |
| SURFACE WATER (PCI/L) | GAMMA | CS-137 | 48 | 5.31E+00 | < LLD | (0 /42) | < LLD | (0 /6) | 23 32 | 24 33 | 25 | 26 | 27 |
| | | | | | | | | | | | | | |
| SURFACE WATER (PCI/L) | TRITIUM | | 48 | 1.10E+02 | 2.22E+02 (29 /42) | (7.00E+01 - 9.90E+02) | 3.25E+02(4 /6) | (1.10E+02 - 6.00E+02) | 23 32 | 24 33 | 25 | 26 | 27 |
| | | | | | | | | | | | | | |
| SURFACE WATER (PCI/L) | RADIUM-226 | | 48 | 2.09E-01 | 9.06E-01 (13 /42) | (2.20E-01 - 2.43E+00) | 2.80E-01(2 /6) | (2.70E-01 - 2.90E-01) | 23 32 | 24 33 | 25 | 26 | 27 |
| | | | | | | | | | | | | | |
| SURFACE WATER (PCI/L) | RADIUM-228 | | 48 | 3.78E-01 | 7.10E-01 (19 /42) | (1.93E-01 - 5.00E+00) | 5.60E-01(3 /6) | (2.91E-01 - 8.40E-01) | 23 32 | 24 33 | 25 | 26 | 27 |
| | | | | | | | | | | | | | |
| SURFACE WATER (PCI/L) | STRONTIUM-89 | | 48 | 1.45E+00 | < LLD | (0 /42) | < LLD | (0 /6) | 23 32 | 24 33 | 25 | 26 | 27 |
| | | | | | | | | | | | | | |

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| SAMPLE TYPE | ANALYSIS | ISOTOPE | NUMBER OF ANALYSES PERFORMED | LLD | INDICATOR-MEAN(N/TOTAL) RANGE | | BACKGROUND-MEAN(N/TOTAL) RANGE | | STATIONS USED FOR INDICATOR MEAN | | | | | |
|---------------------------|---------------|---------|------------------------------|----------|----------------------------------|--------------------------------|-----------------------------------|----------|----------------------------------|----|----|----|----|----|
| | | | | | STATION | STATION-MEAN(N/TOTAL) RANGE | | | | | | | | |
| SURFACE WATER (PCI/L) | STRONTIUM-90 | | 48 | 6.38E-01 | < LLD | (0 /42) | < LLD | (0 /6) | 23 | 24 | 25 | 26 | 27 | |
| | | | | | | | | | 32 | 33 | | | | |
| SURFACE WATER (PCI/L) | TOTAL URANIUM | | 24 | 5.00E-02 | 6.06E+00 | (21 /21) | (2.30E-01 - 1.00E+02) | 2.06E+00 | (3 /3) | 23 | 24 | 25 | 26 | 27 |
| | | | | | | | | | | 32 | 33 | | | |
| SURFACE WATER (PCI/L) | U-234 | | 24 | 1.04E+00 | 2.40E+00 | (15 /21) | (1.60E-01 - 1.40E+01) | 2.13E+01 | (2 /3) | 23 | 24 | 25 | 26 | 27 |
| | | | | | | | | | | 32 | 33 | | | |
| SURFACE WATER (PCI/L) | U-235 | | 24 | 9.10E-01 | 1.37E+00 | (2 /21) | (7.40E-01 - 2.00E+00) | 3.00E+00 | (1 /3) | 23 | 24 | 25 | 26 | 27 |
| | | | | | | | | | | 32 | 33 | | | |
| SURFACE WATER (PCI/L) | U-238 | | 24 | 1.17E+00 | 1.25E+01 | (10 /21) | (3.20E-01 - 1.00E+02) | 1.28E+00 | (2 /3) | 23 | 24 | 25 | 26 | 27 |
| | | | | | | | | | | 32 | 33 | | | |
| TOMATOES (PCI/KG(WET)) | GAMMA | CE-144 | 7 | 7.29E+01 | < LLD | (0 /4) | < LLD | (0 /3) | | 1 | 3 | 4 | 5 | |
| | | | | | | | | | 5 | | | | | |

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| SAMPLE TYPE | ANALYSIS | ISOTOPE | NUMBER OF ANALYSES PERFORMED | LLD | INDICATOR-MEAN(N/TOTAL) RANGE | | BACKGROUND-MEAN(N/TOTAL) RANGE | | STATIONS USED FOR INDICATOR MEAN |
|---------------------------|----------|---------|---------------------------------------|----------|----------------------------------|--------------------------------|-----------------------------------|---------|-------------------------------------|
| | | | | | STATION | STATION-MEAN(N/TOTAL) RANGE | STATION-MEAN(N/TOTAL) RANGE | | |
| TOMATOES (PCI/KG(WET)) | GAMMA | CS-134 | 7 | 9.57E+00 | < LLD | (0 /4) | < LLD | (0 /3) | 1 3 4 5 |
| | | | | | | | | | |
| TOMATOES (PCI/KG(WET)) | GAMMA | CO-58 | 7 | 1.04E+01 | < LLD | (0 /4) | < LLD | (0 /3) | 1 3 4 5 |
| | | | | | | | | | |
| TOMATOES (PCI/KG(WET)) | GAMMA | MN-54 | 7 | 9.43E+00 | < LLD | (0 /4) | < LLD | (0 /3) | 1 3 4 5 |
| | | | | | | | | | |
| TOMATOES (PCI/KG(WET)) | GAMMA | FE-59 | 7 | 3.00E+01 | < LLD | (0 /4) | < LLD | (0 /3) | 1 3 4 5 |
| | | | | | | | | | |
| TOMATOES (PCI/KG(WET)) | GAMMA | ZN-65 | 7 | 2.29E+01 | < LLD | (0 /4) | < LLD | (0 /3) | 1 3 4 5 |
| | | | | | | | | | |
| TOMATOES (PCI/KG(WET)) | GAMMA | CO-60 | 7 | 9.57E+00 | < LLD | (0 /4) | < LLD | (0 /3) | 1 3 4 5 |
| | | | | | | | | | |

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|---------------------------|----------|---------|------------------------------|----------|--|---|---|--------------------------------|----------------------------------|
| | | | | | STATION | STATION-MEAN(N/TOTAL) RANGE | STATION | STATION-MEAN(N/TOTAL) RANGE | |
| TOMATOES (PCI/KG(WET)) | GAMMA | K-40 | 7 | 3.71E+02 | 2.17E+03 (4 /4) (1.80E+03 - 2.50E+03) | | 2.50E+03(3 /3) (2.10E+03 - 2.80E+03) | | 1 3 4 5 |
| | | | | | 3 | 2.50E+03(1 /1) (2.50E+03 - 2.50E+03) | | | |
| TOMATOES (PCI/KG(WET)) | GAMMA | BE-7 | 7 | 1.06E+02 | < LLD (0 /4) | | < LLD (0 /3) | | 1 3 4 5 |
| | | | | | 5 | < LLD (0 /1) | | | |
| TOMATOES (PCI/KG(WET)) | GAMMA | ZR-95 | 7 | 2.71E+01 | < LLD (0 /4) | | < LLD (0 /3) | | 1 3 4 5 |
| | | | | | 5 | < LLD (0 /1) | | | |
| TOMATOES (PCI/KG(WET)) | GAMMA | NB-95 | 7 | 1.37E+01 | < LLD (0 /4) | | < LLD (0 /3) | | 1 3 4 5 |
| | | | | | 5 | < LLD (0 /1) | | | |
| TOMATOES (PCI/KG(WET)) | GAMMA | CE-141 | 7 | 3.29E+01 | < LLD (0 /4) | | < LLD (0 /3) | | 1 3 4 5 |
| | | | | | 5 | < LLD (0 /1) | | | |
| TOMATOES (PCI/KG(WET)) | GAMMA | RU-103 | 7 | 1.57E+01 | < LLD (0 /4) | | < LLD (0 /3) | | 1 3 4 5 |
| | | | | | 5 | < LLD (0 /1) | | | |

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| SAMPLE TYPE | ANALYSIS | ISOTOPE | NUMBER OF ANALYSES PERFORMED | LLD | INDICATOR-MEAN(N/TOTAL) RANGE | | BACKGROUND-MEAN(N/TOTAL) RANGE | | STATIONS USED FOR INDICATOR MEAN |
|---------------------------|----------|---------|---------------------------------------|----------|----------------------------------|--------------------------------|-----------------------------------|--------------------------------|-------------------------------------|
| | | | | | STATION | STATION-MEAN(N/TOTAL) RANGE | STATION | STATION-MEAN(N/TOTAL) RANGE | |
| TOMATOES (PCI/KG(WET)) | GAMMA | BA-140 | 7 | 1.54E+02 | < LLD | (0 / 4) | < LLD | (0 / 3) | 1 3 4 5 |
| | | | | | | | | | |
| TOMATOES (PCI/KG(WET)) | GAMMA | LA-140 | 7 | 5.57E+01 | < LLD | (0 / 4) | < LLD | (0 / 3) | 1 3 4 5 |
| | | | | | | | | | |
| TOMATOES (PCI/KG(WET)) | GAMMA | RA-226 | 7 | 1.86E+02 | < LLD | (0 / 4) | < LLD | (0 / 3) | 1 3 4 5 |
| | | | | | | | | | |
| TOMATOES (PCI/KG(WET)) | GAMMA | TH-228 | 7 | 1.71E+01 | < LLD | (0 / 4) | < LLD | (0 / 3) | 1 3 4 5 |
| | | | | | | | | | |
| TOMATOES (PCI/KG(WET)) | GAMMA | I-131 | 7 | 2.00E+02 | < LLD | (0 / 4) | < LLD | (0 / 3) | 1 3 4 5 |
| | | | | | | | | | |
| TOMATOES (PCI/KG(WET)) | GAMMA | RU-106 | 7 | 8.86E+01 | < LLD | (0 / 4) | < LLD | (0 / 3) | 1 3 4 5 |
| | | | | | | | | | |

TABLE 14
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|---------------------------|----------|----------------|------------------------------|----------|-------------------------------|-----------------------------|--------------------------------|-----------------|----------------------------------|
| | | | | | STATION | STATION-MEAN(N/TOTAL) RANGE | STATION-MEAN(N/TOTAL) RANGE | | |
| TOMATOES (PCI/KG(WET)) | GAMMA | CS-137 | 7 | 9.86E+00 | < LLD | (0 / 4) | < LLD | (0 / 3) | 1 3 4 5 |
| | | | | | | | | | |
| BROCCOLI (PCI/KG(WET)) | GAMMA | CE-144 | 2 | 7.50E+01 | < LLD | (0 / 2) | (. . - . / .) | (. . - . / .) | 3 5 |
| | | | | | | | | | |
| BROCCOLI (PCI/KG(WET)) | GAMMA | CS-134 | 2 | 1.00E+01 | < LLD | (0 / 2) | (. . - . / .) | (. . - . / .) | 3 5 |
| | | | | | | | | | |
| BROCCOLI (PCI/KG(WET)) | GAMMA | CO-58 | 2 | 1.00E+01 | < LLD | (0 / 2) | (. . - . / .) | (. . - . / .) | 3 5 |
| | | | | | | | | | |
| BROCCOLI (PCI/KG(WET)) | GAMMA | MN-54 | 2 | 1.00E+01 | < LLD | (0 / 2) | (. . - . / .) | (. . - . / .) | 3 5 |
| | | | | | | | | | |
| BROCCOLI (PCI/KG(WET)) | GAMMA | FE-59 | 2 | 3.50E+01 | < LLD | (0 / 2) | (. . - . / .) | (. . - . / .) | 3 5 |
| | | | | | | | | | |

TABLE 14
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 SEMI-ANNUAL SUMMARY

| SAMPLE TYPE | ANALYSIS | ISOTOPE | NUMBER OF ANALYSES PERFORMED | LLD | INDICATOR-MEAN(N/TOTAL) RANGE | | BACKGROUND-MEAN(N/TOTAL) RANGE | | STATIONS USED FOR INDICATOR MEAN |
|---------------------------|----------|---------|---------------------------------------|----------|---|--------------------------------|-----------------------------------|--------------------------------|---|
| | | | | | STATION | STATION-MEAN(N/TOTAL) RANGE | STATION | STATION-MEAN(N/TOTAL) RANGE | |
| BROCCOLI (PCI/KG(WET)) | GAMMA | ZN-65 | 2 | 2.50E+01 | < LLD | (0 / 2) | (. . - . / .) | 3 5 | |
| | | | | | | | | | 5 |
| BROCCOLI (PCI/KG(WET)) | GAMMA | CO-60 | 2 | 1.00E+01 | < LLD | (0 / 2) | (. . - . / .) | 3 5 | |
| | | | | | | | | | 5 |
| BROCCOLI (PCI/KG(WET)) | GAMMA | K-40 | 2 | 4.50E+02 | 4.80E+03 (2 / 2) (4.10E+03 - 5.50E+03) | (. . - . / .) | 3 5 | | |
| | | | | | | | | 5 | 5.50E+03 (1 / 1) (5.50E+03 - 5.50E+03) |
| BROCCOLI (PCI/KG(WET)) | GAMMA | BE-7 | 2 | 1.50E+02 | < LLD | (0 / 2) | (. . - . / .) | 3 5 | |
| | | | | | | | | | 5 |
| BROCCOLI (PCI/KG(WET)) | GAMMA | ZR-95 | 2 | 3.00E+01 | < LLD | (0 / 2) | (. . - . / .) | 3 5 | |
| | | | | | | | | | 5 |
| BROCCOLI (PCI/KG(WET)) | GAMMA | NB-95 | 2 | 1.50E+01 | < LLD | (0 / 2) | (. . - . / .) | 3 5 | |
| | | | | | | | | | 5 |

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| SAMPLE TYPE | ANALYSIS | ISOTOPE NUMBER | NUMBER OF ANALYSES PERFORMED | LLD | INDICATOR-MEAN(N/TOTAL) RANGE | | BACKGROUND-MEAN(N/TOTAL) RANGE | | STATIONS USED FOR INDICATOR MEAN |
|------------------------|----------|----------------|------------------------------|----------|-------------------------------|-----------------------------|--------------------------------|-----|----------------------------------|
| | | | | | STATION | STATION-MEAN(N/TOTAL) RANGE | STATION-MEAN(N/TOTAL) RANGE | | |
| BROCCOLI (PCI/KG(WET)) | GAMMA | CE-141 | 2 | 3.00E+01 | < LLD | (0 / 2) | (. . - . / .) | 3 5 | |
| | | | | | | | | | |
| BROCCOLI (PCI/KG(WET)) | GAMMA | RU-103 | 2 | 2.00E+01 | < LLD | (0 / 2) | (. . - . / .) | 3 5 | |
| | | | | | | | | | |
| BROCCOLI (PCI/KG(WET)) | GAMMA | BA-140 | 2 | 2.00E+02 | < LLD | (0 / 2) | (. . - . / .) | 3 5 | |
| | | | | | | | | | |
| BROCCOLI (PCI/KG(WET)) | GAMMA | LA-140 | 2 | 6.00E+01 | < LLD | (0 / 2) | (. . - . / .) | 3 5 | |
| | | | | | | | | | |
| BROCCOLI (PCI/KG(WET)) | GAMMA | RA-226 | 2 | 2.00E+02 | < LLD | (0 / 2) | (. . - . / .) | 3 5 | |
| | | | | | | | | | |
| BROCCOLI (PCI/KG(WET)) | GAMMA | TH-228 | 2 | 2.00E+01 | < LLD | (0 / 2) | (. . - . / .) | 3 5 | |
| | | | | | | | | | |

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 SEMI-ANNUAL SUMMARY

| SAMPLE TYPE | ANALYSIS | ISOTOPE NUMBER | NUMBER OF ANALYSES PERFORMED | LLD | INDICATOR-MEAN(N/TOTAL) RANGE | | BACKGROUND-MEAN(N/TOTAL) RANGE | | STATIONS USED FOR INDICATOR MEAN |
|------------------------|----------------|----------------|------------------------------|----------|-------------------------------|-----------------------------|--------------------------------|---------------|----------------------------------|
| | | | | | STATION | STATION-MEAN(N/TOTAL) RANGE | STATION-MEAN(N/TOTAL) RANGE | | |
| BROCCOLI (PCI/KG(WET)) | GAMMA | I-131 | 2 | 2.00E+02 | < LLD | (0 / 2) | (. . - . .) | 3 5 | |
| | | | | | | | | | 5 |
| BROCCOLI (PCI/KG(WET)) | GAMMA | RU-106 | 2 | 9.50E+01 | < LLD | (0 / 2) | (. . - . .) | 3 5 | |
| | | | | | | | | | 5 |
| BROCCOLI (PCI/KG(WET)) | GAMMA | CS-137 | 2 | 2.00E+01 | 5.90E+01 (2 / 2) | (5.50E+01 - 6.30E+01) | (. . - . .) | 3 5 | |
| | | | | | | | | | 3 |
| WELL WATER (PCI/L) | GROSS ALPHA-SS | | 36 | 4.47E-01 | < LLD | (0 / 36) | (. . - . .) | 1 18 19 20 21 | 22 |
| | | | | | | | | | 22 |
| WELL WATER (PCI/L) | GROSS ALPHA-DS | | 36 | 8.52E-01 | 1.83E+00 (17 / 36) | (8.20E-01 - 4.30E+00) | (. . - . .) | 1 18 19 20 21 | 22 |
| | | | | | | | | | 21 |
| WELL WATER (PCI/L) | GROSS BETA-SS | | 36 | 8.72E-01 | 9.40E-01 (1 / 36) | (9.40E-01 - 9.40E-01) | (. . - . .) | 1 18 19 20 21 | 22 |
| | | | | | | | | | 1 |

TABLE 14
 RADIOLOGICAL ENVIRONMENTAL MONITORING PROGRAM SUMMARY
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| SAMPLE TYPE | ANALYSIS | ISOTOPE | NUMBER OF ANALYSES PERFORMED | LLD | INDICATOR-MEAN(N/TOTAL) RANGE | | BACKGROUND-MEAN(N/TOTAL) RANGE | | STATIONS USED FOR INDICATOR MEAN |
|-----------------------|---------------|---------|------------------------------|----------|--|---|--------------------------------------|--------------------------------|----------------------------------|
| | | | | | | STATION | | STATION-MEAN(N/TOTAL) RANGE | |
| WELL WATER (PCI/L) | GROSS BETA-DS | | 36 | 1.07E+00 | 3.29E+00 (35 /36) (1.10E-01 - 6.80E+00) | | . . . (. / .) (. . . - . . .) | | 1 18 19 20 21 22 |
| | | | | | 20 | 4.13E+00(6 /6) (3.10E+00 - 6.30E+00) | | | |
| WELL WATER (PCI/L) | POTASSIUM-40 | | 12 | 2.00E-01 | 1.97E+00 (12 /12) (9.10E-01 - 2.50E+00) | | . . . (. / .) (. . . - . . .) | | 1 18 19 20 21 22 |
| | | | | | 19 | 2.50E+00(2 /2) (2.50E+00 - 2.50E+00) | | | |
| WELL WATER (PCI/L) | GAMMA | CE-144 | 12 | 3.67E+01 | < LLD (0 /12) | | . . . (. / .) (. . . - . . .) | | 1 18 19 20 21 22 |
| | | | | | 22 | < LLD (0 /2) | | | |
| WELL WATER (PCI/L) | GAMMA | CS-134 | 12 | 4.75E+00 | < LLD (0 /12) | | . . . (. / .) (. . . - . . .) | | 1 18 19 20 21 22 |
| | | | | | 22 | < LLD (0 /2) | | | |
| WELL WATER (PCI/L) | GAMMA | CO-58 | 12 | 4.75E+00 | < LLD (0 /12) | | . . . (. / .) (. . . - . . .) | | 1 18 19 20 21 22 |
| | | | | | 22 | < LLD (0 /2) | | | |
| WELL WATER (PCI/L) | GAMMA | MN-54 | 12 | 4.25E+00 | < LLD (0 /12) | | . . . (. / .) (. . . - . . .) | | 1 18 19 20 21 22 |
| | | | | | 22 | < LLD (0 /2) | | | |

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| SAMPLE TYPE | ANALYSIS | ISOTOPE | NUMBER OF ANALYSES PERFORMED | LLD | INDICATOR-MEAN(N/TOTAL) RANGE | | BACKGROUND-MEAN(N/TOTAL) RANGE | | STATIONS USED FOR INDICATOR MEAN | | | | |
|--------------------|----------|---------|------------------------------|----------|-------------------------------|-----------------------------|--------------------------------|-----------------------------|----------------------------------|----|----|----|----|
| | | | | | STATION | STATION-MEAN(N/TOTAL) RANGE | STATION | STATION-MEAN(N/TOTAL) RANGE | 1 | 18 | 19 | 20 | 21 |
| WELL WATER (PCI/L) | GAMMA | FE-59 | 12 | 1.00E+01 | < LLD | (0 /12) | (. . - . / .) | (. . - . / .) | 1 | 18 | 19 | 20 | 21 |
| | | | | | | | | | | | | | |
| WELL WATER (PCI/L) | GAMMA | ZN-65 | 12 | 9.25E+00 | < LLD | (0 /12) | (. . - . / .) | (. . - . / .) | 1 | 18 | 19 | 20 | 21 |
| | | | | | | | | | | | | | |
| WELL WATER (PCI/L) | GAMMA | CO-60 | 12 | 4.50E+00 | < LLD | (0 /12) | (. . - . / .) | (. . - . / .) | 1 | 18 | 19 | 20 | 21 |
| | | | | | | | | | | | | | |
| WELL WATER (PCI/L) | GAMMA | K-40 | 12 | 9.25E+01 | 1.10E+02 (1 /12) | (1.10E+02 - 1.10E+02) | (. . - . / .) | (. . - . / .) | 1 | 18 | 19 | 20 | 21 |
| | | | | | | | | | | | | | |
| WELL WATER (PCI/L) | GAMMA | BE-7 | 12 | 4.67E+01 | < LLD | (0 /12) | (. . - . / .) | (. . - . / .) | 1 | 18 | 19 | 20 | 21 |
| | | | | | | | | | | | | | |
| WELL WATER (PCI/L) | GAMMA | ZR-95 | 12 | 9.17E+00 | < LLD | (0 /12) | (. . - . / .) | (. . - . / .) | 1 | 18 | 19 | 20 | 21 |
| | | | | | | | | | | | | | |

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 SEMI-ANNUAL SUMMARY

| SAMPLE TYPE | ANALYSIS | ISOTOPE | NUMBER OF ANALYSES PERFORMED | LLD | INDICATOR-MEAN(N/TOTAL) RANGE | | BACKGROUND-MEAN(N/TOTAL) RANGE | | STATIONS USED FOR INDICATOR MEAN |
|--------------------|----------|---------|------------------------------|----------|-------------------------------|-----------------------------|--------------------------------|-----------------------------|----------------------------------|
| | | | | | STATION | STATION-MEAN(N/TOTAL) RANGE | STATION | STATION-MEAN(N/TOTAL) RANGE | |
| WELL WATER (PCI/L) | GAMMA | NB-95 | 12 | 5.08E+00 | < LLD | (0 /12) | (. . - . / .) | 1 18 19 20 21 | 22 |
| | | | | | | | | | |
| WELL WATER (PCI/L) | GAMMA | CE-141 | 12 | 1.13E+01 | < LLD | (0 /12) | (. . - . / .) | 1 18 19 20 21 | 22 |
| | | | | | | | | | |
| WELL WATER (PCI/L) | GAMMA | RU-103 | 12 | 6.17E+00 | < LLD | (0 /12) | (. . - . / .) | 1 18 19 20 21 | 22 |
| | | | | | | | | | |
| WELL WATER (PCI/L) | GAMMA | BA-140 | 12 | 3.67E+01 | < LLD | (0 /12) | (. . - . / .) | 1 18 19 20 21 | 22 |
| | | | | | | | | | |
| WELL WATER (PCI/L) | GAMMA | LA-140 | 12 | 1.41E+01 | < LLD | (0 /12) | (. . - . / .) | 1 18 19 20 21 | 22 |
| | | | | | | | | | |
| WELL WATER (PCI/L) | GAMMA | RA-226 | 12 | 8.92E+01 | < LLD | (0 /12) | (. . - . / .) | 1 18 19 20 21 | 22 |
| | | | | | | | | | |

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 OYSTER CREEK NUCLEAR GENERATING STATION
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|--------------------|------------|---------|------------------------------|----------|-------------------------------|-----------------------------|--------------------------------|---------------|----------------------------------|----|----|----|----|
| | | | | | STATION | STATION-MEAN(N/TOTAL) RANGE | | | | | | | |
| WELL WATER (PCI/L) | GAMMA | TH-228 | 12 | 8.92E+00 | < LLD | (0 /12) | (. . - . .) | (. . - . .) | 1 | 18 | 19 | 20 | 21 |
| | | | | | | | | | | | | | |
| WELL WATER (PCI/L) | GAMMA | I-131 | 12 | 3.41E+01 | < LLD | (0 /12) | (. . - . .) | (. . - . .) | 1 | 18 | 19 | 20 | 21 |
| | | | | | | | | | | | | | |
| WELL WATER (PCI/L) | GAMMA | RU-106 | 12 | 3.87E+01 | < LLD | (0 /12) | (. . - . .) | (. . - . .) | 1 | 18 | 19 | 20 | 21 |
| | | | | | | | | | | | | | |
| WELL WATER (PCI/L) | GAMMA | CS-137 | 12 | 4.83E+00 | < LLD | (0 /12) | (. . - . .) | (. . - . .) | 1 | 18 | 19 | 20 | 21 |
| | | | | | | | | | | | | | |
| WELL WATER (PCI/L) | TRITIUM | | 12 | 1.20E+02 | 4.63E+02 (4 /12) | (1.00E+02 - 1.20E+03) | (. . - . .) | (. . - . .) | 1 | 18 | 19 | 20 | 21 |
| | | | | | | | | | | | | | |
| WELL WATER (PCI/L) | RADIUM-226 | | 12 | 3.32E-01 | 1.46E+00 (4 /12) | (4.20E-01 - 2.47E+00) | (. . - . .) | (. . - . .) | 1 | 18 | 19 | 20 | 21 |
| | | | | | | | | | | | | | |

