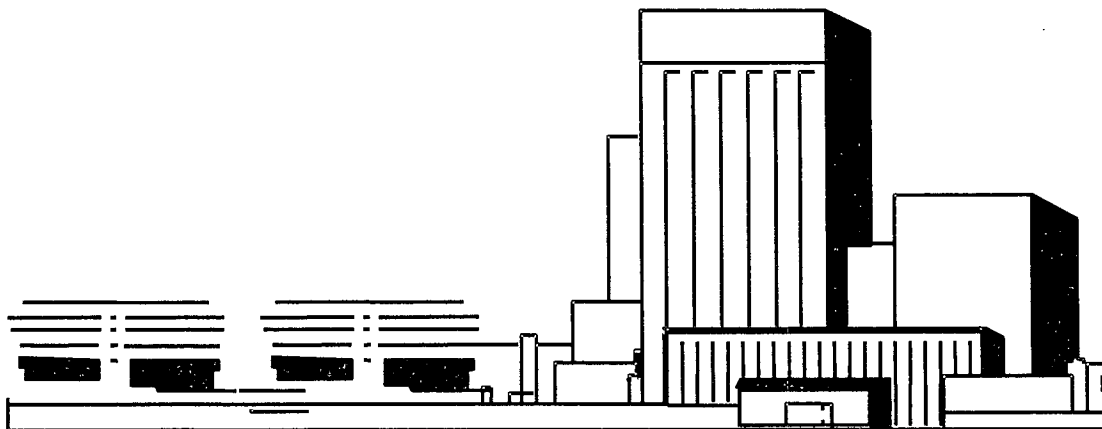


ENERGY NORTHWEST

Columbia Generating Station Radioactive Effluent Release Report

January through December 2006



REFERENCES:
10 CFR 50.36a(a)(2)
10 CFR 72.44(d)(3)
CGS Technical Specification 5.6.2
ISFSI Technical Specification 5.4.c

Columbia Generating Station
Radioactive Effluent Release Report

January through December 2006

Energy Northwest

Submitted
February 2007

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1.0 Introduction

This report has been prepared in compliance with 10 CFR 50.36a(a)(2), 10 CFR 72.44(d)(3), Independent Spent Fuel Storage Installation (ISFSI) Technical Specification 5.4.c, and Columbia Generating Station Technical Specification 5.6.3. It includes a summary of the quantities of radioactive liquid and gaseous effluents and solid radwaste released from Columbia Generating Station during calendar year 2006. Effluent data is summarized on a quarterly basis.

2.0 Liquid Effluents

No planned releases of contaminated liquids from the liquid radwaste processing system were discharged to the Columbia River from Columbia Generating Station during calendar year 2006. The last planned discharge took place in 1998.

Detectable levels of radioactivity were noted in very localized surface ground samples taken at a number of locations along the circulating water blowdown line to the Columbia River. The origin of the activity was indeterminate. The highest concentrations seen were approximately 36,000 pCi/kg Co-60 and approximately 6,500 pCi/kg Cs-137 in a water box which has a concrete cover with a locked manway. Dose pathway analysis to the public demonstrated that it would take more than 2,300 years for this activity to reach the Columbia River and that the activity remaining would not be detectable ($\sim 6E-25$ pCi/kg Co-60 and $\sim 1E-25$ pCi/kg Cs-137). Due to the small concentrations seen, efforts have not been undertaken to date to determine the total curies released. See Condition Reports 2-06-3682, 4079, 4466 and 4809.

3.0 Gaseous Effluents

The gaseous radwaste effluents from Columbia Generating Station were released from three (3) release points:

- Main Plant Vent -- mixed mode release
- Turbine Building -- ground level release
- Radwaste Building -- ground level release

The gaseous source terms from each release point are listed in Tables 3-1, 3-2, and 3-3. The activation gases argon-41 and nitrogen-13 are included in these tables under fission gases to allow a match with the fission and activation gas totals of Table 3-4. Table 3-4 provides a summation of the total activity released, the average release rate, gross alpha radioactivity, and the estimated total error associated with the measurements of radioactivity in the gaseous effluents.

Radioactivity measurements for gaseous effluent releases are performed for fission and activation gases by collecting the samples in a Marinelli beaker and analyzing them using gamma spectroscopy. Air is analyzed for tritium by collection of water vapor on a desiccant with subsequent distillation and liquid scintillation counting. Particulates and iodines are sampled continuously and the sample media (particulate filters and charcoal cartridges) are analyzed weekly using gamma spectroscopy. Each quarter a chemical separation process is

used to isolate strontium from the composite particulate filters and quantification is accomplished with liquid scintillation detection. The average energy per disintegration of fission and activation gases is not included in this report as it is not required by Technical Specifications and is not used for gaseous effluent release rate limit calculations.

When a radioisotope is not positively identified at levels greater than the Minimum Detectable Activity (MDA), a value of zero is used for release concentrations and offsite dose assessments. Table 3-6 contains the Lower Limit of Detection (LLD) values corresponding to the sampling methods and analytical instruments used for each principal radioisotope.

Dose calculations were performed for releases using the NRC GASPAR II computer program and parameters as defined in the Offsite Dose Calculation Manual (ODCM). Desert sigmas were not used in gaseous plume growth calculations. Throughout this report, the term 'dose' is used as defined in NRC Regulatory Guide 1.109-1977. Quarterly and annual doses to the potentially highest-exposed member of the public at and beyond the site boundary were calculated. In addition, quarterly and annual doses were calculated at locations identified in the annual land use census. ODCM limits are based on Part 20 and Appendix I to Part 50 of Title 10 of the Code of Federal Regulations. The threshold for air dose applies to fission and activation gases and is ten (10) millirad for beta and five (5) millirad for gamma quarterly and twenty (20) millirad for beta and ten (10) millirad for gamma annually. The threshold for organ dose applies to iodine, tritium, and particulates with half-lives greater than eight days and is seven and a half (7.5) millirem quarterly and fifteen (15) millirem annually. For fission and activation gases the dose rate limits are less than or equal to 500 mrem per year to the whole body and less than or equal to 3000 mrem per year to the skin. For iodines, particulates, and tritium the dose rate limit is less than or equal to 1500 mrem/year to any organ.

Dose calculations were also conducted for members of the public within the site boundary. The results are discussed and tabulated in Section 6.0.

The Kootenai building is located approximately 0.75 miles from the reactor building. Within this building are the Emergency Operations Facility (EOF) and a backup chemistry laboratory. The release path for the radiochemical hood within the backup laboratory contains a HEPA filter and is monitored for radioactive releases even though no radiochemical work is routinely performed in this laboratory. During 2005, the laboratory liquid release path was physically blocked and the liquid release monitor deactivated. No evidence of gaseous or liquid release of licensed radioactive material was noted in 2006.

It is estimated that approximately $4.61\text{E-}03$ Curies of tritium were released through unmonitored vents associated with the heating steam system.

A total of fifteen loaded spent fuel storage containers (SFSC) were in place in the ISFSI facility at the end of 2006. No additional SFSCs were added during 2006. The SFSCs are performing as designed; consequently, there are no effluents from this facility.

There were no abnormal releases of gaseous effluent during this reporting period.

The following summarizes incidents of effluent monitor inoperability. In all cases, compensatory measures were taken as required by the Offsite Dose Calculation Manual.

- The Turbine Service Water radiation monitor was declared inoperable on 6/21/06 to install a new sample rack and radiation monitor. The new sample rack was declared operable on 8/10/06. (Condition Report 2-06-05419)
- The Turbine Service Water radiation monitor was declared inoperable on 10/31/06. The flow switch used on the sample rack (TSW-FS-5) failed, causing the sample rack to trip. The component could not be restored within 30 days due to a delay in receiving a replacement switch from the vendor. The new switch was received on 11/30/06 and installed. On 12/01/06, after letting it run over night, the operability surveillance was run to return it to service. (Condition Report 2-06-07975)
- One of three Radwaste building effluent composite samples (one for each exhaust fan) being tested for Strontium for the third quarter of 2006 could not be processed as required in ODCM RFO 6.2.2.1 Table 6.2.2.1-1 Part 1. Section 3a of Regulatory Guide 1.21 Appendix A suggests that in the case of a missing or lost sample, an estimate should be performed by using the average of the two adjacent data points spanning this period. The method recommended by this Regulatory Guide is clearly appropriate for release points with only one monitored exhaust port. However, since these three post-exhaust fan samples are collected from a common header and the other two third quarter samples showed positive Sr-89 activity, the average of this positive activity was used to estimate the value for the third sample. Since only two of the three exhaust fans are operated at any given time, the overall release rate for the Radwaste building used a weighted average of the three samples based on the volume of air released from each of the three fans. (Condition Report 2-06-07590)

Gaseous Effluent Tables

Table 3-0 10 CFR Part 50 Appendix I Dose Compliance

Report Period: January -- December 2006

1st Quarter	2nd Quarter	3rd Quarter	4th Quarter	Year*
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Noble Gas

Gamma Air Dose (mrad)	1.46E-03	1.23E-03	1.48E-03	1.39E-03	6.05E-03
ODCM Limit	5	5	5	5	10
% of Limit	2.92E-02	2.46E-02	2.96E-02	2.78E-02	6.05E-02
Beta Air Dose (mrad)	5.14E-04	4.33E-04	5.21E-04	4.91E-04	2.14E-03
ODCM Limit	10	10	10	10	20
% of Limit	5.14E-03	4.33E-03	5.21E-03	4.91E-03	1.07E-02

Iodine-131, Iodine-133, Tritium, and Particulates with half-lives greater than eight days.

Organ Dose (mrem)	5.18E-03	5.39E-03	1.00E-02	4.33E-03	2.03E-02
ODCM Limit	7.5	7.5	7.5	7.5	15
% of Limit	6.90E-02	7.18E-02	1.34E-01	5.78E-02	1.36E-01

* Calculated quarterly doses cannot be directly compared to the annual doses. Each above listed quarterly dose is the highest calculated dose based on a number of variables. Variables that make comparison difficult include location, meteorological data (quarterly joint frequency distribution (JFD) tables vs. annual JFD tables), receptor age, target organ, and characteristics of the emitted radionuclides.

**Table 3-1 Main Plant Vent Releases
Fission Gases and Iodines**

Report Period: January -- December 2006

Nuclides Released	1st Quarter (Ci)	2nd Quarter (Ci)	3rd Quarter (Ci)	4th Quarter (Ci)	Year (Ci)
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A. Fission gases

krypton-85	MDA	MDA	MDA	MDA	MDA
krypton-85m	MDA	MDA	MDA	MDA	MDA
krypton-87	MDA	MDA	MDA	MDA	MDA
krypton-88	MDA	MDA	MDA	MDA	MDA
xenon-133	MDA	MDA	MDA	MDA	MDA
xenon-133m	MDA	MDA	MDA	MDA	MDA
xenon-135	MDA	MDA	MDA	1.33E-02	1.33E-02
xenon-135m	MDA	MDA	MDA	MDA	MDA
xenon-138	MDA	MDA	MDA	MDA	MDA
Others-Activation gases					
argon-41	1.03E+01	1.04E+01	8.95E+00	1.23E+01	4.19E+01
nitrogen-13	MDA	MDA	MDA	2.93E-01	2.93E-01
Total for period *	1.03E+01	1.04E+01	8.95E+00	1.26E+01	4.22E+01

B. Iodines

iodine-131	MDA	MDA	MDA	4.14E-06	4.14E-06
iodine-132	MDA	MDA	MDA	MDA	MDA
iodine-133	MDA	MDA	MDA	MDA	MDA
iodine-134	MDA	MDA	MDA	MDA	MDA
iodine-135	MDA	MDA	MDA	MDA	MDA
Total for period *	0.00E+00	0.00E+00	0.00E+00	4.14E-06	4.14E-06

MDA = Less than the "a posteriori" minimal detectable activity (microcuries per unit mass or volume).

* MDA values are not included in the totals.

**Table 3-1 Main Plant Vent Releases (Continued)
Particulates and Tritium**

Report Period: January -- December 2006

Nuclides Released	1st Quarter (Ci)	2nd Quarter (Ci)	3rd Quarter (Ci)	4th Quarter (Ci)	Year (Ci)
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C. Particulates

strontium-89	1.87E-06	8.97E-07	1.61E-06	1.21E-07	4.49E-06
strontium-90	MDA	MDA	MDA	MDA	MDA
cesium-134	MDA	MDA	MDA	MDA	MDA
cesium-137	MDA	MDA	MDA	MDA	MDA
barium-lanthanum-140	MDA	MDA	MDA	MDA	MDA
cobalt-58	1.63E-05	MDA	MDA	3.56E-06	1.99E-05
cobalt-60	4.02E-05	8.70E-06	3.18E-06	1.36E-05	6.57E-05
iron-59	3.25E-06	MDA	MDA	MDA	3.25E-06
manganese-54	4.84E-06	MDA	MDA	1.30E-06	6.15E-06
zinc-65	3.44E-05	6.44E-06	MDA	8.60E-06	4.94E-05
Total for period*	1.01E-04	1.60E-05	4.78E-06	2.72E-05	1.49E-04
Others with T 1/2 < 8 days					
technetium-99m	2.55E-04	MDA	MDA	MDA	2.55E-04
Total with T 1/2 < 8 days*	2.55E-04	0.00E+00	0.00E+00	0.00E+00	2.55E-04

D. Tritium

tritium	1.62E+00	1.36E+00	1.44E+00	1.17E+00	5.59E+00
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MDA = Less than the "a posteriori" minimal detectable activity (microcuries per unit mass or volume).

* MDA values are not included in the totals.

Table 3-2 Turbine Building Releases
Fission Gases and Iodines

Report Period: January -- December 2006

Nuclides Released	1st Quarter (Ci)	2nd Quarter (Ci)	3rd Quarter (Ci)	4th Quarter (Ci)	Year (Ci)
-------------------	------------------------	------------------------	------------------------	------------------------	--------------

A. Fission gases

krypton-85	MDA	MDA	MDA	MDA	MDA
krypton-85m	MDA	MDA	MDA	MDA	MDA
krypton-87	MDA	MDA	MDA	MDA	MDA
krypton-88	MDA	MDA	MDA	MDA	MDA
xenon-133	MDA	MDA	MDA	MDA	MDA
xenon-133m	MDA	MDA	MDA	MDA	MDA
xenon-135	MDA	MDA	MDA	MDA	MDA
xenon-135m	MDA	MDA	MDA	MDA	MDA
xenon-138	MDA	MDA	MDA	MDA	MDA
Total for period *	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00

B. Iodines

iodine-131	MDA	MDA	MDA	MDA	MDA
iodine-132	MDA	MDA	MDA	MDA	MDA
iodine-133	MDA	MDA	MDA	MDA	MDA
iodine-134	MDA	MDA	MDA	MDA	MDA
iodine-135	MDA	MDA	MDA	MDA	MDA
Total for period *	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00

MDA = Less than the "a posteriori" minimal detectable activity (microcuries per unit mass or volume).

* MDA values are not included in the totals.

**Table 3-2 Turbine Building Releases (Continued)
Particulates and Tritium**

Report Period: January -- December 2006

Nuclides Released	1st Quarter (Ci)	2nd Quarter (Ci)	3rd Quarter (Ci)	4th Quarter (Ci)	Year (Ci)
-------------------	------------------------	------------------------	------------------------	------------------------	--------------

C. Particulates

strontium-89	8.20E-06	3.16E-05	1.15E-05	5.14E-05	1.03E-04
strontium-90	MDA	MDA	MDA	MDA	MDA
cesium-134	MDA	MDA	MDA	MDA	MDA
cesium-137	MDA	MDA	MDA	MDA	MDA
barium-lanthanum-140	MDA	MDA	MDA	MDA	MDA
cerium-141	MDA	MDA	MDA	MDA	MDA
cerium-144	MDA	MDA	MDA	MDA	MDA
cobalt-58	MDA	MDA	MDA	MDA	MDA
cobalt-60	MDA	MDA	MDA	MDA	MDA
iron-59	MDA	MDA	MDA	MDA	MDA
manganese-54	MDA	MDA	MDA	MDA	MDA
zinc-65	MDA	MDA	MDA	MDA	MDA
Total for period*	8.20E-06	3.16E-05	1.15E-05	5.14E-05	1.03E-04
Others with T 1/2 < 8 days molybdenum-99	MDA	MDA	MDA	MDA	MDA
Total with T 1/2 < 8 days*	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00

D. Tritium

tritium	1.14E+01	1.22E+01	1.43E+01	9.41E+00	4.73E+01
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MDA = Less than the "a posteriori" minimal detectable activity (microcuries per unit mass or volume).

