PSEG NUCLEAR LLC

ANNUAL RADIOACTIVE EFFLUENT RELEASE REPORT

FOR

THE SALEM AND HOPE CREEK

GENERATING STATIONS

SGS RERR-49

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2000 PSEG NUCLEAR LLC
RADIOACTIVE EFFLUENTS RELEASE REPORT

PSEG NUCLEAR LLC

RADIOACTIVE EFFLUENT RELEASE REPORT

SALEM AND HOPE CREEK GENERATING STATIONS

JANUARY - DECEMBER 2000

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INTRODUCTION

This report, SGS-RERR-49/HCGS-RERR-23, summarizes information pertaining to the releases of radioactive materials in liquid, gaseous and solid form from the Salem Generating Station (SGS) and Hope Creek Generating Station (HCGS) for the period January 1, 2000 to December 31, 2000.

Salem Unit 1 is a Westinghouse Pressurized Water Reactor, which has a licensed core thermal power of 3411 MWt and an approximate net electrical output of 1115 MWe. Salem Unit 1 achieved initial criticality on December 11, 1976 and went into commercial operation on June 30, 1977.

Salem Unit 2 is a Westinghouse Pressurized Water Reactor, which has a licensed core thermal power of 3411 MWt and an approximate net electrical output of 1115 MWe. Salem Unit 2 achieved initial criticality on August 2, 1980 and went into commercial operation on October 13, 1981.

Hope Creek is a General Electric Boiling Water Reactor, which has a licensed core thermal power of 3293 MWt and an approximate net electrical output of 1067 MWe. The HCGS achieved initial criticality on June 28, 1986 and went into commercial operation on December 20, 1986.

This report is prepared in the format of Regulatory Guide 1.21, Appendix B, as required by Control 6.9.1.8 of the Salem Units 1 and 2 Offsite Dose Calculation Manual (ODCM) and Control 6.9.1.7 of the Hope Creek ODCM. Our responses to parts A through F of the "Supplemental Information" section of Regulatory Guide 1.21, Appendix B, are included in the following pages.

The Offsite Dose Calculation Manual limits are described in detail within this report along with a summary description of how total radioactivity measurements and their approximations were developed.

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To facilitate determination of compliance with 40CFR190 requirements, the following information on electrical output is provided.

Hope Creek generated **7,271,736** megawatt-hours of electrical energy (net) during the reporting period.

Salem Unit 1 generated **8,952,640** megawatt-hours of electrical energy (net) during the reporting period.

Salem Unit 2 generated **8,381,720** megawatt-hours of electrical energy (net) during the reporting period.

PART A. PRELIMINARY SUPPLEMENTAL INFORMATION

1.0 REGULATORY LIMITS

1.1 Fission and Activation Gas Release Limits

The dose rate due to radioactive materials released *in gaseous effluents* from the site (i.e. Salem Units 1 & 2, AND Hope Creek) to areas at and beyond the site boundary, shall be limited to the following:

For noble gases: Less than or equal to 500 mrems/yr to the total body and less than or equal to 3000 mrems/yr to the skin.

In addition, the air dose due to noble gases released *in gaseous effluents* from each reactor unit (i.e. Salem Unit 1, Unit 2, OR Hope Creek) to areas at and beyond the site boundary, shall be limited to the following:

During any calendar quarter: Less than or equal to 5 mrad for gamma radiation and less than or equal to 10 mrad for beta radiation and,

During any calendar year: Less than or equal to 10 mrad for gamma radiation and less than or equal to 20 mrad for beta radiation.

1.2 Iodine, Particulates, and Tritium

The dose rate due to radioactive materials released *in gaseous effluents* from the site to areas at and beyond the site boundary, shall be limited to the following:

For iodine-131, iodine-133, for tritium and for all radionuclides in particulate form with half-lives greater than 8 days: Less than or equal to 1500 mrems/yr to any organ.

In addition, the dose to a member of the public from iodine-131, iodine-133, tritium, and all radionuclides in particulate form with half-lives greater than 8 days in gaseous effluents released, from each reactor unit, to areas at and beyond the site boundary, shall be limited to the following:

> During any calendar quarter: Less than or equal to 7.5 mrems to any organ and,
>
> During any calendar year: Less than or equal to 15 mrems to any organ.

1.3 Liquid Effluents Release Limits

The concentration of radioactive material released *in liquid effluents* to unrestricted areas shall be limited to the concentrations specified in 10CFR20, Appendix B, Table II, Column 2, for radionuclides other than dissolved or entrained noble gases. For dissolved or entrained noble gases, the concentration shall be limited to 2E-04 microcuries per milliliter.

In addition, the dose or dose commitment to a member of the public from radioactive materials *in liquid effluents* released to unrestricted areas shall be limited to:

> During any calendar quarter: Less than or equal to 1.5 mrems to the total body, and less than or equal to 5 mrems to any organ, and
>
> During any calendar year: Less than or equal to 3 mrems to the total body, and less than or equal to 10 mrems to any organ.

1.4 Total Dose Limit

The annual (calendar year) dose or dose commitment to any member of the public, due to releases of radioactivity and radiation, from uranium fuel cycle sources shall be limited to less than or equal to 25 mrems to the total body or any organ (except the thyroid, which shall be limited to less than or equal to 75 mrems).

2.0 MAXIMUM PERMISSIBLE CONCENTRATIONS (MPC)

Regulatory Guide 1.21 requires that the licensee provide the MPC's used in determining allowable release rates or concentrations for radioactive releases.

a. MPC values are not used for gaseous releases. Determination of maximum release rates for noble gases, I-131, I-133, tritium, and for all radionuclides in particulate form (with half-lives > 8 days), are based on dose rate calculations as specified in the ODCM.
b. According to current Technical Specifications, MPC values as stated in 10CFR20, Appendix B, Table II, Column 2 are to be used for liquid effluents. Since the MPC values were removed from 10CFR20 effective 1/1/94, the MPC values are now contained in the Salem and Hope Creek ODCM's. These MPC values are added as Appendix B of this report.
c. The MPC value used for dissolved or entrained noble gases *in liquid effluents* is 2E-04 microcuries per milliliter.

3.0 AVERAGE ENERGY

Regulatory Guide 1.21 requires that the licensee provide the average energy of the radionuclide mixture in releases of fission and activation gases, if applicable.

Release limits for SGS and HCGS are not based upon average energy. Therefore this section is not applicable to SGS or HCGS.

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4.0 MEASUREMENTS AND APPROXIMATIONS OF TOTAL RADIOACTIVITY

4.1 Liquid Effluents

Liquid effluents are monitored in accordance with Table 4.11-1 of the Salem ODCM and Table 4.11.1.1.1-1 of the Hope Creek ODCM.

During the period of record, all batch liquid wastes were routed to the sampling tanks for monitoring prior to release. The ODCM's requires these tanks to be uniformly mixed for sampling and analysis before being released.

Batch releases are defined as:

- For Hope Creek, releases from the Equipment Sample Tanks, Floor Drain Sample Tanks, Detergent Drain Tanks, and the Condensate Storage Tank.

- For Salem, releases from the Waste Monitor Holdup Tanks and the Chemical and Volume Control system tanks. During the period of record, all batch liquid wastes from the Chemical Drain Tank and Laundry and Hot Shower Tanks were routed to Holdup Tanks for monitoring prior to release.

At Hope Creek, a continuous liquid effluent release path exists through the circulating water dewatering sump discharge.

For Salem, continuous liquid release pathways include condensate releases for intermittent blowdown of the Steam Generators, and through the chemical waste basin.

Representative samples were obtained in accordance with Table 4.11-1 of the Salem ODCM for the Salem Generating Stations and Table 4.11.1.1.1-1 of the Hope Creek ODCM for Hope Creek Generating Station. Specific activities from the analyses were multiplied by the volume of effluent discharged to the environment in order to determine the total liquid activity discharged.

The detection requirements of Table 4.11-1 (SGS) and Table 4.11.1.1.1-1 (HCGS) of the ODCM are achieved or exceeded. Radionuclides measured at concentrations below the ODCM detection limit (LLD) are treated as being present. Radionuclides for which no activity was detected while meeting the required LLD's are treated as absent.

4.2 Gaseous Effluents

Salem Units 1 and 2:

Gaseous effluent streams at SGS are monitored and sampled in accordance with Table 4.11-2 of the ODCM. The Plant Vent is the final release point for planned gaseous effluent releases and is continuously monitored by installed radiation monitors. The vent is also continuously sampled for iodine and particulates with a charcoal cartridge and filter paper. The filter and charcoal are changed weekly, and analyzed on a multichannel analyzer.

Sampling is also performed on all Gas Decay Tanks and the Containment atmosphere prior to release to the environment. The plant vent is sampled weekly for noble gases and tritium.

The detection requirements of Table 4.11-2 of the ODCM are achieved or exceeded. Radionuclides detected at concentrations below the ODCM LLD are treated as being present. Radionuclides for which no activity was detected while meeting the required LLDs are treated as absent.

Continuous Mode gaseous releases are quantified by routine (monthly or weekly) sampling and isotopic analyses of the plant vent. Specific activities for each isotope detected are multiplied by the total vent volume for the entire sampling period in order to determine the normal continuous release of radioactivity through the plant vent.

Slightly elevated plant vent radiation monitoring readings and containment pressure reliefs are treated as continuous releases. The monitor response is converted to "specific activity" using historical efficiency factors. The "specific activity" is multiplied by a conservative default volume of effluent discharge to determine the total activity released.

Batch Mode gaseous releases are quantified by sampling each Gas Decay Tank or Containment atmosphere prior to release. Specific activities for each isotope are multiplied by the total volume of gas discharged for that batch to determine the total activity released.

Elevated plant vent radiation monitoring system readings while the channel is in an alarm state are treated as batch mode releases. If specific activity data from grab

samples are not available, then the abnormal release is quantified by the use of the plant vent radiation monitors. The monitor response is converted to "specific activity" using historical efficiency factors. The "specific activity" is multiplied by the volume of effluent discharged while the channel was in an alarm state in order to determine the total activity discharged.

Hope Creek:

Gaseous effluent streams at HCGS are monitored and sampled in accordance with Table 4.11.2.1.2-1 of the ODCM. The North Plant Vent (NPV) and South Plant Vent (SPV) are the final release points for most planned gaseous effluent releases. The NPV and SPV are continuously monitored for iodine, particulates and noble gases. These monitors have moving particulate and fixed charcoal filters. The particulate filters and charcoal cartridges are replaced and analyzed weekly. These analyses are performed on a multichannel analyzer. The NPV and SPV are also sampled weekly for noble gases and tritium.

A small quantity of gaseous effluent is released via the Filtration, Recirculation, and Ventilation System (FRVS) vent during testing periods. The FRVS is continuously monitored for noble gases when in service, and has fixed particulate and charcoal filters. When the system is in vent mode for greater than two hours, samples are collected at the end of the release period. During periods of extended runs, samples are taken weekly.

The detection requirements of Tables 4.11.2.1.2-1 of the ODCM are achieved or exceeded. Radionuclides detected at concentrations below the ODCM detection limit (LLD) are treated as being present. Radionuclides for which no activity was detected while meeting the required LLDs are treated as absent.

When weekly Noble Gas grab samples yield no detectable activity, continuous mode releases are quantified by integrating Radiation Monitor System readings, and applying a 95% Critical Level Test. Noble gas isotopic abundances for these integrations are based on the ANSI N237-1976/ANS-18.1 mix for BWRs. Doses calculated from this data employ the methods described in the Hope Creek ODCM.

Batch Mode gaseous releases (i.e., Primary Containment Purge) are quantified by pre-release sampling and isotopic analysis. Specific activities for each isotope are multiplied by twice the containment volume in order to estimate the total radioactivity released.

4.3 Estimated Total Error

The estimated total error of reported liquid and solid releases is within 25%.

The estimated total error of the reported continuous gaseous releases is within 50% when concentrations exceed detectable levels. This error is due primarily to variability of waste stream flow rates and changes in isotopic distributions of waste streams between sampling periods. The estimated total error of the reported batch gaseous releases is within 10%.

Error estimates for releases where sample activity is below the detectable concentration levels are not included since error estimates at the LLD are not defined.

5.0 BATCH RELEASES

Summaries of batch releases of gaseous and liquid effluents are provided in Tables 4A and 4B.

6.0 UNPLANNED/ABNORMAL RELEASES

During this report period, the following unplanned/abnormal releases occurred:

a. Liquid

There were no unplanned/abnormal liquid releases this period.

b. Gaseous

1. Number of releases: 1
2. Total activity released: 4.37E-01 Curies

Salem Unit 2

- On June 25, 2000, while performing tagging of the 22 Waste Gas Compressor for maintenance, an isolation valve was identified as leaking. This allowed the operating Gas Decay Tanks to vent some waste gas to the plant ventilation system. Although the release did not exceed any radiation monitor alarm/trip setpoint, the plant vent noble gas radiation monitors 2R16

and 2R41 radiation levels increased. The readings were elevated for about 10 minutes. The total activity released during this occurrence was approximately 0.44 curies of noble gases. The activity released is included in the data provided in Tables 1A-2 and 1C-2.

7.0 ELEVATED RADIATION MONITOR RESPONSES

During this reporting period, there was one occasion of a liquid effluent release being terminated due to radiation monitor alarm. This occurred at Salem Unit 1 during the fourth quarter, with a duration of five minutes. The cause of the elevated monitor response was determined to be contamination buildup in the monitor, and the elevated reading was cleared upon flush of the monitor. The tank was recirculated, resampled and released without further elevated readings. Based on the identified cause, the impact on dose received to a member of the general public is negligible.

8.0 MODIFICATION TO PREVIOUS RADIOACTIVE EFFLUENT RELEASE REPORTS

The previous Salem Radioactive Effluent Release Report (SGS RERR-48) was a semi-annual report covering the first six months of the year 2000. SGS RERR-48 did not report composite analyses that were not available at the time of the original report submittal. The results of the missing composite analyses are included in this current report. Since this current report is an annual report covering the entire year 2000, no revisions to the previous report (SGS RERR-48) are made.

PART B. GASEOUS EFFLUENTS

See Summary Tables 1A and 1C.

PART C. LIQUID EFFLUENTS

See Summary Tables 2A and 2B.

PART D. SOLID WASTE

See Summary in Table 3A for Salem Units 1 and 2, and Table 3B for Hope Creek Solid Radwaste Shipped Offsite for Disposal.

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PART E. RADIOLOGICAL IMPACT ON MAN

The calculated individual doses in this section are based on the controlling dose pathways and age groups as described below. The estimated dose represents the maximum radiation dose that could be received by a member of the general public. The population dose impact is based on historical site-specific data (i.e., food production, milk production, feed for milk animals and seafood production).

The doses were calculated using methods described in Regulatory Guide 1.109 and represent calculations for the 12-month reporting interval. Individual doses from batch and continuous releases were calculated using the annual average historic meteorological dispersion coefficients as described in the respective Offsite Dose Calculation Manual. Population doses were calculated using the meteorological dispersion coefficients for the twelve month reporting interval.

Liquid Pathways

Type	Age Group	Location	Pathway
Total Body	Adult	Site Boundary	Seafood Ingestion
Organ	Adult	Site Boundary	Seafood Ingestion

Salem Unit 1 & 2

Type	Dose		Limit
Total Body	4.18E-02	mrem	3 mrem
Organ Dose (Liver)	8.08E-02	mrem	10 mrem

Hope Creek

Type	Dose		Limit
Total Body	2.73E-03	mrem	3 mrem
Organ Dose (GI-LLI)	1.33E-02	mrem	10 mrem

Site	Dose		Limit
Population (Total)	2.78E-02	person-rem	N/A
Population (Average)	4.65E-06	mrem	N/A

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Air Pathways

Type	Age Group	Location	Pathway
Total Body	All	Site Boundary	Direct Exposure
Skin	All	Site Boundary	Direct Exposure
Organ	Infant	4.9 mi. W.	Milk, Ground Plane, Inhalation

Salem Units 1&2

Type	Dose		Limit
Total Body	3.82E-02	mrem	500 mrem/yr
Skin	9.43E-02	mrem	3000 mrem/yr
Organ Dose (Thyroid)	3.13E-02	mrem	15 mrem

Hope Creek

Type	Dose		Limit
Total Body	1.95E-02	mrem	500 mrem/yr
Skin	4.25E-02	mrem	3000 mrem/yr
Organ Dose (Thyroid)	4.27E-03	mrem	15 mrem

Site	Dose		Limit
Population (Total)	1.41E+00	person-rem	N/A
Population (Average)	2.36E-04	mrem	N/A

Direct Radiation

Direct radiation may be estimated by thermoluminescent dosimetric (TLD) measurements. One method for comparing TLD measurements is by comparison with pre-operational data. It should be noted that the TLDs measure direct radiation from both the Salem and Hope Creek Generating Stations at Artificial Island, and natural background radiation.

TLD data for the twelve-month reporting period is given below:

TLD	Location	Measurement
1S-1	0.4 mi. NNE	4.45 mrad/month
5S-1	1.0 mi. E	3.68 mrad/month

These values are interpreted to represent natural background, since the values are within the statistical variation associated with the pre-operational program results, which are 3.7 mrad/month for location 1S-1, and 4.2 mrad/month for location 5S-1.

Total Dose

40CFR190 limits the total dose to members of the public due to radioactivity and radiation from uranium fuel cycle sources to:

<25 mrem total body or any organ and;

<75 mrem thyroid for a calendar year.

For Artificial Island, the major sources of dose are from liquid and gaseous effluents from the Hope Creek and Salem plants.

The following doses to a "hypothetical maximum exposed individual" have been calculated for the twelve-month reporting period. They are the sum of gaseous and liquid pathway doses for the Salem 1 and 2 and Hope Creek plants:

5.11E-02	mrem	Total Body
9.24E-02	mrem	Organ (Liver)
5.77E-02	mrem	Thyroid

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Dose to members of the public due to activities inside the site boundary

Dose to members of the public is limited to 100 mrem total effective dose equivalent (TEDE) in a year in accordance with 10CFR20.1301. The members of the public that spent the most time at PSEG Nuclear for 2000 are various food vendors, who spent a few hours in front of the Security Center during lunch hours. In accordance with the requirements of ODCM 6.9.1.8 (SGS) and 6.9.1.7 (HCGS), the dose to members of the public inside the site boundary has been calculated based on the following assumptions:

a. The food vendors deliver Monday through Friday.
b. They arrive at approximately 10:00 A.M. at the Security Center.
c. The food vendors leave the site at 1:00 P.M.
d. No deliveries are made on major holidays, making the total weeks equal 50 for the year.
e. The dose data is based on the TLD located outside the Security Center in the vicinity of the food vendors and the calculated dose due to gaseous effluents at that location.
f. For time periods where there is either zero dose or no data, no averaging was performed.

For the 12-month reporting period, January 1, 2000 to December 31, 2000 the calculated doses are:

1.63E+00	mrem	Total Body
1.50E-02	mrem	Organ (Lung)
1.50E-02	mrem	Thyroid

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Assessment

1. Gaseous:

Gaseous effluents released from the Salem and Hope Creek Generating Stations resulted in a minimal dose to the maximum hypothetical individual. The dose for the 12-month period was a small fraction of all applicable limits.

Reported gaseous effluents from HCGS decreased from the previous reporting period. Gaseous effluents increased from SGS due to an increased number of required containment venting for pressure relief. The Corrective Action Process is tracking the identification and resolution of the causes for this increased venting. The gaseous effluents for the site continue to remain well within Federal limits.

2. Liquids:

Liquid effluents released from the Salem and Hope Creek Generating Stations resulted in a minimal dose to the maximum hypothetical individual and were well within all applicable limits.

The amount of radioactivity in liquid effluents show a decreasing trend (on an annual basis) from previous reporting periods due to programmatic efforts to minimize in-leakage to the liquid radwaste processing system.

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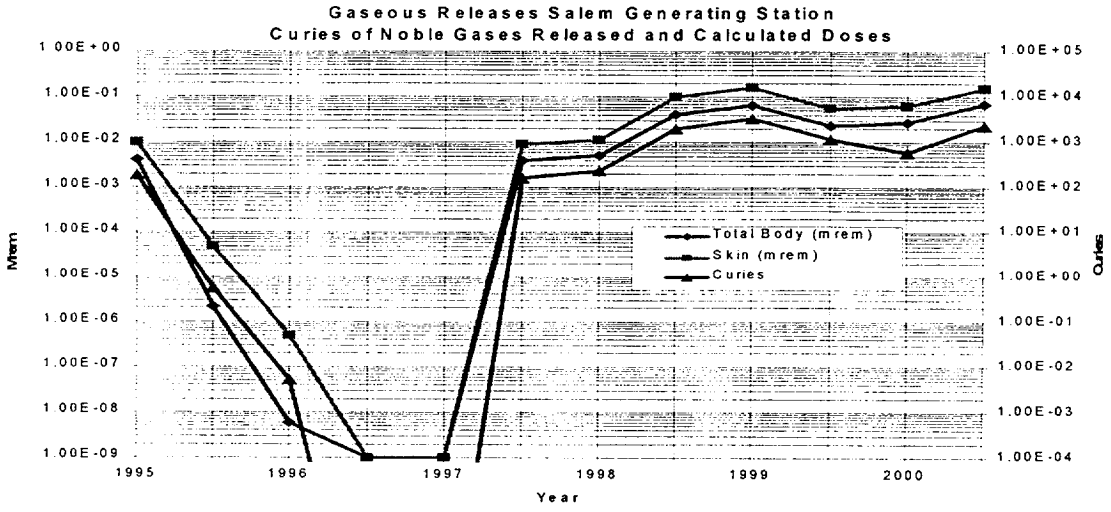
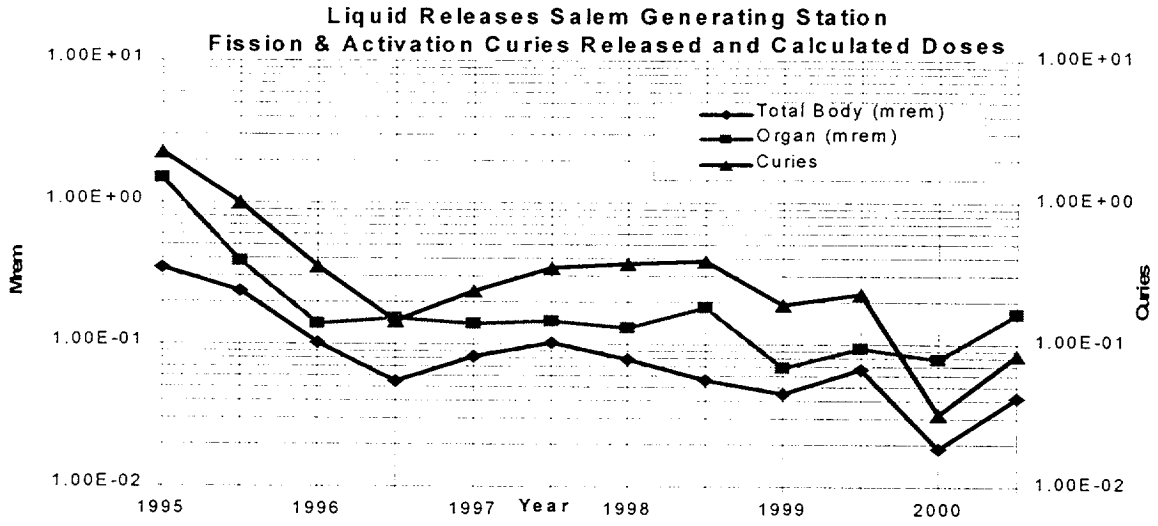
Trends (Salem)

The following two trend graphs show the total curies of gaseous and liquid effluents released from Salem. Calculated doses in graphs are to the maximum hypothetical individual.