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| SAMPLE TYPE | ANALYSIS | ISOTOPE NUMBER OF ANALYSES PERFORMED | LLD | INDICATOR-MEAN(N/TOTAL) RANGE | BACKGROUND-MEAN(N/TOTAL) RANGE | | STATIONS USED FOR INDICATOR MEAN |
|------------------------|---------------|---|----------|---|-----------------------------------|---|-------------------------------------|
| | | | | | STATION | STATION-MEAN(N/TOTAL) RANGE | |
| WELL WATER (PCI/L) | RADIUM-228 | 12 | 5.32E-01 | 6.30E-01 (3 /12) (3.20E-01 - 1.06E+00) | . | . | 1 18 19 20 21 22 |
| | | | | | | | |
| WELL WATER (PCI/L) | TOTAL URANIUM | 6 | 3.40E-02 | 5.89E-01 (6 /6) (8.16E-02 - 1.70E+00) | . | . | 1 18 19 20 21 22 |
| | | | | | | | |
| WELL WATER (PCI/L) | U-234 | 6 | 1.54E-01 | 9.89E+00 (6 /6) (3.50E-01 - 5.20E+01) | . | . | 1 18 19 20 21 22 |
| | | | | | | | |
| WELL WATER (PCI/L) | U-235 | 6 | 5.90E-01 | 1.63E+00 (6 /6) (5.10E-01 - 5.00E+00) | . | . | 1 18 19 20 21 22 |
| | | | | | | | |
| WELL WATER (PCI/L) | U-238 | 6 | 3.38E-01 | 7.73E-01 (6 /6) (2.60E-01 - 3.00E+00) | . | . | 1 18 19 20 21 22 |
| | | | | | | | |
| CLAMS (PCI/KG(WET)) | GROSS ALPHA | 24 | 4.54E+02 | 1.15E+02 (10 /18) (4.70E+01 - 2.30E+02) | . | 7.10E+01(3 /6) (4.20E+01 - 1.20E+02) | 23 24 25 |
| | | | | | | | |

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|------------------------|---------------|---------|---------------------------------------|----------|--|---|---|--------------------------------|-------------------------------------|
| | | | | | STATION | STATION-MEAN(N/TOTAL) RANGE | STATION | STATION-MEAN(N/TOTAL) RANGE | |
| CLAMS (PCI/KG(WET)) | GROSS BETA | | 24 | 2.13E+02 | 8.26E+03 (18 /18) (1.70E+03 - 5.00E+04) | | 7.93E+03(6 /6) (1.80E+03 - 3.60E+04) | | 23 24 25 |
| | | | | | 23 | 1.05E+04(6 /6) (1.80E+03 - 5.00E+04) | | | |
| CLAMS (MG/GM(WET)) | CALCIUM BY AA | | 8 | 1.00E-01 | 6.07E-01 (6 /6) (3.80E-01 - 9.50E-01) | | 4.20E-01(2 /2) (3.40E-01 - 5.00E-01) | | 23 24 25 |
| | | | | | 23 | 7.95E-01(2 /2) (6.40E-01 - 9.50E-01) | | | |
| CLAMS (PCI/KG(WET)) | GAMMA | CE-144 | 8 | 6.25E+01 | < LLD (0 /6) | | < LLD (0 /2) | | 23 24 25 |
| | | | | | 25 | < LLD (0 /2) | | | |
| CLAMS (PCI/KG(WET)) | GAMMA | CS-134 | 8 | 9.13E+00 | < LLD (0 /6) | | < LLD (0 /2) | | 23 24 25 |
| | | | | | 25 | < LLD (0 /2) | | | |
| CLAMS (PCI/KG(WET)) | GAMMA | CO-58 | 8 | 9.13E+00 | < LLD (0 /6) | | < LLD (0 /2) | | 23 24 25 |
| | | | | | 25 | < LLD (0 /2) | | | |
| CLAMS (PCI/KG(WET)) | GAMMA | MN-54 | 8 | 8.88E+00 | < LLD (0 /6) | | < LLD (0 /2) | | 23 24 25 |
| | | | | | 25 | < LLD (0 /2) | | | |

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| SAMPLE TYPE | ANALYSIS | ISOTOPE | NUMBER OF ANALYSES PERFORMED | LLD | INDICATOR-MEAN(N/TOTAL) RANGE | | BACKGROUND-MEAN(N/TOTAL) RANGE | | STATIONS USED FOR INDICATOR MEAN | | |
|------------------------|----------|---------|---------------------------------------|----------|---|--------------------------------|-----------------------------------|-----------|-------------------------------------|----|----|
| | | | | | STATION | STATION-MEAN(N/TOTAL) RANGE | | | | | |
| CLAMS (PCI/KG(WET)) | GAMMA | FE-59 | 8 | 2.38E+01 | < LLD | (0 / 6) | < LLD | (0 / 2) | 23 | 24 | 25 |
| | | | | | | | | | | | |
| CLAMS (PCI/KG(WET)) | GAMMA | ZN-65 | 8 | 1.75E+01 | < LLD | (0 / 6) | < LLD | (0 / 2) | 23 | 24 | 25 |
| | | | | | | | | | | | |
| CLAMS (PCI/KG(WET)) | GAMMA | CO-60 | 8 | 1.25E+01 | 3.45E+01 (6 / 6) (1.50E+01 - 1.10E+02) | < LLD | (0 / 2) | 23 | 24 | 25 | |
| | | | | | | | | | | | 24 |
| CLAMS (PCI/KG(WET)) | GAMMA | K-40 | 8 | 2.88E+02 | 1.73E+03 (6 / 6) (6.80E+02 - 5.40E+03) | < LLD | (0 / 2) | 23 | 24 | 25 | |
| | | | | | | | | | | | 24 |
| CLAMS (PCI/KG(WET)) | GAMMA | BE-7 | 8 | 8.88E+01 | < LLD | (0 / 6) | < LLD | (0 / 2) | 23 | 24 | 25 |
| | | | | | | | | | | | |
| CLAMS (PCI/KG(WET)) | GAMMA | ZR-95 | 8 | 2.25E+01 | < LLD | (0 / 6) | < LLD | (0 / 2) | 23 | 24 | 25 |
| | | | | | | | | | | | |

TABLE 14
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 OYSTER CREEK NUCLEAR GENERATING STATION
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 SEMI-ANNUAL SUMMARY

| SAMPLE TYPE | ANALYSIS | ISOTOPE | NUMBER OF ANALYSES PERFORMED | LLD | INDICATOR-MEAN(N/TOTAL) RANGE | | BACKGROUND-MEAN(N/TOTAL) RANGE | | STATIONS USED FOR INDICATOR MEAN |
|------------------------|----------|---------|---------------------------------------|----------|----------------------------------|--------------------------------|-----------------------------------|---------|-------------------------------------|
| | | | | | STATION | STATION-MEAN(N/TOTAL) RANGE | STATION-MEAN(N/TOTAL) RANGE | | |
| CLAMS (PCI/KG(WET)) | GAMMA | NB-95 | 8 | 9.75E+00 | < LLD | (0 /6) | < LLD | (0 /2) | 23 24 25 |
| | | | | | | | | | |
| CLAMS (PCI/KG(WET)) | GAMMA | CE-141 | 8 | 2.13E+01 | < LLD | (0 /6) | < LLD | (0 /2) | 23 24 25 |
| | | | | | | | | | |
| CLAMS (PCI/KG(WET)) | GAMMA | RU-103 | 8 | 1.15E+01 | < LLD | (0 /6) | < LLD | (0 /2) | 23 24 25 |
| | | | | | | | | | |
| CLAMS (PCI/KG(WET)) | GAMMA | BA-140 | 8 | 5.50E+01 | < LLD | (0 /6) | < LLD | (0 /2) | 23 24 25 |
| | | | | | | | | | |
| CLAMS (PCI/KG(WET)) | GAMMA | LA-140 | 8 | 2.38E+01 | < LLD | (0 /6) | < LLD | (0 /2) | 23 24 25 |
| | | | | | | | | | |
| CLAMS (PCI/KG(WET)) | GAMMA | RA-226 | 8 | 1.75E+02 | < LLD | (0 /6) | < LLD | (0 /2) | 23 24 25 |
| | | | | | | | | | |

TABLE 14
 RADIOLOGICAL ENVIRONMENTAL MONITORING PROGRAM SUMMARY
 OYSTER CREEK NUCLEAR GENERATING STATION
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| SAMPLE TYPE | ANALYSIS | ISOTOPE | NUMBER OF ANALYSES PERFORMED | LLD | INDICATOR-MEAN(N/TOTAL) RANGE | | BACKGROUND-MEAN(N/TOTAL) RANGE | | STATIONS USED FOR INDICATOR MEAN |
|------------------------|--------------|---------|---------------------------------------|----------|--|--------------------------------|-----------------------------------|--------------------------------|-------------------------------------|
| | | | | | STATION | STATION-MEAN(N/TOTAL) RANGE | STATION | STATION-MEAN(N/TOTAL) RANGE | |
| CLAMS (PCI/KG(WET)) | GAMMA | TH-228 | 8 | 1.50E+01 | 1.50E+02 (1 /6) (1.50E+02 - 1.50E+02) | | < LLD (0 /2) | | 23 24 25 |
| | | | | | | | | | |
| CLAMS (PCI/KG(WET)) | GAMMA | I-131 | 8 | 4.38E+01 | < LLD (0 /6) | | < LLD (0 /2) | | 23 24 25 |
| | | | | | | | | | |
| CLAMS (PCI/KG(WET)) | GAMMA | RU-106 | 8 | 8.25E+01 | < LLD (0 /6) | | < LLD (0 /2) | | 23 24 25 |
| | | | | | | | | | |
| CLAMS (PCI/KG(WET)) | GAMMA | CS-137 | 8 | 9.63E+00 | < LLD (0 /6) | | < LLD (0 /2) | | 23 24 25 |
| | | | | | | | | | |
| CLAMS (PCI/KG(WET)) | STRONTIUM-89 | | 8 | 6.63E+00 | < LLD (0 /6) | | < LLD (0 /2) | | 23 24 25 |
| | | | | | | | | | |
| CLAMS (PCI/KG(WET)) | STRONTIUM-90 | | 8 | 3.25E+00 | < LLD (0 /6) | | < LLD (0 /2) | | 23 24 25 |
| | | | | | | | | | |

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 JUNE, 1983 THROUGH NOVEMBER, 1983
 SEMI-ANNUAL SUMMARY

| SAMPLE TYPE | ANALYSIS | ISOTOPE | NUMBER OF ANALYSES PERFORMED | LLD | INDICATOR-MEAN(N/TOTAL) | BACKGROUND-MEAN(N/TOTAL) | STATIONS USED FOR INDICATOR MEAN | | | | | | |
|-----------------------|------------|---------|------------------------------|----------|-------------------------|--------------------------|----------------------------------|------------------------|-------|---|---|---|--|
| | | | | | RANGE | RANGE | STATION | STATION-MEAN(N/TOTAL) | RANGE | | | | |
| SOIL (PCI/KG(DRY)) | GROSS BETA | | 30 | 1.93E+03 | 6.86E+03 (30 /30) | (. /.) | | 1 | 2 | 3 | 4 | 5 | |
| | | | | | (1.20E+03 - 1.40E+04) | (. /.) | | | | | | | |
| | | | | | | | 2 | 1.01E+04(6 /6) | | | | | |
| | | | | | | | | (5.40E+03 - 1.30E+04) | | | | | |
| SOIL (PCI/KG(DRY)) | GAMMA | CE-144 | 10 | 1.67E+02 | < LLD (0 /10) | (. /.) | | 1 | 2 | 3 | 4 | 5 | |
| | | | | | | (. /.) | | | | | | | |
| | | | | | | | 5 | < LLD (0 /2) | | | | | |
| SOIL (PCI/KG(DRY)) | GAMMA | CS-134 | 10 | 2.70E+01 | < LLD (0 /10) | (. /.) | | 1 | 2 | 3 | 4 | 5 | |
| | | | | | | (. /.) | | | | | | | |
| | | | | | | | 5 | < LLD (0 /2) | | | | | |
| SOIL (PCI/KG(DRY)) | GAMMA | CO-58 | 10 | 3.20E+01 | < LLD (0 /10) | (. /.) | | 1 | 2 | 3 | 4 | 5 | |
| | | | | | | (. /.) | | | | | | | |
| | | | | | | | 5 | < LLD (0 /2) | | | | | |
| SOIL (PCI/KG(DRY)) | GAMMA | MN-54 | 10 | 2.50E+01 | < LLD (0 /10) | (. /.) | | 1 | 2 | 3 | 4 | 5 | |
| | | | | | | (. /.) | | | | | | | |
| | | | | | | | 5 | < LLD (0 /2) | | | | | |
| SOIL (PCI/KG(DRY)) | GAMMA | FE-59 | 10 | 8.00E+01 | < LLD (0 /10) | (. /.) | | 1 | 2 | 3 | 4 | 5 | |
| | | | | | | (. /.) | | | | | | | |
| | | | | | | | 5 | < LLD (0 /2) | | | | | |

TABLE 14
 RADIOLOGICAL ENVIRONMENTAL MONITORING PROGRAM SUMMARY
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 SEMI-ANNUAL SUMMARY

| SAMPLE TYPE | ANALYSIS | ISOTOPE | NUMBER OF ANALYSES PERFORMED | LLD | INDICATOR-MEAN(N/TOTAL) RANGE | | BACKGROUND-MEAN(N/TOTAL) RANGE | | STATIONS USED FOR INDICATOR MEAN | | | | |
|-----------------------|----------|---------|---------------------------------------|----------|----------------------------------|---|-----------------------------------|--|-------------------------------------|---|---|---|---|
| | | | | | | STATION | STATION-MEAN(N/TOTAL) RANGE | | | | | | |
| SOIL (PCI/KG(DRY)) | GAMMA | ZN-65 | 10 | 5.70E+01 | < LLD | (0 /10) | | (. . - . / .) | 1 | 2 | 3 | 4 | 5 |
| | | | | | | | 5 | < LLD (0 /2) | | | | | |
| SOIL (PCI/KG(DRY)) | GAMMA | CO-60 | 10 | 2.49E+01 | < LLD | (0 /10) | | (. . - . / .) | 1 | 2 | 3 | 4 | 5 |
| | | | | | | | 5 | < LLD (0 /2) | | | | | |
| SOIL (PCI/KG(DRY)) | GAMMA | K-40 | 10 | 6.20E+02 | | 1.59E+03 (8 /10) (9.30E+02 - 3.40E+03) | | (. . - . / .) | 1 | 2 | 3 | 4 | 5 |
| | | | | | | | 1 | 2.30E+03(2 /2) (1.20E+03 - 3.40E+03) | | | | | |
| SOIL (PCI/KG(DRY)) | GAMMA | BE-7 | 10 | 3.60E+02 | < LLD | (0 /10) | | (. . - . / .) | 1 | 2 | 3 | 4 | 5 |
| | | | | | | | 5 | < LLD (0 /2) | | | | | |
| SOIL (PCI/KG(DRY)) | GAMMA | ZR-95 | 10 | 6.11E+01 | < LLD | (0 /10) | | (. . - . / .) | 1 | 2 | 3 | 4 | 5 |
| | | | | | | | 5 | < LLD (0 /2) | | | | | |
| SOIL (PCI/KG(DRY)) | GAMMA | NB-95 | 10 | 3.80E+01 | < LLD | (0 /10) | | (. . - . / .) | 1 | 2 | 3 | 4 | 5 |
| | | | | | | | 5 | < LLD (0 /2) | | | | | |

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| SAMPLE TYPE | ANALYSIS | ISOTOPE | NUMBER OF ANALYSES PERFORMED | LLD | INDICATOR-MEAN(N/TOTAL) RANGE | | BACKGROUND-MEAN(N/TOTAL) RANGE | | STATIONS USED FOR INDICATOR MEAN |
|--------------------|----------|---------|------------------------------|----------|-------------------------------|-----------------------------|--------------------------------|-----------------------------|----------------------------------|
| | | | | | STATION | STATION-MEAN(N/TOTAL) RANGE | STATION-MEAN(N/TOTAL) RANGE | STATION-MEAN(N/TOTAL) RANGE | |
| SOIL (PCI/KG(DRY)) | GAMMA | CE-141 | 10 | 7.20E+01 | < LLD | (0 /10) | (. /.) | 1 2 3 4 5 | |
| | | | | | | | 5 | < LLD (0 /2) | (. /.) |
| SOIL (PCI/KG(DRY)) | GAMMA | RU-103 | 10 | 4.50E+01 | < LLD | (0 /10) | (. /.) | 1 2 3 4 5 | |
| | | | | | | | 5 | < LLD (0 /2) | (. /.) |
| SOIL (PCI/KG(DRY)) | GAMMA | BA-140 | 10 | 4.50E+02 | < LLD | (0 /10) | (. /.) | 1 2 3 4 5 | |
| | | | | | | | 5 | < LLD (0 /2) | (. /.) |
| SOIL (PCI/KG(DRY)) | GAMMA | LA-140 | 10 | 1.85E+02 | < LLD | (0 /10) | (. /.) | 1 2 3 4 5 | |
| | | | | | | | 5 | < LLD (0 /2) | (. /.) |
| SOIL (PCI/KG(DRY)) | GAMMA | RA-226 | 10 | 4.50E+02 | 9.38E+02 (5 /10) | (6.30E+02 - 2.00E+03) | (. /.) | 1 2 3 4 5 | |
| | | | | | | | 5 | 2.00E+03(1 /2) | (2.00E+03 - 2.00E+03) |
| SOIL (PCI/KG(DRY)) | GAMMA | TH-228 | 10 | 5.80E+01 | 4.11E+02 (8 /10) | (1.80E+02 - 8.80E+02) | (. /.) | 1 2 3 4 5 | |
| | | | | | | | 5 | 8.80E+02(1 /2) | (8.80E+02 - 8.80E+02) |

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| SAMPLE TYPE | ANALYSIS | ISOTOPE | NUMBER OF ANALYSES PERFORMED | LLD | INDICATOR-MEAN(N/TOTAL) RANGE | | BACKGROUND-MEAN(N/TOTAL) RANGE | | STATIONS USED FOR INDICATOR MEAN |
|--------------------------|---------------|---------|------------------------------|----------|---|--------------------------------|-----------------------------------|-----------|----------------------------------|
| | | | | | STATION | STATION-MEAN(N/TOTAL) RANGE | STATION-MEAN(N/TOTAL) RANGE | | |
| SOIL (PCI/KG(DRY)) | GAMMA | I-131 | 10 | 6.80E+02 | < LLD | (0 /10) | (. . - . / .) | 1 2 3 4 5 | |
| | | | | | | | | | 5 |
| SOIL (PCI/KG(DRY)) | GAMMA | RU-106 | 10 | 2.29E+02 | < LLD | (0 /10) | (. . - . / .) | 1 2 3 4 5 | |
| | | | | | | | | | 5 |
| SOIL (PCI/KG(DRY)) | GAMMA | CS-137 | 10 | 7.00E+01 | 9.48E+02 (9 /10) (3.20E+01 - 2.90E+03) | (. . - . / .) | (. . - . / .) | 1 2 3 4 5 | |
| | | | | | | | | | 5 |
| PASTURE (PCI/KG(WET)) | GROSS BETA | | 6 | 4.93E+01 | 1.09E+04 (6 /6) (6.40E+03 - 1.80E+04) | (. . - . / .) | (. . - . / .) | 28 29 30 | |
| | | | | | | | | | 29 |
| PASTURE (MG/GM(WET)) | CALCIUM BY AA | | 6 | 6.00E-02 | 1.05E+00 (6 /6) (3.30E-01 - 2.40E+00) | (. . - . / .) | (. . - . / .) | 28 29 30 | |
| | | | | | | | | | 28 |
| PASTURE (PCI/KG(WET)) | GAMMA | CE-144 | 6 | 2.13E+02 | < LLD | (0 /6) | (. . - . / .) | 28 29 30 | |
| | | | | | | | | | 30 |

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| SAMPLE TYPE | ANALYSIS | ISOTOPE | NUMBER OF ANALYSES PERFORMED | LLD | INDICATOR-MEAN(N/TOTAL) RANGE | | BACKGROUND-MEAN(N/TOTAL) RANGE | | STATIONS USED FOR INDICATOR MEAN |
|--------------------------|----------|---------|------------------------------|----------|-------------------------------|-----------------------------|--------------------------------|-----------------------------|----------------------------------|
| | | | | | STATION | STATION-MEAN(N/TOTAL) RANGE | STATION | STATION-MEAN(N/TOTAL) RANGE | |
| PASTURE (PCI/KG(WET)) | GAMMA | CS-134 | 6 | 3.00E+01 | < LLD | (0 /6) | (. . - . / .) | 28 29 30 | |
| | | | | | | | | | 30 |
| PASTURE (PCI/KG(WET)) | GAMMA | CO-58 | 6 | 3.17E+01 | < LLD | (0 /6) | (. . - . / .) | 28 29 30 | |
| | | | | | | | | | 30 |
| PASTURE (PCI/KG(WET)) | GAMMA | MN-54 | 6 | 3.00E+01 | < LLD | (0 /6) | (. . - . / .) | 28 29 30 | |
| | | | | | | | | | 30 |
| PASTURE (PCI/KG(WET)) | GAMMA | FE-59 | 6 | 7.33E+01 | < LLD | (0 /6) | (. . - . / .) | 28 29 30 | |
| | | | | | | | | | 30 |
| PASTURE (PCI/KG(WET)) | GAMMA | ZN-65 | 6 | 6.17E+01 | < LLD | (0 /6) | (. . - . / .) | 28 29 30 | |
| | | | | | | | | | 30 |
| PASTURE (PCI/KG(WET)) | GAMMA | CO-60 | 6 | 3.00E+01 | < LLD | (0 /6) | (. . - . / .) | 28 29 30 | |
| | | | | | | | | | 30 |

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| SAMPLE TYPE | ANALYSIS | ISOTOPE | NUMBER OF ANALYSES PERFORMED | LLD | INDICATOR-MEAN(N/TOTAL) RANGE | | BACKGROUND-MEAN(N/TOTAL) RANGE | | STATIONS USED FOR INDICATOR MEAN |
|--------------------------|----------|---------|---------------------------------------|----------|--|---|--------------------------------------|--------------------------------|-------------------------------------|
| | | | | | STATION | STATION-MEAN(N/TOTAL) RANGE | STATION | STATION-MEAN(N/TOTAL) RANGE | |
| PASTURE (PCI/KG(WET)) | GAMMA | K-40 | 6 | 1.11E+03 | 4.87E+03 (6 /6) (2.60E+03 - 8.40E+03) | | . . . (. / .) (. . . - . . .) | | 28 29 30 |
| | | | | | 29 | 5.55E+03(2 /2) (2.70E+03 - 8.40E+03) | | | |
| PASTURE (PCI/KG(WET)) | GAMMA | BE-7 | 6 | 4.87E+02 | 1.81E+03 (4 /6) (6.80E+02 - 3.50E+03) | | . . . (. / .) (. . . - . . .) | | 28 29 30 |
| | | | | | 28 | 2.30E+03(1 /2) (2.30E+03 - 2.30E+03) | | | |
| PASTURE (PCI/KG(WET)) | GAMMA | ZR-95 | 6 | 6.67E+01 | < LLD (0 /6) | | . . . (. / .) (. . . - . . .) | | 28 29 30 |
| | | | | | 30 | < LLD (0 /2) | | | |
| PASTURE (PCI/KG(WET)) | GAMMA | NB-95 | 6 | 3.67E+01 | < LLD (0 /6) | | . . . (. / .) (. . . - . . .) | | 28 29 30 |
| | | | | | 30 | < LLD (0 /2) | | | |
| PASTURE (PCI/KG(WET)) | GAMMA | CE-141 | 6 | 7.00E+01 | < LLD (0 /6) | | . . . (. / .) (. . . - . . .) | | 28 29 30 |
| | | | | | 30 | < LLD (0 /2) | | | |
| PASTURE (PCI/KG(WET)) | GAMMA | RU-103 | 6 | 4.67E+01 | < LLD (0 /6) | | . . . (. / .) (. . . - . . .) | | 28 29 30 |
| | | | | | 30 | < LLD (0 /2) | | | |