* MDA values are not included in the totals.

**Table 3-3 Radwaste Building Releases
Fission Gases and Iodines**

Report Period: January -- December 2006

Nuclides Released	1st Quarter (Ci)	2nd Quarter (Ci)	3rd Quarter (Ci)	4th Quarter (Ci)	Year (Ci)
-------------------	------------------------	------------------------	------------------------	------------------------	--------------

A. Fission gases

krypton-85	MDA	MDA	MDA	MDA	MDA
krypton-85m	MDA	MDA	MDA	MDA	MDA
krypton-87	MDA	MDA	MDA	MDA	MDA
krypton-88	MDA	MDA	MDA	MDA	MDA
xenon-133	MDA	MDA	MDA	MDA	MDA
xenon-133m	MDA	MDA	MDA	MDA	MDA
xenon-135	MDA	MDA	MDA	MDA	MDA
xenon-135m	MDA	MDA	MDA	MDA	MDA
xenon-138	MDA	MDA	MDA	MDA	MDA
Total for period *	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00

B. Iodines

iodine-131	MDA	MDA	MDA	MDA	MDA
iodine-132	MDA	MDA	MDA	MDA	MDA
iodine-133	MDA	MDA	MDA	MDA	MDA
iodine-134	MDA	MDA	MDA	MDA	MDA
iodine-135	MDA	MDA	MDA	MDA	MDA
Total for period *	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00

MDA = Less than the "a posteriori" minimal detectable activity (microcuries per unit mass or volume).

* MDA values are not included in the totals.

Table 3-3 Radwaste Building Releases (Continued)
Particulates and Tritium

Report Period: January -- December 2006

Nuclides Released	1st Quarter (Ci)	2nd Quarter (Ci)	3rd Quarter (Ci)	4th Quarter (Ci)	Year (Ci)
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C. Particulates

strontium-89	3.77E-07	MDA	5.57E-07	1.18E-07	1.05E-06
strontium-90	MDA	MDA	MDA	MDA	MDA
cesium-134	MDA	MDA	MDA	MDA	MDA
cesium-137	MDA	MDA	MDA	MDA	MDA
barium-lanthanum-140	MDA	MDA	MDA	MDA	MDA
cerium-141	MDA	MDA	MDA	MDA	MDA
cerium-144	MDA	MDA	MDA	MDA	MDA
cobalt-58	MDA	MDA	MDA	MDA	MDA
cobalt-60	MDA	MDA	MDA	MDA	MDA
iron-59	MDA	MDA	MDA	MDA	MDA
manganese-54	MDA	MDA	MDA	MDA	MDA
zinc-65	MDA	MDA	MDA	MDA	MDA
Total for period*	3.77E-07	0.00E+00	5.57E-07	1.18E-07	1.05E-06
Others with T 1/2 < 8 days					
molybdenum-99	MDA	MDA	MDA	MDA	MDA
Total with T 1/2 < 8 days*	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00

D. Tritium

tritium	1.91E-01	2.49E-01	3.67E-01	2.50E-01	1.06E+00
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MDA = Less than the "a posteriori" minimal detectable activity (microcuries per unit mass or volume).

* MDA values are not included in the totals.

**Table 3-4 Summation of Releases
Gaseous Effluents**

Report Period: January -- December 2006

1st Quarter	2nd Quarter	3rd Quarter	4th Quarter	Year	Est* Total %Error
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A. Fission and activation gases

Total release (Ci)	1.03E+01	1.04E+01	8.95E+00	1.26E+01	4.22E+01	4.30E+01
Average release rate (μ Ci/s)	1.31E+00	1.32E+00	1.14E+00	1.60E+00	1.34E+00	
Percent of ODCM limit (%)	1.11E-03	3.50E-04	4.23E-04	6.89E-04	4.24E-04	

B. Iodines

Total I-131 (Ci)	MDA	MDA	MDA	4.14E-06	4.14E-06	4.60E+01
Average release rate (μ Ci/s)	MDA	MDA	MDA	5.27E-07	1.32E-07	
Percent of ODCM limit (%)	0.00E+00	0.00E+00	0.00E+00	1.40E-07	2.53E-08	

C. Particulates

Particulates with half-lives >8 days (Ci)	1.09E-04	4.77E-05	1.68E-05	7.87E-05	2.53E-04	4.50E+01
Average release rate (μ Ci/s)	1.39E-05	6.06E-06	2.14E-06	1.00E-05	8.03E-06	
Percent of ODCM limit (%)	3.50E-06	1.01E-05	6.35E-06	1.46E-05	7.95E-06	
Gross alpha radioactivity (Ci)	6.11E-07	6.98E-07	1.12E-06	8.96E-07	3.33E-06	7.30E+01

D. Tritium

Total release (Ci)	1.33E+01	1.38E+01	1.61E+01	1.08E+01	5.39E+01	2.50E+01
Average release rate (μ Ci/s)	1.69E+00	1.75E+00	2.04E+00	1.38E+00	1.71E+00	
Percent of ODCM limit (%)	9.03E-04	1.16E-03	2.19E-03	7.75E-04	1.03E-03	

MDA = Less than the "a posteriori" minimal detectable activity (microcuries per unit mass or volume).

ODCM release rate limits are based on dose rate. For fission and activation gases the dose rate limits are less than or equal to 500 mrem/year to the whole body and less than or equal to 3000 mrem/year to the skin. For all periods the dose rate to the whole body was higher than that to the skin and therefore, the Percent of ODCM limit is calculated for the whole body limit. For I-131, particulates, and tritium the dose rate limit is less than or equal to 1500 mrem/year to any organ. The ODCM dose factors and the highest site boundary dispersion value for each period were used in the calculation.

* Measurement errors are sample-specific. The values reported represent an approximate overall error. The major contributors of this error are measurements associated with sample volume and release point flow rates and estimates of plateout factors.

Table 3-5 Gaseous Purges and Vents

Report Period: January -- December 2006

Type	Number	Total Time (hr.)	Maximum Time (hr.)	Minimum Time (hr.)	Mean Time (hr.)
Purge	1.00E+00	3.19E+01	3.19E+01	3.19E+01	3.19E+01
Vent	2.60E+01	2.34E+01	1.60E+00	1.83E-01	8.99E-01

Columbia Generating Station is a continuous release plant. All purges and vents are discharged through the Standby Gas Treatment System and released through the reactor building stack that is sampled and continuously monitored for radioactive gaseous waste.

**Table 3-6 Lower Limits of Detection
Gaseous Effluents**

Report Period: January -- December 2006

Fission Gases

Nuclide	LLD ($\mu\text{Ci/cc}$)
krypton-87	1.10E-08
krypton-88	1.35E-08
xenon-133	1.06E-08
xenon-133m	3.30E-08
xenon-135	3.99E-09
xenon-138	4.75E-08

Iodines

Nuclide	LLD ($\mu\text{Ci/cc}$)
iodine-131	4.57E-14
iodine-133	7.87E-13

Particulates

Nuclide	LLD ($\mu\text{Ci/cc}$)
strontium-89	8.16E-15
strontium-90	3.59E-15
cesium-134	3.75E-14
cesium-137	3.35E-14
barium-lanthanum-140	1.44E-13
molybdenum-99	6.33E-13
cerium-141	3.60E-14
cerium-144	1.38E-13
cobalt-58	2.97E-14
cobalt-60	5.64E-14
iron-59	6.69E-14
manganese-54	3.40E-14
zinc-65	6.57E-14
Gross Alpha	6.70E-16

4.0 Solid Radwaste

This section of the annual effluent report provides information required by both the Columbia Generating Station Offsite Dose Calculation Manual and by Nuclear Regulatory Commission Regulatory Guide 1.21-1974.

Solid Radwaste Information required by the Offsite Dose Calculation Manual

January -- December 2006

Class A

1. Container Volumes

B-25 Steel Box	96 ft ³
B-88 Steel Box	109 ft ³
B-25 Overpack Steel Box	138 ft ³
EL-142 Polyethylene HIC	132.4 ft ³
ES-190 Steel Liner	170.2 ft ³
EL-190 Polyethylene HIC	174.3 ft ³
20' SeaLand Container	1163 ft ³

2. Total Curies

1.57E+03 Ci

3. Principal Radionuclides

Nuclide	Curies	Percent
Co-60	6.98E+02	4.46E+01
Zn-65	3.27E+02	2.09E+01
Fe-55	1.98E+02	1.26E+01
Cr-51	1.28E+02	8.15E+00
Mn-54	9.17E+01	5.86E+00
Co-58	6.70E+01	4.28E+00
Fe-59	1.99E+01	1.27E+00
Ni-63	1.98E+01	1.27E+00
Sb-124	3.17E+00	2.02E-01
Ag-110m	2.72E+00	1.74E-01
Nb-95	2.11E+00	1.35E-01
C-14	2.05E+00	1.31E-01
Cs-137	1.86E+00	1.19E-01
Ce-144	1.29E+00	8.24E-02

Zr-95	1.11E+00	7.09E-02
Sr-89	6.83E-01	4.36E-02
Ni-59	3.01E-01	1.92E-02
H-3	1.87E-01	1.19E-02
Sb-122	1.82E-01	1.16E-02

4. Source

Resins	1.56E+03 Ci
DAW	5.70E+00 Ci
Irradiated Components	0.00E+00 Ci
Other (Sealed Source & Mixed Waste)	0.00E-00 Ci

5. Type of Container

All containers shipped as Limited Quantity, LSA, SCO or Radioactive material in IP-1, IP-2, Type A or Type B (including casks) as appropriate.

6. Solidification Agent

None

Class B

There were no Class B shipments made during calendar year 2006

Class C

There were no Class C shipments made during calendar year 2006

Solid Radwaste Information required by NRC Regulatory Guide 1.21

January -- December 2006

Solid Waste Shipped Offsite for Burial or Disposal (Not irradiated fuel).

1. Type of Waste

Waste Stream	Unit	Annual Cumulative	Est. Total Error %
a. Spent resins, filter sludge, evaporator bottoms, etc.	m ³	2.19E+02	
	Ci	1.56E+03	2.5E+01%
b. Dry Active Waste	m ³	1.49E+02	
	Ci	5.70E+00	2.5E+01%
c. Irradiated Components	m ³	0.00E+00	
	Ci	0.00E+00	None
d. Other Waste (Sealed Source & mixed waste)	m ³	0.00E+00	
	Ci	0.00E+00	None

2. Estimate of major nuclide composition (by type of waste)

a. Dewatered Spent Resins -- All Classes

Nuclide	Curies	Percent
Co-60	6.97E+02	4.47E+01
Zn-65	3.26E+02	2.09E+01
Fe-55	1.98E+02	1.27E+01
Cr-51	1.26E+02	8.09E+00
Mn-54	9.16E+01	5.87E+00
Co-58	6.63E+01	4.25E+00
Fe-59	1.99E+01	1.28E+00
Ni-63	1.98E+01	1.27E+00
Sb-124	3.17E+00	2.03E-01
Ag-110m	2.70E+00	1.73E-01
C-14	2.05E+00	1.32E-01
Nb-95	2.06E+00	1.32E-01
Cs-137	1.85E+00	1.19E-01
Ce-144	1.29E+00	8.26E-02
Zr-95	1.07E+00	6.84E-02
Sr-89	6.64E-01	4.26E-02
H-3	1.86E-01	1.19E-02
Sb-122	1.82E-01	1.17E-02

b. Dry Active Waste (DAW) -- All Classes

Nuclide	Curies	Percent
Cr-51	1.73E+00	3.03E+01
Co-60	1.48E+00	2.59E+01
Zn-65	1.24E+00	2.18E+01
Co-58	6.63E-01	1.16E+01
Mn-54	1.31E-01	2.30E+00
Ni-59	1.31E-01	2.30E+00
Fe-55	1.25E-01	2.20E+00
Nb-95	5.34E-02	9.38E-01
Zr-95	4.12E-02	7.24E-01
Sb-125	2.98E-02	5.23E-01
Ni-63	2.77E-02	4.86E-01
Sr-89	1.93E-02	3.39E-01
Ag-110m	1.91E-02	3.36E-01
Cs-137	1.06E-02	1.86E-01
H-3	1.02E-03	1.79E-02

c. Irradiated Components

None

d. Other Waste (Sealed Source & Mixed Waste)

None

3. Solid Waste Disposition

<u>Number of Shipments</u>	<u>Mode of Transportation</u>	<u>Destination</u>
27	Tractor - Trailer via Public Highway	US Ecology, Inc. P.O. Box 638 Hanford Reservation Richland, WA. 99352
1*	Tractor - Trailer via Public Highway	Pacific EcoSolutions 2025 Battelle Blvd. Richland, WA 99354

(* After processing by Pacific EcoSolutions, portions of this shipment will be forwarded for disposal.)

Irradiated Fuel Shipments (Disposition)

<u>Number of Shipments</u>	<u>Mode of Transportation</u>	<u>Destination</u>
None	N/A	N/A

5.0 Meteorological Data

The meteorological data contained in Tables 5-1 through 5-10 was obtained from the meteorological tower located 2500 feet (762 m) west of Columbia Generating Station. Data was recovered from instruments at the 33-foot (10 m) and 245-foot (75 m) levels. The meteorological data is a composite file from the automated data recovery systems for the calendar year 2006. Data is archived on the Energy Northwest Local Area Network.

Joint data recovery for 2006 was 98.4% from both the 245-foot level and the 33-foot level. Redundant wind and temperature sensors are installed at both levels of the meteorological tower. These redundant sensors are labeled System 'A' and System 'B'. January and February joint frequency distribution was calculated using the System 'A' data. While the remainder of the year was calculated using the System 'B' data.

The data in Tables 5-1 through 5-8 lists the joint frequency distributions at the 33-foot and 245-foot levels by quarter for 2006. These tables show the total hours at various wind speeds for each sector and stability class. The NRC stability classes A through G and eleven wind categories along with the 16 wind sectors were used to prepare each joint frequency table. Table 5-9 and 5-10 list the annual joint frequency distributions for those levels for 2006.

Calibrations performed in 2006 required no corrections be applied to the raw data. Data below 1.00 MPH is recorded as a calm.

Joint Frequency Distribution Tables for 2006

Table 5-1 1st Quarter Average, 33 Ft Above Ground Level (AGL)

JOINT FREQUENCY DISTRIBUTION FOR THE TIME PERIOD
FROM HOUR 00 ON 01/01/06 TO HOUR 23 ON 03/31/06

The total hours are 2160, 2122 hours read and 38 missing.