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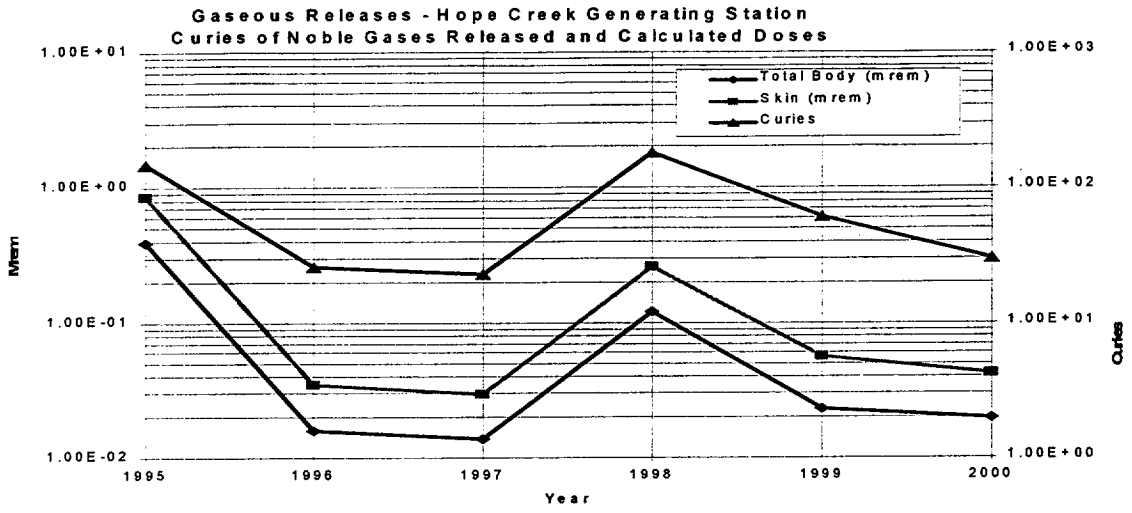
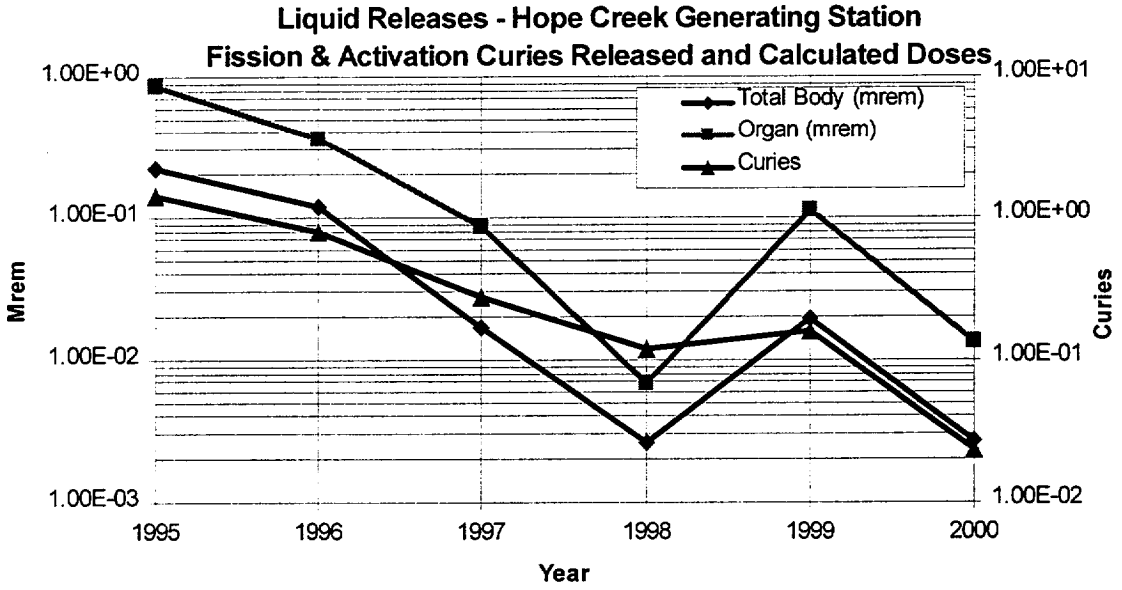
Trends (Hope Creek)

The following two trend graphs show the total curies of gaseous and liquid effluents released from Hope Creek. Calculated doses in graphs are to the maximum hypothetical individual.





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PART F. METEOROLOGICAL DATA

Cumulative joint wind frequency distributions by atmospheric stability class at the 33 foot elevation are provided for 2000 at the end of this report in Appendix A.

PART G. OFFSITE DOSE CALCULATION MANUAL (ODCM) CHANGES

The Hope Creek Offsite Dose Calculation Manual was not revised in 2000.

The Salem ODCM was revised once in 2000. Revision 14 became effective 12/13/00, accomplishing the following:

INTRODUCTION:

Added a discussion of the basis for continuing to use the "old" 10CFR20 Maximum Permissible Concentrations (MPCs), as stated in the Safety Evaluation by the Office of Nuclear Reactor Regulation related to Amendment Nos. 234 and 215 to Facility Operating License Nos. DPR-70 and DPR-75

PART I:

1. Throughout PART I: Added "Technical" to "Specification" as appropriate to clearly reference Technical Specification requirement as separate from ODCM CONTROL requirements.

2. Revised DEFINITION 1.4 CHANNEL CALIBRATION to be consistent with the Technical Specification definition.

3. Revised DEFINITION 1.10 CONTROL to more accurately reflect the transfer of the Radiological Effluent Technical Specifications (RETS) to the Offsite Dose Calculation Manual (ODCM).

4. In ODCM CONTROL 3.3.3.8, the APPLICABILITY statement is revised to clarify that the specified liquid effluent radiation monitoring instrumentation is required when liquids are released through the associated pathway. The previous APPLICABILITY read "At all times".

5. In Table 3.3-12, revised ACTION 27, 28, and 31 to require that the specified grab samples be analyzed for principal gamma emitters, I-131, and dissolved

and entrained gases at the lower limits of detection specified in ODCM CONTROL Table 4.11-1.B. The previous ACTION statements required gross radioactivity analysis.

6. In Table 3.3-13, revised ACTION 33 to require that the specified grab samples be analyzed for principal gaseous gamma emitters at the lower limits of detection specified in ODCM CONTROL Table 4.11-2.A, B, or C. The previous ACTION statements required gross radioactivity analysis.

7. Revised TABLE 3.3-12 and TABLE 3.3-13 to include the applicable channel identification numbers for clarification of Minimum Channels Operable requirement..

8. Added "Pressure-Vacuum Relief" to note (e) in TABLE 3.3-13 and TABLE 4.3-13.

9. Revised ACTION 36 in TABLE 3.3-13 to allow up to 4 hours to establish alternate sampling for Iodine and Particulate Samplers when the number of channels OPERABLE is less than required by the Minimum Channels OPERABLE requirement. The previous ACTION statement required immediate establishment of sampling.

10. ODCM Control TABLE 4.3-12: Table Notation (2) conditions 3 and 4: Revised references in parentheses to Unit 1 concerning indication in control equipment room or instruments with operate mode switches.

11. ODCM Control TABLE 4.3-12: Table Notation footnote ##: Revised "CHANNEL CALIBRATION" to "SOURCE CHECK" to reference the correct surveillance requirement.

12. In TABLE 4.11-1.B, corrected the Sampling Frequency and Minimum Analysis Frequency entries for continuous releases from the Steam Generator Blowdown to reference Note d for the Monthly and Quarterly composites. Also deleted the reference to "composite" for the weekly analysis of Principal Gamma Emitters and I-131. Clarified that the weekly samples are grab samples.

13. In TABLE 4.11-2.B, corrected the Minimum Analysis Frequency for Containment PURGE Tritium analysis to P (each PURGE).

14. In CONTROL 3.12.2, deleted the reference to requirements applicable only to elevated releases, since there are no elevated release paths.

15. In TABLE 3.12-2, replaced the REPORTING LEVELS for H-3 and I-131 for Water with the values in the footnotes to be applied if no drinking water pathway exists.

16. In TABLE 4.12-2, replaced the LLD'S for H-3 and I-131 for Water with the values in the footnotes to be applied if no drinking water pathway exists.

PART II:

1. Throughout PART II: Revised reference to "Technical Specifications" to "CONTROL" as appropriate to reflect the transfer of the RETS to the ODCM.

2. In Section 1.2 and Tables 1-1.1 and 1-1.2, added discussion to clarify the dilution flow applicable to the R13 radiation monitors during period when the other Salem Unit's circulating pumps are out of service.

3. Revised the note (*) in Section 2.1 to reflect the implementation of new setpoints for the R12A radiation monitors when in Mode 6.

4. Revised the following parameters in Section 2.6 for calculating potential secondary side radioactive gaseous effluents:

SFj	=	400,000 lb/hr per PORV
	=	850,000 lb/hr per safety relief valve
	=	62,500 lb/hr for auxiliary feed pump exhaust
PFi	=	0.005 for all other particulates

5. In Section 3.1, removed the reference to a specific TLD site (CA16) used in the example for calculating the dose to members of the public inside the site boundary.

6. Revised the NOTE in Section 4.1 to state that no public drinking water samples or irrigation water samples are "required".

7. Revised the numbering scheme for Tables 1-1, 1-2, 1-3, 1-4, 2-2, 2-3, 2-4, and 2-5 (previous numbering scheme) to correlate these table titles and

numbers to those in the Hope Creek ODCM. The Tables are now numbered 1-1.1, 1-1.2, 1-2, 1-3, 2-2.1, 2-2.2, 2-3, and 2-4, respectively.

8. In Tables 2-2.1 and 2-2.2 (new numbering scheme), revised the ** notes for the R12A radiation monitor setpoints to reflect the Technical Specification Amendments 236 and 217.

9. In Table E-1, removed the ** and associated note for TLD locations 7S1, 10S1, and 11S1, since they were not necessary.

10. In Table E-1, revised the wording in D. Ground Water Locations and E. Drinking Water Locations to more accurately reflect conditions as stated in ODCM CONTROL 3.12.1. Sampling is not required for these pathways at Salem or Hope Creek.

A copy of the revised Salem ODCM is included in Appendix C.

PART H. INOPERABLE MONITORS

During this period the following effluent radiation monitors were inoperable for greater than 30 days:

SALEM UNIT 1

Containment Fan Coil Unit Process Radiation Monitor (1R13D): The radiation monitor was inoperable for greater than 30 days due to monitor failure followed by a planned loss of circulating water flow (dilution flow) during outage related work at Salem Unit 2. Salem Unit 1 SW header discharges into Unit 2 Circ water outlet header. The planned unavailability of the Unit 2 Circ Water Outlet Header removes the dilution stream for this monitor thereby rendering it inoperable following repairs to the monitor. The monitor was tested and returned to service following restoration of the dilution flow.

All required compensatory sampling was in place during the above inoperable condition.

SALEM UNIT 2

Steam Generator Blowdown Radiation Monitors (2R19 A-D): These radiation monitors were inoperable for greater than 30 days due to expected loss of sample flow during a scheduled plant refueling outage. Upon start-up from the refueling outage, sample flow was observed to be reduced. Sample Flowraters were cleaned and adequate flow was restored to the monitors.

Waste Gas Analyzer. The Waste Gas Analyzer was inoperable for greater than 30 days due to low flow. Corrective actions were delayed due to less than adequate communications between Operations and Maintenance. Corrective Actions to address this communication issue are being tracked by the Corrective Action Process.

All required compensatory sampling was in place during the above inoperable conditions.

HOPE CREEK

There were no monitors inoperable for greater than 30 days during this reporting period.

PART I. PROCESS CONTROL PROGRAM (PCP) CHANGES

During the reporting period, there were no changes to either the Salem or Hope Creek Process Control Programs.

PART J. ENVIRONMENTAL MONITORING LOCATION CHANGES

During the reporting period, there were no changes made to the Radioactive Environmental Monitoring Program (REMP) locations.

2000 PSEG NUCLEAR LLC
RADIOACTIVE EFFLUENTS RELEASE REPORT

TABLE 1A-1
SALEM GENERATING STATION - UNIT 1
EFFLUENTS AND WASTE DISPOSAL ANNUAL REPORT
JANUARY – JUNE 2000
GASEOUS EFFLUENTS – SUMMATION OF ALL RELEASES

		Units	1st Quarter	2nd Quarter	Est. Total Error[1]
A.	**Fission and Activation Products**				
1.	Total Release	Ci	2.66E+02	1.32E+02	50%
2.	Average Release Rate For Period	µCi/sec	3.39E+01	1.68E+01	
3.	Percent of Technical Specification Limit (T.S. 3.11.2.2(a))	%	2.18E-01	9.68E-02	
B.	**Iodines**				
1.	Total Iodine-131	Ci	1.13E-04	3.85E-05	50%
2.	Average Release Rate For Period	µCi/sec	1.44E-05	4.90E-06	
3.	Percent of Technical Specification Limit[2] (T.S. 3.11.2.3(a))	%	1.61E-02	6.61E-03	
C.	**Particulates**				
1.	Particulates With Half-lives > 8 days	Ci	1.78E-05	9.93E-06	50%
2.	Average Release Rate For Period	µCi/sec	2.26E-06	1.26E-06	
3.	Percent of Technical Specification Limit[2] (T.S. 3.11.2.3(a))	%	1.61E-02	6.61E-03	
4.	Gross Alpha	Ci	0.00E+00	0.00E+00	
D.	**Tritium**				
1.	Total Release	Ci	2.55E+02	1.12E+02	50%
2.	Average Release Rate For Period	µCi/sec	3.24E+01	1.42E+01	
3.	Percent of Technical Specification Limit[2] (T.S. 3.11.2.3(a))	%	1.61E-02	6.61E-03	

1. For batch releases, the estimated overall error is 10%.
2. Iodines, Tritium, and Particulates are treated as a group.

2000 PSEG NUCLEAR LLC
RADIOACTIVE EFFLUENTS RELEASE REPORT

TABLE 1A-2
SALEM GENERATING STATION - UNIT 2
EFFLUENTS AND WASTE DISPOSAL ANNUAL REPORT
JANUARY – JUNE 2000
GASEOUS EFFLUENTS – SUMMATION OF ALL RELEASES

			Units	1st Quarter	2nd Quarter	Est. Total Error[1]
A.		**Fission and Activation Products**				
	1.	Total Release	Ci	1.24E+02	7.20E+01	50%
	2.	Average Release Rate For Period	µCi/sec	1.58E+01	9.16E+00	
	3.	Percent of Technical Specification Limit (T.S. 3.11.2.2(a))	%	9.04E-02	5.58E-02	
B.		**Iodines**				
	1.	Total Iodine-131	Ci	4.01E-05	1.23E-05	50%
	2.	Average Release Rate For Period	µCi/sec	5.10E-06	1.56E-06	
	3.	Percent of Technical Specification Limit[2] (T.S. 3.11.2.3(a))	%	1.30E-02	3.62E-03	
C.		**Particulates**				
	1.	Particulates With Half-lives > 8 days	Ci	2.49E-05	6.60E-05	50%
	2.	Average Release Rate For Period	µCi/sec	3.17E-06	8.39E-06	
	3.	Percent of Technical Specification Limit[2] (T.S. 3.11.2.3(a))	%	1.30E-02	3.62E-03	
	4.	Gross Alpha	Ci	0.00E+00	0.00E+00	
D.		**Tritium**				
	1.	Total Release	Ci	2.65E+02	7.08E+01	50%
	2.	Average Release Rate For Period	µCi/sec	3.37E+01	9.01E+00	
	3.	Percent of Technical Specification Limit[2] (T.S. 3.11.2.3(a))	%	1.30E-02	3.62E-03	

1. For batch releases, the estimated overall error is 10%.
2. Iodines, Tritium, and Particulates are treated as a group.

2000 PSEG NUCLEAR LLC
RADIOACTIVE EFFLUENTS RELEASE REPORT

TABLE 1A-3
HOPE CREEK GENERATING STATION
EFFLUENTS AND WASTE DISPOSAL ANNUAL REPORT
JANUARY – JUNE 2000
GASEOUS EFFLUENTS – SUMMATION OF ALL RELEASES

		Units	1st Quarter	2nd Quarter	Est. Total Error[1]
A.	**Fission and Activation Products**				
1.	Total Release	Ci	2.29E+01	3.39E-01	50%
2.	Average Release Rate For Period	µCi/sec	2.91E+00	4.31E-02	
3.	Percent of Technical Specification Limit (T.S. 3.11.2.2(a))	%	3.12E-01	4.60E-03	
B.	**Iodines**				
1.	Total Iodine-131	Ci	7.16E-05	5.99E-05	50%
2.	Average Release Rate For Period	µCi/sec	9.11E-06	7.62E-06	
3.	Percent of Technical Specification Limit[2] (T.S. 3.11.2.3(a))	%	2.61E-02	1.33E-02	
C.	**Particulates**				
1.	Particulates With Half-lives > 8 days	Ci	5.88E-02	2.21E-04	50%
2.	Average Release Rate For Period	µCi/sec	7.48E-03	2.81E-05	
3.	Percent of Technical Specification Limit[2] (T.S. 3.11.2.3(a))	%	2.61E-02	1.33E-02	
4.	Gross Alpha	Ci	0.00E+00	0.00E+00	
D.	**Tritium**				
1.	Total Release	Ci	3.95E-01	1.61E+01	50%
2.	Average Release Rate For Period	µCi/sec	5.02E-02	2.05E+00	
3.	Percent of Technical Specification Limit[2] (T.S. 3.11.2.3(a))	%	2.61E-02	1.33E-02	

1. For batch releases, the estimated overall error is 10%.
2. Iodines, Tritium, and Particulates are treated as a group.

2000 PSEG NUCLEAR LLC
RADIOACTIVE EFFLUENTS RELEASE REPORT

TABLE 1A-4
SALEM GENERATING STATION - UNIT 1
EFFLUENTS AND WASTE DISPOSAL ANNUAL REPORT
JULY – DECEMBER 2000
GASEOUS EFFLUENTS – SUMMATION OF ALL RELEASES

		Units	3rd Quarter	4th Quarter	Est. Total Error[1]
A.	**Fission and Activation Products**				
1.	Total Release	Ci	2.31E+02	1.85E+03	50%
2.	Average Release Rate For Period	µCi/sec	2.91E+01	2.33E+02	
3.	Percent of Technical Specification Limit (T.S. 3.11.2.2(a))	%	1.69E-01	1.36E+00	
B.	**Iodines**				
1.	Total Iodine-131	Ci	1.03E-04	3.23E-03	50%
2.	Average Release Rate For Period	µCi/sec	1.30E-05	4.06E-04	
3.	Percent of Technical Specification Limit[2] (T.S. 3.11.2.3(a))	%	1.02E-02	1.54E-01	
C.	**Particulates**				
1.	Particulates With Half-lives > 8 days	Ci	9.16E-06	2.79E-05	50%
2.	Average Release Rate For Period	µCi/sec	1.15E-06	3.51E-06	
3.	Percent of Technical Specification Limit[2] (T.S. 3.11.2.3(a))	%	1.02E-02	1.54E-01	
4.	Gross Alpha	Ci	0.00E+00	0.00E+00	
D.	**Tritium**				
1.	Total Release	Ci	1.17E+02	2.11E+01	50%
2.	Average Release Rate For Period	µCi/sec	1.47E+01	2.65E+00	
3.	Percent of Technical Specification Limit[2] (T.S. 3.11.2.3(a))	%	1.02E-02	1.54E-01	

1. For batch releases, the estimated overall error is 10%.
2. Iodines, Tritium, and Particulates are treated as a group.

2000 PSEG NUCLEAR LLC
RADIOACTIVE EFFLUENTS RELEASE REPORT

TABLE 1A-5
SALEM GENERATING STATION - UNIT 2
EFFLUENTS AND WASTE DISPOSAL ANNUAL REPORT
JULY – DECEMBER 2000
GASEOUS EFFLUENTS – SUMMATION OF ALL RELEASES

		Units	3rd Quarter	4th Quarter	Est. Total Error[1]
A.	**Fission and Activation Products**				
1.	Total Release	Ci	8.66E+01	1.54E+02	50%
2.	Average Release Rate For Period	µCi/sec	1.09E+01	1.94E+01	
3.	Percent of Technical Specification Limit (T.S. 3.11.2.2(a))	%	6.36E-02	1.19E-01	
B.	**Iodines**				
1.	Total Iodine-131	Ci	3.98E-05	5.49E-03	50%
2.	Average Release Rate For Period	µCi/sec	5.01E-06	6.91E-04	
3.	Percent of Technical Specification Limit[2] (T.S. 3.11.2.3(a))	%	4.31E-03	2.61E-01	
C.	**Particulates**				
1.	Particulates With Half-lives > 8 days	Ci	5.03E-06	5.24E-04	50%
2.	Average Release Rate For Period	µCi/sec	6.33E-07	6.59E-05	
3.	Percent of Technical Specification Limit[2] (T.S. 3.11.2.3(a))	%	4.31E-03	2.61E-01	
4.	Gross Alpha	Ci	0.00E+00	0.00E+00	
D.	**Tritium**				
1.	Total Release	Ci	5.77E+01	5.86E+01	50%
2.	Average Release Rate For Period	µCi/sec	7.26E+00	7.37E+00	
3.	Percent of Technical Specification Limit[2] (T.S. 3.11.2.3(a))	%	4.31E-03	2.61E-01	

1. For batch releases, the estimated overall error is 10%.
2. Iodines, Tritium, and Particulates are treated as a group.

2000 PSEG NUCLEAR LLC
RADIOACTIVE EFFLUENTS RELEASE REPORT

TABLE 1A-6
HOPE CREEK GENERATING STATION
EFFLUENTS AND WASTE DISPOSAL ANNUAL REPORT
JULY – DECEMBER 2000
GASEOUS EFFLUENTS – SUMMATION OF ALL RELEASES

			Units	3rd Quarter	4th Quarter	Est. Total Error[1]
A.		**Fission and Activation Products**				
	1.	Total Release	Ci	3.20E+00	3.46E+00	50%
	2.	Average Release Rate For Period	µCi/sec	4.03E-01	4.35E-01	
	3.	Percent of Technical Specification Limit (T.S. 3.11.2.2(a))	%	4.37E-02	4.72E-02	
B.		**Iodines**				
	1.	Total Iodine-131	Ci	0.00E+00	5.99E-05	50%
	2.	Average Release Rate For Period	µCi/sec	0.00E+00	7.54E-06	
	3.	Percent of Technical Specification Limit[2] (T.S. 3.11.2.3(a))	%	3.50E-03	1.40E-02	
C.		**Particulates**				
	1.	Particulates With Half-lives > 8 days	Ci	2.88E-05	5.22E-05	50%
	2.	Average Release Rate For Period	µCi/sec	3.63E-06	6.57E-06	
	3.	Percent of Technical Specification Limit[2] (T.S. 3.11.2.3(a))	%	3.50E-03	1.40E-02	
	4.	Gross Alpha	Ci	1.78E-05	7.04E-07	
D.		**Tritium**				
	1.	Total Release	Ci	1.64E+01	1.43E+01	50%
	2.	Average Release Rate For Period	µCi/sec	2.07E+00	1.79E+00	
	3.	Percent of Technical Specification Limit[2] (T.S. 3.11.2.3(a))	%	3.50E-03	1.40E-02	