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| SAMPLE TYPE | ANALYSIS | ISOTOPE | NUMBER OF ANALYSES PERFORMED | LLD | INDICATOR-MEAN(N/TOTAL) RANGE | | BACKGROUND-MEAN(N/TOTAL) RANGE | | STATIONS USED FOR INDICATOR MEAN |
|--------------------------|----------|---------|---------------------------------------|----------|----------------------------------|--------------------------------|-----------------------------------|--------------------------------|-------------------------------------|
| | | | | | STATION | STATION-MEAN(N/TOTAL) RANGE | STATION | STATION-MEAN(N/TOTAL) RANGE | |
| PASTURE (PCI/KG(WET)) | GAMMA | BA-140 | 6 | 3.17E+02 | < LLD | (0 / 6) | | (. . - . / .) | 28 29 30 |
| | | | | | | | 30 | < LLD (0 / 2) | |
| PASTURE (PCI/KG(WET)) | GAMMA | LA-140 | 6 | 1.17E+02 | < LLD | (0 / 6) | | (. . - . / .) | 28 29 30 |
| | | | | | | | 30 | < LLD (0 / 2) | |
| PASTURE (PCI/KG(WET)) | GAMMA | RA-226 | 6 | 6.00E+02 | < LLD | (0 / 6) | | (. . - . / .) | 28 29 30 |
| | | | | | | | 30 | < LLD (0 / 2) | |
| PASTURE (PCI/KG(WET)) | GAMMA | TH-228 | 6 | 5.50E+01 | < LLD | (0 / 6) | | (. . - . / .) | 28 29 30 |
| | | | | | | | 30 | < LLD (0 / 2) | |
| PASTURE (PCI/KG(WET)) | GAMMA | I-131 | 6 | 2.67E+02 | < LLD | (0 / 6) | | (. . - . / .) | 28 29 30 |
| | | | | | | | 30 | < LLD (0 / 2) | |
| PASTURE (PCI/KG(WET)) | GAMMA | RU-106 | 6 | 3.00E+02 | < LLD | (0 / 6) | | (. . - . / .) | 28 29 30 |
| | | | | | | | 30 | < LLD (0 / 2) | |

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|---------------------------|--------------|---------|---------------------------------------|----------|-------------------------|---|-------------------------------------|--|
| | | | | | RANGE | RANGE | | |
| | | | | | STATION | STATION-MEAN(N/TOTAL) RANGE | | |
| PASTURE (PCI/KG(WET)) | GAMMA | CS-137 | 6 | 7.98E+01 | 3.11E+02 (5 / 6) | (. / .) | 28 29 30 | |
| | | | | | (4.60E+01 - 7.40E+02) | (. - .) | | |
| | | | | | 28 | 5.10E+02(2 / 2) (2.80E+02 - 7.40E+02) | | |
| PASTURE (PCI/KG(WET)) | STRONTIUM-89 | | 6 | 3.83E+01 | < LLD (0 / 6) | (. / .) | 28 29 30 | |
| | | | | | (. - .) | (. - .) | | |
| | | | | | 30 | < LLD (0 / 2) | | |
| PASTURE (PCI/KG(WET)) | STRONTIUM-90 | | 6 | 1.19E+02 | 3.40E+02 (6 / 6) | (. / .) | 28 29 30 | |
| | | | | | (1.90E+01 - 7.00E+02) | (. - .) | | |
| | | | | | 30 | 4.55E+02(2 / 2) (2.10E+02 - 7.00E+02) | | |
| SEDIMENT (PCI/KG(DRY)) | GROSS ALPHA | | 16 | 4.19E+03 | 6.79E+03 (7 / 14) | 5.60E+03(1 / 2) | 23 24 25 26 27 | |
| | | | | | (3.60E+03 - 9.50E+03) | (5.60E+03 - 5.60E+03) | | |
| | | | | | 33 | 9.50E+03(1 / 2) (9.50E+03 - 9.50E+03) | 32 33 | |
| SEDIMENT (PCI/KG(DRY)) | GROSS BETA | | 16 | 1.99E+03 | 1.66E+04 (13 / 14) | 2.50E+04(2 / 2) | 23 24 25 26 27 | |
| | | | | | (4.10E+03 - 3.20E+04) | (1.10E+04 - 3.90E+04) | | |
| | | | | | 33 | 3.10E+04(2 / 2) (3.00E+04 - 3.20E+04) | 32 33 | |
| SEDIMENT (PCI/KG(DRY)) | GAMMA | CE-144 | 40 | 1.99E+02 | < LLD (0 / 34) | < LLD (0 / 6) | 23 24 25 26 27 | |
| | | | | | (. - .) | (. - .) | | |
| | | | | | 33 | < LLD (0 / 6) | 32 33 | |

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|---------------------------|----------|---------|------------------------------|----------|--|--------------------------------|---|--|----------------------------------|----|----|----|----|
| | | | | | STATION | STATION-MEAN(N/TOTAL) RANGE | | | | | | | |
| SEDIMENT (PCI/KG(DRY)) | GAMMA | K-40 | 40 | 8.74E+02 | 6.04E+03 (33 /34) (1.20E+01 - 1.70E+04) | | 1.05E+04(6 /6) (4.70E+03 - 1.40E+04) | | 23 | 24 | 25 | 26 | 27 |
| | | | | | 32 | 33 | | | | | | | |
| SEDIMENT (PCI/KG(DRY)) | GAMMA | BE-7 | 40 | 3.14E+02 | 3.04E+02 (5 /34) (2.20E+02 - 3.90E+02) | | < LLD (0 /6) | | 23 | 24 | 25 | 26 | 27 |
| | | | | | 32 | 33 | | | | | | | |
| SEDIMENT (PCI/KG(DRY)) | GAMMA | ZR-95 | 40 | 7.32E+01 | < LLD (0 /34) | | < LLD (0 /6) | | 23 | 24 | 25 | 26 | 27 |
| | | | | | 32 | 33 | | | | | | | |
| SEDIMENT (PCI/KG(DRY)) | GAMMA | NB-95 | 40 | 3.82E+01 | < LLD (0 /34) | | < LLD (0 /6) | | 23 | 24 | 25 | 26 | 27 |
| | | | | | 32 | 33 | | | | | | | |
| SEDIMENT (PCI/KG(DRY)) | GAMMA | CE-141 | 40 | 7.96E+01 | < LLD (0 /34) | | < LLD (0 /6) | | 23 | 24 | 25 | 26 | 27 |
| | | | | | 32 | 33 | | | | | | | |
| SEDIMENT (PCI/KG(DRY)) | GAMMA | RU-103 | 40 | 4.21E+01 | < LLD (0 /34) | | < LLD (0 /6) | | 23 | 24 | 25 | 26 | 27 |
| | | | | | 32 | 33 | | | | | | | |
| | | | | | | | | | | | | | |
| | | | | | | | | | | | | | |

TABLE 14
 RADIOLOGICAL ENVIRONMENTAL MONITORING PROGRAM SUMMARY
 OYSTER CREEK NUCLEAR GENERATING STATION
 JUNE, 1983 THROUGH NOVEMBER, 1983
 SEMI-ANNUAL SUMMARY

| SAMPLE TYPE | ANALYSIS | ISOTOPE | NUMBER OF ANALYSES PERFORMED | LLD | INDICATOR-MEAN(N/TOTAL) RANGE | | BACKGROUND-MEAN(N/TOTAL) RANGE | | STATIONS USED FOR INDICATOR MEAN | | | | |
|---------------------------|----------|---------|---------------------------------------|----------|--|---|---|----------|-------------------------------------|----------|----|----|----|
| | | | | | STATION | STATION-MEAN(N/TOTAL) RANGE | | | | | | | |
| SEDIMENT (PCI/KG(DRY)) | GAMMA | BA-140 | 40 | 3.48E+02 | < LLD | (0 /34) | < LLD | (0 /6) | 23 32 | 24 33 | 25 | 26 | 27 |
| | | | | | | | | | | | | | |
| SEDIMENT (PCI/KG(DRY)) | GAMMA | LA-140 | 40 | 1.44E+02 | < LLD | (0 /34) | < LLD | (0 /6) | 23 32 | 24 33 | 25 | 26 | 27 |
| | | | | | | | | | | | | | |
| SEDIMENT (PCI/KG(DRY)) | GAMMA | RA-226 | 40 | 5.01E+02 | 1.05E+03 (23 /34) (6.70E+01 - 2.60E+03) | 1.32E+03(4 /6) (1.00E+03 - 1.50E+03) | 2.60E+03(1 /2) (2.60E+03 - 2.60E+03) | 23 32 | 24 33 | 25 | 26 | 27 | |
| | | | | | | | | | | | | | 26 |
| SEDIMENT (PCI/KG(DRY)) | GAMMA | TH-228 | 40 | 5.84E+01 | 4.85E+02 (34 /34) (6.70E+01 - 1.30E+03) | 5.72E+02(6 /6) (3.20E+02 - 7.70E+02) | 8.28E+02(6 /6) (6.80E+02 - 9.80E+02) | 23 32 | 24 33 | 25 | 26 | 27 | |
| | | | | | | | | | | | | | 33 |
| SEDIMENT (PCI/KG(DRY)) | GAMMA | I-131 | 40 | 4.46E+02 | < LLD | (0 /34) | < LLD | (0 /6) | 23 32 | 24 33 | 25 | 26 | 27 |
| | | | | | | | | | | | | | |
| SEDIMENT (PCI/KG(DRY)) | GAMMA | RU-106 | 40 | 2.43E+02 | < LLD | (0 /34) | < LLD | (0 /6) | 23 32 | 24 33 | 25 | 26 | 27 |
| | | | | | | | | | | | | | |

TABLE 14
 RADIOLOGICAL ENVIRONMENTAL MONITORING PROGRAM SUMMARY
 OYSTER CREEK NUCLEAR GENERATING STATION
 JUNE, 1983 THROUGH NOVEMBER, 1983
 SEMI-ANNUAL SUMMARY

| SAMPLE TYPE | ANALYSIS | ISOTOPE NUMBER OF ANALYSES PERFORMED | LLD | INDICATOR-MEAN(N/TOTAL) RANGE | | BACKGROUND-MEAN(N/TOTAL) RANGE | | STATIONS USED FOR INDICATOR MEAN | | | | | | |
|---------------------------|--------------|---|----------|----------------------------------|--------------------------------|-----------------------------------|----------|-------------------------------------|------------------------|----|----|----|--|--|
| | | | | STATION | STATION-MEAN(N/TOTAL) RANGE | STATION-MEAN(N/TOTAL) RANGE | | | | | | | | |
| SEDIMENT (PCI/KG(DRY)) | GAMMA | CS-137 | 40 | 3.74E+01 | 2.19E+02 (21 /34) | 9.10E+01(1 /6) | | 23 | 24 | 25 | 26 | 27 | | |
| | | | | | (2.70E+01 - 5.60E+02) | (9.10E+01 - 9.10E+01) | 32 | 33 | | | | | | |
| | | | | | | | | 27 | 4.35E+02(2 /2) | | | | | |
| | | | | | | | | | (3.10E+02 - 5.60E+02) | | | | | |
| SEDIMENT (PCI/KG(DRY)) | STRONTIUM-89 | 16 | 5.76E+01 | < LLD | (0 /14) | < LLD | (0 /2) | 23 | 24 | 25 | 26 | 27 | | |
| | | | | | | | | 32 | 33 | | | | | |
| | | | | | | | | 33 | < LLD (0, /2) | | | | | |
| SEDIMENT (PCI/KG(DRY)) | STRONTIUM-90 | 16 | 2.76E+01 | 1.17E+01 (4 /14) | (6.00E+00 - 2.00E+01) | < LLD | (0 /2) | 23 | 24 | 25 | 26 | 27 | | |
| | | | | | | | | 32 | 33 | | | | | |
| | | | | | | | | 32 | 2.00E+01(1 /2) | | | | | |
| | | | | | | | | | (2.00E+01 - 2.00E+01) | | | | | |

TABLE 15
 RADIOLOGICAL ENVIRONMENTAL MONITORING PROGRAM SUMMARY
 OYSTER CREEK NUCLEAR GENERATING STATION
 JUNE, 1983 THROUGH AUGUST, 1983
 FIRST QUARTER SUMMARY

| SAMPLE TYPE | ANALYSIS | ISOTOPE | NUMBER OF ANALYSES PERFORMED | LLD | INDICATOR-MEAN(N/TOTAL) RANGE | BACKGROUND-MEAN(N/TOTAL) RANGE | STATIONS USED FOR INDICATOR MEAN |
|------------------------------|-------------|---------|------------------------------|----------|--|---|----------------------------------|
| VEGETATION (PCI/KG(WET)) | GROSS BETA | | 15 | 3.61E+02 | 1.11E+04 (15 /15) (4.20E+03 - 2.70E+04) | (. / .) | 1 2 3 4 5 |
| AIR PARTICULATE (PCI/M3) | GROSS ALPHA | | 56 | 8.10E-04 | 2.21E-03 (24 /35) (1.10E-03 - 7.10E-03) | 1.75E-03(17 /21) (7.70E-04 - 3.50E-03) | 1 2 3 4 5 |
| AIR PARTICULATE (PCI/M3) | GROSS BETA | | 56 | 2.94E-03 | 1.55E-02 (30 /35) (2.40E-03 - 3.10E-02) | 1.47E-02(21 /21) (9.40E-03 - 1.90E-02) | 1 2 3 4 5 |
| AIR PARTICULATE (PCI/M3) | GAMMA | CE-144 | 56 | 5.39E+00 | < LLD (0 /35) | < LLD (0 /21) | 1 2 3 4 5 |
| AIR PARTICULATE (PCI/M3) | GAMMA | CS-134 | 56 | 6.66E-03 | < LLD (0 /35) | < LLD (0 /21) | 1 2 3 4 5 |
| AIR PARTICULATE (PCI/M3) | GAMMA | CO-58 | 56 | 7.00E-03 | < LLD (0 /35) | < LLD (0 /21) | 1 2 3 4 5 |
| AIR PARTICULATE (PCI/M3) | GAMMA | MN-54 | 56 | 5.98E-03 | < LLD (0 /35) | < LLD (0 /21) | 1 2 3 4 5 |
| AIR PARTICULATE (PCI/M3) | GAMMA | FE-59 | 56 | 1.69E-02 | < LLD (0 /35) | < LLD (0 /21) | 1 2 3 4 5 |
| AIR PARTICULATE (PCI/M3) | GAMMA | ZN-65 | 56 | 1.47E-02 | < LLD (0 /35) | < LLD (0 /21) | 1 2 3 4 5 |
| AIR PARTICULATE (PCI/M3) | GAMMA | CO-60 | 56 | 7.16E-03 | < LLD (0 /35) | < LLD (0 /21) | 1 2 3 4 5 |

TABLE 15
 RADIOLOGICAL ENVIRONMENTAL MONITORING PROGRAM SUMMARY
 OYSTER CREEK NUCLEAR GENERATING STATION
 JUNE, 1983 THROUGH AUGUST, 1983
 FIRST QUARTER SUMMARY

| SAMPLE TYPE | ANALYSIS | ISOTOPE | NUMBER OF ANALYSES PERFORMED | LLD | INDICATOR-MEAN(N/TOTAL) RANGE | BACKGROUND-MEAN(N/TOTAL) RANGE | STATIONS USED FOR INDICATOR MEAN |
|--------------------------|----------|---------|------------------------------|----------|--|---|----------------------------------|
| AIR PARTICULATE (PCI/M3) | GAMMA | K-40 | 56 | 1.52E-01 | 1.55E-01 (2 /35) (8.00E-02 - 2.30E-01) | 1.20E-01(1 /21) (1.20E-01 - 1.20E-01) | 1 2 3 4 5 |
| AIR PARTICULATE (PCI/M3) | GAMMA | BE-7 | 56 | 7.56E-02 | 1.18E-01 (12 /35) (4.90E-02 - 2.10E-01) | 1.06E-01(12 /21) (8.00E-02 - 1.70E-01) | 1 2 3 4 5 |
| AIR PARTICULATE (PCI/M3) | GAMMA | ZR-95 | 56 | 1.57E-02 | < LLD (0 /35) | < LLD (0 /21) | 1 2 3 4 5 |
| AIR PARTICULATE (PCI/M3) | GAMMA | NB-95 | 56 | 7.62E-03 | < LLD (0 /35) | < LLD (0 /21) | 1 2 3 4 5 |
| AIR PARTICULATE (PCI/M3) | GAMMA | CE-141 | 56 | 1.43E+02 | < LLD (0 /35) | < LLD (0 /21) | 1 2 3 4 5 |
| AIR PARTICULATE (PCI/M3) | GAMMA | RU-103 | 56 | 8.05E-03 | < LLD (0 /35) | < LLD (0 /21) | 1 2 3 4 5 |
| AIR PARTICULATE (PCI/M3) | GAMMA | BA-140 | 56 | 4.95E-02 | < LLD (0 /35) | < LLD (0 /21) | 1 2 3 4 5 |
| AIR PARTICULATE (PCI/M3) | GAMMA | LA-140 | 56 | 3.60E+00 | < LLD (0 /35) | < LLD (0 /21) | 1 2 3 4 5 |
| AIR PARTICULATE (PCI/M3) | GAMMA | RA-226 | 56 | 1.44E+01 | < LLD (0 /35) | < LLD (0 /21) | 1 2 3 4 5 |
| AIR PARTICULATE (PCI/M3) | GAMMA | TH-228 | 56 | 1.01E-02 | < LLD (0 /35) | < LLD (0 /21) | 1 2 3 4 5 |

TABLE 15
 RADIOLOGICAL ENVIRONMENTAL MONITORING PROGRAM SUMMARY
 OYSTER CREEK NUCLEAR GENERATING STATION
 JUNE, 1983 THROUGH AUGUST, 1983
 FIRST QUARTER SUMMARY

| SAMPLE TYPE | ANALYSIS | ISOTOPE | NUMBER OF ANALYSES PERFORMED | LLD | INDICATOR-MEAN(N/TOTAL) RANGE | BACKGROUND-MEAN(N/TOTAL) RANGE | STATIONS USED FOR INDICATOR MEAN |
|--------------------------|---------------|---------|------------------------------|----------|--|---|----------------------------------|
| AIR PARTICULATE (PCI/M3) | GAMMA | I-131 | 56 | 4.64E-02 | < LLD (0 /35) | < LLD (0 /21) | 1 2 3 4 5 |
| AIR PARTICULATE (PCI/M3) | GAMMA | RU-106 | 56 | 5.54E-02 | < LLD (0 /35) | < LLD (0 /21) | 1 2 3 4 5 |
| AIR PARTICULATE (PCI/M3) | GAMMA | CS-137 | 56 | 6.79E-03 | < LLD (0 /35) | < LLD (0 /21) | 1 2 3 4 5 |
| AIR PARTICULATE (PCI/M3) | STRONTIUM-89 | | 8 | 1.27E-03 | < LLD (0 /5) | < LLD (0 /3) | 1 2 3 4 5 |
| AIR PARTICULATE (PCI/M3) | STRONTIUM-90 | | 8 | 2.89E-04 | < LLD (0 /5) | < LLD (0 /3) | 1 2 3 4 5 |
| PRECIPITATION (PCI/L) | GROSS BETA-SS | | 24 | 7.04E-01 | 1.07E+00 (9 /15) (7.10E-01 - 2.30E+00) | 9.97E-01(3 /9) (8.90E-01 - 1.10E+00) | 1 2 3 4 5 |
| PRECIPITATION (PCI/L) | GROSS BETA-DS | | 24 | 1.01E+00 | 5.13E+00 (15 /15) (1.90E+00 - 1.20E+01) | 1.16E+01(9 /9) (3.50E+00 - 4.90E+01) | 1 2 3 4 5 |
| PRECIPITATION (PCI/L) | GAMMA | CE-144 | 24 | 3.01E+01 | < LLD (0 /15) | < LLD (0 /9) | 1 2 3 4 5 |
| PRECIPITATION (PCI/L) | GAMMA | CS-134 | 24 | 4.94E+00 | < LLD (0 /15) | < LLD (0 /9) | 1 2 3 4 5 |
| PRECIPITATION (PCI/L) | GAMMA | CO-58 | 24 | 5.11E+00 | < LLD (0 /15) | < LLD (0 /9) | 1 2 3 4 5 |

TABLE 15
 RADIOLOGICAL ENVIRONMENTAL MONITORING PROGRAM SUMMARY
 OYSTER CREEK NUCLEAR GENERATING STATION
 JUNE, 1983 THROUGH AUGUST, 1983
 FIRST QUARTER SUMMARY

| SAMPLE TYPE | ANALYSIS | ISOTOPE | NUMBER OF ANALYSES PERFORMED | LLD | INDICATOR-MEAN(N/TOTAL) RANGE | BACKGROUND-MEAN(N/TOTAL) RANGE | STATIONS USED FOR INDICATOR MEAN |
|-----------------------|----------|---------|------------------------------|----------|---|--------------------------------|----------------------------------|
| PRECIPITATION (PCI/L) | GAMMA | MN-54 | 24 | 4.54E+00 | < LLD (0 /15) | < LLD (0 /9) | 1 2 3 4 5 |
| PRECIPITATION (PCI/L) | GAMMA | FE-59 | 24 | 9.03E+00 | < LLD (0 /15) | < LLD (0 /9) | 1 2 3 4 5 |
| PRECIPITATION (PCI/L) | GAMMA | ZN-65 | 24 | 7.90E+00 | < LLD (0 /15) | < LLD (0 /9) | 1 2 3 4 5 |
| PRECIPITATION (PCI/L) | GAMMA | CO-60 | 24 | 4.69E+00 | < LLD (0 /15) | < LLD (0 /9) | 1 2 3 4 5 |
| PRECIPITATION (PCI/L) | GAMMA | K-40 | 24 | 8.01E+01 | 7.70E+01 (1 /15) (7.70E+01 - 7.70E+01) | < LLD (0 /9) | 1 2 3 4 5 |
| PRECIPITATION (PCI/L) | GAMMA | BE-7 | 24 | 4.39E+01 | 8.10E+01 (1 /15) (8.10E+01 - 8.10E+01) | < LLD (0 /9) | 1 2 3 4 5 |
| PRECIPITATION (PCI/L) | GAMMA | ZR-95 | 24 | 9.07E+00 | < LLD (0 /15) | < LLD (0 /9) | 1 2 3 4 5 |
| PRECIPITATION (PCI/L) | GAMMA | NB-95 | 24 | 5.57E+00 | < LLD (0 /15) | < LLD (0 /9) | 1 2 3 4 5 |
| PRECIPITATION (PCI/L) | GAMMA | CE-141 | 24 | 1.05E+01 | < LLD (0 /15) | < LLD (0 /9) | 1 2 3 4 5 |
| PRECIPITATION (PCI/L) | GAMMA | RU-103 | 24 | 6.50E+00 | < LLD (0 /15) | < LLD (0 /9) | 1 2 3 4 5 |

TABLE 15
 RADIOLOGICAL ENVIRONMENTAL MONITORING PROGRAM SUMMARY
 OYSTER CREEK NUCLEAR GENERATING STATION
 JUNE, 1983 THROUGH AUGUST, 1983
 FIRST QUARTER SUMMARY

| SAMPLE TYPE | ANALYSIS | ISOTOPE NUMBER | LLD | INDICATOR-MEAN(N/TOTAL) RANGE | BACKGROUND-MEAN(N/TOTAL) RANGE | STATIONS USED FOR INDICATOR MEAN |
|--------------------------|--------------|----------------|-----|--|--|-------------------------------------|
| PRECIPITATION (PCI/L) | GAMMA | BA-140 | 24 | 2.76E+01 < LLD (0 /15) | < LLD (0 /9) | 1 2 3 4 5 |
| PRECIPITATION (PCI/L) | GAMMA | LA-140 | 24 | 1.12E+01 < LLD (0 /15) | < LLD (0 /9) | 1 2 3 4 5 |
| PRECIPITATION (PCI/L) | GAMMA | RA-226 | 24 | 7.68E+01 < LLD (0 /15) | < LLD (0 /9) | 1 2 3 4 5 |
| PRECIPITATION (PCI/L) | GAMMA | TH-228 | 24 | 7.18E+00 < LLD (0 /15) | < LLD (0 /9) | 1 2 3 4 5 |
| PRECIPITATION (PCI/L) | GAMMA | I-131 | 24 | 2.51E+01 < LLD (0 /15) | < LLD (0 /9) | 1 2 3 4 5 |
| PRECIPITATION (PCI/L) | GAMMA | RU-106 | 24 | 3.30E+01 < LLD (0 /15) | < LLD (0 /9) | 1 2 3 4 5 |
| PRECIPITATION (PCI/L) | GAMMA | CS-137 | 24 | 5.28E+00 < LLD (0 /15) | < LLD (0 /9) | 1 2 3 4 5 |
| PRECIPITATION (PCI/L) | TRITIUM | | 24 | 1.27E+02 (2.62E+02 (13 /15) (1.70E+02 - 3.60E+02) | 4.22E+02(9 /9) (2.01E+02 - 9.80E+02) | 1 2 3 4 5 |
| PRECIPITATION () | STRONTIUM-89 | | 24 | . < LLD (0 /15) | < LLD (0 /9) | 1 2 3 4 5 |
| PRECIPITATION () | STRONTIUM-90 | | 24 | . < LLD (0 /15) | < LLD (0 /9) | 1 2 3 4 5 |