NRC CATEGORY A

Deg	MPH										
	>1.0	>2.2	>4.5	>6.7	>8.9	>11.2	>13.4	>17.9	>22.4	>29.1	>40.3
0.00	4	8	8	12	9	1	0	0	0	0	0
11.25	4	4	3	7	2	0	2	0	0	0	0
33.75	2	2	3	3	3	1	0	0	0	0	0
56.25	0	1	1	4	1	0	0	0	0	0	0
78.75	0	0	0	0	0	0	0	0	0	0	0
101.25	0	1	0	0	0	0	0	0	0	0	0
123.75	0	1	2	1	1	0	0	0	0	0	0
146.25	1	3	8	6	0	1	3	2	0	0	0
168.75	2	5	19	7	6	2	1	2	0	0	0
191.25	1	5	10	3	10	9	3	4	0	0	0
213.75	1	3	5	3	7	8	14	3	1	0	0
236.25	3	2	4	1	3	3	3	2	2	0	0
258.75	4	8	0	2	1	2	3	2	2	0	0
281.25	3	5	0	1	3	2	0	0	0	0	0
303.75	0	6	6	6	7	2	0	0	0	0	0
326.25	1	6	11	19	9	2	0	0	0	0	0

NRC CATEGORY B

Deg	MPH										
	>1.0	>2.2	>4.5	>6.7	>8.9	>11.2	>13.4	>17.9	>22.4	>29.1	>40.3
0.00	0	0	1	1	0	2	1	0	0	0	0
11.25	0	2	1	0	0	1	4	3	0	0	0
33.75	0	1	1	0	0	0	0	0	0	0	0
56.25	0	1	0	0	0	0	0	0	0	0	0
78.75	0	0	0	0	0	0	0	0	0	0	0
101.25	0	0	0	0	0	0	0	0	0	0	0
123.75	0	0	0	0	0	0	1	0	0	0	0
146.25	0	0	0	1	0	0	0	0	0	0	0
168.75	0	1	1	0	1	1	0	0	0	0	0
191.25	0	0	0	1	0	1	0	0	0	0	0
213.75	0	0	0	0	0	0	1	1	0	0	0
236.25	0	0	0	0	0	0	1	0	0	0	0
258.75	0	0	0	0	0	0	0	0	0	0	0
281.25	0	0	1	0	0	0	0	0	0	0	0
303.75	1	1	0	1	0	0	0	0	0	0	0
326.25	0	1	3	0	0	0	0	0	0	0	0

NRC CATEGORY C

Deg	MPH										
	>1.0	>2.2	>4.5	>6.7	>8.9	>11.2	>13.4	>17.9	>22.4	>29.1	>40.3
0.00	2	2	2	5	3	4	2	0	0	0	0
11.25	2	2	1	3	0	1	5	0	1	0	0
33.75	0	0	1	0	0	0	0	0	0	0	0
56.25	0	0	0	0	0	0	0	0	0	0	0
78.75	0	0	0	0	0	0	0	0	0	0	0
101.25	0	0	0	0	0	0	0	0	0	0	0
123.75	0	0	0	0	0	0	0	0	0	0	0
146.25	0	0	0	1	0	0	2	0	0	0	0
168.75	0	0	0	0	1	0	1	0	0	0	0
191.25	1	0	0	0	3	0	2	0	0	0	0
213.75	0	2	0	0	2	1	3	1	3	1	0
236.25	0	0	0	0	0	0	2	0	1	1	0
258.75	0	0	0	0	1	0	2	0	0	0	0
281.25	0	0	0	0	0	0	0	0	0	0	0
303.75	0	0	1	0	1	0	0	0	0	0	0
326.25	2	2	1	2	1	1	0	0	0	0	0

Table 5-1 1st Quarter Average, 33 Ft AGL (Continued)

NRC CATEGORY D

Deg	MPH										
	>1.0	>2.2	>4.5	>6.7	>8.9	>11.2	>13.4	>17.9	>22.4	>29.1	>40.3
0.00	4	17	5	8	4	2	1	0	0	0	0
11.25	2	9	6	4	1	5	3	7	2	0	0
33.75	4	5	2	3	1	0	0	1	4	0	0
56.25	1	3	3	0	0	0	0	0	0	0	0
78.75	1	0	0	0	0	0	0	0	0	0	0
101.25	1	0	0	0	0	0	0	0	0	0	0
123.75	0	4	3	2	0	1	1	0	0	0	0
146.25	1	3	12	9	6	4	1	2	0	1	0
168.75	4	9	7	14	7	2	4	0	0	0	0
191.25	4	8	2	8	12	2	6	3	0	0	0
213.75	1	3	2	8	8	5	17	8	14	2	0
236.25	3	1	1	5	2	2	6	4	4	0	0
258.75	0	2	3	3	2	2	1	1	0	0	0
281.25	4	6	2	2	4	1	0	0	0	0	0
303.75	4	8	9	5	3	1	3	0	0	0	0
326.25	5	16	25	13	6	1	0	0	0	0	0

NRC CATEGORY E

Deg	MPH										
	>1.0	>2.2	>4.5	>6.7	>8.9	>11.2	>13.4	>17.9	>22.4	>29.1	>40.3
0.00	7	21	12	6	2	0	0	0	0	0	0
11.25	6	9	4	1	0	1	0	0	0	0	0
33.75	5	6	2	1	0	0	1	0	0	0	0
56.25	3	3	0	0	1	0	0	0	0	0	0
78.75	0	2	0	0	0	0	0	0	0	0	0
101.25	1	1	0	0	0	0	0	0	0	0	0
123.75	0	2	2	2	1	4	1	0	0	0	0
146.25	4	6	6	12	9	7	5	0	0	0	0
168.75	5	10	8	21	17	12	5	3	0	0	0
191.25	0	9	4	14	6	6	14	8	0	0	0
213.75	3	6	6	3	8	17	24	13	5	1	0
236.25	3	9	7	3	4	4	6	5	1	0	0
258.75	4	7	6	3	1	0	1	0	0	0	0
281.25	3	2	4	5	3	3	0	1	0	0	0
303.75	8	19	12	9	14	2	2	0	0	0	0
326.25	9	23	14	8	12	0	0	0	0	0	0

NRC CATEGORY F

Deg	MPH										
	>1.0	>2.2	>4.5	>6.7	>8.9	>11.2	>13.4	>17.9	>22.4	>29.1	>40.3
0.00	1	19	16	3	0	0	0	0	0	0	0
11.25	7	14	6	1	0	0	0	0	0	0	0
33.75	4	3	2	0	0	0	0	0	0	0	0
56.25	0	1	1	0	0	0	0	0	0	0	0
78.75	0	0	0	0	0	1	0	0	0	0	0
101.25	0	1	0	0	0	0	0	0	0	0	0
123.75	2	0	0	0	0	0	0	0	0	0	0
146.25	2	6	9	7	4	3	0	0	0	0	0
168.75	6	8	7	14	12	7	6	0	0	0	0
191.25	1	4	1	4	5	1	1	2	0	0	0
213.75	4	7	1	1	1	2	1	0	0	0	0
236.25	1	4	2	1	0	0	1	0	0	0	0
258.75	5	1	6	0	0	0	0	0	0	0	0
281.25	1	1	1	3	4	0	2	0	0	0	0
303.75	5	9	14	10	5	1	0	0	0	0	0
326.25	5	24	18	14	3	0	0	0	0	0	0

Table 5-1 1st Quarter Average, 33 Ft AGL (Continued)

NRC CATEGORY G											
deg	MPH										
	>1.0	>2.2	>4.5	>6.7	>8.9	>11.2	>13.4	>17.9	>22.4	>29.1	>40.3
0.00	1	9	11	2	0	0	0	0	0	0	0
11.25	1	3	0	0	0	0	0	0	0	0	0
33.75	1	3	1	0	0	0	0	0	0	0	0
56.25	0	0	1	1	0	0	0	0	0	0	0
78.75	0	0	0	0	0	0	0	0	0	0	0
101.25	0	0	0	0	0	0	0	0	0	0	0
123.75	0	0	0	0	0	0	0	0	0	0	0
146.25	0	1	1	2	0	1	3	0	0	0	0
168.75	1	3	1	3	2	0	0	0	0	0	0
191.25	0	2	3	1	0	1	0	0	0	0	0
213.75	0	1	1	1	1	1	0	0	0	0	0
236.25	3	0	0	0	0	0	0	0	0	0	0
258.75	0	1	0	0	1	1	0	0	0	0	0
281.25	0	4	2	1	0	0	0	0	0	0	0
303.75	2	7	6	3	0	0	0	0	0	0	0
326.25	2	8	9	9	0	0	0	0	0	0	0

NRC CATEGORY	A	B	C	D	E	F	G
CALMS	3	1	2	13	16	23	10

Table 5-2 1st Quarter Average, 245 Ft AGL

**JOINT FREQUENCY DISTRIBUTION FOR THE TIME PERIOD
FROM HOUR 00 ON 01/01/06 TO HOUR 23 ON 03/31/06**

The total hours are 2160, 2122 hours read and 38 missing.

NRC CATEGORY A

deg	MPH										
	>1.0	>2.2	>4.5	>6.7	>8.9	>11.2	>13.4	>17.9	>22.4	>29.1	>40.3
0.00	1	3	5	4	9	3	1	0	0	0	0
11.25	0	0	1	0	5	1	1	1	1	0	0
33.75	2	1	0	1	0	3	1	3	0	0	0
56.25	0	0	1	0	1	1	3	1	0	0	0
78.75	1	0	0	0	0	0	0	1	0	0	0
101.25	1	0	1	2	0	0	1	0	0	0	0
123.75	0	2	1	3	8	1	3	1	0	0	0
146.25	1	0	8	7	4	1	4	1	4	0	0
168.75	0	1	7	9	6	7	6	0	3	2	0
191.25	0	1	5	8	10	10	18	11	7	0	0
213.75	1	1	5	3	3	2	6	10	3	1	0
236.25	1	7	3	1	0	0	3	2	2	6	0
258.75	0	2	4	1	2	1	3	0	0	0	0
281.25	0	4	2	1	3	3	3	3	2	0	0
303.75	0	3	3	3	11	3	3	2	0	0	0
326.25	0	12	3	6	15	12	11	0	0	0	0

NRC CATEGORY B

deg	MPH										
	>1.0	>2.2	>4.5	>6.7	>8.9	>11.2	>13.4	>17.9	>22.4	>29.1	>40.3
0.00	1	2	3	1	0	0	2	0	0	0	0
11.25	0	1	1	0	0	0	1	1	0	0	0
33.75	0	1	0	1	0	0	0	3	1	0	0
56.25	0	0	0	0	0	0	1	0	0	0	0
78.75	0	0	0	0	0	0	0	0	0	0	0
101.25	1	0	0	0	0	0	0	0	0	0	0
123.75	0	0	0	0	1	1	0	1	0	0	0
146.25	0	0	0	0	0	0	1	0	0	0	0
168.75	0	0	0	0	0	0	0	0	0	0	0
191.25	0	1	0	0	0	2	0	0	0	0	0
213.75	0	0	0	0	0	1	0	1	1	0	0
236.25	0	0	0	0	0	0	1	0	0	0	0
258.75	0	0	0	0	1	0	0	0	0	0	0
281.25	0	0	0	0	0	0	0	0	0	0	0
303.75	1	0	0	0	1	1	0	0	0	0	0
326.25	0	0	0	0	0	2	0	0	0	0	0

NRC CATEGORY C

deg	MPH										
	>1.0	>2.2	>4.5	>6.7	>8.9	>11.2	>13.4	>17.9	>22.4	>29.1	>40.3
0.00	0	2	3	6	1	0	1	0	0	0	0
11.25	1	0	0	4	3	5	4	0	0	0	0
33.75	0	0	1	1	0	0	0	1	1	0	0
56.25	0	2	0	0	0	0	2	0	0	0	0
78.75	0	0	0	0	0	0	0	0	0	0	0
101.25	0	1	0	0	0	0	0	0	0	0	0
123.75	0	0	0	1	0	1	0	0	1	0	0
146.25	0	0	0	0	0	0	0	0	0	0	0
168.75	0	0	0	0	1	0	1	1	0	0	0
191.25	0	1	0	0	1	2	4	1	0	0	0
213.75	0	1	0	0	0	1	0	3	0	3	1
236.25	0	0	0	0	0	0	2	1	1	1	0
258.75	0	0	1	0	0	0	3	0	0	0	0
281.25	0	0	0	0	0	0	0	0	0	0	0
303.75	0	0	0	0	0	2	1	0	0	0	0
326.25	2	1	0	0	0	0	0	0	0	0	0

Table 5-2 1st Quarter Average, 245 Ft AGL (Continued)

NRC CATEGORY D

deg	MPH										
	>1.0	>2.2	>4.5	>6.7	>8.9	>11.2	>13.4	>17.9	>22.4	>29.1	>40.3
0.00	3	6	3	6	6	0	1	0	0	0	0
11.25	3	8	5	1	0	3	1	0	0	0	0
33.75	4	5	5	2	1	0	8	0	8	1	0
56.25	2	4	1	0	0	1	0	0	1	4	0
78.75	0	0	0	0	0	0	0	0	0	0	0
101.25	0	0	1	0	0	0	0	0	0	0	0
123.75	2	1	0	1	0	1	2	1	0	0	0
146.25	3	7	6	5	3	4	5	1	1	0	0
168.75	4	3	13	6	7	2	6	0	0	0	0
191.25	4	10	9	9	4	12	14	2	2	0	0
213.75	1	3	0	4	3	2	8	11	11	15	1
236.25	0	1	2	3	1	5	5	5	8	0	0
258.75	4	1	1	2	5	1	3	2	3	0	0
281.25	3	4	3	0	5	1	0	2	1	0	0
303.75	5	4	12	6	4	3	8	1	0	0	0
326.25	7	14	22	5	2	3	5	0	0	0	0

NRC CATEGORY E

deg	MPH										
	>1.0	>2.2	>4.5	>6.7	>8.9	>11.2	>13.4	>17.9	>22.4	>29.1	>40.3
0.00	7	13	4	3	7	5	1	0	0	0	0
11.25	0	5	2	2	2	1	2	0	0	0	0
33.75	1	3	3	1	0	3	1	0	0	0	0
56.25	2	5	1	1	1	0	0	1	0	0	0
78.75	1	5	0	0	0	1	0	1	0	0	0
101.25	1	2	1	0	0	1	0	2	0	0	0
123.75	2	5	1	1	0	3	2	1	0	0	0
146.25	1	6	6	4	4	6	6	4	1	0	0
168.75	5	3	7	6	14	6	21	7	3	0	0
191.25	1	8	7	7	9	4	16	10	7	2	0
213.75	0	5	9	4	2	7	14	24	28	7	0
236.25	2	5	2	6	2	2	8	10	6	3	0
258.75	2	3	0	1	3	1	2	2	2	0	0
281.25	0	4	5	1	3	6	3	0	1	1	0
303.75	2	7	5	11	11	8	13	4	2	0	0
326.25	2	10	8	17	12	7	7	0	0	0	0

NRC CATEGORY F

deg	MPH										
	>1.0	>2.2	>4.5	>6.7	>8.9	>11.2	>13.4	>17.9	>22.4	>29.1	>40.3
0.00	1	6	9	15	7	3	5	0	0	0	0
11.25	1	4	6	2	7	1	1	0	0	0	0
33.75	1	4	4	2	3	1	2	0	0	0	0
56.25	1	6	2	0	1	0	0	0	0	0	0
78.75	0	2	0	0	0	0	2	0	0	0	0
101.25	2	1	1	0	0	0	0	0	0	0	0
123.75	6	7	1	1	2	1	4	0	0	0	0
146.25	2	3	2	1	2	4	3	0	0	0	0
168.75	4	7	5	9	5	4	4	3	2	0	0
191.25	4	6	10	4	7	4	11	1	0	2	0
213.75	2	6	1	5	3	1	5	2	2	0	0
236.25	3	1	2	1	0	1	1	1	0	0	0
258.75	0	1	1	0	0	1	0	1	0	0	0
281.25	1	1	3	1	2	3	1	1	1	0	0
303.75	1	4	2	3	4	8	12	3	0	1	0
326.25	1	7	4	9	7	2	5	2	0	0	0

Table 5-2 1st Quarter Average, 245 Ft AGL (Continued)

NRC CATEGORY G

deg	MPH										
	>1.0	>2.2	>4.5	>6.7	>8.9	>11.2	>13.4	>17.9	>22.4	>29.1	>40.3
0.00	0	4	2	0	3	2	2	0	0	0	0
11.25	1	0	2	0	1	2	2	0	0	0	0
33.75	0	1	2	3	0	1	0	0	0	0	0
56.25	1	0	0	1	0	0	0	0	0	0	0
78.75	2	0	0	0	0	0	0	0	0	0	0
101.25	1	0	0	0	0	0	0	0	0	0	0
123.75	0	0	0	1	0	0	0	0	0	0	0
146.25	1	1	1	4	0	0	0	0	0	0	0
168.75	2	0	9	3	1	0	1	3	0	0	0
191.25	1	3	2	2	3	0	2	1	0	0	0
213.75	1	2	0	2	3	1	0	0	0	0	0
236.25	1	0	0	0	2	0	0	0	0	0	0
258.75	2	1	1	0	0	0	0	0	0	0	0
281.25	0	0	0	0	0	1	3	0	0	0	0
303.75	0	0	0	0	1	3	1	0	0	0	0
326.25	0	2	2	7	5	7	4	0	0	0	0

NRC CATEGORY	A	B	C	D	E	F	G
CALMS	1	1	3	18	23	14	7

Table 5-3 2nd Quarter Average, 33 Ft AGL

**JOINT FREQUENCY DISTRIBUTION FOR THE TIME PERIOD
FROM HOUR 00 ON 04/01/06 TO HOUR 23 ON 06/30/06**

The total hours are 2184, 2184 hours read and 0 missing.