1. For batch releases, the estimated overall error is 10%.
2. Iodines, Tritium, and Particulates are treated as a group.

2000 PSEG NUCLEAR LLC
RADIOACTIVE EFFLUENTS RELEASE REPORT

TABLE 1C-1
SALEM GENERATING STATION - UNIT 1
EFFLUENTS AND WASTE DISPOSAL ANNUAL REPORT
JANUARY – JUNE 2000
GASEOUS EFFLUENTS – GROUND LEVEL RELEASES

	Nuclides Released	Units	Continuous Mode 1st Quarter	Continuous Mode 2nd Quarter	Batch Mode 1st Quarter	Batch Mode 2nd Quarter
1.	**Fission Gases**					
	Krypton-85	Ci	0.00E+00	0.00E+00	8.01E-02	1.29E-01
	Xenon-131m	Ci	0.00E+00	0.00E+00	4.64E-03	0.00E+00
	Xenon-133	Ci	2.04E+02	1.31E+02	7.92E+00	7.81E-01
	Xenon-133m	Ci	4.43E+01	0.00E+00	1.18E-03	0.00E+00
	Xenon-135	Ci	9.86E+00	0.00E+00	9.87E-04	0.00E+00
	Totals	**Ci**	**2.58E+02**	**1.31E+02**	**8.01E+00**	**9.09E-01**
2.	**Iodine**					
	Iodine-131	Ci	1.13E-04	3.85E-05	0.00E+00	0.00E+00
	Iodine-132	Ci	0.00E+00	1.53E-05	0.00E+00	0.00E+00
	Iodine-133	Ci	1.99E-04	2.24E-04	0.00E+00	0.00E+00
	Totals	**Ci**	**3.12E-04**	**2.78E-04**	**0.00E+00**	**0.00E+00**
3.	**Particulates**					
	Cobalt-58	Ci	1.60E-05	2.61E-06	0.00E+00	0.00E+00
	Cobalt-60	Ci	0.00E+00	1.38E-06	0.00E+00	0.00E+00
	Cesium-134	Ci	0.00E+00	1.90E-07	0.00E+00	0.00E+00
	Cesium-137	Ci	1.82E-06	5.76E-06	0.00E+00	0.00E+00
	Totals	**Ci**	**1.78E-05**	**9.93E-06**	**0.00E+00**	**0.00E+00**
4.	**Tritium**	**Ci**	**2.55E+02**	**1.12E+02**	**2.85E-05**	**2.65E-05**

2000 PSEG NUCLEAR LLC
RADIOACTIVE EFFLUENTS RELEASE REPORT

TABLE 1C-2
SALEM GENERATING STATION - UNIT 2
EFFLUENTS AND WASTE DISPOSAL ANNUAL REPORT
JANUARY – JUNE 2000
GASEOUS EFFLUENTS – GROUND LEVEL RELEASES

	Nuclides Released	Units	Continuous Mode 1st Quarter	Continuous Mode 2nd Quarter	Batch Mode 1st Quarter	Batch Mode 2nd Quarter
1.	**Fission Gases**					
	Krypton-85	Ci	0.00E+00	0.00E+00	4.47E-01	4.60E-01
	Krypton-85m	Ci	0.00E+00	4.73E+00	0.00E+00	0.00E+00
	Xenon-131m	Ci	0.00E+00	0.00E+00	5.84E-02	6.77E-02
	Xenon-133	Ci	1.20E+02	6.07E+01	3.23E+00	5.97E+00
	Xenon-133m	Ci	0.00E+00	0.00E+00	2.24E-02	6.03E-02
	Xenon-135	Ci	0.00E+00	0.00E+00	2.05E-03	6.57E-03
	Totals	**Ci**	**1.20E+02**	**6.54E+01**	**3.76E+00**	**6.56E+00**
2.	**Iodine**					
	Iodine-131	Ci	4.01E-05	1.23E-05	0.00E+00	0.00E+00
	Iodine-133	Ci	9.38E-05	2.07E-05	0.00E+00	0.00E+00
	Totals	**Ci**	**1.34E-04**	**3.30E-05**	**0.00E+00**	**0.00E+00**
3.	**Particulates**					
	Cobalt-57	Ci	4.26E-06	0.00E+00	0.00E+00	0.00E+00
	Cobalt-58	Ci	1.86E-05	1.02E-06	0.00E+00	0.00E+00
	Cobalt-60	Ci	0.00E+00	6.18E-07	0.00E+00	0.00E+00
	Cesium-137	Ci	2.05E-06	2.41E-06	0.00E+00	6.19E-05
	Totals	**Ci**	**2.49E-05**	**4.05E-06**	**0.00E+00**	**6.19E-05**
4.	**Tritium**	**Ci**	**2.65E+02**	**7.08E+01**	**2.15E-03**	**1.04E-03**

2000 PSEG NUCLEAR LLC
RADIOACTIVE EFFLUENTS RELEASE REPORT

TABLE 1C-3
HOPE CREEK GENERATING STATION
EFFLUENTS AND WASTE DISPOSAL ANNUAL REPORT
JANUARY – JUNE 2000
GASEOUS EFFLUENTS – GROUND LEVEL RELEASES

	Nuclides Released	Units	Continuous Mode 1st Quarter	Continuous Mode 2nd Quarter	Batch Mode 1st Quarter	Batch Mode 2nd Quarter
1.	**Fission Gases**					
	Krypton-83m	Ci	2.29E-01	3.37E-03	0.00E+00	0.00E+00
	Krypton-85m	Ci	2.29E-01	3.37E-03	0.00E+00	0.00E+00
	Krypton-87	Ci	9.15E-01	1.35E-02	0.00E+00	0.00E+00
	Krypton-88	Ci	9.17E-01	1.35E-02	0.00E+00	0.00E+00
	Krypton-89	Ci	6.18E+00	9.09E-02	0.00E+00	0.00E+00
	Xenon-133	Ci	4.58E-01	6.73E-03	0.00E+00	0.00E+00
	Xenon-135	Ci	1.14E+00	1.88E-02	0.00E+00	8.13E-05
	Xenon-135m	Ci	1.37E+00	2.02E-02	0.00E+00	0.00E+00
	Xenon-137	Ci	7.10E+00	1.04E-01	0.00E+00	0.00E+00
	Xenon-138	Ci	4.35E+00	6.40E-02	0.00E+00	0.00E+00
	Totals	**Ci**	**2.29E+01**	**3.39E-01**	**0.00E+00**	**8.13E-05**
2.	**Iodine**					
	Iodine-131	Ci	7.16E-05	5.99E-05	0.00E+00	0.00E+00
	Iodine-133	Ci	5.78E-03	3.27E-03	0.00E+00	0.00E+00
	Totals	**Ci**	**5.85E-03**	**3.33E-03**	**0.00E+00**	**0.00E+00**
3.	**Particulates**					
	Sodium-24	Ci	3.73E-04	4.56E-05	0.00E+00	0.00E+00
	Manganese-54	Ci	5.88E-02	2.21E-04	0.00E+00	0.00E+00
	Cobalt-60	Ci	2.40E-07	1.73E-08	0.00E+00	0.00E+00
	Arsenic-76	Ci	0.00E+00	3.43E-04	0.00E+00	0.00E+00
	Totals	**Ci**	**5.92E-02**	**6.10E-04**	**0.00E+00**	**0.00E+00**
4.	**Gross Alpha**	**Ci**	**0.00E+00**	**0.00E+00**	**0.00E+00**	**0.00E+00**
5.	**Tritium**	**Ci**	**3.95E-01**	**1.61E+01**	**0.00E+00**	**8.36E-04**

2000 PSEG NUCLEAR LLC
RADIOACTIVE EFFLUENTS RELEASE REPORT

TABLE 1C-4
SALEM GENERATING STATION - UNIT 1
EFFLUENTS AND WASTE DISPOSAL ANNUAL REPORT
JULY – DECEMBER 2000
GASEOUS EFFLUENTS – GROUND LEVEL RELEASES

Nuclides Released	Units	Continuous Mode 3rd Quarter	Continuous Mode 4th Quarter	Batch Mode 3rd Quarter	Batch Mode 4th Quarter
1. Fission Gases					
Krypton-85	Ci	0.00E+00	0.00E+00	1.13E-01	4.87E-01
Xenon-131m	Ci	0.00E+00	1.83E+02	6.97E-03	2.47E-02
Xenon-133	Ci	2.29E+02	1.65E+03	1.41E+00	1.27E+01
Xenon-133m	Ci	4.37E-06	0.00E+00	2.94E-03	2.73E-03
Xenon-135	Ci	4.78E-06	0.00E+00	0.00E+00	1.95E-04
Totals	**Ci**	**2.29E+02**	**1.84E+03**	**1.53E+00**	**1.32E+01**
2. Iodine					
Iodine-131	Ci	1.03E-04	3.23E-03	0.00E+00	0.00E+00
Iodine-132	Ci	0.00E+00	2.78E-04	0.00E+00	0.00E+00
Iodine-133	Ci	8.60E-04	1.49E-03	0.00E+00	0.00E+00
Iodine-134	Ci	8.80E-06	0.00E+00	0.00E+00	0.00E+00
Totals	**Ci**	**9.72E-04**	**5.00E-03**	**0.00E+00**	**0.00E+00**
3. Particulates					
Cobalt-58	Ci	2.18E-07	1.99E-05	0.00E+00	0.00E+00
Cobalt-60	Ci	0.00E+00	1.30E-06	0.00E+00	0.00E+00
Strontium-89	Ci	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Strontium-90	Ci	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Cesium-134	Ci	2.41E-07	1.31E-06	0.00E+00	0.00E+00
Cesium-137	Ci	8.70E-06	4.75E-06	0.00E+00	0.00E+00
Cerium-144	Ci	0.00E+00	6.05E-07	0.00E+00	0.00E+00
Totals	**Ci**	**9.16E-06**	**2.79E-05**	**0.00E+00**	**0.00E+00**
4. Tritium	**Ci**	**1.17E+02**	**2.11E+01**	**9.14E-05**	**3.70E-04**

2000 PSEG NUCLEAR LLC
RADIOACTIVE EFFLUENTS RELEASE REPORT

TABLE 1C-5
SALEM GENERATING STATION - UNIT 2
EFFLUENTS AND WASTE DISPOSAL ANNUAL REPORT
JULY – DECEMBER 2000
GASEOUS EFFLUENTS – GROUND LEVEL RELEASES

Nuclides Released	Units	Continuous Mode		Batch Mode	
		3rd Quarter	4th Quarter	3rd Quarter	4th Quarter
1. Fission Gases					
Krypton-85	Ci	0.00E+00	0.00E+00	2.86E-01	9.56E+00
Krypton-85m	Ci	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Xenon-131m	Ci	0.00E+00	0.00E+00	1.79E-02	8.90E-01
Xenon-133	Ci	8.27E+01	1.40E+01	3.56E+00	1.28E+02
Xenon-133m	Ci	0.00E+00	0.00E+00	2.41E-03	1.07E+00
Xenon-135	Ci	2.26E-11	0.00E+00	0.00E+00	1.85E-01
Totals	**Ci**	**8.27E+01**	**1.40E+01**	**3.86E+00**	**1.40E+02**
2. Iodine					
Iodine-131	Ci	3.98E-05	5.49E-03	0.00E+00	0.00E+00
Iodine-132	Ci	0.00E+00	9.91E-05	0.00E+00	0.00E+00
Iodine-133	Ci	3.38E-05	9.43E-05	0.00E+00	0.00E+00
Totals	**Ci**	**7.37E-05**	**5.69E-03**	**0.00E+00**	**0.00E+00**
3. Particulates					
Cobalt-57	Ci	0.00E+00	1.02E-07	0.00E+00	0.00E+00
Cobalt-58	Ci	0.00E+00	2.55E-05	0.00E+00	4.02E-04
Cobalt-60	Ci	4.52E-07	7.54E-07	0.00E+00	7.85E-05
Niobium-95	Ci	4.98E-08	0.00E+00	0.00E+00	0.00E+00
Cesium-134	Ci	2.89E-07	6.06E-07	0.00E+00	0.00E+00
Cesium-137	Ci	4.24E-06	1.60E-05	0.00E+00	0.00E+00
Totals	**Ci**	**5.03E-06**	**4.29E-05**	**0.00E+00**	**4.81E-04**
4. Tritium	**Ci**	**5.77E+01**	**5.60E+01**	**4.32E-04**	**2.53E+00**

2000 PSEG NUCLEAR LLC
RADIOACTIVE EFFLUENTS RELEASE REPORT

TABLE 1C-6
HOPE CREEK GENERATING STATION
EFFLUENTS AND WASTE DISPOSAL ANNUAL REPORT
JULY – DECEMBER 2000
GASEOUS EFFLUENTS – GROUND LEVEL RELEASES

Nuclides Released	Units	Continuous Mode 3rd Quarter	Continuous Mode 4th Quarter	Batch Mode 3rd Quarter	Batch Mode 4th Quarter
1. Fission Gases					
Krypton-83m	Ci	3.20E-02	3.46E-02	0.00E+00	0.00E+00
Krypton-85m	Ci	3.20E-02	3.46E-02	0.00E+00	0.00E+00
Krypton-87	Ci	1.28E-01	1.38E-01	0.00E+00	0.00E+00
Krypton-88	Ci	1.28E-01	1.38E-01	0.00E+00	0.00E+00
Krypton-89	Ci	8.64E-01	9.34E-01	0.00E+00	0.00E+00
Xenon-133	Ci	6.40E-02	6.91E-02	0.00E+00	0.00E+00
Xenon-135	Ci	1.60E-01	1.73E-01	0.00E+00	0.00E+00
Xenon-135m	Ci	1.92E-01	2.07E-01	0.00E+00	0.00E+00
Xenon-137	Ci	9.92E-01	1.07E+00	0.00E+00	0.00E+00
Xenon-138	Ci	6.08E-01	6.57E-01	0.00E+00	0.00E+00
Totals	**Ci**	**3.20E+00**	**3.46E+00**	**0.00E+00**	**0.00E+00**
2. Iodine					
Iodine-131	Ci	0.00E+00	5.99E-05	0.00E+00	0.00E+00
Iodine-133	Ci	1.56E-03	3.95E-03	0.00E+00	0.00E+00
Totals	**Ci**	**1.56E-03**	**4.00E-03**	**0.00E+00**	**0.00E+00**
3. Particulates					
Manganese-54	Ci	2.88E-05	5.17E-05	0.00E+00	0.00E+00
Cobalt-60	Ci	0.00E+00	5.43E-07	0.00E+00	0.00E+00
Arsenic-76	Ci	1.54E-03	4.92E-04	0.00E+00	0.00E+00
Totals	**Ci**	**1.57E-03**	**5.44E-04**	**0.00E+00**	**0.00E+00**
4. Gross Alpha	**Ci**	**1.78E-05**	**7.04E-07**	**0.00E+00**	**0.00E+00**
5. Tritium	**Ci**	**1.64E+01**	**1.43E+01**	**0.00E+00**	**0.00E+00**

2000 PSEG NUCLEAR LLC
RADIOACTIVE EFFLUENTS RELEASE REPORT

TABLE 2A-1
SALEM GENERATING STATION - UNIT 1
EFFLUENTS AND WASTE DISPOSAL ANNUAL REPORT
JANUARY – JUNE 2000
LIQUID EFFLUENTS – SUMMATION OF ALL RELEASES

		Units	1st Quarter	2nd Quarter	Est. Total Error
A.	**Fission and Activation Products**				
1.	Total Release	Ci	4.59E-03	1.20E-02	25%
2.	Average Release Rate For Period	µCi/ml	9.98E-12	2.43E-11	
3.	Percent of Technical Specification Limit (T.S. 3.11.1.2(a))	%	3.89E-04	1.46E-03	
B.	**Tritium**				
1.	Total Release	Ci	1.92E+01	1.32E+02	25%
2.	Average Release Rate For Period	µCi/ml	4.17E-08	2.67E-07	
3.	Percent of Technical Specification Limit (T.S. 3.11.1.1)	%	1.39E-03	8.90E-03	
C.	**Dissolved and Entrained Noble Gases**				
1.	Total Release	Ci	2.21E-05	1.04E-02	25%
2.	Average Release Rate For Period	µCi/ml	4.80E-14	2.11E-11	
3.	Percent of Technical Specification Limit (T.S. 3.11.1.1)	%	2.40E-08	1.05E-05	
D.	**Gross Alpha**	Ci	0.00E+00	0.00E+00	25%
E.	**Volume of Waste Release** (Prior to Dilution)	Liters	3.32E+05	5.26E+05	25%
F.	**Volume of Dilution Water Used During Entire Period**	Liters	4.60E+11	4.94E+11	25%

2000 PSEG NUCLEAR LLC
RADIOACTIVE EFFLUENTS RELEASE REPORT

TABLE 2A-2
SALEM GENERATING STATION - UNIT 2
EFFLUENTS AND WASTE DISPOSAL ANNUAL REPORT
JANUARY – JUNE 2000
LIQUID EFFLUENTS – SUMMATION OF ALL RELEASES

		Units	1st Quarter	2nd Quarter	Est. Total Error
A.	**Fission and Activation Products**				
1.	Total Release	Ci	5.42E-03	1.03E-02	25%
2.	Average Release Rate For Period	μCi/ml	1.10E-11	2.16E-11	
3.	Percent of Technical Specification Limit (T.S. 3.11.1.2(a))	%	1.91E-02	1.30E-03	
B.	**Tritium**				
1.	Total Release	Ci	1.36E+01	1.51E+02	25%
2.	Average Release Rate For Period	μCi/ml	2.76E-08	3.17E-07	
3.	Percent of Technical Specification Limit (T.S. 3.11.1.1)	%	9.20E-04	1.06E-02	
C.	**Dissolved and Entrained Noble Gases**				
1.	Total Release	Ci	0.00E+00	1.29E-02	25%
2.	Average Release Rate For Period	μCi/ml	0.00E+00	2.73E-11	
3.	Percent of Technical Specification Limit (T.S. 3.11.1.1)	%	0.00E+00	1.36E-05	
D.	**Gross Alpha**	Ci	0.00E+00	0.00E+00	25%
E.	**Volume of Waste Release** (Prior to Dilution)	Liters	1.75E+07	7.38E+05	25%
F.	**Volume of Dilution Water Used During Entire Period**	Liters	4.93E+11	4.77E+11	25%

2000 PSEG NUCLEAR LLC
RADIOACTIVE EFFLUENTS RELEASE REPORT

TABLE 2A-3
HOPE CREEK GENERATING STATION
EFFLUENTS AND WASTE DISPOSAL ANNUAL REPORT
JANUARY – JUNE 2000
LIQUID EFFLUENTS – SUMMATION OF ALL RELEASES

		Units	1st Quarter	2nd Quarter	Est. Total Error
A.	**Fission and Activation Products**				
1.	Total Release	Ci	1.02E-03	2.21E-02	25%
2.	Average Release Rate For Period	µCi/ml	7.66E-11	1.34E-09	
3.	Percent of Technical Specification Limit (T.S. 3.11.1.2(a))	%	3.33E-06	1.43E-03	
B.	**Tritium**				
1.	Total Release	Ci	5.12E-02	5.30E+00	25%
2.	Average Release Rate For Period	µCi/ml	3.86E-09	3.21E-07	
3.	Percent of Technical Specification Limit (T.S. 3.11.1.1)	%	1.29E-04	1.07E-02	
C.	**Dissolved and Entrained Noble Gases**				
1.	Total Release	Ci	0.00E+00	0.00E+00	25%
2.	Average Release Rate For Period	µCi/ml	0.00E+00	0.00E+00	
3.	Percent of Technical Specification Limit (T.S. 3.11.1.1)	%	0.00E+00	0.00E+00	
D.	**Gross Alpha**	Ci	0.00E+00	0.00E+00	25%
E.	Volume of Waste Release (Prior to Dilution)	Liters	2.68E+07	3.52E+07	25%
F.	Volume of Dilution Water Used During Entire Period	Liters	1.33E+10	1.65E+10	25%

2000 PSEG NUCLEAR LLC
RADIOACTIVE EFFLUENTS RELEASE REPORT

TABLE 2A-4
SALEM GENERATING STATION - UNIT 1
EFFLUENTS AND WASTE DISPOSAL ANNUAL REPORT
JULY – DECEMBER 2000
LIQUID EFFLUENTS – SUMMATION OF ALL RELEASES

		Units	3rd Quarter	4th Quarter	Est. Total Error
A.	**Fission and Activation Products**				
1.	Total Release	Ci	2.21E-02	2.59E-02	25%
2.	Average Release Rate For Period	μCi/ml	4.35E-11	4.94E-11	
3.	Percent of Technical Specification Limit (T.S. 3.11.1.2(a))	%	3.07E-03	8.35E-03	
B.	**Tritium**				
1.	Total Release	Ci	2.88E+02	6.16E+01	25%
2.	Average Release Rate For Period	μCi/ml	5.67E-07	1.18E-07	
3.	Percent of Technical Specification Limit (T.S. 3.11.1.1)	%	1.89E-02	3.93E-03	
C.	**Dissolved and Entrained Noble Gases**				
1.	Total Release	Ci	5.25E-02	6.86E-03	25%
2.	Average Release Rate For Period	μCi/ml	1.03E-10	1.31E-11	
3.	Percent of Technical Specification Limit (T.S. 3.11.1.1)	%	5.17E-05	6.55E-06	
D.	**Gross Alpha**	Ci	0.00E+00	1.86E-13	25%
E.	Volume of Waste Release (Prior to Dilution)	Liters	1.17E+06	7.38E+05	25%
F.	Volume of Dilution Water Used During Entire Period	Liters	5.08E+11	5.24E+11	25%

2000 PSEG NUCLEAR LLC
RADIOACTIVE EFFLUENTS RELEASE REPORT

TABLE 2A-5
SALEM GENERATING STATION - UNIT 2
EFFLUENTS AND WASTE DISPOSAL ANNUAL REPORT
JULY – DECEMBER 2000
LIQUID EFFLUENTS – SUMMATION OF ALL RELEASES

		Units	3rd Quarter	4th Quarter	Est. Total Error
A.	**Fission and Activation Products**				
1.	Total Release	Ci	2.37E-02	1.19E-02	25%
2.	Average Release Rate For Period	µCi/ml	5.11E-11	3.75E-11	
3.	Percent of Technical Specification Limit (T.S. 3.11.1.2(a))	%	2.18E-03	6.14E-03	
B.	**Tritium**				
1.	Total Release	Ci	3.45E+02	2.71E+01	25%
2.	Average Release Rate For Period	µCi/ml	7.44E-07	8.55E-08	
3.	Percent of Technical Specification Limit (T.S. 3.11.1.1)	%	2.48E-02	2.85E-03	
C.	**Dissolved and Entrained Noble Gases**				
1.	Total Release	Ci	4.26E-02	1.36E-02	25%
2.	Average Release Rate For Period	µCi/ml	9.18E-11	4.29E-11	
3.	Percent of Technical Specification Limit (T.S. 3.11.1.1)	%	4.59E-05	2.15E-05	
D.	**Gross Alpha**	Ci	0.00E+00	3.57E-13	25%
E.	Volume of Waste Release (Prior to Dilution)	Liters	2.65E+05	1.62E+05	25%
F.	Volume of Dilution Water Used During Entire Period	Liters	4.64E+11	3.17E+11	25%

