Docket No: 50-456
50-457

BRAIDWOOD STATION
UNITS 1 and 2

Annual Radiological
Environmental Operating Report

1 January Through 31 December 2005

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I. Summary and Conclusions

This report on the Radiological Environmental Monitoring Program conducted for the Braidwood Station by Exelon covers the period 1 January 2005 through 31 December 2005. During that time period, 1,079 analyses were performed on 939 samples. In assessing all the data gathered for this report and comparing these results with preoperational data, it was concluded that the operation of Braidwood Station had no adverse radiological impact on the environment.

Surface, public and ground/well water samples were analyzed for concentrations of tritium and gamma emitting nuclides. Surface water and public water samples were also analyzed for concentrations of gross beta. No fission or activation products were detected. Gross beta and tritium activities detected were consistent with those detected in previous years.

Fish (commercially and/or recreationally important species) and sediment samples were analyzed for concentrations of gamma emitting nuclides. No fission or activation products were detected in fish. Sediment samples had Cesium-137 concentrations consistent with levels observed during the preoperational years. No Plant produced fission or activation products were found in sediment.

Air particulate samples were analyzed for concentrations of gross beta and gamma emitting nuclides. No fission or activation products were detected.

High sensitivity I-131 analyses were performed on weekly air samples. All results were less than the minimum detectable activity.

Cow milk samples were analyzed for concentrations of I-131 and gamma emitting nuclides. All I-131 results were below the minimum detectable activity. Concentrations of naturally occurring K-40 were detected. No fission or activation products were found.

Food Product samples were analyzed for concentrations of gamma emitting nuclides. No fission or activation products were detected.

Environmental gamma radiation measurements were performed quarterly using thermoluminescent dosimeters. Levels detected were consistent with those observed in previous years.

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II. Introduction

The Braidwood Station, consisting of two 3587 MWt pressurized water reactors owned and operated by Exelon Corporation, is located in Will County, Illinois. Unit No. 1 went critical on 29 May 1987. Unit No. 2 went critical on 08 March 1988. The site is located in northeastern Illinois, 15 miles south-southwest of Joliet, Illinois and 60 miles southwest of Chicago and southwest of the Kankakee River.

This report covers those analyses performed by Teledyne Brown Engineering (TBE), Global Dosimetry, and Environmental Inc. (Midwest Labs) on samples collected during the period 1 January 2005 through 31 December 2005.

A. Objective of the REMP

The objectives of the REMP are to:

1. Provide data on measurable levels of radiation and radioactive materials in the site environs.

2. Evaluate the relationship between quantities of radioactive material released from the plant and resultant radiation doses to individuals from principal pathways of exposure.

B. Implementation of the Objectives

The implementation of the objectives is accomplished by:

1. Identifying significant exposure pathways.

2. Establishing baseline radiological data of media within those pathways.

3. Continuously monitoring those media before and during Station operation to assess Station radiological effects (if any) on man and the environment.

III. Program Description

A. Sample Collection

Samples for the Braidwood Station REMP were collected for Exelon Nuclear by Environmental Inc. (Midwest Labs). This section describes the

general collection methods used by Environmental Inc. (Midwest Labs) to obtain environmental samples for the Braidwood Station REMP in 2005. Sample locations and descriptions can be found in Table B–1 and Figures B–1 through B–3, Appendix B. The collection procedures used by Environmental Inc. are listed in Table B-2.

Aquatic Environment

The aquatic environment was evaluated by performing radiological analyses on samples of surface water, public water, well water, fish, and sediment. Two gallon water samples were collected weekly from two surface water locations (BD-10 and BD-25 [control]) and one weekly composite sample of public drinking water location (BD-22) and ground/well water samples collected quarterly from five locations (BD-13, BD-34, BD-35, BD-36 and BD-37). All samples were collected in new unused plastic bottles, which were rinsed with source water prior to collection. Fish samples comprising the flesh of smallmouth bass, golden redhorse, channel catfish, rock bass and carp were collected semiannually at two locations, BD-25 (control) and BD-28. Sediment samples composed of recently deposited substrate were collected at one location semiannually, BD-10.

