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Braidwood Station
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April 30, 2009
BW090036

U.S. Nuclear Regulatory Commission
Attn: Document Control Desk
Washington, D.C. 20555-0001


Braidwood Station, Units 1 and 2
Facility Operating License Nos. NPF-72 and NPF-77
NRC Docket Nos. STN 50-456 and STN 50-457

Subject: 2008 Radioactive Effluent Release Report

The attached document includes the Radioactive Effluent Release Report for Braidwood Station. This report is being submitted in accordance with 10 CFR 50.36a, "Technical specifications on effluents from nuclear power reactors," and Technical Specification 5.6.3, "Radioactive Effluent Release Report," and includes a summary of radiological liquid and gaseous effluents and solid waste released from the site from January 2008 through December 2008.

If you have any questions regarding this information, please contact Mr. Dave Gullott, Regulatory Assurance Manager, at (815) 417-2800.

Respectfully,



Bryan Hanson
Site Vice President
Braidwood Station

IE48

NRR

cc: Region Administrator - NRC Region III
Illinois Emergency Management Agency - Division of Nuclear Safety (report only)
Director, Licensing and Regulatory Affairs (w/o attachments)
Manager, Licensing - Braidwood/Byron (w/o attachments)
Nuclear Licensing Administrator - Braidwood/Byron (w/o attachments)
Regulatory Assurance Manager - Braidwood Station (w/o attachments)
Exelon Document Control Desk Licensing (report only)
Braidwood Commitment Management Coordinator (w/o attachments)

RADIOACTIVE EFFLUENT RELEASE REPORT

January - December 2008

Facility: BRAIDWOOD NUCLEAR POWER STATION

Licensee: EXELON GENERATION COMPANY, LLC

1. Regulatory Limits

a. For Noble Gases:

Dose Rate

- 1) Less than 500 mrem/year to the whole body.
- 2) Less than 3000 mrem/year to the skin.

Dose Gamma Radiation

- 1) Less than or equal to 5 mrad/quarter.
- 2) Less than or equal to 10 mrad/year.

Dose Beta Radiation

- 1) Less than or equal to 10 mrad/quarter.
- 2) Less than or equal to 20 mrad/year.

b. Iodine: (summed with particulate, see below)

c. Particulates with half-lives > 8 days:

Dose Rate

- 1) Less than 1500 mrem/year to any organ.

Dose

- 1) Less than or equal to 7.5 mrem/quarter to any organ.
- 2) Less than or equal to 15 mrem/year to any organ.

d. For Liquid

Dose

- 1) Less than or equal to 1.5 mrem to the whole body during any calendar quarter.
- 2) Less than or equal to 5 mrem to any organ during any calendar quarter.
- 3) Less than or equal to 3 mrem to the whole body during any calendar year.
- 4) Less than or equal to 10 mrem to any organ during any calendar year.

2. Maximum Permissible Concentration

- a. Fission and Activation Gases: 10CFR20 Appendix B Table 2
- b. Iodine: 10CFR20 Appendix B Table 2
- c. Particulates: 10CFR20 Appendix B Table 2
- d. Liquid Effluents: 10 X 10CFR20 Appendix B Table 2

3. Average Energy

This item is not applicable. Release rates are calculated using an isotopic mix rather than average energy.

4. Measurements and Approximations of Total Radioactivity

a. Fission and Activation Gases, Iodines, and Particulates

Containment batch releases are analyzed for noble gas and tritium before being discharged by gamma isotopic and scintillation, respectively. Gaseous decay tanks are analyzed for noble gas before being discharged by gamma isotopic. Released activity is normally calculated using volume of release, which is determined by change in tank or containment pressure.

The Auxiliary Building ventilation exhaust system is continually monitored for iodines and particulates. These samples are pulled every 7 days and analyzed by gamma isotopic. The particulate samples are also analyzed quarterly for gross alpha and Sr-89/90.

Noble gas and tritium grab samples are pulled and analyzed weekly by gamma isotopic and scintillation, respectively. The average flow at the release points are used to calculate the curies released.

Volumes and activities of effluents discharged from systems that are common to both units are divided between both units.

No gaseous effluent radiation instrumentation was inoperable beyond the time allowed in the ODCM during 2008.

b. Liquid Effluents

The liquid release tanks are analyzed before discharge by gamma isotopic and for tritium. A representative portion of this sample is saved. This is composited, every 31 days, with other discharges that occurred and is analyzed for tritium and gross alpha. The batch composites are composited quarterly and sent to a vendor for Sr-89/90 and Fe-55 analysis. Circulating Water Blowdown, Condensate Polisher Sump and Waste Water Treatment are analyzed weekly by gamma isotopic and for tritium. These weekly samples are composited monthly. The monthly composites are then composited quarterly and sent to a vendor for Sr-89/90 and Fe-55 analysis.

Tank volumes and activities are used to calculate the curies released for the tanks released. The total volume of water released and the measured activity is used to calculate the diluted activity released at the discharge point from batch discharges.

Volumes and activities of effluents discharged from systems that are common to both units are divided between both units.

4. b. During performance of the Exelon Pond monthly composite analysis for January 2008, it was noted that there was no weekly composite sample for the week of 1/7/08 to 1/14/08 even though the weekly composite data sheet showed a volume discharged. There was no sample for this time period because the sample volume collected was too small of the required analysis (gamma isotopic). The low sample volume was due to the fact that the Exelon Pond pump only ran for 10 hours at the beginning of the sample period and was then secured. The Exelon Pond pump was off for the remainder of the week.

This missed sample had negligible impact on the monthly composite for the following reasons: 1) the volume discharged during the 10 hour period was a very small portion of the total volume discharged from the pond during the month; 2) due to the size of the pond and the method by which tritium enters the pond, tritium concentration of the Exelon Pond changes very little over the course of a month, and had the aliquot for this sample period been large enough for analysis, it is unlikely that it would have significantly changed the concentration of the composite sample.

There were two instances where samples of Vacuum Breaker #1 (VB1) were not obtained.

For the week of 8/11/08 to 8/18/08, VB1 Remediation composite sample was too small to meet the requirements for quantitative analysis. The VB1 remediation pumps did not operate the entire sample period, but the sample collected during the time of operation would have been enough for proper analysis if fouling had not occurred in the sampling. The VB1 remediation system has had previous infrequent issues with iron fouling inside the piping and sample flow path. The composite sample timer was adjusted to ensure proper sample aliquot could be obtained and the piping was subsequently cleaned.

For the week of 11/10/08 to 11/17/08, the VB1 remediation composite sampler had no liquid sample. The VB1 remediation pumps ran for approximately 3.5 days during the sample period and 5 to 6 liters of sample should have been available. The composite sampler program controller was checked and found to be functioning properly. The VB1 remediation system has had previous issues with iron fouling inside the piping and sample flow path. The composite sample timer was adjusted to ensure proper sample aliquot could be obtained and the sample line solenoid isolation valve was subsequently cleaned.

The VB1 effluent flow path has not had any positive results for gamma emitters, I-131, or gross alpha. The VB1 ground water is known to have tritium contamination but the concentration is less than the ODCM required LLD. Because of this there is no offsite dose effect from the discharged groundwater and no effect from this missed sample.

- c. Less than the lower limit of detection (<LLD).

Samples are analyzed such that the Offsite Dose Calculation Manual (ODCM) LLD requirements are met. When a nuclide is not detected during the quarter then <LLD is reported.

- d. Errata for Previous Annual Radioactive Effluent Release Reports

None

BRAIDWOOD NUCLEAR POWER STATION
ANNUAL EFFLUENT REPORT FOR 2008
GAS RELEASES
UNIT 1 (Docket Number 50-456)
SUMMATION OF ALL RELEASES

Units	1st Qtr	2nd Qtr	3rd Qtr	4th Qtr	Est. Total Error%
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A. Fission and Activation Gas Releases

1. Total Release Activity	Ci	1.17E+00	2.92E+01	7.01E-03	6.89E-03	7.59
2. Average Release Rate	uCi/sec	1.50E-01	3.71E+00	8.82E-04	8.67E-04	
3. Percent of ODCM Limit - gamma	%	5.70E-05	5.07E-03	1.12E-06	2.04E-07	
4. Percent of ODCM Limit - beta	%	7.32E-04	1.27E-02	2.71E-06	4.69E-06	

B. Iodine Releases

1. Total I-131 Activity	Ci	1.90E-06	1.18E-03	<LLD	<LLD	33.20
2. Average Release Rate	uCi/sec	2.44E-07	1.50E-04	0.00E+00	0.00E+00	
3. Percent of ODCM Limit - gamma	%	3.17E-02	1.91E+01	0.00E+00	0.00E+00	

C. Particulate (> 8 day half-life) Releases

1. Gross Activity	Ci	<LLD	<LLD	4.54E-06	<LLD	19.80
2. Average Release Rate	uCi/sec	0.00E+00	0.00E+00	5.71E-07	0.00E+00	
3. Percent of ODCM Limit	%	0.00E+00	0.00E+00	1.68E-02	0.00E+00	
4. Gross Alpha Activity	Ci	<LLD	<LLD	<LLD	<LLD	

D. Tritium Releases

1. Total Release Activity	Ci	4.85E-01	2.72E+01	5.90E+00	5.74E-01	8.07
2. Average Release Rate	uCi/sec	6.24E-02	3.46E+00	7.42E-01	7.22E-02	
3. Percent of ODCM Limit	%	3.17E-02	1.91E+01	1.68E-02	1.63E-03	

Note: LLD Values are included in Appendix A of this report.

BRAIDWOOD NUCLEAR POWER STATION
ANNUAL EFFLUENT REPORT FOR 2008
GAS RELEASES
UNIT 1 (Docket Number 50-456)
CONTINUOUS MODE AND BATCH MODE

Nuclides Released		Continuous Mode				Batch Mode			
	Unit	Quarter 1	Quarter 2	Quarter 3	Quarter 4	Quarter 1	Quarter 2	Quarter 3	Quarter 4
1. Fission Gases									
Ar-41	Ci	<LLD	<LLD	<LLD	<LLD	<LLD	2.41E-03	<LLD	6.06E-03
Kr-85	Ci	<LLD	<LLD	<LLD	<LLD	8.44E-01	2.36E+00	<LLD	<LLD
Kr-85m	Ci	<LLD	<LLD	<LLD	<LLD	<LLD	1.36E-02	<LLD	<LLD
Kr-87	Ci	<LLD	<LLD	<LLD	<LLD	<LLD	<LLD	<LLD	<LLD
Kr-88	Ci	<LLD	<LLD	<LLD	<LLD	<LLD	<LLD	<LLD	<LLD
Xe-131m	Ci	<LLD	<LLD	<LLD	<LLD	1.90E-02	3.19E-01	<LLD	<LLD
Xe-133	Ci	<LLD	<LLD	<LLD	<LLD	3.07E-01	2.50E+01	7.01E-03	7.92E-04
Xe-133m	Ci	<LLD	<LLD	<LLD	<LLD	<LLD	3.71E-01	<LLD	<LLD
Xe-135	Ci	<LLD	<LLD	<LLD	<LLD	2.91E-04	1.12E+00	<LLD	3.53E-05
Xe-135m	Ci	<LLD	<LLD	<LLD	<LLD	<LLD	<LLD	<LLD	<LLD
Xe-138	Ci	<LLD	<LLD	<LLD	<LLD	<LLD	<LLD	<LLD	<LLD
Total for Period	Ci	<LLD	<LLD	<LLD	<LLD	1.17E+00	2.92E+01	7.01E-03	6.89E-03
2. Iodines									
I-131	Ci	1.90E-06	1.18E-03	<LLD	<LLD	<LLD	<LLD	<LLD	<LLD
I-132	Ci	<LLD	2.50E-04	<LLD	<LLD	<LLD	<LLD	<LLD	<LLD
I-133	Ci	<LLD	4.94E-05	<LLD	<LLD	<LLD	<LLD	<LLD	<LLD
I-134	Ci	<LLD	<LLD	<LLD	<LLD	<LLD	<LLD	<LLD	<LLD
I-135	Ci	<LLD	<LLD	<LLD	<LLD	<LLD	<LLD	<LLD	<LLD
Total for Period	Ci	1.90E-06	1.48E-03	<LLD	<LLD	<LLD	<LLD	<LLD	<LLD
3. Particulates									
Cr-51	Ci	<LLD	<LLD	<LLD	<LLD	<LLD	<LLD	<LLD	<LLD
Mn-54	Ci	<LLD	<LLD	<LLD	<LLD	<LLD	<LLD	<LLD	<LLD
Co-57	Ci	<LLD	<LLD	<LLD	<LLD	<LLD	<LLD	<LLD	<LLD
Co-58	Ci	<LLD	<LLD	<LLD	<LLD	<LLD	<LLD	<LLD	<LLD
Fe-59	Ci	<LLD	<LLD	<LLD	<LLD	<LLD	<LLD	<LLD	<LLD
Co-60	Ci	<LLD	<LLD	<LLD	<LLD	<LLD	<LLD	<LLD	<LLD
Zn-65	Ci	<LLD	<LLD	<LLD	<LLD	<LLD	<LLD	<LLD	<LLD
Br-82	Ci	1.53E-07	<LLD	<LLD	<LLD	<LLD	<LLD	<LLD	<LLD
Sr-89	Ci	<LLD	<LLD	<LLD	<LLD	<LLD	<LLD	<LLD	<LLD
Sr-90	Ci	<LLD	<LLD	<LLD	<LLD	<LLD	<LLD	<LLD	<LLD
Mo-99	Ci	<LLD	<LLD	<LLD	<LLD	<LLD	<LLD	<LLD	<LLD
Tc-99m	Ci	<LLD	<LLD	<LLD	<LLD	<LLD	<LLD	<LLD	<LLD
Sn-117m	Ci	<LLD	<LLD	<LLD	<LLD	<LLD	<LLD	<LLD	<LLD

BRAIDWOOD NUCLEAR POWER STATION
ANNUAL EFFLUENT REPORT FOR 2008
GAS RELEASES
UNIT 1 (Docket Number 50-456)
CONTINUOUS MODE AND BATCH MODE

Nuclides Released	Unit	Continuous Mode				Batch Mode			
		Quarter 1	Quarter 2	Quarter 3	Quarter 4	Quarter 1	Quarter 2	Quarter 3	Quarter 4
Cs-134	Ci	<LLD	<LLD	<LLD	<LLD	<LLD	<LLD	<LLD	<LLD
Cs-137	Ci	<LLD	<LLD	<LLD	<LLD	<LLD	<LLD	<LLD	<LLD
Ba-140	Ci	<LLD	<LLD	<LLD	<LLD	<LLD	<LLD	<LLD	<LLD
La-140	Ci	<LLD	<LLD	<LLD	<LLD	<LLD	<LLD	<LLD	<LLD
Ce-141	Ci	<LLD	<LLD	<LLD	<LLD	<LLD	<LLD	<LLD	<LLD
Ce-144	Ci	<LLD	<LLD	<LLD	<LLD	<LLD	<LLD	<LLD	<LLD
Nd-147	Ci	<LLD	<LLD	4.54E-06	<LLD	<LLD	<LLD	<LLD	<LLD
Total for Period	Ci	1.53E-07	<LLD	4.54E-06	<LLD	<LLD	<LLD	<LLD	<LLD
4. Tritium	Ci	5.88E-02	2.66E+01	5.40E+00	<LLD	4.26E-01	5.82E-01	5.06E-01	5.74E-01

BRAIDWOOD NUCLEAR POWER STATION
ANNUAL EFFLUENT REPORT FOR 2008
GAS RELEASES
UNIT 2 (Docket Number 50-457)
SUMMATION OF ALL RELEASES

Units	1st Qtr	2nd Qtr	3rd Qtr	4th Qtr	Est. Total Error%
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A. Fission and Activation Gas Releases

1. Total Activity Released	Ci	1.29E+00	2.79E+02	8.92E+01	3.05E-02	7.59
2. Average Release Rate	uCi/sec	1.66E-01	3.55E+01	1.12E+01	3.84E-03	
3. Percent of ODCM Limit - gamma	%	7.60E-05	4.49E-02	5.97E-01	2.06E-05	
4. Percent of ODCM Limit - beta	%	7.78E-04	1.09E-01	9.57E-02	2.60E-05	

B. Iodine Releases

1. Total I-131 Activity	Ci	4.41E-07	1.32E-03	<LLD	<LLD	33.20
2. Average Release Rate	uCi/sec	5.67E-08	1.68E-04	0.00E+00	0.00E+00	
3. Percent of ODCM Limit	%	1.85E-02	2.12E+01	0.00E+00	0.00E+00	

C. Particulate (> 8 day half-life) Releases

1. Gross Activity	Ci	<LLD	9.50E-07	<LLD	3.90E-06	19.80
2. Average Release Rate	uCi/sec	0.00E+00	1.22E-07	0.00E+00	4.91E-07	
3. Percent of ODCM Limit	%	0.00E+00	2.12E+01	0.00E+00	1.08E-02	
4. Gross Alpha Activity	Ci	<LLD	<LLD	<LLD	<LLD	

D. Tritium Releases

1. Total Release Activity	Ci	5.15E+00	2.39E+01	5.85E+01	3.80E+00	8.07
2. Average Release Rate	uCi/sec	6.62E-01	3.04E+00	7.36E+00	4.78E-01	
3. Percent of ODCM Limit	%	1.85E-02	2.12E+01	1.66E-01	1.08E-02	

Note: LLD Values are included in Appendix A of this report.

BRAIDWOOD NUCLEAR POWER STATION
ANNUAL EFFLUENT REPORT FOR 2008
GAS RELEASES
UNIT 2 (Docket Number 50-457)
CONTINUOUS MODE AND BATCH MODE

Nuclides Released		Continuous Mode				Batch Mode			
	Unit	Quarter 1	Quarter 2	Quarter 3	Quarter 4	Quarter 1	Quarter 2	Quarter 3	Quarter 4
1. Fission Gases									
Ar-41	Ci	<LLD	<LLD	<LLD	<LLD	<LLD	2.41E-03	<LLD	<LLD
Kr-85	Ci	<LLD	<LLD	<LLD	<LLD	8.44E-01	2.36E+00	<LLD	6.06E-03
Kr-85m	Ci	<LLD	<LLD	<LLD	<LLD	<LLD	1.36E-02	<LLD	<LLD
Kr-87	Ci	<LLD	<LLD	<LLD	<LLD	<LLD	<LLD	<LLD	<LLD
Kr-88	Ci	<LLD	<LLD	8.68E+01	<LLD	<LLD	<LLD	<LLD	<LLD
Xe-131m	Ci	<LLD	<LLD	<LLD	<LLD	1.90E-02	3.19E-01	<LLD	<LLD
Xe-133	Ci	<LLD	9.79E+01	<LLD	<LLD	4.26E-01	1.77E+02	<LLD	7.92E-04
Xe-133m	Ci	<LLD	<LLD	<LLD	<LLD	<LLD	3.71E-01	<LLD	<LLD
Xe-135	Ci	<LLD	<LLD	2.41E+00	2.36E-02	2.91E-04	1.12E+00	<LLD	3.53E-05
Xe-135m	Ci	<LLD	<LLD	<LLD	<LLD	<LLD	<LLD	<LLD	<LLD
Xe-138	Ci	<LLD	<LLD	<LLD	<LLD	<LLD	<LLD	<LLD	<LLD
Total for Period	Ci	<LLD	9.79E+01	8.92E+01	2.36E-02	1.29E+00	1.81E+02	<LLD	6.89E-03
2. Iodines									
I-131	Ci	4.41E-07	1.32E-03	<LLD	<LLD	<LLD	<LLD	<LLD	<LLD
I-132	Ci	<LLD	1.92E-04	<LLD	<LLD	<LLD	<LLD	<LLD	<LLD
I-133	Ci	<LLD	1.16E-04	<LLD	<LLD	<LLD	<LLD	<LLD	<LLD
I-134	Ci	<LLD	<LLD	<LLD	<LLD	<LLD	<LLD	<LLD	<LLD
I-135	Ci	<LLD	<LLD	<LLD	<LLD	<LLD	<LLD	<LLD	<LLD
Total for Period	Ci	4.41E-07	1.63E-03	<LLD	<LLD	<LLD	<LLD	<LLD	<LLD
3. Particulates									
Cr-51	Ci	<LLD	<LLD	<LLD	<LLD	<LLD	<LLD	<LLD	<LLD
Mn-54	Ci	<LLD	<LLD	<LLD	<LLD	<LLD	<LLD	<LLD	<LLD
Co-57	Ci	<LLD	<LLD	<LLD	<LLD	<LLD	<LLD	<LLD	1.12E-06
Co-58	Ci	<LLD	<LLD	<LLD	<LLD	<LLD	<LLD	<LLD	<LLD
Fe-59	Ci	<LLD	<LLD	<LLD	<LLD	<LLD	<LLD	<LLD	<LLD
Co-60	Ci	<LLD	<LLD	<LLD	<LLD	<LLD	<LLD	<LLD	<LLD
Zn-65	Ci	<LLD	<LLD	<LLD	<LLD	<LLD	<LLD	<LLD	<LLD
Br-82	Ci	<LLD	2.65E-06	<LLD	<LLD	<LLD	<LLD	<LLD	<LLD
Sr-89	Ci	<LLD	<LLD	<LLD	<LLD	<LLD	<LLD	<LLD	<LLD
Sr-90	Ci	<LLD	<LLD	<LLD	<LLD	<LLD	<LLD	<LLD	<LLD
Mo-99	Ci	<LLD	<LLD	<LLD	<LLD	<LLD	<LLD	<LLD	<LLD
Sn-117m	Ci	<LLD	<LLD	<LLD	<LLD	<LLD	<LLD	<LLD	<LLD
Cs-134	Ci	<LLD	<LLD	<LLD	<LLD	<LLD	<LLD	<LLD	<LLD