2000 PSEG NUCLEAR LLC
RADIOACTIVE EFFLUENTS RELEASE REPORT

TABLE 2A-6
HOPE CREEK GENERATING STATION
EFFLUENTS AND WASTE DISPOSAL ANNUAL REPORT
JULY – DECEMBER 2000
LIQUID EFFLUENTS – SUMMATION OF ALL RELEASES

		Units	3rd Quarter	4th Quarter	Est. Total Error
A.	**Fission and Activation Products**				
1.	Total Release	Ci	1.08E-04	1.06E-04	25%
2.	Average Release Rate For Period	μCi/ml	5.15E-12	6.64E-12	
3.	Percent of Technical Specification Limit (T.S. 3.11.1.2(a))	%	1.04E-05	2.49E-06	
B.	**Tritium**				
1.	Total Release	Ci	3.63E-01	2.87E-01	25%
2.	Average Release Rate For Period	μCi/ml	1.73E-8	1.79E-08	
3.	Percent of Technical Specification Limit (T.S. 3.11.1.1)	%	5.77E-04	5.97E-04	
C.	**Dissolved and Entrained Noble Gases**				
1.	Total Release	Ci	0.00E+00	0.00E+00	25%
2.	Average Release Rate For Period	μCi/ml	0.00E+00	0.00E+00	
3.	Percent of Technical Specification Limit (T.S. 3.11.1.1)	%	0.00E+00	0.00E+00	
D.	**Gross Alpha**	Ci	0.00E+00	0.00E+00	25%
E.	Volume of Waste Release (Prior to Dilution)	Liters	5.03E+07	5.02E+07	25%
F.	Volume of Dilution Water Used During Entire Period	Liters	2.10E+10	1.60E+10	25%

2000 PSEG NUCLEAR LLC
RADIOACTIVE EFFLUENTS RELEASE REPORT

TABLE 2B-1
SALEM GENERATING STATION - UNIT 1
EFFLUENTS AND WASTE DISPOSAL ANNUAL REPORT
JANUARY – JUNE 2000
LIQUID EFFLUENTS

	Nuclides		Continuous Mode		Batch Mode	
		Units	1st Quarter	2nd Quarter	1st Quarter	2nd Quarter
	Released					
1.	**Fission and Activation Products**					
	Manganese-54	Ci	0.00E+00	0.00E+00	0.00E+00	4.36E-04
	Iron-55	Ci	0.00E+00	0.00E+00	5.98E-04	8.42E-04
	Cobalt-57	Ci	0.00E+00	0.00E+00	0.00E+00	1.61E-05
	Cobalt-58	Ci	0.00E+00	0.00E+00	6.17E-04	1.59E-03
	Cobalt-60	Ci	0.00E+00	0.00E+00	3.10E-04	1.58E-03
	Rubidium-89	Ci	0.00E+00	0.00E+00	0.00E+00	2.44E-05
	Niobium-95	Ci	0.00E+00	0.00E+00	0.00E+00	9.63E-06
	Silver-110m	Ci	0.00E+00	0.00E+00	0.00E+00	1.32E-05
	Antimony-122	Ci	0.00E+00	0.00E+00	3.16E-05	6.88E-05
	Antimony-124	Ci	0.00E+00	0.00E+00	2.55E-05	0.00E+00
	Antimony-125	Ci	0.00E+00	0.00E+00	8.46E-04	1.59E-03
	Antimony-126	Ci	0.00E+00	0.00E+00	0.00E+00	1.35E-04
	Iodine-131	Ci	0.00E+00	0.00E+00	1.00E-05	2.26E-05
	Cesium-134	Ci	0.00E+00	0.00E+00	7.31E-04	1.40E-03
	Cesium-137	Ci	0.00E+00	0.00E+00	1.42E-03	4.27E-03
	Barium-140	Ci	0.00E+00	0.00E+00	0.00E+00	2.77E-05
	Totals	**Ci**	**0.00E+00**	**0.00E+00**	**4.59E-03**	**1.20E-02**
2.	**Tritium**	**Ci**	**0.00E+00**	**0.00E+00**	**1.92E+01**	**1.32E+02**
3.	**Dissolved and Entrained Noble Gases**					
	Xenon-133	Ci	0.00E+00	0.00E+00	2.21E-05	1.04E-02
	Xenon-135	Ci	0.00E+00	0.00E+00	0.00E+00	3.66E-05
	Totals	**Ci**	**0.00E+00**	**0.00E+00**	**2.21E-05**	**1.04E-02**

2000 PSEG NUCLEAR LLC
RADIOACTIVE EFFLUENTS RELEASE REPORT

TABLE 2B-2
SALEM GENERATING STATION - UNIT 2
EFFLUENTS AND WASTE DISPOSAL ANNUAL REPORT
JANUARY – JUNE 2000
LIQUID EFFLUENTS

	Nuclides Released	Units	Continuous Mode 1st Quarter	Continuous Mode 2nd Quarter	Batch Mode 1st Quarter	Batch Mode 2nd Quarter
1.	**Fission and Activation Products**					
	Manganese-54	Ci	0.00E+00	0.00E+00	0.00E+00	1.18E-05
	Iron-55	Ci	0.00E+00	0.00E+00	3.46E-03	2.37E-03
	Cobalt-57	Ci	0.00E+00	0.00E+00	0.00E+00	1.17E-05
	Cobalt-58	Ci	0.00E+00	0.00E+00	2.83E-04	9.90E-04
	Cobalt-60	Ci	0.00E+00	0.00E+00	7.90E-05	2.07E-03
	Niobium-95	Ci	0.00E+00	0.00E+00	1.57E-05	0.00E+00
	Technicium-99m	Ci	0.00E+00	0.00E+00	0.00E+00	2.36E-06
	Antimony-122	Ci	0.00E+00	0.00E+00	1.77E-05	3.79E-05
	Antimony-124	Ci	0.00E+00	0.00E+00	0.00E+00	6.69E-05
	Antimony-125	Ci	0.00E+00	0.00E+00	6.14E-05	1.17E-03
	Iodine-131	Ci	0.00E+00	0.00E+00	0.00E+00	5.76E-06
	Cesium-134	Ci	0.00E+00	0.00E+00	5.44E-04	9.68E-04
	Cesium-137	Ci	0.00E+00	0.00E+00	9.54E-04	2.57E-03
	Cesium-136	Ci	0.00E+00	0.00E+00	0.00E+00	3.77E-06
	Totals	**Ci**	**0.00E+00**	**0.00E+00**	**5.42E-03**	**1.03E-02**
2.	**Tritium**	**Ci**	**0.00E+00**	**0.00E+00**	**1.36E+01**	**1.51E+02**
3.	**Dissolved and Entrained Noble Gases**					
	Xenon-133	Ci	0.00E+00	0.00E+00	0.00E+00	1.29E-02
	Xenon-135	Ci	0.00E+00	0.00E+00	0.00E+00	5.72E-05
	Totals	**Ci**	**0.00E+00**	**0.00E+00**	**0.00E+00**	**1.29E-02**

2000 PSEG NUCLEAR LLC
RADIOACTIVE EFFLUENTS RELEASE REPORT

TABLE 2B-3
HOPE CREEK GENERATING STATION
EFFLUENTS AND WASTE DISPOSAL ANNUAL REPORT
JANUARY – JUNE 2000
LIQUID EFFLUENTS

	Nuclides Released	Units	Continuous Mode 1st Quarter	Continuous Mode 2nd Quarter	Batch Mode 1st Quarter	Batch Mode 2nd Quarter
1.	**Fission and Activation Products**					
	Chromium-51	Ci	0.00E+00	0.00E+00	0.00E+00	4.36E-03
	Manganese-54	Ci	2.11E-06	0.00E+00	1.16E-05	9.77E-03
	Iron-55	Ci	9.69E-06	0.00E+00	9.85E-04	2.93E-03
	Cobalt-58	Ci	0.00E+00	0.00E+00	0.00E+00	2.57E-04
	Iron-59	Ci	0.00E+00	0.00E+00	0.00E+00	1.88E-03
	Cobalt-60	Ci	0.00E+00	0.00E+00	9.07E-06	2.84E-03
	Zinc-65	Ci	0.00E+00	0.00E+00	0.00E+00	6.89E-05
	Niobium-95	Ci	0.00E+00	0.00E+00	0.00E+00	1.34E-05
	Iodine-131	Ci	0.00E+00	0.00E+00	0.00E+00	2.74E-07
	Cesium-137	Ci	0.00E+00	0.00E+00	1.06E-07	0.00E+00
	Totals	**Ci**	**1.18E-05**	**0.00E+00**	**1.01E-03**	**2.21E-02**
2.	**Tritium**	**Ci**	**4.75E-02**	**1.47E-01**	**3.74E-03**	**5.15E+00**
3.	**Dissolved and Entrained Noble Gases**					
	Xenon-133	Ci	0.00E+00	0.00E+00	0.00E+00	0.00E+00
	Xenon-135	Ci	0.00E+00	0.00E+00	0.00E+00	0.00E+00
	Totals	**Ci**	**0.00E+00**	**0.00E+00**	**0.00E+00**	**0.00E+00**

2000 PSEG NUCLEAR LLC
RADIOACTIVE EFFLUENTS RELEASE REPORT

TABLE 2B-4
SALEM GENERATING STATION - UNIT 1
EFFENTS AND WASTE DISPOSAL ANNUAL REPORT
JULY – DECEMBER 2000
LIQUID EFFLUENTS

Nuclides Released	Units	Continuous Mode 3rd Quarter	Continuous Mode 4th Quarter	Batch Mode 3rd Quarter	Batch Mode 4th Quarter
1. Fission and Activation Products					
Sodium-24	Ci	0.00E+00	0.00E+00	0.00E+00	6.13E-05
Chromium-51	Ci	0.00E+00	0.00E+00	2.06E-05	0.00E+00
Manganese-54	Ci	0.00E+00	0.00E+00	2.92E-05	4.79E-06
Iron-55	Ci	0.00E+00	0.00E+00	7.23E-03	3.32E-04
Manganese-56	Ci	0.00E+00	0.00E+00	3.34E-06	0.00E+00
Cobalt-57	Ci	0.00E+00	0.00E+00	8.96E-06	1.03E-05
Cobalt-58	Ci	0.00E+00	0.00E+00	1.14E-03	1.70E-02
Cobalt-60	Ci	0.00E+00	0.00E+00	1.96E-03	7.46E-04
Niobium-95	Ci	0.00E+00	0.00E+00	0.00E+00	6.04E-06
Ruthenium-103	Ci	0.00E+00	0.00E+00	5.69E-06	0.00E+00
Tin-113	Ci	0.00E+00	0.00E+00	2.72E-04	0.00E+00
Antimony-122	Ci	0.00E+00	0.00E+00	2.25E-04	2.11E-04
Antimony-124	Ci	0.00E+00	0.00E+00	0.00E+00	1.19E-03
Antimony-125	Ci	0.00E+00	0.00E+00	2.95E-03	1.28E-03
Iodine-131	Ci	0.00E+00	0.00E+00	9.75E-07	6.66E-04
Cesium-134	Ci	0.00E+00	0.00E+00	2.35E-03	1.52E-03
Cesium-136	Ci	0.00E+00	0.00E+00	0.00E+00	2.57E-05
Cesium-137	Ci	0.00E+00	0.00E+00	5.90E-03	2.77E-03
Totals	**Ci**	**0.00E+00**	**0.00E+00**	**2.21E-02**	**2.59E-02**
2. Tritium	**Ci**	**0.00E+00**	**0.00E+00**	**2.88E+02**	**6.16E+01**
3. Dissolved and Entrained Noble Gases					
Xenon-131m	Ci	0.00E+00	0.00E+00	6.33E-04	0.00E+00
Xenon-133	Ci	0.00E+00	0.00E+00	5.04E-02	2.90E-03
Xenon-133m	Ci	0.00E+00	0.00E+00	6.87E-04	0.00E+00
Xenon-135	Ci	0.00E+00	0.00E+00	7.82E-04	3.96E-03
Totals	**Ci**	**0.00E+00**	**0.00E+00**	**5.25E-02**	**6.86E-03**

2000 PSEG NUCLEAR LLC
RADIOACTIVE EFFLUENTS RELEASE REPORT

TABLE 2B-5
SALEM GENERATING STATION - UNIT 2
EFFLUENTS AND WASTE DISPOSAL ANNUAL REPORT
JULY – DECEMBER 2000
LIQUID EFFLUENTS

	Nuclides Released	Units	Continuous Mode 3rd Quarter	Continuous Mode 4th Quarter	Batch Mode 3rd Quarter	Batch Mode 4th Quarter
1.	**Fission and Activation Products**					
	Sodium-24	Ci	0.00E+00	0.00E+00	0.00E+00	1.05E-05
	Manganese-54	Ci	0.00E+00	0.00E+00	5.61E-06	0.00E+00
	Iron-55	Ci	0.00E+00	0.00E+00	1.24E-02	1.96E-03
	Cobalt-57	Ci	0.00E+00	0.00E+00	6.98E-06	3.85E-06
	Cobalt-58	Ci	0.00E+00	0.00E+00	8.33E-04	4.38E-03
	Cobalt-60	Ci	0.00E+00	0.00E+00	1.41E-03	4.04E-04
	Bromine-84	Ci	0.00E+00	0.00E+00	0.00E+00	2.95E-05
	Niobium-95	Ci	0.00E+00	0.00E+00	0.00E+00	2.01E-05
	Antimony-122	Ci	0.00E+00	0.00E+00	1.04E-04	1.03E-04
	Antimony-124	Ci	0.00E+00	0.00E+00	0.00E+00	7.74E-04
	Antimony-125	Ci	0.00E+00	0.00E+00	3.33E-03	1.17E-03
	Iodine-131	Ci	0.00E+00	0.00E+00	0.00E+00	2.70E-05
	Iodine-133	Ci	0.00E+00	0.00E+00	0.00E+00	4.92E-06
	Cesium-134	Ci	0.00E+00	0.00E+00	1.63E-03	9.89E-04
	Cesium-136	Ci	0.00E+00	0.00E+00	5.02E-05	0.00E+00
	Cesium-137	Ci	0.00E+00	0.00E+00	3.97E-03	2.01E-03
	Cerium-141	Ci	0.00E+00	0.00E+00	0.00E+00	1.80E-05
	Totals	**Ci**	**0.00E+00**	**0.00E+00**	**2.37E-02**	**1.19E-02**
2.	**Tritium**	**Ci**	**0.00E+00**	**0.00E+00**	**3.45E+02**	**2.71E+01**
3.	**Dissolved and Entrained Noble Gases**					
	Xenon-133	Ci	0.00E+00	0.00E+00	4.24E-02	1.36E-02
	Xenon-135	Ci	0.00E+00	0.00E+00	2.47E-04	5.02E-06
	Totals	**Ci**	**0.00E+00**	**0.00E+00**	**4.26E-02**	**1.36E-02**

2000 PSEG NUCLEAR LLC
RADIOACTIVE EFFLUENTS RELEASE REPORT

TABLE 2B-6
HOPE CREEK GENERATING STATION
EFFLUENTS AND WASTE DISPOSAL ANNUAL REPORT
JULY – DECEMBER 2000
LIQUID EFFLUENTS

	Nuclides Released	Units	Continuous Mode 3rd Quarter	Continuous Mode 4th Quarter	Batch Mode 3rd Quarter	Batch Mode 4th Quarter
1.	**Fission and Activation Products**					
	Chromium-51	Ci	0.00E+00	0.00E+00	1.68E-06	0.00E+00
	Manganese-54	Ci	0.00E+00	0.00E+00	5.76E-05	7.47E-06
	Iron-55	Ci	0.00E+00	0.00E+00	0.00E+00	8.82E-05
	Cobalt-58	Ci	0.00E+00	0.00E+00	9.31E-07	0.00E+00
	Cobalt-60	Ci	0.00E+00	0.00E+00	4.70E-05	9.63E-06
	Strontium-89	Ci	0.00E+00	0.00E+00	0.00E+00	8.82E-07
	Cesium-137	Ci	0.00E+00	0.00E+00	9.10E-07	9.47E-08
	Totals	**Ci**	**0.00E+00**	**0.00E+00**	**1.08E-04**	**1.06E-04**
2.	**Tritium**	**Ci**	**2.94E-01**	**2.86E-01**	**6.89E-02**	**5.84E-04**
3.	**Dissolved and Entrained Noble Gases**					
	Xenon-133	Ci	0.00E+00	0.00E+00	0.00E+00	0.00E+00
	Xenon-135	Ci	0.00E+00	0.00E+00	0.00E+00	0.00E+00
	Totals	**Ci**	**0.00E+00**	**0.00E+00**	**0.00E+00**	**0.00E+00**

2000 PSEG NUCLEAR LLC
RADIOACTIVE EFFLUENTS RELEASE REPORT

TABLE 3A
SALEM GENERATING STATION – UNITS 1 AND 2
EFFLUENTS AND WASTE DISPOSAL ANNUAL REPORT
JANUARY – DECEMBER 2000
SOLID WASTE AND IRRADIATED FUEL SHIPMENTS
SOLID RADWASTE SHIPPED OFFSITE FOR BURIAL OR DISPOSAL
(Not Irradiated Fuel)

1.	A SGS	Type of Waste (Class A or less)	Units[1]	12-Month Period	Est. Total Error
	a.	Spent Resins, Filters, Sludges, Evaporator Bottoms	m^3	5.82E+01	25%
			Ci	1.54E+01	
	b.	Dry Compressible Waste, Contaminated Equipment	m^3	5.19E+02	25%
			Ci	1.48E+00	
	c.	Irradiated Components, Control Rods	m^3	0.00E+00	25%
			Ci	0.00E+00	
	d.	Others – Reverse Osmosis Reject	m^3	9.57E+01	25%
			Ci	6.47E+00	

1. Volumes are measured, activities are estimated.

2A. Estimate of Major Nuclide Composition (>1%) – SGS

Nuclides	Resins %	Resins Ci	Sludge %	Sludge Ci
Carbon-14	<1		4.3	2.98E-01
Iron-55	2.4	2.01E-01	10.5	7.37E-01
Cobalt-58	36.6	3.07E+00	2.5	1.77E-01
Cobalt-60	3.4	2.86E-01	24.4	1.70E+00
Nickel-63	13.7	1.14E+00	53.2	3.72E+00
Cesium-134	13.4	1.12E+00	1	6.52E-02
Cesium-137	27.7	2.32E+00	3.5	2.42E-01

Nuclides	DAW %	DAW Ci	RO Reject %	RO Reject Ci
Hygrogen-3	9.1	1.35E-01	80.1	5.22E+00
Iron-55	12.9	1.91E-01	<1	
Cobalt-58	47.2	6.98E-01	7.1	4.57E-01
Cobalt-60	4.3	6.39E-02	<1	
Nickel-63	11.4	1.68E-01	3.4	2.20E-01
Niobium-95	1.6	2.41E-02	ND	
Cesium-134	4.4	6.48E-02	2.7	1.75E-01
Cesuim-137	8.5	1.26E-01	4.8	3.10E-01

ND = Not Detected

2000 PSEG NUCLEAR LLC
RADIOACTIVE EFFLUENTS RELEASE REPORT

TABLE 3A (Continued)
SALEM GENERATING STATION – UNITS 1 AND 2
EFFLUENTS AND WASTE DISPOSAL ANNUAL REPORT
JANUARY – DECEMBER 2000
SOLID WASTE AND IRRADIATED FUEL SHIPMENTS
SOLID RADWASTE SHIPPED OFFSITE FOR BURIAL OR DISPOSAL

3A. Solid Waste Disposal (Class A or less) – SGS

Number of Shipments	Mode of Transportation	Destination	Type of Containers
10	Truck	Oak Ridge, TN	Steel Liners
7	Truck	Oak Ridge, TN	Poly HIC
1	Truck	Barnwell, SC	Poly HIC
7	Truck	Oak Ridge, TN	Strong, Tight
1	Truck	Richland, WA	Strong, Tight

2000 PSEG NUCLEAR LLC
RADIOACTIVE EFFLUENTS RELEASE REPORT

TABLE 3A (Continued)
SALEM GENERATING STATION – UNITS 1 AND 2
EFFLUENTS AND WASTE DISPOSAL ANNUAL REPORT
JANUARY – DECEMBER 2000
SOLID WASTE AND IRRADIATED FUEL SHIPMENTS
SOLID RADWASTE SHIPPED OFFSITE FOR BURIAL OR DISPOSAL

1.	B	SGS Type of Waste (Class B)	Units[1]	12-Month Period	Est. Total Error
	a.	Spent Resins, Filters, Sludges, Evaporator Bottoms	m^3	3.41E+00	25%
			Ci	5.92E+01	
	b.	Dry Compressible Waste, Contaminated Equipment	m^3	0.00E+00	25%
			Ci	0.00E+00	
	c.	Irradiated Components, Control Rods	m^3	0.00E+00	25%
			Ci	0.00E+00	
	d.	Others	m^3	0.00E+00	25%
			Ci	0.00E+00	

1. Volumes are measured, activities are estimated.

2B. Estimate of Major Nuclide Composition (>1%) (Class B) – SGS

Nuclides	Resins %	Resins Ci
Manganese-54	2.1	1.22E+00
Iron-55	3.4	2.01E+00
Cobalt-58	1.9	1.11E+00
Cobalt-60	13.5	7.97E+00
Nickel-63	52.4	3.10E+01
Cesium-134	6.5	3.86E+00
Cesium-137	20.1	1.19E+01

3B. Solid Waste Disposal (Class B) – SGS

Number of Shipments	Mode of Transportation	Destination	Type of Containers
1	Truck	Barnwell, SC	Poly HIC

4. Irradiated Fuel Shipments (Disposition) – SGS

Number of Shipments	Mode of Transportation	Destination
None	N/A	N/A

5. Solidification Methods – None – SGS

2000 PSEG NUCLEAR LLC
RADIOACTIVE EFFLUENTS RELEASE REPORT

TABLE 3B
HOPE CREEK GENERATING STATION
EFFLUENTS AND WASTE DISPOSAL ANNUAL REPORT
JANUARY – DECEMBER 2000
SOLID WASTE AND IRRADIATED FUEL SHIPMENTS
SOLID RADWASTE SHIPPED OFFSITE FOR BURIAL OR DISPOSAL

1.	A	HCGS Type of Waste (Class A)	Units[1]	12-Month Period	Est. Total Error
	a.	Spent Resins, Filters, Sludges, Evaporator Bottoms	m^3 Ci	3.60E+01 1.41E+02	25%
	b.	Dry Compressible Waste, Contaminated Equipment	m^3 Ci	6.27E+02 1.17E+01	25%
	c.	Irradiated Components, Control Rods	m^3 Ci	0.00E+00 0.00E+00	25%
	d.	Others (Contaminated Oil)	m^3 Ci	3.63E+01 6.67E-04	25%

1. Volumes are measured, activities are estimated.

2A. Estimate of Major Nuclide Composition (>1%) (Class A) – HCGS

	Resins	
Nuclides	%	Ci
Carbon-14	1.1	1.49E+00
Manganese-54	7.0	9.84E+00
Iron-55	82.7	1.17E+02
Cobalt-60	8.1	1.14E+01
Zinc-65	1.2	1.72E+00

	Oil		DAW	
Nuclides	%	Ci	%	Ci
Chromium-51	<1		5.1	5.97E-01
Manganese-54	3.9	2.57E-05	4.2	4.91E-01
Iron-55	91	6.07E-04	81.7	9.54E+00
Iron-59	<1		3.7	4.29E-01
Cobalt-60	3.4	2.44E-05	3.1	3.64E-01
Zinc-65	<1		1.1	1.30E-01

2000 PSEG NUCLEAR LLC
RADIOACTIVE EFFLUENTS RELEASE REPORT

TABLE 3B (Continued)
HOPE CREEK GENERATING STATION
EFFLUENTS AND WASTE DISPOSAL ANNUAL REPORT
JANUARY – DECEMBER 2000
SOLID WASTE AND IRRADIATED FUEL SHIPMENTS
SOLID RADWASTE SHIPPED OFFSITE FOR BURIAL OR DISPOSAL

3A. Solid Waste Disposal (Class A) – HCGS

Number of Shipments	Mode of Transportation	Destination	Type of Containers
7	Truck	Barnwell, SC	Poly HIC
8	Truck	Oak Ridge, TN	Strong, Tight
3	Truck	Richland, WA	Strong, Tight

4. Irradiated Fuel Shipments (Disposition) – HCGS

Number of Shipments	Mode of Transportation	Destination
None	N/A	N/A

5. Solidification Methods – HCGS

No shipments of Solid Radioactive Waste requiring solidification were made during this period.