NRC CATEGORY A

deg	MPH										
	>1.0	>2.2	>4.5	>6.7	>8.9	>11.2	>13.4	>17.9	>22.4	>29.1	>40.3
0.00	5	20	11	10	5	5	0	0	0	0	0
11.25	4	12	14	9	7	8	5	1	0	0	0
33.75	6	17	12	4	1	2	9	3	1	0	0
56.25	3	9	10	3	1	1	0	0	0	0	0
78.75	3	2	3	0	0	0	0	0	0	0	0
101.25	4	4	4	0	0	0	0	0	0	0	0
123.75	1	2	3	3	1	0	3	0	0	0	0
146.25	7	11	10	7	4	3	2	0	0	0	0
168.75	1	8	20	13	17	7	3	2	0	0	0
191.25	5	11	12	18	20	19	10	4	1	0	0
213.75	2	3	3	8	8	8	5	3	0	0	0
236.25	2	6	3	5	4	3	3	1	2	0	0
258.75	1	8	4	7	1	1	3	0	0	0	0
281.25	1	3	2	5	7	7	7	1	0	1	0
303.75	2	8	10	3	2	3	5	10	3	0	0
326.25	9	14	14	5	3	9	0	0	0	0	0

NRC CATEGORY B

deg	MPH										
	>1.0	>2.2	>4.5	>6.7	>8.9	>11.2	>13.4	>17.9	>22.4	>29.1	>40.3
0.00	0	1	0	0	0	0	2	0	0	0	0
11.25	0	7	2	2	0	0	1	0	0	0	0
33.75	0	5	2	0	1	0	0	0	0	0	0
56.25	0	2	0	1	0	0	0	0	0	0	0
78.75	0	3	2	0	0	0	0	0	0	0	0
101.25	0	0	2	0	2	0	1	0	0	0	0
123.75	0	3	1	1	0	1	0	0	0	0	0
146.25	0	4	4	3	0	0	0	0	0	0	0
168.75	0	2	1	0	3	2	1	0	0	0	0
191.25	1	0	0	0	5	1	3	0	0	0	0
213.75	0	2	1	0	0	2	0	0	0	0	0
236.25	0	1	2	0	1	0	3	0	0	0	0
258.75	1	0	1	0	0	0	1	0	1	0	0
281.25	1	0	0	0	1	0	1	0	0	0	0
303.75	0	0	0	0	0	1	0	1	1	0	0
326.25	0	1	0	0	2	2	0	1	0	0	0

NRC CATEGORY C

deg	MPH										
	>1.0	>2.2	>4.5	>6.7	>8.9	>11.2	>13.4	>17.9	>22.4	>29.1	>40.3
0.00	0	1	2	1	0	0	0	0	0	0	0
11.25	1	1	1	1	0	0	1	0	0	0	0
33.75	0	2	2	1	0	0	0	0	0	0	0
56.25	0	1	2	1	1	1	0	0	0	0	0
78.75	0	2	1	0	0	0	0	0	0	0	0
101.25	0	1	0	0	0	0	0	0	0	0	0
123.75	0	2	2	3	1	0	0	0	0	0	0
146.25	1	5	5	1	1	0	0	0	0	0	0
168.75	1	1	2	4	4	0	0	0	0	0	0
191.25	0	1	2	5	3	3	0	0	0	0	0
213.75	3	0	3	1	0	1	0	0	0	0	0
236.25	2	1	0	1	0	2	2	0	0	0	0
258.75	2	0	1	0	0	2	0	0	0	0	0
281.25	0	1	1	1	0	0	1	0	1	0	0
303.75	0	0	1	0	1	0	0	4	1	0	0
326.25	1	0	1	2	1	0	0	0	0	0	0

Table 5-3 2nd Quarter Average, 33 Ft AGL (Continued)

NRC CATEGORY D

deg	MPH										
	>1.0	>2.2	>4.5	>6.7	>8.9	>11.2	>13.4	>17.9	>22.4	>29.1	>40.3
0.00	3	3	4	2	1	1	0	0	0	0	0
11.25	1	4	4	1	1	0	1	0	0	0	0
33.75	1	3	3	2	0	0	0	0	0	0	0
56.25	1	4	0	0	0	0	0	0	0	0	0
78.75	1	2	0	0	1	0	0	0	0	0	0
101.25	3	2	2	2	2	1	0	0	0	0	0
123.75	0	3	3	6	8	3	0	0	0	0	0
146.25	6	15	22	7	3	4	3	0	0	0	0
168.75	6	19	18	9	4	4	4	0	0	0	0
191.25	2	10	9	10	1	2	2	0	0	0	0
213.75	2	11	4	7	2	1	0	0	0	0	0
236.25	2	7	3	2	2	1	1	0	0	0	0
258.75	1	6	2	3	1	4	2	2	0	0	0
281.25	0	5	2	1	4	3	5	1	1	0	0
303.75	4	3	3	3	4	4	6	11	2	0	0
326.25	2	4	4	2	3	0	0	0	0	0	0

NRC CATEGORY E

deg	MPH										
	>1.0	>2.2	>4.5	>6.7	>8.9	>11.2	>13.4	>17.9	>22.4	>29.1	>40.3
0.00	3	6	11	4	2	0	0	0	0	0	0
11.25	2	11	5	2	0	3	0	0	0	0	0
33.75	1	3	5	0	0	1	2	0	0	0	0
56.25	2	2	1	0	0	0	0	0	0	0	0
78.75	2	1	0	0	0	0	0	0	0	0	0
101.25	0	2	1	0	0	0	0	0	0	0	0
123.75	0	1	0	4	2	2	0	0	0	0	0
146.25	6	4	10	10	3	7	2	0	0	0	0
168.75	2	15	11	6	4	1	1	0	0	0	0
191.25	3	7	2	1	0	2	0	1	0	0	0
213.75	3	7	8	3	2	2	0	0	0	0	0
236.25	1	7	4	5	3	1	0	0	0	0	0
258.75	1	3	0	2	4	1	1	0	0	1	0
281.25	4	6	4	8	12	7	3	0	0	0	0
303.75	4	8	15	10	15	6	5	0	0	0	0
326.25	5	8	14	4	0	0	0	0	0	0	0

NRC CATEGORY F

deg	MPH										
	>1.0	>2.2	>4.5	>6.7	>8.9	>11.2	>13.4	>17.9	>22.4	>29.1	>40.3
0.00	1	11	9	1	0	0	0	0	0	0	0
11.25	8	7	2	1	0	0	0	0	0	0	0
33.75	5	12	2	0	2	0	0	0	0	0	0
56.25	2	1	4	0	0	0	0	0	0	0	0
78.75	1	0	0	0	0	0	0	0	0	0	0
101.25	2	0	1	0	0	0	0	0	0	0	0
123.75	3	3	1	1	0	0	0	0	0	0	0
146.25	3	8	8	9	4	0	1	0	0	0	0
168.75	8	17	11	12	1	0	0	0	0	0	0
191.25	2	6	8	5	0	0	0	0	0	0	0
213.75	0	3	3	3	2	1	0	0	0	0	0
236.25	3	2	1	1	0	0	0	0	0	0	0
258.75	1	3	1	3	1	0	0	0	0	0	0
281.25	2	6	0	3	2	1	0	0	0	0	0
303.75	3	5	9	3	0	0	0	0	0	0	0
326.25	3	8	14	4	0	0	0	0	0	0	0

Table 5-3 2nd Quarter Average, 33 Ft AGL (Continued)

NRC CATEGORY G											
deg	MPH										
	>1.0	>2.2	>4.5	>6.7	>8.9	>11.2	>13.4	>17.9	>22.4	>29.1	>40.3
0.00	4	11	3	0	0	0	0	0	0	0	0
11.25	12	9	1	0	0	0	0	0	0	0	0
33.75	7	13	2	3	0	0	0	0	0	0	0
56.25	5	0	0	0	0	0	0	0	0	0	0
78.75	0	1	0	0	0	0	0	0	0	0	0
101.25	1	0	0	0	0	0	0	0	0	0	0
123.75	0	0	0	0	0	0	0	0	0	0	0
146.25	1	2	3	1	1	0	0	0	0	0	0
168.75	0	3	1	4	0	0	0	0	0	0	0
191.25	1	4	1	3	1	0	0	0	0	0	0
213.75	0	5	3	0	0	0	0	0	0	0	0
236.25	3	1	0	0	0	0	0	0	0	0	0
258.75	0	0	0	0	0	0	0	0	0	0	0
281.25	0	0	0	0	0	0	0	0	0	0	0
303.75	0	6	2	2	0	0	0	0	0	0	0
326.25	3	8	4	2	0	0	0	0	0	0	0

NRC CATEGORY	A	B	C	D	E	F	G
CALMS	28	6	7	20	17	33	21

Table 5-4 2nd Quarter Average, 245 Ft AGL

**JOINT FREQUENCY DISTRIBUTION FOR THE TIME PERIOD
FROM HOUR 00 ON 04/01/06 TO HOUR 23 ON 06/30/06**

The total hours are 2184, 2184 hours read and 0 missing.

NRC CATEGORY A

deg	MPH										
	>1.0	>2.2	>4.5	>6.7	>8.9	>11.2	>13.4	>17.9	>22.4	>29.1	>40.3
0.00	3	13	14	11	5	1	6	0	0	0	0
11.25	2	10	15	12	6	7	8	4	0	0	0
33.75	2	11	10	8	4	2	7	6	3	0	0
56.25	3	10	4	7	1	1	0	0	0	0	0
78.75	5	1	9	3	0	1	0	0	0	0	0
101.25	1	2	1	5	0	0	0	0	0	0	0
123.75	3	3	2	4	1	0	1	3	0	0	0
146.25	1	13	8	7	3	0	2	0	0	0	0
168.75	4	2	7	9	15	9	13	1	0	0	0
191.25	2	4	7	17	25	20	18	9	3	0	0
213.75	1	6	5	3	8	8	16	4	1	0	0
236.25	1	2	8	1	5	3	3	4	1	1	0
258.75	2	2	8	2	7	1	3	1	1	0	0
281.25	1	2	5	3	7	3	14	5	1	1	0
303.75	1	6	5	8	4	9	10	4	10	3	0
326.25	2	4	10	10	4	5	8	0	0	0	0

NRC CATEGORY B

deg	MPH										
	>1.0	>2.2	>4.5	>6.7	>8.9	>11.2	>13.4	>17.9	>22.4	>29.1	>40.3
0.00	0	1	1	0	1	1	1	0	0	0	0
11.25	0	3	6	0	2	0	1	1	0	0	0
33.75	0	1	4	2	0	1	0	0	0	0	0
56.25	0	3	0	0	0	0	0	0	0	0	0
78.75	0	1	2	2	0	0	0	0	0	0	0
101.25	0	0	2	1	0	2	1	0	0	0	0
123.75	0	1	3	0	1	0	1	0	0	0	0
146.25	0	4	1	3	1	0	0	0	0	0	0
168.75	0	2	2	0	1	2	2	0	0	0	0
191.25	2	0	0	0	1	1	5	1	0	0	0
213.75	0	2	1	0	0	1	2	1	0	0	0
236.25	0	0	0	2	0	0	0	3	0	0	0
258.75	0	0	1	1	1	0	0	0	2	0	0
281.25	0	1	0	0	0	1	0	1	0	0	0
303.75	0	0	0	0	0	0	1	1	0	1	0
326.25	0	0	0	0	0	0	2	0	1	0	0

NRC CATEGORY C

deg	MPH										
	>1.0	>2.2	>4.5	>6.7	>8.9	>11.2	>13.4	>17.9	>22.4	>29.1	>40.3
0.00	3	1	0	2	1	0	0	0	0	0	0
11.25	1	1	1	2	0	0	0	1	0	0	0
33.75	0	1	3	0	1	0	0	0	0	0	0
56.25	0	1	1	1	0	1	0	0	0	0	0
78.75	1	1	2	0	1	1	0	0	0	0	0
101.25	0	0	1	0	0	0	0	0	0	0	0
123.75	0	2	2	5	2	0	0	0	0	0	0
146.25	0	1	2	2	0	1	0	0	0	0	0
168.75	0	4	0	3	3	1	1	0	0	0	0
191.25	0	1	1	4	6	2	3	0	0	0	0
213.75	0	2	2	3	0	0	0	0	0	0	0
236.25	0	2	0	0	2	0	5	0	0	0	0
258.75	1	1	1	0	0	1	2	0	0	0	0
281.25	0	1	0	1	0	0	0	1	0	1	0
303.75	0	0	0	1	1	0	0	0	4	1	0
326.25	0	0	0	1	3	1	0	0	0	0	0

Table 5-4 2nd Quarter Average, 245 Ft AGL (Continued)

NRC CATEGORY D

deg	MPH										
	>1.0	>2.2	>4.5	>6.7	>8.9	>11.2	>13.4	>17.9	>22.4	>29.1	>40.3
0.00	2	1	2	1	5	0	1	0	0	0	0
11.25	1	2	4	4	3	0	1	0	1	0	0
33.75	3	2	1	2	2	1	0	0	0	0	0
56.25	2	2	1	1	0	0	0	0	0	0	0
78.75	0	2	1	0	0	1	0	0	0	0	0
101.25	0	3	1	1	2	2	0	0	0	0	0
123.75	0	2	2	7	5	4	4	0	0	0	0
146.25	4	8	15	9	1	3	5	1	0	0	0
168.75	2	10	17	14	8	4	5	2	0	0	0
191.25	0	10	6	14	9	2	4	2	0	0	0
213.75	0	7	3	5	3	2	2	1	0	0	0
236.25	1	7	5	4	5	0	3	0	0	0	0
258.75	2	5	3	4	1	2	3	3	2	0	0
281.25	0	2	1	0	4	3	1	9	3	1	0
303.75	1	1	8	0	1	4	5	9	11	3	0
326.25	2	3	3	3	0	3	1	0	0	0	0

NRC CATEGORY E

deg	MPH										
	>1.0	>2.2	>4.5	>6.7	>8.9	>11.2	>13.4	>17.9	>22.4	>29.1	>40.3
0.00	1	0	1	4	1	0	2	0	0	0	0
11.25	1	4	3	2	7	2	3	3	0	0	0
33.75	0	0	5	2	4	2	1	1	2	0	0
56.25	2	3	1	1	3	1	0	0	0	0	0
78.75	0	0	0	2	0	0	0	0	0	0	0
101.25	1	1	2	0	0	0	1	0	0	0	0
123.75	1	6	2	0	1	1	4	0	0	0	0
146.25	1	2	0	1	4	3	2	2	0	0	0
168.75	0	2	4	8	5	5	6	4	1	0	0
191.25	2	2	2	5	3	7	3	1	1	0	0
213.75	0	2	3	2	2	2	2	3	0	0	0
236.25	1	4	4	2	3	2	2	1	0	0	1
258.75	1	2	4	4	2	0	5	2	0	0	0
281.25	4	3	3	3	4	5	11	15	4	0	0
303.75	0	7	8	6	9	11	24	16	5	0	0
326.25	0	2	8	4	6	12	3	0	0	0	0

NRC CATEGORY F

deg	MPH										
	>1.0	>2.2	>4.5	>6.7	>8.9	>11.2	>13.4	>17.9	>22.4	>29.1	>40.3
0.00	1	5	4	5	0	2	0	0	0	0	0
11.25	2	3	4	4	1	1	0	0	0	0	0
33.75	0	3	1	3	0	0	2	2	1	0	0
56.25	2	2	2	2	1	1	1	0	0	0	0
78.75	1	6	0	0	0	0	0	0	0	0	0
101.25	0	0	0	1	0	0	0	0	0	0	0
123.75	2	3	2	3	3	0	3	0	0	0	0
146.25	3	6	4	6	2	2	6	0	0	0	0
168.75	0	4	6	4	1	6	7	0	0	0	0
191.25	1	2	3	4	5	4	4	0	0	0	0
213.75	5	6	2	1	2	3	1	1	0	0	0
236.25	4	4	2	3	1	0	0	0	0	0	0
258.75	2	4	1	2	0	1	0	0	0	0	0
281.25	1	2	5	2	2	1	7	8	0	0	0
303.75	2	2	4	0	2	9	11	1	1	0	0
326.25	3	6	4	6	7	6	4	0	0	0	0

Table 5-4 2nd Quarter Average, 245 Ft AGL

NRC CATEGORY G

deg	MPH										
	>1.0	>2.2	>4.5	>6.7	>8.9	>11.2	>13.4	>17.9	>22.4	>29.1	>40.3
0.00	0	5	6	7	0	1	1	0	0	0	0
11.25	1	5	4	4	1	2	0	0	0	0	0
33.75	0	3	2	0	0	0	0	1	0	0	0
56.25	1	5	1	2	2	0	0	3	0	0	0
78.75	1	4	1	0	0	0	0	0	0	0	0
101.25	0	1	0	0	0	0	0	0	0	0	0
123.75	0	1	2	1	0	0	0	0	0	0	0
146.25	1	2	5	3	0	1	3	0	0	0	0
168.75	0	2	8	5	1	0	1	0	0	0	0
191.25	1	4	0	1	1	2	0	0	0	0	0
213.75	1	1	1	1	0	0	2	0	0	0	0
236.25	0	1	1	2	0	0	0	0	0	0	0
258.75	0	0	2	0	0	0	0	0	0	0	0
281.25	0	0	0	1	0	0	0	0	0	0	0
303.75	2	2	0	2	1	5	3	1	0	0	0
326.25	1	3	3	6	4	1	0	0	0	0	0

NRC CATEGORY	A	B	C	D	E	F	G
CALMS	9	6	3	10	4	7	2

Table 5-5 3rd Quarter Average, 33 Ft AGL

**JOINT FREQUENCY DISTRIBUTION FOR THE TIME PERIOD
FROM HOUR 00 ON 07/01/06 TO HOUR 23 ON 09/30/06**

The total hours are 2208, 2180 hours read and 28 missing.