BRAIDWOOD NUCLEAR POWER STATION
ANNUAL EFFLUENT REPORT FOR 2008
GAS RELEASES
UNIT 2 (Docket Number 50-457)
CONTINUOUS MODE AND BATCH MODE

Nuclides Released	Unit	Continuous Mode				Batch Mode			
		Quarter 1	Quarter 2	Quarter 3	Quarter 4	Quarter 1	Quarter 2	Quarter 3	Quarter 4
Cs-137	Ci	<LLD	<LLD	<LLD	<LLD	<LLD	<LLD	<LLD	<LLD
Ba-140	Ci	<LLD	<LLD	<LLD	<LLD	<LLD	<LLD	<LLD	<LLD
La-140	Ci	<LLD	<LLD	<LLD	<LLD	<LLD	<LLD	<LLD	<LLD
Ce-141	Ci	<LLD	<LLD	<LLD	<LLD	<LLD	<LLD	<LLD	<LLD
Ce-144	Ci	<LLD	<LLD	<LLD	<LLD	<LLD	<LLD	<LLD	<LLD
Nd-147	Ci	<LLD	<LLD	<LLD	<LLD	<LLD	<LLD	<LLD	<LLD
Te-132	Ci	<LLD	9.50E-07	<LLD	<LLD	<LLD	<LLD	<LLD	<LLD
Sn-113	Ci	<LLD	<LLD	<LLD	2.78E-06	<LLD	<LLD	<LLD	<LLD
Total for Period	Ci	<LLD	3.60E-06	<LLD	2.78E-06	<LLD	<LLD	<LLD	1.12E-06
4. Tritium	Ci	4.73E+00	2.14E+01	5.84E+01	3.57E+00	4.15E-01	2.55E+00	1.25E-01	2.25E-01

BRAIDWOOD NUCLEAR POWER STATION
ANNUAL EFFLUENT REPORT FOR 2008
LIQUID RELEASES
UNIT 1 (Docket Number 50-456)
SUMMATION OF ALL RELEASES

Units	1st Qtr	2nd Qtr	3rd Qtr	4th Qtr	Est. Total Error %
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A. Fission and Activation Products

1. Total Activity Released	Ci	9.38E-04	3.40E-02	5.47E-03	1.12E-02	2.64
2. Average Concentration Released	uCi/ml	2.72E-10	1.01E-08	1.76E-09	2.26E-09	
3. Percent of limit	%	*	*	*	*	

B. Tritium

1. Total Activity Released	Ci	1.09E+02	4.77E+02	3.12E+01	8.78E+01	5.85
2. Average Concentration Released	uCi/ml	3.16E-05	1.42E-04	1.01E-05	1.77E-05	
3. % of Limit (1E-2 uCi/ml)	%	3.16E-01	1.42E+00	1.01E-01	1.77E-01	

C. Dissolved Noble Gases

1. Total Activity Released	Ci	<LLD	7.44E-06	<LLD	<LLD	2.64
2. Average Concentration Released	uCi/ml	0.00E+00	2.22E-12	0.00E+00	0.00E+00	
3. % of Limit (2E-4 uCi/ml)	%	0.00E+00	1.11E-06	0.00E+00	0.00E+00	

D. Gross Alpha

1. Total Activity Released	Ci	3.60E-07	4.85E-05	1.39E-05	5.38E-05	14.70
2. Average Concentration Released	uCi/ml	1.04E-13	1.45E-11	4.48E-12	1.09E-11	

E. Volume of Releases

1. Volume of Liquid Waste to Discharge	liters	2.13E+05	7.15E+05	7.51E+04	2.64E+05
2. Volume of Dilution Water	liters	3.45E+09	3.35E+09	3.10E+09	4.95E+09

Note: LLD Values are included in Appendix A of this report.

Note: % Limit Values are included in Appendix B of this report.

*This limit is equal to 10 times the concentration values in Appendix B, Table 2, Column 2 to 10CFR20.1001-20.2402.

BRAIDWOOD NUCLEAR POWER STATION
ANNUAL EFFLUENT REPORT FOR 2008
LIQUID RELEASES
UNIT 1 (Docket Numbers 50-456)
CONTINUOUS MODE & BATCH MODE

Nuclides Released	Unit	Continuous Mode				Batch Mode			
		Quarter 1	Quarter 2	Quarter 3	Quarter 4	Quarter 1	Quarter 2	Quarter 3	Quarter 4
H-3	Ci	4.50E+00	4.65E+01	1.09E+01	2.83E+00	1.04E+02	4.30E+02	2.01E+01	8.48E+01
Gross Alpha	Ci	<LLD	<LLD	<LLD	<LLD	3.60E-07	4.85E-05	1.39E-05	5.38E-05
Ar-41	Ci	<LLD	<LLD	<LLD	<LLD	<LLD	7.44E-06	<LLD	<LLD
Cr-51	Ci	<LLD	<LLD	<LLD	<LLD	<LLD	7.91E-03	4.15E-04	4.60E-05
Mn-54	Ci	<LLD	<LLD	<LLD	<LLD	1.85E-05	2.98E-04	5.11E-05	1.18E-04
Fe-55	Ci	<LLD	<LLD	<LLD	<LLD	2.32E-05	3.13E-05	4.48E-04	3.57E-03
Co-57	Ci	<LLD	<LLD	<LLD	<LLD	2.19E-06	4.19E-05	2.06E-05	2.68E-05
Co-58	Ci	<LLD	<LLD	<LLD	<LLD	4.12E-04	1.16E-02	1.93E-03	2.13E-03
Fe-59	Ci	<LLD	<LLD	<LLD	<LLD	1.74E-05	4.73E-04	5.37E-05	5.53E-06
Co-60	Ci	<LLD	<LLD	<LLD	<LLD	1.98E-04	3.35E-03	5.58E-04	2.06E-03
Ni-65	Ci	<LLD	<LLD	<LLD	<LLD	<LLD	<LLD	<LLD	<LLD
Zn-65	Ci	<LLD	<LLD	<LLD	<LLD	<LLD	8.89E-06	<LLD	<LLD
Kr-85	Ci	<LLD	<LLD	<LLD	<LLD	<LLD	<LLD	<LLD	<LLD
Kr-87	Ci	<LLD	<LLD	<LLD	<LLD	<LLD	<LLD	<LLD	<LLD
Kr-88	Ci	<LLD	<LLD	<LLD	<LLD	<LLD	<LLD	<LLD	<LLD
Sr-89	Ci	<LLD	<LLD	<LLD	<LLD	<LLD	<LLD	<LLD	<LLD
Sr-90	Ci	<LLD	<LLD	<LLD	<LLD	<LLD	<LLD	<LLD	<LLD
Nb-95	Ci	<LLD	<LLD	<LLD	<LLD	1.19E-05	1.14E-03	2.11E-04	2.36E-04
Zr-95	Ci	<LLD	<LLD	<LLD	<LLD	<LLD	7.01E-04	1.08E-04	9.65E-05
Nb-97	Ci	<LLD	<LLD	<LLD	<LLD	<LLD	<LLD	<LLD	2.10E-06
Zr-97	Ci	<LLD	<LLD	<LLD	<LLD	<LLD	<LLD	<LLD	<LLD
Tc-99m	Ci	<LLD	<LLD	<LLD	<LLD	<LLD	<LLD	<LLD	<LLD
Mo-99	Ci	<LLD	<LLD	<LLD	<LLD	<LLD	<LLD	<LLD	<LLD
Ru-103	Ci	<LLD	<LLD	<LLD	<LLD	<LLD	1.26E-04	3.78E-06	2.78E-06
Ag-110m	Ci	<LLD	<LLD	<LLD	<LLD	<LLD	<LLD	<LLD	<LLD
Sn-113	Ci	<LLD	<LLD	<LLD	<LLD	<LLD	5.20E-05	6.41E-06	<LLD
Sn-117m	Ci	<LLD	<LLD	<LLD	<LLD	<LLD	<LLD	<LLD	<LLD
Sb-122	Ci	<LLD	<LLD	<LLD	<LLD	<LLD	<LLD	<LLD	<LLD
Te-123m	Ci	<LLD	<LLD	<LLD	<LLD	<LLD	2.85E-05	1.78E-05	3.54E-05
Sb-124	Ci	<LLD	<LLD	<LLD	<LLD	4.32E-06	7.98E-04	4.94E-05	<LLD
Sb-125	Ci	<LLD	<LLD	<LLD	<LLD	2.01E-04	3.34E-03	6.70E-04	2.07E-03
Te-125m	Ci	<LLD	<LLD	<LLD	<LLD	<LLD	<LLD	<LLD	<LLD
Xe-131m	Ci	<LLD	<LLD	<LLD	<LLD	<LLD	<LLD	<LLD	<LLD
I-131	Ci	<LLD	<LLD	<LLD	<LLD	<LLD	4.40E-04	<LLD	<LLD
I-132	Ci	<LLD	<LLD	<LLD	<LLD	<LLD	5.22E-06	<LLD	<LLD
Te-132	Ci	<LLD	<LLD	<LLD	<LLD	<LLD	9.81E-06	<LLD	<LLD

BRAIDWOOD NUCLEAR POWER STATION
ANNUAL EFFLUENT REPORT FOR 2008
LIQUID RELEASES
UNIT 1 (Docket Numbers 50-456)
CONTINUOUS MODE & BATCH MODE

Nuclides Released	Unit	Continuous Mode				Batch Mode			
		Quarter 1	Quarter 2	Quarter 3	Quarter 4	Quarter 1	Quarter 2	Quarter 3	Quarter 4
Ba-133	Ci	<LLD	<LLD	<LLD	<LLD	<LLD	<LLD	<LLD	<LLD
I-133	Ci	<LLD	<LLD	<LLD	<LLD	<LLD	<LLD	<LLD	<LLD
Xe-133	Ci	<LLD	<LLD	<LLD	<LLD	<LLD	<LLD	<LLD	<LLD
Xe-133m	Ci	<LLD	<LLD	<LLD	<LLD	<LLD	<LLD	<LLD	<LLD
Cs-134	Ci	<LLD	<LLD	<LLD	<LLD	2.90E-05	3.06E-04	4.91E-04	4.04E-04
Xe-135	Ci	<LLD	<LLD	<LLD	<LLD	<LLD	<LLD	<LLD	<LLD
I-134	Ci	<LLD	<LLD	<LLD	<LLD	<LLD	<LLD	<LLD	<LLD
I-135	Ci	<LLD	<LLD	<LLD	<LLD	<LLD	<LLD	<LLD	<LLD
Cs-136	Ci	<LLD	<LLD	<LLD	<LLD	<LLD	<LLD	<LLD	<LLD
Cs-137	Ci	<LLD	<LLD	<LLD	<LLD	2.05E-05	2.25E-04	4.37E-04	3.55E-04
Cs-138	Ci	<LLD	<LLD	<LLD	<LLD	<LLD	<LLD	<LLD	<LLD
Xe-138	Ci	<LLD	<LLD	<LLD	<LLD	<LLD	<LLD	<LLD	<LLD
Ba-139	Ci	<LLD	<LLD	<LLD	<LLD	<LLD	<LLD	<LLD	<LLD
Ba-140	Ci	<LLD	<LLD	<LLD	<LLD	<LLD	<LLD	<LLD	<LLD
La-140	Ci	<LLD	<LLD	<LLD	<LLD	<LLD	<LLD	<LLD	<LLD
Ce-141	Ci	<LLD	<LLD	<LLD	<LLD	<LLD	<LLD	<LLD	<LLD
Ce-144	Ci	<LLD	<LLD	<LLD	<LLD	<LLD	<LLD	<LLD	<LLD
Np-239	Ci	<LLD	<LLD	<LLD	<LLD	<LLD	<LLD	<LLD	<LLD
Total for period	Ci	4.50E+00	4.65E+01	1.09E+01	2.83E+00	1.04E+02	4.30E+02	2.01E+01	8.48E+01

BRAIDWOOD NUCLEAR POWER STATION
ANNUAL EFFLUENT REPORT FOR 2008
LIQUID RELEASES
UNIT 2 (Docket Number 50-457)
SUMMATION OF ALL RELEASES

Units	1st Qtr	2nd Qtr	3rd Qtr	4th Qtr	Est. Total Error %
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A. Fission and Activation Products

1. Total Activity Released	Ci	9.38E-04	3.40E-02	5.47E-03	1.12E-02	2.64
2. Average Concentration Released	uCi/ml	2.72E-10	1.01E-08	1.76E-09	2.26E-09	
3. Percent of Limit	%	*	*	*	*	

B. Tritium

1. Total Activity Released	Ci	1.09E+02	4.77E+02	3.12E+01	8.78E+01	5.85
2. Average Concentration Released	uCi/ml	3.16E-05	1.42E-04	1.01E-05	1.77E-05	
3. % of Limit (1E-3 uCi/ml)	%	3.16E-01	1.42E+00	1.01E-01	1.77E-01	

C. Dissolved Noble Gases

1. Total Activity Released	Ci	<LLD	7.44E-06	<LLD	<LLD	2.64
2. Average Concentration Released	uCi/ml	0.00E+00	2.22E-12	0.00E+00	0.00E+00	
3. % of Limit (2E-4 uCi/ml)	%	0.00E+00	1.11E-06	0.00E+00	0.00E+00	

D. Gross Alpha

1. Total Activity Released	Ci	3.60E-07	4.85E-05	1.39E-05	5.38E-05	14.70
2. Average Concentration Released	uCi/ml	1.04E-13	1.45E-11	4.48E-12	1.09E-11	

E. Volume of Releases

1. Volume of Liquid Waste to Discharge	liters	2.13E+05	7.15E+05	7.51E+04	2.64E+05
2. Volume of Dilution Water	liters	3.45E+09	3.35E+09	3.10E+09	4.95E+09

Note: LLD Values are included in Appendix A of this report.

Note: % Limit Values are included in Appendix B of this report.

*This limit is equal to 10 times the concentration values in Appendix B, Table 2, Column 2 to 10CFR20.1001-2402.

BRAIDWOOD NUCLEAR POWER STATION
ANNUAL EFFLUENT REPORT FOR 2008
LIQUID RELEASES
UNIT 2 (Docket Numbers 50-457)
CONTINUOUS MODE & BATCH MODE

Nuclides Released	Unit	Continuous Mode				Batch Mode			
		Quarter 1	Quarter 2	Quarter 3	Quarter 4	Quarter 1	Quarter 2	Quarter 3	Quarter 4
H-3	Ci	4.50E+00	4.65E+01	1.09E+01	2.83E+00	1.04E+02	4.30E+02	2.01E+01	8.48E+01
Gross Alpha	Ci	<LLD	<LLD	<LLD	<LLD	3.60E-07	4.85E-05	1.39E-05	5.38E-05
Ar-41	Ci	<LLD	<LLD	<LLD	<LLD	<LLD	7.44E-06	<LLD	<LLD
Cr-51	Ci	<LLD	<LLD	<LLD	<LLD	<LLD	7.91E-03	4.15E-04	4.60E-05
Mn-54	Ci	<LLD	<LLD	<LLD	<LLD	1.85E-05	2.98E-04	5.11E-05	1.18E-04
Fe-55	Ci	<LLD	<LLD	<LLD	<LLD	2.32E-05	3.13E-05	4.48E-04	3.57E-03
Co-57	Ci	<LLD	<LLD	<LLD	<LLD	2.19E-06	4.19E-05	2.06E-05	2.68E-05
Co-58	Ci	<LLD	<LLD	<LLD	<LLD	4.12E-04	1.16E-02	1.93E-03	2.13E-03
Fe-59	Ci	<LLD	<LLD	<LLD	<LLD	1.74E-05	4.73E-04	5.37E-05	5.53E-06
Co-60	Ci	<LLD	<LLD	<LLD	<LLD	1.98E-04	3.35E-03	5.58E-04	2.06E-03
Ni-65	Ci	<LLD	<LLD	<LLD	<LLD	<LLD	<LLD	<LLD	<LLD
Zn-65	Ci	<LLD	<LLD	<LLD	<LLD	<LLD	8.89E+06	<LLD	<LLD
Kr-85	Ci	<LLD	<LLD	<LLD	<LLD	<LLD	<LLD	<LLD	<LLD
Kr-87	Ci	<LLD	<LLD	<LLD	<LLD	<LLD	<LLD	<LLD	<LLD
Kr-88	Ci	<LLD	<LLD	<LLD	<LLD	<LLD	<LLD	<LLD	<LLD
Sr-89	Ci	<LLD	<LLD	<LLD	<LLD	<LLD	<LLD	<LLD	<LLD
Sr-90	Ci	<LLD	<LLD	<LLD	<LLD	<LLD	<LLD	<LLD	<LLD
Nb-95	Ci	<LLD	<LLD	<LLD	<LLD	1.19E-05	1.14E-03	2.11E-04	2.36E-04
Zr-95	Ci	<LLD	<LLD	<LLD	<LLD	<LLD	7.01E-04	1.08E-04	9.65E-05
Nb-97	Ci	<LLD	<LLD	<LLD	<LLD	<LLD	<LLD	<LLD	2.10E-06
Zr-97	Ci	<LLD	<LLD	<LLD	<LLD	<LLD	<LLD	<LLD	<LLD
Tc-99m	Ci	<LLD	<LLD	<LLD	<LLD	<LLD	<LLD	<LLD	<LLD
Mo-99	Ci	<LLD	<LLD	<LLD	<LLD	<LLD	<LLD	<LLD	<LLD
Ru-103	Ci	<LLD	<LLD	<LLD	<LLD	<LLD	1.26E-04	3.78E-06	2.78E-06
Ag-110m	Ci	<LLD	<LLD	<LLD	<LLD	<LLD	<LLD	<LLD	<LLD
Sn-113	Ci	<LLD	<LLD	<LLD	<LLD	<LLD	5.20E-05	6.41E-06	<LLD
Sn-117m	Ci	<LLD	<LLD	<LLD	<LLD	<LLD	<LLD	<LLD	<LLD
Sb-122	Ci	<LLD	<LLD	<LLD	<LLD	<LLD	<LLD	<LLD	<LLD
Te-123m	Ci	<LLD	<LLD	<LLD	<LLD	<LLD	2.85E-05	1.78E-05	3.54E-05
Sb-124	Ci	<LLD	<LLD	<LLD	<LLD	4.32E-06	7.98E-04	4.94E-05	<LLD
Sb-125	Ci	<LLD	<LLD	<LLD	<LLD	2.10E-04	3.34E-03	6.70E-04	2.07E-03
Te-125m	Ci	<LLD	<LLD	<LLD	<LLD	<LLD	<LLD	<LLD	<LLD
Xe-131m	Ci	<LLD	<LLD	<LLD	<LLD	<LLD	<LLD	<LLD	<LLD
I-131	Ci	<LLD	<LLD	<LLD	<LLD	<LLD	4.40E-04	<LLD	<LLD
I-132	Ci	<LLD	<LLD	<LLD	<LLD	<LLD	5.22E-06	<LLD	<LLD
Te-132	Ci	<LLD	<LLD	<LLD	<LLD	<LLD	9.81E-06	<LLD	<LLD

BRAIDWOOD NUCLEAR POWER STATION
ANNUAL EFFLUENT REPORT FOR 2008
LIQUID RELEASES
UNIT 2 (Docket Numbers 50-457)
CONTINUOUS MODE & BATCH MODE