Atmospheric Environment

The atmospheric environment was evaluated by performing radiological analyses on samples of air particulate, airborne iodine, and milk. Air particulate samples were collected and analyzed weekly at eight locations (BD-02, BD-03, BD-04, BD-05, BD-06, BD-19, BD-20, and BD-21). The control location was BD-03. Airborne iodine and particulate samples were obtained at each location, using a vacuum pump with charcoal and glass fiber filters attached. The pumps were run continuously and sampled air at the rate of approximately one cubic foot per minute. The filters were replaced weekly and sent to the laboratory for analysis. The air iodine samples were replaced biweekly and sent to the lab for analysis.

Milk samples were collected biweekly at two locations (BD-17 and BD-18) from May through October, and monthly from November through April. The control location was BD-18. All samples were collected in new unused two gallon plastic bottles from the bulk tank at each location, preserved with sodium bisulfite, and shipped promptly to the laboratory. Food products were collected annually in September at five locations (BD-C, BD-Quad 1, BD-Quad 2, BD-Quad 3, and BD-Quad 4). The control location was BD-C. Various types of samples were collected and placed in new unused plastic bags, and sent to the laboratory for analysis.

Ambient Gamma Radiation

Direct radiation measurements were made using CaF_2 thermoluminescent dosimeters (TLD). Each location consisted of 2 TLD sets. The TLD locations were placed on and around the Braidwood Station site as follows:

An inner ring consisting of 16 locations (BD-101, BD-102, BD-103, BD-104, BD-105, BD-106, BD-107, BD-108, BD-109, BD-110, BD-111a, BD-112, BD-113a, BD-114, BD-115 and BD-116) near and within the site perimeter representing fence post doses (i.e., at locations where the doses will be potentially greater than maximum annual off–site doses) from Braidwood Station release.

An outer ring consisting of 16 locations (BD-201, BD-202, BD-203, BD-204, BD-205, BD-206, BD-207, BD-208, BD-209, BD-210, BD-211, BD-212, BD-213, BD-214, BD-215, BD-216) extending to approximately 5 miles from the site designed to measure possible exposures to close-in population.

An other set consisting of seven locations (BD-02, BD-04, BD-05, BD-06, BD-19, BD-20 and BD-21.

The balance of one location (BD-03) representing the control area.

The specific TLD locations were determined by the following criteria:

1. The presence of relatively dense population;

2. Site meteorological data taking into account distance and elevation for each of the sixteen–22 1/2 degree sectors around the site, where estimated annual dose from Braidwood Station, if any, would be most significant;

Two TLDs – each comprised of two CaF_2 thermoluminescent phosphors enclosed in plastic – were placed at each location. The TLDs were exchanged quarterly and sent to Global Dosimetry for analysis.

B. Sample Analysis

This section describes the general analytical methodologies used by TBE and Environmental Inc. (Midwest Labs) to analyze the environmental samples for radioactivity for the Braidwood Station REMP in 2005. The analytical procedures used by the laboratories are listed in Table B-2.

In order to achieve the stated objectives, the current program includes the following analyses:

1. Concentrations of beta emitters in drinking and surface water and air particulates.

2. Concentrations of gamma emitters in drinking, ground/well and surface water, air particulates, milk, fish, sediment and food products.

3. Concentrations of tritium in drinking, ground/well and surface water.

4. Concentrations of I-131 in air and milk.

5. Ambient gamma radiation levels at various site environs.

C. Data Interpretation

The radiological and direct radiation data collected prior to Braidwood Station becoming operational were used as a baseline with which these operational data were compared. For the purpose of this report, Braidwood Station was considered operational at initial criticality. In addition, data were compared to previous years' operational data for consistency and trending. Several factors were important in the interpretation of the data:

1. Lower Limit of Detection and Minimum Detectable Concentration

The lower limit of detection (LLD) was defined as the smallest concentration of radioactive material in a sample that would yield a net count (above background) that would be detected with only a 5% probability of falsely concluding that a blank observation represents a "real" signal. The LLD was intended as a before the fact estimate of a system (including instrumentation, procedure and sample type) and not as an after the fact criteria for the presence of activity. All analyses were designed to achieve the required Braidwood Station detection capabilities for environmental sample analysis.

The minimum detectable concentration (MDC) is defined above with the exception that the measurement is an after the fact estimate of the presence of activity.