2000 PSEG NUCLEAR LLC
RADIOACTIVE EFFLUENTS RELEASE REPORT

TABLE 4A-1
SALEM GENERATING STATION - UNIT 1
EFFLUENTS AND WASTE DISPOSAL ANNUAL REPORT
JANUARY – JUNE 2000
SUMMARY SHEET FOR RADIOACTIVE EFFLUENTS RELEASED
IN A BATCH MODE

BATCH RELEASES ONLY

1.	Dates:	January 1, 2000 – March 31, 2000	
2.	Type of release:	Gaseous	
3.	Number of releases during quarter:	18	
4.	Total time duration for all releases of type listed above:	2520.0	Min.
5.	Maximum duration for release of type listed above:	583.0	Min.
6.	Average duration for release of type listed above:	140.0	Min.
7.	Minimum duration for release of type listed above:	60.0	Min.
8.	Average stream flow (dilution flow) during period of release:	N/A	

BATCH RELEASES ONLY

1.	Dates:	April 1, 2000 – June 30, 2000	
2.	Type of release:	Gaseous	
3.	Number of releases during quarter:	26	
4.	Total time duration for all releases of type listed above:	2340.0	Min.
5.	Maximum duration for release of type listed above:	200.0	Min.
6.	Average duration for release of type listed above:	89.8	Min.
7.	Minimum duration for release of type listed above:	29.0	Min.
8.	Average stream flow (dilution flow) during period of release:	N/A	

2000 PSEG NUCLEAR LLC
RADIOACTIVE EFFLUENTS RELEASE REPORT

TABLE 4A-1 (Continued)
SALEM GENERATING STATION - UNIT 1
EFFLUENTS AND WASTE DISPOSAL ANNUAL REPORT
JULY – DECEMBER 2000
SUMMARY SHEET FOR RADIOACTIVE EFFLUENTS RELEASED
IN A BATCH MODE

BATCH RELEASES ONLY

1.	Dates:	July 1, 2000 – September 30, 2000	
2.	Type of release:	Gaseous	
3.	Number of releases during quarter:	17	
4.	Total time duration for all releases of type listed above:	1490.0	Min.
5.	Maximum duration for release of type listed above:	189.0	Min.
6.	Average duration for release of type listed above:	87.8	Min.
7.	Minimum duration for release of type listed above:	60.0	Min.
8.	Average stream flow (dilution flow) during period of release:	N/A	

BATCH RELEASES ONLY

1.	Dates:	October 1, 2000 – December 31, 2000	
2.	Type of release:	Gaseous	
3.	Number of releases during quarter:	34	
4.	Total time duration for all releases of type listed above:	3520.0	Min.
5.	Maximum duration for release of type listed above:	220.0	Min.
6.	Average duration for release of type listed above:	104.0	Min.
7.	Minimum duration for release of type listed above:	50.0	Min.
8.	Average stream flow (dilution flow) during period of release:	N/A	

2000 PSEG NUCLEAR LLC
RADIOACTIVE EFFLUENTS RELEASE REPORT

TABLE 4A-2
SALEM GENERATING STATION - UNIT 2
EFFLUENTS AND WASTE DISPOSAL ANNUAL REPORT
JANUARY – JUNE 2000
SUMMARY SHEET FOR RADIOACTIVE EFFLUENTS RELEASED
IN A BATCH MODE

BATCH RELEASES ONLY

1.	Dates:	January 1, 2000 – March 31, 2000	
2.	Type of release:	Gaseous	
3.	Number of releases during quarter:	14	
4.	Total time duration for all releases of type listed above:	1670.0	Min.
5.	Maximum duration for release of type listed above:	183.0	Min.
6.	Average duration for release of type listed above:	119.0	Min.
7.	Minimum duration for release of type listed above:	70.0	Min.
8.	Average stream flow (dilution flow) during period of release:	N/A	

BATCH RELEASES ONLY

1.	Dates:	April 1, 2000 – June 30, 2000	
2.	Type of release:	Gaseous	
3.	Number of releases during quarter:	12	
4.	Total time duration for all releases of type listed above:	1310.0	Min.
5.	Maximum duration for release of type listed above:	166.0	Min.
6.	Average duration for release of type listed above:	109.0	Min.
7.	Minimum duration for release of type listed above:	60.0	Min.
8.	Average stream flow (dilution flow) during period of release:	N/A	

2000 PSEG NUCLEAR LLC
RADIOACTIVE EFFLUENTS RELEASE REPORT

TABLE 4A-2 (Continued)
SALEM GENERATING STATION - UNIT 2
EFFLUENTS AND WASTE DISPOSAL ANNUAL REPORT
JULY – DECEMBER 2000
SUMMARY SHEET FOR RADIOACTIVE EFFLUENTS RELEASED
IN A BATCH MODE

BATCH RELEASES ONLY

1.	Dates:	July 1, 2000 – September 30, 2000	
2.	Type of release:	Gaseous	
3.	Number of releases during quarter:	26	
4.	Total time duration for all releases of type listed above:	2140.0	Min.
5.	Maximum duration for release of type listed above:	203.0	Min.
6.	Average duration for release of type listed above:	82.2	Min.
7.	Minimum duration for release of type listed above:	30.0	Min.
8.	Average stream flow (dilution flow) during period of release:	N/A	

BATCH RELEASES ONLY

1.	Dates:	October 1, 2000 – December 31, 2000	
2.	Type of release:	Gaseous	
3.	Number of releases during quarter:	37	
4.	Total time duration for all releases of type listed above: *Extended period of plant purge during Refueling Outage	*14000.0	Min.
5.	Maximum duration for release of type listed above: *Extended period of plant purge during Refueling Outage	5160.0	Min.
6.	Average duration for release of type listed above:	380.0	Min.
7.	Minimum duration for release of type listed above:	1.0	Min.
8.	Average stream flow (dilution flow) during period of release:	N/A	

2000 PSEG NUCLEAR LLC
RADIOACTIVE EFFLUENTS RELEASE REPORT

TABLE 4A-3
HOPE CREEK GENERATING STATION
EFFLUENTS AND WASTE DISPOSAL ANNUAL REPORT
JANUARY – JUNE 2000
SUMMARY SHEET FOR RADIOACTIVE EFFLUENTS RELEASED
IN A BATCH MODE

BATCH RELEASES ONLY

1.	Dates:	January 1, 2000 – March 31, 2000	
2.	Type of release:	Gaseous	
3.	Number of releases during quarter:	0.00	
4.	Total time duration for all releases of type listed above:	0.00	Min.
5.	Maximum duration for release of type listed above:	0.00	Min.
6.	Average duration for release of type listed above:	0.00	Min.
7.	Minimum duration for release of type listed above:	0.0	Min.
8.	Average stream flow (dilution flow) during period of release:		

BATCH RELEASES ONLY

1.	Dates:	April 1, 2000 – June 30, 2000	
2.	Type of release:	Gaseous	
3.	Number of releases during quarter:	3	
4.	Total time duration for all releases of type listed above:	3538.00	Min.
5.	Maximum duration for release of type listed above:	1805.00	Min.
6.	Average duration for release of type listed above:	1179.33	Min.
7.	Minimum duration for release of type listed above:	367.00	Min.
8.	Average stream flow (dilution flow) during period of release:	N/A	

2000 PSEG NUCLEAR LLC
RADIOACTIVE EFFLUENTS RELEASE REPORT

TABLE 4A-3 (Continued)
HOPE CREEK GENERATING STATION
EFFLUENTS AND WASTE DISPOSAL ANNUAL REPORT
JULY – DECEMBER 2000
SUMMARY SHEET FOR RADIOACTIVE EFFLUENTS RELEASED
IN A BATCH MODE

BATCH RELEASES ONLY

1.	Dates:	July 1, 2000 – September 30, 2000	
2.	Type of release:	Gaseous	
3.	Number of releases during quarter:	0.00	
4.	Total time duration for all releases of type listed above:	0.00	Min.
5.	Maximum duration for release of type listed above:	0.00	Min.
6.	Average duration for release of type listed above:	0.00	Min.
7.	Minimum duration for release of type listed above:	0.00	Min.
8.	Average stream flow (dilution flow) during period of release:	N/A	

BATCH RELEASES ONLY

1.	Dates:	October 1, 2000 – December 31, 2000	
2.	Type of release:	Gaseous	
3.	Number of releases during quarter:	0.00	
4.	Total time duration for all releases of type listed above:	0.00	Min.
5.	Maximum duration for release of type listed above:	0.00	Min.
6.	Average duration for release of type listed above:	0.00	Min.
7.	Minimum duration for release of type listed above:	0.00	Min.
8.	Average stream flow (dilution flow) during period of release:	N/A	

2000 PSEG NUCLEAR LLC
RADIOACTIVE EFFLUENTS RELEASE REPORT

TABLE 4B-1
SALEM GENERATING STATION - UNIT 1
EFFLUENTS AND WASTE DISPOSAL ANNUAL REPORT
JANUARY – JUNE 2000
SUMMARY SHEET FOR RADIOACTIVE EFFLUENTS RELEASED
IN A BATCH MODE

BATCH RELEASES ONLY

1.	Dates:	January 1, 2000 – March 31, 2000	
2.	Type of release:	Liquid	
3.	Number of releases during quarter:	7	
4.	Total time duration for all releases of type listed above:	1650.0	Min.
5.	Maximum duration for release of type listed above:	389.0	Min.
6.	Average duration for release of type listed above:	236.0	Min.
7.	Minimum duration for release of type listed above:	120.0	Min.
8.	Average stream flow (dilution flow) during period of release:	9.37E+05	GPM

BATCH RELEASES ONLY

1.	Dates:	April 1, 2000 – June 30, 2000	
2.	Type of release:	Liquid	
3.	Number of releases during quarter:	13	
4.	Total time duration for all releases of type listed above:	2890.0	Min.
5.	Maximum duration for release of type listed above:	286.0	Min.
6.	Average duration for release of type listed above:	222.0	Min.
7.	Minimum duration for release of type listed above:	120.0	Min.
8.	Average stream flow (dilution flow) during period of release:	9.96E+05	GPM

2000 PSEG NUCLEAR LLC
RADIOACTIVE EFFLUENTS RELEASE REPORT

TABLE 4B-1 (Continued)
SALEM GENERATING STATION - UNIT 1
EFFLUENTS AND WASTE DISPOSAL ANNUAL REPORT
JULY – DECEMBER 2000
SUMMARY SHEET FOR RADIOACTIVE EFFLUENTS RELEASED
IN A BATCH MODE

BATCH RELEASES ONLY

1.	Dates:	July 1, 2000 – September 30, 2000	
2.	Type of release:	Liquid	
3.	Number of releases during quarter:	20	
4.	Total time duration for all releases of type listed above:	5410.0	Min.
5.	Maximum duration for release of type listed above:	423.0	Min.
6.	Average duration for release of type listed above:	270.0	Min.
7.	Minimum duration for release of type listed above:	171.0	Min.
8.	Average stream flow (dilution flow) during period of release:	1.02E+06	GPM

BATCH RELEASES ONLY

1.	Dates:	October 1, 2000 – December 31, 2000	
2.	Type of release:	Liquid	
3.	Number of releases during quarter:	18	
4.	Total time duration for all releases of type listed above:	2990.0	Min.
5.	Maximum duration for release of type listed above:	332.0	Min.
6.	Average duration for release of type listed above:	166.0	Min.
7.	Minimum duration for release of type listed above:	5.0	Min.
8.	Average stream flow (dilution flow) during period of release:	1.05E+06	GPM

2000 PSEG NUCLEAR LLC
RADIOACTIVE EFFLUENTS RELEASE REPORT

TABLE 4B-2
SALEM GENERATING STATION - UNIT 2
EFFLUENTS AND WASTE DISPOSAL ANNUAL REPORT
JANUARY – JUNE 2000
SUMMARY SHEET FOR RADIOACTIVE EFFLUENTS RELEASED
IN A BATCH MODE

BATCH RELEASES ONLY

1.	Dates:	January 1, 2000 – March 31, 2000	
2.	Type of release:	Liquid	
3.	Number of releases during quarter:	6	
4.	Total time duration for all releases of type listed above:	45800.0	Min.
5.	Maximum duration for release of type listed above:	*44600.0	Min.

*Monitored & Approved Release from Chemical Waste System

6.	Average duration for release of type listed above:	7640.0	Min.
7.	Minimum duration for release of type listed above:	144.0	Min.
8.	Average stream flow (dilution flow) during period of release:	1.01E+06	GPM

BATCH RELEASES ONLY

1.	Dates:	April 1, 2000 – June 30, 2000	
2.	Type of release:	Liquid	
3.	Number of releases during quarter:	15	
4.	Total time duration for all releases of type listed above:	2820.0	Min.
5.	Maximum duration for release of type listed above:	331.0	Min.
6.	Average duration for release of type listed above:	188.0	Min.
7.	Minimum duration for release of type listed above:	5.0	Min.
8.	Average stream flow (dilution flow) during period of release:	9.62E+05	GPM

2000 PSEG NUCLEAR LLC
RADIOACTIVE EFFLUENTS RELEASE REPORT

TABLE 4B-2 (Continued)
SALEM GENERATING STATION - UNIT 2
EFFLUENTS AND WASTE DISPOSAL ANNUAL REPORT
JULY – DECEMBER 2000
SUMMARY SHEET FOR RADIOACTIVE EFFLUENTS RELEASED
IN A BATCH MODE

BATCH RELEASES ONLY

1.	Dates:	July 1, 2000 – September 30, 2000	
2.	Type of release:	Liquid	
3.	Number of releases during quarter:	18	
4.	Total time duration for all releases of type listed above:	4450.0	Min.
5.	Maximum duration for release of type listed above:	421.0	Min.
6.	Average duration for release of type listed above:	247.0	Min.
7.	Minimum duration for release of type listed above:	15.0	Min.
8.	Average stream flow (dilution flow) during period of release:	9.34E+05	GPM

BATCH RELEASES ONLY

1.	Dates:	October 1, 2000 – December 31, 2000	
2.	Type of release:	Liquid	
3.	Number of releases during quarter:	12	
4.	Total time duration for all releases of type listed above:	2390.0	Min.
5.	Maximum duration for release of type listed above:	326.0	Min.
6.	Average duration for release of type listed above:	199.0	Min.
7.	Minimum duration for release of type listed above:	1.0	Min.
8.	Average stream flow (dilution flow) during period of release:	6.38E+05	GPM

2000 PSEG NUCLEAR LLC
RADIOACTIVE EFFLUENTS RELEASE REPORT

TABLE 4B-3
HOPE CREEK GENERATING STATION
EFFLUENTS AND WASTE DISPOSAL ANNUAL REPORT
JANUARY – JUNE 2000
SUMMARY SHEET FOR RADIOACTIVE EFFLUENTS RELEASED
IN A BATCH MODE

BATCH RELEASES ONLY

1.	Dates:	January 1, 2000 – March 31, 2000	
2.	Type of release:	Liquid	
3.	Number of releases during quarter:	8	
4.	Total time duration for all releases of type listed above:	327.67	Min.
5.	Maximum duration for release of type listed above:	85.23	Min.
6.	Average duration for release of type listed above:	40.96	Min.
7.	Minimum duration for release of type listed above:	1.00	Min.
8.	Average stream flow (dilution flow) during period of release:	27199	GPM

BATCH RELEASES ONLY

1.	Dates:	April 1, 2000 – June 30, 2000	
2.	Type of release:	Liquid	
3.	Number of releases during quarter:	85	
4.	Total time duration for all releases of type listed above:	5291.32	Min.
5.	Maximum duration for release of type listed above:	118.93	Min.
6.	Average duration for release of type listed above:	62.25	Min.
7.	Minimum duration for release of type listed above:	0.50	Min.
8.	Average stream flow (dilution flow) during period of release:	33241	GPM

2000 PSEG NUCLEAR LLC
RADIOACTIVE EFFLUENTS RELEASE REPORT

TABLE 4B-3 (Continued)
HOPE CREEK GENERATING STATION
EFFLUENTS AND WASTE DISPOSAL ANNUAL REPORT
JULY – DECEMBER 2000
SUMMARY SHEET FOR RADIOACTIVE EFFLUENTS RELEASED
IN A BATCH MODE

BATCH RELEASES ONLY

1.	Dates:	July 1, 2000 – September 30, 2000	
2.	Type of release:	Liquid	
3.	Number of releases during quarter:	9	
4.	Total time duration for all releases of type listed above:	506.07	Min.
5.	Maximum duration for release of type listed above:	87.43	Min.
6.	Average duration for release of type listed above:	56.23	Min.
7.	Minimum duration for release of type listed above:	38.17	Min.
8.	Average stream flow (dilution flow) during period of release:	41944	GPM

BATCH RELEASES ONLY

1.	Dates:	October 1, 2000 – December 31, 2000	
2.	Type of release:	Liquid	
3.	Number of releases during quarter:	4	
4.	Total time duration for all releases of type listed above:	229.70	Min.
5.	Maximum duration for release of type listed above:	70.00	Min.
6.	Average duration for release of type listed above:	57.43	Min.
7.	Minimum duration for release of type listed above:	39.75	Min.
8.	Average stream flow (dilution flow) during period of release:	31968	GPM

APPENDIX A

METEOROLOGICAL DATA

Section 1

300-33 ft. Lapse Rate Wind Distributions

1/00 – 3/00

ARTIFICIAL ISLAND 01/00-03/00

JOINT DISTRIBUTION OF WIND DIRECTION AND SPEED
BY ATMOSPHERIC STABILITY CLASS
WIND: 30 FT
DELTA T: (300-33FT)

LAPSE RATE: LE -1.9 DEG C/100M
CLASS A

WIND SPEED GROUPS (MPH)

	0.0-0.5		0.6-3.5		3.6-7.5		7.6-12.5		12.6-18.5		18.6-24.5		GE 24.6		SUM PERCENT	
DIRECTION	SUM	PERCENT	SUM	PERCENT	SUM	PERCENT	SUM	PERCENT	SUM	PERCENT	SUM	PERCENT	SUM	PERCENT		
N	0	0.0	0	0.0	0	0.0	3	0.1	2	0.1	0	0.0	0	0.0	5	0.2
NNE	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0
NE	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0
ENE	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0
E	0	0.0	0	0.0	0	0.0	3	0.1	0	0.0	0	0.0	0	0.0	3	0.1
ESE	0	0.0	0	0.0	0	0.0	2	0.1	0	0.0	0	0.0	0	0.0	2	0.1
SE	0	0.0	0	0.0	0	0.0	2	0.1	1	0.0	0	0.0	0	0.0	3	0.1
SSE	0	0.0	0	0.0	0	0.0	3	0.1	2	0.1	0	0.0	0	0.0	5	0.2
S	0	0.0	0	0.0	0	0.0	1	0.0	0	0.0	0	0.0	0	0.0	1	0.0
SSW	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0
SW	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0
WSW	0	0.0	0	0.0	0	0.0	2	0.1	1	0.0	0	0.0	0	0.0	3	0.1
W	0	0.0	0	0.0	0	0.0	2	0.1	4	0.2	3	0.1	0	0.0	9	0.4
WNW	0	0.0	0	0.0	0	0.0	4	0.2	6	0.3	1	0.0	0	0.0	11	0.5
NW	0	0.0	0	0.0	0	0.0	6	0.3	10	0.5	6	0.3	0	0.0	22	1.0
NNW	0	0.0	0	0.0	0	0.0	1	0.0	4	0.2	6	0.3	0	0.0	11	0.5
	0	0.0	0	0.0	0	0.0	29	1.3	30	1.4	16	0.7	0	0.0	75	3.4

MEAN WIND SPEED: 14.2
MISSING: 0

ARTIFICIAL ISLAND 01/00-03/00

JOINT DISTRIBUTION OF WIND DIRECTION AND SPEED
BY ATMOSPHERIC STABILITY CLASS
WIND: 30 FT
DELTA T: (300-33FT)

LAPSE RATE: -1.8 TO -1.7 DEG C/100M
CLASS B

WIND SPEED GROUPS (MPH)

	0.0-0.5		0.6-3.5		3.6-7.5		7.6-12.5		12.6-18.5		18.6-24.5		GE 24.6		SUM	PERCENT
DIRECTION	SUM	PERCENT	SUM	PERCENT	SUM	PERCENT	SUM	PERCENT	SUM	PERCENT	SUM	PERCENT	SUM	PERCENT		
N	0	0.0	0	0.0	1	0.0	13	0.6	3	0.1	0	0.0	0	0.0	17	0.8
NNE	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0
NE	0	0.0	0	0.0	2	0.1	2	0.1	0	0.0	0	0.0	0	0.0	4	0.2
ENE	0	0.0	0	0.0	0	0.0	1	0.0	0	0.0	0	0.0	0	0.0	1	0.0
E	0	0.0	0	0.0	0	0.0	2	0.1	0	0.0	0	0.0	0	0.0	2	0.1
ESE	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0
SE	0	0.0	0	0.0	0	0.0	0	0.0	1	0.0	0	0.0	0	0.0	1	0.0
SSE	0	0.0	0	0.0	0	0.0	2	0.1	0	0.0	0	0.0	0	0.0	2	0.1
S	0	0.0	0	0.0	1	0.0	1	0.0	0	0.0	0	0.0	0	0.0	2	0.1
SSW	0	0.0	0	0.0	0	0.0	1	0.0	0	0.0	0	0.0	0	0.0	1	0.0
SW	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0
WSW	0	0.0	0	0.0	1	0.0	0	0.0	0	0.0	0	0.0	0	0.0	1	0.0
W	0	0.0	0	0.0	2	0.1	1	0.0	3	0.1	0	0.0	0	0.0	6	0.3
WNW	0	0.0	0	0.0	1	0.0	5	0.2	9	0.4	3	0.1	0	0.0	18	0.8
NW	0	0.0	0	0.0	1	0.0	9	0.4	10	0.5	6	0.3	0	0.0	26	1.2
NNW	0	0.0	0	0.0	2	0.1	7	0.3	8	0.4	5	0.2	0	0.0	22	1.0
	0	0.0	0	0.0	11	0.5	44	2.0	34	1.6	14	0.6	0	0.0	103	4.7