Nuclides Released	Unit	Continuous Mode				Batch Mode			
		Quarter 1	Quarter 2	Quarter 3	Quarter 4	Quarter 1	Quarter 2	Quarter 3	Quarter 4
Ba-133	Ci	<LLD	<LLD	<LLD	<LLD	<LLD	<LLD	<LLD	<LLD
I-133	Ci	<LLD	<LLD	<LLD	<LLD	<LLD	<LLD	<LLD	<LLD
Xe-133	Ci	<LLD	<LLD	<LLD	<LLD	<LLD	<LLD	<LLD	<LLD
Xe-133m	Ci	<LLD	<LLD	<LLD	<LLD	<LLD	<LLD	<LLD	<LLD
Cs-134	Ci	<LLD	<LLD	<LLD	<LLD	2.90E-05	3.06E-04	4.91E-04	4.04E-04
Xe-135	Ci	<LLD	<LLD	<LLD	<LLD	<LLD	<LLD	<LLD	<LLD
I-134	Ci	<LLD	<LLD	<LLD	<LLD	<LLD	<LLD	<LLD	<LLD
I-135	Ci	<LLD	<LLD	<LLD	<LLD	<LLD	<LLD	<LLD	<LLD
Cs-136	Ci	<LLD	<LLD	<LLD	<LLD	<LLD	<LLD	<LLD	<LLD
Cs-137	Ci	<LLD	<LLD	<LLD	<LLD	2.05E-05	2.25E-04	4.37E-04	3.55E-04
Cs-138	Ci	<LLD	<LLD	<LLD	<LLD	<LLD	<LLD	<LLD	<LLD
Xe-138	Ci	<LLD	<LLD	<LLD	<LLD	<LLD	<LLD	<LLD	<LLD
Ba-139	Ci	<LLD	<LLD	<LLD	<LLD	<LLD	<LLD	<LLD	<LLD
Ba-140	Ci	<LLD	<LLD	<LLD	<LLD	<LLD	<LLD	<LLD	<LLD
La-140	Ci	<LLD	<LLD	<LLD	<LLD	<LLD	<LLD	<LLD	<LLD
Ce-141	Ci	<LLD	<LLD	<LLD	<LLD	<LLD	<LLD	<LLD	<LLD
Ce-144	Ci	<LLD	<LLD	<LLD	<LLD	<LLD	<LLD	<LLD	<LLD
Np-239	Ci	<LLD	<LLD	<LLD	<LLD	<LLD	<LLD	<LLD	<LLD
Total for period	Ci	4.50E+00	4.65E+01	1.09E+01	2.83E+00	1.04E+02	4.30E+02	2.01E+01	8.48E+01

BRAIDWOOD NUCLEAR POWER STATION
 RADIOACTIVE EFFLUENT RELEASE REPORT FOR 2008
 SOLID RADIOACTIVE WASTE
 UNIT 1 AND 2 COMBINED (Docket Numbers 50-456 and 50-457)

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

1. Types of Waste

Types of Waste	Total Quantity (m ³)	Total Activity (Ci)	Period	Est. Total Error %
a. Spent resins, filter sludges, evaporator bottoms, etc	1.45E+02	2.55E+01	Jan - Dec 2008	25
b. Dry compressible waste, contaminated equip, etc	3.19E+02	6.84E+00	Jan - Dec 2008	25
c. Irradiated components, control rods, etc	0	0	Jan - Dec 2008	N/A
d. Other (oil, reverse osmosis reject water, soil, Lagoon sediment)	1.06E+02	4.58E-04	Jan - Dec 2008	25

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

Major Nuclide Composition		%
a.	Co-58	43.41%
	Fe-55	14.17%
	H-3	10.27%
	Ni-63	7.76%
	Co-60	6.25%
	Cr-51	4.77%
	I-131	3.28%
	Be-7	2.68%
	Mn-54	1.59%
	Nb-95	1.38%
	Cs-134	1.37%
	Cs-137	1.14%
	Zr-95	0.74%
	C-14	0.41%
	Fe-59	0.35%
	Co-57	0.14%

BRAIDWOOD NUCLEAR POWER STATION
RADIOACTIVE EFFLUENT RELEASE REPORT FOR 2008
SOLID RADIOACTIVE WASTE
UNIT 1 AND 2 COMBINED (Docket Numbers 50-456 and 50-457)

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

Major Nuclide Composition		%
b.	N-63	39.73%
	Fe-55	29.12%
	Co-60	20.38%
	Co-58	3.09%
	Cs-137	2.28%
	C-14	1.41%
	H-3	1.08%
	Cs-134	0.92%
	Mn-54	0.48%
	Ni-59	0.40%
	Sb-125	0.34%
	Fe-59	0.26%
	Nb-95	0.21%
	Zr-95	0.11%
c.	N/A	N/A
d.	H-3	89.48%
	Fe-55	3.92%
	Ni-63	2.32%
	Co-60	1.81%
	Be-7	1.39%
	Cs-137	1.12%

3. Solid Waste Disposition

Number of Shipments	Mode of Transportation	Destination
1	Hittman Transportation	Barnwell Disposal Facility
6	Hittman Transportation	Clive Disposal Facility(containerized)
9	Hittman Transportation	Duratek
10	Hittman Transportation	Duratek Services - Gallaher Rd.
6	Visionary Solutions, LLC	Duratek Services - Gallaher Rd.

B. Irradiated Fuel Shipments (disposition)

No irradiated fuel shipments for January through December, 2008.

C. Changes to the Process Control Program

There were changes to the process control program in 2008. See Item #1 on page 18.

BRAIDWOOD NUCLEAR POWER STATION
RADIOACTIVE EFFLUENT RELEASE REPORT FOR 2008
UNIT 1 AND 2 COMBINED (Docket Numbers 50-456 and 50-457)

1. In 2008, there were changes to the Process Control Program. The changes to corporate procedure RW-AA-100, Process Control Program for Radioactive Wastes, were administrative in nature. The changes included many instances of replacing the words, "will", "must", and "should" with the word "shall". The changes included several editorial/format changes where words that had previously been bold were changed to normal format. Administrative instructions were placed in the Documentation section of the procedure. The changes do not affect the physical processing of the radioactive waste as described in the PCP. The changes do not affect the expected offsite dose resulting from the processing or disposal of radioactive waste.
2. During 2008, the following radioactive waste system changes were made.

A 500,000 gallon liquid radioactive waste storage tank was completed. This tank will be used to store high concentration tritium containing waste water to help manage the site inventory and discharge of liquid tritium. Additionally, equipment was installed to manage the inventory of brine (reverse osmosis unit reject) from processing of liquid radwaste. This equipment includes pumps, valves, and piping to transfer the brine to the liquid radwaste release tanks. This equipment and its use will not increase offsite dose since the radioactivity released from the station's liquid release tanks will be the same or lower in any given year.
3. There were no liquid release tanks or gas decay tanks which exceeded the limits addressed in the ODCM-RETS.
4. There were no unplanned liquid releases in 2008.

Three abnormal gaseous releases occurred in 2008 and are described below.

On 5/14/08 through 5/16/08, a planned and monitored release took place from the 0WX27T, Radwaste Storage Tank. Even though the release was planned and monitored, that path to the environment is not a normal station effluent path, and therefore this release is being listed as abnormal. At the time of the release, the 0WX27T contained liquid radioactive waste with a high concentration of tritium (approximately 1.1 $\mu\text{Ci/g}$). To perform maintenance on the interior of the tank, the tank was drained. The small volume of water that remained on the floor of the tank after draining was dried through evaporation using fans flowing out of the tank manway. Prior to the drying step, the water was sampled for tritium and gamma isotopes. Only tritium was above the effluent LLD and a conservative release permit was performed in the Radiological Effluent Tracking and Dose Assessment Software (RETDAS). Permit #2008214 was used to calculate offsite dose from the release. The calculated dose was insignificant.

The 0E Gas Decay Tank was identified as losing pressure after a release. The tank pressure following the release was 8 psig. Over the next six days, 6/4/08 to 6/10/08, the pressure dropped to 1 psig. This additional pressure loss was considered an abnormal release and the offsite dose calculated using RETDAS permit #2008237.

On 4/24/08, an unplanned discharge of radioactive gas to the Unit 2 Containment Building occurred. The release of this gas to the environment was through normal and monitored pathways. Samples were obtained and a bounding calculation was performed to show that offsite dose was not affected by this event.

5. The following effluent monitoring instruments have exceeded their specified inoperability time.

0F-WX001 (Liquid Radwaste Effluent Line Loop WX001) exceeded its specified inoperability time on 4/24/07. At that time, required surveillances for this effluent instrument were taken to "suspend" and were not performed because this effluent flow path was no longer in use at Braidwood Station. The instrument continues to be inoperable and no liquid releases have taken place through this release path during the time of inoperability. A design change and modification to this flow path are in progress. Required surveillances will be performed prior to this flow path being put back in service.

BRAIDWOOD NUCLEAR POWER STATION
RADIOACTIVE EFFLUENT RELEASE REPORT FOR 2008
UNIT 1 AND 2 COMBINED (Docket Numbers 50-456 and 50-457)

6. No changes were made to the ODCM in 2008.
7. NUREG-0543, Methods for Demonstrating LWR Compliance with the EPA Uranium Fuel Cycle Standard (40 CFR Part 190) states in section IV, "As long as a nuclear plant site operates at a level below the Appendix I reporting requirements, no extra analysis is required to demonstrate compliance with the 40 CFR Part 190." The organ and whole body doses reported on pages 28 through 49 are determined using 10 CFR 50 Appendix I methodology. The doses are below the limits of Appendix I.

BRAIDWOOD NUCLEAR POWER STATION
RADIOACTIVE EFFLUENT RELEASE REPORT FOR 2008
UNIT 1 AND 2 (Docket Numbers 50-456 and 50-457)

APPENDIX A

LLD Tables

BRAIDWOOD NUCLEAR POWER STATION
RADIOACTIVE EFFLUENT RELEASE REPORT FOR 2008
UNIT 1 AND 2 (Docket Numbers 50-456 and 50-457)
LLD VALUES FOR GASEOUS RELEASES

<u>Isotope</u>	<u>LLD (Ci/ml)</u>
Alpha	7.11E-19
H-3	8.03E-14
Ar-41	7.63E-13
Mn-54	1.89E-18
Co-57	1.02E-18
Co-58	5.67E-19
Fe-59	3.64E-18
Co-60	8.94E-19
Zn-65	4.80E-18
Br-82	7.44E-19
Kr-85	5.83E-11
Kr-85m	7.03E-13
Kr-87	7.59E-13
Kr-88	3.18E-12
Sr-89	1.41E-20
Sr-90	2.71E-21
Mo-99	9.37E-19
I-131	8.96E-19
I-132	2.38E-17
I-133	1.17E-18
Xe-131m	1.82E-11
Xe-133	1.27E-12
Xe-133m	4.87E-12
Cs-134	2.25E-18
I-135	2.88E-18
Xe-135	5.17E-13
Xe-135m	1.48E-11
Cs-137	2.18E-18
Xe-138	4.65E-11
Ba-139	1.04E-15
Ba-140	4.45E-18
La-140	3.64E-18
Ce-141	1.78E-18
Ce-144	7.93E-18

NOTE: LLD Value for total activity released is based on LLD values for individual isotopes used in the calculation.

BRAIDWOOD NUCLEAR POWER STATION
RADIOACTIVE EFFLUENT RELEASE REPORT FOR 2008
UNIT 1 AND 2 (Docket Numbers 50-456 and 50-457)
LLD VALUES FOR LIQUID RELEASES

<u>Isotope</u>	<u>LLD (Ci/ml)</u>
Alpha	4.90E-14
H-3	8.00E-12
Ar-41	3.73E-14
Cr-51	4.46E-13
Mn-54	1.56E-14
Fe-55	6.99E-13
Co-57	4.64E-14
Co-58	4.39E-14
Fe-59	3.94E-14
Co-60	9.40E-14
Zn-65	4.04E-14
Sr-89	4.00E-14
Sr-90	9.23E-15
Nb-95	1.64E-14
Zr-95	1.22E-13
Nb-97	1.51E-13
Mo-99	2.94E-13
Tc-99m	3.00E-13
Ag-110m	7.89E-14
Sb-124	5.43E-14
Sb-125	1.87E-13
Te-125m	1.62E-11
I-131	1.36E-13
Xe-133	1.41E-13
Cs-134	5.02E-14
Cs-137	6.50E-14
Ba-139	3.57E-13
Ba-140	1.50E-13
La-140	5.89E-13
Ce-141	9.35E-14
Ce-144	3.48E-13
Kr-85	9.29E-12
Nb-95	1.64E-14
Sb-122	4.32E-13
Te-123m	4.92E-14
Te-132	2.28E-13
I-132	5.93E-14
I-133	2.37E-11
Cs-136	9.72E-14
Xe-133m	3.81E-13
Xe-131m	1.72E-12
Np-239	1.64E-12
Ba-133	6.31E-14
Xe-135	2.43E-13

NOTE: LLD Value for Total Activity Released is based on LLD Values for individual isotopes used in the calculation.

BRAIDWOOD NUCLEAR POWER STATION
RADIOACTIVE EFFLUENT RELEASE REPORT FOR 2008
UNIT 1 AND 2 (Docket Numbers 50-456 and 50-457)

APPENDIX B

Supplemental Information

BRAIDWOOD NUCLEAR POWER STATION
RADIOACTIVE EFFLUENT RELEASE REPORT FOR 2008
UNIT COMMON

GASEOUS EFFLUENTS
SUPPLEMENTAL RELEASE INFORMATION

A. Batch Release	1st Qtr	2nd Qtr	3rd Qtr	4th Qtr	Total
1. Total Number of Batch Releases	9	2	16	1	28
2. Total Time Period for Batch Releases (minutes)	1,499	401	6,288	827	9,015
3. Maximum Time Period for a Batch Release (minutes)	458	398	1,600	827	N/A
4. Average Time Period for a Batch Release (minutes)	167	201	393	827	N/A
5. Minimum Time Period for a Batch Release (minutes)	2	3	2	827	N/A
B. Abnormal Releases					
1. Number of Releases	0	2	0	0	2
2. Total Activity Released (Ci)	0	2.95E-01	0	0	2.95E-01

BRAIDWOOD NUCLEAR POWER STATION
RADIOACTIVE EFFLUENT RELEASE REPORT FOR 2008
UNIT 1 (Docket Number 50-456)

GASEOUS EFFLUENTS
SUPPLEMENTAL RELEASE INFORMATION

A. Batch Release	1st Qtr	2nd Qtr	3rd Qtr	4th Qtr	Total
1. Total Number of Batch Releases	16	14	16	18	64
2. Total Time Period for Batch Releases (minutes)	729	1,971	1,990	659	5,349
3. Maximum Time Period for a Batch Release (minutes)	162	1,470	1,470	52	N/A
4. Average Time Period for a Batch Release (minutes)	46	141	124	37	N/A
5. Minimum Time Period for a Batch Release (minutes)	23	24	24	17	N/A
B. Abnormal Releases					
1. Number of Releases	0	0	0	0	0
2. Total Activity Released (Ci)	0	0	0	0	0

BRAIDWOOD NUCLEAR POWER STATION
RADIOACTIVE EFFLUENT RELEASE REPORT FOR 2008
UNIT 2 (Docket Number 50-457)

GASEOUS EFFLUENTS
SUPPLEMENTAL RELEASE INFORMATION

A. Batch Release	1st Qtr	2nd Qtr	3rd Qtr	4th Qtr	Total
1. Total Number of Batch Releases	32	26	23	20	101
2. Total Time Period for Batch Releases (minutes)	1,443	28,318	862	1,455	32,078
3. Maximum Time Period for a Batch Release (minutes)	274	19,600	150	705	N/A
4. Average Time Period for a Batch Release (minutes)	45	1,089	37	73	N/A
5. Minimum Time Period for a Batch Release (minutes)	11	16	16	24	N/A
B. Abnormal Releases					
1. Number of Releases	0	0	0	0	0
2. Total Activity Released (Ci)	0	0	0	0	0

BRAIDWOOD NUCLEAR POWER STATION
 RADIOACTIVE EFFLUENT RELEASE REPORT FOR 2008
 UNIT 1 AND 2 COMBINED (Docket Numbers 50-456 and 50-457)
 BRAIDWOOD NUCLEAR POWER STATION

LIQUID EFFLUENTS
 SUPPLEMENTAL RELEASE INFORMATION

A.	Batch Release	1st Qtr	2nd Qtr	3rd Qtr	4th Qtr	Total
1.	Total Number of Batch Releases	15	42	4	16	77
2.	Total Time Period for Batch Releases (minutes)	3,328	10,666	991	4,264	19,249
3.	Maximum Time Period for a Batch Release (minutes)	283	516	295	493	N/A
4.	Average Time Period for a Batch Release	222	254	248	267	N/A
5.	Minimum Time Period for a Batch Release (minutes)	9	5	221	206	N/A
6.	Average Stream Flow During Periods of Release of Effluent into a Flowing Stream (liters/min)	2.82E+07	1.26E+07	9.08E+06	1.47E+07	N/A
B.	Abnormal Releases					
1.	Number of Releases	0	0	0	0	0
2.	Total Activity Released (Ci)	0.00+00	0.00+00	0.00+00	0.00E+00	0.00E+00

GASEOUS RELEASE AND DOSE SUMMARY REPORT - BY UNIT
(Composite Critical Receptor - Limited Analysis)

Release ID.....: 1 All Gas Release Types
 Period Start Date....: 01/01/2008 00:00
 Period End Date.....: 01/01/2009 00:00
 Period Duration (min): 5.270E+05
 Coefficient Type.....: Historical
 Unit.....: 1

=== RELEASE DATA ===
 Total Release Duration (minutes)..... 1.735E+05
 Total Release Volume (cf)..... 1.898E+10
 Average Release Flowrate (cfm)..... 1.094E+05

Average Period Flowrate (cfm)..... 3.602E+04

=== NUCLIDE DATA ===

Nuclide	uCi	Average uCi/cc	ECrcent Ratio	EC
AR-41	2.41E+03	4.48E-12	4.48E-04	1.00E-08
KR-85M	1.36E+04	2.53E-11	2.53E-04	1.00E-07
KR-85	3.21E+06	5.98E-09	8.54E-03	7.00E-07
XE-133M	3.71E+05	6.90E-10	1.15E-03	6.00E-07
XE-131M	3.38E+05	6.30E-10	3.15E-04	2.00E-06
XE-135	1.12E+06	2.09E-09	2.99E-02	7.00E-08
XE-133	2.53E+07	4.71E-08	9.41E-02	5.00E-07
F&AG	3.04E+07	5.65E-08	1.35E-01	
I-131	1.18E+03	2.20E-12	1.10E-02	2.00E-10
I-132	2.50E+02	4.65E-13	2.32E-05	2.00E-08
I-133	4.94E+01	9.20E-14	9.20E-05	1.00E-09
Iodine	1.48E+03	2.76E-12	1.11E-02	
BR-82	1.53E-01	2.84E-16	5.69E-08	5.00E-09
Other	1.53E-01	2.84E-16	5.69E-08	
H-3	3.41E+07	6.35E-08	6.35E-01	1.00E-07
H-3	3.41E+07	6.35E-08	6.35E-01	
ND-147	4.54E+00	8.45E-15	8.45E-06	1.00E-09
P>=8	4.54E+00	8.45E-15	8.45E-06	
Total	6.45E+07	1.20E-07	7.81E-01	

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GASEOUS RELEASE AND DOSE SUMMARY REPORT - BY UNIT
(Composite Critical Receptor - Limited Analysis)

Release ID.....: 1 All Gas Release Types
Period Start Date....: 01/01/2008 00:00
Period End Date.....: 01/01/2009 00:00
Period Duration (min): 5.270E+05
Coefficient Type.....: Historical
Unit.....: 1

GASEOUS RELEASE AND DOSE SUMMARY REPORT - BY UNIT
(Composite Critical Receptor - Limited Analysis)

Release ID.....: 1 All Gas Release Types
 Period Start Date....: 01/01/2008 00:00
 Period End Date.....: 01/01/2009 00:00
 Period Duration (min): 5.270E+05
 Coefficient Type.....: Historical
 Unit.....: 1
 Receptor.....: 5 Composite Crit. Receptor - IP
 Distance (meters)....: 0.0
 Compass Point.....: 0.0