TABLE 15
 RADIOLOGICAL ENVIRONMENTAL MONITORING PROGRAM SUMMARY
 OYSTER CREEK NUCLEAR GENERATING STATION
 JUNE, 1983 THROUGH AUGUST, 1983
 FIRST QUARTER SUMMARY

| SAMPLE TYPE | ANALYSIS | ISOTOPE NUMBER | NUMBER OF ANALYSES PERFORMED | LLD | INDICATOR-MEAN(N/TOTAL) | | BACKGROUND-MEAN(N/TOTAL) | | STATIONS USED FOR INDICATOR MEAN | | | | |
|---------------------|------------|----------------|------------------------------|----------|-------------------------|------------|---|------------|----------------------------------|---|---|---|---|
| | | | | | RANGE | | RANGE | | 1 | 2 | 3 | 4 | 5 |
| AIR IODINE (PCI/M3) | IODINE-131 | | 56 | 2.36E-02 | < LLD | (0 / 35) | < LLD | (0 / 21) | 1 | 2 | 3 | 4 | 5 |
| CORN (PCI/KG(WET)) | GAMMA | CE-144 | 3 | 6.67E+01 | (. - .) | (. / .) | < LLD | (0 / 3) | | | | | |
| CORN (PCI/KG(WET)) | GAMMA | CS-134 | 3 | 9.00E+00 | (. - .) | (. / .) | < LLD | (0 / 3) | | | | | |
| CORN (PCI/KG(WET)) | GAMMA | CO-58 | 3 | 1.00E+01 | (. - .) | (. / .) | < LLD | (0 / 3) | | | | | |
| CORN (PCI/KG(WET)) | GAMMA | MN-54 | 3 | 8.67E+00 | (. - .) | (. / .) | < LLD | (0 / 3) | | | | | |
| CORN (PCI/KG(WET)) | GAMMA | FE-59 | 3 | 3.00E+01 | (. - .) | (. / .) | < LLD | (0 / 3) | | | | | |
| CORN (PCI/KG(WET)) | GAMMA | ZN-65 | 3 | 2.00E+01 | (. - .) | (. / .) | < LLD | (0 / 3) | | | | | |
| CORN (PCI/KG(WET)) | GAMMA | CO-60 | 3 | 8.33E+00 | (. - .) | (. / .) | < LLD | (0 / 3) | | | | | |
| CORN (PCI/KG(WET)) | GAMMA | K-40 | 3 | 3.00E+02 | (. - .) | (. / .) | 2.60E+03(3 / 3) (2.50E+03 - 2.70E+03) | | | | | | |
| CORN (PCI/KG(WET)) | GAMMA | BE-7 | 3 | 1.00E+02 | (. - .) | (. / .) | < LLD | (0 / 3) | | | | | |

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| SAMPLE TYPE | ANALYSIS | ISOTOPE NUMBER | NUMBER OF ANALYSES PERFORMED | LLD | INDICATOR-MEAN(N/TOTAL) RANGE | BACKGROUND-MEAN(N/TOTAL) RANGE | STATIONS USED FOR INDICATOR MEAN |
|-----------------------|----------|----------------|------------------------------|----------|-------------------------------|--------------------------------|----------------------------------|
| CORN (PCI/KG(WET)) | GAMMA | ZR-95 | 3 | 2.07E+01 | (. . (. / .)) | < LLD (0 / 3) | |
| CORN (PCI/KG(WET)) | GAMMA | NB-95 | 3 | 1.00E+01 | (. . (. / .)) | < LLD (0 / 3) | |
| CORN (PCI/KG(WET)) | GAMMA | CE-141 | 3 | 3.00E+01 | (. . (. / .)) | < LLD (0 / 3) | |
| CORN (PCI/KG(WET)) | GAMMA | RU-103 | 3 | 1.67E+01 | (. . (. / .)) | < LLD (0 / 3) | |
| CORN (PCI/KG(WET)) | GAMMA | BA-140 | 3 | 1.67E+02 | (. . (. / .)) | < LLD (0 / 3) | |
| CORN (PCI/KG(WET)) | GAMMA | LA-140 | 3 | 6.33E+01 | (. . (. / .)) | < LLD (0 / 3) | |
| CORN (PCI/KG(WET)) | GAMMA | RA-226 | 3 | 2.00E+02 | (. . (. / .)) | < LLD (0 / 3) | |
| CORN (PCI/KG(WET)) | GAMMA | TH-228 | 3 | 2.00E+01 | (. . (. / .)) | < LLD (0 / 3) | |
| CORN (PCI/KG(WET)) | GAMMA | I-131 | 3 | 2.67E+02 | (. . (. / .)) | < LLD (0 / 3) | |
| CORN (PCI/KG(WET)) | GAMMA | RU-106 | 3 | 8.00E+01 | (. . (. / .)) | < LLD (0 / 3) | |

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| SAMPLE TYPE | ANALYSIS | ISOTOPE | NUMBER OF ANALYSES PERFORMED | LLD | INDICATOR-MEAN(N/TOTAL) RANGE | BACKGROUND-MEAN(N/TOTAL) RANGE | STATIONS USED FOR INDICATOR MEAN |
|----------------------------|----------|---------|------------------------------|----------|--|--------------------------------|----------------------------------|
| CORN (PCI/KG(WET)) | GAMMA | CS-137 | 3 | 9.33E+00 | (. . .) (. . .) | < LLD (0 / 3) | |
| CUCUMBERS (PCI/KG(WET)) | GAMMA | CE-144 | 2 | 5.00E+01 | < LLD (0 / 2) | (. . .) (. . .) | 1 4 |
| CUCUMBERS (PCI/KG(WET)) | GAMMA | CS-134 | 2 | 6.50E+00 | < LLD (0 / 2) | (. . .) (. . .) | 1 4 |
| CUCUMBERS (PCI/KG(WET)) | GAMMA | CO-58 | 2 | 8.50E+00 | < LLD (0 / 2) | (. . .) (. . .) | 1 4 |
| CUCUMBERS (PCI/KG(WET)) | GAMMA | MN-54 | 2 | 7.00E+00 | < LLD (0 / 2) | (. . .) (. . .) | 1 4 |
| CUCUMBERS (PCI/KG(WET)) | GAMMA | FE-59 | 2 | 2.00E+01 | < LLD (0 / 2) | (. . .) (. . .) | 1 4 |
| CUCUMBERS (PCI/KG(WET)) | GAMMA | ZN-65 | 2 | 1.50E+01 | < LLD (0 / 2) | (. . .) (. . .) | 1 4 |
| CUCUMBERS (PCI/KG(WET)) | GAMMA | CO-60 | 2 | 7.50E+00 | < LLD (0 / 2) | (. . .) (. . .) | 1 4 |
| CUCUMBERS (PCI/KG(WET)) | GAMMA | K-40 | 2 | 2.50E+02 | 1.14E+03 (2 / 2) (9.80E+02 - 1.30E+03) | (. . .) (. . .) | 1 4 |
| CUCUMBERS (PCI/KG(WET)) | GAMMA | BE-7 | 2 | 8.50E+01 | < LLD (0 / 2) | (. . .) (. . .) | 1 4 |

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| SAMPLE TYPE | ANALYSIS | ISOTOPE NUMBER | NUMBER OF ANALYSES PERFORMED | LLD | INDICATOR-MEAN(N/TOTAL) RANGE | BACKGROUND-MEAN(N/TOTAL) RANGE | STATIONS USED FOR INDICATOR MEAN |
|----------------------------|----------|----------------|------------------------------|----------|-------------------------------|--------------------------------|----------------------------------|
| CUCUMBERS (PCI/KG(WET)) | GAMMA | ZR-95 | 2 | 2.00E+01 | < LLD (0 / 2) | (. . - . / .) | 1 4 |
| CUCUMBERS (PCI/KG(WET)) | GAMMA | NB-95 | 2 | 9.50E+00 | < LLD (0 / 2) | (. . - . / .) | 1 4 |
| CUCUMBERS (PCI/KG(WET)) | GAMMA | CE-141 | 2 | 2.00E+01 | < LLD (0 / 2) | (. . - . / .) | 1 4 |
| CUCUMBERS (PCI/KG(WET)) | GAMMA | RU-103 | 2 | 1.00E+01 | < LLD (0 / 2) | (. . - . / .) | 1 4 |
| CUCUMBERS (PCI/KG(WET)) | GAMMA | BA-140 | 2 | 9.00E+01 | < LLD (0 / 2) | (. . - . / .) | 1 4 |
| CUCUMBERS (PCI/KG(WET)) | GAMMA | LA-140 | 2 | 3.50E+01 | < LLD (0 / 2) | (. . - . / .) | 1 4 |
| CUCUMBERS (PCI/KG(WET)) | GAMMA | RA-226 | 2 | 1.00E+02 | < LLD (0 / 2) | (. . - . / .) | 1 4 |
| CUCUMBERS (PCI/KG(WET)) | GAMMA | TH-228 | 2 | 1.00E+01 | < LLD (0 / 2) | (. . - . / .) | 1 4 |
| CUCUMBERS (PCI/KG(WET)) | GAMMA | I-131 | 2 | 9.00E+01 | < LLD (0 / 2) | (. . - . / .) | 1 4 |
| CUCUMBERS (PCI/KG(WET)) | GAMMA | RU-106 | 2 | 6.50E+01 | < LLD (0 / 2) | (. . - . / .) | 1 4 |

TABLE 15
 RADIOLOGICAL ENVIRONMENTAL MONITORING PROGRAM SUMMARY
 OYSTER CREEK NUCLEAR GENERATING STATION
 JUNE, 1983 THROUGH AUGUST, 1983
 FIRST QUARTER SUMMARY

| SAMPLE TYPE | ANALYSIS | ISOTOPE NUMBER | NUMBER OF ANALYSES PERFORMED | LLD | INDICATOR-MEAN(N/TOTAL) RANGE | BACKGROUND-MEAN(N/TOTAL) RANGE | STATIONS USED FOR INDICATOR MEAN |
|----------------------------|----------------|----------------|------------------------------|----------|--|---|----------------------------------|
| CUCUMBERS (PCI/KG(WET)) | GAMMA | CS-137 | 2 | 9.00E+00 | 1.60E+01 (1 /2) (1.60E+01 - 1.60E+01) | (. / .) | 1 4 |
| SURFACE WATER (PCI/L) | GROSS ALPHA-SS | | 24 | 3.55E-01 | 3.68E+00 (6 /21) (3.00E+00 - 4.20E+00) | 4.10E+00(1 /3) (4.10E+00 - 4.10E+00) | 23 24 25 26 27 32 33 |
| SURFACE WATER (PCI/L) | GROSS ALPHA-DS | | 24 | 2.84E+01 | 2.12E+01 (6 /21) (9.70E-01 - 7.80E+01) | < LLD (0 /3) | 23 24 25 26 27 32 33 |
| SURFACE WATER (PCI/L) | GROSS BETA-SS | | 24 | 8.37E-01 | < LLD (0 /21) | < LLD (0 /3) | 23 24 25 26 27 32 33 |
| SURFACE WATER (PCI/L) | GROSS BETA-DS | | 24 | 3.56E+01 | 1.75E+02 (21 /21) (1.50E+00 - 3.70E+02) | 2.73E+02(3 /3) (2.50E+02 - 3.20E+02) | 23 24 25 26 27 32 33 |
| SURFACE WATER (MG/L) | CALCIUM BY AA | | 24 | 1.00E+01 | 4.37E+02 (17 /21) (4.70E+00 - 1.10E+03) | 8.03E+02(3 /3) (5.90E+02 - 1.20E+03) | 23 24 25 26 27 32 33 |
| SURFACE WATER (PCI/L) | GAMMA | CE-144 | 24 | 4.38E+01 | < LLD (0 /21) | < LLD (0 /3) | 23 24 25 26 27 32 33 |
| SURFACE WATER (PCI/L) | GAMMA | CS-134 | 24 | 5.67E+00 | < LLD (0 /21) | < LLD (0 /3) | 23 24 25 26 27 32 33 |
| SURFACE WATER (PCI/L) | GAMMA | CO-58 | 24 | 6.13E+00 | < LLD (0 /21) | < LLD (0 /3) | 23 24 25 26 27 32 33 |
| SURFACE WATER (PCI/L) | GAMMA | MN-54 | 24 | 5.33E+00 | < LLD (0 /21) | < LLD (0 /3) | 23 24 25 26 27 32 33 |

TABLE 15
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 OYSTER CREEK NUCLEAR GENERATING STATION
 JUNE, 1983 THROUGH AUGUST, 1983
 FIRST QUARTER SUMMARY

| SAMPLE TYPE | ANALYSIS | ISOTOPE | NUMBER OF ANALYSES PERFORMED | LLD | INDICATOR-MEAN(N/TOTAL) RANGE | BACKGROUND-MEAN(N/TOTAL) RANGE | STATIONS USED FOR INDICATOR MEAN |
|-----------------------|----------|---------|------------------------------|----------|---|---|----------------------------------|
| SURFACE WATER (PCI/L) | GAMMA | FE-59 | 24 | 1.40E+01 | < LLD (0 /21) | < LLD (0 /3) | 23 24 25 26 27 32 33 |
| SURFACE WATER (PCI/L) | GAMMA | ZN-65 | 24 | 1.07E+01 | < LLD (0 /21) | < LLD (0 /3) | 23 24 25 26 27 32 33 |
| SURFACE WATER (PCI/L) | GAMMA | CO-60 | 24 | 5.29E+00 | < LLD (0 /21) | < LLD (0 /3) | 23 24 25 26 27 32 33 |
| SURFACE WATER (PCI/L) | GAMMA | K-40 | 24 | 1.28E+02 | 1.50E+02 (4 /21) (1.10E+02 - 1.90E+02) | 2.30E+02(2 /3) (1.80E+02 - 2.80E+02) | 23 24 25 26 27 32 33 |
| SURFACE WATER (PCI/L) | GAMMA | BE-7 | 24 | 6.00E+01 | < LLD (0 /21) | < LLD (0 /3) | 23 24 25 26 27 32 33 |
| SURFACE WATER (PCI/L) | GAMMA | ZR-95 | 24 | 1.22E+01 | < LLD (0 /21) | < LLD (0 /3) | 23 24 25 26 27 32 33 |
| SURFACE WATER (PCI/L) | GAMMA | NB-95 | 24 | 7.96E+00 | < LLD (0 /21) | < LLD (0 /3) | 23 24 25 26 27 32 33 |
| SURFACE WATER (PCI/L) | GAMMA | CE-141 | 24 | 1.45E+01 | < LLD (0 /21) | < LLD (0 /3) | 23 24 25 26 27 32 33 |
| SURFACE WATER (PCI/L) | GAMMA | RU-103 | 24 | 7.67E+00 | < LLD (0 /21) | < LLD (0 /3) | 23 24 25 26 27 32 33 |
| SURFACE WATER (PCI/L) | GAMMA | BA-140 | 24 | 5.38E+01 | < LLD (0 /21) | < LLD (0 /3) | 23 24 25 26 27 32 33 |

TABLE 15
 RADIOLOGICAL ENVIRONMENTAL MONITORING PROGRAM SUMMARY
 OYSTER CREEK NUCLEAR GENERATING STATION
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 FIRST QUARTER SUMMARY

| SAMPLE TYPE | ANALYSIS | ISOTOPE NUMBER | NUMBER OF ANALYSES PERFORMED | LLD | INDICATOR-MEAN(N/TOTAL) RANGE | | BACKGROUND-MEAN(N/TOTAL) RANGE | | STATIONS USED FOR INDICATOR MEAN | | | | |
|-----------------------|--------------|----------------|------------------------------|----------|-------------------------------|------------------------|--------------------------------|------------------------|----------------------------------|----|----|----|----|
| | | | | | | | | | | | | | |
| SURFACE WATER (PCI/L) | GAMMA | LA-140 | 24 | 2.15E+01 | < LLD | (0 /21) | < LLD | (0 /3) | 23 | 24 | 25 | 26 | 27 |
| | | | | | | | | | 32 | 33 | | | |
| SURFACE WATER (PCI/L) | GAMMA | RA-226 | 24 | 1.15E+02 | < LLD | (0 /21) | < LLD | (0 /3) | 23 | 24 | 25 | 26 | 27 |
| | | | | | | | | | 32 | 33 | | | |
| SURFACE WATER (PCI/L) | GAMMA | TH-228 | 24 | 9.21E+00 | < LLD | (0 /21) | < LLD | (0 /3) | 23 | 24 | 25 | 26 | 27 |
| | | | | | | | | | 32 | 33 | | | |
| SURFACE WATER (PCI/L) | GAMMA | I-131 | 24 | 6.67E+01 | < LLD | (0 /21) | < LLD | (0 /3) | 23 | 24 | 25 | 26 | 27 |
| | | | | | | | | | 32 | 33 | | | |
| SURFACE WATER (PCI/L) | GAMMA | RU-106 | 24 | 4.92E+01 | < LLD | (0 /21) | < LLD | (0 /3) | 23 | 24 | 25 | 26 | 27 |
| | | | | | | | | | 32 | 33 | | | |
| SURFACE WATER (PCI/L) | GAMMA | CS-137 | 24 | 5.75E+00 | < LLD | (0 /21) | < LLD | (0 /3) | 23 | 24 | 25 | 26 | 27 |
| | | | | | | | | | 32 | 33 | | | |
| SURFACE WATER (PCI/L) | TRITIUM | | 24 | 1.08E+02 | 1.97E+02 (17 /21) | (7.00E+01 - 7.60E+02) | 2.33E+02(3 /3) | (1.10E+02 - 4.70E+02) | 23 | 24 | 25 | 26 | 27 |
| | | | | | | | | | 32 | 33 | | | |
| SURFACE WATER (PCI/L) | RADIUM-226 | | 24 | 1.67E-01 | 4.08E-01 (6 /21) | (2.20E-01 - 7.10E-01) | 2.80E-01(2 /3) | (2.70E-01 - 2.90E-01) | 23 | 24 | 25 | 26 | 27 |
| | | | | | | | | | 32 | 33 | | | |
| SURFACE WATER (PCI/L) | RADIUM-228 | | 24 | 5.08E-01 | 1.30E+00 (5 /21) | (3.00E-01 - 5.00E+00) | 5.50E-01(1 /3) | (5.50E-01 - 5.50E-01) | 23 | 24 | 25 | 26 | 27 |
| | | | | | | | | | 32 | 33 | | | |
| SURFACE WATER (PCI/L) | STRONTIUM-89 | | 24 | 1.88E+00 | < LLD | (0 /21) | < LLD | (0 /3) | 23 | 24 | 25 | 26 | 27 |
| | | | | | | | | | 32 | 33 | | | |

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 OYSTER CREEK NUCLEAR GENERATING STATION
 JUNE, 1983 THROUGH AUGUST, 1983
 FIRST QUARTER SUMMARY

| SAMPLE TYPE | ANALYSIS | ISOTOPE NUMBER | LLD | INDICATOR-MEAN(N/TOTAL) RANGE | BACKGROUND-MEAN(N/TOTAL) RANGE | STATIONS USED FOR INDICATOR MEAN |
|---------------------------|--------------|-----------------------------|----------|--|---|-------------------------------------|
| | | OF ANALYSES PERFORMED | | | | |
| SURFACE WATER (PCI/L) | STRONTIUM-90 | 24 | 6.62E-01 | < LLD (0 /21) | < LLD (0 /3) | 23 24 25 26 27 32 33 |
| SURFACE WATER (PCI/L) | U-234 | 24 | 1.04E+00 | 2.40E+00 (15 /21) (1.60E-01 - 1.40E+01) | 2.13E+01(2 /3) (1.70E+00 - 4.10E+01) | 23 24 25 26 27 32 33 |
| SURFACE WATER (PCI/L) | U-235 | 24 | 9.10E-01 | 1.37E+00 (2 /21) (7.40E-01 - 2.00E+00) | 3.00E+00(1 /3) (3.00E+00 - 3.00E+00) | 23 24 25 26 27 32 33 |
| SURFACE WATER (PCI/L) | U-238 | 24 | 1.17E+00 | 1.25E+01 (10 /21) (3.20E-01 - 1.00E+02) | 1.28E+00(2 /3) (6.70E-01 - 1.90E+00) | 23 24 25 26 27 32 33 |
| TOMATOES (PCI/KG(WET)) | GAMMA | CE-144 | 7 | 7.29E+01 < LLD (0 /4) | < LLD (0 /3) | 1 3 4 5 |
| TOMATOES (PCI/KG(WET)) | GAMMA | CS-134 | 7 | 9.57E+00 < LLD (0 /4) | < LLD (0 /3) | 1 3 4 5 |
| TOMATOES (PCI/KG(WET)) | GAMMA | CO-58 | 7 | 1.04E+01 < LLD (0 /4) | < LLD (0 /3) | 1 3 4 5 |
| TOMATOES (PCI/KG(WET)) | GAMMA | MN-54 | 7 | 9.43E+00 < LLD (0 /4) | < LLD (0 /3) | 1 3 4 5 |
| TOMATOES (PCI/KG(WET)) | GAMMA | FE-59 | 7 | 3.00E+01 < LLD (0 /4) | < LLD (0 /3) | 1 3 4 5 |
| TOMATOES (PCI/KG(WET)) | GAMMA | ZN-65 | 7 | 2.29E+01 < LLD (0 /4) | < LLD (0 /3) | 1 3 4 5 |

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| SAMPLE TYPE | ANALYSIS | ISOTOPE | NUMBER OF ANALYSES PERFORMED | LLD | INDICATOR-MEAN(N/TOTAL) RANGE | BACKGROUND-MEAN(N/TOTAL) RANGE | STATIONS USED FOR INDICATOR MEAN |
|---------------------------|----------|---------|------------------------------|----------|---|--|----------------------------------|
| TOMATOES (PCI/KG(WET)) | GAMMA | CO-60 | 7 | 9.57E+00 | < LLD (0 / 4) | < LLD (0 / 3) | 1 3 4 5 |
| TOMATOES (PCI/KG(WET)) | GAMMA | K-40 | 7 | 3.71E+02 | 2.17E+03 (4 / 4) (1.80E+03 - 2.50E+03) | 2.50E+03(3 / 3) (2.10E+03 - 2.80E+03) | 1 3 4 5 |
| TOMATOES (PCI/KG(WET)) | GAMMA | BE-7 | 7 | 1.06E+02 | < LLD (0 / 4) | < LLD (0 / 3) | 1 3 4 5 |
| TOMATOES (PCI/KG(WET)) | GAMMA | ZR-95 | 7 | 2.71E+01 | < LLD (0 / 4) | < LLD (0 / 3) | 1 3 4 5 |
| TOMATOES (PCI/KG(WET)) | GAMMA | NB-95 | 7 | 1.37E+01 | < LLD (0 / 4) | < LLD (0 / 3) | 1 3 4 5 |
| TOMATOES (PCI/KG(WET)) | GAMMA | CE-141 | 7 | 3.29E+01 | < LLD (0 / 4) | < LLD (0 / 3) | 1 3 4 5 |
| TOMATOES (PCI/KG(WET)) | GAMMA | RU-103 | 7 | 1.57E+01 | < LLD (0 / 4) | < LLD (0 / 3) | 1 3 4 5 |
| TOMATOES (PCI/KG(WET)) | GAMMA | BA-140 | 7 | 1.54E+02 | < LLD (0 / 4) | < LLD (0 / 3) | 1 3 4 5 |
| TOMATOES (PCI/KG(WET)) | GAMMA | LA-140 | 7 | 5.57E+01 | < LLD (0 / 4) | < LLD (0 / 3) | 1 3 4 5 |
| TOMATOES (PCI/KG(WET)) | GAMMA | RA-226 | 7 | 1.86E+02 | < LLD (0 / 4) | < LLD (0 / 3) | 1 3 4 5 |

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| SAMPLE TYPE | ANALYSIS | ISOTOPE NUMBER | NUMBER OF ANALYSES PERFORMED | LLD | INDICATOR-MEAN(N/TOTAL) RANGE | BACKGROUND-MEAN(N/TOTAL) RANGE | STATIONS USED FOR INDICATOR MEAN |
|------------------------|----------|----------------|------------------------------|----------|-------------------------------|--------------------------------|----------------------------------|
| TOMATOES (PCI/KG(WET)) | GAMMA | TH-228 | 7 | 1.71E+01 | < LLD (0 /4) | < LLD (0 /3) | 1 3 4 5 |
| TOMATOES (PCI/KG(WET)) | GAMMA | I-131 | 7 | 2.00E+02 | < LLD (0 /4) | < LLD (0 /3) | 1 3 4 5 |
| TOMATOES (PCI/KG(WET)) | GAMMA | RU-106 | 7 | 8.86E+01 | < LLD (0 /4) | < LLD (0 /3) | 1 3 4 5 |
| TOMATOES (PCI/KG(WET)) | GAMMA | CS-137 | 7 | 9.86E+00 | < LLD (0 /4) | < LLD (0 /3) | 1 3 4 5 |
| BROCCOLI (PCI/KG(WET)) | GAMMA | CE-144 | 2 | 7.50E+01 | < LLD (0 /2) | (. . - . / .) | 3 5 |
| BROCCOLI (PCI/KG(WET)) | GAMMA | CS-134 | 2 | 1.00E+01 | < LLD (0 /2) | (. . - . / .) | 3 5 |
| BROCCOLI (PCI/KG(WET)) | GAMMA | CO-58 | 2 | 1.00E+01 | < LLD (0 /2) | (. . - . / .) | 3 5 |
| BROCCOLI (PCI/KG(WET)) | GAMMA | MN-54 | 2 | 1.00E+01 | < LLD (0 /2) | (. . - . / .) | 3 5 |
| BROCCOLI (PCI/KG(WET)) | GAMMA | FE-59 | 2 | 3.50E+01 | < LLD (0 /2) | (. . - . / .) | 3 5 |
| BROCCOLI (PCI/KG(WET)) | GAMMA | ZN-65 | 2 | 2.50E+01 | < LLD (0 /2) | (. . - . / .) | 3 5 |