NRC CATEGORY A

deg	MPH										
	>1.0	>2.2	>4.5	>6.7	>8.9	>11.2	>13.4	>17.9	>22.4	>29.1	>40.3
0.00	0	0	0	3	0	1	0	0	0	0	0
11.25	0	7	7	6	4	1	0	0	0	0	0
33.75	0	2	3	2	1	1	0	0	0	0	0
56.25	0	1	1	0	0	0	0	0	0	0	0
78.75	0	0	0	1	0	0	0	0	0	0	0
101.25	0	0	1	0	0	0	0	0	0	0	0
123.75	0	0	0	0	0	0	0	0	0	0	0
146.25	0	0	0	0	0	0	0	0	0	0	0
168.75	0	0	0	0	1	3	5	0	0	0	0
191.25	0	0	0	0	0	1	3	0	0	0	0
213.75	0	0	0	0	0	0	0	0	0	0	0
236.25	0	0	0	0	0	0	0	0	0	0	0
258.75	0	0	0	0	0	0	0	0	0	0	0
281.25	0	0	0	0	0	1	0	0	0	0	0
303.75	0	0	0	0	0	0	0	0	0	0	0
326.25	0	0	0	0	0	0	0	0	0	0	0

NRC CATEGORY B

deg	MPH										
	>1.0	>2.2	>4.5	>6.7	>8.9	>11.2	>13.4	>17.9	>22.4	>29.1	>40.3
0.00	3	8	9	1	0	0	0	0	0	0	0
11.25	0	12	12	5	2	0	0	0	0	0	0
33.75	3	18	5	5	0	1	0	0	0	0	0
56.25	1	8	3	2	2	0	0	0	0	0	0
78.75	0	4	1	0	0	0	0	0	0	0	0
101.25	0	0	0	2	1	0	0	0	0	0	0
123.75	0	0	1	3	1	0	0	0	0	0	0
146.25	0	0	0	0	0	0	0	0	0	0	0
168.75	0	0	0	1	7	8	2	0	0	0	0
191.25	0	0	0	0	1	2	3	0	0	0	0
213.75	0	0	0	0	0	0	2	0	0	0	0
236.25	0	0	0	1	2	1	1	0	0	0	0
258.75	0	0	0	0	1	0	1	0	0	0	0
281.25	0	0	0	0	0	0	0	1	0	0	0
303.75	0	0	0	0	0	0	1	0	0	0	0
326.25	1	1	4	0	0	0	0	0	0	0	0

NRC CATEGORY C

deg	MPH										
	>1.0	>2.2	>4.5	>6.7	>8.9	>11.2	>13.4	>17.9	>22.4	>29.1	>40.3
0.00	3	9	4	0	0	0	0	0	0	0	0
11.25	7	2	2	0	1	0	0	0	0	0	0
33.75	5	12	5	3	0	0	0	0	0	0	0
56.25	8	11	4	5	1	0	0	0	0	0	0
78.75	1	10	4	1	1	0	0	0	0	0	0
101.25	2	7	1	3	0	0	0	0	0	0	0
123.75	0	5	7	4	2	0	0	0	0	0	0
146.25	0	0	4	2	3	1	0	0	0	0	0
168.75	0	4	3	11	9	4	0	0	0	0	0
191.25	0	2	0	6	3	3	2	0	0	0	0
213.75	0	2	1	0	1	0	0	0	0	0	0
236.25	1	2	3	2	0	0	1	0	0	0	0
258.75	3	1	1	1	0	1	0	1	0	0	0
281.25	1	0	1	0	0	0	0	0	0	0	0
303.75	1	1	0	0	1	1	1	2	1	0	0
326.25	2	1	3	1	0	0	0	0	0	0	0

Table 5-5 3rd Quarter Average, 33 Ft AGL (Continued)

NRC CATEGORY D

deg	MPH										
	>1.0	>2.2	>4.5	>6.7	>8.9	>11.2	>13.4	>17.9	>22.4	>29.1	>40.3
0.00	7	9	2	1	2	0	0	0	0	0	0
11.25	4	6	1	3	0	0	0	0	0	0	0
33.75	5	8	9	3	1	0	0	0	0	0	0
56.25	8	10	6	4	1	0	0	0	0	0	0
78.75	6	1	4	2	1	1	0	0	0	0	0
101.25	5	7	7	0	1	0	0	0	0	0	0
123.75	12	17	11	14	3	3	0	0	0	0	0
146.25	11	33	32	15	8	1	0	0	0	0	0
168.75	8	35	23	11	7	10	0	0	0	0	0
191.25	2	16	7	7	6	4	0	0	0	0	0
213.75	8	4	5	1	0	0	1	0	0	0	0
236.25	2	4	4	4	3	1	2	0	0	0	0
258.75	1	4	1	5	3	2	2	2	0	0	0
281.25	4	5	4	6	5	4	5	1	0	0	0
303.75	1	5	7	4	1	7	15	10	3	0	0
326.25	2	6	2	1	2	0	0	0	0	0	0

NRC CATEGORY E

deg	MPH										
	>1.0	>2.2	>4.5	>6.7	>8.9	>11.2	>13.4	>17.9	>22.4	>29.1	>40.3
0.00	2	4	2	0	0	0	0	0	0	0	0
11.25	6	3	0	0	0	0	0	0	0	0	0
33.75	1	6	2	1	0	0	0	0	0	0	0
56.25	3	2	1	0	0	0	0	0	0	0	0
78.75	2	1	0	0	0	0	0	0	0	0	0
101.25	0	2	0	0	0	0	0	0	0	0	0
123.75	0	2	5	8	2	0	0	0	0	0	0
146.25	3	3	13	16	6	0	3	0	0	0	0
168.75	4	15	2	8	8	6	1	0	0	0	0
191.25	2	6	4	2	0	1	0	0	0	0	0
213.75	0	6	2	0	0	0	0	0	0	0	0
236.25	5	6	2	1	1	0	0	0	0	0	0
258.75	2	4	9	4	1	1	0	0	0	0	0
281.25	2	4	11	17	7	11	7	1	0	0	0
303.75	2	4	7	21	15	15	12	1	0	0	0
326.25	2	6	10	4	0	1	1	0	0	0	0

NRC CATEGORY F

deg	MPH										
	>1.0	>2.2	>4.5	>6.7	>8.9	>11.2	>13.4	>17.9	>22.4	>29.1	>40.3
0.00	7	7	2	0	0	0	0	0	0	0	0
11.25	4	5	3	0	0	0	0	0	0	0	0
33.75	4	5	4	2	0	0	0	0	0	0	0
56.25	7	4	1	0	0	0	0	0	0	0	0
78.75	0	0	1	0	0	0	0	0	0	0	0
101.25	1	1	0	1	0	0	0	0	0	0	0
123.75	2	7	3	4	2	0	0	0	0	0	0
146.25	9	13	14	18	4	0	0	0	0	0	0
168.75	5	19	22	9	4	0	0	0	0	0	0
191.25	7	9	11	4	3	0	0	0	0	0	0
213.75	2	8	1	0	0	0	0	0	0	0	0
236.25	1	0	1	0	0	0	0	0	0	0	0
258.75	1	2	1	4	1	0	0	0	0	0	0
281.25	3	3	2	2	3	0	0	0	0	0	0
303.75	2	7	8	1	2	0	0	0	0	0	0
326.25	6	10	5	2	0	0	0	0	0	0	0

Table 5-5 3rd Quarter Average, 33 Ft AGL (Continued)

NRC CATEGORY	MPH											
	deg	>1.0	>2.2	>4.5	>6.7	>8.9	>11.2	>13.4	>17.9	>22.4	>29.1	>40.3
0.00	16	14	5	0	0	0	0	0	0	0	0	0
11.25	21	25	7	0	0	0	0	0	0	0	0	0
33.75	19	30	10	1	0	0	0	0	0	0	0	0
56.25	16	5	2	0	0	0	0	0	0	0	0	0
78.75	2	1	0	0	0	0	0	0	0	0	0	0
101.25	0	0	0	0	0	0	0	0	0	0	0	0
123.75	3	7	1	0	0	0	0	0	0	0	0	0
146.25	5	13	20	6	0	0	0	0	0	0	0	0
168.75	9	12	14	9	0	0	0	0	0	0	0	0
191.25	3	4	5	1	0	0	0	0	0	0	0	0
213.75	3	3	1	2	0	0	0	0	0	0	0	0
236.25	3	1	0	0	0	0	0	0	0	0	0	0
258.75	1	1	1	0	0	0	0	0	0	0	0	0
281.25	4	1	1	0	0	0	0	0	0	0	0	0
303.75	3	2	1	0	0	0	0	0	0	0	0	0
326.25	7	10	4	2	0	0	0	0	0	0	0	0

NRC CATEGORY	A	B	C	D	E	F	G
CALMS	0	1	2	37	23	24	72

Table 5-6 3rd Quarter Average, 245 Ft AGL

**JOINT FREQUENCY DISTRIBUTION FOR THE TIME PERIOD
FROM HOUR 00 ON 07/01/06 TO HOUR 23 ON 09/30/06**

The total hours are 2208, 2180 hours read and 28 missing.

NRC CATEGORY A

deg	MPH										
	>1.0	>2.2	>4.5	>6.7	>8.9	>11.2	>13.4	>17.9	>22.4	>29.1	>40.3
0.00	0	0	0	0	1	0	0	0	0	0	0
11.25	0	2	5	7	5	2	0	0	0	0	0
33.75	0	0	6	3	2	3	1	0	0	0	0
56.25	0	1	0	1	0	0	1	0	0	0	0
78.75	0	0	0	0	1	0	0	0	0	0	0
101.25	0	0	1	0	0	0	0	0	0	0	0
123.75	0	0	0	0	0	0	0	0	0	0	0
146.25	0	0	0	0	0	0	0	0	0	0	0
168.75	0	0	0	0	0	0	1	0	0	0	0
191.25	0	0	0	0	0	1	8	3	0	0	0
213.75	0	0	0	0	0	0	0	0	0	0	0
236.25	0	0	0	0	0	0	0	0	0	0	0
258.75	0	0	0	0	0	0	0	0	0	0	0
281.25	0	0	0	0	0	0	1	0	0	0	0
303.75	0	0	0	0	0	0	0	0	0	0	0
326.25	0	0	0	0	0	0	0	0	0	0	0

NRC CATEGORY B

deg	MPH										
	>1.0	>2.2	>4.5	>6.7	>8.9	>11.2	>13.4	>17.9	>22.4	>29.1	>40.3
0.00	2	4	7	5	0	0	0	0	0	0	0
11.25	0	7	10	9	5	0	0	0	0	0	0
33.75	0	12	12	5	2	1	0	0	0	0	0
56.25	0	7	4	4	1	2	0	0	0	0	0
78.75	1	3	4	0	2	0	0	0	0	0	0
101.25	0	0	0	0	0	0	0	0	0	0	0
123.75	0	0	0	3	1	2	0	0	0	0	0
146.25	0	0	0	1	1	0	0	0	0	0	0
168.75	0	0	0	0	2	4	1	0	0	0	0
191.25	0	0	0	0	0	4	11	0	0	0	0
213.75	0	0	0	0	0	1	1	2	0	0	0
236.25	0	0	0	0	2	0	1	0	0	0	0
258.75	0	0	0	0	2	0	2	0	0	0	0
281.25	0	0	0	0	0	0	0	0	0	0	0
303.75	0	0	0	0	0	0	1	1	0	0	0
326.25	1	1	0	0	0	0	0	0	0	0	0

NRC CATEGORY C

deg	MPH										
	>1.0	>2.2	>4.5	>6.7	>8.9	>11.2	>13.4	>17.9	>22.4	>29.1	>40.3
0.00	4	3	6	2	0	0	0	0	0	0	0
11.25	2	7	1	2	1	0	0	0	0	0	0
33.75	1	6	6	0	2	0	0	0	0	0	0
56.25	2	16	5	6	2	0	0	0	0	0	0
78.75	3	4	7	3	2	0	0	0	0	0	0
101.25	0	5	4	6	1	0	0	0	0	0	0
123.75	0	2	6	6	1	1	0	0	0	0	0
146.25	0	0	3	2	3	2	0	0	0	0	0
168.75	0	1	1	5	9	2	1	0	0	0	0
191.25	0	4	0	4	5	7	7	0	0	0	0
213.75	0	0	2	1	3	2	1	0	0	0	0
236.25	1	2	2	3	1	0	1	0	0	0	0
258.75	0	1	2	0	1	0	1	1	0	0	0
281.25	0	1	0	0	0	0	0	0	0	0	0
303.75	0	1	0	1	0	0	2	1	2	1	0
326.25	1	3	1	3	0	0	0	0	0	0	0

Table 5-6 3rd Quarter Average, 245 Ft AGL (Continued)

NRC CATEGORY D

deg	MPH										
	>1.0	>2.2	>4.5	>6.7	>8.9	>11.2	>13.4	>17.9	>22.4	>29.1	>40.3
0.00	1	8	5	1	1	3	0	0	0	0	0
11.25	6	5	2	1	0	2	0	0	0	0	0
33.75	4	6	4	2	2	0	0	0	0	0	0
56.25	13	5	10	8	3	1	0	0	0	0	0
78.75	2	3	1	6	2	0	2	0	0	0	0
101.25	6	8	4	4	1	2	0	0	0	0	0
123.75	5	15	13	12	10	1	1	0	0	0	0
146.25	2	23	21	18	5	1	2	0	0	0	0
168.75	6	16	26	19	7	6	7	1	0	0	0
191.25	2	22	17	10	8	4	9	0	0	0	0
213.75	2	6	4	5	4	2	1	1	0	0	0
236.25	0	3	2	4	0	0	2	2	0	0	0
258.75	3	5	3	3	4	2	4	3	1	0	0
281.25	2	5	1	6	5	1	4	1	1	0	0
303.75	4	1	3	9	2	1	5	11	17	5	0
326.25	3	7	3	2	3	1	3	3	1	0	0