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=== PERIOD DOSE BY AGEGROUP, PATHWAY, ORGAN (mrem) =====
Age/Path Bone      Liver      Thyroid    Kidney     Lung      GI-Lli     Skin      TB
-----
AGPD      1.09E-05 1.09E-05 1.09E-05 1.09E-05 1.09E-05 1.09E-05 0.00E+00 1.09E-05
AINHL     1.13E-06 9.04E-04 1.43E-03 9.05E-04 9.02E-04 9.02E-04 0.00E+00 9.03E-04
AVEG      4.98E-05 1.69E-03 2.50E-02 1.74E-03 1.62E-03 1.64E-03 0.00E+00 1.66E-03
AGMILK    2.19E-04 1.43E-03 1.04E-01 1.65E-03 1.11E-03 1.20E-03 0.00E+00 1.29E-03
ACMEAT    6.62E-06 2.42E-04 3.34E-03 2.49E-04 2.33E-04 2.35E-04 0.00E+00 2.38E-04
ACMILK    1.83E-04 8.08E-04 8.62E-02 9.94E-04 5.46E-04 6.16E-04 0.00E+00 6.96E-04
TGPD      1.09E-05 1.09E-05 1.09E-05 1.09E-05 1.09E-05 1.09E-05 0.00E+00 1.09E-05
TINHL     1.58E-06 9.12E-04 1.55E-03 9.14E-04 9.10E-04 9.10E-04 0.00E+00 9.11E-04
TVEG      4.74E-05 1.92E-03 2.12E-02 1.97E-03 1.85E-03 1.87E-03 0.00E+00 1.89E-03
TGMILK    3.98E-04 2.01E-03 1.64E-01 2.41E-03 1.45E-03 1.56E-03 0.00E+00 1.75E-03
TCMEAT    5.50E-06 1.46E-04 2.39E-03 1.52E-04 1.39E-04 1.40E-04 0.00E+00 1.43E-04
TCMILK    3.31E-04 1.18E-03 1.36E-01 1.51E-03 7.11E-04 8.03E-04 0.00E+00 9.60E-04
CGPD      1.09E-05 1.09E-05 1.09E-05 1.09E-05 1.09E-05 1.09E-05 0.00E+00 1.09E-05
CINHL     2.15E-06 8.06E-04 1.52E-03 8.07E-04 8.04E-04 8.04E-04 0.00E+00 8.05E-04
CVEG      8.82E-05 2.96E-03 3.22E-02 3.02E-03 2.88E-03 2.88E-03 0.00E+00 2.93E-03
CGMILK    9.65E-04 3.27E-03 3.23E-01 3.89E-03 2.30E-03 2.38E-03 0.00E+00 2.85E-03
CCMEAT    1.02E-05 1.78E-04 3.56E-03 1.85E-04 1.68E-04 1.69E-04 0.00E+00 1.74E-04
CCMILK    8.04E-04 1.94E-03 2.68E-01 2.45E-03 1.13E-03 1.20E-03 0.00E+00 1.59E-03
IGPD      1.09E-05 1.09E-05 1.09E-05 1.09E-05 1.09E-05 1.09E-05 0.00E+00 1.09E-05
IINHL     1.69E-06 4.64E-04 1.12E-03 4.65E-04 4.62E-04 4.62E-04 0.00E+00 4.63E-04
IGMILK    2.01E-03 5.86E-03 7.83E-01 6.26E-03 3.49E-03 3.57E-03 0.00E+00 4.53E-03
ICMILK    1.68E-03 3.69E-03 6.51E-01 4.02E-03 1.71E-03 1.78E-03 0.00E+00 2.58E-03
  
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=== PERIOD DOSE BY AGEGROUP, ORGAN (mrem) =====
Agegroup Bone      Liver      Thyroid    Kidney     Lung      GI-Lli     Skin      TB
-----
ADULT     4.70E-04 5.08E-03 2.20E-01 5.55E-03 4.43E-03 4.60E-03 0.00E+00 4.80E-03
TEEN      7.95E-04 6.17E-03 3.25E-01 6.96E-03 5.07E-03 5.29E-03 0.00E+00 5.66E-03
CHILD     1.88E-03 9.16E-03 6.29E-01 1.04E-02 7.28E-03 7.45E-03 0.00E+00 8.35E-03
INFANT    3.70E-03 1.00E-02 1.44E+00 1.08E-02 5.67E-03 5.83E-03 0.00E+00 7.58E-03
  
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GASEOUS RELEASE AND DOSE SUMMARY REPORT - BY UNIT
(Composite Critical Receptor - Limited Analysis)

Release ID.....: 1 All Gas Release Types
 Period Start Date....: 01/01/2008 00:00
 Period End Date.....: 01/01/2009 00:00
 Period Duration (min): 5.270E+05
 Coefficient Type.....: Historical
 Unit.....: 1
 Receptor.....: 5 Composite Crit. Receptor - IP
 Distance (meters)....: 0.0
 Compass Point.....: 0.0

=== MAXIMUM PERIOD DOSE TO LIMIT (Any Organ) ===

Dose Period	Age Group	Organ	Dose (mrem)	Limit Period	Admin Limit	Admin % of Limit	T.Spec Limit	T.Spec % of Limit
Strt->End	INFANT	THYROID	1.44E+00	31-day	2.25E-01	6.38E+02	3.00E-01	4.78E+02
Qrtr->End	INFANT	THYROID	1.44E+00	Quarter	5.63E+00	2.55E+01	7.50E+00	1.91E+01
Year->End	INFANT	THYROID	1.44E+00	Annual	1.13E+01	1.28E+01	1.50E+01	9.57E+00

Critical Pathway.....: 3 Grs/Goat/Milk (GMILK)
 Major Contributors.....: 0.0 % or greater to total

Nuclide	Percentage
H-3	3.94E-01
I-131	9.96E+01
I-132	1.20E-04
I-133	3.84E-02
ND-147	1.40E-06

=== MAXIMUM PERIOD DOSE TO LIMIT (Tot Body) ===

Dose Period	Age Group	Organ	Dose (mrem)	Limit Period	Admin Limit	Admin % of Limit	T.Spec Limit	T.Spec % of Limit
Strt->End	CHILD	TBODY	8.35E-03	31-day	1.50E-01	5.57E+00	2.00E-01	4.18E+00
Qrtr->End	CHILD	TBODY	8.35E-03	Quarter	5.25E+00	1.59E-01	7.50E+00	1.11E-01
Year->End	CHILD	TBODY	8.35E-03	Annual	1.05E+01	7.95E-02	1.50E+01	5.57E-02

Critical Pathway.....: 2 Vegetation (VEG)
 Major Contributors.....: 0.0 % or greater to total

Nuclide	Percentage
H-3	8.71E+01
I-131	1.29E+01
I-132	2.14E-03
I-133	6.90E-03
ND-147	2.42E-04

GASEOUS RELEASE AND DOSE SUMMARY REPORT - BY UNIT
(Composite Critical Receptor - Limited Analysis)

Release ID.....: 1 All Gas Release Types
 Period Start Date....: 01/01/2008 00:00
 Period End Date.....: 01/01/2009 00:00
 Period Duration (min): 5.270E+05
 Coefficient Type.....: Historical
 Unit.....: 1
 Receptor.....: 4 Composite Crit. Receptor - NG
 Distance (meters)....: 0.0
 Compass Point.....: 0.0

=== MAXIMUM PERIOD NG DOSE TO LIMIT (Gamma) ===

Dose Period	Dose Type	Dose (mrad)	Limit Period	Admin Limit	Admin % of Limit	T.Spec Limit	T.Spec % of Limit
Strt->End	Gamma	2.56E-04	31-day	1.50E-01	1.71E-01	2.00E-01	1.28E-01
Qrtr->End	Gamma	2.56E-04	Quarter	3.75E+00	6.84E-03	5.00E+00	5.13E-03
Year->End	Gamma	2.56E-04	Annual	7.50E+00	3.42E-03	1.00E+01	2.56E-03

Major Contributors.....: 0.0 % or greater to total

Nuclide	Percentage
AR-41	1.97E-01
KR-85M	1.47E-01
KR-85	4.87E-01
XE-133M	1.07E+00
XE-131M	4.65E-01
XE-135	1.90E+01
XE-133	7.86E+01

=== MAXIMUM PERIOD NG DOSE TO LIMIT (Beta) ===

Dose Period	Dose Type	Dose (mrad)	Limit Period	Admin Limit	Admin % of Limit	T.Spec Limit	T.Spec % of Limit
Strt->End	Beta	1.35E-03	31-day	3.00E-01	4.49E-01	4.00E-01	3.36E-01
Qrtr->End	Beta	1.35E-03	Quarter	7.50E+00	1.79E-02	1.00E+01	1.35E-02
Year->End	Beta	1.35E-03	Annual	1.50E+01	8.97E-03	2.00E+01	6.73E-03

Major Contributors.....: 0.0 % or greater to total

Nuclide	Percentage
AR-41	2.16E-02
KR-85M	7.31E-02
KR-85	1.71E+01
XE-133M	1.50E+00
XE-131M	1.03E+00
XE-135	7.57E+00
XE-133	7.27E+01

GASEOUS RELEASE AND DOSE SUMMARY REPORT - BY UNIT
(Composite Critical Receptor - Limited Analysis)

Release ID.....: 1 All Gas Release Types
 Period Start Date....: 01/01/2008 00:00
 Period End Date.....: 01/01/2009 00:00
 Period Duration (min): 5.270E+05
 Coefficient Type.....: Historical
 Unit.....: 2

=== RELEASE DATA ===
 Total Release Duration (minutes)..... 3.267E+05
 Total Release Volume (cf)..... 3.278E+10
 Average Release Flowrate (cfm)..... 1.003E+05
 Average Period Flowrate (cfm)..... 6.219E+04

=== NUCLIDE DATA ===

Nuclide	uCi	Average uCi/cc	ECrcent Ratio	EC
AR-41	2.41E+03	2.60E-12	2.60E-04	1.00E-08
KR-85M	1.36E+04	1.46E-11	1.46E-04	1.00E-07
KR-85	3.21E+06	3.46E-09	4.95E-03	7.00E-07
XE-133M	3.71E+05	3.99E-10	6.66E-04	6.00E-07
KR-88	8.68E+07	9.35E-08	1.04E+01	9.00E-09
XE-131M	3.38E+05	3.65E-10	1.82E-04	2.00E-06
XE-135	3.55E+06	3.83E-09	5.47E-02	7.00E-08
XE-133	2.75E+08	2.97E-07	5.93E-01	5.00E-07
F&AG	3.70E+08	3.98E-07	1.10E+01	
I-131	1.32E+03	1.42E-12	7.09E-03	2.00E-10
I-132	1.92E+02	2.07E-13	1.03E-05	2.00E-08
I-133	1.16E+02	1.25E-13	1.25E-04	1.00E-09
Iodine	1.62E+03	1.75E-12	7.23E-03	
BR-82	2.65E+00	2.85E-15	5.70E-07	5.00E-09
Other	2.65E+00	2.85E-15	5.70E-07	
H-3	9.14E+07	9.84E-08	9.84E-01	1.00E-07
H-3	9.14E+07	9.84E-08	9.84E-01	
TE-132	9.50E-01	1.02E-15	1.14E-06	9.00E-10
P<8	9.50E-01	1.02E-15	1.14E-06	
CO-57	1.12E+00	1.21E-15	1.34E-06	9.00E-10
SN-113	2.78E+00	2.99E-15	3.74E-06	8.00E-10

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GASEOUS RELEASE AND DOSE SUMMARY REPORT - BY UNIT
(Composite Critical Receptor - Limited Analysis)

Release ID.....: 1 All Gas Release Types
Period Start Date....: 01/01/2008 00:00
Period End Date.....: 01/01/2009 00:00
Period Duration (min): 5.270E+05
Coefficient Type.....: Historical
Unit.....: 2

```
=== NUCLIDE DATA =====
```

Nuclide	uCi	Average uCi/cc	ECrcent Ratio	EC
P>=8	3.90E+00	4.20E-15	5.09E-06	
Total	4.61E+08	4.97E-07	1.20E+01	

GASEOUS RELEASE AND DOSE SUMMARY REPORT - BY UNIT
(Composite Critical Receptor - Limited Analysis)

Release ID.....: 1 All Gas Release Types
 Period Start Date....: 01/01/2008 00:00
 Period End Date.....: 01/01/2009 00:00
 Period Duration (min): 5.270E+05
 Coefficient Type.....: Historical
 Unit.....: 2
 Receptor.....: 5 Composite Crit. Receptor - IP
 Distance (meters)....: 0.0
 Compass Point.....: 0.0

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=== PERIOD DOSE BY AGEGROUP, PATHWAY, ORGAN (mrem) =====
Age/Path Bone      Liver      Thyroid  Kidney   Lung      GI-Lli    Skin      TB
-----
AGPD      1.21E-05 1.21E-05 1.21E-05 1.21E-05 1.21E-05 1.21E-05 0.00E+00 1.21E-05
AINHL     1.27E-06 2.42E-03 3.00E-03 2.42E-03 2.42E-03 2.42E-03 0.00E+00 2.42E-03
AVEG      5.55E-05 4.41E-03 3.03E-02 4.47E-03 4.33E-03 4.36E-03 0.00E+00 4.38E-03
AGMILK    2.44E-04 3.33E-03 1.17E-01 3.58E-03 2.99E-03 3.08E-03 0.00E+00 3.19E-03
ACMEAT    7.36E-06 6.34E-04 4.07E-03 6.41E-04 6.23E-04 6.26E-04 0.00E+00 6.29E-04
ACMILK    2.03E-04 1.75E-03 9.67E-02 1.96E-03 1.46E-03 1.54E-03 0.00E+00 1.63E-03
TGPD      1.21E-05 1.21E-05 1.21E-05 1.21E-05 1.21E-05 1.21E-05 0.00E+00 1.21E-05
TINHL     1.78E-06 2.44E-03 3.16E-03 2.44E-03 2.44E-03 2.44E-03 0.00E+00 2.44E-03
TVEG      5.28E-05 5.03E-03 2.65E-02 5.09E-03 4.96E-03 4.97E-03 0.00E+00 5.00E-03
TGMILK    4.42E-04 4.50E-03 1.85E-01 4.95E-03 3.88E-03 4.01E-03 0.00E+00 4.22E-03
TCMEAT    6.12E-06 3.80E-04 2.87E-03 3.86E-04 3.71E-04 3.73E-04 0.00E+00 3.76E-04
TCMILK    3.69E-04 2.42E-03 1.52E-01 2.79E-03 1.90E-03 2.01E-03 0.00E+00 2.18E-03
CGPD      1.21E-05 1.21E-05 1.21E-05 1.21E-05 1.21E-05 1.21E-05 0.00E+00 1.21E-05
CINHL     2.42E-06 2.15E-03 2.96E-03 2.16E-03 2.15E-03 2.15E-03 0.00E+00 2.15E-03
CVEG      9.82E-05 7.80E-03 4.03E-02 7.86E-03 7.70E-03 7.71E-03 0.00E+00 7.76E-03
CGMILK    1.07E-03 7.23E-03 3.63E-01 7.93E-03 6.15E-03 6.25E-03 0.00E+00 6.77E-03
CCMEAT    1.13E-05 4.61E-04 4.22E-03 4.69E-04 4.50E-04 4.51E-04 0.00E+00 4.56E-04
CCMILK    8.94E-04 3.92E-03 3.00E-01 4.49E-03 3.02E-03 3.10E-03 0.00E+00 3.53E-03
IGPD      1.21E-05 1.21E-05 1.21E-05 1.21E-05 1.21E-05 1.21E-05 0.00E+00 1.21E-05
IINHL     1.91E-06 1.24E-03 1.97E-03 1.24E-03 1.24E-03 1.24E-03 0.00E+00 1.24E-03
IGMILK    2.24E-03 1.20E-02 8.76E-01 1.24E-02 9.34E-03 9.43E-03 0.00E+00 1.05E-02
ICMILK    1.87E-03 6.78E-03 7.27E-01 7.15E-03 4.58E-03 4.66E-03 0.00E+00 5.54E-03
  
```

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=== PERIOD DOSE BY AGEGROUP, ORGAN (mrem) =====
Agegroup Bone      Liver      Thyroid  Kidney   Lung      GI-Lli    Skin      TB
-----
ADULT     5.23E-04 1.26E-02 2.51E-01 1.31E-02 1.18E-02 1.20E-02 0.00E+00 1.23E-02
TEEN      8.84E-04 1.48E-02 3.69E-01 1.57E-02 1.36E-02 1.38E-02 0.00E+00 1.42E-02
CHILD     2.09E-03 2.16E-02 7.11E-01 2.29E-02 1.95E-02 1.97E-02 0.00E+00 2.07E-02
INFANT    4.12E-03 2.00E-02 1.60E+00 2.08E-02 1.52E-02 1.53E-02 0.00E+00 1.73E-02
  
```

GASEOUS RELEASE AND DOSE SUMMARY REPORT - BY UNIT
(Composite Critical Receptor - Limited Analysis)

Release ID.....: 1 All Gas Release Types
 Period Start Date....: 01/01/2008 00:00
 Period End Date.....: 01/01/2009 00:00
 Period Duration (min): 5.270E+05
 Coefficient Type.....: Historical
 Unit.....: 2
 Receptor.....: 5 Composite Crit. Receptor - IP
 Distance (meters)....: 0.0
 Compass Point.....: 0.0

=== MAXIMUM PERIOD DOSE TO LIMIT (Any Organ) ===

Dose Period	Age Group	Organ	Dose (mrem)	Limit Period	Admin Limit	Admin % of Limit	T.Spec Limit	T.Spec % of Limit
Strt->End	INFANT	THYROID	1.60E+00	31-day	2.25E-01	7.13E+02	3.00E-01	5.35E+02
Qrtr->End	INFANT	THYROID	1.60E+00	Quarter	5.63E+00	2.85E+01	7.50E+00	2.14E+01
Year->End	INFANT	THYROID	1.60E+00	Annual	1.13E+01	1.43E+01	1.50E+01	1.07E+01

Critical Pathway.....: 3 Grs/Goat/Milk (GMILK)
 Major Contributors.....: 0.0 % or greater to total

Nuclide	Percentage
H-3	9.47E-01
TE-132	6.60E-07
I-131	9.91E+01
I-132	8.22E-05
I-133	8.10E-02

=== MAXIMUM PERIOD DOSE TO LIMIT (Tot Body) ===

Dose Period	Age Group	Organ	Dose (mrem)	Limit Period	Admin Limit	Admin % of Limit	T.Spec Limit	T.Spec % of Limit
Strt->End	CHILD	TBODY	2.07E-02	31-day	1.50E-01	1.38E+01	2.00E-01	1.03E+01
Qrtr->End	CHILD	TBODY	2.07E-02	Quarter	5.25E+00	3.94E-01	7.50E+00	2.76E-01
Year->End	CHILD	TBODY	2.07E-02	Annual	1.05E+01	1.97E-01	1.50E+01	1.38E-01

Critical Pathway.....: 2 Vegetation (VEG)
 Major Contributors.....: 0.0 % or greater to total

Nuclide	Percentage
H-3	9.43E+01
TE-132	3.64E-05
I-131	5.80E+00
I-132	6.67E-04
I-133	6.53E-03

GASEOUS RELEASE AND DOSE SUMMARY REPORT - BY UNIT
(Composite Critical Receptor - Limited Analysis)

Release ID.....: 1 All Gas Release Types
 Period Start Date....: 01/01/2008 00:00
 Period End Date.....: 01/01/2009 00:00
 Period Duration (min): 5.270E+05
 Coefficient Type.....: Historical
 Unit.....: 2
 Receptor.....: 4 Composite Crit. Receptor - NG
 Distance (meters)....: 0.0
 Compass Point.....: 0.0

=== MAXIMUM PERIOD NG DOSE TO LIMIT (Gamma) ===

Dose Period	Dose Type	Dose (mrad)	Limit Period	Admin Limit	Admin % of Limit	T.Spec Limit	T.Spec % of Limit
Strt->End	Gamma	3.21E-02	31-day	1.50E-01	2.14E+01	2.00E-01	1.61E+01
Qrtr->End	Gamma	3.21E-02	Quarter	3.75E+00	8.56E-01	5.00E+00	6.42E-01
Year->End	Gamma	3.21E-02	Annual	7.50E+00	4.28E-01	1.00E+01	3.21E-01

Major Contributors.....: 0.0 % or greater to total

Nuclide	Percentage
AR-41	1.58E-03
KR-85M	1.17E-03
KR-85	3.88E-03
XE-133M	8.52E-03
KR-88	9.27E+01
XE-131M	3.71E-03
XE-135	4.80E-01
XE-133	6.83E+00

=== MAXIMUM PERIOD NG DOSE TO LIMIT (Beta) ===

Dose Period	Dose Type	Dose (mrad)	Limit Period	Admin Limit	Admin % of Limit	T.Spec Limit	T.Spec % of Limit
Strt->End	Beta	2.06E-02	31-day	3.00E-01	6.86E+00	4.00E-01	5.15E+00
Qrtr->End	Beta	2.06E-02	Quarter	7.50E+00	2.74E-01	1.00E+01	2.06E-01
Year->End	Beta	2.06E-02	Annual	1.50E+01	1.37E-01	2.00E+01	1.03E-01

Major Contributors.....: 0.0 % or greater to total

Nuclide	Percentage
AR-41	1.41E-03
KR-85M	4.78E-03
KR-85	1.12E+00
XE-133M	9.81E-02
KR-88	4.55E+01
XE-131M	6.72E-02
XE-135	1.56E+00
XE-133	5.17E+01

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LIQUID RELEASE AND DOSE SUMMARY REPORT
----- (PERIOD BASIS - BY UNIT) -----

Release ID.....: 1 All Liquid Release Types
Period Start Date.....: 01/01/2008 00:00
Period End Date.....: 01/01/2009 00:00
Period Duration (mins): 5.270E+05
Unit.....: 1

=== MULTIPLE RELEASE POINT MESSAGE =====
Undiluted and Diluted Flowrate(s) and Concentration(s) cannot be combined.