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| SAMPLE TYPE | ANALYSIS | ISOTOPE | NUMBER OF ANALYSES PERFORMED | LLD | INDICATOR-MEAN(N/TOTAL) RANGE | BACKGROUND-MEAN(N/TOTAL) RANGE | STATIONS USED FOR INDICATOR MEAN |
|------------------------|----------|---------|------------------------------|----------|---|--------------------------------|----------------------------------|
| BROCCOLI (PCI/KG(WET)) | GAMMA | CO-60 | 2 | 1.00E+01 | < LLD (0 / 2) | (. . - . / .) | 3 5 |
| BROCCOLI (PCI/KG(WET)) | GAMMA | K-40 | 2 | 4.50E+02 | 4.80E+03 (2 / 2) (4.10E+03 - 5.50E+03) | (. . - . / .) | 3 5 |
| BROCCOLI (PCI/KG(WET)) | GAMMA | BE-7 | 2 | 1.50E+02 | < LLD (0 / 2) | (. . - . / .) | 3 5 |
| BROCCOLI (PCI/KG(WET)) | GAMMA | ZR-95 | 2 | 3.00E+01 | < LLD (0 / 2) | (. . - . / .) | 3 5 |
| BROCCOLI (PCI/KG(WET)) | GAMMA | NB-95 | 2 | 1.50E+01 | < LLD (0 / 2) | (. . - . / .) | 3 5 |
| BROCCOLI (PCI/KG(WET)) | GAMMA | CE-141 | 2 | 3.00E+01 | < LLD (0 / 2) | (. . - . / .) | 3 5 |
| BROCCOLI (PCI/KG(WET)) | GAMMA | RU-103 | 2 | 2.00E+01 | < LLD (0 / 2) | (. . - . / .) | 3 5 |
| BROCCOLI (PCI/KG(WET)) | GAMMA | BA-140 | 2 | 2.00E+02 | < LLD (0 / 2) | (. . - . / .) | 3 5 |
| BROCCOLI (PCI/KG(WET)) | GAMMA | LA-140 | 2 | 6.00E+01 | < LLD (0 / 2) | (. . - . / .) | 3 5 |
| BROCCOLI (PCI/KG(WET)) | GAMMA | RA-226 | 2 | 2.00E+02 | < LLD (0 / 2) | (. . - . / .) | 3 5 |

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| SAMPLE TYPE | ANALYSIS | ISOTOPE | NUMBER OF ANALYSES PERFORMED | LLD | INDICATOR-MEAN(N/TOTAL) RANGE | BACKGROUND-MEAN(N/TOTAL) RANGE | STATIONS USED FOR INDICATOR MEAN |
|------------------------|----------------|---------|------------------------------|----------|--|--------------------------------|----------------------------------|
| BROCCOLI (PCI/KG(WET)) | GAMMA | TH-228 | 2 | 2.00E+01 | < LLD (0 / 2) | (. . - . / .) | 3 5 |
| BROCCOLI (PCI/KG(WET)) | GAMMA | I-131 | 2 | 2.00E+02 | < LLD (0 / 2) | (. . - . / .) | 3 5 |
| BROCCOLI (PCI/KG(WET)) | GAMMA | RU-106 | 2 | 9.50E+01 | < LLD (0 / 2) | (. . - . / .) | 3 5 |
| BROCCOLI (PCI/KG(WET)) | GAMMA | CS-137 | 2 | 2.00E+01 | 5.90E+01 (2 / 2) (5.50E+01 - 6.30E+01) | (. . - . / .) | 3 5 |
| WELL WATER (PCI/L) | GROSS ALPHA-SS | | 18 | 4.72E-01 | < LLD (0 / 18) | (. . - . / .) | 1 18 19 20 21 22 |
| WELL WATER (PCI/L) | GROSS ALPHA-DS | | 18 | 7.83E-01 | 1.66E+00 (7 / 18) (8.20E-01 - 2.90E+00) | (. . - . / .) | 1 18 19 20 21 22 |
| WELL WATER (PCI/L) | GROSS BETA-SS | | 18 | 8.31E-01 | 9.40E-01 (1 / 18) (9.40E-01 - 9.40E-01) | (. . - . / .) | 1 18 19 20 21 22 |
| WELL WATER (PCI/L) | GROSS BETA-DS | | 18 | 1.06E+00 | 3.26E+00 (17 / 18) (1.10E-01 - 5.30E+00) | (. . - . / .) | 1 18 19 20 21 22 |
| WELL WATER (PCI/L) | POTASSIUM-40 | | 6 | 2.00E-01 | 1.95E+00 (6 / 6) (9.10E-01 - 2.50E+00) | (. . - . / .) | 1 18 19 20 21 22 |
| WELL WATER (PCI/L) | GAMMA | CE-144 | 6 | 3.67E+01 | < LLD (0 / 6) | (. . - . / .) | 1 18 19 20 21 22 |

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| SAMPLE TYPE | ANALYSIS | ISOTOPE NUMBER | NUMBER OF ANALYSES PERFORMED | LLD | INDICATOR-MEAN(N/TOTAL) RANGE | BACKGROUND-MEAN(N/TOTAL) RANGE | STATIONS USED FOR INDICATOR MEAN |
|--------------------|----------|----------------|------------------------------|----------|---|--------------------------------|----------------------------------|
| WELL WATER (PCI/L) | GAMMA | CS-134 | 6 | 4.50E+00 | < LLD (0 /6) | (. . - . / .) | 1 18 19 20 21 22 |
| WELL WATER (PCI/L) | GAMMA | CO-58 | 6 | 4.67E+00 | < LLD (0 /6) | (. . - . / .) | 1 18 19 20 21 22 |
| WELL WATER (PCI/L) | GAMMA | MN-54 | 6 | 3.83E+00 | < LLD (0 /6) | (. . - . / .) | 1 18 19 20 21 22 |
| WELL WATER (PCI/L) | GAMMA | FE-59 | 6 | 9.50E+00 | < LLD (0 /6) | (. . - . / .) | 1 18 19 20 21 22 |
| WELL WATER (PCI/L) | GAMMA | ZN-65 | 6 | 8.33E+00 | < LLD (0 /6) | (. . - . / .) | 1 18 19 20 21 22 |
| WELL WATER (PCI/L) | GAMMA | CO-60 | 6 | 4.00E+00 | < LLD (0 /6) | (. . - . / .) | 1 18 19 20 21 22 |
| WELL WATER (PCI/L) | GAMMA | K-40 | 6 | 9.50E+01 | 1.10E+02 (1 /6) (1.10E+02 - 1.10E+02) | (. . - . / .) | 1 18 19 20 21 22 |
| WELL WATER (PCI/L) | GAMMA | BE-7 | 6 | 4.83E+01 | < LLD (0 /6) | (. . - . / .) | 1 18 19 20 21 22 |
| WELL WATER (PCI/L) | GAMMA | ZR-95 | 6 | 9.33E+00 | < LLD (0 /6) | (. . - . / .) | 1 18 19 20 21 22 |
| WELL WATER (PCI/L) | GAMMA | NB-95 | 6 | 5.17E+00 | < LLD (0 /6) | (. . - . / .) | 1 18 19 20 21 22 |

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| SAMPLE TYPE | ANALYSIS | ISOTOPE | NUMBER OF ANALYSES PERFORMED | LLD | INDICATOR-MEAN(N/TOTAL) RANGE | BACKGROUND-MEAN(N/TOTAL) RANGE | STATIONS USED FOR INDICATOR MEAN |
|--------------------|----------|---------|------------------------------|----------|--|--------------------------------|----------------------------------|
| WELL WATER (PCI/L) | GAMMA | CE-141 | 6 | 1.32E+01 | < LLD (0 /6) | (. . - . / .) | 1 18 19 20 21 22 |
| WELL WATER (PCI/L) | GAMMA | RU-103 | 6 | 6.50E+00 | < LLD (0 /6) | (. . - . / .) | 1 18 19 20 21 22 |
| WELL WATER (PCI/L) | GAMMA | BA-140 | 6 | 4.83E+01 | < LLD (0 /6) | (. . - . / .) | 1 18 19 20 21 22 |
| WELL WATER (PCI/L) | GAMMA | LA-140 | 6 | 2.00E+01 | < LLD (0 /6) | (. . - . / .) | 1 18 19 20 21 22 |
| WELL WATER (PCI/L) | GAMMA | RA-226 | 6 | 8.33E+01 | < LLD (0 /6) | (. . - . / .) | 1 18 19 20 21 22 |
| WELL WATER (PCI/L) | GAMMA | TH-228 | 6 | 8.50E+00 | < LLD (0 /6) | (. . - . / .) | 1 18 19 20 21 22 |
| WELL WATER (PCI/L) | GAMMA | I-131 | 6 | 5.33E+01 | < LLD (0 /6) | (. . - . / .) | 1 18 19 20 21 22 |
| WELL WATER (PCI/L) | GAMMA | RU-106 | 6 | 3.83E+01 | < LLD (0 /6) | (. . - . / .) | 1 18 19 20 21 22 |
| WELL WATER (PCI/L) | GAMMA | CS-137 | 6 | 4.50E+00 | < LLD (0 /6) | (. . - . / .) | 1 18 19 20 21 22 |
| WELL WATER (PCI/L) | TRITIUM | | 6 | 1.17E+02 | 5.77E+02 (3 /6) (1.00E+02 - 1.20E+03) | (. . - . / .) | 1 18 19 20 21 22 |

TABLE 15
 RADIOLOGICAL ENVIRONMENTAL MONITORING PROGRAM SUMMARY
 OYSTER CREEK NUCLEAR GENERATING STATION
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 FIRST QUARTER SUMMARY

| SAMPLE TYPE | ANALYSIS | ISOTOPE NUMBER OF ANALYSES PERFORMED | LLD | INDICATOR-MEAN(N/TOTAL) RANGE | BACKGROUND-MEAN(N/TOTAL) RANGE | STATIONS USED FOR INDICATOR MEAN | |
|------------------------|---------------|---|----------|--|---|-------------------------------------|----------|
| WELL WATER (PCI/L) | RADIUM-226 | 6 | 1.90E-01 | 4.20E-01 (1 /6) (4.20E-01 - 4.20E-01) | (. . - . / .) | 1 18 19 20 21 22 | |
| WELL WATER (PCI/L) | RADIUM-228 | 6 | 6.98E-01 | < LLD (0 /6) | (. . - . / .) | 1 18 19 20 21 22 | |
| WELL WATER (PCI/L) | U-234 | 6 | 1.54E-01 | 9.89E+00 (6 /6) (3.50E-01 - 5.20E+01) | (. . - . / .) | 1 18 19 20 21 22 | |
| WELL WATER (PCI/L) | U-235 | 6 | 5.90E-01 | 1.63E+00 (6 /6) (5.10E-01 - 5.00E+00) | (. . - . / .) | 1 18 19 20 21 22 | |
| WELL WATER (PCI/L) | U-238 | 6 | 3.38E-01 | 7.73E-01 (6 /6) (2.60E-01 - 3.00E+00) | (. . - . / .) | 1 18 19 20 21 22 | |
| CLAMS (PCI/KG(WET)) | GROSS ALPHA | 12 | 8.67E+02 | 6.70E+01 (1 /9) (6.70E+01 - 6.70E+01) | 4.20E+01(1 /3) (4.20E+01 - 4.20E+01) | 23 24 25 | |
| CLAMS (PCI/KG(WET)) | GROSS BETA | 12 | 3.58E+02 | 1.41E+04 (9 /9) (2.00E+03 - 5.00E+04) | 1.38E+04(3 /3) (2.10E+03 - 3.60E+04) | 23 24 25 | |
| CLAMS (MG/GM(WET)) | CALCIUM BY AA | 4 | 1.00E-01 | 4.90E-01 (3 /3) (3.80E-01 - 6.40E-01) | 3.40E-01(1 /1) (3.40E-01 - 3.40E-01) | 23 24 25 | |
| CLAMS (PCI/KG(WET)) | GAMMA | CE-144 | 4 | 5.75E+01 | < LLD (0 /3) | < LLD (0 /1) | 23 24 25 |
| CLAMS (PCI/KG(WET)) | GAMMA | CS-134 | 4 | 1.00E+01 | < LLD (0 /3) | < LLD (0 /1) | 23 24 25 |

TABLE 15
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|------------------------|----------|---------|------------------------------|----------|---|----------|--|----------|----------------------------------|----|----|
| | | | | | | | | | | | |
| CLAMS (PCI/KG(WET)) | GAMMA | CO-58 | 4 | 1.02E+01 | < LLD | (0 / 3) | < LLD | (0 / 1) | 23 | 24 | 25 |
| CLAMS (PCI/KG(WET)) | GAMMA | MN-54 | 4 | 1.00E+01 | < LLD | (0 / 3) | < LLD | (0 / 1) | 23 | 24 | 25 |
| CLAMS (PCI/KG(WET)) | GAMMA | FE-59 | 4 | 2.50E+01 | < LLD | (0 / 3) | < LLD | (0 / 1) | 23 | 24 | 25 |
| CLAMS (PCI/KG(WET)) | GAMMA | ZN-65 | 4 | 2.00E+01 | < LLD | (0 / 3) | < LLD | (0 / 1) | 23 | 24 | 25 |
| CLAMS (PCI/KG(WET)) | GAMMA | CO-60 | 4 | 1.38E+01 | 4.97E+01 (3 / 3) (1.90E+01 - 1.10E+02) | | < LLD | (0 / 1) | 23 | 24 | 25 |
| CLAMS (PCI/KG(WET)) | GAMMA | K-40 | 4 | 3.25E+02 | 2.39E+03 (3 / 3) (6.80E+02 - 5.40E+03) | | 1.10E+03(1 / 1) (1.10E+03 - 1.10E+03) | | 23 | 24 | 25 |
| CLAMS (PCI/KG(WET)) | GAMMA | BE-7 | 4 | 1.00E+02 | < LLD | (0 / 3) | < LLD | (0 / 1) | 23 | 24 | 25 |
| CLAMS (PCI/KG(WET)) | GAMMA | ZR-95 | 4 | 2.25E+01 | < LLD | (0 / 3) | < LLD | (0 / 1) | 23 | 24 | 25 |
| CLAMS (PCI/KG(WET)) | GAMMA | NB-95 | 4 | 1.05E+01 | < LLD | (0 / 3) | < LLD | (0 / 1) | 23 | 24 | 25 |
| CLAMS (PCI/KG(WET)) | GAMMA | CE-141 | 4 | 2.00E+01 | < LLD | (0 / 3) | < LLD | (0 / 1) | 23 | 24 | 25 |

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|------------------------|--------------|---------|------------------------------|----------|---|--------------------------------|----------------------------------|
| CLAMS (PCI/KG(WET)) | GAMMA | RU-103 | 4 | 1.38E+01 | < LLD (0 / 3) | < LLD (0 / 1) | 23 24 25 |
| CLAMS (PCI/KG(WET)) | GAMMA | BA-140 | 4 | 5.75E+01 | < LLD (0 / 3) | < LLD (0 / 1) | 23 24 25 |
| CLAMS (PCI/KG(WET)) | GAMMA | LA-140 | 4 | 2.50E+01 | < LLD (0 / 3) | < LLD (0 / 1) | 23 24 25 |
| CLAMS (PCI/KG(WET)) | GAMMA | RA-226 | 4 | 1.75E+02 | < LLD (0 / 3) | < LLD (0 / 1) | 23 24 25 |
| CLAMS (PCI/KG(WET)) | GAMMA | TH-228 | 4 | 1.50E+01 | 1.50E+02 (1 / 3) (1.50E+02 - 1.50E+02) | < LLD (0 / 1) | 23 24 25 |
| CLAMS (PCI/KG(WET)) | GAMMA | I-131 | 4 | 4.50E+01 | < LLD (0 / 3) | < LLD (0 / 1) | 23 24 25 |
| CLAMS (PCI/KG(WET)) | GAMMA | RU-106 | 4 | 9.50E+01 | < LLD (0 / 3) | < LLD (0 / 1) | 23 24 25 |
| CLAMS (PCI/KG(WET)) | GAMMA | CS-137 | 4 | 1.02E+01 | < LLD (0 / 3) | < LLD (0 / 1) | 23 24 25 |
| CLAMS (PCI/KG(WET)) | STRONTIUM-89 | | 4 | 4.50E+00 | < LLD (0 / 3) | < LLD (0 / 1) | 23 24 25 |
| CLAMS (PCI/KG(WET)) | STRONTIUM-90 | | 4 | 2.50E+00 | < LLD (0 / 3) | < LLD (0 / 1) | 23 24 25 |

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 FIRST QUARTER SUMMARY

| SAMPLE TYPE | ANALYSIS | ISOTOPE | NUMBER OF ANALYSES PERFORMED | LLD | INDICATOR-MEAN(N/TOTAL) RANGE | BACKGROUND-MEAN(N/TOTAL) RANGE | STATIONS USED FOR INDICATOR MEAN |
|--------------------|------------|---------|------------------------------|----------|--|--------------------------------|----------------------------------|
| SOIL (PCI/KG(DRY)) | GROSS BETA | | 15 | 1.63E+03 | 6.02E+03 (15 /15) (1.20E+03 - 1.20E+04) | (. . - . / .) | 1 2 3 4 5 |
| SOIL (PCI/KG(DRY)) | GAMMA | CE-144 | 5 | 2.00E+02 | < LLD (0 /5) | (. . - . / .) | 1 2 3 4 5 |
| SOIL (PCI/KG(DRY)) | GAMMA | CS-134 | 5 | 3.40E+01 | < LLD (0 /5) | (. . - . / .) | 1 2 3 4 5 |
| SOIL (PCI/KG(DRY)) | GAMMA | CO-58 | 5 | 4.20E+01 | < LLD (0 /5) | (. . - . / .) | 1 2 3 4 5 |
| SOIL (PCI/KG(DRY)) | GAMMA | MN-54 | 5 | 3.40E+01 | < LLD (0 /5) | (. . - . / .) | 1 2 3 4 5 |
| SOIL (PCI/KG(DRY)) | GAMMA | FE-59 | 5 | 1.08E+02 | < LLD (0 /5) | (. . - . / .) | 1 2 3 4 5 |
| SOIL (PCI/KG(DRY)) | GAMMA | ZN-65 | 5 | 7.40E+01 | < LLD (0 /5) | (. . - . / .) | 1 2 3 4 5 |
| SOIL (PCI/KG(DRY)) | GAMMA | CO-60 | 5 | 3.40E+01 | < LLD (0 /5) | (. . - . / .) | 1 2 3 4 5 |
| SOIL (PCI/KG(DRY)) | GAMMA | K-40 | 5 | 8.00E+02 | 2.13E+03 (3 /5) (1.30E+03 - 3.40E+03) | (. . - . / .) | 1 2 3 4 5 |
| SOIL (PCI/KG(DRY)) | GAMMA | BE-7 | 5 | 4.40E+02 | < LLD (0 /5) | (. . - . / .) | 1 2 3 4 5 |

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 FIRST QUARTER SUMMARY

| SAMPLE TYPE | ANALYSIS | ISOTOPE | NUMBER OF ANALYSES PERFORMED | LLD | INDICATOR-MEAN(N/TOTAL) RANGE | BACKGROUND-MEAN(N/TOTAL) RANGE | STATIONS USED FOR INDICATOR MEAN |
|--------------------|----------|---------|------------------------------|----------|--|--------------------------------|----------------------------------|
| SOIL (PCI/KG(DRY)) | GAMMA | ZR-95 | 5 | 6.82E+01 | < LLD (0 / 5) | (. . - . / .) | 1 2 3 4 5 |
| SOIL (PCI/KG(DRY)) | GAMMA | NB-95 | 5 | 4.80E+01 | < LLD (0 / 5) | (. . - . / .) | 1 2 3 4 5 |
| SOIL (PCI/KG(DRY)) | GAMMA | CE-141 | 5 | 8.60E+01 | < LLD (0 / 5) | (. . - . / .) | 1 2 3 4 5 |
| SOIL (PCI/KG(DRY)) | GAMMA | RU-103 | 5 | 5.80E+01 | < LLD (0 / 5) | (. . - . / .) | 1 2 3 4 5 |
| SOIL (PCI/KG(DRY)) | GAMMA | BA-140 | 5 | 6.00E+02 | < LLD (0 / 5) | (. . - . / .) | 1 2 3 4 5 |
| SOIL (PCI/KG(DRY)) | GAMMA | LA-140 | 5 | 2.60E+02 | < LLD (0 / 5) | (. . - . / .) | 1 2 3 4 5 |
| SOIL (PCI/KG(DRY)) | GAMMA | RA-226 | 5 | 4.80E+02 | 6.30E+02 (1 / 5) (6.30E+02 - 6.30E+02) | (. . - . / .) | 1 2 3 4 5 |
| SOIL (PCI/KG(DRY)) | GAMMA | TH-228 | 5 | 6.40E+01 | 3.77E+02 (3 / 5) (1.80E+02 - 5.00E+02) | (. . - . / .) | 1 2 3 4 5 |
| SOIL (PCI/KG(DRY)) | GAMMA | I-131 | 5 | 9.60E+02 | < LLD (0 / 5) | (. . - . / .) | 1 2 3 4 5 |
| SOIL (PCI/KG(DRY)) | GAMMA | RU-106 | 5 | 3.00E+02 | < LLD (0 / 5) | (. . - . / .) | 1 2 3 4 5 |

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|--------------------------|---------------|---------|------------------------------|----------|--|--------------------------------|----------------------------------|
| SOIL (PCI/KG(DRY)) | GAMMA | CS-137 | 5 | 8.00E+01 | 9.11E+02 (4 /5) (6.40E+01 - 2.90E+03) | (. . - . / .) | 1 2 3 4 5 |
| PASTURE (PCI/KG(WET)) | GROSS BETA | | 3 | 4.33E+01 | 1.23E+04 (3 /3) (8.80E+03 - 1.80E+04) | (. . - . / .) | 28 29 30 |
| PASTURE (MG/GM(WET)) | CALCIUM BY AA | | 3 | 1.00E-01 | 4.73E-01 (3 /3) (3.30E-01 - 6.10E-01) | (. . - . / .) | 28 29 30 |
| PASTURE (PCI/KG(WET)) | GAMMA | CE-144 | 3 | 3.00E+02 | < LLD (0 /3) | (. . - . / .) | 28 29 30 |
| PASTURE (PCI/KG(WET)) | GAMMA | CS-134 | 3 | 4.00E+01 | < LLD (0 /3) | (. . - . / .) | 28 29 30 |
| PASTURE (PCI/KG(WET)) | GAMMA | CO-58 | 3 | 4.33E+01 | < LLD (0 /3) | (. . - . / .) | 28 29 30 |
| PASTURE (PCI/KG(WET)) | GAMMA | MN-54 | 3 | 4.00E+01 | < LLD (0 /3) | (. . - . / .) | 28 29 30 |
| PASTURE (PCI/KG(WET)) | GAMMA | FE-59 | 3 | 9.67E+01 | < LLD (0 /3) | (. . - . / .) | 28 29 30 |
| PASTURE (PCI/KG(WET)) | GAMMA | ZN-65 | 3 | 8.00E+01 | < LLD (0 /3) | (. . - . / .) | 28 29 30 |
| PASTURE (PCI/KG(WET)) | GAMMA | CO-60 | 3 | 4.00E+01 | < LLD (0 /3) | (. . - . / .) | 28 29 30 |

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| SAMPLE TYPE | ANALYSIS | ISOTOPE | NUMBER OF ANALYSES PERFORMED | LLD | INDICATOR-MEAN(N/TOTAL) RANGE | BACKGROUND-MEAN(N/TOTAL) RANGE | STATIONS USED FOR INDICATOR MEAN |
|-----------------------|----------|---------|------------------------------|----------|--|--------------------------------|----------------------------------|
| PASTURE (PCI/KG(WET)) | GAMMA | K-40 | 3 | 1.67E+03 | 6.50E+03 (3 /3) (4.50E+03 - 8.40E+03) | (. . - . / .) | 28 29 30 |
| PASTURE (PCI/KG(WET)) | GAMMA | BE-7 | 3 | 5.67E+02 | 6.80E+02 (1 /3) (6.80E+02 - 6.80E+02) | (. . - . / .) | 28 29 30 |
| PASTURE (PCI/KG(WET)) | GAMMA | ZR-95 | 3 | 9.00E+01 | < LLD (0 /3) | (. . - . / .) | 28 29 30 |
| PASTURE (PCI/KG(WET)) | GAMMA | NB-95 | 3 | 5.00E+01 | < LLD (0 /3) | (. . - . / .) | 28 29 30 |
| PASTURE (PCI/KG(WET)) | GAMMA | CE-141 | 3 | 9.33E+01 | < LLD (0 /3) | (. . - . / .) | 28 29 30 |
| PASTURE (PCI/KG(WET)) | GAMMA | RU-103 | 3 | 6.33E+01 | < LLD (0 /3) | (. . - . / .) | 28 29 30 |
| PASTURE (PCI/KG(WET)) | GAMMA | BA-140 | 3 | 4.33E+02 | < LLD (0 /3) | (. . - . / .) | 28 29 30 |
| PASTURE (PCI/KG(WET)) | GAMMA | LA-140 | 3 | 1.67E+02 | < LLD (0 /3) | (. . - . / .) | 28 29 30 |
| PASTURE (PCI/KG(WET)) | GAMMA | RA-226 | 3 | 8.00E+02 | < LLD (0 /3) | (. . - . / .) | 28 29 30 |
| PASTURE (PCI/KG(WET)) | GAMMA | TH-228 | 3 | 7.33E+01 | < LLD (0 /3) | (. . - . / .) | 28 29 30 |