MEAN WIND SPEED: 12.9
MISSING: 0

ARTIFICIAL ISLAND 01/00-03/00

JOINT DISTRIBUTION OF WIND DIRECTION AND SPEED
BY ATMOSPHERIC STABILITY CLASS
WIND: 30 FT
DELTA T: (300-33FT)

LAPSE RATE: -1.6 TO -1.5 DEG C/100M
CLASS C

WIND SPEED GROUPS (MPH)

	0.0-0.5		0.6-3.5		3.6-7.5		7.6-12.5		12.6-18.5		18.6-24.5		GE 24.6		SUM	PERCENT
DIRECTION	SUM	PERCENT	SUM	PERCENT	SUM	PERCENT	SUM	PERCENT	SUM	PERCENT	SUM	PERCENT	SUM	PERCENT		
N	0	0.0	0	0.0	1	0.0	3	0.1	1	0.0	0	0.0	0	0.0	5	0.2
NNE	0	0.0	0	0.0	5	0.2	4	0.2	0	0.0	0	0.0	0	0.0	9	0.4
NE	0	0.0	0	0.0	0	0.0	1	0.0	2	0.1	0	0.0	0	0.0	3	0.1
ENE	0	0.0	0	0.0	1	0.0	0	0.0	0	0.0	0	0.0	0	0.0	1	0.0
E	0	0.0	0	0.0	0	0.0	2	0.1	0	0.0	0	0.0	0	0.0	2	0.1
ESE	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0
SE	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0
SSE	0	0.0	0	0.0	1	0.0	2	0.1	1	0.0	0	0.0	0	0.0	4	0.2
S	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0
SSW	0	0.0	0	0.0	2	0.1	0	0.0	0	0.0	0	0.0	0	0.0	2	0.1
SW	0	0.0	0	0.0	3	0.1	2	0.1	0	0.0	0	0.0	0	0.0	5	0.2
WSW	0	0.0	0	0.0	1	0.0	1	0.0	0	0.0	0	0.0	0	0.0	2	0.1
W	0	0.0	0	0.0	1	0.0	4	0.2	3	0.1	0	0.0	0	0.0	8	0.4
WNW	0	0.0	0	0.0	2	0.1	4	0.2	6	0.3	0	0.0	0	0.0	12	0.6
NW	0	0.0	0	0.0	3	0.1	4	0.2	7	0.3	1	0.0	0	0.0	15	0.7
NNW	0	0.0	0	0.0	0	0.0	3	0.1	6	0.3	2	0.1	0	0.0	11	0.5
	0	0.0	0	0.0	20	0.9	30	1.4	26	1.2	3	0.1	0	0.0	79	3.6

MEAN WIND SPEED: 11.2
MISSING: 0

ARTIFICIAL ISLAND 01/00-03/00

JOINT DISTRIBUTION OF WIND DIRECTION AND SPEED
BY ATMOSPHERIC STABILITY CLASS
WIND: 30 FT
DELTA T: (300-33FT)

LAPSE RATE: -1.4 TO -0.5 DEG C/100M
CLASS D

WIND SPEED GROUPS (MPH)

	0.0-0.5		0.6-3.5		3.6-7.5		7.6-12.5		12.6-18.5		18.6-24.5		GE 24.6		SUM	PERCENT
DIRECTION	SUM	PERCENT	SUM	PERCENT	SUM	PERCENT	SUM	PERCENT	SUM	PERCENT	SUM	PERCENT	SUM	PERCENT		
N	0	0.0	2	0.1	8	0.4	15	0.7	9	0.4	5	0.2	0	0.0	39	1.8
NNE	0	0.0	1	0.0	17	0.8	16	0.7	2	0.1	3	0.1	0	0.0	39	1.8
NE	0	0.0	0	0.0	18	0.8	16	0.7	10	0.5	7	0.3	0	0.0	51	2.3
ENE	0	0.0	0	0.0	25	1.1	24	1.1	6	0.3	0	0.0	0	0.0	55	2.5
E	0	0.0	2	0.1	11	0.5	11	0.5	0	0.0	0	0.0	0	0.0	24	1.1
ESE	0	0.0	1	0.0	9	0.4	8	0.4	0	0.0	0	0.0	0	0.0	18	0.8
SE	0	0.0	2	0.1	4	0.2	10	0.5	13	0.6	1	0.0	0	0.0	30	1.4
SSE	0	0.0	2	0.1	9	0.4	6	0.3	8	0.4	1	0.0	0	0.0	26	1.2
S	0	0.0	2	0.1	10	0.5	12	0.6	5	0.2	0	0.0	0	0.0	29	1.3
SSW	0	0.0	7	0.3	13	0.6	7	0.3	1	0.0	0	0.0	0	0.0	28	1.3
SW	0	0.0	3	0.1	6	0.3	8	0.4	0	0.0	1	0.0	0	0.0	18	0.8
WSW	0	0.0	0	0.0	7	0.3	5	0.2	1	0.0	0	0.0	0	0.0	13	0.6
W	0	0.0	6	0.3	16	0.7	28	1.3	13	0.6	0	0.0	0	0.0	63	2.9
WNW	0	0.0	4	0.2	9	0.4	12	0.6	31	1.4	6	0.3	1	0.0	63	2.9
NW	0	0.0	2	0.1	17	0.8	30	1.4	64	2.9	21	1.0	1	0.0	135	6.2
NNW	0	0.0	1	0.0	11	0.5	40	1.8	46	2.1	27	1.2	1	0.0	126	5.8
	0	0.0	35	1.6	190	8.7	248	11.4	209	9.6	72	3.3	3	0.1	757	34.7

MEAN WIND SPEED: 11.1
MISSING: 0

ARTIFICIAL ISLAND 01/00-03/00

JOINT DISTRIBUTION OF WIND DIRECTION AND SPEED
BY ATMOSPHERIC STABILITY CLASS
WIND: 30 FT
DELTA T: (300-33FT)

LAPSE RATE: -0.4 TO 1.5 DEG C/100M
CLASS E

WIND SPEED GROUPS (MPH)

	0.0-0.5		0.6-3.5		3.6-7.5		7.6-12.5		12.6-18.5		18.6-24.5		GE 24.6		SUM	PERCENT
DIRECTION	SUM	PERCENT	SUM	PERCENT	SUM	PERCENT	SUM	PERCENT	SUM	PERCENT	SUM	PERCENT	SUM	PERCENT		
N	0	0.0	2	0.1	13	0.6	14	0.6	10	0.5	0	0.0	0	0.0	39	1.8
NNE	0	0.0	3	0.1	18	0.8	14	0.6	1	0.0	0	0.0	0	0.0	36	1.7
NE	0	0.0	4	0.2	20	0.9	5	0.2	5	0.2	0	0.0	0	0.0	34	1.6
ENE	0	0.0	7	0.3	24	1.1	3	0.1	2	0.1	1	0.0	1	0.0	38	1.7
E	0	0.0	5	0.2	12	0.6	1	0.0	0	0.0	0	0.0	0	0.0	18	0.8
ESE	0	0.0	3	0.1	18	0.8	4	0.2	1	0.0	0	0.0	0	0.0	26	1.2
SE	0	0.0	3	0.1	28	1.3	34	1.6	5	0.2	3	0.1	0	0.0	73	3.4
SSE	0	0.0	4	0.2	26	1.2	18	0.8	0	0.0	0	0.0	0	0.0	48	2.2
S	0	0.0	2	0.1	21	1.0	19	0.9	0	0.0	0	0.0	0	0.0	42	1.9
SSW	0	0.0	7	0.3	20	0.9	8	0.4	9	0.4	5	0.2	0	0.0	49	2.2
SW	0	0.0	6	0.3	15	0.7	8	0.4	4	0.2	3	0.1	0	0.0	36	1.7
WSW	0	0.0	6	0.3	12	0.6	21	1.0	1	0.0	0	0.0	0	0.0	40	1.8
W	0	0.0	4	0.2	11	0.5	26	1.2	4	0.2	0	0.0	0	0.0	45	2.1
WNW	0	0.0	6	0.3	17	0.8	24	1.1	7	0.3	0	0.0	0	0.0	54	2.5
NW	0	0.0	2	0.1	15	0.7	62	2.8	14	0.6	1	0.0	0	0.0	94	4.3
NNW	0	0.0	2	0.1	29	1.3	39	1.8	23	1.1	1	0.0	0	0.0	94	4.3
	0	0.0	66	3.0	299	13.7	300	13.8	86	3.9	14	0.6	1	0.0	766	35.2

MEAN WIND SPEED: 8.3
MISSING: 0

ARTIFICIAL ISLAND 01/00-03/00

JOINT DISTRIBUTION OF WIND DIRECTION AND SPEED
BY ATMOSPHERIC STABILITY CLASS
WIND: 30 FT
DELTA T: (300-33FT)

LAPSE RATE: 1.6 TO 4.0 DEG C/100M
CLASS F

WIND SPEED GROUPS (MPH)

	0.0-0.5		0.6-3.5		3.6-7.5		7.6-12.5		12.6-18.5		18.6-24.5		GE 24.6		SUM	PERCENT
DIRECTION	SUM	PERCENT	SUM	PERCENT	SUM	PERCENT	SUM	PERCENT	SUM	PERCENT	SUM	PERCENT	SUM	PERCENT		
N	0	0.0	2	0.1	8	0.4	3	0.1	0	0.0	0	0.0	0	0.0	13	0.6
NNE	0	0.0	1	0.0	16	0.7	0	0.0	0	0.0	0	0.0	0	0.0	17	0.8
NE	0	0.0	4	0.2	8	0.4	0	0.0	0	0.0	0	0.0	0	0.0	12	0.6
ENE	0	0.0	4	0.2	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	4	0.2
E	0	0.0	4	0.2	4	0.2	0	0.0	0	0.0	0	0.0	0	0.0	8	0.4
ESE	0	0.0	0	0.0	7	0.3	0	0.0	0	0.0	0	0.0	0	0.0	7	0.3
SE	0	0.0	4	0.2	19	0.9	11	0.5	3	0.1	0	0.0	0	0.0	37	1.7
SSE	0	0.0	0	0.0	23	1.1	9	0.4	2	0.1	1	0.0	0	0.0	35	1.6
S	0	0.0	3	0.1	8	0.4	6	0.3	1	0.0	1	0.0	0	0.0	19	0.9
SSW	0	0.0	6	0.3	3	0.1	11	0.5	4	0.2	2	0.1	0	0.0	25	1.1
SW	0	0.0	1	0.0	7	0.3	7	0.3	1	0.0	0	0.0	0	0.0	16	0.7
WSW	0	0.0	2	0.1	9	0.4	4	0.2	3	0.1	0	0.0	0	0.0	18	0.8
W	0	0.0	1	0.0	4	0.2	4	0.2	0	0.0	0	0.0	0	0.0	9	0.4
WNW	0	0.0	3	0.1	7	0.3	0	0.0	0	0.0	0	0.0	0	0.0	10	0.5
NW	0	0.0	0	0.0	10	0.5	6	0.3	0	0.0	0	0.0	0	0.0	16	0.7
NNW	0	0.0	1	0.0	7	0.3	3	0.1	0	0.0	0	0.0	0	0.0	11	0.5
	0	0.0	35	1.6	140	6.4	64	2.9	14	0.6	4	0.2	0	0.0	257	11.8

MEAN WIND SPEED: 6.9
MISSING: 0

ARTIFICIAL ISLAND 01/00-03/00

JOINT DISTRIBUTION OF WIND DIRECTION AND SPEED
BY ATMOSPHERIC STABILITY CLASS
WIND: 30 FT
DELTA T: (300-33FT)

LAPSE RATE: GT 4.0 DEG C/100M
CLASS G

WIND SPEED GROUPS (MPH)

	0.0-0.5		0.6-3.5		3.6-7.5		7.6-12.5		12.6-18.5		18.6-24.5		GE 24.6		SUM	PERCENT
DIRECTION	SUM	PERCENT	SUM	PERCENT	SUM	PERCENT	SUM	PERCENT	SUM	PERCENT	SUM	PERCENT	SUM	PERCENT		
N	0	0.0	1	0.0	1	0.0	0	0.0	0	0.0	0	0.0	0	0.0	2	0.1
NNE	0	0.0	0	0.0	6	0.3	0	0.0	0	0.0	0	0.0	0	0.0	6	0.3
NE	0	0.0	0	0.0	2	0.1	0	0.0	0	0.0	0	0.0	0	0.0	2	0.1
ENE	0	0.0	4	0.2	1	0.0	0	0.0	0	0.0	0	0.0	0	0.0	5	0.2
E	0	0.0	1	0.0	1	0.0	0	0.0	0	0.0	0	0.0	0	0.0	2	0.1
ESE	0	0.0	5	0.2	5	0.2	0	0.0	0	0.0	0	0.0	0	0.0	10	0.5
SE	0	0.0	1	0.0	33	1.5	22	1.0	5	0.2	0	0.0	0	0.0	61	2.8
SSE	0	0.0	0	0.0	18	0.8	12	0.6	1	0.0	0	0.0	0	0.0	31	1.4
S	0	0.0	0	0.0	1	0.0	5	0.2	1	0.0	0	0.0	0	0.0	7	0.3
SSW	0	0.0	1	0.0	0	0.0	2	0.1	0	0.0	0	0.0	0	0.0	3	0.1
SW	0	0.0	0	0.0	0	0.0	1	0.0	0	0.0	0	0.0	0	0.0	1	0.0
WSW	0	0.0	0	0.0	1	0.0	2	0.1	0	0.0	0	0.0	0	0.0	3	0.1
W	0	0.0	1	0.0	1	0.0	0	0.0	0	0.0	0	0.0	0	0.0	2	0.1
WNW	0	0.0	0	0.0	1	0.0	0	0.0	0	0.0	0	0.0	0	0.0	1	0.0
NW	0	0.0	2	0.1	1	0.0	0	0.0	0	0.0	0	0.0	0	0.0	3	0.1
NNW	0	0.0	0	0.0	3	0.1	0	0.0	0	0.0	0	0.0	0	0.0	3	0.1
	0	0.0	16	0.7	75	3.4	44	2.0	7	0.3	0	0.0	0	0.0	142	6.5

MEAN WIND SPEED: 7.1
MISSING: 0

ARTIFICIAL ISLAND 01/00-03/00

JOINT DISTRIBUTION OF WIND DIRECTION AND SPEED
BY ATMOSPHERIC STABILITY CLASS
WIND: 30 FT
DELTA T: (300-33FT)

ALL STABILITY CLASSES

WIND SPEED GROUPS (MPH)

	0.0-0.5		0.6-3.5		3.6-7.5		7.6-12.5		12.6-18.5		18.6-24.5		GE 24.6		SUM	PERCENT
DIRECTION	SUM	PERCENT	SUM	PERCENT	SUM	PERCENT	SUM	PERCENT	SUM	PERCENT	SUM	PERCENT	SUM	PERCENT		
N	0	0.0	7	0.3	32	1.5	51	2.3	25	1.1	5	0.2	0	0.0	120	5.5
NNE	0	0.0	5	0.2	62	2.8	34	1.6	3	0.1	3	0.1	0	0.0	107	4.9
NE	0	0.0	8	0.4	50	2.3	24	1.1	17	0.8	7	0.3	0	0.0	106	4.9
ENE	0	0.0	15	0.7	51	2.3	28	1.3	8	0.4	1	0.0	1	0.0	104	4.8
E	0	0.0	12	0.6	28	1.3	19	0.9	0	0.0	0	0.0	0	0.0	59	2.7
ESE	0	0.0	9	0.4	39	1.8	14	0.6	1	0.0	0	0.0	0	0.0	63	2.9
SE	0	0.0	10	0.5	84	3.9	79	3.6	28	1.3	4	0.2	0	0.0	205	9.4
SSE	0	0.0	6	0.3	77	3.5	52	2.4	14	0.6	2	0.1	0	0.0	151	6.9
S	0	0.0	7	0.3	41	1.9	44	2.0	7	0.3	1	0.0	0	0.0	100	4.6
SSW	0	0.0	20	0.9	38	1.7	29	1.3	14	0.6	7	0.3	0	0.0	108	5.0
SW	0	0.0	10	0.5	31	1.4	26	1.2	5	0.2	4	0.2	0	0.0	76	3.5
WSW	0	0.0	8	0.4	31	1.4	35	1.6	6	0.3	0	0.0	0	0.0	80	3.7
W	0	0.0	12	0.6	35	1.6	65	3.0	27	1.2	3	0.1	0	0.0	142	6.5
WNW	0	0.0	13	0.6	37	1.7	49	2.2	59	2.7	10	0.5	1	0.0	169	7.8
NW	0	0.0	6	0.3	47	2.2	117	5.4	105	4.8	35	1.6	1	0.0	311	14.3
NNW	0	0.0	4	0.2	52	2.4	93	4.3	87	4.0	41	1.9	1	0.0	278	12.8
	0	0.0	152	7.0	735	33.7	759	34.8	406	18.6	123	5.6	4	0.2	2179	100.0

MISSING HOURS: 5

MEAN WIND SPEED: 9.6

ARTIFICIAL ISLAND 01/00-03/00

JOINT DISTRIBUTION OF WIND DIRECTION AND SPEED
BY ATMOSPHERIC STABILITY CLASS
WIND: 30 FT
DELTA T: (300-33FT)

DIRECTION VS SPEED ONLY

WIND SPEED GROUPS (MPH)

	0.0-0.5		0.6-3.5		3.6-7.5		7.6-12.5		12.6-18.5		18.6-24.5		GE 24.6		SUM	PERCENT
DIRECTION	SUM	PERCENT	SUM	PERCENT	SUM	PERCENT	SUM	PERCENT	SUM	PERCENT	SUM	PERCENT	SUM	PERCENT		
N	0	0.0	7	0.3	32	1.5	51	2.3	25	1.1	5	0.2	0	0.0	120	5.5
NNE	0	0.0	5	0.2	62	2.8	34	1.6	3	0.1	3	0.1	0	0.0	107	4.9
NE	0	0.0	8	0.4	50	2.3	24	1.1	17	0.8	7	0.3	0	0.0	106	4.9
ENE	0	0.0	15	0.7	51	2.3	28	1.3	8	0.4	1	0.0	1	0.0	104	4.8
E	0	0.0	12	0.5	28	1.3	19	0.9	0	0.0	0	0.0	0	0.0	59	2.7
ESE	0	0.0	9	0.4	39	1.8	14	0.6	1	0.0	0	0.0	0	0.0	63	2.9
SE	0	0.0	10	0.5	84	3.8	79	3.6	28	1.3	4	0.2	0	0.0	205	9.4
SSE	0	0.0	6	0.3	77	3.5	52	2.4	14	0.6	2	0.1	0	0.0	151	6.9
S	0	0.0	7	0.3	41	1.9	44	2.0	7	0.3	1	0.0	0	0.0	100	4.6
SSW	0	0.0	20	0.9	38	1.7	29	1.3	14	0.6	7	0.3	0	0.0	108	4.9
SW	0	0.0	10	0.5	32	1.5	27	1.2	5	0.2	4	0.2	0	0.0	78	3.6
WSW	0	0.0	8	0.4	31	1.4	36	1.6	6	0.3	0	0.0	0	0.0	81	3.7
W	0	0.0	12	0.5	35	1.6	65	3.0	27	1.2	3	0.1	0	0.0	142	6.5
WNW	0	0.0	13	0.6	37	1.7	49	2.2	59	2.7	10	0.5	1	0.0	169	7.7
NW	0	0.0	6	0.3	47	2.2	117	5.4	107	4.9	35	1.6	1	0.0	313	14.3
NNW	0	0.0	4	0.2	52	2.4	93	4.3	87	4.0	41	1.9	1	0.0	278	12.7
	0	0.0	152	7.0	736	33.7	761	34.8	408	18.7	123	5.6	4	0.2	2184	100.0

MISSING HOURS: 0

MEAN WIND SPEED: 9.6

ARTIFICIAL ISLAND 01/00-03/00

JOINT DISTRIBUTION OF WIND DIRECTION AND SPEED
BY ATMOSPHERIC STABILITY CLASS
WIND: 150 FT
DELTA T: (300-33FT)

LAPSE RATE: LE -1.9 DEG C/100M
CLASS A

WIND SPEED GROUPS (MPH)

	0.0-0.5		0.6-3.5		3.6-7.5		7.6-12.5		12.6-18.5		18.6-24.5		GE 24.6		SUM	PERCENT
DIRECTION	SUM	PERCENT	SUM	PERCENT	SUM	PERCENT	SUM	PERCENT	SUM	PERCENT	SUM	PERCENT	SUM	PERCENT		
N	0	0.0	0	0.0	0	0.0	1	0.0	3	0.1	0	0.0	0	0.0	4	0.2
NNE	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0
NE	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0
ENE	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0
E	0	0.0	0	0.0	0	0.0	2	0.1	1	0.0	0	0.0	0	0.0	3	0.1
ESE	0	0.0	0	0.0	0	0.0	2	0.1	0	0.0	0	0.0	0	0.0	2	0.1
SE	0	0.0	0	0.0	0	0.0	2	0.1	2	0.1	0	0.0	0	0.0	4	0.2
SSE	0	0.0	0	0.0	0	0.0	1	0.0	2	0.1	1	0.0	0	0.0	4	0.2
S	0	0.0	0	0.0	0	0.0	1	0.0	0	0.0	0	0.0	0	0.0	1	0.0
SSW	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0
SW	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0
WSW	0	0.0	0	0.0	0	0.0	1	0.0	0	0.0	1	0.0	0	0.0	2	0.1
W	0	0.0	0	0.0	0	0.0	2	0.1	4	0.2	3	0.1	2	0.1	11	0.5
WNW	0	0.0	0	0.0	0	0.0	1	0.0	4	0.2	4	0.2	1	0.0	10	0.5
NW	0	0.0	0	0.0	0	0.0	1	0.0	8	0.4	13	0.6	4	0.2	26	1.2
NNW	0	0.0	0	0.0	0	0.0	0	0.0	3	0.1	3	0.1	2	0.1	8	0.4
	0	0.0	0	0.0	0	0.0	14	0.6	27	1.2	25	1.1	9	0.4	75	3.4

MEAN WIND SPEED: 17.9
MISSING: 0

ARTIFICIAL ISLAND 01/00-03/00

JOINT DISTRIBUTION OF WIND DIRECTION AND SPEED
BY ATMOSPHERIC STABILITY CLASS
WIND: 150 FT
DELTA T: (300-33FT)