2. Net Activity Calculation and Reporting of Results

Net activity for a sample was calculated by subtracting background activity from the sample activity. Since the REMP measures extremely small changes in radioactivity in the environment, background variations may result in sample activity being lower than the background activity effecting a negative number. An MDC was reported in all cases where positive activity was not detected.

Gamma spectroscopy results for each type of sample were grouped as follows:

For surface and public water 12 nuclides, Mn-54, Co-58, Fe-59, Co-60, Zn-65, Zr-95, Nb-95, I-131, Cs-134, Cs-137, Ba-140, and La-140 were reported.

For ground/well water 11 nuclides, Mn-54, Co-58, Fe-59, Co-60, Zn-65, Zr-95, Nb-95, Cs-134, Cs-137, Ba-140, and La-140 were reported.

For fish nine nuclides, Mn-54, Co-58, Fe-59, Co-60, Zn-65, Nb/Zr-95, Cs-134, Cs-137 and Ba/La-140 were reported.

For sediment nine nuclides, Mn-54, Co-58, Fe-59, Co-60, Zn-95, Nb/Zr-95, Cs-134, Cs-137 and Ba/La-140 were reported.

For air particulate nine, Mn-54, Co-58, Fe-59, Co-60, Zn-65, Nb/Zr-95, Cs-134, Cs-137 and Ba/La-140 were reported.

For milk 10 nuclides, Mn-54, Co-58, Fe-59, Co-60, Zn-65, Nb/Zr-95, Cs-134, Cs-137, Ba-140 and La-140 were reported.

For vegetation nine nuclides, Mn-54, Co-58, Fe-59, Co-60, Zn-65, Nb/Zr-95, Cs-134, Cs-137 and Ba/La-140 were reported.

Means and standard deviations of the results were calculated. The standard deviations represent the variability of measured results for different samples rather than single analysis uncertainty.

D. Program Exceptions

For 2005 the Braidwood Station REMP had a sample recovery rate in excess of 99%. Sample anomalies and missed samples are listed in the tables below:

Table D-1 LISTING OF SAMPLE ANOMALIES

Sample Type	Location Code	Collection Date	Reason
A/I	BD-03	01/27/05	Low reading of 76.4 hours; collector removed pump for annual service.
A/I	BD-02	06/02/05	No apparent reason for low timer reading of 158.0 hours.
A	BD-02	06/09/05	Low reading of 145.2 hours due to power failure. Collector notified Station Point of Contact about power failure.
A	BD-05	07/21/05	Low reading of 159.8 hours; no electricity. ComEd working on burned out transformer.
A	BD-20	07/21/05	Low reading of 148.5 hours possibly due to power outage from electrical storms in area.

Table D-2 LISTING OF MISSED SAMPLES

Sample Type	Location Code	Collection Date	Reason
TLD	BD-208-2	03/31/05	TLD was found missing during quarterly exchange; collector placed new second quarter TLD.
A/I	BD-02	06/16/05	No sample; power out. Power was restored at 18:00 on 06/16/05.
TLD	BD-109-1	09/29/05	TLD was missing during quarterly exchange; collector placed new fourth quarter TLD.

Each program exception was reviewed to understand the causes of the program exception. Sampling and maintenance errors were reviewed with the personnel involved to prevent recurrence. Occasional equipment breakdowns and power outages were unavoidable.

The overall sample recovery rate indicates that the appropriate procedures and equipment are in place to assure reliable program implementation.

E. Program Changes

Beginning the third quarter 2005, Teledyne Brown Engineering Environmental Services became the primary laboratory and Environmental Inc. (Midwest Labs) became the QC laboratory. Due to the change, the data tables and summary table presented in this report will appear different from previously submitted reports. This year, only the detected and non-detected results will be presented in the data tables. As a result of this change, the first half of the year data tables will display LLD (Lower Limit of Detection) values for non-detected nuclides and the second half of the year data tables will display MDC (Minimum Detectable Concentration) values for non-detected nuclides. The summary table will include a longer list of gamma nuclides. The data points for non-detects in the figures will consist of LLD values for the first half of the year and MDC values for the second half of the year.