NRC CATEGORY E

deg	MPH										
	>1.0	>2.2	>4.5	>6.7	>8.9	>11.2	>13.4	>17.9	>22.4	>29.1	>40.3
0.00	2	4	1	3	0	2	0	0	0	0	0
11.25	1	1	0	1	0	0	0	0	0	0	0
33.75	0	3	2	1	0	0	0	0	0	0	0
56.25	0	1	1	2	2	0	0	0	0	0	0
78.75	0	4	2	1	0	0	0	0	0	0	0
101.25	2	1	1	1	0	0	0	0	0	0	0
123.75	1	1	1	4	3	0	1	0	0	0	0
146.25	0	5	3	8	4	3	0	0	0	0	0
168.75	2	6	4	7	4	9	10	3	1	0	0
191.25	0	3	0	2	7	5	6	3	0	0	0
213.75	3	0	1	1	0	0	1	0	0	0	0
236.25	2	4	3	1	0	0	0	0	0	0	0
258.75	0	1	4	7	4	2	3	1	0	0	0
281.25	1	3	8	7	7	8	18	7	9	0	0
303.75	0	2	5	7	10	8	29	31	16	0	0
326.25	0	1	3	2	3	7	5	0	0	0	0

NRC CATEGORY F

deg	MPH										
	>1.0	>2.2	>4.5	>6.7	>8.9	>11.2	>13.4	>17.9	>22.4	>29.1	>40.3
0.00	1	0	6	1	1	0	2	0	0	0	0
11.25	0	1	4	0	1	0	1	0	0	0	0
33.75	1	2	5	1	2	0	0	0	0	0	0
56.25	0	1	2	2	1	3	0	0	0	0	0
78.75	0	3	0	0	1	0	0	0	0	0	0
101.25	1	3	0	0	0	0	0	0	0	0	0
123.75	3	1	4	3	3	1	0	0	0	0	0
146.25	1	5	12	12	11	3	0	0	0	0	0
168.75	1	4	10	10	16	6	5	0	0	0	0
191.25	2	6	8	7	3	4	8	1	0	0	0
213.75	1	6	1	0	2	0	3	0	0	0	0
236.25	2	8	5	3	0	0	0	0	0	0	0
258.75	3	2	2	4	0	0	1	0	0	0	0
281.25	0	5	2	4	2	2	7	4	1	0	0
303.75	2	3	8	6	3	10	4	4	2	0	0
326.25	1	3	2	4	4	2	1	0	0	0	0

Table 5-6 3rd Quarter Average, 245 Ft AGL (Continued)

NRC CATEGORY G											
deg	MPH										
	>1.0	>2.2	>4.5	>6.7	>8.9	>11.2	>13.4	>17.9	>22.4	>29.1	>40.3
0.00	1	11	11	6	7	1	2	0	0	0	0
11.25	1	7	8	3	0	0	0	0	0	0	0
33.75	3	12	12	10	3	1	0	0	0	0	0
56.25	3	9	12	5	3	1	0	0	0	0	0
78.75	5	8	0	0	0	0	0	0	0	0	0
101.25	5	8	0	0	0	0	0	0	0	0	0
123.75	2	7	2	0	0	0	0	0	0	0	0
146.25	0	7	8	15	9	0	1	0	0	0	0
168.75	2	18	22	19	8	4	0	0	0	0	0
191.25	2	6	10	3	4	2	0	0	0	0	0
213.75	2	6	1	2	3	1	2	1	0	0	0
236.25	3	4	5	0	0	0	0	0	0	0	0
258.75	6	6	1	0	1	0	1	0	0	0	0
281.25	4	5	1	0	1	0	1	0	0	0	0
303.75	2	0	1	2	2	2	1	0	0	0	0
326.25	2	4	6	4	7	1	0	0	0	0	0

NRC CATEGORY	A	B	C	D	E	F	G
CALMS	0	1	3	16	6	5	9

Table 5-7 4th Quarter Average, 33 Ft AGL

**JOINT FREQUENCY DISTRIBUTION FOR THE TIME PERIOD
FROM HOUR 00 ON 10/01/06 TO HOUR 23 ON 12/31/06**

The total hours are 2208, 2136 hours read and 72 missing.

NRC CATEGORY A

deg	MPH										
	>1.0	>2.2	>4.5	>6.7	>8.9	>11.2	>13.4	>17.9	>22.4	>29.1	>40.3
0.00	0	0	1	0	1	0	0	0	0	0	0
11.25	0	1	1	0	0	1	1	0	0	0	0
33.75	1	0	0	0	0	0	0	0	0	0	0
56.25	0	0	0	0	0	0	0	0	0	0	0
78.75	0	0	0	0	0	0	0	0	0	0	0
101.25	0	0	0	0	0	0	0	0	0	0	0
123.75	0	0	0	0	0	0	0	0	0	0	0
146.25	0	0	0	0	0	0	0	0	0	0	0
168.75	0	0	0	0	0	0	0	0	0	0	0
191.25	0	0	0	0	0	0	0	0	0	0	0
213.75	0	0	0	0	0	0	0	0	0	0	0
236.25	0	0	0	0	0	0	0	0	0	0	0
258.75	0	0	0	0	0	0	0	0	0	0	0
281.25	0	0	0	0	0	0	0	0	0	0	0
303.75	0	0	0	0	0	0	0	0	0	0	0
326.25	0	0	0	0	0	0	0	1	0	0	0

NRC CATEGORY B

deg	MPH										
	>1.0	>2.2	>4.5	>6.7	>8.9	>11.2	>13.4	>17.9	>22.4	>29.1	>40.3
0.00	2	1	1	3	2	1	0	0	0	0	0
11.25	1	1	3	0	1	1	1	0	0	0	0
33.75	1	0	0	0	0	0	0	0	0	0	0
56.25	3	0	1	0	0	0	0	0	0	0	0
78.75	1	0	0	0	0	0	0	0	0	0	0
101.25	0	0	0	0	0	0	0	0	0	0	0
123.75	0	0	0	0	0	0	0	0	0	0	0
146.25	0	0	0	0	0	0	0	0	0	0	0
168.75	0	0	0	0	0	1	0	0	0	0	0
191.25	0	0	0	0	0	2	0	0	0	0	0
213.75	0	0	0	0	0	0	0	0	0	0	0
236.25	0	0	0	0	0	0	0	0	0	0	0
258.75	0	0	0	0	0	0	0	0	0	0	0
281.25	0	0	0	0	0	0	0	0	0	0	0
303.75	0	0	0	0	0	0	0	1	0	0	0
326.25	0	1	1	0	0	0	0	0	0	0	0

NRC CATEGORY C

deg	MPH										
	>1.0	>2.2	>4.5	>6.7	>8.9	>11.2	>13.4	>17.9	>22.4	>29.1	>40.3
0.00	3	4	1	3	1	1	0	0	0	0	0
11.25	4	5	2	3	2	0	1	0	0	0	0
33.75	2	3	1	0	0	0	0	0	0	0	0
56.25	5	1	0	0	0	0	0	0	0	0	0
78.75	2	1	0	0	0	0	0	0	0	0	0
101.25	1	0	0	0	0	0	0	0	0	0	0
123.75	0	0	0	0	0	0	0	0	0	0	0
146.25	0	0	0	0	0	0	0	0	0	0	0
168.75	0	0	1	0	2	0	1	0	0	0	0
191.25	0	0	1	0	3	2	3	0	0	0	0
213.75	1	0	1	0	0	1	0	0	0	0	0
236.25	0	0	0	0	1	0	0	0	0	0	0
258.75	0	3	0	0	0	0	0	0	0	0	0
281.25	1	1	1	0	0	0	0	0	0	0	0
303.75	0	2	0	0	0	0	0	0	1	0	0
326.25	1	1	1	1	1	0	0	0	0	0	0

Table 5-7 4th Quarter Average, 33 Ft AGL (Continued)

NRC CATEGORY D

deg	MPH										
	>1.0	>2.2	>4.5	>6.7	>8.9	>11.2	>13.4	>17.9	>22.4	>29.1	>40.3
0.00	9	15	14	11	7	2	0	0	0	0	0
11.25	2	8	3	5	0	1	0	0	0	0	0
33.75	3	8	4	5	0	0	0	0	0	0	0
56.25	5	3	5	1	1	0	0	0	0	0	0
78.75	3	1	0	0	0	0	0	0	0	0	0
101.25	1	1	0	0	0	0	0	0	0	0	0
123.75	6	1	1	0	0	0	0	0	0	0	0
146.25	8	15	13	10	5	3	4	0	0	0	0
168.75	10	23	19	18	10	9	7	0	0	0	0
191.25	10	14	12	11	13	13	10	6	4	0	0
213.75	4	13	2	3	4	2	13	4	8	2	1
236.25	6	6	1	0	5	3	0	1	7	0	0
258.75	4	7	4	4	2	0	1	3	1	0	0
281.25	3	11	7	0	0	0	0	0	0	0	0
303.75	7	21	13	11	6	2	3	1	1	0	0
326.25	7	31	36	16	4	1	0	0	0	0	0

NRC CATEGORY E

deg	MPH										
	>1.0	>2.2	>4.5	>6.7	>8.9	>11.2	>13.4	>17.9	>22.4	>29.1	>40.3
0.00	4	13	3	1	3	0	0	0	0	0	0
11.25	2	8	2	0	0	0	0	0	0	0	0
33.75	2	4	1	0	0	0	0	0	0	0	0
56.25	2	1	0	0	0	0	0	0	0	0	0
78.75	1	0	0	0	0	0	0	0	0	0	0
101.25	1	0	0	0	0	0	0	0	0	0	0
123.75	2	1	3	0	2	0	0	0	0	0	0
146.25	3	9	13	14	3	6	2	0	0	0	0
168.75	3	18	32	19	15	6	8	0	0	0	0
191.25	7	16	8	5	8	9	25	7	2	0	0
213.75	10	17	8	7	7	4	8	5	8	1	0
236.25	6	12	6	3	0	0	1	1	2	0	0
258.75	8	10	3	2	1	1	0	0	0	0	0
281.25	7	11	7	6	3	7	1	0	0	0	0
303.75	8	18	9	15	9	5	1	0	0	0	0
326.25	8	20	23	6	1	0	0	0	0	0	0

NRC CATEGORY F

deg	MPH										
	>1.0	>2.2	>4.5	>6.7	>8.9	>11.2	>13.4	>17.9	>22.4	>29.1	>40.3
0.00	8	8	3	1	0	0	0	0	0	0	0
11.25	7	4	0	0	0	0	0	0	0	0	0
33.75	4	11	2	0	0	0	0	0	0	0	0
56.25	2	2	0	0	0	0	0	0	0	0	0
78.75	3	0	0	0	0	0	0	0	0	0	0
101.25	2	0	0	0	0	0	0	0	0	0	0
123.75	0	4	0	0	1	0	0	0	0	0	0
146.25	1	9	11	16	7	1	0	0	0	0	0
168.75	4	14	20	29	15	2	5	0	0	0	0
191.25	7	12	10	8	4	5	4	0	0	0	0
213.75	4	12	9	3	1	1	2	0	0	0	0
236.25	3	4	6	0	1	0	0	0	0	0	0
258.75	1	5	4	2	1	0	0	0	0	0	0
281.25	3	2	2	3	4	1	0	0	0	0	0
303.75	7	9	5	11	1	0	0	0	0	0	0
326.25	6	16	9	5	0	1	0	0	0	0	0

Table 5-7 4th Quarter Average, 33 Ft AGL (Continued)

deg	NRC CATEGORY G										
	MPH										
	>1.0	>2.2	>4.5	>6.7	>8.9	>11.2	>13.4	>17.9	>22.4	>29.1	>40.3
0.00	10	7	0	0	0	0	0	0	0	0	0
11.25	8	8	1	0	0	0	0	0	0	0	0
33.75	4	19	2	0	0	0	0	0	0	0	0
56.25	4	3	0	0	0	0	0	0	0	0	0
78.75	0	0	0	0	0	0	0	0	0	0	0
101.25	0	0	0	0	0	0	0	0	0	0	0
123.75	1	0	0	0	0	0	0	0	0	0	0
146.25	3	3	1	3	2	0	0	0	0	0	0
168.75	2	5	7	2	5	1	2	0	0	0	0
191.25	1	3	5	0	1	0	0	0	0	0	0
213.75	4	7	0	0	1	0	0	0	0	0	0
236.25	2	6	0	1	0	0	0	0	0	0	0
258.75	4	5	1	0	0	0	0	0	0	0	0
281.25	5	2	0	0	0	0	0	0	0	0	0
303.75	7	9	2	0	0	0	0	0	0	0	0
326.25	4	19	6	0	0	0	0	0	0	0	0

NRC CATEGORY	A	B	C	D	E	F	G
CALMS	0	0	9	56	48	36	29

Table 5-8 4th Quarter Average, 245 Ft AGL

**JOINT FREQUENCY DISTRIBUTION FOR THE TIME PERIOD
FROM HOUR 00 ON 10/01/06 TO HOUR 23 ON 12/31/06**

The total hours are 2208, 2136 hours read and 72 missing.

NRC CATEGORY A

deg	MPH										
	>1.0	>2.2	>4.5	>6.7	>8.9	>11.2	>13.4	>17.9	>22.4	>29.1	>40.3
0.00	0	0	0	0	0	0	0	0	0	0	0
11.25	0	0	0	0	0	0	0	1	0	0	0
33.75	0	0	0	0	0	0	0	0	0	0	0
56.25	0	0	1	0	0	0	1	0	0	0	0
78.75	0	0	0	1	0	0	0	0	0	0	0
101.25	0	0	0	0	0	0	0	0	0	0	0
123.75	0	0	0	0	0	0	0	0	0	0	0
146.25	0	1	0	0	0	0	0	0	0	0	0
168.75	0	0	0	0	0	0	0	0	0	0	0
191.25	0	0	0	0	0	0	0	0	0	0	0
213.75	0	0	0	0	1	0	0	0	0	0	0
236.25	0	0	0	0	0	0	0	0	0	0	0
258.75	0	0	0	0	0	1	0	0	0	0	0
281.25	0	0	0	0	0	0	0	0	0	0	0
303.75	0	0	0	0	0	0	0	0	0	0	0
326.25	0	0	0	0	0	0	0	0	1	0	0

NRC CATEGORY B

deg	MPH										
	>1.0	>2.2	>4.5	>6.7	>8.9	>11.2	>13.4	>17.9	>22.4	>29.1	>40.3
0.00	0	0	0	0	0	0	0	0	0	0	0
11.25	0	0	0	0	0	0	1	0	0	0	0
33.75	0	0	0	2	0	0	0	0	0	0	0
56.25	0	2	0	0	0	0	0	0	0	0	0
78.75	1	1	0	0	0	0	1	0	0	0	0
101.25	0	1	2	0	0	0	0	0	0	0	0
123.75	0	0	0	0	0	0	0	0	0	0	0
146.25	0	1	0	1	0	0	1	0	0	0	0
168.75	0	1	0	0	0	0	3	0	0	0	0
191.25	1	0	0	0	0	0	1	0	0	0	0
213.75	1	0	0	1	1	0	0	0	0	0	0
236.25	0	0	0	0	0	0	0	0	0	0	0
258.75	0	0	1	1	1	0	1	0	0	0	0
281.25	0	0	0	0	0	0	1	0	0	0	0
303.75	0	0	0	0	0	1	0	0	1	0	0
326.25	0	0	0	0	0	0	0	0	0	0	0

NRC CATEGORY C

deg	MPH										
	>1.0	>2.2	>4.5	>6.7	>8.9	>11.2	>13.4	>17.9	>22.4	>29.1	>40.3
0.00	1	1	0	0	0	0	0	0	0	0	0
11.25	0	0	0	2	1	0	1	1	0	0	0
33.75	1	1	1	2	0	0	0	0	0	0	0
56.25	0	1	3	1	0	0	0	0	0	0	0
78.75	2	2	0	0	0	0	0	0	0	0	0
101.25	1	3	0	0	0	0	0	0	0	0	0
123.75	3	1	1	0	1	0	1	0	0	0	0
146.25	1	3	1	0	0	0	0	0	0	0	0
168.75	2	2	2	1	1	2	1	0	0	0	0
191.25	1	0	2	0	0	0	5	1	0	0	0
213.75	0	2	0	3	1	0	2	0	0	0	0
236.25	0	1	3	0	0	0	1	0	0	0	0
258.75	1	3	1	0	0	0	0	0	0	0	0
281.25	0	0	2	2	3	0	0	0	0	0	0
303.75	0	0	0	0	0	1	1	0	0	1	0
326.25	0	0	0	0	0	0	0	0	0	0	0