LAPSE RATE: -1.8 TO -1.7 DEG C/100M
CLASS B

WIND SPEED GROUPS (MPH)

	0.0-0.5		0.6-3.5		3.6-7.5		7.6-12.5		12.6-18.5		18.6-24.5		GE 24.6		SUM	PERCENT
DIRECTION	SUM	PERCENT	SUM	PERCENT	SUM	PERCENT	SUM	PERCENT	SUM	PERCENT	SUM	PERCENT	SUM	PERCENT		
N	0	0.0	0	0.0	0	0.0	8	0.4	8	0.4	0	0.0	0	0.0	16	0.7
NNE	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0
NE	0	0.0	0	0.0	1	0.0	3	0.1	1	0.0	0	0.0	0	0.0	5	0.2
ENE	0	0.0	0	0.0	0	0.0	1	0.0	0	0.0	0	0.0	0	0.0	1	0.0
E	0	0.0	0	0.0	0	0.0	0	0.0	1	0.0	0	0.0	0	0.0	1	0.0
ESE	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0
SE	0	0.0	0	0.0	0	0.0	0	0.0	1	0.0	0	0.0	0	0.0	1	0.0
SSE	0	0.0	0	0.0	0	0.0	0	0.0	2	0.1	0	0.0	0	0.0	2	0.1
S	0	0.0	0	0.0	0	0.0	2	0.1	0	0.0	0	0.0	0	0.0	2	0.1
SSW	0	0.0	0	0.0	0	0.0	1	0.0	0	0.0	0	0.0	0	0.0	1	0.0
SW	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0
WSW	0	0.0	0	0.0	0	0.0	1	0.0	0	0.0	0	0.0	0	0.0	1	0.0
W	0	0.0	0	0.0	2	0.1	0	0.0	6	0.3	0	0.0	0	0.0	8	0.4
WNW	0	0.0	0	0.0	0	0.0	1	0.0	8	0.4	5	0.2	2	0.1	16	0.7
NW	0	0.0	0	0.0	0	0.0	4	0.2	12	0.6	9	0.4	9	0.4	34	1.6
NNW	0	0.0	0	0.0	0	0.0	5	0.2	5	0.2	3	0.1	2	0.1	15	0.7
	0	0.0	0	0.0	3	0.1	26	1.2	44	2.0	17	0.8	13	0.6	103	4.7

MEAN WIND SPEED: 16.2
MISSING: 0

ARTIFICIAL ISLAND 01/00-03/00

JOINT DISTRIBUTION OF WIND DIRECTION AND SPEED
BY ATMOSPHERIC STABILITY CLASS
WIND: 150 FT
DELTA T: (300-33FT)

LAPSE RATE: -1.6 TO -1.5 DEG C/100M
CLASS C

WIND SPEED GROUPS (MPH)

	0.0-0.5		0.6-3.5		3.6-7.5		7.6-12.5		12.6-18.5		18.6-24.5		GE 24.6		SUM PERCENT	
DIRECTION	SUM	PERCENT	SUM	PERCENT	SUM	PERCENT	SUM	PERCENT	SUM	PERCENT	SUM	PERCENT	SUM	PERCENT		
N	0	0.0	0	0.0	0	0.0	3	0.1	2	0.1	0	0.0	0	0.0	5	0.2
NNE	0	0.0	0	0.0	4	0.2	3	0.1	0	0.0	0	0.0	0	0.0	7	0.3
NE	0	0.0	0	0.0	0	0.0	1	0.0	2	0.1	0	0.0	0	0.0	3	0.1
ENE	0	0.0	0	0.0	0	0.0	1	0.0	0	0.0	0	0.0	0	0.0	1	0.0
E	0	0.0	0	0.0	0	0.0	1	0.0	1	0.0	0	0.0	0	0.0	2	0.1
ESE	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0
SE	0	0.0	0	0.0	0	0.0	2	0.1	1	0.0	0	0.0	0	0.0	3	0.1
SSE	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	1	0.0	0	0.0	1	0.0
S	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0
SSW	0	0.0	0	0.0	0	0.0	1	0.0	0	0.0	0	0.0	0	0.0	1	0.0
SW	0	0.0	0	0.0	3	0.1	1	0.0	2	0.1	0	0.0	0	0.0	6	0.3
WSW	0	0.0	0	0.0	0	0.0	1	0.0	1	0.0	0	0.0	0	0.0	2	0.1
W	0	0.0	0	0.0	2	0.1	1	0.0	5	0.2	3	0.1	0	0.0	11	0.5
WNW	0	0.0	0	0.0	2	0.1	0	0.0	5	0.2	4	0.2	0	0.0	11	0.5
NW	0	0.0	0	0.0	2	0.1	1	0.0	6	0.3	5	0.2	1	0.0	15	0.7
NNW	0	0.0	0	0.0	0	0.0	2	0.1	4	0.2	4	0.2	1	0.0	11	0.5
	0	0.0	0	0.0	13	0.6	18	0.8	29	1.3	17	0.8	2	0.1	79	3.6

MEAN WIND SPEED: 14.2
MISSING: 0

ARTIFICIAL ISLAND 01/00-03/00

JOINT DISTRIBUTION OF WIND DIRECTION AND SPEED
BY ATMOSPHERIC STABILITY CLASS
WIND: 150 FT
DELTA T: (300-33FT)

LAPSE RATE: -1.4 TO -0.5 DEG C/100M
CLASS D

WIND SPEED GROUPS (MPH)

	0.0-0.5		0.6-3.5		3.6-7.5		7.6-12.5		12.6-18.5		18.6-24.5		GE 24.6		SUM	PERCENT
DIRECTION	SUM	PERCENT	SUM	PERCENT	SUM	PERCENT	SUM	PERCENT	SUM	PERCENT	SUM	PERCENT	SUM	PERCENT		
N	0	0.0	1	0.0	5	0.2	11	0.5	8	0.4	4	0.2	8	0.4	37	1.7
NNE	0	0.0	1	0.0	11	0.5	24	1.1	2	0.1	4	0.2	2	0.1	44	2.0
NE	0	0.0	0	0.0	14	0.6	16	0.7	16	0.7	5	0.2	7	0.3	58	2.7
ENE	0	0.0	2	0.1	5	0.2	10	0.5	14	0.6	5	0.2	0	0.0	36	1.7
E	0	0.0	0	0.0	5	0.2	22	1.0	4	0.2	0	0.0	0	0.0	31	1.4
ESE	0	0.0	0	0.0	4	0.2	5	0.2	6	0.3	0	0.0	0	0.0	15	0.7
SE	0	0.0	2	0.1	3	0.1	5	0.2	9	0.4	8	0.4	2	0.1	29	1.3
SSE	0	0.0	1	0.0	4	0.2	9	0.4	5	0.2	8	0.4	0	0.0	27	1.2
S	0	0.0	3	0.1	5	0.2	9	0.4	6	0.3	3	0.1	0	0.0	26	1.2
SSW	0	0.0	4	0.2	9	0.4	9	0.4	0	0.0	0	0.0	1	0.0	23	1.1
SW	0	0.0	3	0.1	5	0.2	5	0.2	5	0.2	0	0.0	1	0.0	19	0.9
WSW	0	0.0	3	0.1	4	0.2	5	0.2	4	0.2	1	0.0	0	0.0	17	0.8
W	0	0.0	7	0.3	10	0.5	11	0.5	33	1.5	7	0.3	0	0.0	68	3.1
WNW	0	0.0	3	0.1	9	0.4	10	0.5	18	0.8	25	1.1	10	0.5	75	3.4
NW	0	0.0	1	0.0	10	0.5	15	0.7	32	1.5	58	2.7	26	1.2	142	6.5
NNW	0	0.0	1	0.0	4	0.2	10	0.5	33	1.5	27	1.2	35	1.6	110	5.0
	0	0.0	32	1.5	107	4.9	176	8.1	195	8.9	155	7.1	92	4.2	757	34.7

MEAN WIND SPEED: 15.0
MISSING: 0

ARTIFICIAL ISLAND 01/00-03/00

JOINT DISTRIBUTION OF WIND DIRECTION AND SPEED
BY ATMOSPHERIC STABILITY CLASS
WIND: 150 FT
DELTA T: (300-33FT)

LAPSE RATE: -0.4 TO 1.5 DEG C/100M
CLASS E

WIND SPEED GROUPS (MPH)

	0.0-0.5		0.6-3.5		3.6-7.5		7.6-12.5		12.6-18.5		18.6-24.5		GE 24.6		SUM PERCENT	
DIRECTION	SUM	PERCENT	SUM	PERCENT	SUM	PERCENT	SUM	PERCENT	SUM	PERCENT	SUM	PERCENT	SUM	PERCENT		
N	0	0.0	1	0.0	3	0.1	6	0.3	10	0.5	7	0.3	1	0.0	28	1.3
NNE	0	0.0	0	0.0	9	0.4	20	0.9	12	0.6	0	0.0	0	0.0	41	1.9
NE	0	0.0	1	0.0	6	0.3	17	0.8	3	0.1	5	0.2	3	0.1	35	1.6
ENE	0	0.0	1	0.0	5	0.2	18	0.8	4	0.2	1	0.0	0	0.0	29	1.3
E	0	0.0	1	0.0	9	0.4	10	0.5	1	0.0	0	0.0	0	0.0	21	1.0
ESE	0	0.0	1	0.0	1	0.0	14	0.6	8	0.4	1	0.0	0	0.0	25	1.1
SE	0	0.0	3	0.1	11	0.5	9	0.4	18	0.8	5	0.2	5	0.2	51	2.3
SSE	0	0.0	1	0.0	20	0.9	23	1.1	12	0.6	4	0.2	0	0.0	60	2.8
S	0	0.0	3	0.1	12	0.6	26	1.2	4	0.2	0	0.0	0	0.0	45	2.1
SSW	0	0.0	6	0.3	15	0.7	15	0.7	8	0.4	6	0.3	9	0.4	59	2.7
SW	0	0.0	4	0.2	10	0.5	11	0.5	8	0.4	3	0.1	4	0.2	40	1.8
WSW	0	0.0	3	0.1	7	0.3	8	0.4	19	0.9	1	0.0	1	0.0	39	1.8
W	0	0.0	3	0.1	9	0.4	9	0.4	23	1.1	3	0.1	0	0.0	47	2.2
WNW	0	0.0	0	0.0	5	0.2	20	0.9	18	0.8	7	0.3	1	0.0	51	2.3
NW	0	0.0	2	0.1	4	0.2	27	1.2	73	3.4	16	0.7	4	0.2	126	5.8
NNW	0	0.0	0	0.0	2	0.1	15	0.7	30	1.4	19	0.9	3	0.1	69	3.2
	0	0.0	30	1.4	128	5.9	248	11.4	251	11.5	78	3.6	31	1.4	766	35.2

MEAN WIND SPEED: 12.6
MISSING: 0

ARTIFICIAL ISLAND 01/00-03/00

JOINT DISTRIBUTION OF WIND DIRECTION AND SPEED
BY ATMOSPHERIC STABILITY CLASS
WIND: 150 FT
DELTA T: (300-33FT)

LAPSE RATE: 1.6 TO 4.0 DEG C/100M
CLASS F

WIND SPEED GROUPS (MPH)

	0.0-0.5		0.6-3.5		3.6-7.5		7.6-12.5		12.6-18.5		18.6-24.5		GE 24.6		SUM	PERCENT
DIRECTION	SUM	PERCENT	SUM	PERCENT	SUM	PERCENT	SUM	PERCENT	SUM	PERCENT	SUM	PERCENT	SUM	PERCENT		
N	0	0.0	1	0.0	1	0.0	1	0.0	7	0.3	0	0.0	0	0.0	10	0.5
NNE	0	0.0	0	0.0	1	0.0	6	0.3	2	0.1	0	0.0	0	0.0	9	0.4
NE	0	0.0	0	0.0	1	0.0	1	0.0	0	0.0	0	0.0	0	0.0	2	0.1
ENE	0	0.0	0	0.0	4	0.2	4	0.2	0	0.0	0	0.0	0	0.0	8	0.4
E	0	0.0	2	0.1	2	0.1	4	0.2	0	0.0	0	0.0	0	0.0	8	0.4
ESE	0	0.0	0	0.0	3	0.1	2	0.1	1	0.0	0	0.0	0	0.0	6	0.3
SE	0	0.0	0	0.0	3	0.1	3	0.1	8	0.4	1	0.0	1	0.0	16	0.7
SSE	0	0.0	3	0.1	9	0.4	16	0.7	7	0.3	2	0.1	2	0.1	39	1.8
S	0	0.0	1	0.0	11	0.5	8	0.4	5	0.2	3	0.1	1	0.0	29	1.3
SSW	0	0.0	0	0.0	4	0.2	9	0.4	9	0.4	7	0.3	4	0.2	33	1.5
SW	0	0.0	2	0.1	3	0.1	6	0.3	13	0.6	2	0.1	0	0.0	26	1.2
WSW	0	0.0	0	0.0	2	0.1	4	0.2	5	0.2	3	0.1	1	0.0	15	0.7
W	0	0.0	1	0.0	3	0.1	4	0.2	6	0.3	0	0.0	0	0.0	14	0.6
WNW	0	0.0	2	0.1	1	0.0	2	0.1	0	0.0	0	0.0	0	0.0	5	0.2
NW	0	0.0	2	0.1	4	0.2	8	0.4	7	0.3	0	0.0	0	0.0	21	1.0
NNW	0	0.0	3	0.1	4	0.2	6	0.3	3	0.1	0	0.0	0	0.0	16	0.7
	0	0.0	17	0.8	56	2.6	84	3.9	73	3.4	18	0.8	9	0.4	257	11.8

MEAN WIND SPEED: 11.3
MISSING: 0

ARTIFICIAL ISLAND 01/00-03/00

JOINT DISTRIBUTION OF WIND DIRECTION AND SPEED
BY ATMOSPHERIC STABILITY CLASS
WIND: 150 FT
DELTA T: (300-33FT)

LAPSE RATE: GT 4.0 DEG C/100M
CLASS G

WIND SPEED GROUPS (MPH)

	0.0-0.5		0.6-3.5		3.6-7.5		7.6-12.5		12.6-18.5		18.6-24.5		GE 24.6		SUM	PERCENT
DIRECTION	SUM	PERCENT	SUM	PERCENT	SUM	PERCENT	SUM	PERCENT	SUM	PERCENT	SUM	PERCENT	SUM	PERCENT		
N	0	0.0	3	0.1	0	0.0	3	0.1	0	0.0	0	0.0	0	0.0	6	0.3
NNE	0	0.0	0	0.0	0	0.0	3	0.1	0	0.0	0	0.0	0	0.0	3	0.1
NE	0	0.0	0	0.0	1	0.0	2	0.1	0	0.0	0	0.0	0	0.0	3	0.1
ENE	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0
E	0	0.0	0	0.0	1	0.0	0	0.0	0	0.0	0	0.0	0	0.0	1	0.0
ESE	0	0.0	1	0.0	1	0.0	0	0.0	0	0.0	0	0.0	0	0.0	2	0.1
SE	0	0.0	0	0.0	4	0.2	3	0.1	11	0.5	3	0.1	1	0.0	22	1.0
SSE	0	0.0	0	0.0	3	0.1	13	0.6	7	0.3	7	0.3	2	0.1	32	1.5
S	0	0.0	0	0.0	8	0.4	8	0.4	13	0.6	7	0.3	0	0.0	36	1.7
SSW	0	0.0	0	0.0	5	0.2	6	0.3	4	0.2	1	0.0	1	0.0	17	0.8
SW	0	0.0	0	0.0	4	0.2	0	0.0	0	0.0	1	0.0	0	0.0	5	0.2
WSW	0	0.0	1	0.0	1	0.0	0	0.0	2	0.1	0	0.0	0	0.0	4	0.2
W	0	0.0	1	0.0	1	0.0	0	0.0	1	0.0	0	0.0	0	0.0	3	0.1
WNW	0	0.0	1	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	1	0.0
NW	0	0.0	0	0.0	2	0.1	0	0.0	0	0.0	0	0.0	0	0.0	2	0.1
NNW	0	0.0	1	0.0	2	0.1	2	0.1	0	0.0	0	0.0	0	0.0	5	0.2
	0	0.0	8	0.4	33	1.5	40	1.8	38	1.7	19	0.9	4	0.2	142	6.5

MEAN WIND SPEED: 11.9
MISSING: 0

ARTIFICIAL ISLAND 01/00-03/00

JOINT DISTRIBUTION OF WIND DIRECTION AND SPEED
BY ATMOSPHERIC STABILITY CLASS
WIND: 150 FT
DELTA T: (300-33FT)

ALL STABILITY CLASSES

WIND SPEED GROUPS (MPH)

	0.0-0.5		0.6-3.5		3.6-7.5		7.6-12.5		12.6-18.5		18.6-24.5		GE 24.6		SUM	PERCENT
DIRECTION	SUM	PERCENT	SUM	PERCENT	SUM	PERCENT	SUM	PERCENT	SUM	PERCENT	SUM	PERCENT	SUM	PERCENT		
N	0	0.0	6	0.3	9	0.4	33	1.5	38	1.7	11	0.5	9	0.4	106	4.9
NNE	0	0.0	1	0.0	25	1.1	56	2.6	16	0.7	4	0.2	2	0.1	104	4.8
NE	0	0.0	1	0.0	23	1.1	40	1.8	22	1.0	10	0.5	10	0.5	106	4.9
ENE	0	0.0	3	0.1	14	0.6	34	1.6	18	0.8	6	0.3	0	0.0	75	3.4
E	0	0.0	3	0.1	17	0.8	39	1.8	8	0.4	0	0.0	0	0.0	67	3.1
ESE	0	0.0	2	0.1	9	0.4	23	1.1	15	0.7	1	0.0	0	0.0	50	2.3
SE	0	0.0	5	0.2	21	1.0	24	1.1	50	2.3	17	0.8	9	0.4	126	5.8
SSE	0	0.0	5	0.2	36	1.7	62	2.8	35	1.6	23	1.1	4	0.2	165	7.6
S	0	0.0	7	0.3	36	1.7	54	2.5	28	1.3	13	0.6	1	0.0	139	6.4
SSW	0	0.0	10	0.5	33	1.5	41	1.9	21	1.0	14	0.6	15	0.7	134	6.1
SW	0	0.0	9	0.4	25	1.1	23	1.1	28	1.3	6	0.3	5	0.2	96	4.4
WSW	0	0.0	7	0.3	14	0.6	20	0.9	31	1.4	6	0.3	2	0.1	80	3.7
W	0	0.0	12	0.6	27	1.2	27	1.2	78	3.6	16	0.7	2	0.1	162	7.4
WNW	0	0.0	6	0.3	17	0.8	34	1.6	53	2.4	45	2.1	14	0.6	169	7.8
NW	0	0.0	5	0.2	22	1.0	56	2.6	138	6.3	101	4.6	44	2.0	366	16.8
NNW	0	0.0	5	0.2	12	0.6	40	1.8	78	3.6	56	2.6	43	2.0	234	10.7
	0	0.0	87	4.0	340	15.6	606	27.8	657	30.2	329	15.1	160	7.3	2179	100.0

MISSING HOURS: 5

MEAN WIND SPEED: 13.6

ARTIFICIAL ISLAND 01/00-03/00

JOINT DISTRIBUTION OF WIND DIRECTION AND SPEED
BY ATMOSPHERIC STABILITY CLASS
WIND: 150 FT
DELTA T: (300-33FT)

DIRECTION VS SPEED ONLY

WIND SPEED GROUPS (MPH)

	0.0-0.5		0.6-3.5		3.6-7.5		7.6-12.5		12.6-18.5		18.6-24.5		GE 24.6		SUM PERCENT	
DIRECTION	SUM	PERCENT	SUM	PERCENT	SUM	PERCENT	SUM	PERCENT	SUM	PERCENT	SUM	PERCENT	SUM	PERCENT		
N	0	0.0	6	0.3	9	0.4	33	1.5	38	1.7	11	0.5	9	0.4	106	4.9
NNE	0	0.0	1	0.0	25	1.1	56	2.6	16	0.7	4	0.2	2	0.1	104	4.8
NE	0	0.0	1	0.0	23	1.1	40	1.8	22	1.0	10	0.5	10	0.5	106	4.9
ENE	0	0.0	3	0.1	14	0.6	34	1.6	18	0.8	6	0.3	0	0.0	75	3.4
E	0	0.0	3	0.1	17	0.8	39	1.8	8	0.4	0	0.0	0	0.0	67	3.1
ESE	0	0.0	2	0.1	9	0.4	23	1.1	15	0.7	1	0.0	0	0.0	50	2.3
SE	0	0.0	5	0.2	21	1.0	24	1.1	50	2.3	17	0.8	9	0.4	126	5.8
SSE	0	0.0	4	0.2	36	1.6	62	2.8	35	1.6	23	1.1	4	0.2	165	7.6
S	0	0.0	2	0.1	36	1.6	54	2.5	28	1.3	13	0.6	1	0.0	139	6.4
SSW	0	0.0	10	0.5	33	1.5	41	1.9	21	1.0	14	0.6	15	0.7	134	6.1
SW	0	0.0	9	0.4	25	1.1	24	1.1	30	1.4	6	0.3	5	0.2	99	4.5
WSW	0	0.0	7	0.3	14	0.6	20	0.9	31	1.4	6	0.3	2	0.1	80	3.7
W	0	0.0	12	0.5	27	1.2	27	1.2	78	3.6	16	0.7	2	0.1	162	7.4
WNW	0	0.0	6	0.3	17	0.8	34	1.6	53	2.4	45	2.1	14	0.6	169	7.7
NW	0	0.0	5	0.2	22	1.0	56	2.6	139	6.4	102	4.7	44	2.0	368	16.8
NNW	0	0.0	5	0.2	12	0.5	40	1.8	78	3.6	56	2.6	43	2.0	234	10.7
	0	0.0	87	4.0	340	15.6	607	27.8	660	30.2	330	15.1	160	7.3	2184	100.0

MISSING HOURS: 0

MEAN WIND SPEED: 13.6

ARTIFICIAL ISLAND 01/00-03/00

JOINT DISTRIBUTION OF WIND DIRECTION AND SPEED
BY ATMOSPHERIC STABILITY CLASS
WIND: 300 FT
DELTA T: (300-33FT)

LAPSE RATE: LE -1.9 DEG C/100M
CLASS A

WIND SPEED GROUPS (MPH)