Far field samples are analyzed when the respective near field sample results are inconsistent with previous measurements and radioactivity is confirmed as having its origin in airborne effluents from the station, or at the discretion of the Radiological Environmental Monitoring Program (REMP) Coordinator. Starting with the third quarter of 2005, all far-field air particulate samples were analyzed.

The air iodine samples were replaced biweekly and sent to the lab for analysis. Five locations were analyzed biweekly (BD-03, BD-06, BD-19, BD-20 and BD-21) for the first half of the year, per the Braidwood Station ODCM. All eight locations (BD-02, BD-03, BD-04, BD-05, BD-06, BD-19, BD-20, and BD-21) were analyzed the second half of the year.

IV. Results and Discussion

A. Aquatic Environment

1. Surface Water

Samples were taken weekly and composited monthly at two locations (BD-10 and BD-25). Of these locations only BD-10 located downstream, could be affected by Braidwood Station's effluent releases. The following analyses were performed.

Gross Beta

Samples from both locations were analyzed for concentrations of gross beta (Table C–I.1, Appendix C). The values ranged from <4.0 to 11 pCi/l. Concentrations detected were consistent with those detected in previous years (Figures C–1, Appendix C).

Tritium

Quarterly composites of weekly collections were analyzed for tritium activity (Table C–I.2, Appendix C). The values ranged from 155 to 720 pCi/l. Concentrations detected were consistent with those detected in previous years (Figures C–2, Appendix C).

Gamma Spectrometry

Samples from both locations were analyzed for gamma emitting nuclides (Table C–I.3, Appendix C). No nuclides were detected, and all required LLDs were met.

2. Public Water

Monthly composite of weekly samples were collected at one location (BD-22). This location could be affected by Braidwood Station's effluent releases. The following analyses were performed:

Gross Beta

Samples from the location were analyzed for concentrations of gross beta (Tables C–II.1, Appendix C). The values ranged from 3.9 to 5.8 pCi/l. Concentrations detected were consistent with those detected in previous years (Figures C–3, Appendix C).

Tritium

Monthly composites of weekly samples from the location were analyzed for tritium activity (Table C–II.2, Appendix C). The values ranged from <162 to 3,050 pCi/l. Concentrations detected were consistent with those detected in previous years (Figures C–4, Appendix C).

Gamma Spectrometry

Samples from the location were analyzed for gamma emitting nuclides (Table C–II.3, Appendix C). No nuclides were detected, and all required LLDs were met.

3. Ground/well Water

Quarterly samples were collected at five locations (BD-13, BD-34, BD-35, BD-36 and BD-37). The following analyses were performed:

Tritium

Quarterly grab samples from the locations were analyzed for tritium activity (Table C–III.1, Appendix C). The values ranged from <138 to 378 pCi/l. Concentrations detected were consistent with those detected in previous years (Figures C–5 through C–7, Appendix C).

Gamma Spectrometry

Samples from all locations were analyzed for gamma emitting nuclides (Table C–III.2, Appendix C). No nuclides were detected, and all required LLDs were met.

4. Fish

Fish samples comprised of smallmouth bass, golden redhorse, channel catfish, rock bass and carp were collected at two locations (BD-25 and BD-28) semiannually. Location BD-28 could be affected by Braidwood Station's effluent releases. The following analysis was performed:

Gamma Spectrometry

The edible portion of fish samples from both locations was analyzed for gamma emitting nuclides (Table C–IV.1, Appendix C). No fission or activation products were found. No nuclides were detected, and all required LLDs were met.

5. Sediment

Aquatic sediment samples were collected at one location (BD-10) semiannually. The location, located downstream, could be affected

by Braidwood Station's effluent releases. The following analysis was performed:

Gamma Spectrometry

Sediment samples from the location were analyzed for gamma emitting nuclides (Table C–V.1, Appendix C).

Concentrations of the fission product Cs-137 were found in one sediment sample with a concentration of 139 pCi/kg dry. The activity detected was consistent with those detected in previous years. No other Braidwood fission or activation products were found and all required LLDs were met.