=== RELEASE DATA =====
Total Release Duration (minutes)..... 1.376E+06
Total Undiluted Volume Released (gallons)..... NA
Average Undiluted Flowrate (gpm)..... NA

Total Dilution Volume (gallons)..... NA
Average Dilution Flowrate (gpm)..... NA

=== NUCLIDE DATA =====

Nuclide	uCi
CO-57	9.15E+01
NB-97	2.10E+00
SN-113	5.84E+01
SB-124	8.52E+02
SB-125	6.28E+03
TE-123M	8.16E+01
CR-51	8.38E+03
MN-54	4.86E+02
FE-59	5.49E+02
CO-58	1.61E+04
CO-60	6.16E+03
ZN-65	8.89E+00
ZR-95	9.05E+02
NB-95	1.60E+03
RU-103	1.33E+02
TE-132	9.81E+00
I-131	4.40E+02
I-132	5.22E+00
CS-134	1.23E+03
CS-137	1.04E+03
Gamma	4.44E+04
AR-41	7.44E+00
D&EG	7.44E+00
H-3	7.05E+08
FE-55	7.17E+03

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LIQUID RELEASE AND DOSE SUMMARY REPORT
----- (PERIOD BASIS - BY UNIT) -----

Release ID.....: 1 All Liquid Release Types
Period Start Date.....: 01/01/2008 00:00
Period End Date.....: 01/01/2009 00:00
Period Duration (mins): 5.270E+05

=== NUCLIDE DATA =====
Nuclide uCi

Beta 7.05E+08

ALPHA 1.17E+02

Alpha 1.17E+02

Total 7.05E+08

LIQUID RELEASE AND DOSE SUMMARY REPORT
 ----- (PERIOD BASIS - BY UNIT) -----

Release ID.....: 1 All Liquid Release Types
 Period Start Date.....: 01/01/2008 00:00
 Period End Date.....: 01/01/2009 00:00
 Period Duration (mins): 5.270E+05
 Unit.....: 1
 Receptor.....: 0 Liquid Receptor

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=== PERIOD DOSE BY AGEGROUP, PATHWAY, ORGAN (mrem) =====
Age/Path Bone      Liver      Thyroid  Kidney   Lung      GI-Lli    Skin      TB
-----
APWtr    3.13E-05  2.41E-02  2.42E-02  2.41E-02  2.41E-02  2.42E-02  0.00E+00  2.41E-02
AFWFSp   2.29E-02  5.22E-02  1.09E-02  2.38E-02  1.47E-02  8.45E-02  0.00E+00  4.19E-02
TPWtr    3.01E-05  1.70E-02  1.71E-02  1.70E-02  1.70E-02  1.70E-02  0.00E+00  1.70E-02
TFWFSp   2.40E-02  5.10E-02  8.51E-03  2.17E-02  1.32E-02  6.04E-02  0.00E+00  2.59E-02
CPWtr    8.71E-05  3.27E-02  3.28E-02  3.26E-02  3.26E-02  3.26E-02  0.00E+00  3.26E-02
CFWFSp   2.97E-02  4.39E-02  7.23E-03  1.81E-02  1.07E-02  2.52E-02  0.00E+00  1.35E-02
IPWtr    8.62E-05  3.21E-02  3.24E-02  3.20E-02  3.20E-02  3.20E-02  0.00E+00  3.20E-02
  