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|------------------------|--------------|---------|------------------------------|----------|--|---|----------------------------------|
| PASTURE (PCI/KG(WET)) | GAMMA | I-131 | 3 | 4.00E+02 | < LLD (0 / 3) | (. . - . .) | 28 29 30 |
| PASTURE (PCI/KG(WET)) | GAMMA | RU-106 | 3 | 4.00E+02 | < LLD (0 / 3) | (. . - . .) | 28 29 30 |
| PASTURE (PCI/KG(WET)) | GAMMA | CS-137 | 3 | 1.10E+02 | 2.35E+02 (2 / 3) (1.90E+02 - 2.80E+02) | (. . - . .) | 28 29 30 |
| PASTURE (PCI/KG(WET)) | STRONTIUM-89 | | 3 | 2.67E+01 | < LLD (0 / 3) | (. . - . .) | 28 29 30 |
| PASTURE (PCI/KG(WET)) | STRONTIUM-90 | | 3 ^o | 2.67E+00 | 1.53E+02 (3 / 3) (1.90E+01 - 2.30E+02) | (. . - . .) | 28 29 30 |
| SEDIMENT (PCI/KG(DRY)) | GROSS ALPHA | | 8 | 4.00E+03 | 7.14E+03 (5 / 7) (3.60E+03 - 9.50E+03) | < LLD (0 / 1) | 23 24 25 26 27 32 33 |
| SEDIMENT (PCI/KG(DRY)) | GROSS BETA | | 8 | 2.00E+03 | 1.53E+04 (6 / 7) (4.80E+03 - 3.20E+04) | 1.10E+04(1 / 1) (1.10E+04 - 1.10E+04) | 23 24 25 26 27 32 33 |
| SEDIMENT (PCI/KG(DRY)) | GAMMA | CE-144 | 20 | 2.02E+02 | < LLD (0 / 17) | < LLD (0 / 3) | 23 24 25 26 27 32 33 |
| SEDIMENT (PCI/KG(DRY)) | GAMMA | CS-134 | 20 | 5.50E+01 | < LLD (0 / 17) | < LLD (0 / 3) | 23 24 25 26 27 32 33 |
| SEDIMENT (PCI/KG(DRY)) | GAMMA | CO-58 | 20 | 3.80E+01 | < LLD (0 / 17) | < LLD (0 / 3) | 23 24 25 26 27 32 33 |

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|---------------------------|----------|---------|---------------------------------------|----------|--|---|-------------------------------------|----------|----|----|----|
| | | | | | | | 23 | 24 | 25 | 26 | 27 |
| SEDIMENT (PCI/KG(DRY)) | GAMMA | MN-54 | 20 | 3.40E+01 | 8.20E+01 (1 /17) (8.20E+01 - 8.20E+01) | < LLD (0 /3) | 23 32 | 24 33 | 25 | 26 | 27 |
| SEDIMENT (PCI/KG(DRY)) | GAMMA | FE-59 | 20 | 9.60E+01 | < LLD (0 /17) | < LLD (0 /3) | 23 32 | 24 33 | 25 | 26 | 27 |
| SEDIMENT (PCI/KG(DRY)) | GAMMA | ZN-65 | 20 | 6.85E+01 | < LLD (0 /17) | < LLD (0 /3) | 23 32 | 24 33 | 25 | 26 | 27 |
| SEDIMENT (PCI/KG(DRY)) | GAMMA | CO-60 | 20 | 4.20E+01 | 5.25E+02 (8 /17) (4.00E+01 - 1.20E+03) | < LLD (0 /3) | 23 32 | 24 33 | 25 | 26 | 27 |
| SEDIMENT (PCI/KG(DRY)) | GAMMA | K-40 | 20 | 9.20E+02 | 6.28E+03 (16 /17) (1.20E+01 - 1.70E+04) | 8.67E+03(3 /3) (4.70E+03 - 1.40E+04) | 23 32 | 24 33 | 25 | 26 | 27 |
| SEDIMENT (PCI/KG(DRY)) | GAMMA | BE-7 | 20 | 3.50E+02 | 2.85E+02 (4 /17) (2.20E+02 - 3.90E+02) | < LLD (0 /3) | 23 32 | 24 33 | 25 | 26 | 27 |
| SEDIMENT (PCI/KG(DRY)) | GAMMA | ZR-95 | 20 | 8.00E+01 | < LLD (0 /17) | < LLD (0 /3) | 23 32 | 24 33 | 25 | 26 | 27 |
| SEDIMENT (PCI/KG(DRY)) | GAMMA | NB-95 | 20 | 4.30E+01 | < LLD (0 /17) | < LLD (0 /3) | 23 32 | 24 33 | 25 | 26 | 27 |
| SEDIMENT (PCI/KG(DRY)) | GAMMA | CE-141 | 20 | 8.30E+01 | < LLD (0 /17) | < LLD (0 /3) | 23 32 | 24 33 | 25 | 26 | 27 |
| SEDIMENT (PCI/KG(DRY)) | GAMMA | RU-103 | 20 | 4.85E+01 | < LLD (0 /17) | < LLD (0 /3) | 23 32 | 24 33 | 25 | 26 | 27 |

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|---------------------------|--------------|---------|---------------------------------------|----------|---|-----------|--|----------|-------------------------------------|----|----|----|----|
| | | | | | RANGE | | RANGE | | | | | | |
| SEDIMENT (PCI/KG(DRY)) | GAMMA | BA-140 | 20 | 4.25E+02 | < LLD | (0 /17) | < LLD | (0 /3) | 23 | 24 | 25 | 26 | 27 |
| | | | | | | | | | 32 | 33 | | | |
| SEDIMENT (PCI/KG(DRY)) | GAMMA | LA-140 | 20 | 1.81E+02 | < LLD | (0 /17) | < LLD | (0 /3) | 23 | 24 | 25 | 26 | 27 |
| | | | | | | | | | 32 | 33 | | | |
| SEDIMENT (PCI/KG(DRY)) | GAMMA | RA-226 | 20 | 4.95E+02 | 9.27E+02 (9 /17) (6.70E+01 - 2.10E+03) | | 1.40E+03(1 /3) (1.40E+03 - 1.40E+03) | | 23 | 24 | 25 | 26 | 27 |
| | | | | | | | | | 32 | 33 | | | |
| SEDIMENT (PCI/KG(DRY)) | GAMMA | TH-228 | 20 | 5.35E+01 | 5.11E+02 (17 /17) (6.70E+01 - 9.80E+02) | | 4.37E+02(3 /3) (3.20E+02 - 5.20E+02) | | 23 | 24 | 25 | 26 | 27 |
| | | | | | | | | | 32 | 33 | | | |
| SEDIMENT (PCI/KG(DRY)) | GAMMA | I-131 | 20 | 5.45E+02 | < LLD | (0 /17) | < LLD | (0 /3) | 23 | 24 | 25 | 26 | 27 |
| | | | | | | | | | 32 | 33 | | | |
| SEDIMENT (PCI/KG(DRY)) | GAMMA | RU-106 | 20 | 2.80E+02 | < LLD | (0 /17) | < LLD | (0 /3) | 23 | 24 | 25 | 26 | 27 |
| | | | | | | | | | 32 | 33 | | | |
| SEDIMENT (PCI/KG(DRY)) | GAMMA | CS-137 | 20 | 3.95E+01 | 2.39E+02 (10 /17) (3.00E+01 - 5.60E+02) | | < LLD | (0 /3) | 23 | 24 | 25 | 26 | 27 |
| | | | | | | | | | 32 | 33 | | | |
| SEDIMENT (PCI/KG(DRY)) | STRONTIUM-89 | | 8 | 1.52E+01 | < LLD | (0 /7) | < LLD | (0 /1) | 23 | 24 | 25 | 26 | 27 |
| | | | | | | | | | 32 | 33 | | | |
| SEDIMENT (PCI/KG(DRY)) | STRONTIUM-90 | | 8 | 5.25E+00 | 1.17E+01 (4 /7) (6.00E+00 - 2.00E+01) | | < LLD | (0 /1) | 23 | 24 | 25 | 26 | 27 |
| | | | | | | | | | 32 | 33 | | | |

TABLE 16
 RADIOLOGICAL ENVIRONMENTAL MONITORING PROGRAM SUMMARY
 OYSTER CREEK NUCLEAR GENERATING STATION
 SEPTEMBER, 1983 THROUGH NOVEMBER, 1983
 SECOND QUARTER SUMMARY

| SAMPLE TYPE | ANALYSIS | ISOTOPE | NUMBER OF ANALYSES PERFORMED | LLD | INDICATOR-MEAN(N/TOTAL) RANGE | BACKGROUND-MEAN(N/TOTAL) RANGE | STATIONS USED FOR INDICATOR MEAN |
|------------------------------|-------------|---------|------------------------------|----------|--|---|----------------------------------|
| VEGETATION (PCI/KG(WET)) | GROSS BETA | | 15 | 1.57E+01 | 3.66E+03 (15 /15) (2.50E+03 - 5.30E+03) | (. / .) (- -) | 1 2 3 4 5 |
| AIR PARTICULATE (PCI/M3) | GROSS ALPHA | | 48 | 1.19E-03 | 1.60E-03 (17 /30) (8.30E-04 - 2.50E-03) | 1.56E-03(13 /18) (1.00E-03 - 2.20E-03) | 1 2 3 4 5 |
| AIR PARTICULATE (PCI/M3) | GROSS BETA | | 48 | 2.21E-03 | 1.77E-02 (30 /30) (9.40E-03 - 3.00E-02) | 1.77E-02(18 /18) (9.00E-03 - 3.00E-02) | 1 2 3 4 5 |
| AIR PARTICULATE (PCI/M3) | GAMMA | CE-144 | 48 | 3.35E-02 | < LLD (0 /30) | < LLD (0 /18) | 1 2 3 4 5 |
| AIR PARTICULATE (PCI/M3) | GAMMA | CS-134 | 48 | 6.05E-03 | < LLD (0 /30) | < LLD (0 /18) | 1 2 3 4 5 |
| AIR PARTICULATE (PCI/M3) | GAMMA | CO-58 | 48 | 6.26E-03 | < LLD (0 /30) | < LLD (0 /18) | 1 2 3 4 5 |
| AIR PARTICULATE (PCI/M3) | GAMMA | MN-54 | 48 | 5.78E-03 | < LLD (0 /30) | < LLD (0 /18) | 1 2 3 4 5 |
| AIR PARTICULATE (PCI/M3) | GAMMA | FE-59 | 48 | 1.55E-02 | < LLD (0 /30) | < LLD (0 /18) | 1 2 3 4 5 |
| AIR PARTICULATE (PCI/M3) | GAMMA | ZN-65 | 48 | 1.30E-02 | < LLD (0 /30) | < LLD (0 /18) | 1 2 3 4 5 |
| AIR PARTICULATE (PCI/M3) | GAMMA | CO-60 | 48 | 6.85E-03 | < LLD (0 /30) | < LLD (0 /18) | 1 2 3 4 5 |

TABLE 16
 RADIOLOGICAL ENVIRONMENTAL MONITORING PROGRAM SUMMARY
 OYSTER CREEK NUCLEAR GENERATING STATION
 SEPTEMBER, 1983 THROUGH NOVEMBER, 1983
 SECOND QUARTER SUMMARY

| SAMPLE TYPE | ANALYSIS | ISOTOPE | NUMBER OF ANALYSES PERFORMED | LLD | INDICATOR-MEAN(N/TOTAL) RANGE | BACKGROUN-D-MEAN(N/TOTAL) RANGE | STATIONS USED FOR INDICATOR MEAN |
|--------------------------|----------|---------|------------------------------|----------|--|--|----------------------------------|
| AIR PARTICULATE (PCI/M3) | GAMMA | K-40 | 47 | 1.82E-01 | 1.80E-01 (1 /30) (1.80E-01 - 1.80E-01) | < LLD (0 /17) | 1 2 3 4 5 |
| AIR PARTICULATE (PCI/M3) | GAMMA | BE-7 | 48 | 7.38E-02 | 1.06E-01 (11 /30) (6.90E-02 - 1.70E-01) | 1.16E-01(8 /18) (7.40E-02 - 1.80E-01) | 1 2 3 4 5 |
| AIR PARTICULATE (PCI/M3) | GAMMA | ZR-95 | 48 | 1.34E-02 | < LLD (0 /30) | < LLD (0 /18) | 1 2 3 4 5 |
| AIR PARTICULATE (PCI/M3) | GAMMA | NB-95 | 48 | 6.64E-03 | < LLD (0 /30) | < LLD (0 /18) | 1 2 3 4 5 |
| AIR PARTICULATE (PCI/M3) | GAMMA | CE-141 | 48 | 1.18E-02 | < LLD (0 /30) | < LLD (0 /18) | 1 2 3 4 5 |
| AIR PARTICULATE (PCI/M3) | GAMMA | RU-103 | 48 | 7.60E-03 | < LLD (0 /30) | < LLD (0 /18) | 1 2 3 4 5 |
| AIR PARTICULATE (PCI/M3) | GAMMA | BA-140 | 48 | 4.40E-02 | < LLD (0 /30) | < LLD (0 /18) | 1 2 3 4 5 |
| AIR PARTICULATE (PCI/M3) | GAMMA | LA-140 | 48 | 2.20E-02 | < LLD (0 /30) | < LLD (0 /18) | 1 2 3 4 5 |
| AIR PARTICULATE (PCI/M3) | GAMMA | RA-226 | 48 | 1.04E-01 | < LLD (0 /30) | < LLD (0 /18) | 1 2 3 4 5 |
| AIR PARTICULATE (PCI/M3) | GAMMA | TH-228 | 48 | 1.03E-02 | < LLD (0 /30) | < LLD (0 /18) | 1 2 3 4 5 |

TABLE 16
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 OYSTER CREEK NUCLEAR GENERATING STATION
 SEPTEMBER, 1983 THROUGH NOVEMBER, 1983
 SECOND QUARTER SUMMARY

| SAMPLE TYPE | ANALYSIS | ISOTOPE | NUMBER OF ANALYSES PERFORMED | LLD | INDICATOR-MEAN(N/TOTAL) RANGE | BACKGROUND-MEAN(N/TOTAL) RANGE | STATIONS USED FOR INDICATOR MEAN |
|--------------------------|---------------|---------|------------------------------|----------|--|---|----------------------------------|
| AIR PARTICULATE (PCI/M3) | GAMMA | I-131 | 48 | 3.82E-02 | < LLD (0 /30) | < LLD (0 /18) | 1 2 3 4 5 |
| AIR PARTICULATE (PCI/M3) | GAMMA | RU-106 | 48 | 5.33E-02 | < LLD (0 /30) | < LLD (0 /18) | 1 2 3 4 5 |
| AIR PARTICULATE (PCI/M3) | GAMMA | CS-137 | 48 | 6.40E-03 | < LLD (0 /30) | < LLD (0 /18) | 1 2 3 4 5 |
| PRECIPITATION (PCI/L) | GROSS BETA-SS | | 24 | 5.89E-01 | 8.00E-01 (2 /15) (4.00E-01 - 1.20E+00) | 8.85E-01(2 /9) (4.70E-01 - 1.30E+00) | 1 2 3 4 5 |
| PRECIPITATION (PCI/L) | GROSS BETA-DS | | 24 | 1.30E+00 | 4.98E+00 (15 /15) (1.50E+00 - 1.40E+01) | 3.62E+00(9 /9) (1.00E+00 - 6.30E+00) | 1 2 3 4 5 |
| PRECIPITATION (PCI/L) | GAMMA | CE-144 | 24 | 4.02E+01 | < LLD (0 /15) | < LLD (0 /9) | 1 2 3 4 5 |
| PRECIPITATION (PCI/L) | GAMMA | CS-134 | 24 | 5.05E+00 | < LLD (0 /15) | < LLD (0 /9) | 1 2 3 4 5 |
| PRECIPITATION (PCI/L) | GAMMA | CO-58 | 24 | 4.91E+00 | < LLD (0 /15) | < LLD (0 /9) | 1 2 3 4 5 |
| PRECIPITATION (PCI/L) | GAMMA | MN-54 | 24 | 4.60E+00 | < LLD (0 /15) | < LLD (0 /9) | 1 2 3 4 5 |
| PRECIPITATION (PCI/L) | GAMMA | FE-59 | 24 | 1.07E+01 | < LLD (0 /15) | < LLD (0 /9) | 1 2 3 4 5 |

TABLE 16
 RADIOLOGICAL ENVIRONMENTAL MONITORING PROGRAM SUMMARY
 OYSTER CREEK NUCLEAR GENERATING STATION
 SEPTEMBER, 1983 THROUGH NOVEMBER, 1983
 SECOND QUARTER SUMMARY

| SAMPLE TYPE | ANALYSIS | ISOTOPE | NUMBER OF ANALYSES PERFORMED | LLD | INDICATOR-MEAN(N/TOTAL) RANGE | BACKGROUND-MEAN(N/TOTAL) RANGE | STATIONS USED FOR INDICATOR MEAN |
|-----------------------|----------|---------|------------------------------|----------|---|---|----------------------------------|
| PRECIPITATION (PCI/L) | GAMMA | ZN-65 | 24 | 9.56E+00 | < LLD (0 /15) | < LLD (0 /9) | 1 2 3 4 5 |
| PRECIPITATION (PCI/L) | GAMMA | CO-60 | 24 | 4.93E+00 | < LLD (0 /15) | < LLD (0 /9) | 1 2 3 4 5 |
| PRECIPITATION (PCI/L) | GAMMA | K-40 | 24 | 8.29E+01 | < LLD (0 /15) | < LLD (0 /9) | 1 2 3 4 5 |
| PRECIPITATION (PCI/L) | GAMMA | BE-7 | 24 | 5.17E+01 | 1.73E+02 (3 /15) (6.80E+01 - 2.90E+02) | 7.27E+01(3 /9) (5.30E+01 - 1.00E+02) | 1 2 3 4 5 |
| PRECIPITATION (PCI/L) | GAMMA | ZR-95 | 24 | 1.09E+01 | < LLD (0 /15) | < LLD (0 /9) | 1 2 3 4 5 |
| PRECIPITATION (PCI/L) | GAMMA | NB-95 | 24 | 5.18E+00 | < LLD (0 /15) | < LLD (0 /9) | 1 2 3 4 5 |
| PRECIPITATION (PCI/L) | GAMMA | CE-141 | 24 | 1.18E+01 | < LLD (0 /15) | < LLD (0 /9) | 1 2 3 4 5 |
| PRECIPITATION (PCI/L) | GAMMA | RU-103 | 24 | 5.94E+00 | < LLD (0 /15) | < LLD (0 /9) | 1 2 3 4 5 |
| PRECIPITATION (PCI/L) | GAMMA | BA-140 | 24 | 2.73E+01 | < LLD (0 /15) | < LLD (0 /9) | 1 2 3 4 5 |
| PRECIPITATION (PCI/L) | GAMMA | LA-140 | 24 | 1.09E+01 | < LLD (0 /15) | < LLD (0 /9) | 1 2 3 4 5 |

TABLE 16
 RADIOLOGICAL ENVIRONMENTAL MONITORING PROGRAM SUMMARY
 OYSTER CREEK NUCLEAR GENERATING STATION
 SEPTEMBER, 1983 THROUGH NOVEMBER, 1983
 SECOND QUARTER SUMMARY

| SAMPLE TYPE | ANALYSIS | ISOTOPE | NUMBER OF ANALYSES PERFORMED | LLD | INDICATOR-MEAN(N/TOTAL) RANGE | BACKGROUND-MEAN(N/TOTAL) RANGE | STATIONS USED FOR INDICATOR MEAN |
|-----------------------|----------------|---------|------------------------------|----------|--|---|----------------------------------|
| PRECIPITATION (PCI/L) | GAMMA | RA-226 | 24 | 1.10E+02 | < LLD (0 /15) | < LLD (0 /9) | 1 2 3 4 5 |
| PRECIPITATION (PCI/L) | GAMMA | TH-228 | 24 | 1.00E+01 | < LLD (0 /15) | < LLD (0 /9) | 1 2 3 4 5 |
| PRECIPITATION (PCI/L) | GAMMA | I-131 | 24 | 2.07E+01 | < LLD (0 /15) | < LLD (0 /9) | 1 2 3 4 5 |
| PRECIPITATION (PCI/L) | GAMMA | RU-106 | 24 | 4.02E+01 | < LLD (0 /15) | < LLD (0 /9) | 1 2 3 4 5 |
| PRECIPITATION (PCI/L) | GAMMA | CS-137 | 24 | 6.95E+00 | < LLD (0 /15) | < LLD (0 /9) | 1 2 3 4 5 |
| PRECIPITATION (PCI/L) | TRITIUM | | 24 | 1.70E+02 | 2.33E+02 (13 /15) (6.75E+01 - 8.80E+02) | 2.68E+02(5 /9) (1.01E+02 - 6.20E+02) | 1 2 3 4 5 |
| PRECIPITATION () | STRONTIUM-89 | | 24 | 2.92E+00 | < LLD (0 /15) | < LLD (0 /9) | 1 2 3 4 5 |
| PRECIPITATION () | STRONTIUM-90 | | 24 | 5.91E-01 | < LLD (0 /15) | < LLD (0 /9) | 1 2 3 4 5 |
| AIR IODINE (PCI/M3) | IODINE-131 | | 48 | 2.54E-02 | < LLD (0 /30) | < LLD (0 /18) | 1 2 3 4 5 |
| SURFACE WATER (PCI/L) | GROSS ALPHA-SS | | 24 | 5.35E-01 | < LLD (0 /21) | < LLD (0 /3) | 23 24 25 26 27 32 33 |

TABLE 16
 RADIOLOGICAL ENVIRONMENTAL MONITORING PROGRAM SUMMARY
 OYSTER CREEK NUCLEAR GENERATING STATION
 SEPTEMBER, 1983 THROUGH NOVEMBER, 1983
 SECOND QUARTER SUMMARY

| SAMPLE TYPE | ANALYSIS | ISOTOPE NUMBER | LLD | INDICATOR-MEAN(N/TOTAL) RANGE | BACKGROUND-MEAN(N/TOTAL) RANGE | STATIONS USED FOR INDICATOR MEAN |
|---------------------------|----------------|-----------------------------|----------|--|---|-------------------------------------|
| | | OF ANALYSES PERFORMED | | | | |
| SURFACE WATER (PCI/L) | GROSS ALPHA-DS | 24 | 5.73E+01 | 1.65E+00 (2 /21) (1.60E+00 - 1.70E+00) | < LLD (0 /3) | 23 24 25 26 27 32 33 |
| SURFACE WATER (PCI/L) | GROSS BETA-SS | 24 | 8.98E-01 | < LLD (0 /21) | < LLD (0 /3) | 23 24 25 26 27 32 33 |
| SURFACE WATER (PCI/L) | GROSS BETA-DS | 24 | 3.88E+01 | 2.61E+02 (21 /21) (1.20E+00 - 4.70E+02) | 4.03E+02(3 /3) (3.90E+02 - 4.10E+02) | 23 24 25 26 27 32 33 |
| SURFACE WATER (MG/L) | CALCIUM BY AA | 24 | 1.00E+01 | 3.34E+02 (18 /21) (1.18E+01 - 6.40E+02) | 4.37E+02(3 /3) (3.90E+02 - 5.10E+02) | 23 24 25 26 27 32 33 |
| SURFACE WATER (PCI/L) | GAMMA | CE-144 | 24 | 3.32E+01 | < LLD (0 /21) | 23 24 25 26 27 32 33 |
| SURFACE WATER (PCI/L) | GAMMA | CS-134 | 24 | 6.17E+00 | < LLD (0 /21) | 23 24 25 26 27 32 33 |
| SURFACE WATER (PCI/L) | GAMMA | CO-58 | 24 | 4.67E+00 | < LLD (0 /21) | 23 24 25 26 27 32 33 |
| SURFACE WATER (PCI/L) | GAMMA | MN-54 | 24 | 4.10E+00 | < LLD (0 /21) | 23 24 25 26 27 32 33 |
| SURFACE WATER (PCI/L) | GAMMA | FE-59 | 24 | 1.01E+01 | < LLD (0 /21) | 23 24 25 26 27 32 33 |
| SURFACE WATER (PCI/L) | GAMMA | ZN-65 | 24 | 8.59E+00 | < LLD (0 /21) | 23 24 25 26 27 32 33 |

TABLE 16
 RADIOLOGICAL ENVIRONMENTAL MONITORING PROGRAM SUMMARY
 OYSTER CREEK NUCLEAR GENERATING STATION
 SEPTEMBER, 1983 THROUGH NOVEMBER, 1983
 SECOND QUARTER SUMMARY

| SAMPLE TYPE | ANALYSIS | ISOTOPE | NUMBER OF ANALYSES PERFORMED | LLD | INDICATOR-MEAN(N/TOTAL) RANGE | BACKGROUND-MEAN(N/TOTAL) RANGE | STATIONS USED FOR INDICATOR MEAN |
|-----------------------|----------|---------|------------------------------|----------|--|---|----------------------------------|
| SURFACE WATER (PCI/L) | GAMMA | CO-60 | 24 | 4.24E+00 | < LLD (0 /21) | < LLD (0 /3) | 23 24 25 26 27 32 33 |
| SURFACE WATER (PCI/L) | GAMMA | K-40 | 24 | 1.02E+02 | 1.73E+02 (12 /21) (9.20E+01 - 2.50E+02) | 3.30E+02(2 /3) (2.80E+02 - 3.80E+02) | 23 24 25 26 27 32 33 |
| SURFACE WATER (PCI/L) | GAMMA | BE-7 | 24 | 4.45E+01 | < LLD (0 /21) | < LLD (0 /3) | 23 24 25 26 27 32 33 |
| SURFACE WATER (PCI/L) | GAMMA | ZR-95 | 24 | 9.38E+00 | < LLD (0 /21) | < LLD (0 /3) | 23 24 25 26 27 32 33 |
| SURFACE WATER (PCI/L) | GAMMA | NB-95 | 24 | 4.84E+00 | < LLD (0 /21) | < LLD (0 /3) | 23 24 25 26 27 32 33 |
| SURFACE WATER (PCI/L) | GAMMA | CE-141 | 24 | 1.01E+01 | < LLD (0 /21) | < LLD (0 /3) | 23 24 25 26 27 32 33 |
| SURFACE WATER (PCI/L) | GAMMA | RU-103 | 24 | 5.67E+00 | < LLD (0 /21) | < LLD (0 /3) | 23 24 25 26 27 32 33 |
| SURFACE WATER (PCI/L) | GAMMA | BA-140 | 24 | 2.77E+01 | < LLD (0 /21) | < LLD (0 /3) | 23 24 25 26 27 32 33 |
| SURFACE WATER (PCI/L) | GAMMA | LA-140 | 24 | 1.07E+01 | < LLD (0 /21) | < LLD (0 /3) | 23 24 25 26 27 32 33 |
| SURFACE WATER (PCI/L) | GAMMA | RA-226 | 24 | 9.09E+01 | < LLD (0 /21) | < LLD (0 /3) | 23 24 25 26 27 32 33 |