B. Atmospheric Environment

1. Airborne

a. Air Particulates

Continuous air particulate samples were collected from eight locations on a weekly basis. The eight locations were separated into three groups: Near field samplers (BD-06, BD-19, BD-20 and BD-21), far field samplers within 10 km of the site (BD-02, BD-04 and BD-05) and the Control sampler between 10 and 30 km from the site (BD-03). Far field samples are analyzed when the respective near field sample results are inconsistent with previous measurements and radioactivity is confirmed as having its origin in airborne effluents from the station, or at the discretion of the REMP Program Owner. The following analyses were performed:

Gross Beta

Weekly samples were analyzed for concentrations of beta emitters (Table C–VI.1 and C-VI.2, Appendix C).

Detectable gross beta activity was observed at all locations. Comparison of results among the three groups aid in determining the effects, if any, resulting from the operation of Braidwood Station. The results from the near field (Group I) ranged from 6 to 47 E–3 pCi/m^3 with a mean of 22 E–3 pCi/m^3. The results from the far field (Group II) ranged from 6 to 46 E–3 pCi/m^3 with a mean of 22 E–3 pCi/m^3. The results from the Control location (Group III) ranged from 6 to

47 E–3 pCi/m^3 with a mean of 21 E–3 pCi/m^3. Comparison of the 2005 air particulate data with previous years data indicate no effects from the operation of Braidwood Station. In addition a comparison of the weekly mean values for 2005 indicate no notable differences among the three groups (Figures C–8 through C-10, Appendix C).

Gamma Spectrometry

Weekly samples were composited quarterly and analyzed for gamma emitting nuclides (Table C–VI.3, Appendix C). No nuclides were detected, and all required LLDs were met.

b. Airborne Iodine

Continuous air samples were collected from five locations during their first half of the year (BD-03, BD-06, BD19, BD-20, and BD-21), and all eight locations (BD-02, BD-03, BD-04, BD-05, BD-06, BD19, BD-20, and BD-21) for the second half of the year. The samples were analyzed biweekly for I-131 (Table C–VII.1, Appendix C). The required LLD was met.

2. Terrestrial

a. Milk

Samples were collected from two locations (BD-17 and BD-18) biweekly May through October and monthly November through April. The following analyses were performed:

Iodine-131

Milk samples from all locations were analyzed for concentrations of I-131 (Table C–VIII.1, Appendix C). No I-131 was detected, and the required LLD was met.

Gamma Spectrometry

Each milk sample was analyzed for concentrations of gamma emitting nuclides (Table C–VIII.2, Appendix C). No nuclides were detected, and all required LLDs were met.

b. Food Products

Food product samples were collected at five locations (BD-Control, BD-Quad 1, BD-Quad 2, BD-Quad 3 and BD-Quad 4) when available. Four locations, (located downstream, BD-Quad 1, BD-Quad 2, BD-Quad 3 and BD-Quad 4) could be affected by Braidwood Station's effluent releases. The following analysis was performed:

Gamma Spectrometry

Samples from all locations were analyzed for gamma emitting nuclides (Table C–IX.1, Appendix C). No nuclides were detected, and all required LLDs were met.

C. Ambient Gamma Radiation

Ambient gamma radiation levels were measured utilizing Panasonic 814 (CaF_2) thermoluminescent dosimeters. Eighty TLD locations were established around the site. Results of TLD measurements are listed in Tables C–X.1 to C–X.3, Appendix C.

Most TLD measurements were below 30 mR/quarter, with a range of 17 to 32 mR/quarter. A comparison of the Inner Ring, Outer Ring and Other data to the Control Location data, indicate that the ambient gamma radiation levels from all locations were comparable.

D. Land Use Survey

A Land Use Survey conducted during the August 2005 around the Braidwood Station was performed by Environmental Inc. (Midwest Labs) for Exelon Nuclear to comply with section 12.5.2 of the Braidwood Station's Offsite Dose Calculation Manual. The purpose of the survey was to document the nearest resident, milk producing animal and garden of greater than 500 ft^2 in each of the sixteen 22 ½ degree sectors around the site. There were no changes required to the Braidwood Station REMP, as a result of this survey. The results of this survey are summarized below.