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=== PERIOD DOSE BY AGEGROUP, ORGAN (mrem) =====
Agegroup Bone      Liver      Thyroid  Kidney   Lung      GI-Lli    Skin      TB
-----
ADULT    2.29E-02  7.64E-02  3.51E-02  4.79E-02  3.88E-02  1.09E-01  0.00E+00  6.60E-02
TEEN     2.40E-02  6.80E-02  2.56E-02  3.87E-02  3.02E-02  7.74E-02  0.00E+00  4.29E-02
CHILD    2.97E-02  7.65E-02  4.01E-02  5.07E-02  4.33E-02  5.78E-02  0.00E+00  4.62E-02
INFANT   8.62E-05  3.21E-02  3.24E-02  3.20E-02  3.20E-02  3.20E-02  0.00E+00  3.20E-02
  
```

LIQUID RELEASE AND DOSE SUMMARY REPORT
 ----- (PERIOD BASIS - BY UNIT) -----

Release ID.....: 1 All Liquid Release Types
 Period Start Date.....: 01/01/2008 00:00
 Period End Date.....: 01/01/2009 00:00
 Period Duration (mins): 5.270E+05
 Unit.....: 1
 Receptor.....: 0 Liquid Receptor

=== MAXIMUM PERIOD DOSE TO LIMIT (Any Organ) ===

Dose Period	Age Group	Organ	Dose (mrem)	Limit Period	Admin Limit	Admin % of Limit	T.Spec Limit	T.Spec % of Limit
Strt->End	ADULT	GILLI	1.09E-01	31-day	1.50E-01	7.24E+01	2.00E-01	5.43E+01
Qrtr->End	ADULT	GILLI	1.09E-01	Quarter	3.75E+00	2.90E+00	5.00E+00	2.17E+00
Year->End	ADULT	GILLI	1.09E-01	Annual	7.50E+00	1.45E+00	1.00E+01	1.09E+00

Critical Pathway.....: 1 Fresh Water Fish - Sport (FFSP)
 Major Contributors.....: 0.0 % or greater to total

Nuclide Percentage

H-3	3.13E+01
CR-51	7.39E-02
MN-54	1.79E-01
FE-55	1.04E-01
FE-59	1.24E-01
CO-58	8.28E-01
CO-60	8.43E-01
ZN-65	1.12E-02
ZR-95	1.00E-02
NB-95	6.57E+01
RU-103	2.27E-03
TE-132	1.99E-02
I-131	7.74E-04
I-132	5.97E-07
CS-134	4.16E-01
CS-137	2.86E-01

=== MAXIMUM PERIOD DOSE TO LIMIT (Tot Body) ===

Dose Period	Age Group	Organ	Dose (mrem)	Limit Period	Admin Limit	Admin % of Limit	T.Spec Limit	T.Spec % of Limit
Strt->End	ADULT	TBODY	6.60E-02	31-day	4.50E-02	1.47E+02	6.00E-02	1.10E+02
Qrtr->End	ADULT	TBODY	6.60E-02	Quarter	1.13E+00	5.87E+00	1.50E+00	4.40E+00
Year->End	ADULT	TBODY	6.60E-02	Annual	2.25E+00	2.93E+00	3.00E+00	2.20E+00

Critical Pathway.....: 1 Fresh Water Fish - Sport (FFSP)
 Major Contributors.....: 0.0 % or greater to total

Nuclide Percentage

H-3	5.15E+01
CR-51	4.85E-04

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LIQUID RELEASE AND DOSE SUMMARY REPORT
----- (PERIOD BASIS - BY UNIT) -----

Release ID.....: 1 All Liquid Release Types
Period Start Date.....: 01/01/2008 00:00
Period End Date.....: 01/01/2009 00:00
Period Duration (mins): 5.270E+05

Major Contributors.....: 0.0 % or greater to total

Nuclide	Percentage
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MN-54	1.83E-02
FE-55	6.99E-02
FE-59	2.36E-02
CO-58	1.51E-01
CO-60	1.64E-01
ZN-65	1.33E-02
ZR-95	3.52E-06
NB-95	9.59E-03
RU-103	1.38E-05
TE-132	6.49E-04
I-131	2.77E-03
I-132	1.83E-06
CS-134	3.20E+01
CS-137	1.59E+01

Date/Time: 04/29/2009 08:37 retDasID: RetDas

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LIQUID RELEASE AND DOSE SUMMARY REPORT
----- (PERIOD BASIS - BY UNIT) -----

Release ID.....: 1 All Liquid Release Types
Period Start Date.....: 01/01/2008 00:00
Period End Date.....: 01/01/2009 00:00
Period Duration (mins): 5.270E+05
Unit.....: 2

=== MULTIPLE RELEASE POINT MESSAGE =====
Undiluted and Diluted Flowrate(s) and Concentration(s) cannot be combined.

=== RELEASE DATA =====
Total Release Duration (minutes)..... 1.376E+06
Total Undiluted Volume Released (gallons)..... NA
Average Undiluted Flowrate (gpm)..... NA

Total Dilution Volume (gallons)..... NA
Average Dilution Flowrate (gpm)..... NA

=== NUCLIDE DATA =====

Nuclide	uCi
CO-57	9.15E+01
NB-97	2.10E+00
SN-113	5.84E+01
SB-124	8.52E+02
SB-125	6.28E+03
TE-123M	8.16E+01
CR-51	8.38E+03
MN-54	4.86E+02
FE-59	5.49E+02
CO-58	1.61E+04
CO-60	6.16E+03
ZN-65	8.89E+00
ZR-95	9.05E+02
NB-95	1.60E+03
RU-103	1.33E+02
TE-132	9.81E+00
I-131	4.40E+02
I-132	5.22E+00
CS-134	1.23E+03
CS-137	1.04E+03
Gamma	4.44E+04
AR-41	7.44E+00
D&EG	7.44E+00
H-3	7.05E+08
FE-55	7.17E+03

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LIQUID RELEASE AND DOSE SUMMARY REPORT
----- (PERIOD BASIS - BY UNIT) -----

Release ID.....: 1 All Liquid Release Types
Period Start Date.....: 01/01/2008 00:00
Period End Date.....: 01/01/2009 00:00
Period Duration (mins): 5.270E+05

=== NUCLIDE DATA =====
Nuclide uCi

Beta 7.05E+08

ALPHA 1.17E+02

Alpha 1.17E+02

Total 7.05E+08

LIQUID RELEASE AND DOSE SUMMARY REPORT
 ----- (PERIOD BASIS - BY UNIT) -----

Release ID.....: 1 All Liquid Release Types
 Period Start Date.....: 01/01/2008 00:00
 Period End Date.....: 01/01/2009 00:00
 Period Duration (mins): 5.270E+05
 Unit.....: 2
 Receptor.....: 0 Liquid Receptor

=== PERIOD DOSE BY AGEGROUP, PATHWAY, ORGAN (mrem) ===

Age/Path	Bone	Liver	Thyroid	Kidney	Lung	GI-Lli	Skin	TB
APWtr	3.13E-05	2.41E-02	2.42E-02	2.41E-02	2.41E-02	2.42E-02	0.00E+00	2.41E-02
AFWFSp	2.29E-02	5.22E-02	1.09E-02	2.38E-02	1.47E-02	8.45E-02	0.00E+00	4.19E-02
TPWtr	3.01E-05	1.70E-02	1.71E-02	1.70E-02	1.70E-02	1.70E-02	0.00E+00	1.70E-02
TFWFSp	2.40E-02	5.10E-02	8.51E-03	2.17E-02	1.32E-02	6.04E-02	0.00E+00	2.59E-02
CPWtr	8.71E-05	3.27E-02	3.28E-02	3.26E-02	3.26E-02	3.26E-02	0.00E+00	3.26E-02
CFWFSp	2.97E-02	4.39E-02	7.23E-03	1.81E-02	1.07E-02	2.52E-02	0.00E+00	1.35E-02
IPWtr	8.62E-05	3.21E-02	3.24E-02	3.20E-02	3.20E-02	3.20E-02	0.00E+00	3.20E-02

=== PERIOD DOSE BY AGEGROUP, ORGAN (mrem) ===

Agegroup	Bone	Liver	Thyroid	Kidney	Lung	GI-Lli	Skin	TB
ADULT	2.29E-02	7.64E-02	3.51E-02	4.79E-02	3.88E-02	1.09E-01	0.00E+00	6.60E-02
TEEN	2.40E-02	6.80E-02	2.56E-02	3.87E-02	3.02E-02	7.74E-02	0.00E+00	4.29E-02
CHILD	2.97E-02	7.65E-02	4.01E-02	5.07E-02	4.33E-02	5.78E-02	0.00E+00	4.62E-02
INFANT	8.62E-05	3.21E-02	3.24E-02	3.20E-02	3.20E-02	3.20E-02	0.00E+00	3.20E-02

LIQUID RELEASE AND DOSE SUMMARY REPORT
 ----- (PERIOD BASIS - BY UNIT) -----

Release ID.....: 1 All Liquid Release Types
 Period Start Date.....: 01/01/2008 00:00
 Period End Date.....: 01/01/2009 00:00
 Period Duration (mins): 5.270E+05
 Unit.....: 2
 Receptor.....: 0 Liquid Receptor

=== MAXIMUM PERIOD DOSE TO LIMIT (Any Organ) ===

Dose Period	Age Group	Organ	Dose (mrem)	Limit Period	Admin Limit	Admin % of Limit	T.Spec Limit	T.Spec % of Limit
Strt->End	ADULT	GILLI	1.09E-01	31-day	1.50E-01	7.24E+01	2.00E-01	5.43E+01
Qrtr->End	ADULT	GILLI	1.09E-01	Quarter	3.75E+00	2.90E+00	5.00E+00	2.17E+00
Year->End	ADULT	GILLI	1.09E-01	Annual	7.50E+00	1.45E+00	1.00E+01	1.09E+00

Critical Pathway.....: 1 Fresh Water Fish - Sport (FFSP)
 Major Contributors.....: 0.0 % or greater to total

Nuclide	Percentage
H-3	3.13E+01
CR-51	7.39E-02
MN-54	1.79E-01
FE-55	1.04E-01
FE-59	1.24E-01
CO-58	8.28E-01
CO-60	8.43E-01
ZN-65	1.12E-02
ZR-95	1.00E-02
NB-95	6.57E+01
RU-103	2.27E-03
TE-132	1.99E-02
I-131	7.74E-04
I-132	5.97E-07
CS-134	4.16E-01
CS-137	2.86E-01

=== MAXIMUM PERIOD DOSE TO LIMIT (Tot Body) ===

Dose Period	Age Group	Organ	Dose (mrem)	Limit Period	Admin Limit	Admin % of Limit	T.Spec Limit	T.Spec % of Limit
Strt->End	ADULT	TBODY	6.60E-02	31-day	4.50E-02	1.47E+02	6.00E-02	1.10E+02
Qrtr->End	ADULT	TBODY	6.60E-02	Quarter	1.13E+00	5.87E+00	1.50E+00	4.40E+00
Year->End	ADULT	TBODY	6.60E-02	Annual	2.25E+00	2.93E+00	3.00E+00	2.20E+00

Critical Pathway.....: 1 Fresh Water Fish - Sport (FFSP)
 Major Contributors.....: 0.0 % or greater to total

Nuclide	Percentage
H-3	5.15E+01
CR-51	4.85E-04

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LIQUID RELEASE AND DOSE SUMMARY REPORT
----- (PERIOD BASIS - BY UNIT) -----

Release ID.....: 1 All Liquid Release Types
Period Start Date.....: 01/01/2008 00:00
Period End Date.....: 01/01/2009 00:00
Period Duration (mins): 5.270E+05

Major Contributors.....: 0.0 % or greater to total

Nuclide	Percentage
MN-54	1.83E-02
FE-55	6.99E-02
FE-59	2.36E-02
CO-58	1.51E-01
CO-60	1.64E-01
ZN-65	1.33E-02
ZR-95	3.52E-06
NB-95	9.59E-03
RU-103	1.38E-05
TE-132	6.49E-04
I-131	2.77E-03
I-132	1.83E-06
CS-134	3.20E+01
CS-137	1.59E+01

BRAIDWOOD NUCLEAR POWER STATION
RADIOACTIVE EFFLUENT RELEASE REPORT FOR 2008
UNIT 1 AND 2 (Docket Numbers 50-456 and 50-457)

ATTACHMENT 1

Tables 7-11
Wind Direction and Stability Classes

Braidwood Generating Station

Period of Record: January - March 2008

Stability Class - Extremely Unstable - 199Ft-30Ft Delta-T (F)

Winds Measured at 34 Feet

Wind Speed (in mph)

Wind Direction	1-3	4-7	8-12	13-18	19-24	> 24	Total
N	0	0	0	0	0	0	0
NNE	0	0	8	0	0	0	8
NE	0	1	3	0	0	0	4
ENE	0	1	0	0	0	0	1
E	0	1	3	0	0	0	4
ESE	0	0	3	0	0	0	3
SE	0	0	2	0	0	0	2
SSE	0	0	0	0	0	0	0
S	0	0	0	0	0	0	0
SSW	0	0	0	2	0	0	2
SW	0	1	3	2	0	0	6
WSW	0	0	2	0	1	0	3
W	0	2	4	4	6	0	16
WNW	0	6	15	5	0	0	26
NW	0	5	9	0	0	0	14
NNW	0	2	6	0	0	0	8
Variable	0	0	0	0	0	0	0
Total	0	19	58	13	7	0	97

Hours of calm in this stability class: 0

Hours of missing wind measurements in this stability class: 0

Hours of missing stability measurements in all stability classes: 20

Braidwood Generating Station

Period of Record: January - March 2008

Stability Class - Moderately Unstable - 199Ft-30Ft Delta-T (F)

Winds Measured at 34 Feet

Wind Speed (in mph)

Wind Direction	1-3	4-7	8-12	13-18	19-24	> 24	Total
N	0	0	0	0	0	0	0
NNE	0	0	3	2	0	0	5
NE	0	2	0	1	0	0	3
ENE	0	0	0	0	0	0	0
E	0	0	0	0	0	0	0
ESE	0	1	1	0	0	0	2
SE	0	0	1	0	0	0	1
SSE	0	0	1	1	0	0	2
S	0	0	0	0	0	0	0
SSW	0	1	0	1	0	0	2
SW	0	0	0	0	0	0	0
WSW	0	1	2	1	0	0	4
W	0	3	6	0	0	0	9
WNW	0	4	3	2	0	0	9
NW	0	5	1	0	0	0	6
NNW	0	0	5	0	0	0	5
Variable	0	0	0	0	0	0	0
Total	0	17	23	8	0	0	48

Hours of calm in this stability class: 0

Hours of missing wind measurements in this stability class: 0

Hours of missing stability measurements in all stability classes: 20

Braidwood Generating Station

Period of Record: January - March 2008

Stability Class - Slightly Unstable - 199Ft-30Ft Delta-T (F)
Winds Measured at 34 Feet

Wind Speed (in mph)

Wind Direction	1-3	4-7	8-12	13-18	19-24	> 24	Total
N	0	1	2	1	0	0	4
NNE	0	0	5	1	0	0	6
NE	0	2	1	0	0	0	3
ENE	0	1	0	0	0	0	1
E	0	0	3	0	0	0	3
ESE	0	3	2	0	0	0	5
SE	0	0	3	0	0	0	3
SSE	0	1	5	0	0	0	6
S	0	0	0	4	0	0	4
SSW	0	2	4	2	1	0	9
SW	0	2	3	0	1	0	6
WSW	0	4	5	0	1	0	10
W	0	7	6	2	1	0	16
WNW	0	5	7	2	0	0	14
NW	0	1	2	0	0	0	3
NNW	0	0	3	2	0	0	5
Variable	0	0	0	0	0	0	0
Total	0	29	51	14	4	0	98

Hours of calm in this stability class: 0

Hours of missing wind measurements in this stability class: 1

Hours of missing stability measurements in all stability classes: 20

Braidwood Generating Station

Period of Record: January - March 2008
 Stability Class - Neutral - 199Ft-30Ft Delta-T (F)
 Winds Measured at 34 Feet

Wind Speed (in mph)

Wind Direction -----	1-3 -----	4-7 -----	8-12 -----	13-18 -----	19-24 -----	> 24 -----	Total -----
N	0	15	40	4	0	0	59
NNE	5	24	30	3	0	0	62
NE	9	24	39	5	0	0	77
ENE	10	47	18	0	0	0	75
E	3	42	7	0	0	0	52
ESE	1	18	24	0	0	0	43
SE	0	12	21	2	0	0	35
SSE	0	15	54	11	0	0	80
S	0	6	48	68	7	0	129
SSW	0	11	28	29	6	0	74
SW	1	18	33	10	5	0	67
WSW	1	32	21	1	0	0	55
W	5	36	56	32	11	0	140
WNW	3	30	94	31	5	0	163
NW	2	29	28	5	0	0	64
NNW	0	21	28	8	0	0	57
Variable	0	0	0	0	0	0	0
Total	40	380	569	209	34	0	1232

Hours of calm in this stability class: 1

Hours of missing wind measurements in this stability class: 2

Hours of missing stability measurements in all stability classes: 20

Braidwood Generating Station

Period of Record: January - March 2008

Stability Class - Slightly Stable - 199Ft-30Ft Delta-T (F)

Winds Measured at 34 Feet

Wind Speed (in mph)

Wind Direction	1-3	4-7	8-12	13-18	19-24	> 24	Total
N	5	12	0	0	0	0	17
NNE	3	13	7	0	0	0	23
NE	6	6	2	5	0	0	19
ENE	7	7	3	2	0	0	19
E	8	18	2	0	0	0	28
ESE	5	17	6	0	0	0	28
SE	3	11	17	1	0	0	32
SSE	3	14	25	1	2	0	45
S	1	8	35	21	1	0	66
SSW	1	10	14	10	4	0	39
SW	5	6	7	0	0	0	18
WSW	4	21	13	0	0	0	38
W	11	13	7	5	0	0	36
WNW	20	23	12	1	0	0	56
NW	16	29	3	0	0	0	48
NNW	8	13	8	0	0	0	29
Variable	0	0	0	0	0	0	0
Total	106	221	161	46	7	0	541

Hours of calm in this stability class: 11

Hours of missing wind measurements in this stability class: 2

Hours of missing stability measurements in all stability classes: 20

Braidwood Generating Station

Period of Record: January - March 2008

Stability Class - Moderately Stable - 199Ft-30Ft Delta-T (F)

Winds Measured at 34 Feet

Wind Speed (in mph)

Wind Direction	1-3	4-7	8-12	13-18	19-24	> 24	Total
N	1	1	0	0	0	0	2
NNE	1	2	0	0	0	0	3
NE	2	0	0	0	0	0	2
ENE	4	0	0	0	0	0	4
E	2	0	0	0	0	0	2
ESE	1	2	0	0	0	0	3
SE	0	4	0	0	0	0	4
SSE	0	0	0	0	0	0	0
S	0	2	0	0	0	0	2
SSW	3	3	1	0	0	0	7
SW	3	1	0	0	0	0	4
WSW	2	15	0	0	0	0	17
W	19	7	0	0	0	0	26
WNW	14	5	0	0	0	0	19
NW	2	2	0	0	0	0	4
NNW	2	0	0	0	0	0	2
Variable	0	0	0	0	0	0	0
Total	56	44	1	0	0	0	101

Hours of calm in this stability class: 13

Hours of missing wind measurements in this stability class: 4

Hours of missing stability measurements in all stability classes: 20

Braidwood Generating Station

Period of Record: January - March 2008

Stability Class - Extremely Stable - 199Ft-30Ft Delta-T (F)

Winds Measured at 34 Feet

Wind Speed (in mph)

Wind Direction	1-3	4-7	8-12	13-18	19-24	> 24	Total
N	1	0	0	0	0	0	1
NNE	0	0	0	0	0	0	0
NE	0	0	0	0	0	0	0
ENE	0	0	0	0	0	0	0
E	0	0	0	0	0	0	0
ESE	0	0	0	0	0	0	0
SE	0	0	0	0	0	0	0
SSE	0	0	0	0	0	0	0
S	0	0	0	0	0	0	0
SSW	0	2	0	0	0	0	2
SW	3	0	0	0	0	0	3
WSW	0	0	0	0	0	0	0
W	1	0	0	0	0	0	1
WNW	2	0	0	0	0	0	2
NW	0	0	0	0	0	0	0
NNW	0	0	0	0	0	0	0
Variable	0	0	0	0	0	0	0
Total	7	2	0	0	0	0	9

Hours of calm in this stability class: 4

Hours of missing wind measurements in this stability class: 0

Hours of missing stability measurements in all stability classes: 20

Braidwood Generating Station

Period of Record: January - March 2008

Stability Class - Extremely Unstable - 199Ft-30Ft Delta-T (F)

Winds Measured at 203 Feet

Wind Speed (in mph)

Wind Direction	1-3	4-7	8-12	13-18	19-24	> 24	Total
N	0	0	0	1	0	0	1
NNE	0	0	0	1	0	0	1
NE	0	0	8	3	0	0	11
ENE	0	0	1	0	0	0	1
E	0	0	0	0	0	0	0
ESE	0	0	1	5	0	0	6
SE	0	0	3	0	0	0	3
SSE	0	0	0	0	0	0	0
S	0	0	0	0	0	0	0
SSW	0	1	0	0	1	0	2
SW	0	0	1	2	2	0	5
WSW	0	0	0	0	0	1	1
W	0	1	1	6	0	7	15
WNW	0	1	9	11	0	5	26
NW	0	0	12	6	0	0	18
NNW	0	0	4	3	0	0	7
Variable	0	0	0	0	0	0	0
Total	0	3	40	38	3	13	97

Hours of calm in this stability class: 0

Hours of missing wind measurements in this stability class: 0

Hours of missing stability measurements in all stability classes: 20

Braidwood Generating Station

Period of Record: January - March 2008

Stability Class - Moderately Unstable - 199Ft-30Ft Delta-T (F)

Winds Measured at 203 Feet

Wind Speed (in mph)

Wind Direction	1-3	4-7	8-12	13-18	19-24	> 24	Total
N	0	0	0	0	0	0	0
NNE	0	0	1	0	0	0	1
NE	0	0	4	0	3	0	7
ENE	0	0	0	0	0	0	0
E	0	0	0	0	0	0	0
ESE	0	0	1	0	0	0	1
SE	0	0	1	1	0	0	2
SSE	0	0	1	0	0	0	1
S	0	0	0	0	0	1	1
SSW	0	0	1	0	0	0	1
SW	0	0	0	0	1	0	1
WSW	0	0	0	0	0	0	0
W	0	2	3	5	0	1	11
WNW	0	1	3	2	0	2	8
NW	0	3	5	0	0	0	8
NNW	0	1	3	2	0	0	6
Variable	0	0	0	0	0	0	0
Total	0	7	23	10	4	4	48

Hours of calm in this stability class: 0

Hours of missing wind measurements in this stability class: 0

Hours of missing stability measurements in all stability classes: 20

Braidwood Generating Station

Period of Record: January - March 2008

Stability Class - Slightly Unstable - 199Ft-30Ft Delta-T (F)

Winds Measured at 203 Feet

Wind Speed (in mph)

Wind Direction	1-3	4-7	8-12	13-18	19-24	> 24	Total
N	0	1	1	3	0	0	5
NNE	0	0	0	0	0	0	0
NE	0	0	3	4	1	0	8
ENE	0	0	1	0	0	0	1
E	0	0	1	0	0	0	1
ESE	0	0	1	1	3	0	5
SE	0	0	3	2	1	0	6
SSE	0	1	2	3	0	0	6
S	0	0	0	0	4	0	4
SSW	0	1	0	2	2	1	6
SW	0	0	5	2	0	1	8
WSW	0	2	3	2	0	0	7
W	0	5	4	7	0	3	19
WNW	0	1	4	5	0	1	11
NW	0	1	5	2	0	1	9
NNW	0	0	1	1	0	0	2
Variable	0	0	0	0	0	0	0
Total	0	12	34	34	11	7	98

Hours of calm in this stability class: 0

Hours of missing wind measurements in this stability class: 1

Hours of missing stability measurements in all stability classes: 20

Braidwood Generating Station

Period of Record: January - March 2008
 Stability Class - Neutral - 199Ft-30Ft Delta-T (F)
 Winds Measured at 203 Feet

Wind Direction	Wind Speed (in mph)						Total
	1-3	4-7	8-12	13-18	19-24	> 24	
N	0	6	18	25	0	0	49
NNE	1	7	25	26	5	0	64
NE	4	9	20	34	13	0	80
ENE	1	14	20	16	0	0	51
E	1	10	36	12	0	0	59
ESE	0	4	19	24	10	0	57
SE	0	2	11	24	5	2	44
SSE	0	0	16	26	11	0	53
S	0	1	18	37	63	25	144
SSW	0	5	6	21	27	16	75
SW	0	9	19	27	4	8	67
WSW	1	22	21	10	1	3	58
W	0	17	20	33	24	9	103
WNW	2	9	23	80	52	26	192
NW	2	7	24	30	15	4	82
NNW	0	9	15	26	4	0	54
Variable	0	0	0	0	0	0	0
Total	12	131	311	451	234	93	1232

Hours of calm in this stability class: 0

Hours of missing wind measurements in this stability class: 3

Hours of missing stability measurements in all stability classes: 20

Braidwood Generating Station

Period of Record: January - March 2008

Stability Class - Slightly Stable - 199Ft-30Ft Delta-T (F)

Winds Measured at 203 Feet

Wind Speed (in mph)

Wind Direction	1-3	4-7	8-12	13-18	19-24	> 24	Total
N	4	5	12	1	0	0	22
NNE	1	1	16	6	0	0	24
NE	0	5	7	3	4	1	20
ENE	2	3	8	2	2	1	18
E	0	6	13	4	0	0	23
ESE	0	0	6	20	3	0	29
SE	0	3	11	5	9	0	28
SSE	0	3	10	25	8	0	46
S	0	2	5	20	21	13	61
SSW	0	5	8	15	10	13	51
SW	2	5	5	7	2	0	21
WSW	0	7	13	7	0	0	27
W	2	4	14	15	4	0	39
WNW	3	3	14	15	3	4	42
NW	3	10	36	18	2	0	69