TABLE 16
 RADIOLOGICAL ENVIRONMENTAL MONITORING PROGRAM SUMMARY
 OYSTER CREEK NUCLEAR GENERATING STATION
 SEPTEMBER, 1983 THROUGH NOVEMBER, 1983
 SECOND QUARTER SUMMARY

| SAMPLE TYPE | ANALYSIS | ISOTOPE | NUMBER OF ANALYSES PERFORMED | LLD | INDICATOR-MEAN(N/TOTAL) RANGE | BACKGROUND-MEAN(N/TOTAL) RANGE | STATIONS USED FOR INDICATOR MEAN |
|-----------------------|---------------|---------|------------------------------|----------|--|---|----------------------------------|
| SURFACE WATER (PCI/L) | GAMMA | TH-228 | 24 | 8.57E+00 | < LLD (0 /21) | < LLD (0 /3) | 23 24 25 26 27 32 33 |
| SURFACE WATER (PCI/L) | GAMMA | I-131 | 24 | 2.28E+01 | < LLD (0 /21) | < LLD (0 /3) | 23 24 25 26 27 32 33 |
| SURFACE WATER (PCI/L) | GAMMA | RU-106 | 24 | 3.83E+01 | < LLD (0 /21) | < LLD (0 /3) | 23 24 25 26 27 32 33 |
| SURFACE WATER (PCI/L) | GAMMA | CS-137 | 24 | 4.86E+00 | < LLD (0 /21) | < LLD (0 /3) | 23 24 25 26 27 32 33 |
| SURFACE WATER (PCI/L) | TRITIUM | | 24 | 1.13E+02 | 2.57E+02 (12 /21) (8.30E+01 - 9.90E+02) | 6.00E+02(1 /3) (6.00E+02 - 6.00E+02) | 23 24 25 26 27 32 33 |
| SURFACE WATER (PCI/L) | RADIUM-226 | | 24 | 2.52E-01 | 1.33E+00 (7 /21) (3.52E-01 - 2.43E+00) | < LLD (0 /3) | 23 24 25 26 27 32 33 |
| SURFACE WATER (PCI/L) | RADIUM-228 | | 24 | 2.47E-01 | 4.99E-01 (14 /21) (1.93E-01 - 9.20E-01) | 5.65E-01(2 /3) (2.91E-01 - 8.40E-01) | 23 24 25 26 27 32 33 |
| SURFACE WATER (PCI/L) | STRONTIUM-89 | | 24 | 1.03E+00 | < LLD (0 /21) | < LLD (0 /3) | 23 24 25 26 27 32 33 |
| SURFACE WATER (PCI/L) | STRONTIUM-90 | | 24 | 6.14E-01 | < LLD (0 /21) | < LLD (0 /3) | 23 24 25 26 27 32 33 |
| SURFACE WATER (PCI/L) | TOTAL URANIUM | | 24 | 5.00E-02 | 6.06E+00 (21 /21) (2.30E-01 - 1.00E+02) | 2.06E+00(3 /3) (1.97E+00 - 2.20E+00) | 23 24 25 26 27 32 33 |

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 OYSTER CREEK NUCLEAR GENERATING STATION
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 SECOND QUARTER SUMMARY

| SAMPLE TYPE | ANALYSIS | ISOTOPE NUMBER | LLD | INDICATOR-MEAN(N/TOTAL) RANGE | BACKGROUND-MEAN(N/TOTAL) RANGE | STATIONS USED FOR INDICATOR MEAN |
|------------------------|----------------|-----------------------------|----------|--|-----------------------------------|-------------------------------------|
| | | OF ANALYSES PERFORMED | | | | |
| WELL WATER (PCI/L) | GROSS ALPHA-SS | 18 | 4.22E-01 | < LLD (0 /18) | (. / .) (- .) | 1 18 19 20 21 22 |
| WELL WATER (PCI/L) | GROSS ALPHA-DS | 18 | 9.20E-01 | 1.95E+00 (10 /18) (9.80E-01 - 4.30E+00) | (. / .) (- .) | 1 18 19 20 21 22 |
| WELL WATER (PCI/L) | GROSS BETA-SS | 18 | 9.13E-01 | < LLD (0 /18) | (. / .) (- .) | 1 18 19 20 21 22 |
| WELL WATER (PCI/L) | GROSS BETA-DS | 18 | 1.09E+00 | 3.31E+00 (18 /18) (1.00E+00 - 6.80E+00) | (. / .) (- .) | 1 18 19 20 21 22 |
| WELL WATER (PCI/L) | POTASSIUM-40 | 6 | 2.00E-01 | 1.98E+00 (6 /6) (1.00E+00 - 2.50E+00) | (. / .) (- .) | 1 18 19 20 21 22 |
| WELL WATER (PCI/L) | GAMMA | CE-144 | 6 | 3.67E+01 < LLD (0 /6) | (. / .) (- .) | 1 18 19 20 21 22 |
| WELL WATER (PCI/L) | GAMMA | CS-134 | 6 | 5.00E+00 < LLD (0 /6) | (. / .) (- .) | 1 18 19 20 21 22 |
| WELL WATER (PCI/L) | GAMMA | CO-58 | 6 | 4.83E+00 < LLD (0 /6) | (. / .) (- .) | 1 18 19 20 21 22 |
| WELL WATER (PCI/L) | GAMMA | MN-54 | 6 | 4.67E+00 < LLD (0 /6) | (. / .) (- .) | 1 18 19 20 21 22 |
| WELL WATER (PCI/L) | GAMMA | FE-59 | 6 | 1.05E+01 < LLD (0 /6) | (. / .) (- .) | 1 18 19 20 21 22 |

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| SAMPLE TYPE | ANALYSIS | ISOTOPE | NUMBER OF ANALYSES PERFORMED | LLD | INDICATOR-MEAN(N/TOTAL) RANGE | BACKGROUND-MEAN(N/TOTAL) RANGE | STATIONS USED FOR INDICATOR MEAN |
|--------------------|----------|---------|------------------------------|----------|-------------------------------|--------------------------------|----------------------------------|
| WELL WATER (PCI/L) | GAMMA | ZN-65 | 6 | 1.02E+01 | < LLD (0 /6) | (. (. / .)) | 1 18 19 20 21 22 |
| WELL WATER (PCI/L) | GAMMA | CO-60 | 6 | 5.00E+00 | < LLD (0 /6) | (. (. / .)) | 1 18 19 20 21 22 |
| WELL WATER (PCI/L) | GAMMA | K-40 | 6 | 9.00E+01 | < LLD (0 /6) | (. (. / .)) | 1 18 19 20 21 22 |
| WELL WATER (PCI/L) | GAMMA | BE-7 | 6 | 4.50E+01 | < LLD (0 /6) | (. (. / .)) | 1 18 19 20 21 22 |
| WELL WATER (PCI/L) | GAMMA | ZR-95 | 6 | 9.00E+00 | < LLD (0 /6) | (. (. / .)) | 1 18 19 20 21 22 |
| WELL WATER (PCI/L) | GAMMA | HB-95 | 6 | 5.00E+00 | < LLD (0 /6) | (. (. / .)) | 1 18 19 20 21 22 |
| WELL WATER (PCI/L) | GAMMA | CE-141 | 6 | 9.33E+00 | < LLD (0 /6) | (. (. / .)) | 1 18 19 20 21 22 |
| WELL WATER (PCI/L) | GAMMA | RU-103 | 6 | 5.83E+00 | < LLD (0 /6) | (. (. / .)) | 1 18 19 20 21 22 |
| WELL WATER (PCI/L) | GAMMA | BA-140 | 6 | 2.50E+01 | < LLD (0 /6) | (. (. / .)) | 1 18 19 20 21 22 |
| WELL WATER (PCI/L) | GAMMA | LA-140 | 6 | 8.17E+00 | < LLD (0 /6) | (. (. / .)) | 1 18 19 20 21 22 |

TABLE 16
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| SAMPLE TYPE | ANALYSIS | ISOTOPE | NUMBER OF ANALYSES PERFORMED | LLD | INDICATOR-MEAN(N/TOTAL) RANGE | BACKGROUND-MEAN(N/TOTAL) RANGE | STATIONS USED FOR INDICATOR MEAN |
|---------------------|---------------|---------|------------------------------|----------|--|---|----------------------------------|
| WELL WATER (PCI/L) | GAMMA | RA-226 | 6 | 9.50E+01 | < LLD (0 /6) | (. (. / .)) | 1 18 19 20 21 22 |
| WELL WATER (PCI/L) | GAMMA | TH-228 | 6 | 9.33E+00 | < LLD (0 /6) | (. (. / .)) | 1 18 19 20 21 22 |
| WELL WATER (PCI/L) | GAMMA | I-131 | 6 | 1.48E+01 | < LLD (0 /6) | (. (. / .)) | 1 18 19 20 21 22 |
| WELL WATER (PCI/L) | GAMMA | RU-106 | 6 | 3.90E+01 | < LLD (0 /6) | (. (. / .)) | 1 18 19 20 21 22 |
| WELL WATER (PCI/L) | GAMMA | CS-137 | 6 | 5.17E+00 | < LLD (0 /6) | (. (. / .)) | 1 18 19 20 21 22 |
| WELL WATER (PCI/L) | TRITIUM | | 6 | 1.23E+02 | 1.20E+02 (1 /6) (1.20E+02 - 1.20E+02) | (. (. / .)) | 1 18 19 20 21 22 |
| WELL WATER (PCI/L) | RADIUM-226 | | 6 | 4.73E-01 | 1.81E+00 (3 /6) (9.20E-01 - 2.47E+00) | (. (. / .)) | 1 18 19 20 21 22 |
| WELL WATER (PCI/L) | RADIUM-228 | | 6 | 3.67E-01 | 6.30E-01 (3 /6) (3.20E-01 - 1.06E+00) | (. (. / .)) | 1 18 19 20 21 22 |
| WELL WATER (PCI/L) | TOTAL URANIUM | | 6 | 3.40E-02 | 5.89E-01 (6 /6) (8.16E-02 - 1.70E+00) | (. (. / .)) | 1 18 19 20 21 22 |
| CLAMS (PCI/KG(WET)) | GROSS ALPHA | | 12 | 4.21E+01 | 1.20E+02 (9 /9) (4.70E+01 - 2.30E+02) | 8.55E+01(2 /3) (5.10E+01 - 1.20E+02) | 23 24 25 |

TABLE 16
 RADIOLOGICAL ENVIRONMENTAL MONITORING PROGRAM SUMMARY
 OYSTER CREEK NUCLEAR GENERATING STATION
 SEPTEMBER, 1983 THROUGH NOVEMBER, 1983
 SECOND QUARTER SUMMARY

| SAMPLE TYPE | ANALYSIS | ISOTOPE | NUMBER OF ANALYSES PERFORMED | LLD | INDICATOR-MEAN(N/TOTAL) RANGE | BACKGROUND-MEAN(N/TOTAL) RANGE | STATIONS USED FOR INDICATOR MEAN |
|------------------------|---------------|---------|------------------------------|----------|--|---|----------------------------------|
| CLAMS (PCI/KG(WET)) | GROSS BETA | | 12 | 6.85E+01 | 2.46E+03 (9 /9) (1.70E+03 - 3.60E+03) | 2.10E+03(3 /3) (1.80E+03 - 2.50E+03) | 23 24 25 |
| CLAMS (MG/GM(WET)) | CALCIUM BY AA | | 4 | 1.00E-01 | 7.23E-01 (3 /3) (5.40E-01 - 9.50E-01) | 5.00E-01(1 /1) (5.00E-01 - 5.00E-01) | 23 24 25 |
| CLAMS (PCI/KG(WET)) | GAMMA | CE-144 | 4 | 6.75E+01 | < LLD (0 /3) | < LLD (0 /1) | 23 24 25 |
| CLAMS (PCI/KG(WET)) | GAMMA | CS-134 | 4 | 8.25E+00 | < LLD (0 /3) | < LLD (0 /1) | 23 24 25 |
| CLAMS (PCI/KG(WET)) | GAMMA | CO-58 | 4 | 8.00E+00 | < LLD (0 /3) | < LLD (0 /1) | 23 24 25 |
| CLAMS (PCI/KG(WET)) | GAMMA | MN-54 | 4 | 7.75E+00 | < LLD (0 /3) | < LLD (0 /1) | 23 24 25 |
| CLAMS (PCI/KG(WET)) | GAMMA | FE-59 | 4 | 2.25E+01 | < LLD (0 /3) | < LLD (0 /1) | 23 24 25 |
| CLAMS (PCI/KG(WET)) | GAMMA | ZN-65 | 4 | 1.50E+01 | < LLD (0 /3) | < LLD (0 /1) | 23 24 25 |
| CLAMS (PCI/KG(WET)) | GAMMA | CO-60 | 4 | 1.13E+01 | 1.93E+01 (3 /3) (1.50E+01 - 2.70E+01) | < LLD (0 /1) | 23 24 25 |
| CLAMS (PCI/KG(WET)) | GAMMA | K-40 | 4 | 2.50E+02 | 1.07E+03 (3 /3) (1.00E+03 - 1.20E+03) | 8.80E+02(1 /1) (8.80E+02 - 8.80E+02) | 23 24 25 |

TABLE 16
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 OYSTER CREEK NUCLEAR GENERATING STATION
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|---------------------|----------|---------|------------------------------|----------|-------------------------------|--------------------------------|----------------------------------|
| CLAMS (PCI/KG(WET)) | GAMMA | BE-7 | 4 | 7.75E+01 | < LLD (0 /3) | < LLD (0 /1) | 23 24 25 |
| CLAMS (PCI/KG(WET)) | GAMMA | ZR-95 | 4 | 2.25E+01 | < LLD (0 /3) | < LLD (0 /1) | 23 24 25 |
| CLAMS (PCI/KG(WET)) | GAMMA | NB-95 | 4 | 9.00E+00 | < LLD (0 /3) | < LLD (0 /1) | 23 24 25 |
| CLAMS (PCI/KG(WET)) | GAMMA | CE-141 | 4 | 2.25E+01 | < LLD (0 /3) | < LLD (0 /1) | 23 24 25 |
| CLAMS (PCI/KG(WET)) | GAMMA | RU-103 | 4 | 9.25E+00 | < LLD (0 /3) | < LLD (0 /1) | 23 24 25 |
| CLAMS (PCI/KG(WET)) | GAMMA | BA-140 | 4 | 5.25E+01 | < LLD (0 /3) | < LLD (0 /1) | 23 24 25 |
| CLAMS (PCI/KG(WET)) | GAMMA | LA-140 | 4 | 2.25E+01 | < LLD (0 /3) | < LLD (0 /1) | 23 24 25 |
| CLAMS (PCI/KG(WET)) | GAMMA | RA-226 | 4 | 1.75E+02 | < LLD (0 /3) | < LLD (0 /1) | 23 24 25 |
| CLAMS (PCI/KG(WET)) | GAMMA | TH-228 | 4 | 1.50E+01 | < LLD (0 /3) | < LLD (0 /1) | 23 24 25 |
| CLAMS (PCI/KG(WET)) | GAMMA | I-131 | 4 | 4.25E+01 | < LLD (0 /3) | < LLD (0 /1) | 23 24 25 |

TABLE 16
 RADIOLOGICAL ENVIRONMENTAL MONITORING PROGRAM SUMMARY
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 SECOND QUARTER SUMMARY

| SAMPLE TYPE | ANALYSIS | ISOTOPE NUMBER | NUMBER OF ANALYSES PERFORMED | LLD | INDICATOR-MEAN(N/TOTAL) RANGE | BACKGROUND-MEAN(N/TOTAL) RANGE | STATIONS USED FOR INDICATOR MEAN |
|------------------------|--------------|----------------|------------------------------|----------|--|--------------------------------|----------------------------------|
| CLAMS (PCI/KG(WET)) | GAMMA | RU-106 | 4 | 7.00E+01 | < LLD (0 / 3) | < LLD (0 / 1) | 23 24 25 |
| CLAMS (PCI/KG(WET)) | GAMMA | CS-137 | 4 | 9.00E+00 | < LLD (0 / 3) | < LLD (0 / 1) | 23 24 25 |
| CLAMS (PCI/KG(WET)) | STRONTIUM-89 | | 4 | 8.75E+00 | < LLD (0 / 3) | < LLD (0 / 1) | 23 24 25 |
| CLAMS (PCI/KG(WET)) | STRONTIUM-90 | | 4 | 4.00E+00 | < LLD (0 / 3) | < LLD (0 / 1) | 23 24 25 |
| SOIL (PCI/KG(DRY)) | GROSS BETA | | 15 | 2.24E+03 | 7.71E+03 (15 / 15) (3.10E+03 - 1.40E+04) | (. / .) (- .) | 1 2 3 4 5 |
| SOIL (PCI/KG(DRY)) | GAMMA | CE-144 | 5 | 1.34E+02 | < LLD (0 / 5) | (. / .) (- .) | 1 2 3 4 5 |
| SOIL (PCI/KG(DRY)) | GAMMA | CS-134 | 5 | 2.00E+01 | < LLD (0 / 5) | (. / .) (- .) | 1 2 3 4 5 |
| SOIL (PCI/KG(DRY)) | GAMMA | CO-58 | 5 | 2.20E+01 | < LLD (0 / 5) | (. / .) (- .) | 1 2 3 4 5 |
| SOIL (PCI/KG(DRY)) | GAMMA | MN-54 | 5 | 1.60E+01 | < LLD (0 / 5) | (. / .) (- .) | 1 2 3 4 5 |
| SOIL (PCI/KG(DRY)) | GAMMA | FE-59 | 5 | 5.20E+01 | < LLD (0 / 5) | (. / .) (- .) | 1 2 3 4 5 |

TABLE 16
 RADIOLOGICAL ENVIRONMENTAL MONITORING PROGRAM SUMMARY
 OYSTER CREEK NUCLEAR GENERATING STATION
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 SECOND QUARTER SUMMARY

| SAMPLE TYPE | ANALYSIS | ISOTOPE NUMBER | LLD | INDICATOR-MEAN(N/TOTAL) RANGE | BACKGROUND-MEAN(N/TOTAL) RANGE | STATIONS USED FOR INDICATOR MEAN |
|-----------------------|----------|-----------------------------|-----|--|-----------------------------------|-------------------------------------|
| | | OF ANALYSES PERFORMED | | | | |
| SOIL (PCI/KG(DRY)) | GAMMA | ZN-65 | 5 | 4.00E+01 < LLD (0 / 5) | (. / .) | 1 2 3 4 5 |
| SOIL (PCI/KG(DRY)) | GAMMA | CO-60 | 5 | 1.58E+01 < LLD (0 / 5) | (. / .) | 1 2 3 4 5 |
| SOIL (PCI/KG(DRY)) | GAMMA | K-40 | 5 | 4.40E+02 1.27E+03 (5 / 5) (9.30E+02 - 1.80E+03) | (. / .) | 1 2 3 4 5 |
| SOIL (PCI/KG(DRY)) | GAMMA | BE-7 | 5 | 2.80E+02 < LLD (0 / 5) | (. / .) | 1 2 3 4 5 |
| SOIL (PCI/KG(DRY)) | GAMMA | ZR-95 | 5 | 5.40E+01 < LLD (0 / 5) | (. / .) | 1 2 3 4 5 |
| SOIL (PCI/KG(DRY)) | GAMMA | NB-95 | 5 | 2.80E+01 < LLD (0 / 5) | (. / .) | 1 2 3 4 5 |
| SOIL (PCI/KG(DRY)) | GAMMA | CE-141 | 5 | 5.80E+01 < LLD (0 / 5) | (. / .) | 1 2 3 4 5 |
| SOIL (PCI/KG(DRY)) | GAMMA | RU-103 | 5 | 3.20E+01 < LLD (0 / 5) | (. / .) | 1 2 3 4 5 |
| SOIL (PCI/KG(DRY)) | GAMMA | BA-140 | 5 | 3.00E+02 < LLD (0 / 5) | (. / .) | 1 2 3 4 5 |
| SOIL (PCI/KG(DRY)) | GAMMA | LA-140 | 5 | 1.10E+02 < LLD (0 / 5) | (. / .) | 1 2 3 4 5 |

TABLE 16
 RADIOLOGICAL ENVIRONMENTAL MONITORING PROGRAM SUMMARY
 OYSTER CREEK NUCLEAR GENERATING STATION
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 SECOND QUARTER SUMMARY

| SAMPLE TYPE | ANALYSIS | ISOTOPE NUMBER | NUMBER OF ANALYSES PERFORMED | LLD | INDICATOR-MEAN(N/TOTAL) RANGE | BACKGROUND-MEAN(N/TOTAL) RANGE | STATIONS USED FOR INDICATOR MEAN |
|-----------------------|---------------|----------------|------------------------------|----------|--|--------------------------------|----------------------------------|
| SOIL (PCI/KG(DRY)) | GAMMA | RA-226 | 5 | 4.20E+02 | 1.01E+03 (4 /5) (6.40E+02 - 2.00E+03) | (. / .) (- .) | 1 2 3 4 5 |
| SOIL (PCI/KG(DRY)) | GAMMA | TH-228 | 5 | 5.20E+01 | 4.32E+02 (5 /5) (2.40E+02 - 8.80E+02) | (. / .) (- .) | 1 2 3 4 5 |
| SOIL (PCI/KG(DRY)) | GAMMA | I-131 | 5 | 4.00E+02 | < LLD (0 /5) | (. / .) (- .) | 1 2 3 4 5 |
| SOIL (PCI/KG(DRY)) | GAMMA | RU-106 | 5 | 1.58E+02 | < LLD (0 /5) | (. / .) (- .) | 1 2 3 4 5 |
| SOIL (PCI/KG(DRY)) | GAMMA | CS-137 | 5 | 6.00E+01 | 9.76E+02 (5 /5) (3.20E+01 - 2.30E+03) | (. / .) (- .) | 1 2 3 4 5 |
| PASTURE (PCI/KG(WET)) | GROSS BETA | | 3 | 5.53E+01 | 9.53E+03 (3 /3) (6.40E+03 - 1.40E+04) | (. / .) (- .) | 28 29 30 |
| PASTURE (MG/GM(WET)) | CALCIUM BY AA | | 3 | 2.00E-02 | 1.62E+00 (3 /3) (7.60E-01 - 2.40E+00) | (. / .) (- .) | 28 29 30 |
| PASTURE (PCI/KG(WET)) | GAMMA | CE-144 | 3 | 1.27E+02 | < LLD (0 /3) | (. / .) (- .) | 28 29 30 |
| PASTURE (PCI/KG(WET)) | GAMMA | CS-134 | 3 | 2.00E+01 | < LLD (0 /3) | (. / .) (- .) | 28 29 30 |
| PASTURE (PCI/KG(WET)) | GAMMA | CO-58 | 3 | 2.00E+01 | < LLD (0 /3) | (. / .) (- .) | 28 29 30 |

TABLE 16
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|--------------------------|----------|-----------------------------|-----|---|-----------------------------------|-------------------------------------|
| | | OF ANALYSES PERFORMED | | | | |
| PASTURE (PCI/KG(WET)) | GAMMA | MN-54 | 3 | 2.00E+01 < LLD (0 /3) | (. /.) - .) | 28 29 30 |
| PASTURE (PCI/KG(WET)) | GAMMA | FE-59 | 3 | 5.00E+01 < LLD (0 /3) | (. /.) - .) | 28 29 30 |
| PASTURE (PCI/KG(WET)) | GAMMA | ZN-65 | 3 | 4.33E+01 < LLD (0 /3) | (. /.) - .) | 28 29 30 |
| PASTURE (PCI/KG(WET)) | GAMMA | CO-60 | 3 | 2.00E+01 < LLD (0 /3) | (. /.) - .) | 28 29 30 |
| PASTURE (PCI/KG(WET)) | GAMMA | K-40 | 3 | 5.60E+02 3.23E+03 (3 /3) (2.60E+03 - 4.40E+03) | (. /.) - .) | 28 29 30 |
| PASTURE (PCI/KG(WET)) | GAMMA | BE-7 | 3 | 4.07E+02 2.19E+03 (3 /3) (7.60E+02 - 3.50E+03) | (. /.) - .) | 28 29 30 |
| PASTURE (PCI/KG(WET)) | GAMMA | ZR-95 | 3 | 4.33E+01 < LLD (0 /3) | (. /.) - .) | 28 29 30 |
| PASTURE (PCI/KG(WET)) | GAMMA | NB-95 | 3 | 2.33E+01 < LLD (0 /3) | (. /.) - .) | 28 29 30 |
| PASTURE (PCI/KG(WET)) | GAMMA | CE-141 | 3 | 4.67E+01 < LLD (0 /3) | (. /.) - .) | 28 29 30 |
| PASTURE (PCI/KG(WET)) | GAMMA | RU-103 | 3 | 3.00E+01 < LLD (0 /3) | (. /.) - .) | 28 29 30 |