Distance in Miles from the Braidwood Station Reactor Buildings			
Sector	Residence Miles	Livestock Miles	Milk Farm Miles
A N	0.5	2.6	-
B NNE	1.8	-	-
C NE	0.7	0.9	-
D ENE	0.8	3.3	-
E E	0.8	2.3	-
F ESE	2.2	2.3	-
G SE	2.7	2.7	11.2
H SSE	4.5	4.1	-
J S	4.2	4.8	-
K SSW	1.3	5.3	5.6
L SW	0.4	1.2	-
M WSW	0.5	3.8	-
N W	0.4	1.6	8.7
P WNW	0.4	5.4	-
Q NW	0.4	-	-
R NNW	0.4	-	-

E. Summary of Results – Inter-Laboratory Comparison Program

The primary and secondary laboratories analyzed Performance Evaluation (PE) samples of air particulate, air iodine, milk, soil, vegetation and water matrices (Appendix D). The PE samples, supplied by Analytics Inc., Environmental Resource Associates (ERA) and DOE's Mixed Analyte Performance Evaluation Program (MAPEP), were evaluated against the following pre-set acceptance criteria:

1. Analytics Evaluation Criteria

   Analytics' evaluation report provides a ratio of laboratory results and Analytics' known value. Since flag values are not assigned by Analytics, TBE-ES evaluates the reported ratios based on internal QC requirements, which are based on the DOE MAPEP criteria.

2. ERA Evaluation Criteria

   ERA's evaluation report provides an acceptance range for control and warning limits with associated flag values. ERA's acceptance limits are established per the USEPA, NELAC, state specific PT program requirements or ERA's SOP for the Generation of Performance Acceptance Limits, as applicable. The acceptance limits are either determined by a regression equation specific to each analyte or a fixed percentage limit promulgated under the appropriate regulatory document.

3. DOE Evaluation Criteria

MAPEP's evaluation report provides an acceptance range with associated flag values.

The MAPEP defines three levels of performance: Acceptable (flag = "A"), Acceptable with Warning (flag = "W"), and Not Acceptable (flag = "N"). Performance is considered acceptable when a mean result for the specified analyte is ± 20% of the reference value. Performance is acceptable with warning when a mean result falls in the range from ±20% to ±30% of the reference value (i.e., 20% < bias < 30%). If the bias is greater than 30%, the results are deemed not acceptable.

For the primary laboratory, 18 out of 19 analytes met the specified acceptance criteria. Four samples did not meet the specified acceptance criteria for the following reasons:

1. Teledyne Brown Engineering's Analytics' September 2005 air particulate Fe-59 ratio of 1.35 exceeded the upper control limit of 1.30 due a new technician not counting the air particulate in a petri dish.

For the secondary laboratory, 19 out of 23 analytes met the specified acceptance criteria. Four samples did not meet the specified acceptance criteria for the following reasons:

1. Environmental Inc.'s ERA's November 2005 water Gross Alpha result of 41.1 pCi/L exceeded the upper control limit of 33.4 pCi/L. This was due to using an Am-241 efficiency instead of a Th-232 efficiency when counting the sample. Using the correct efficiency gave a result of 27.0 pCi/L.

2. Environmental Inc.'s ERA's November 2005 water Ra-228 result of 5.5 pCi/L exceeded the upper control limit of 5.0 pCi/L due to presence of radium daughters. Delay in counting 100 minutes gave a result of 4.01 pci/L.

3. Environmental Inc.'s MAPEP's January 2005 air particulate Sr-90 result of 2.2 exceeded the upper control limit of 1.76 Bq/kg. Reanalysis result was 1.56 Bq/kg.

4. Environmental Inc.'s MAPEP's July 2005 soil Am-241 result of 48.4 exceeded the lower control limit of 56.77 Bq/kg due to incorrect sample weight being used in the calculation. When recalculated

with the correct sample weight, the result was 97.0 Bq/kg.

The Inter-Laboratory Comparison Program provides evidence of “in control” counting systems and methods, and that the laboratories are producing accurate and reliable data.