Table 5-8 4th Quarter Average, 245 Ft AGL (Continued)

NRC CATEGORY D

deg	MPH										
	>1.0	>2.2	>4.5	>6.7	>8.9	>11.2	>13.4	>17.9	>22.4	>29.1	>40.3
0.00	5	11	12	6	6	3	5	0	0	0	0
11.25	3	13	4	4	4	2	1	0	0	0	0
33.75	1	4	5	3	3	1	0	0	0	0	0
56.25	3	3	5	1	1	2	0	0	0	0	0
78.75	3	5	1	0	1	0	0	0	0	0	0
101.25	4	3	0	0	0	0	0	0	0	0	0
123.75	6	4	3	3	2	0	0	0	0	0	0
146.25	4	11	8	7	4	2	5	2	2	0	0
168.75	3	23	19	21	18	4	13	9	0	0	0
191.25	3	11	10	9	7	6	20	13	6	3	0
213.75	3	5	8	1	5	2	5	9	12	9	3
236.25	5	12	3	4	1	1	6	1	1	8	0
258.75	0	1	7	3	1	1	2	1	2	2	0
281.25	3	6	6	2	6	1	1	0	1	0	0
303.75	0	10	11	12	9	11	10	3	2	1	0
326.25	6	13	16	10	17	13	5	0	0	0	0

NRC CATEGORY E

deg	MPH										
	>1.0	>2.2	>4.5	>6.7	>8.9	>11.2	>13.4	>17.9	>22.4	>29.1	>40.3
0.00	3	6	8	5	1	2	1	0	0	0	0
11.25	2	6	3	4	1	0	1	0	0	0	0
33.75	0	4	6	7	1	1	0	0	0	0	0
56.25	2	1	2	1	0	0	0	0	0	0	0
78.75	0	0	0	0	1	0	0	0	0	0	0
101.25	3	4	0	1	0	0	0	0	0	0	0
123.75	1	3	2	2	2	4	4	0	0	0	0
146.25	3	9	6	8	7	2	8	3	2	0	0
168.75	4	15	8	8	10	11	14	19	7	0	0
191.25	1	19	7	6	4	8	12	14	20	1	0
213.75	3	9	6	9	7	6	12	8	16	10	1
236.25	4	2	3	5	2	3	3	1	0	4	0
258.75	1	3	6	4	1	2	2	0	2	0	0
281.25	5	3	8	4	5	4	8	8	6	0	0
303.75	0	6	7	2	7	3	10	17	4	0	0
326.25	3	4	15	8	6	9	8	0	0	0	0

NRC CATEGORY F

deg	MPH										
	>1.0	>2.2	>4.5	>6.7	>8.9	>11.2	>13.4	>17.9	>22.4	>29.1	>40.3
0.00	0	2	3	1	0	0	2	0	0	0	0
11.25	1	4	5	2	1	0	0	0	0	0	0
33.75	2	4	5	6	1	0	0	0	0	0	0
56.25	2	1	3	2	1	1	0	0	0	0	0
78.75	2	2	0	2	0	0	0	0	0	0	0
101.25	2	4	2	0	0	0	0	0	0	0	0
123.75	1	5	6	2	6	1	1	0	0	0	0
146.25	1	6	6	7	11	10	15	1	0	0	0
168.75	2	8	9	10	16	11	17	4	2	0	0
191.25	0	4	4	6	9	9	8	5	4	0	0
213.75	2	3	4	5	3	2	6	4	5	0	0
236.25	1	3	8	1	4	0	1	0	0	0	0
258.75	2	3	1	2	2	1	0	0	0	0	0
281.25	1	4	4	2	1	2	7	1	0	0	0
303.75	0	4	4	4	1	3	9	9	2	0	0
326.25	0	1	5	4	6	6	5	0	1	0	0

Table 5-8 4th Quarter Average, 245 Ft AGL (Continued)

NRC CATEGORY G

deg	MPH										
	>1.0	>2.2	>4.5	>6.7	>8.9	>11.2	>13.4	>17.9	>22.4	>29.1	>40.3
0.00	0	1	2	1	0	0	1	0	0	0	0
11.25	0	1	2	1	0	0	0	0	0	0	0
33.75	1	3	2	2	0	0	0	0	0	0	0
56.25	0	5	3	2	4	1	0	0	0	0	0
78.75	1	6	3	0	0	0	0	0	0	0	0
101.25	2	11	1	1	0	0	0	0	0	0	0
123.75	4	3	5	3	1	1	0	0	0	0	0
146.25	2	5	5	4	2	4	2	0	0	0	0
168.75	0	6	8	7	2	0	6	0	0	0	0
191.25	1	5	5	5	1	3	1	2	3	0	0
213.75	3	4	3	0	1	1	1	0	0	0	0
236.25	1	9	5	3	0	0	1	0	0	0	0
258.75	0	1	3	0	2	0	0	0	0	0	0
281.25	1	0	1	1	0	0	1	0	0	0	0
303.75	0	4	2	3	2	1	1	0	0	0	0
326.25	0	0	1	6	5	3	2	0	0	0	0

NRC CATEGORY	A	B	C	D	E	F	G
CALMS	0	0	1	33	12	7	2

Table 5-9 Year 2006, 33 Ft AGL

**JOINT FREQUENCY DISTRIBUTION FOR THE TIME PERIOD
FROM HOUR 00 ON 01/01/06 TO HOUR 23 ON 12/31/06**

The total hours are 8760, 8622 hours read and 138 missing.

NRC CATEGORY A

deg	MPH										
	>1.0	>2.2	>4.5	>6.7	>8.9	>11.2	>13.4	>17.9	>22.4	>29.1	>40.3
0.00	9	28	20	25	15	7	0	0	0	0	0
11.25	8	24	25	22	13	10	8	1	0	0	0
33.75	9	21	18	9	5	4	9	3	1	0	0
56.25	3	11	12	7	2	1	0	0	0	0	0
78.75	3	2	3	1	0	0	0	0	0	0	0
101.25	4	5	5	0	0	0	0	0	0	0	0
123.75	1	3	5	4	2	0	3	0	0	0	0
146.25	8	14	18	13	4	4	5	2	0	0	0
168.75	3	13	39	20	24	12	9	4	0	0	0
191.25	6	16	22	21	30	29	16	8	1	0	0
213.75	3	6	8	11	15	16	19	6	1	0	0
236.25	5	8	7	6	7	6	6	3	4	0	0
258.75	5	16	4	9	2	3	6	2	2	0	0
281.25	4	8	2	6	10	10	7	1	0	1	0
303.75	2	14	16	9	9	5	5	10	3	0	0
326.25	10	20	25	24	12	11	0	1	0	0	0

NRC CATEGORY B

deg	MPH										
	>1.0	>2.2	>4.5	>6.7	>8.9	>11.2	>13.4	>17.9	>22.4	>29.1	>40.3
0.00	5	10	11	5	2	3	3	0	0	0	0
11.25	1	22	18	7	3	2	6	3	0	0	0
33.75	4	24	8	5	1	1	0	0	0	0	0
56.25	4	11	4	3	2	0	0	0	0	0	0
78.75	1	7	3	0	0	0	0	0	0	0	0
101.25	0	0	2	2	3	0	1	0	0	0	0
123.75	0	3	2	4	1	1	1	0	0	0	0
146.25	0	4	4	4	0	0	0	0	0	0	0
168.75	0	3	2	1	11	12	3	0	0	0	0
191.25	1	0	0	1	6	6	6	0	0	0	0
213.75	0	2	1	0	0	2	3	1	0	0	0
236.25	0	1	2	1	3	1	5	0	0	0	0
258.75	1	0	1	0	1	0	2	0	1	0	0
281.25	1	0	1	0	1	0	1	1	0	0	0
303.75	1	1	0	1	0	1	1	2	1	0	0
326.25	1	4	8	0	2	2	0	1	0	0	0

NRC CATEGORY C

deg	MPH										
	>1.0	>2.2	>4.5	>6.7	>8.9	>11.2	>13.4	>17.9	>22.4	>29.1	>40.3
0.00	8	16	9	9	4	5	2	0	0	0	0
11.25	14	10	6	7	3	1	7	0	1	0	0
33.75	7	17	9	4	0	0	0	0	0	0	0
56.25	13	13	6	6	2	1	0	0	0	0	0
78.75	3	13	5	1	1	0	0	0	0	0	0
101.25	3	8	1	3	0	0	0	0	0	0	0
123.75	0	7	9	7	3	0	0	0	0	0	0
146.25	1	5	9	4	4	1	2	0	0	0	0
168.75	1	5	6	15	16	4	2	0	0	0	0
191.25	1	3	3	11	12	8	7	0	0	0	0
213.75	4	4	5	1	3	3	3	1	3	1	0
236.25	3	3	3	3	1	2	5	0	1	1	0
258.75	5	4	2	1	1	3	2	1	0	0	0
281.25	2	2	3	1	0	0	1	0	1	0	0
303.75	1	3	2	0	3	1	1	6	3	0	0
326.25	6	4	6	6	3	1	0	0	0	0	0

Table 5-9 Year 2006, 33 Ft AGL (Continued)

NRC CATEGORY D

deg	MPH										
	>1.0	>2.2	>4.5	>6.7	>8.9	>11.2	>13.4	>17.9	>22.4	>29.1	>40.3
0.00	23	44	25	22	14	5	1	0	0	0	0
11.25	9	27	14	13	2	6	4	7	2	0	0
33.75	13	24	18	13	2	0	0	1	4	0	0
56.25	15	20	14	5	2	0	0	0	0	0	0
78.75	11	4	4	2	2	1	0	0	0	0	0
101.25	10	10	9	2	3	1	0	0	0	0	0
123.75	18	25	18	22	11	7	1	0	0	0	0
146.25	26	66	79	41	22	12	8	2	0	1	0
168.75	28	86	67	52	28	25	15	0	0	0	0
191.25	18	48	30	36	32	21	18	9	4	0	0
213.75	15	31	13	19	14	8	31	12	22	4	1
236.25	13	18	9	11	12	7	9	5	11	0	0
258.75	6	19	10	15	8	8	6	8	1	0	0
281.25	11	27	15	9	13	8	10	2	1	0	0
303.75	16	37	32	23	14	14	27	22	6	0	0
326.25	16	57	67	32	15	2	0	0	0	0	0

NRC CATEGORY E

deg	MPH										
	>1.0	>2.2	>4.5	>6.7	>8.9	>11.2	>13.4	>17.9	>22.4	>29.1	>40.3
0.00	16	44	28	11	7	0	0	0	0	0	0
11.25	16	31	11	3	0	4	0	0	0	0	0
33.75	9	19	10	2	0	1	3	0	0	0	0
56.25	10	8	2	0	1	0	0	0	0	0	0
78.75	5	4	0	0	0	0	0	0	0	0	0
101.25	2	5	1	0	0	0	0	0	0	0	0
123.75	2	6	10	14	7	6	1	0	0	0	0
146.25	16	22	42	52	21	20	12	0	0	0	0
168.75	14	58	53	54	44	25	15	3	0	0	0
191.25	12	38	18	22	14	18	39	16	2	0	0
213.75	16	36	24	13	17	23	32	18	13	2	0
236.25	15	34	19	12	8	5	7	6	3	0	0
258.75	15	24	18	11	7	3	2	0	0	1	0
281.25	16	23	26	36	25	28	11	2	0	0	0
303.75	22	49	43	55	53	28	20	1	0	0	0
326.25	24	57	61	22	13	1	1	0	0	0	0

NRC CATEGORY F

deg	MPH										
	>1.0	>2.2	>4.5	>6.7	>8.9	>11.2	>13.4	>17.9	>22.4	>29.1	>40.3
0.00	17	45	30	5	0	0	0	0	0	0	0
11.25	26	30	11	2	0	0	0	0	0	0	0
33.75	17	31	10	2	2	0	0	0	0	0	0
56.25	11	8	6	0	0	0	0	0	0	0	0
78.75	4	0	1	0	0	1	0	0	0	0	0
101.25	5	2	1	1	0	0	0	0	0	0	0
123.75	7	14	4	5	3	0	0	0	0	0	0
146.25	15	36	42	50	19	4	1	0	0	0	0
168.75	23	58	60	64	32	9	11	0	0	0	0
191.25	17	31	30	21	12	6	5	2	0	0	0
213.75	10	30	14	7	4	4	3	0	0	0	0
236.25	8	10	10	2	1	0	1	0	0	0	0
258.75	8	11	12	9	3	0	0	0	0	0	0
281.25	9	12	5	11	13	2	2	0	0	0	0
303.75	17	30	36	25	8	1	0	0	0	0	0
326.25	20	58	46	25	3	1	0	0	0	0	0

Table 5-9 Year 2006, 33 Ft AGL (Continued)

NRC CATEGORY G											
deg	MPH										
	>1.0	>2.2	>4.5	>6.7	>8.9	>11.2	>13.4	>17.9	>22.4	>29.1	>40.3
0.00	31	41	19	2	0	0	0	0	0	0	0
11.25	42	45	9	0	0	0	0	0	0	0	0
33.75	31	65	15	4	0	0	0	0	0	0	0
56.25	25	8	3	1	0	0	0	0	0	0	0
78.75	2	2	0	0	0	0	0	0	0	0	0
101.25	1	0	0	0	0	0	0	0	0	0	0
123.75	4	7	1	0	0	0	0	0	0	0	0
146.25	9	19	25	12	3	1	3	0	0	0	0
168.75	12	23	23	18	7	1	2	0	0	0	0
191.25	5	13	14	5	2	1	0	0	0	0	0
213.75	7	16	5	3	2	1	0	0	0	0	0
236.25	11	8	0	1	0	0	0	0	0	0	0
258.75	5	7	2	0	1	1	0	0	0	0	0
281.25	9	7	3	1	0	0	0	0	0	0	0
303.75	12	24	11	5	0	0	0	0	0	0	0
326.25	16	45	23	13	0	0	0	0	0	0	0

NRC CATEGORY	A	B	C	D	E	F	G
CALMS	31	8	20	126	104	116	132

Table 5-10 Year 2006, 245 Ft AGL

**JOINT FREQUENCY DISTRIBUTION FOR THE TIME PERIOD
FROM HOUR 00 ON 01/01/06 TO HOUR 23 ON 12/31/06**

The total hours are 8760, 8622 hours read and 138 missing.