	0.0-0.5		0.6-3.5		3.6-7.5		7.6-12.5		12.6-18.5		18.6-24.5		GE 24.6		SUM PERCENT	
DIRECTION	SUM	PERCENT	SUM	PERCENT	SUM	PERCENT	SUM	PERCENT	SUM	PERCENT	SUM	PERCENT	SUM	PERCENT		
N	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0
NNE	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0
NE	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0
ENE	0	0.0	0	0.0	0	0.0	0	0.0	1	0.0	0	0.0	0	0.0	1	0.0
E	0	0.0	0	0.0	0	0.0	3	0.1	1	0.0	0	0.0	0	0.0	4	0.2
ESE	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0
SE	0	0.0	0	0.0	0	0.0	1	0.0	2	0.1	0	0.0	0	0.0	3	0.1
SSE	0	0.0	0	0.0	0	0.0	2	0.1	3	0.1	0	0.0	0	0.0	5	0.2
S	0	0.0	0	0.0	0	0.0	1	0.0	0	0.0	0	0.0	0	0.0	1	0.0
SSW	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0
SW	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0
WSW	0	0.0	0	0.0	0	0.0	1	0.0	0	0.0	1	0.0	0	0.0	2	0.1
W	0	0.0	0	0.0	0	0.0	2	0.1	4	0.2	1	0.0	4	0.2	11	0.5
WNW	0	0.0	0	0.0	0	0.0	0	0.0	1	0.0	7	0.3	1	0.0	9	0.4
NW	0	0.0	0	0.0	0	0.0	1	0.0	9	0.4	8	0.4	10	0.5	28	1.3
NNW	0	0.0	0	0.0	0	0.0	2	0.1	4	0.2	1	0.0	4	0.2	11	0.5
	0	0.0	0	0.0	0	0.0	13	0.6	25	1.1	18	0.8	19	0.9	75	3.4

MEAN WIND SPEED: 18.8
MISSING: 0

ARTIFICIAL ISLAND 01/00-03/00

JOINT DISTRIBUTION OF WIND DIRECTION AND SPEED
BY ATMOSPHERIC STABILITY CLASS
WIND: 300 FT
DELTA T: (300-33FT)

LAPSE RATE: -1.8 TO -1.7 DEG C/100M
CLASS B

WIND SPEED GROUPS (MPH)

	0.0-0.5		0.6-3.5		3.6-7.5		7.6-12.5		12.6-18.5		18.6-24.5		GE 24.6		SUM PERCENT	
DIRECTION	SUM	PERCENT	SUM	PERCENT	SUM	PERCENT	SUM	PERCENT	SUM	PERCENT	SUM	PERCENT	SUM	PERCENT		
N	0	0.0	0	0.0	0	0.0	7	0.3	4	0.2	1	0.0	0	0.0	12	0.6
NNE	0	0.0	0	0.0	0	0.0	0	0.0	1	0.0	0	0.0	0	0.0	1	0.0
NE	0	0.0	0	0.0	1	0.0	3	0.1	0	0.0	0	0.0	0	0.0	4	0.2
ENE	0	0.0	0	0.0	0	0.0	1	0.0	1	0.0	0	0.0	0	0.0	2	0.1
E	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0
ESE	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0
SE	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0
SSE	0	0.0	0	0.0	0	0.0	0	0.0	3	0.1	0	0.0	0	0.0	3	0.1
S	0	0.0	0	0.0	0	0.0	3	0.1	0	0.0	0	0.0	0	0.0	3	0.1
SSW	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0
SW	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0
WSW	0	0.0	0	0.0	0	0.0	1	0.0	0	0.0	0	0.0	0	0.0	1	0.0
W	0	0.0	0	0.0	1	0.0	1	0.0	5	0.2	1	0.0	0	0.0	8	0.4
WNW	0	0.0	0	0.0	0	0.0	1	0.0	9	0.4	4	0.2	3	0.1	17	0.8
NW	0	0.0	0	0.0	0	0.0	4	0.2	9	0.4	11	0.5	9	0.4	33	1.5
NNW	0	0.0	0	0.0	0	0.0	6	0.3	7	0.3	2	0.1	4	0.2	19	0.9
	0	0.0	0	0.0	2	0.1	27	1.2	39	1.8	19	0.9	16	0.7	103	4.7

MEAN WIND SPEED: 17.1
MISSING: 0

ARTIFICIAL ISLAND 01/00-03/00

JOINT DISTRIBUTION OF WIND DIRECTION AND SPEED
BY ATMOSPHERIC STABILITY CLASS
WIND: 300 FT
DELTA T: (300-33FT)

LAPSE RATE: -1.6 TO -1.5 DEG C/100M
CLASS C

WIND SPEED GROUPS (MPH)

	0.0-0.5		0.6-3.5		3.6-7.5		7.6-12.5		12.6-18.5		18.6-24.5		GE 24.6		SUM	PERCENT
DIRECTION	SUM	PERCENT	SUM	PERCENT	SUM	PERCENT	SUM	PERCENT	SUM	PERCENT	SUM	PERCENT	SUM	PERCENT		
N	0	0.0	0	0.0	0	0.0	4	0.2	0	0.0	0	0.0	0	0.0	4	0.2
NNE	0	0.0	0	0.0	2	0.1	5	0.2	0	0.0	2	0.1	0	0.0	9	0.4
NE	0	0.0	0	0.0	0	0.0	1	0.0	0	0.0	0	0.0	0	0.0	1	0.0
ENE	0	0.0	0	0.0	0	0.0	1	0.0	0	0.0	0	0.0	0	0.0	1	0.0
E	0	0.0	0	0.0	0	0.0	1	0.0	0	0.0	0	0.0	0	0.0	1	0.0
ESE	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0
SE	0	0.0	0	0.0	0	0.0	1	0.0	0	0.0	1	0.0	0	0.0	2	0.1
SSE	0	0.0	0	0.0	0	0.0	1	0.0	0	0.0	1	0.0	0	0.0	2	0.1
S	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0
SSW	0	0.0	0	0.0	1	0.0	1	0.0	0	0.0	0	0.0	0	0.0	2	0.1
SW	0	0.0	0	0.0	1	0.0	0	0.0	2	0.1	0	0.0	0	0.0	3	0.1
WSW	0	0.0	0	0.0	1	0.0	2	0.1	1	0.0	0	0.0	0	0.0	4	0.2
W	0	0.0	0	0.0	2	0.1	0	0.0	6	0.3	1	0.0	1	0.0	10	0.5
WNW	0	0.0	0	0.0	1	0.0	1	0.0	3	0.1	4	0.2	2	0.1	11	0.5
NW	0	0.0	0	0.0	3	0.1	0	0.0	5	0.2	8	0.4	4	0.2	20	0.9
NNW	0	0.0	0	0.0	0	0.0	2	0.1	5	0.2	1	0.0	1	0.0	9	0.4
	0	0.0	0	0.0	11	0.5	20	0.9	22	1.0	18	0.8	8	0.4	79	3.6

MEAN WIND SPEED: 15.2
MISSING: 0

ARTIFICIAL ISLAND 01/00-03/00

JOINT DISTRIBUTION OF WIND DIRECTION AND SPEED
BY ATMOSPHERIC STABILITY CLASS
WIND: 300 FT
DELTA T: (300-33FT)

LAPSE RATE: -1.4 TO -0.5 DEG C/100M
CLASS D

WIND SPEED GROUPS (MPH)

	0.0-0.5		0.6-3.5		3.6-7.5		7.6-12.5		12.6-18.5		18.6-24.5		GE 24.6		SUM	PERCENT
DIRECTION	SUM	PERCENT	SUM	PERCENT	SUM	PERCENT	SUM	PERCENT	SUM	PERCENT	SUM	PERCENT	SUM	PERCENT		
N	0	0.0	1	0.0	4	0.2	5	0.2	9	0.4	5	0.2	8	0.4	32	1.5
NNE	0	0.0	0	0.0	8	0.4	25	1.1	13	0.6	3	0.1	6	0.3	55	2.5
NE	0	0.0	0	0.0	7	0.3	15	0.7	20	0.9	4	0.2	11	0.5	57	2.6
ENE	0	0.0	1	0.0	6	0.3	6	0.3	7	0.3	7	0.3	1	0.0	28	1.3
E	0	0.0	2	0.1	3	0.1	20	0.9	8	0.4	0	0.0	0	0.0	33	1.5
ESE	0	0.0	0	0.0	3	0.1	5	0.2	7	0.3	0	0.0	0	0.0	15	0.7
SE	0	0.0	2	0.1	1	0.0	5	0.2	7	0.3	4	0.2	4	0.2	23	1.1
SSE	0	0.0	3	0.1	10	0.5	6	0.3	13	0.6	9	0.4	0	0.0	41	1.9
S	0	0.0	1	0.0	0	0.0	4	0.2	9	0.4	3	0.1	0	0.0	17	0.8
SSW	0	0.0	1	0.0	5	0.2	12	0.6	4	0.2	0	0.0	1	0.0	23	1.1
SW	0	0.0	2	0.1	2	0.1	7	0.3	5	0.2	1	0.0	1	0.0	18	0.8
WSW	0	0.0	2	0.1	6	0.3	5	0.2	5	0.2	0	0.0	0	0.0	18	0.8
W	0	0.0	2	0.1	7	0.3	6	0.3	31	1.4	11	0.5	2	0.1	59	2.7
WNW	0	0.0	1	0.0	9	0.4	9	0.4	12	0.6	29	1.3	18	0.8	78	3.6
NW	0	0.0	1	0.0	5	0.2	12	0.6	35	1.6	52	2.4	50	2.3	155	7.1
NNW	0	0.0	2	0.1	4	0.2	8	0.4	24	1.1	23	1.1	44	2.0	105	4.8
	0	0.0	21	1.0	80	3.7	150	6.9	209	9.6	151	6.9	146	6.7	757	34.7

MEAN WIND SPEED: 16.8
MISSING: 0

ARTIFICIAL ISLAND 01/00-03/00

JOINT DISTRIBUTION OF WIND DIRECTION AND SPEED
BY ATMOSPHERIC STABILITY CLASS
WIND: 300 FT
DELTA T: (300-33FT)

LAPSE RATE: -0.4 TO 1.5 DEG C/100M
CLASS E

WIND SPEED GROUPS (MPH)

	0.0-0.5		0.6-3.5		3.6-7.5		7.6-12.5		12.6-18.5		18.6-24.5		GE 24.6		SUM	PERCENT
DIRECTION	SUM	PERCENT	SUM	PERCENT	SUM	PERCENT	SUM	PERCENT	SUM	PERCENT	SUM	PERCENT	SUM	PERCENT		
N	0	0.0	0	0.0	1	0.0	11	0.5	7	0.3	11	0.5	6	0.3	36	1.7
NNE	0	0.0	0	0.0	3	0.1	15	0.7	8	0.4	5	0.2	0	0.0	31	1.4
NE	0	0.0	1	0.0	1	0.0	13	0.6	9	0.4	6	0.3	2	0.1	32	1.5
ENE	0	0.0	0	0.0	4	0.2	11	0.5	7	0.3	2	0.1	1	0.0	25	1.1
E	0	0.0	3	0.1	8	0.4	16	0.7	0	0.0	1	0.0	0	0.0	28	1.3
ESE	0	0.0	1	0.0	1	0.0	1	0.0	9	0.4	1	0.0	0	0.0	13	0.6
SE	0	0.0	1	0.0	1	0.0	11	0.5	17	0.8	4	0.2	6	0.3	40	1.8
SSE	0	0.0	0	0.0	7	0.3	14	0.6	21	1.0	9	0.4	2	0.1	53	2.4
S	0	0.0	2	0.1	20	0.9	17	0.8	11	0.5	4	0.2	0	0.0	54	2.5
SSW	0	0.0	3	0.1	11	0.5	15	0.7	23	1.1	4	0.2	11	0.5	67	3.1
SW	0	0.0	2	0.1	7	0.3	10	0.5	9	0.4	7	0.3	5	0.2	40	1.8
WSW	0	0.0	2	0.1	7	0.3	9	0.4	19	0.9	14	0.6	1	0.0	52	2.4
W	0	0.0	1	0.0	4	0.2	5	0.2	19	0.9	13	0.6	1	0.0	43	2.0
WNW	0	0.0	2	0.1	3	0.1	12	0.6	18	0.8	14	0.6	2	0.1	51	2.3
NW	0	0.0	0	0.0	5	0.2	12	0.6	63	2.9	43	2.0	16	0.7	139	6.4
NNW	0	0.0	0	0.0	1	0.0	9	0.4	24	1.1	14	0.6	14	0.6	62	2.8
	0	0.0	18	0.8	84	3.9	181	8.3	264	12.1	152	7.0	67	3.1	766	35.2

MEAN WIND SPEED: 15.0
MISSING: 0

ARTIFICIAL ISLAND 01/00-03/00

JOINT DISTRIBUTION OF WIND DIRECTION AND SPEED
BY ATMOSPHERIC STABILITY CLASS
WIND: 300 FT
DELTA T: (300-33FT)

LAPSE RATE: 1.6 TO 4.0 DEG C/100M
CLASS F

WIND SPEED GROUPS (MPH)

DIRECTION	0.0-0.5		0.6-3.5		3.6-7.5		7.6-12.5		12.6-18.5		18.6-24.5		GE 24.6		SUM	PERCENT
	SUM	PERCENT	SUM	PERCENT	SUM	PERCENT	SUM	PERCENT	SUM	PERCENT	SUM	PERCENT	SUM	PERCENT		
N	0	0.0	0	0.0	2	0.1	1	0.0	5	0.2	3	0.1	0	0.0	11	0.5
NNE	0	0.0	1	0.0	2	0.1	0	0.0	6	0.3	0	0.0	0	0.0	9	0.4
NE	0	0.0	0	0.0	3	0.1	0	0.0	2	0.1	0	0.0	0	0.0	5	0.2
ENE	0	0.0	0	0.0	3	0.1	1	0.0	0	0.0	0	0.0	0	0.0	4	0.2
E	0	0.0	0	0.0	4	0.2	2	0.1	1	0.0	0	0.0	0	0.0	7	0.3
ESE	0	0.0	1	0.0	1	0.0	2	0.1	0	0.0	0	0.0	0	0.0	4	0.2
SE	0	0.0	2	0.1	3	0.1	1	0.0	4	0.2	3	0.1	0	0.0	13	0.6
SSE	0	0.0	1	0.0	6	0.3	7	0.3	2	0.1	3	0.1	2	0.1	21	1.0
S	0	0.0	2	0.1	2	0.1	10	0.5	10	0.5	4	0.2	2	0.1	30	1.4
SSW	0	0.0	1	0.0	7	0.3	6	0.3	20	0.9	7	0.3	7	0.3	48	2.2
SW	0	0.0	0	0.0	5	0.2	4	0.2	11	0.5	12	0.6	1	0.0	33	1.5
WSW	0	0.0	0	0.0	2	0.1	4	0.2	8	0.4	3	0.1	3	0.1	20	0.9
W	0	0.0	2	0.1	1	0.0	3	0.1	3	0.1	6	0.3	0	0.0	15	0.7
WNW	0	0.0	2	0.1	1	0.0	2	0.1	2	0.1	1	0.0	0	0.0	8	0.4
NW	0	0.0	0	0.0	1	0.0	4	0.2	9	0.4	2	0.1	0	0.0	16	0.7
NNW	0	0.0	0	0.0	2	0.1	4	0.2	5	0.2	2	0.1	0	0.0	13	0.6
	0	0.0	12	0.6	45	2.1	51	2.3	88	4.0	46	2.1	15	0.7	257	11.8

MEAN WIND SPEED: 13.7
MISSING: 0

ARTIFICIAL ISLAND 01/00-03/00

JOINT DISTRIBUTION OF WIND DIRECTION AND SPEED
BY ATMOSPHERIC STABILITY CLASS
WIND: 300 FT
DELTA T: (300-33FT)

LAPSE RATE: GT 4.0 DEG C/100M
CLASS G

WIND SPEED GROUPS (MPH)

	0.0-0.5		0.6-3.5		3.6-7.5		7.6-12.5		12.6-18.5		18.6-24.5		GE 24.6		SUM PERCENT	
DIRECTION	SUM	PERCENT	SUM	PERCENT	SUM	PERCENT	SUM	PERCENT	SUM	PERCENT	SUM	PERCENT	SUM	PERCENT		
N	0	0.0	0	0.0	0	0.0	2	0.1	1	0.0	0	0.0	0	0.0	3	0.1
NNE	0	0.0	0	0.0	1	0.0	0	0.0	0	0.0	0	0.0	0	0.0	1	0.0
NE	0	0.0	0	0.0	1	0.0	0	0.0	0	0.0	0	0.0	0	0.0	1	0.0
ENE	0	0.0	1	0.0	4	0.2	0	0.0	0	0.0	0	0.0	0	0.0	5	0.2
E	0	0.0	0	0.0	3	0.1	1	0.0	0	0.0	0	0.0	0	0.0	4	0.2
ESE	0	0.0	1	0.0	1	0.0	1	0.0	0	0.0	0	0.0	0	0.0	3	0.1
SE	0	0.0	0	0.0	2	0.1	0	0.0	0	0.0	3	0.1	0	0.0	5	0.2
SSE	0	0.0	0	0.0	0	0.0	8	0.4	6	0.3	4	0.2	1	0.0	19	0.9
S	0	0.0	0	0.0	2	0.1	7	0.3	7	0.3	13	0.6	2	0.1	31	1.4
SSW	0	0.0	0	0.0	2	0.1	10	0.5	24	1.1	5	0.2	1	0.0	42	1.9
SW	0	0.0	0	0.0	0	0.0	7	0.3	1	0.0	2	0.1	1	0.0	11	0.5
WSW	0	0.0	0	0.0	2	0.1	2	0.1	0	0.0	2	0.1	0	0.0	6	0.3
W	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0
WNW	0	0.0	1	0.0	1	0.0	0	0.0	0	0.0	1	0.0	0	0.0	3	0.1
NW	0	0.0	1	0.0	0	0.0	1	0.0	0	0.0	0	0.0	0	0.0	2	0.1
NNW	0	0.0	2	0.1	0	0.0	3	0.1	1	0.0	0	0.0	0	0.0	6	0.3
	0	0.0	6	0.3	19	0.9	42	1.9	40	1.8	30	1.4	5	0.2	142	6.5

MEAN WIND SPEED: 13.8
MISSING: 0

ARTIFICIAL ISLAND 01/00-03/00

JOINT DISTRIBUTION OF WIND DIRECTION AND SPEED
BY ATMOSPHERIC STABILITY CLASS
WIND: 300 FT
DELTA T: (300-33FT)

ALL STABILITY CLASSES

WIND SPEED GROUPS (MPH)

DIRECTION	0.0-0.5		0.6-3.5		3.6-7.5		7.6-12.5		12.6-18.5		18.6-24.5		GE 24.6		SUM	PERCENT
	SUM	PERCENT	SUM	PERCENT	SUM	PERCENT	SUM	PERCENT	SUM	PERCENT	SUM	PERCENT	SUM	PERCENT		
N	0	0.0	1	0.0	7	0.3	30	1.4	26	1.2	20	0.9	14	0.6	98	4.5
NNE	0	0.0	1	0.0	16	0.7	45	2.1	28	1.3	10	0.5	6	0.3	106	4.9
NE	0	0.0	1	0.0	13	0.6	32	1.5	31	1.4	10	0.5	13	0.6	100	4.6
ENE	0	0.0	2	0.1	17	0.8	20	0.9	16	0.7	9	0.4	2	0.1	66	3.0
E	0	0.0	5	0.2	18	0.8	43	2.0	10	0.5	1	0.0	0	0.0	77	3.5
ESE	0	0.0	3	0.1	6	0.3	9	0.4	16	0.7	1	0.0	0	0.0	35	1.6
SE	0	0.0	5	0.2	7	0.3	19	0.9	30	1.4	15	0.7	10	0.5	86	3.9
SSE	0	0.0	4	0.2	24	1.1	38	1.7	48	2.2	26	1.2	5	0.2	144	6.6
S	0	0.0	5	0.2	24	1.1	42	1.9	37	1.7	24	1.1	4	0.2	136	6.2
SSW	0	0.0	5	0.2	26	1.2	44	2.0	71	3.3	16	0.7	20	0.9	182	8.4
SW	0	0.0	4	0.2	15	0.7	28	1.3	28	1.3	22	1.0	8	0.4	105	4.8
WSW	0	0.0	4	0.2	18	0.8	24	1.1	33	1.5	20	0.9	4	0.2	103	4.7
W	0	0.0	5	0.2	15	0.7	17	0.8	68	3.1	33	1.5	8	0.4	146	6.7
WNW	0	0.0	6	0.3	15	0.7	25	1.1	45	2.1	60	2.8	26	1.2	177	8.1
NW	0	0.0	2	0.1	14	0.6	34	1.6	130	6.0	124	5.7	89	4.1	393	18.0
NNW	0	0.0	4	0.2	7	0.3	34	1.6	70	3.2	43	2.0	67	3.1	225	10.3
	0	0.0	57	2.6	241	11.1	484	22.2	687	31.5	434	19.9	276	12.7	2179	100.0

MISSING HOURS: 5

MEAN WIND SPEED: 15.6

ARTIFICIAL ISLAND 01/00-03/00

JOINT DISTRIBUTION OF WIND DIRECTION AND SPEED
BY ATMOSPHERIC STABILITY CLASS
WIND: 300 FT
DELTA T: (300-33FT)

DIRECTION VS SPEED ONLY

WIND SPEED GROUPS (MPH)

	0.0-0.5		0.6-3.5		3.6-7.5		7.6-12.5		12.6-18.5		18.6-24.5		GE 24.6		SUM PERCENT	
DIRECTION	SUM	PERCENT	SUM	PERCENT	SUM	PERCENT	SUM	PERCENT	SUM	PERCENT	SUM	PERCENT	SUM	PERCENT		
N	0	0.0	1	0.0	7	0.3	30	1.4	26	1.2	20	0.9	14	0.6	98	4.5
NNE	0	0.0	1	0.0	16	0.7	45	2.1	28	1.3	10	0.5	6	0.3	106	4.9
NE	0	0.0	1	0.0	13	0.6	32	1.5	31	1.4	10	0.5	13	0.6	100	4.6
ENE	0	0.0	2	0.1	17	0.8	20	0.9	16	0.7	9	0.4	2	0.1	66	3.0
E	0	0.0	5	0.2	18	0.8	43	2.0	10	0.5	1	0.0	0	0.0	77	3.5
ESE	0	0.0	3	0.1	6	0.3	9	0.4	16	0.7	1	0.0	0	0.0	35	1.6
SE	0	0.0	5	0.2	7	0.3	19	0.9	30	1.4	15	0.7	10	0.5	86	3.9
SSE	0	0.0	4	0.2	23	1.1	38	1.7	48	2.2	26	1.2	5	0.2	144	6.6
S	0	0.0	5	0.2	24	1.1	42	1.9	37	1.7	24	1.1	4	0.2	136	6.2
SSW	0	0.0	5	0.2	26	1.2	44	2.0	71	3.3	16	0.7	20	0.9	182	8.3
SW	0	0.0	4	0.2	15	0.7	28	1.3	30	1.4	22	1.0	8	0.4	107	4.9
WSW	0	0.0	4	0.2	18	0.8	24	1.1	34	1.6	20	0.9	4	0.2	104	4.8
W	0	0.0	5	0.2	15	0.7	17	0.8	68	3.1	33	1.5	8	0.4	146	6.7
WNW	0	0.0	6	0.3	15	0.7	25	1.1	45	2.1	60	2.7	26	1.2	177	8.1
NW	0	0.0	2	0.1	14	0.6	34	1.6	131	6.0	124	5.7	89	4.1	394	18.0
NNW	0	0.0	4	0.2	7	0.3	34	1.6	70	3.2	44	2.0	67	3.1	226	10.3
	0	0.0	57	2.6	241	11.0	484	22.2	691	31.6	435	19.9	276	12.6	2184	100.0

MISSING HOURS: 0

MEAN WIND SPEED: 15.6