NNW	0	2	20	11	0	0	33
Variable	0	0	0	0	0	0	0
Total	17	64	198	174	68	32	553

Hours of calm in this stability class: 1

Hours of missing wind measurements in this stability class: 0

Hours of missing stability measurements in all stability classes: 20

Braidwood Generating Station

Period of Record: January - March 2008
 Stability Class - Moderately Stable - 199Ft-30Ft Delta-T (F)
 Winds Measured at 203 Feet

Wind Speed (in mph)

Wind Direction -----	1-3 -----	4-7 -----	8-12 -----	13-18 -----	19-24 -----	> 24 -----	Total -----
N	0	1	2	0	0	0	3
NNE	0	0	4	0	0	0	4
NE	2	0	2	1	0	0	5
ENE	0	3	1	0	0	0	4
E	0	3	0	0	0	0	3
ESE	0	0	2	0	0	0	2
SE	1	1	0	0	0	0	2
SSE	1	1	1	5	0	0	8
S	1	0	0	1	0	0	2
SSW	0	1	1	1	0	0	3
SW	0	0	1	0	0	0	1
WSW	1	1	7	3	0	0	12
W	0	1	7	2	0	0	10
WNW	1	4	25	1	0	0	31
NW	0	2	15	6	0	0	23
NNW	0	0	5	0	0	0	5
Variable	0	0	0	0	0	0	0
Total	7	18	73	20	0	0	118

Hours of calm in this stability class: 0

Hours of missing wind measurements in this stability class: 0

Hours of missing stability measurements in all stability classes: 20

Braidwood Generating Station

Period of Record: January - March 2008

Stability Class - Extremely Stable - 199Ft-30Ft Delta-T (F)

Winds Measured at 203 Feet

Wind Speed (in mph)

Wind Direction	1-3	4-7	8-12	13-18	19-24	> 24	Total
N	0	0	0	0	0	0	0
NNE	0	0	1	0	0	0	1
NE	0	0	0	0	0	0	0
ENE	0	0	0	0	0	0	0
E	0	0	0	0	0	0	0
ESE	1	0	0	0	0	0	1
SE	0	0	0	0	0	0	0
SSE	0	0	0	0	0	0	0
S	1	0	0	0	0	0	1
SSW	0	0	1	0	0	0	1
SW	0	0	2	0	0	0	2
WSW	0	0	1	0	0	0	1
W	0	1	0	0	0	0	1
WNW	0	0	0	0	0	0	0
NW	0	1	1	0	0	0	2
NNW	0	2	1	0	0	0	3
Variable	0	0	0	0	0	0	0
Total	2	4	7	0	0	0	13

Hours of calm in this stability class: 0

Hours of missing wind measurements in this stability class: 0

Hours of missing stability measurements in all stability classes: 20

Braidwood Generating Station

Period of Record: April - June 2008

Stability Class - Extremely Unstable - 199Ft-30Ft Delta-T (F)
Winds Measured at 34 Feet

Wind Speed (in mph)

Wind Direction	1-3	4-7	8-12	13-18	19-24	> 24	Total
N	0	1	1	0	0	0	2
NNE	0	0	0	0	0	0	0
NE	0	5	3	0	0	0	8
ENE	1	4	4	0	0	0	9
E	0	2	2	0	0	0	4
ESE	0	3	2	0	0	0	5
SE	0	3	8	1	0	0	12
SSE	0	1	5	3	0	0	9
S	0	0	1	3	4	0	8
SSW	0	2	2	8	1	0	13
SW	0	0	2	1	0	0	3
WSW	0	2	8	9	0	0	19
W	0	6	13	7	1	0	27
WNW	0	4	12	0	0	0	16
NW	0	6	19	0	0	0	25
NNW	0	7	20	1	0	0	28
Variable	0	0	0	0	0	0	0
Total	1	46	102	33	6	0	188

Hours of calm in this stability class: 0

Hours of missing wind measurements in this stability class: 0

Hours of missing stability measurements in all stability classes: 0

Braidwood Generating Station

Period of Record: April - June 2008

Stability Class - Moderately Unstable - 199Ft-30Ft Delta-T (F)
Winds Measured at 34 Feet

Wind Speed (in mph)

Wind Direction	1-3	4-7	8-12	13-18	19-24	> 24	Total
N	0	5	2	0	0	0	7
NNE	0	4	1	0	0	0	5
NE	0	1	3	0	0	0	4
ENE	3	3	0	0	0	0	6
E	0	3	0	0	0	0	3
ESE	0	5	1	0	0	0	6
SE	0	2	3	0	0	0	5
SSE	0	3	6	2	0	0	11
S	0	2	3	6	2	0	13
SSW	0	0	3	3	5	0	11
SW	0	2	4	2	1	0	9
WSW	0	3	9	0	0	0	12
W	0	3	6	4	0	0	13
WNW	0	5	4	0	0	0	9
NW	0	6	3	0	0	0	9
NNW	0	6	5	0	0	0	11
Variable	0	0	0	0	0	0	0
Total	3	53	53	17	8	0	134

Hours of calm in this stability class: 0

Hours of missing wind measurements in this stability class: 2

Hours of missing stability measurements in all stability classes: 0

Braidwood Generating Station

Period of Record: April - June 2008

Stability Class - Slightly Unstable - 199Ft-30Ft Delta-T (F)
Winds Measured at 34 Feet

Wind Speed (in mph)

Wind Direction	1-3	4-7	8-12	13-18	19-24	> 24	Total
N	0	3	2	0	0	0	5
NNE	0	4	4	0	0	0	8
NE	0	2	4	0	0	0	6
ENE	0	5	0	0	0	0	5
E	1	0	0	0	0	0	1
ESE	1	2	0	0	0	0	3
SE	1	7	3	3	0	0	14
SSE	1	5	2	0	0	0	8
S	2	1	10	3	1	0	17
SSW	1	2	5	6	0	1	15
SW	0	2	5	2	0	0	9
WSW	0	5	7	2	0	0	14
W	0	3	4	0	0	0	7
WNW	0	4	5	0	0	0	9
NW	0	5	2	0	0	0	7
NNW	0	5	3	0	0	0	8
Variable	0	0	0	0	0	0	0
Total	7	55	56	16	1	1	136

Hours of calm in this stability class: 0

Hours of missing wind measurements in this stability class: 3

Hours of missing stability measurements in all stability classes: 0

Braidwood Generating Station

Period of Record: April - June 2008
 Stability Class - Neutral - 199Ft-30Ft Delta-T (F)
 Winds Measured at 34 Feet

Wind Speed (in mph)

Wind Direction	1-3	4-7	8-12	13-18	19-24	> 24	Total
N	4	7	15	3	1	0	30
NNE	2	20	35	4	3	0	64
NE	1	29	36	0	0	0	66
ENE	5	19	23	0	0	0	47
E	2	11	5	0	0	0	18
ESE	5	3	2	5	0	0	15
SE	5	10	8	2	0	0	25
SSE	1	13	25	4	0	0	43
S	0	12	35	27	6	0	80
SSW	2	9	25	17	14	4	71
SW	0	15	32	18	1	0	66
WSW	5	10	30	9	0	0	54
W	1	14	20	21	2	0	58
WNW	5	13	18	7	0	0	43
NW	3	20	18	1	0	0	42
NNW	1	17	16	2	0	0	36
Variable	0	0	0	0	0	0	0
Total	42	222	343	120	27	4	758

Hours of calm in this stability class: 1

Hours of missing wind measurements in this stability class: 4

Hours of missing stability measurements in all stability classes: 0

Braidwood Generating Station

Period of Record: April - June 2008

Stability Class - Slightly Stable - 199Ft-30Ft Delta-T (F)

Winds Measured at 34 Feet

Wind Speed (in mph)

Wind Direction	1-3	4-7	8-12	13-18	19-24	> 24	Total
N	6	14	3	0	0	0	23
NNE	3	24	3	0	0	0	30
NE	10	9	3	0	0	0	22
ENE	19	13	1	0	0	0	33
E	26	12	1	0	0	0	39
ESE	12	33	10	5	0	0	60
SE	8	42	23	4	0	0	77
SSE	4	25	26	5	0	0	60
S	3	15	59	23	0	0	100
SSW	3	9	30	16	4	0	62
SW	1	21	19	2	0	0	43
WSW	4	39	7	0	0	0	50
W	6	20	2	1	0	0	29
WNW	9	14	1	0	0	0	24
NW	5	12	2	0	0	0	19
NNW	6	10	4	0	0	0	20
Variable	0	0	0	0	0	0	0
Total	125	312	194	56	4	0	691

Hours of calm in this stability class: 1

Hours of missing wind measurements in this stability class: 4

Hours of missing stability measurements in all stability classes: 0

Braidwood Generating Station

Period of Record: April - June 2008

Stability Class - Moderately Stable - 199Ft-30Ft Delta-T (F)
Winds Measured at 34 Feet

Wind Speed (in mph)

Wind Direction -----	1-3 -----	4-7 -----	8-12 -----	13-18 -----	19-24 -----	> 24 -----	Total -----
N	2	1	0	0	0	0	3
NNE	4	0	0	0	0	0	4
NE	6	1	0	0	0	0	7
ENE	6	1	0	0	0	0	7
E	10	0	0	0	0	0	10
ESE	11	7	0	0	0	0	18
SE	8	3	0	0	0	0	11
SSE	4	1	0	0	0	0	5
S	0	2	0	0	0	0	2
SSW	1	5	4	0	0	0	10
SW	4	7	1	0	0	0	12
WSW	8	16	1	0	0	0	25
W	24	8	0	0	0	0	32
WNW	16	0	0	0	0	0	16
NW	8	1	0	0	0	0	9
NNW	3	1	0	0	0	0	4
Variable	0	0	0	0	0	0	0
Total	115	54	6	0	0	0	175

Hours of calm in this stability class: 3

Hours of missing wind measurements in this stability class: 7

Hours of missing stability measurements in all stability classes: 0

Braidwood Generating Station

Period of Record: April - June 2008

Stability Class - Extremely Stable - 199Ft-30Ft Delta-T (F)

Winds Measured at 34 Feet

Wind Speed (in mph)

Wind Direction	1-3	4-7	8-12	13-18	19-24	> 24	Total
N	3	0	0	0	0	0	3
NNE	1	0	0	0	0	0	1
NE	1	0	0	0	0	0	1
ENE	4	0	0	0	0	0	4
E	7	0	0	0	0	0	7
ESE	2	0	0	0	0	0	2
SE	3	0	0	0	0	0	3
SSE	0	0	0	0	0	0	0
S	4	0	0	0	0	0	4
SSW	2	1	0	0	0	0	3
SW	1	0	0	0	0	0	1
WSW	7	4	0	0	0	0	11
W	12	1	0	0	0	0	13
WNW	7	0	0	0	0	0	7
NW	3	0	0	0	0	0	3
NNW	4	0	0	0	0	0	4
Variable	0	0	0	0	0	0	0
Total	61	6	0	0	0	0	67

Hours of calm in this stability class: 8

Hours of missing wind measurements in this stability class: 2

Hours of missing stability measurements in all stability classes: 0

Braidwood Generating Station

Period of Record: April - June 2008

Stability Class - Extremely Unstable - 199Ft-30Ft Delta-T (F)

Winds Measured at 203 Feet

Wind Speed (in mph)

Wind Direction	1-3	4-7	8-12	13-18	19-24	> 24	Total
N	0	1	4	1	0	0	6
NNE	0	0	1	0	0	0	1
NE	0	1	1	1	0	0	3
ENE	0	0	9	2	0	0	11
E	0	0	3	0	0	0	3
ESE	0	1	2	4	0	0	7
SE	0	1	1	7	0	1	10
SSE	0	1	2	4	0	0	7
S	0	0	2	1	3	2	8
SSW	0	0	0	0	4	9	13
SW	0	0	4	0	1	0	5
WSW	0	0	2	2	1	0	5
W	0	1	8	8	10	2	29
WNW	0	2	5	12	4	0	23
NW	0	2	5	15	3	0	25
NNW	0	2	10	15	3	0	30
Variable	0	0	0	0	0	0	0
Total	0	12	59	72	29	14	186

Hours of calm in this stability class: 0

Hours of missing wind measurements in this stability class: 2

Hours of missing stability measurements in all stability classes: 0

Braidwood Generating Station

Period of Record: April - June 2008

Stability Class - Moderately Unstable - 199Ft-30Ft Delta-T (F)

Winds Measured at 203 Feet

Wind Speed (in mph)

Wind Direction	1-3	4-7	8-12	13-18	19-24	> 24	Total
N	0	3	2	0	0	0	5
NNE	0	1	2	1	0	0	4
NE	0	2	1	1	0	0	4
ENE	0	0	2	3	0	0	5
E	0	0	2	1	0	0	3
ESE	0	0	1	1	0	0	2
SE	1	1	3	2	0	0	7
SSE	0	1	2	3	0	0	6
S	0	1	5	0	2	3	11
SSW	0	0	3	2	6	4	15
SW	0	1	1	2	0	5	9
WSW	0	0	6	4	0	0	10
W	0	1	5	4	1	0	11
WNW	0	3	3	3	2	1	12
NW	0	3	4	5	0	0	12
NNW	0	3	5	4	0	0	12
Variable	0	0	0	0	0	0	0
Total	1	20	47	36	11	13	128

Hours of calm in this stability class: 0

Hours of missing wind measurements in this stability class: 8

Hours of missing stability measurements in all stability classes: 0

Braidwood Generating Station

Period of Record: April - June 2008

Stability Class - Slightly Unstable - 199Ft-30Ft Delta-T (F)

Winds Measured at 203 Feet

Wind Speed (in mph)

Wind Direction	1-3	4-7	8-12	13-18	19-24	> 24	Total
N	0	0	3	1	0	0	4
NNE	0	1	4	2	0	0	7
NE	0	1	3	4	0	0	8
ENE	0	0	2	1	0	0	3
E	0	0	3	0	0	0	3
ESE	0	3	0	0	0	0	3
SE	0	2	3	1	0	3	9
SSE	1	2	5	2	0	0	10
S	1	1	3	4	0	1	10
SSW	0	0	3	4	6	0	13
SW	0	2	4	1	2	5	14
WSW	0	1	6	2	1	0	10
W	0	0	5	3	2	0	10
WNW	0	4	1	6	0	0	11
NW	0	3	3	3	1	0	10
NNW	0	3	4	3	0	0	10
Variable	0	0	0	0	0	0	0
Total	2	23	52	37	12	9	135

Hours of calm in this stability class: 0

Hours of missing wind measurements in this stability class: 4

Hours of missing stability measurements in all stability classes: 0

Braidwood Generating Station

Period of Record: April - June 2008
 Stability Class - Neutral - 199Ft-30Ft Delta-T (F)
 Winds Measured at 203 Feet

Wind Direction	Wind Speed (in mph)						Total
	1-3	4-7	8-12	13-18	19-24	> 24	
N	1	8	10	8	2	2	31
NNE	1	6	5	24	2	4	42
NE	0	4	24	34	7	1	70
ENE	1	4	16	31	3	0	55
E	1	4	11	5	3	0	24
ESE	1	0	6	1	2	0	10
SE	1	6	1	4	2	6	20
SSE	1	9	8	8	1	0	27
S	0	3	12	27	21	5	68
SSW	1	8	9	15	20	24	77
SW	1	4	7	26	8	16	62
WSW	1	2	23	20	16	2	64
W	0	3	13	15	8	6	45
WNW	1	8	14	16	17	4	60
NW	0	11	14	23	7	1	56
NNW	0	6	12	16	4	0	38
Variable	0	0	0	0	0	0	0
Total	11	86	185	273	123	71	749

Hours of calm in this stability class: 0

Hours of missing wind measurements in this stability class: 14

Hours of missing stability measurements in all stability classes: 0

Braidwood Generating Station

Period of Record: April - June 2008

Stability Class - Slightly Stable - 199Ft-30Ft Delta-T (F)

Winds Measured at 203 Feet

Wind Speed (in mph)

Wind Direction	1-3	4-7	8-12	13-18	19-24	> 24	Total
N	0	7	12	3	0	0	22
NNE	0	4	14	5	0	0	23
NE	1	2	24	4	0	0	31
ENE	1	6	14	5	0	0	26
E	0	7	20	1	0	0	28
ESE	0	1	14	14	2	3	34
SE	0	3	23	23	4	8	61
SSE	1	2	10	42	10	0	65
S	1	5	16	30	22	2	76
SSW	1	3	11	34	39	11	99
SW	0	3	4	23	19	3	52
WSW	0	5	21	15	1	0	42
W	0	1	25	14	1	0	41
WNW	0	2	17	4	0	0	23
NW	0	6	21	5	1	0	33
NNW	0	3	14	4	0	0	21
Variable	0	0	0	0	0	0	0
Total	5	60	260	226	99	27	677

Hours of calm in this stability class: 0

Hours of missing wind measurements in this stability class: 19

Hours of missing stability measurements in all stability classes: 0

Braidwood Generating Station

Period of Record: April - June 2008

Stability Class - Moderately Stable - 199Ft-30Ft Delta-T (F)

Winds Measured at 203 Feet

Wind Speed (in mph)

Wind Direction	1-3	4-7	8-12	13-18	19-24	> 24	Total
N	0	3	5	2	0	0	10
NNE	0	3	0	0	0	0	3
NE	0	1	1	1	0	0	3
ENE	3	0	5	1	0	0	9
E	1	2	2	0	0	0	5
ESE	0	2	4	1	0	0	7
SE	0	3	7	6	0	0	16
SSE	0	2	6	2	0	0	10
S	0	3	1	0	0	0	4
SSW	0	1	3	0	0	0	4
SW	0	2	3	2	0	0	7
WSW	0	2	4	9	0	0	15
W	0	2	6	8	0	0	16
WNW	0	4	19	8	0	0	31
NW	0	8	17	4	0	0	29
NNW	0	2	7	0	0	0	9
Variable	0	0	0	0	0	0	0
Total	4	40	90	44	0	0	178

Hours of calm in this stability class: 0

Hours of missing wind measurements in this stability class: 7

Hours of missing stability measurements in all stability classes: 0

Braidwood Generating Station

Period of Record: April - June 2008

Stability Class - Extremely Stable - 199Ft-30Ft Delta-T (F)

Winds Measured at 203 Feet

Wind Speed (in mph)

Wind Direction -----	1-3 -----	4-7 -----	8-12 -----	13-18 -----	19-24 -----	> 24 -----	Total -----
N	0	0	0	0	0	0	0
NNE	0	0	3	0	0	0	3
NE	0	0	4	0	0	0	4
ENE	1	0	0	0	0	0	1
E	0	0	2	0	0	0	2
ESE	0	1	2	0	0	0	3
SE	0	0	0	0	0	0	0
SSE	0	6	0	0	0	0	6
S	0	1	0	0	0	0	1
SSW	1	1	1	0	0	0	3
SW	0	4	1	1	0	0	6
WSW	1	2	1	0	0	0	4
W	0	1	2	3	0	0	6
WNW	0	4	4	6	0	0	14
NW	0	4	6	2	0	0	12
NNW	0	2	6	2	0	0	10
Variable	0	0	0	0	0	0	0
Total	3	26	32	14	0	0	75

Hours of calm in this stability class: 0

Hours of missing wind measurements in this stability class: 2

Hours of missing stability measurements in all stability classes: 0

Braidwood Generating Station

Period of Record: July - September 2008
 Stability Class - Extremely Unstable - 199Ft-30Ft Delta-T (F)
 Winds Measured at 34 Feet

Wind Speed (in mph)

Wind Direction -----	1-3 -----	4-7 -----	8-12 -----	13-18 -----	19-24 -----	> 24 -----	Total -----
N	0	15	2	0	0	0	17
NNE	0	13	6	0	0	0	19
NE	0	20	16	0	0	0	36
ENE	2	23	0	0	0	0	25
E	1	13	0	0	0	0	14
ESE	0	7	0	0	0	0	7
SE	0	16	2	0	0	0	18
SSE	0	19	4	0	0	0	23
S	0	12	13	0	0	0	25
SSW	0	5	8	3	0	0	16
SW	0	5	22	5	0	0	32
WSW	0	22	18	1	0	0	41
W	0	36	21	0	0	0	57
WNW	0	14	4	0	0	0	18
NW	0	15	6	0	0	0	21
NNW	0	12	12	0	0	0	24
Variable	0	0	0	0	0	0	0
Total	3	247	134	9	0	0	393

Hours of calm in this stability class: 0

Hours of missing wind measurements in this stability class: 2

Hours of missing stability measurements in all stability classes: 6

Braidwood Generating Station

Period of Record: July - September 2008

Stability Class - Moderately Unstable - 199Ft-30Ft Delta-T (F)
Winds Measured at 34 Feet

Wind Speed (in mph)

Wind Direction	1-3	4-7	8-12	13-18	19-24	> 24	Total
N	0	8	0	0	0	0	8
NNE	0	7	0	0	0	0	7
NE	2	11	0	0	0	0	13
ENE	4	3	0	0	0	0	7
E	3	3	0	0	0	0	6
ESE	0	7	0	0	0	0	7
SE	1	5	1	0	0	0	7
SSE	0	5	1	0	0	0	6
S	1	6	5	0	0	0	12
SSW	1	5	4	1	0	0	11
SW	0	4	4	0	0	0	8
WSW	0	2	6	0	0	0	8
W	0	12	7	0	0	0	19
WNW	1	4	0	0	0	0	5
NW	1	2	0	0	0	0	3
NNW	2	7	2	0	0	0	11
Variable	0	0	0	0	0	0	0
Total	16	91	30	1	0	0	138

Hours of calm in this stability class: 0

Hours of missing wind measurements in this stability class: 1

Hours of missing stability measurements in all stability classes: 6

Braidwood Generating Station

Period of Record: July - September 2008
 Stability Class - Slightly Unstable - 199Ft-30Ft Delta-T (F)
 Winds Measured at 34 Feet

Wind Speed (in mph)

Wind Direction	1-3	4-7	8-12	13-18	19-24	> 24	Total
N	1	3	0	0	0	0	4
NNE	2	4	3	0	0	0	9
NE	0	4	1	0	0	0	5
ENE	1	4	0	0	0	0	5
E	3	3	0	0	0	0	6
ESE	1	3	0	0	0	0	4
SE	1	6	1	0	0	0	8
SSE	0	12	0	0	0	0	12
S	0	4	1	0	0	0	5
SSW	0	2	0	2	0	0	4
SW	0	5	3	0	0	0	8
WSW	0	6	2	1	0	0	9
W	0	6	1	0	0	0	7
WNW	0	1	1	0	0	0	2
NW	1	2	1	0	0	0	4
NNW	1	3	2	0	0	0	6
Variable	0	0	0	0	0	0	0
Total	11	68	16	3	0	0	98

Hours of calm in this stability class: 0

Hours of missing wind measurements in this stability class: 0

Hours of missing stability measurements in all stability classes: 6

Braidwood Generating Station

Period of Record: July - September 2008
 Stability Class - Neutral - 199Ft-30Ft Delta-T (F)
 Winds Measured at 34 Feet

Wind Speed (in mph)

Wind Direction -----	1-3 -----	4-7 -----	8-12 -----	13-18 -----	19-24 -----	> 24 -----	Total -----
N	3	15	9	3	0	0	30
NNE	2	20	19	0	0	0	41
NE	9	27	3	0	0	0	39
ENE	5	9	0	0	0	0	14
E	6	6	0	0	0	0	12
ESE	7	2	0	0	0	0	9
SE	10	17	0	0	0	0	27
SSE	3	26	5	0	0	0	34
S	1	16	10	0	0	0	27
SSW	1	7	21	1	0	0	30
SW	1	27	31	2	0	0	61
WSW	2	30	8	1	0	0	41
W	3	25	2	0	0	0	30
WNW	13	16	6	0	0	0	35
NW	6	26	5	0	0	0	37
NNW	3	22	3	0	0	0	28
Variable	0	0	0	0	0	0	0
Total	75	291	122	7	0	0	495

Hours of calm in this stability class: 0

Hours of missing wind measurements in this stability class: 1

Hours of missing stability measurements in all stability classes: 6

Braidwood Generating Station

Period of Record: July - September 2008

Stability Class - Slightly Stable - 199Ft-30Ft Delta-T (F)

Winds Measured at 34 Feet

Wind Speed (in mph)

Wind Direction -----	1-3 -----	4-7 -----	8-12 -----	13-18 -----	19-24 -----	> 24 -----	Total -----
N	3	3	1	0	0	0	7
NNE	9	22	1	0	0	0	32
NE	18	15	1	0	0	0	34
ENE	30	13	0	0	0	0	43
E	28	4	0	0	0	0	32
ESE	13	17	0	0	0	0	30
SE	9	25	4	0	0	0	38
SSE	5	30	3	0	0	0	38
S	3	27	8	0	0	0	38
SSW	2	20	9	0	0	0	31
SW	1	38	3	0	0	0	42
WSW	8	56	1	0	0	0	65
W	13	13	1	0	0	0	27
WNW	21	4	0	0	0	0	25
NW	13	10	0	0	0	0	23
NNW	7	14	0	1	0	0	22
Variable	0	0	0	0	0	0	0
Total	183	311	32	1	0	0	527

Hours of calm in this stability class: 4

Hours of missing wind measurements in this stability class: 2

Hours of missing stability measurements in all stability classes: 6

Braidwood Generating Station

Period of Record: July - September 2008
 Stability Class - Moderately Stable - 199Ft-30Ft Delta-T (F)
 Winds Measured at 34 Feet

Wind Speed (in mph)

Wind Direction	1-3	4-7	8-12	13-18	19-24	> 24	Total
N	16	2	0	0	0	0	18
NNE	15	5	0	0	0	0	20
NE	14	0	0	0	0	0	14
ENE	26	0	1	0	0	0	27
E	42	3	0	0	0	0	45
ESE	29	10	0	0	0	0	39
SE	10	6	0	0	0	0	16
SSE	16	6	0	0	0	0	22
S	5	5	0	0	0	0	10
SSW	5	13	0	0	0	0	18
SW	5	5	2	0	0	0	12
WSW	9	24	0	0	0	0	33
W	20	3	0	0	0	0	23
WNW	20	2	0	0	0	0	22
NW	16	2	0	0	0	0	18
NNW	11	3	0	0	0	0	14
Variable	0	0	0	0	0	0	0
Total	259	89	3	0	0	0	351