TABLE 16
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| SAMPLE TYPE | ANALYSIS | ISOTOPE NUMBER | NUMBER OF ANALYSES PERFORMED | LLD | INDICATOR-MEAN(N/TOTAL) RANGE | BACKGROUND-MEAN(N/TOTAL) RANGE | STATIONS USED FOR INDICATOR MEAN |
|------------------------|--------------|----------------|------------------------------|----------|--|--|----------------------------------|
| PASTURE (PCI/KG(WET)) | GAMMA | BA-140 | 3 | 2.00E+02 | < LLD (0 / 3) | (. / .) (- .) | 28 29 30 |
| PASTURE (PCI/KG(WET)) | GAMMA | LA-140 | 3 | 6.67E+01 | < LLD (0 / 3) | (. / .) (- .) | 28 29 30 |
| PASTURE (PCI/KG(WET)) | GAMMA | RA-226 | 3 | 4.00E+02 | < LLD (0 / 3) | (. / .) (- .) | 28 29 30 |
| PASTURE (PCI/KG(WET)) | GAMMA | TH-228 | 3 | 3.67E+01 | < LLD (0 / 3) | (. / .) (- .) | 28 29 30 |
| PASTURE (PCI/KG(WET)) | GAMMA | I-131 | 3 | 1.33E+02 | < LLD (0 / 3) | (. / .) (- .) | 28 29 30 |
| PASTURE (PCI/KG(WET)) | GAMMA | RU-106 | 3 | 2.00E+02 | < LLD (0 / 3) | (. / .) (- .) | 28 29 30 |
| PASTURE (PCI/KG(WET)) | GAMMA | CS-137 | 3 | 4.97E+01 | 3.62E+02 (3 / 3) (4.60E+01 - 7.40E+02) | (. / .) (- .) | 28 29 30 |
| PASTURE (PCI/KG(WET)) | STRONTIUM-89 | | 3 | 5.00E+01 | < LLD (0 / 3) | (. / .) (- .) | 28 29 30 |
| PASTURE (PCI/KG(WET)) | STRONTIUM-90 | | 3 | 2.36E+02 | 5.27E+02 (3 / 3) (4.40E+02 - 7.00E+02) | (. / .) (- .) | 28 29 30 |
| SEDIMENT (PCI/KG(DRY)) | GROSS ALPHA | | 8 | 4.39E+03 | 5.90E+03 (2 / 7) (5.60E+03 - 6.20E+03) | 5.60E+03 (1 / 1) (5.60E+03 - 5.60E+03) | 23 24 25 26 27 32 33 |

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|---------------------------|------------|-----------------------------|----------|--|--|---|---------|----|----|----|----|----|
| | | OF ANALYSES PERFORMED | | | | | | | | | | |
| SEDIMENT (PCI/KG(DRY)) | GROSS BETA | 8 | 1.97E+03 | 1.78E+04 (7 /7) (4.10E+03 - 3.00E+04) | 3.90E+04(1 /1) (3.90E+04 - 3.90E+04) | 23 | 24 | 25 | 26 | 27 | | |
| | | | | | | 32 | 33 | | | | | |
| SEDIMENT (PCI/KG(DRY)) | GAMMA | CE-144 | 20 | 1.95E+02 | < LLD (0 /17) | < LLD | (0 /3) | 23 | 24 | 25 | 26 | 27 |
| | | | | | | 32 | 33 | | | | | |
| SEDIMENT (PCI/KG(DRY)) | GAMMA | CS-134 | 20 | 2.80E+01 | < LLD (0 /17) | < LLD | (0 /3) | 23 | 24 | 25 | 26 | 27 |
| | | | | | | 32 | 33 | | | | | |
| SEDIMENT (PCI/KG(DRY)) | GAMMA | CO-58 | 20 | 2.97E+01 | < LLD (0 /17) | < LLD | (0 /3) | 23 | 24 | 25 | 26 | 27 |
| | | | | | | 32 | 33 | | | | | |
| SEDIMENT (PCI/KG(DRY)) | GAMMA | MN-54 | 20 | 2.63E+01 | 8.00E+01 (2 /17) (6.50E+01 - 9.50E+01) | < LLD | (0 /3) | 23 | 24 | 25 | 26 | 27 |
| | | | | | | 32 | 33 | | | | | |
| SEDIMENT (PCI/KG(DRY)) | GAMMA | FE-59 | 20 | 7.00E+01 | < LLD (0 /17) | < LLD | (0 /3) | 23 | 24 | 25 | 26 | 27 |
| | | | | | | 32 | 33 | | | | | |
| SEDIMENT (PCI/KG(DRY)) | GAMMA | ZN-65 | 20 | 5.74E+01 | < LLD (0 /17) | < LLD | (0 /3) | 23 | 24 | 25 | 26 | 27 |
| | | | | | | 32 | 33 | | | | | |
| SEDIMENT (PCI/KG(DRY)) | GAMMA | CO-60 | 20 | 3.96E+01 | 3.07E+02 (7 /17) (2.00E+01 - 1.10E+03) | < LLD | (0 /3) | 23 | 24 | 25 | 26 | 27 |
| | | | | | | 32 | 33 | | | | | |
| SEDIMENT (PCI/KG(DRY)) | GAMMA | K-40 | 20 | 8.28E+02 | 5.82E+03 (17 /17) (9.10E+02 - 1.40E+04) | 1.23E+04(3 /3) (1.10E+04 - 1.40E+04) | 23 | 24 | 25 | 26 | 27 | |
| | | | | | | 32 | 33 | | | | | |
| SEDIMENT (PCI/KG(DRY)) | GAMMA | BE-7 | 20 | 2.78E+02 | 3.80E+02 (1 /17) (3.80E+02 - 3.80E+02) | < LLD | (0 /3) | 23 | 24 | 25 | 26 | 27 |
| | | | | | | 32 | 33 | | | | | |

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|------------------------|----------|----------------|------------------------------|----------|-------------------------------|-------------------------|--------------------------------|-------------------------|----------------------------------|----|----|----|----|
| | | | | | | | | | | | | | |
| SEDIMENT (PCI/KG(DRY)) | GAMMA | ZR-95 | 20 | 6.64E+01 | < LLD | (0 /17) | < LLD | (0 /3) | 23 | 24 | 25 | 26 | 27 |
| | | | | | | | | | 32 | 33 | | | |
| SEDIMENT (PCI/KG(DRY)) | GAMMA | NB-95 | 20 | 3.34E+01 | < LLD | (0 /17) | < LLD | (0 /3) | 23 | 24 | 25 | 26 | 27 |
| | | | | | | | | | 32 | 33 | | | |
| SEDIMENT (PCI/KG(DRY)) | GAMMA | CE-141 | 20 | 7.63E+01 | < LLD | (0 /17) | < LLD | (0 /3) | 23 | 24 | 25 | 26 | 27 |
| | | | | | | | | | 32 | 33 | | | |
| SEDIMENT (PCI/KG(DRY)) | GAMMA | RU-103 | 20 | 3.57E+01 | < LLD | (0 /17) | < LLD | (0 /3) | 23 | 24 | 25 | 26 | 27 |
| | | | | | | | | | 32 | 33 | | | |
| SEDIMENT (PCI/KG(DRY)) | GAMMA | BA-140 | 20 | 2.71E+02 | < LLD | (0 /17) | < LLD | (0 /3) | 23 | 24 | 25 | 26 | 27 |
| | | | | | | | | | 32 | 33 | | | |
| SEDIMENT (PCI/KG(DRY)) | GAMMA | LA-140 | 20 | 1.06E+02 | < LLD | (0 /17) | < LLD | (0 /3) | 23 | 24 | 25 | 26 | 27 |
| | | | | | | | | | 32 | 33 | | | |
| SEDIMENT (PCI/KG(DRY)) | GAMMA | RA-226 | 20 | 5.07E+02 | 1.13E+03 (14 /17) | (5.60E+02 - 2.60E+03) | 1.30E+03(3 /3) | (1.00E+03 - 1.50E+03) | 23 | 24 | 25 | 26 | 27 |
| | | | | | | | | | 32 | 33 | | | |
| SEDIMENT (PCI/KG(DRY)) | GAMMA | TH-228 | 20 | 6.32E+01 | 4.60E+02 (17 /17) | (1.30E+02 - 1.30E+03) | 7.07E+02(3 /3) | (6.50E+02 - 7.70E+02) | 23 | 24 | 25 | 26 | 27 |
| | | | | | | | | | 32 | 33 | | | |
| SEDIMENT (PCI/KG(DRY)) | GAMMA | I-131 | 20 | 3.47E+02 | < LLD | (0 /17) | < LLD | (0 /3) | 23 | 24 | 25 | 26 | 27 |
| | | | | | | | | | 32 | 33 | | | |
| SEDIMENT (PCI/KG(DRY)) | GAMMA | RU-106 | 20 | 2.06E+02 | < LLD | (0 /17) | < LLD | (0 /3) | 23 | 24 | 25 | 26 | 27 |
| | | | | | | | | | 32 | 33 | | | |

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|---------------------------|--------------|---------|------------------------------|----------|--|---|----------------------------------|----------|----|----|----|
| SEDIMENT (PCI/KG(DRY)) | GAMMA | CS-137 | 20 | 3.53E+01 | 2.01E+02 (11 /17) (2.70E+01 - 4.00E+02) | 9.10E+01(1 /3) (9.10E+01 - 9.10E+01) | 23 32 | 24 33 | 25 | 26 | 27 |
| SEDIMENT (PCI/KG(DRY)) | STRONTIUM-89 | | 8 | 1.00E+02 | < LLD (0 /7) | < LLD (0 /1) | 23 32 | 24 33 | 25 | 26 | 27 |
| SEDIMENT (PCI/KG(DRY)) | STRONTIUM-90 | | 8 | 5.00E+01 | < LLD (0 /7) | < LLD (0 /1) | 23 32 | 24 33 | 25 | 26 | 27 |

ANALYSIS OF DATA

Oyster Creek was shut down during all of the 1983-2 reporting period. Even though minute quantities of nuclides were released via the stack (Table 1B), calculations show that levels of these nuclides in the environment would be far too small to be detected. All activity in liquid releases was below the lower limit of detection, with the exception of Co-60 and H-3. The amounts of Co-60 and H-3 released were so minimal that detection of it in environmental media would be impossible after dilution from Oyster Creek's discharge canal. Radioactivity in the environment for the current reporting period can safely be assumed to have its origin in sources other than releases from Oyster Creek during the 1983-2 reporting period. With this disclaimer in mind, the following is a discussion of environmental media whose activity was found to be somewhat higher than what was normally expected.

Seasonal fluctuations in naturally-occurring nuclides such as Ra-226 and K-40 were evident (Tables 14, 15, 16) and are not considered to be abnormal or facility-related. Fluctuations were observed at background as well as indicator stations. One nuclide in particular, Be-7, was detected frequently in sediment and pasture samples. This nuclide is of cosmic origin and its presence in environmental media for all practical purposes, can be considered to be due to natural processes.

The remainder of activity in environmental media which was above what was normally expected can be attributed to nuclear weapons testing, in conjunction with atmospheric turn-over. Fluctuations in gross beta activity in air particulate (figure 7) were evident during the reporting

period. On the average, activity was higher at background stations than at indicator, further implying elevated activity due to sources other than facility operations. Nuclides associated with weapons testing; namely, Cs-137, Sr-90, and H-3, were detected in several environmental media. Soil, pasture, and broccoli all showed the presence of Cs-137. Pasture and sediment exhibited elevated levels of Sr-90.

Tritium levels in precipitation, particularly at background stations, are believed to be elevated due to the large amount of rainfall during the summer months (Figures 4 and 8). While no apparent relationship exists between total volume of rain that fell and tritium activity (Figure 8), it is thought that rainfall intensity does play some role. While it was not measured at each station during the reporting period, rainfall intensity was noted to have occurred (refer to Section II). Elevated tritium levels are to be expected during periods of intense rainfall, its presence being due to a combination of weapons testing and cosmogenesis. Since the average residence time of tritium in the atmosphere is 1.6 years (Choppin and Rydberg, 1980), it is expected that elevated levels of tritium will be seen in future reports. In fact, according to Choppin and Rydberg "...it will take approximately one hundred years of no further atmospheric testing of hydrogen bombs before the tritium content in nature is reduced again to its normal pretesting level."

Finally, nuclides attributable to facility operations and previously documented in semiannual reports were detected in sediment and clam

samples. Co-60 and Mn-54 were detected in these media within the environs of the discharge canal.

It should be noted that one result of analysis of tritium in well water was initially reported as being 1200 pCi/l (table 14). Re-analysis of this sample twice proved that the initial result was due to a laboratory error and that both re-analyses exhibited activity below the lower limit of detection.

In summary, levels of radioactivity in environmental media for the 1983-2 reporting period were at or below detectable limits except in the cases noted above. No releases from the facility during the reporting period were detected in the environment.

FIGURE 7

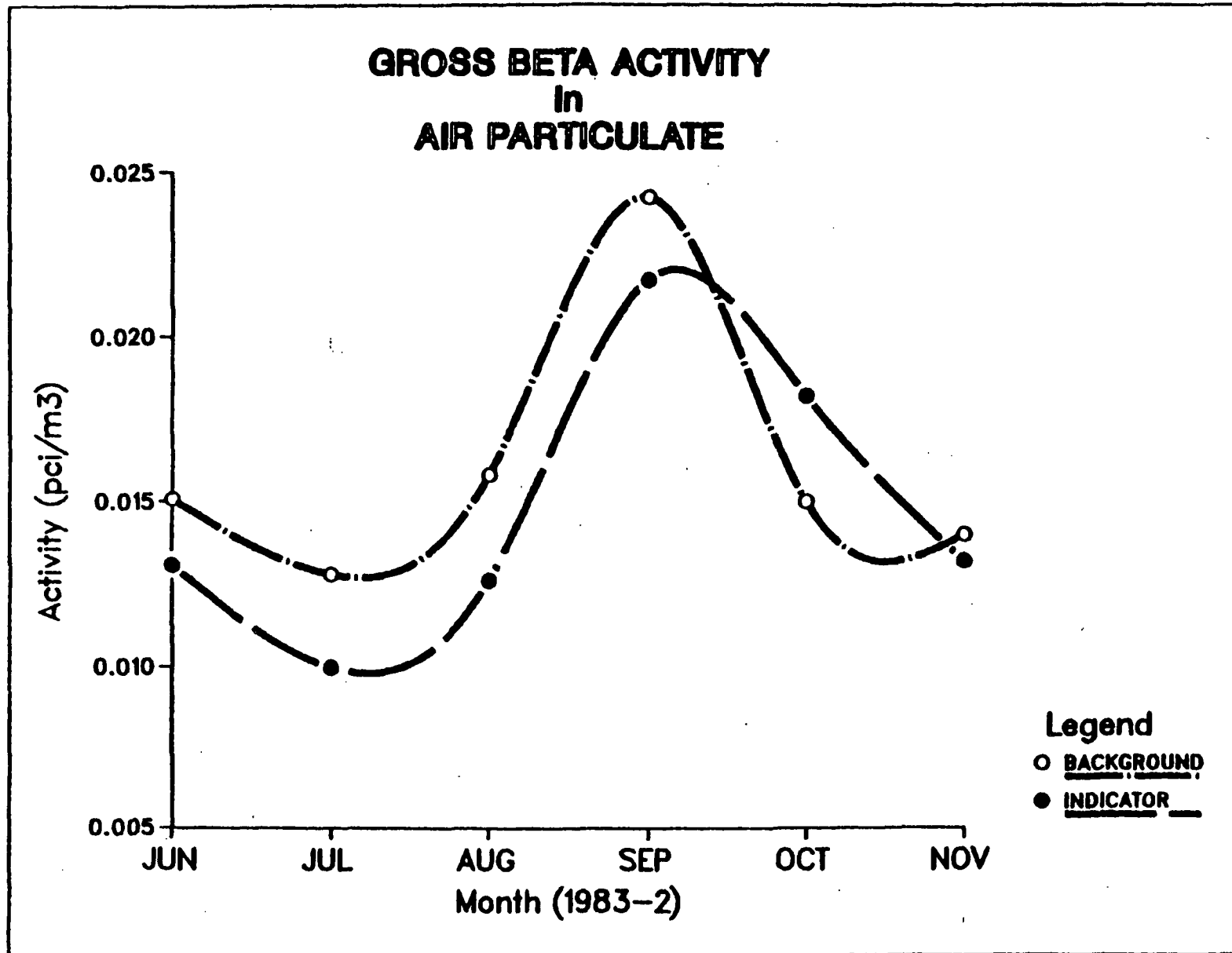
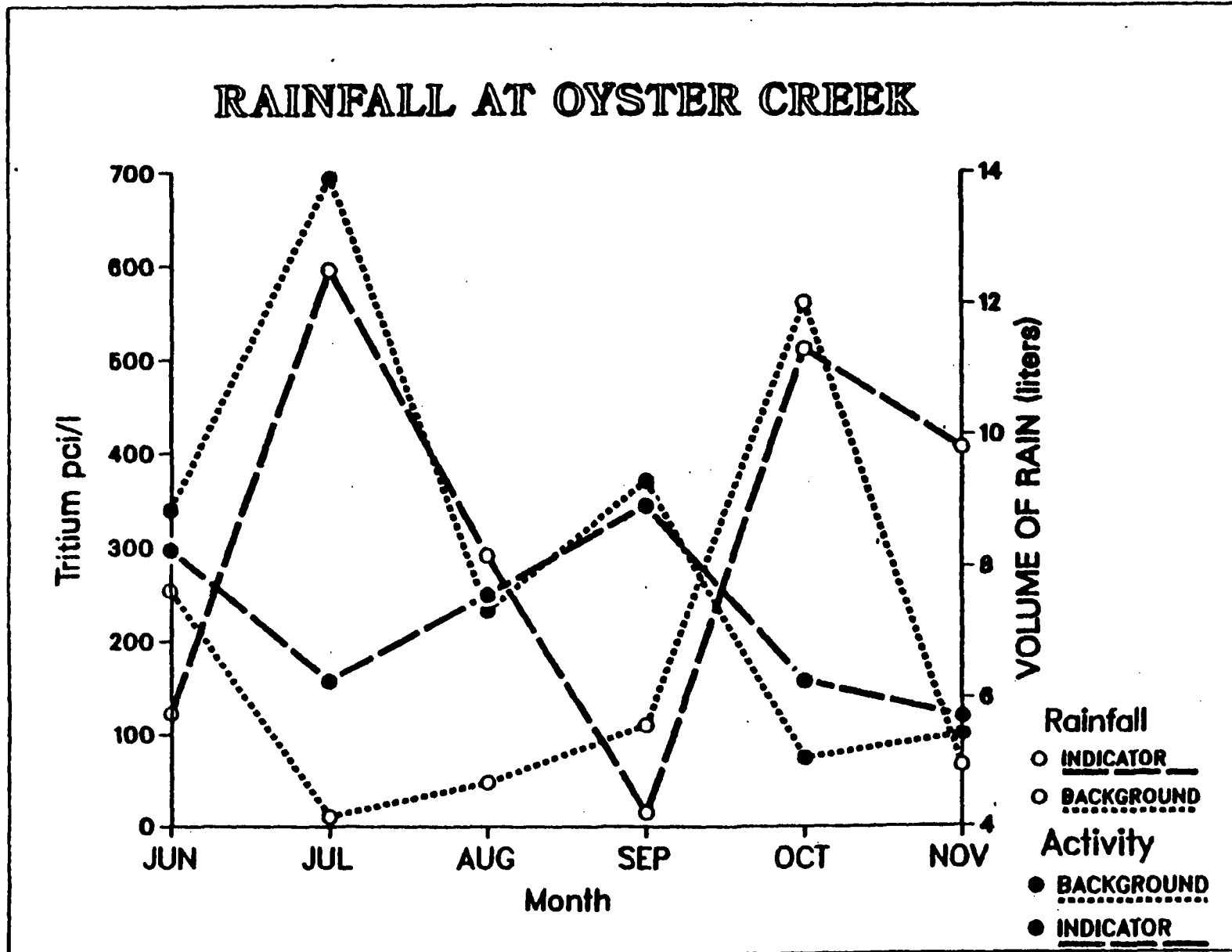


FIGURE 8



RADIOLOGICAL IMPACT ON MAN

Two principle exposure pathways, inhalation and ingestion, are available to gaseous and liquid effluent isotopes, respectively, in the vicinity of Oyster Creek. Intakes via the inhalation pathway are from gaseous effluents, while the ingestion pathway is via consumption of shellfish from Oyster Creek's discharge canal and Barnegat Bay and consumption of garden vegetables. Additionally, a third means of exposure is from direct radiation from Oyster Creek effluents. The maximum hypothetical exposure to any individual from liquid pathways would occur to someone standing at the offsite boundary on the shore of the discharge canal (direct exposure) consuming shellfish (ingestion). For purposes of this report this hypothetical individual is designated as Receptor #1. Maximum exposure due to gaseous pathways (inhalation, ingestion, and direct radiation) would depend on the predominant wind direction and the location of persons living in a given sector with respect to the plant. The direction and distance for this individual is given in Tables 17 and 18.

The following tables represent the offsite dose summary for the two quarters of the six-month reporting period. The information provided was calculated using the models and methodology outlined in NRC Regulatory Guide 1.109 and proposed NRC Regulatory Guide 1.111. The analysis herein represents the maximum hypothetical liquid and gaseous pathway individual doses (Tables 17, 18, and 19). Also included are the appropriate dose

limits as given in 10CFR50, Appendix I, the age group, and the receptor location. The semiannual estimated dose and percent of applicable limit complete the offsite dose assessment of maximum hypothetical doses for the semiannual period.

For both quarterly periods, the maximum individual exposures resulting from OCNGS operation from all pathways are well below the NRC limits of 10 CFR 50, Appendix I and in turn, concentrations in environmental media were well below concentrations in 10 CFR 20, Appendix B, Table II. Monthly analysis of thermoluminescent dosimeters (TLD) for gamma exposure confirm that doses at indicator stations were at or below those of background stations (Table 12).

TABLE 17

SUMMARY OF MAXIMUM INDIVIDUAL DOSES FOR THE
PERIOD FROM JULY 1, 1983 THROUGH SEPTEMBER 30, 1983

| EFFLUENT | APPLICABLE ORGAN | ESTIMATED DOSE (MREM) | AGE GROUP | LOCATION | |
|----------------------|-------------------|-----------------------|-----------|------------|--------------|
| | | | | DIST (m) | DIR (TOWARD) |
| LIQUID | TOTAL BODY | 1.54 E-4 | TEEN | RECEPTOR 1 | |
| LIQUID | GI-TRACT | 8.83 E-4 | ADULT | RECEPTOR 1 | |
| NOBLE GAS* | AIR DOSE (T-MRAD) | - | | | |
| NOBLE GAS | AIR DOSE (B-MRAD) | - | | | |
| NOBLE GAS | TOTAL BODY | - | | | |
| NOBLE GAS | SKIN | - | | | |
| IODINE & PARTICULATE | THYROID | 6.94 E-3 | CHILD | 966 | SE |

* Noble Gas Activity during the period was below the lower limit of detection. Therefore, dose assessment could not be performed.

TABLE 18

SUMMARY OF MAXIMUM INDIVIDUAL DOSES FOR THE
PERIOD FROM OCTOBER 1, 1983 THROUGH DECEMBER 31, 1983

| EFFLUENT | APPLICABLE ORGAN | ESTIMATED DOSE (MREM) | AGE GROUP | LOCATION | |
|-------------------------|----------------------------|-----------------------------|--------------|-------------|-----------------|
| | | | | DIST (m) | DIR (TOWARD) |
| LIQUID* | TOTAL BODY | - | | - | |
| LIQUID | GI-TRACT | - | | - | |
| NOBLE GAS* | AIR DOSE (γ -MRAD) | - | | - | - |
| NOBLE GAS | AIR DOSE (β -MRAD) | - | | - | - |
| NOBLE GAS | TOTAL BODY | - | | - | - |
| NOBLE GAS | SKIN | - | | - | - |
| IODINE & PARTICULATE | THYROID | - | | - | - |

* Noble Gas and Liquid Activity during the period were not released.
Therefore, dose assessment could not be performed.

TABLE 19
 SUMMARY OF MAXIMUM INDIVIDUAL DOSES FOR THE
 PERIOD FROM JULY 1, 1983 THROUGH DECEMBER 31, 1983

| EFFLUENT | APPLICABLE ORGAN | SEMIANNUAL ESTIMATED DOSE (MREM) | ANNUAL % APPLIC. LIMIT | ANNUAL LIMIT (MR) |
|----------------------|----------------------------|----------------------------------|------------------------|-------------------|
| LIQUID | TOTAL BODY | 1.54 E-4 | 5.1 E-3 | 3.0 |
| LIQUID | GI-TRACT | 8.83 E-4 | 8.0 E-3 | 10.0 |
| NOBLE GAS | AIR DOSE (γ -MRAD) | - | - | 10.0 |
| NOBLE GAS | AIR DOSE (β -MRAD) | - | - | 20.0 |
| NOBLE GAS | TOTAL BODY | - | - | 5.0 |
| NOBLE GAS | SKIN | - | - | 15.0 |
| IODINE & PARTICULATE | THYROID | 6.94 E-3 | 4.60 E-2 | 15.0 |

IV. REFERENCES

REFERENCES

Choppin, G. R. and J. Rydberg. Nuclear Chemistry Theory and Applications.
Pergamon Press. New York, N. Y. 1980. 667 pp.