NRC CATEGORY A

deg	MPH										
	>1.0	>2.2	>4.5	>6.7	>8.9	>11.2	>13.4	>17.9	>22.4	>29.1	>40.3
0.00	4	16	19	15	15	4	7	0	0	0	0
11.25	2	12	21	19	16	10	9	6	1	0	0
33.75	4	12	16	12	6	8	9	9	3	0	0
56.25	3	11	6	8	2	2	5	1	0	0	0
78.75	6	1	9	4	1	1	0	1	0	0	0
101.25	2	2	3	7	0	0	1	0	0	0	0
123.75	3	5	3	7	9	1	4	4	0	0	0
146.25	2	14	16	14	7	1	6	1	4	0	0
168.75	4	3	14	18	21	16	20	1	3	2	0
191.25	2	5	12	25	35	31	44	23	10	0	0
213.75	2	7	10	6	12	10	22	14	4	1	0
236.25	2	9	11	2	5	3	6	6	3	7	0
258.75	2	4	12	3	9	3	6	1	1	0	0
281.25	1	6	7	4	10	6	18	8	3	1	0
303.75	1	9	8	11	15	12	13	6	10	3	0
326.25	2	16	13	16	19	17	19	0	1	0	0

NRC CATEGORY B

deg	MPH										
	>1.0	>2.2	>4.5	>6.7	>8.9	>11.2	>13.4	>17.9	>22.4	>29.1	>40.3
0.00	3	7	11	6	1	1	3	0	0	0	0
11.25	0	11	17	9	7	0	3	2	0	0	0
33.75	0	14	16	10	2	2	0	3	1	0	0
56.25	0	12	4	4	1	2	1	0	0	0	0
78.75	2	5	6	2	2	0	1	0	0	0	0
101.25	1	1	4	1	0	2	1	0	0	0	0
123.75	0	1	3	3	3	3	1	1	0	0	0
146.25	0	5	1	5	2	0	2	0	0	0	0
168.75	0	3	2	0	3	6	6	0	0	0	0
191.25	3	1	0	0	1	7	17	1	0	0	0
213.75	1	2	1	1	1	3	3	4	1	0	0
236.25	0	0	0	2	2	0	2	3	0	0	0
258.75	0	0	2	2	5	0	3	0	2	0	0
281.25	0	1	0	0	0	1	1	1	0	0	0
303.75	1	0	0	0	1	2	2	2	1	1	0
326.25	1	1	0	0	0	2	2	0	1	0	0

NRC CATEGORY C

deg	MPH										
	>1.0	>2.2	>4.5	>6.7	>8.9	>11.2	>13.4	>17.9	>22.4	>29.1	>40.3
0.00	8	7	9	10	2	0	1	0	0	0	0
11.25	4	8	2	10	5	5	5	2	0	0	0
33.75	2	8	11	3	3	0	0	1	1	0	0
56.25	2	20	9	8	2	1	2	0	0	0	0
78.75	6	7	9	3	3	1	0	0	0	0	0
101.25	1	9	5	6	1	0	0	0	0	0	0
123.75	3	5	9	12	4	2	1	0	1	0	0
146.25	1	4	6	4	3	3	0	0	0	0	0
168.75	2	7	3	9	14	5	4	1	0	0	0
191.25	1	6	3	8	12	11	19	2	0	0	0
213.75	0	5	4	7	4	3	3	3	0	3	1
236.25	1	5	5	3	3	0	9	1	1	1	0
258.75	2	5	5	0	1	1	6	1	0	0	0
281.25	0	2	2	3	3	0	0	1	0	1	0
303.75	0	1	0	2	1	3	4	1	6	3	0
326.25	3	4	1	4	3	1	0	0	0	0	0

Table 5-10 Year 2006, 245 Ft AGL (Continued)

NRC CATEGORY D

deg	MPH										
	>1.0	>2.2	>4.5	>6.7	>8.9	>11.2	>13.4	>17.9	>22.4	>29.1	>40.3
0.00	11	26	22	14	18	6	7	0	0	0	0
11.25	13	28	15	10	7	7	3	0	1	0	0
33.75	12	17	15	9	8	2	8	0	8	1	0
56.25	20	14	17	10	4	4	0	0	1	4	0
78.75	5	10	3	6	3	1	2	0	0	0	0
101.25	10	14	6	5	3	4	0	0	0	0	0
123.75	13	22	18	23	17	6	7	1	0	0	0
146.25	13	49	50	39	13	10	17	4	3	0	0
168.75	15	52	75	60	40	16	31	12	0	0	0
191.25	9	53	42	42	28	24	47	17	8	3	0
213.75	6	21	15	15	15	8	16	22	23	24	4
236.25	6	23	12	15	7	6	16	8	9	8	0
258.75	9	12	14	12	11	6	12	9	8	2	0
281.25	8	17	11	8	20	6	6	12	6	1	0
303.75	10	16	34	27	16	19	28	24	30	9	0
326.25	18	37	44	20	22	20	14	3	1	0	0

NRC CATEGORY E

deg	MPH										
	>1.0	>2.2	>4.5	>6.7	>8.9	>11.2	>13.4	>17.9	>22.4	>29.1	>40.3
0.00	13	23	14	15	9	9	4	0	0	0	0
11.25	4	16	8	9	10	3	6	3	0	0	0
33.75	1	10	16	11	5	6	2	1	2	0	0
56.25	6	10	5	5	6	1	0	1	0	0	0
78.75	1	9	2	3	1	1	0	1	0	0	0
101.25	7	8	4	2	0	1	1	2	0	0	0
123.75	5	15	6	7	6	8	11	1	0	0	0
146.25	5	22	15	21	19	14	16	9	3	0	0
168.75	11	26	23	29	33	31	51	33	12	0	0
191.25	4	32	16	20	23	24	37	28	28	3	0
213.75	6	16	19	16	11	15	29	35	44	17	1
236.25	9	15	12	14	7	7	13	12	6	7	1
258.75	4	9	14	16	10	5	12	5	4	0	0
281.25	10	13	24	15	19	23	40	30	20	1	0
303.75	2	22	25	26	37	30	76	68	27	0	0
326.25	5	17	34	31	27	35	23	0	0	0	0

NRC CATEGORY F

deg	MPH										
	>1.0	>2.2	>4.5	>6.7	>8.9	>11.2	>13.4	>17.9	>22.4	>29.1	>40.3
0.00	3	13	22	22	8	5	9	0	0	0	0
11.25	4	12	19	8	10	2	2	0	0	0	0
33.75	4	13	15	12	6	1	4	2	1	0	0
56.25	5	10	9	6	4	5	1	0	0	0	0
78.75	3	13	0	2	1	0	2	0	0	0	0
101.25	5	8	3	1	0	0	0	0	0	0	0
123.75	12	16	13	9	14	3	8	0	0	0	0
146.25	7	20	24	26	26	19	24	1	0	0	0
168.75	7	23	30	33	38	27	33	7	4	0	0
191.25	7	18	25	21	24	21	31	7	4	2	0
213.75	10	21	8	11	10	6	15	7	7	0	0
236.25	10	16	17	8	5	1	2	1	0	0	0
258.75	7	10	5	8	2	3	1	1	0	0	0
281.25	3	12	14	9	7	8	22	14	2	0	0
303.75	5	13	18	13	10	30	36	17	5	1	0
326.25	5	17	15	23	24	16	15	2	1	0	0

Table 5-10 Year 2006, 245 Ft AGL (Continued)

NRC CATEGORY G

deg	MPH										
	>1.0	>2.2	>4.5	>6.7	>8.9	>11.2	>13.4	>17.9	>22.4	>29.1	>40.3
0.00	1	21	21	14	10	4	6	0	0	0	0
11.25	3	13	16	8	2	4	2	0	0	0	0
33.75	4	19	18	15	3	2	0	1	0	0	0
56.25	5	19	16	10	9	2	0	3	0	0	0
78.75	9	18	4	0	0	0	0	0	0	0	0
101.25	8	20	1	1	0	0	0	0	0	0	0
123.75	6	11	9	5	1	1	0	0	0	0	0
146.25	4	15	19	26	11	5	6	0	0	0	0
168.75	4	26	47	34	12	4	8	3	0	0	0
191.25	5	18	17	11	9	7	3	3	3	0	0
213.75	7	13	5	5	7	3	5	1	0	0	0
236.25	5	14	11	5	2	0	1	0	0	0	0
258.75	8	8	7	0	3	0	1	0	0	0	0
281.25	5	5	2	2	1	1	5	0	0	0	0
303.75	4	6	3	7	6	11	6	1	0	0	0
326.25	3	9	12	23	21	12	6	0	0	0	0

NRC CATEGORY	A	B	C	D	E	F	G
CALMS	10	8	10	77	45	33	20

6.0 DOSE ASSESSMENT -- IMPACT ON MAN

Liquid Effluents - There were no liquid discharges from the radwaste processing system to the Columbia River during calendar year 2006.

Gaseous Effluents - The NRC GASPAR II computer code was used to calculate doses at and beyond the site boundary using quarterly and annual meteorological data and site-specific variables as required and defined in the ODCM. Table 6-1 shows the highest calculated doses at the site boundary and beyond the site boundary. Table 6-1 also shows the quarterly and annual dose for the nearest and highest exposed resident identified in the land use census. Table 6-2 lists the annual 50-mile dose using values obtained from the ALARA annual integrated population dose summary (person-rem). Table 6-2 also provides the annual individual doses associated with each pathway. These values were obtained by dividing the ALARA integrated dose (person-rem) by the estimated year 2000 50-mile population (356,993) and converting to mrem.

The highest calculated dose to a child living at locations identified in the most recent land use census was 1.83E-03 mrem to the total body, 1.84E-03 mrem to the thyroid, and 2.43E-03 mrem to the skin. This location was at 4.01 miles in the ENE sector.

Periodically, Columbia Generating Station offers public tours of selected locations within the site boundary. Calculations assumed an eight (8) hour per year exposure to the plume, ground shine, and inhalation pathways. The organ with the highest dose was the skin. The dose assessment results for this group are tabulated below.

During 2006, members of the public worked at the WNP-1 and WNP-4 industrial areas. The maximum dose to these individuals was also calculated assuming 2000 hours per year exposure to the plume, inhalation, and ground deposition pathways at WNP-1 and 104 hours per year at WNP-4. The maximum doses received by the adult age group (full-time employees) are shown below.

The following table shows dose to members of the public from gaseous effluents within the site boundary of Columbia Generating Station for the total indicated hours spent at each location.

Location	Hours Spent	Total Body Dose (mrem)	Thyroid Dose (mrem)	Highest Other Organ Dose (mrem)	Beta Air Dose (mrad)	Gamma Air Dose (mrad)
Tour Visitors	8.00E+00	3.61E-04	3.61E-04	3.66E-04	4.37E-06	1.24E-05
WNP-4 Whse.2-4	1.04E+02	2.19E-05	2.19E-05	2.39E-05	1.71E-05	4.84E-05
WNP-1 Bldg 121	2.00E+03	4.22E-03	4.22E-03	4.60E-03	4.38E-04	1.24E-03

There was no measurable direct radiation contribution from Columbia Generating Station to the tour visitors or to the workers at the WNP-1 or WNP-4 industrial areas.

During the growing season, Columbia Generating Station conducts a five-mile land use census to determine the locations of nearest residents, gardens, and farm animals out to five miles in each sector. No change to land usage was found.

The following table provides the results of annual dose calculations for the highest dose age group for each identified land use census location from gaseous effluents.

Location	Total Body Dose (mrem)	Thyroid Dose (mrem)	Highest Other Organ Dose (mrem)	Beta Air Dose (mrad)	Gamma Air Dose (mrad)	Age Group
Resident (4.47 miles NE)	8.04E-04	8.04E-04	9.38E-04	1.16E-04	3.28E-04	Teen
Resident (4.01 miles ENE)	1.98E-03	1.98E-03	2.57E-03	5.28E-04	1.50E-03	Adult
Resident (4.59 miles E)	1.01E-03	1.01E-03	1.37E-03	3.10E-04	8.79E-04	Teen
Resident (4.24 miles ESE)	1.59E-03	1.59E-03	2.14E-03	4.79E-04	1.36E-03	Teen

The highest 'Other Organ' in all cases was the skin.

For environmental TLD stations at or beyond the site boundary where preoperational (background) data was acquired, no increase in ambient exposure was observed in 2006 from the preoperational values.

Dose Tables

Table 6-1 Summary of Doses from Gaseous Effluents

1. Maximum Air Dose at the Site Boundary (1.2 miles)

	1st Quarter	2nd Quarter	3rd Quarter	4th Quarter	Annual Cumulative*
Beta air dose (mrad)	5.14E-04	4.33E-04	5.21E-04	4.91E-04	2.14E-03
Gamma air dose (mrad)	1.46E-03	1.23E-03	1.48E-03	1.39E-03	6.05E-03

2. Maximum Air Dose Beyond the Site Boundary

	1st Quarter	2nd Quarter	3rd Quarter	4th Quarter	Annual Cumulative*
Beta air dose (mrad)	2.14E-04	1.35E-04	2.33E-04	5.20E-04	5.66E-04
Gamma air dose (mrad)	6.07E-04	3.84E-04	6.60E-04	1.47E-03	1.61E-03

3. Maximum Annual Dose at the Site Boundary

	Annual Dose
Annual total body dose (mrem)	1.94E-02
Annual skin dose (mrem)	2.03E-02

4. Maximum Annual Dose Beyond the Site Boundary

	Annual Dose
Annual total body dose (mrem)	6.25E-03
Annual skin dose (mrem)	6.89E-03

* Rather than the sum of the quarters, these values are based on annual meteorological data and total annual effluents.

Table 6-1 Summary of Doses from Gaseous Effluents (Continued)

5. Maximum Organ Dose at the Site Boundary (1.2 miles)

	1st Quarter	2nd Quarter	3rd Quarter	4th Quarter	Annual Cumulative*
Maximum Organ dose (mrem)	5.18E-03	5.39E-03	1.00E-02	4.33E-03	2.03E-02

6. Maximum Organ Dose Beyond the Site Boundary

	1st Quarter	2nd Quarter	3rd Quarter	4th Quarter	Annual Cumulative*
Maximum Organ dose (mrem)	1.99E-03	1.11E-03	3.14E-03	1.84E-03	6.89E-03

7. Maximum Dose at Land Use Census location with the highest annual cumulative organ dose (4.01 Miles ENE^{††})

	1st Quarter	2nd Quarter	3rd Quarter	4th Quarter	Annual Cumulative*
Beta Air Dose (mrad)	3.87E-05	1.35E-04	8.73E-05	5.20E-04	5.28E-04
Gamma Air Dose (mrad)	1.10E-04	3.84E-04	2.48E-04	1.47E-03	1.50E-03
Maximum Organ dose (mrem)	4.38E-04	6.58E-04	5.28E-04	1.81E-03	2.57E-03

* Rather than the sum of the quarters, these values are based on annual meteorological data and total annual effluents.

†† This was the sector with the highest dispersion and deposition values for the nearest resident identified in the land use census conducted in 2006.

Table 6-2 50-Mile Population Dose from Gaseous Effluents

A. 50-mile population collective dose

Exposure Pathway	Total Body (person-rem)	Max. Organ (person-rem)
Plume	6.34E-04	6.34E-04
Ground	3.45E-04	3.45E-04
Inhalation	5.71E-02	5.80E-02
Vegetables	4.28E-02	4.28E-02
Milk	1.50E-02	1.50E-02
Meat	7.66E-03	7.65E-03
Total	1.23E-01	1.24E-01

B. Average Individual*

Exposure Pathway	Total Body (mrem)	Max. Organ (mrem)
Plume	1.78E-06	1.78E-06
Ground	9.66E-07	9.66E-07
Inhalation	1.60E-04	1.62E-04
Vegetables	1.20E-04	1.20E-04
Milk	4.20E-05	4.20E-05
Meat	2.15E-05	2.14E-05
Total	3.46E-04	3.49E-04

* These values are derived by dividing the 50-mile population collective doses by the population within 50 miles of Columbia Generating Station (356,993). The population estimate is based on the 2000 census conducted by the United States Census Bureau and documented in the Columbia Generating Station Final Safety Analysis Report.

7.0 REVISIONS TO THE ODCM

In 2006, the ODCM was revised as follows:

- ODCM Table 6.3.1-3 describes the lower limits of detection for environmental samples. This table was revised to delete the entry for Zr-95 and revised the Nb-95 entry to Zr-Nb-95. It also deleted the Ba-140 entry and revised the La-140 entry to Ba-La-140. This revision conforms entries to NUREG-1302.
- Table 6.1.2-1 was revised to change Surveillance Requirement (SR) 6.1.2.6 (once per eighteen months) for Function 1 (Main Condenser Offgas Post-Treatment Radiation Monitor) to SR 6.1.2.7 (once per refueling outage).
- ODCM Bases B 6.1.2 - SR 6.1.2.6 excepted the Offgas (OG) Post Treatment Monitor from 18 month Channel Calibration frequency. It was also revised to remove the OG Post Treatment monitor special requirements for calibration.
- ODCM Bases B 6.1.2 - SR 6.1.2.7 OG Post Treatment Monitor refueling outage calibration frequency was added. It was also revised to add OG Post Treatment monitor special requirements for calibration.

8.0 REVISIONS TO THE PROCESS CONTROL PROGRAM (PCP)

There were no revisions to the Process Control Program in 2006.

9.0 NEW OR DELETED LOCATIONS FOR DOSE ASSESSMENTS AND/OR ENVIRONMENTAL MONITORING LOCATIONS

- 9.1 No new locations were identified for dose assessments from the 2006 Five-Mile Land Use Census.
- 9.2 There were no new locations for environmental monitoring formally adopted into the program based on the Land Use Census.
- 9.3 No dose assessment or environmental monitoring locations were deleted.

10.0 MAJOR CHANGES TO RADIOACTIVE LIQUID, GASEOUS, AND SOLID WASTE TREATMENT SYSTEMS

No major changes (as defined by ODCM Section 6.4.3) were made to the radioactive waste systems (liquid, gaseous, or solid) during this reporting period.