Hours of calm in this stability class: 18

Hours of missing wind measurements in this stability class: 3

Hours of missing stability measurements in all stability classes: 6

Braidwood Generating Station

Period of Record: July - September 2008
 Stability Class - Extremely Stable - 199Ft-30Ft Delta-T (F)
 Winds Measured at 34 Feet

Wind Speed (in mph)

Wind Direction	1-3	4-7	8-12	13-18	19-24	> 24	Total
N	2	1	0	0	0	0	3
NNE	6	0	0	0	0	0	6
NE	7	0	0	0	0	0	7
ENE	8	0	0	0	0	0	8
E	23	0	0	0	0	0	23
ESE	11	0	0	0	0	0	11
SE	1	1	0	0	0	0	2
SSE	3	0	0	0	0	0	3
S	1	0	0	0	0	0	1
SSW	0	0	0	0	0	0	0
SW	1	0	0	0	0	0	1
WSW	9	1	0	0	0	0	10
W	21	0	0	0	0	0	21
WNW	20	0	0	0	0	0	20
NW	7	0	0	0	0	0	7
NNW	7	0	0	0	0	0	7
Variable	0	0	0	0	0	0	0
Total	127	3	0	0	0	0	130

Hours of calm in this stability class: 39

Hours of missing wind measurements in this stability class: 0

Hours of missing stability measurements in all stability classes: 6

Braidwood Generating Station

Period of Record: July - September 2008

Stability Class - Extremely Unstable - 199Ft-30Ft Delta-T (F)

Winds Measured at 203 Feet

Wind Speed (in mph)

Wind Direction	1-3	4-7	8-12	13-18	19-24	> 24	Total
N	0	9	13	0	0	0	22
NNE	0	7	3	0	0	0	10
NE	0	8	14	16	0	0	38
ENE	0	9	15	0	0	0	24
E	0	8	8	0	0	0	16
ESE	0	6	2	0	0	0	8
SE	0	6	12	1	0	0	19
SSE	0	7	13	2	0	0	22
S	0	6	9	6	0	0	21
SSW	0	1	5	9	1	0	16
SW	0	1	15	11	4	0	31
WSW	0	7	24	6	4	0	41
W	0	10	34	10	0	0	54
WNW	0	5	9	6	4	0	24
NW	0	8	13	8	0	0	29
NNW	0	2	14	1	0	0	17
Variable	0	0	0	0	0	0	0
Total	0	100	203	76	13	0	392

Hours of calm in this stability class: 0

Hours of missing wind measurements in this stability class: 3

Hours of missing stability measurements in all stability classes: 6

Braidwood Generating Station

Period of Record: July - September 2008

Stability Class - Moderately Unstable - 199Ft-30Ft Delta-T (F)

Winds Measured at 203 Feet

Wind Speed (in mph)

Wind Direction	1-3	4-7	8-12	13-18	19-24	> 24	Total
N	0	0	7	0	0	0	7
NNE	2	5	1	0	0	0	8
NE	1	5	7	1	0	0	14
ENE	1	2	2	0	0	0	5
E	1	5	1	0	0	0	7
ESE	0	4	1	0	0	0	5
SE	0	5	1	1	0	0	7
SSE	0	5	4	0	0	0	9
S	0	0	4	4	0	0	8
SSW	0	3	3	3	0	0	9
SW	0	2	7	2	1	0	12
WSW	0	2	4	3	0	0	9
W	0	3	12	1	0	0	16
WNW	0	3	4	0	0	0	7
NW	1	3	3	1	0	0	8
NNW	0	2	3	1	0	0	6
Variable	0	0	0	0	0	0	0
Total	6	49	64	17	1	0	137

Hours of calm in this stability class: 0

Hours of missing wind measurements in this stability class: 2

Hours of missing stability measurements in all stability classes: 6

Braidwood Generating Station

Period of Record: July - September 2008

Stability Class - Slightly Unstable - 199Ft-30Ft Delta-T (F)

Winds Measured at 203 Feet

Wind Speed (in mph)

Wind Direction	1-3	4-7	8-12	13-18	19-24	> 24	Total
N	1	2	2	0	0	0	5
NNE	1	2	2	1	0	0	6
NE	0	2	3	2	0	0	7
ENE	2	3	1	0	0	0	6
E	0	3	1	0	0	0	4
ESE	1	1	2	1	0	0	5
SE	0	5	2	0	0	0	7
SSE	0	9	2	0	0	0	11
S	0	3	2	0	1	0	6
SSW	0	1	1	0	1	0	3
SW	0	3	5	2	1	0	11
WSW	0	1	3	1	1	0	6
W	0	4	2	1	0	0	7
WNW	0	1	2	2	0	0	5
NW	0	1	1	1	0	0	3
NNW	0	2	4	0	0	0	6
Variable	0	0	0	0	0	0	0
Total	5	43	35	11	4	0	98

Hours of calm in this stability class: 0

Hours of missing wind measurements in this stability class: 0

Hours of missing stability measurements in all stability classes: 6

Braidwood Generating Station

Period of Record: July - September 2008
 Stability Class - Neutral - 199Ft-30Ft Delta-T (F)
 Winds Measured at 203 Feet

Wind Direction	Wind Speed (in mph)						Total
	1-3	4-7	8-12	13-18	19-24	> 24	
N	1	7	12	5	3	0	28
NNE	1	6	9	10	0	0	26
NE	2	9	18	17	0	0	46
ENE	3	8	5	0	0	0	16
E	2	5	6	0	0	0	13
ESE	2	3	4	0	0	0	9
SE	3	6	11	1	0	0	21
SSE	3	5	20	11	0	0	39
S	0	1	14	7	0	0	22
SSW	1	2	6	26	5	0	40
SW	1	4	26	18	7	0	56
WSW	0	9	20	6	1	0	36
W	3	7	23	2	0	0	35
WNW	1	9	17	11	1	0	39
NW	1	13	21	8	0	0	43
NNW	1	7	14	2	1	0	25
Variable	0	0	0	0	0	0	0
Total	25	101	226	124	18	0	494

Hours of calm in this stability class: 0

Hours of missing wind measurements in this stability class: 2

Hours of missing stability measurements in all stability classes: 6

Braidwood Generating Station

Period of Record: July - September 2008

Stability Class - Slightly Stable - 199Ft-30Ft Delta-T (F)

Winds Measured at 203 Feet

Wind Speed (in mph)

Wind Direction	1-3	4-7	8-12	13-18	19-24	> 24	Total
N	0	7	2	1	0	0	10
NNE	1	1	8	1	0	0	11
NE	1	7	37	5	0	0	50
ENE	1	10	29	2	0	0	42
E	0	7	30	3	0	0	40
ESE	0	1	7	14	0	0	22
SE	0	5	14	11	0	0	30
SSE	0	8	19	7	2	0	36
S	0	1	14	20	1	0	36
SSW	0	3	10	23	1	0	37
SW	0	6	33	9	0	0	48
WSW	1	7	33	14	0	0	55
W	2	5	17	6	0	0	30
WNW	1	6	15	1	0	0	23
NW	2	11	19	0	0	1	33
NNW	0	5	19	2	0	0	26
Variable	0	0	0	0	0	0	0
Total	9	90	306	119	4	1	529

Hours of calm in this stability class: 1

Hours of missing wind measurements in this stability class: 3

Hours of missing stability measurements in all stability classes: 6

Braidwood Generating Station

Period of Record: July - September 2008
 Stability Class - Moderately Stable - 199Ft-30Ft Delta-T (F)
 Winds Measured at 203 Feet

Wind Speed (in mph)

Wind Direction	1-3	4-7	8-12	13-18	19-24	> 24	Total
N	1	3	18	0	0	0	22
NNE	0	5	18	1	0	0	24
NE	1	5	11	6	0	0	23
ENE	1	10	10	0	0	0	21
E	0	3	19	9	0	0	31
ESE	1	2	13	25	0	0	41
SE	0	4	7	9	0	0	20
SSE	0	2	9	2	0	0	13
S	0	8	20	2	0	0	30
SSW	1	8	9	2	0	0	20
SW	0	6	10	5	0	0	21
WSW	0	6	7	11	0	0	24
W	2	5	8	11	0	0	26
WNW	1	3	9	3	0	0	16
NW	0	8	13	1	0	0	22
NNW	0	1	17	0	0	0	18
Variable	0	0	0	0	0	0	0
Total	8	79	198	87	0	0	372

Hours of calm in this stability class: 0

Hours of missing wind measurements in this stability class: 0

Hours of missing stability measurements in all stability classes: 6

Braidwood Generating Station

Period of Record: July - September 2008
 Stability Class - Extremely Stable - 199Ft-30Ft Delta-T (F)
 Winds Measured at 203 Feet

Wind Speed (in mph)

Wind Direction -----	1-3 -----	4-7 -----	8-12 -----	13-18 -----	19-24 -----	> 24 -----	Total -----
N	0	6	5	1	0	0	12
NNE	1	1	3	0	0	0	5
NE	1	4	3	1	0	0	9
ENE	0	10	2	0	0	0	12
E	1	8	5	3	0	0	17
ESE	0	2	3	11	0	0	16
SE	0	2	1	2	0	0	5
SSE	1	5	1	0	0	0	7
S	1	2	1	0	0	0	4
SSW	2	5	1	0	0	0	8
SW	2	6	0	0	0	0	8
WSW	1	1	0	0	0	0	2
W	1	2	4	4	0	0	11
WNW	1	3	17	3	0	0	24
NW	0	3	6	1	0	0	10
NNW	0	8	6	2	0	0	16
Variable	0	0	0	0	0	0	0
Total	12	68	58	28	0	0	166

Hours of calm in this stability class: 3

Hours of missing wind measurements in this stability class: 0

Hours of missing stability measurements in all stability classes: 6

Braidwood Generating Station

Period of Record: October - December 2008
 Stability Class - Extremely Unstable - 199Ft-30Ft Delta-T (F)
 Winds Measured at 34 Feet

Wind Speed (in mph)

Wind Direction	1-3	4-7	8-12	13-18	19-24	> 24	Total
N	0	0	3	0	0	0	3
NNE	0	0	0	0	0	0	0
NE	0	4	0	0	0	0	4
ENE	0	1	0	0	0	0	1
E	0	5	1	0	0	0	6
ESE	0	0	2	0	0	0	2
SE	0	1	1	0	0	0	2
SSE	0	0	0	0	0	0	0
S	0	0	3	1	0	0	4
SSW	0	0	2	2	0	0	4
SW	0	0	0	1	0	0	1
WSW	0	1	1	0	0	0	2
W	0	3	3	3	1	0	10
WNW	0	5	12	0	0	0	17
NW	0	7	14	0	0	0	21
NNW	0	2	3	0	0	0	5
Variable	0	0	0	0	0	0	0
Total	0	29	45	7	1	0	82

Hours of calm in this stability class: 0

Hours of missing wind measurements in this stability class: 0

Hours of missing stability measurements in all stability classes: 2

Braidwood Generating Station

Period of Record: October - December 2008

Stability Class - Moderately Unstable - 199Ft-30Ft Delta-T (F)

Winds Measured at 34 Feet

Wind Speed (in mph)

Wind Direction	1-3	4-7	8-12	13-18	19-24	> 24	Total
N	0	1	0	0	0	0	1
NNE	0	1	0	0	0	0	1
NE	0	3	0	0	0	0	3
ENE	0	2	0	0	0	0	2
E	0	0	0	0	0	0	0
ESE	0	7	4	0	0	0	11
SE	0	0	1	0	0	0	1
SSE	0	1	3	0	0	0	4
S	0	0	3	4	0	0	7
SSW	0	0	3	4	0	0	7
SW	0	0	1	1	0	0	2
WSW	0	2	7	3	0	0	12
W	0	5	3	6	0	0	14
WNW	0	4	5	1	0	0	10
NW	0	4	4	0	0	0	8
NNW	0	6	2	0	0	0	8
Variable	0	0	0	0	0	0	0
Total	0	36	36	19	0	0	91

Hours of calm in this stability class: 0

Hours of missing wind measurements in this stability class: 3

Hours of missing stability measurements in all stability classes: 2

Braidwood Generating Station

Period of Record: October - December 2008
 Stability Class - Slightly Unstable - 199Ft-30Ft Delta-T (F)
 Winds Measured at 34 Feet

Wind Direction	Wind Speed (in mph)						Total
	1-3	4-7	8-12	13-18	19-24	> 24	
N	0	5	2	0	0	0	7
NNE	0	4	0	0	0	0	4
NE	0	6	0	0	0	0	6
ENE	0	5	0	0	0	0	5
E	1	2	0	0	0	0	3
ESE	0	1	1	0	0	0	2
SE	0	3	2	1	0	0	6
SSE	0	6	3	0	0	0	9
S	0	1	9	2	1	0	13
SSW	0	2	2	2	0	0	6
SW	0	0	3	1	0	0	4
WSW	0	3	7	2	0	0	12
W	0	6	8	5	0	0	19
WNW	0	3	1	0	0	0	4
NW	0	1	3	0	0	0	4
NNW	1	2	3	0	0	0	6
Variable	0	0	0	0	0	0	0
Total	2	50	44	13	1	0	110

Hours of calm in this stability class: 0

Hours of missing wind measurements in this stability class: 2

Hours of missing stability measurements in all stability classes: 2

Braidwood Generating Station

Period of Record: October - December 2008
 Stability Class - Neutral - 199Ft-30Ft Delta-T (F)
 Winds Measured at 34 Feet

Wind Speed (in mph)

Wind Direction	1-3	4-7	8-12	13-18	19-24	> 24	Total
N	2	15	14	6	0	0	37
NNE	2	5	3	3	0	0	13
NE	2	18	3	0	0	0	23
ENE	6	10	0	0	0	0	16
E	1	9	1	0	0	0	11
ESE	2	28	9	0	0	0	39
SE	0	29	33	0	0	0	62
SSE	0	21	19	18	0	0	58
S	0	12	53	51	11	0	127
SSW	0	4	31	27	4	0	66
SW	0	12	38	12	0	0	62
WSW	1	25	27	9	6	0	68
W	1	34	71	29	6	0	141
WNW	6	19	46	12	0	0	83
NW	4	23	35	1	0	0	63
NNW	2	25	70	24	1	0	122
Variable	0	0	0	0	0	0	0
Total	29	289	453	192	28	0	991

Hours of calm in this stability class: 0

Hours of missing wind measurements in this stability class: 51

Hours of missing stability measurements in all stability classes: 2

Braidwood Generating Station

Period of Record: October - December 2008
 Stability Class - Slightly Stable - 199Ft-30Ft Delta-T (F)
 Winds Measured at 34 Feet

Wind Direction	Wind Speed (in mph)						Total
	1-3	4-7	8-12	13-18	19-24	> 24	
N	3	16	1	0	0	0	20
NNE	5	2	0	0	0	0	7
NE	4	8	0	0	0	0	12
ENE	11	5	0	0	0	0	16
E	29	20	0	0	0	0	49
ESE	12	29	7	0	0	0	48
SE	3	28	10	0	0	0	41
SSE	2	34	20	3	0	0	59
S	0	39	64	24	1	0	128
SSW	0	6	32	2	0	0	40
SW	1	10	11	3	0	0	25
WSW	5	14	1	1	0	0	21
W	7	27	4	1	0	0	39
WNW	6	17	4	1	1	0	29
NW	15	25	11	0	0	0	51
NNW	4	14	14	0	0	0	32
Variable	0	0	0	0	0	0	0
Total	107	294	179	35	2	0	617

Hours of calm in this stability class: 5

Hours of missing wind measurements in this stability class: 8

Hours of missing stability measurements in all stability classes: 2

Braidwood Generating Station

Period of Record: October - December 2008
 Stability Class - Moderately Stable - 199Ft-30Ft Delta-T (F)
 Winds Measured at 34 Feet

Wind Direction	Wind Speed (in mph)						Total
	1-3	4-7	8-12	13-18	19-24	> 24	
N	6	5	0	0	0	0	11
NNE	8	0	0	0	0	0	8
NE	4	0	0	0	0	0	4
ENE	8	0	0	0	0	0	8
E	14	3	0	0	0	0	17
ESE	13	5	0	0	0	0	18
SE	1	3	0	0	0	0	4
SSE	1	0	0	0	0	0	1
S	2	0	0	0	0	0	2
SSW	1	5	2	0	0	0	8
SW	2	5	0	0	0	0	7
WSW	9	29	0	0	0	0	38
W	17	9	1	0	0	0	27
WNW	5	0	0	0	0	0	5
NW	9	0	0	0	0	0	9
NNW	6	1	0	0	0	0	7
Variable	0	0	0	0	0	0	0
Total	106	65	3	0	0	0	174

Hours of calm in this stability class: 5

Hours of missing wind measurements in this stability class: 0

Hours of missing stability measurements in all stability classes: 2

Braidwood Generating Station

Period of Record: October - December 2008
 Stability Class - Extremely Stable - 199Ft-30Ft Delta-T (F)
 Winds Measured at 34 Feet

Wind Speed (in mph)

Wind Direction	1-3	4-7	8-12	13-18	19-24	> 24	Total
N	1	0	0	0	0	0	1
NNE	1	0	0	0	0	0	1
NE	2	0	0	0	0	0	2
ENE	2	0	0	0	0	0	2
E	10	0	0	0	0	0	10
ESE	5	0	0	0	0	0	5
SE	4	0	0	0	0	0	4
SSE	0	0	0	0	0	0	0
S	0	0	0	0	0	0	0
SSW	0	0	0	0	0	0	0
SW	4	1	0	0	0	0	5
WSW	3	11	0	0	0	0	14
W	1	1	0	0	0	0	2
WNW	0	0	0	0	0	0	0
NW	1	0	0	0	0	0	1
NNW	6	0	0	0	0	0	6
Variable	0	0	0	0	0	0	0
Total	40	13	0	0	0	0	53

Hours of calm in this stability class: 14

Hours of missing wind measurements in this stability class: 0

Hours of missing stability measurements in all stability classes: 2

Braidwood Generating Station

Period of Record: October - December 2008
 Stability Class - Extremely Unstable - 199Ft-30Ft Delta-T (F)
 Winds Measured at 203 Feet

Wind Speed (in mph)

Wind Direction	1-3	4-7	8-12	13-18	19-24	> 24	Total
N	0	0	0	2	0	0	2
NNE	0	0	0	0	0	0	0
NE	0	2	1	0	0	0	3
ENE	0	2	0	0	0	0	2
E	0	1	3	0	2	0	6
ESE	0	0	1	0	1	0	2
SE	0	0	1	1	0	0	2
SSE	0	0	0	0	0	0	0
S	0	0	0	3	1	1	5
SSW	0	0	1	1	2	0	4
SW	0	0	0	0	0	0	0
WSW	0	0	1	0	0	0	1
W	0	1	1	3	0	1	6
WNW	0	2	7	6	1	2	18
NW	0	3	8	12	1	0	24
NNW	0	1	1	2	0	0	4
Variable	0	0	0	0	0	0	0
Total	0	12	25	30	8	4	79

Hours of calm in this stability class: 0

Hours of missing wind measurements in this stability class: 3

Hours of missing stability measurements in all stability classes: 2

Braidwood Generating Station

Period of Record: October - December 2008
 Stability Class - Moderately Unstable - 199Ft-30Ft Delta-T (F)
 Winds Measured at 203 Feet

Wind Direction	Wind Speed (in mph)						Total
	1-3	4-7	8-12	13-18	19-24	> 24	
N	0	0	0	0	0	0	0
NNE	0	0	0	0	0	0	0
NE	0	1	4	0	0	0	5
ENE	0	3	0	0	0	0	3
E	0	0	0	2	0	0	2
ESE	0	1	3	2	3	0	9
SE	0	0	1	1	0	0	2
SSE	0	0	2	1	0	0	3
S	0	0	0	3	5	1	9
SSW	0	0	0	3	2	0	5
SW	0	0	1	0	1	0	2
WSW	0	1	2	3	3	0	9
W	0	0	6	3	0	0	9
WNW	0	1	9	3	1	2	16
NW	0	2	4	3	1	0	10
NNW	0	0	6	2	0	0	8
Variable	0	0	0	0	0	0	0
Total	0	9	38	26	16	3	92

Hours of calm in this stability class: 0

Hours of missing wind measurements in this stability class: 2

Hours of missing stability measurements in all stability classes: 2

Braidwood Generating Station

Period of Record: October - December 2008
 Stability Class - Slightly Unstable - 199Ft-30Ft Delta-T (F)
 Winds Measured at 203 Feet

Wind Speed (in mph)

Wind Direction	1-3	4-7	8-12	13-18	19-24	> 24	Total
N	0	2	4	1	0	0	7
NNE	0	3	1	0	0	0	4
NE	0	4	2	0	0	0	6
ENE	0	5	0	0	0	0	5
E	0	2	2	0	1	0	5
ESE	0	1	0	1	0	0	2
SE	0	2	2	1	2	0	7
SSE	0	5	2	2	0	0	9
S	0	1	4	3	3	1	12
SSW	0	0	4	1	1	1	7
SW	0	0	0	3	0	0	3
WSW	0	0	3	6	1	0	10
W	0	4	3	6	2	1	16
WNW	0	0	5	2	1	0	8
NW	0	0	1	2	0	0	3
NNW	0	2	3	1	0	0	6
Variable	0	0	0	0	0	0	0
Total	0	31	36	29	11	3	110

Hours of calm in this stability class: 0

Hours of missing wind measurements in this stability class: 2

Hours of missing stability measurements in all stability classes: 2

Braidwood Generating Station

Period of Record: October - December 2008
 Stability Class - Neutral - 199Ft-30Ft Delta-T (F)
 Winds Measured at 203 Feet

Wind Direction	Wind Speed (in mph)						Total
	1-3	4-7	8-12	13-18	19-24	> 24	
N	1	9	7	13	5	0	35
NNE	0	5	5	3	3	0	16
NE	1	5	7	4	0	0	17
ENE	2	8	8	2	0	0	20
E	2	2	7	5	2	0	18
ESE	0	6	4	25	3	0	38
SE	0	5	19	29	4	0	57
SSE	0	4	22	16	8	11	61
S	0	3	19	40	25	43	130
SSW	0	1	5	35	29	9	79
SW	0	3	13	28	4	0	48
WSW	0	8	16	14	6	3	47
W	1	11	22	47	18	11	110
WNW	1	1	24	56	30	8	120
NW	1	8	18	39	17	0	83
NNW	1	7	21	59	27	7	122
Variable	0	0	0	0	0	0	0
Total	10	86	217	415	181	92	1001

Hours of calm in this stability class: 0

Hours of missing wind measurements in this stability class: 41

Hours of missing stability measurements in all stability classes: 2

Braidwood Generating Station

Period of Record: October - December 2008
 Stability Class - Slightly Stable - 199Ft-30Ft Delta-T (F)
 Winds Measured at 203 Feet

Wind Speed (in mph)

Wind Direction -----	1-3 -----	4-7 -----	8-12 -----	13-18 -----	19-24 -----	> 24 -----	Total -----
N	0	2	16	2	0	0	20
NNE	1	2	3	0	0	0	6
NE	0	0	5	1	0	0	6
ENE	2	4	9	2	0	0	17
E	1	4	18	17	2	0	42
ESE	0	4	8	34	3	0	49
SE	2	6	16	18	3	0	45
SSE	1	3	18	18	15	0	55
S	1	0	18	66	31	14	130
SSW	0	0	8	37	8	0	53
SW	0	4	5	10	5	1	25
WSW	0	7	6	4	1	0	18
W	0	6	10	6	2	0	24
WNW	0	2	15	17	3	1	38
NW	1	5	24	25	1	0	56
NNW	1	3	18	16	0	0	38
Variable	0	0	0	0	0	0	0
Total	10	52	197	273	74	16	622

Hours of calm in this stability class: 0

Hours of missing wind measurements in this stability class: 8

Hours of missing stability measurements in all stability classes: 2

Braidwood Generating Station

Period of Record: October - December 2008
 Stability Class - Moderately Stable - 199Ft-30Ft Delta-T (F)
 Winds Measured at 203 Feet

Wind Direction	Wind Speed (in mph)						Total
	1-3	4-7	8-12	13-18	19-24	> 24	
N	0	2	8	2	0	0	12
NNE	0	3	1	0	0	0	4
NE	1	1	7	0	0	0	9
ENE	0	0	1	0	0	0	1
E	2	1	8	2	0	0	13
ESE	0	0	1	12	0	0	13
SE	1	4	8	4	0	0	17
SSE	1	0	3	3	0	0	7
S	0	1	0	0	0	0	1
SSW	0	0	1	3	1	0	5
SW	0	2	5	1	0	0	8
WSW	0	0	5	5	0	0	10
W	1	4	8	24	1	0	38
WNW	0	2	13	5	0	0	20
NW	0	3	7	0	0	0	10
NNW	0	6	5	0	0	0	11
Variable	0	0	0	0	0	0	0
Total	6	29	81	61	2	0	179

Hours of calm in this stability class: 0

Hours of missing wind measurements in this stability class: 0

Hours of missing stability measurements in all stability classes: 2

Braidwood Generating Station

Period of Record: October - December 2008
 Stability Class - Extremely Stable - 199Ft-30Ft Delta-T (F)
 Winds Measured at 203 Feet

Wind Speed (in mph)

Wind Direction	1-3	4-7	8-12	13-18	19-24	> 24	Total
N	0	0	4	2	0	0	6
NNE	0	3	1	0	0	0	4
NE	2	1	3	1	0	0	7
ENE	0	0	0	1	0	0	1
E	0	0	1	3	0	0	4
ESE	1	2	2	2	0	0	7
SE	0	0	1	0	0	0	1
SSE	0	2	2	0	0	0	4
S	0	1	0	0	0	0	1
SSW	0	6	0	0	0	0	6
SW	0	2	0	0	0	0	2
WSW	0	2	2	3	0	0	7
W	1	0	6	4	0	0	11
WNW	0	1	1	0	0	0	2
NW	0	0	0	0	0	0	0
NNW	0	3	1	0	0	0	4
Variable	0	0	0	0	0	0	0
Total	4	23	24	16	0	0	67

Hours of calm in this stability class: 0

Hours of missing wind measurements in this stability class: 0

Hours of missing stability measurements in all stability classes: 2