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APPENDIX A

RADIOLOGICAL ENVIRONMENTAL MONITORING REPORT QUARTERLY AND ANNUAL SUMMARY

TABLE A-1 RADIOLOGICAL ENVIRONMENTAL MONITORING PROGRAM 1ST QUARTER SUMMARY FOR BRAIDWOOD STATION, 2005

Name of Facility:	**BRAIDWOOD**				**DOCKET NUMBER:**	**50-456 & 50-457**		
Location of Facility:	**BRACEVILLE, IL**				**REPORTING PERIOD:**	**1ST QUARTER, 2005**		
				INDICATOR LOCATIONS	**CONTROL LOCATION**	**LOCATION WITH HIGHEST ANNUAL MEAN**		
MEDIUM OR PATHWAY SAMPLED (UNIT OF MEASUREMENT)	TYPES OF ANALYSIS PERFORMED	NUMBER OF ANALYSIS PERFORMED	REQUIRED LOWER LIMIT OF DETECTION (LLD)	MEAN(M) (F) RANGE	MEAN(M) (F) RANGE	MEAN(M) (F) RANGE	STATION # NAME DISTANCE AND DIRECTION	NUMBER OF NONROUTINE REPORTED MEASUREMENTS
SURFACE WATER (PCI/LITER)	GR-B	6	4	<LLD	7.2 (2/3) (5.8/8.5)	7.2 (2/3) (5.8/8.5)	BD-25 CONTROL KANKAKEE RIVER UPSTREAM 9.6 MILES E OF SITE	0
	H-3	2	200	<LLD	<LLD	-	-	0
	GAMMA	6						
	MN-54		15	<LLD	<LLD	-	-	0
	CO-58		15	<LLD	<LLD	-	-	0
	FE-59		30	<LLD	<LLD	-	-	0
	CO-60		15	<LLD	<LLD	-	-	0
	ZN-65		30	<LLD	<LLD	-	-	0
	NB-95		15	<LLD	<LLD	-	-	0

MEAN AND RANGEMEAN AND RANGE BASED ON DETECTABLE MEASUREMENTS ONLY (M)
FRACTION OF DETECTABLE MEASUREMENTS AT SPECIFIED LOCATIONS IS INDICATED IN PARENTHESES (F)

TABLE A-1 RADIOLOGICAL ENVIRONMENTAL MONITORING PROGRAM 1ST QUARTER SUMMARY FOR BRAIDWOOD STATION, 2005

Name of Facility:	**BRAIDWOOD**				**DOCKET NUMBER:**		**50-456 & 50-457**	
Location of Facility:	**BRACEVILLE, IL**				**REPORTING PERIOD:**		**1ST QUARTER, 2005**	
				INDICATOR LOCATIONS	**CONTROL LOCATION**	**LOCATION WITH HIGHEST ANNUAL MEAN**		
MEDIUM OR PATHWAY SAMPLED (UNIT OF MEASUREMENT)	TYPES OF ANALYSIS PERFORMED	NUMBER OF ANALYSIS PERFORMED	REQUIRED LOWER LIMIT OF DETECTION (LLD)	MEAN(M) (F) RANGE	MEAN(M) (F) RANGE	MEAN(M) (F) RANGE	STATION # NAME DISTANCE AND DIRECTION	NUMBER OF NONROUTINE REPORTED MEASUREMENTS
	ZR-95		30	<LLD	<LLD	-	-	0
	I-131		15	<LLD	<LLD	-	-	0
	CS-134		15	<LLD	<LLD	-	-	0
	CS-137		18	<LLD	<LLD	-	-	0
	BA-140		60	<LLD	<LLD	-	-	0
	LA-140		15	<LLD	<LLD	-	-	0
PUBLIC WATER (PCI/LITER)	GR-B	3	4	<LLD	N/A	-	-	0
	H-3	3	200	260 (1/3)	N/A	260 (1/3)	BD-22 INDICATOR WILMINGTON 6.0 MILES NE OF SITE	0

MEAN AND RANGEMEAN AND RANGE BASED ON DETECTABLE MEASUREMENTS ONLY (M)
FRACTION OF DETECTABLE MEASUREMENTS AT SPECIFIED LOCATIONS IS INDICATED IN PARENTHESES (F)

TABLE A-1 RADIOLOGICAL ENVIRONMENTAL MONITORING PROGRAM 1ST QUARTER SUMMARY FOR BRAIDWOOD STATION, 2005

Name of Facility:	**BRAIDWOOD**				**DOCKET NUMBER:**	**50-456 & 50-457**		
Location of Facility:	**BRACEVILLE, IL**				**REPORTING PERIOD:**	**1ST QUARTER, 2005**		
				INDICATOR LOCATIONS	**CONTROL LOCATION**	**LOCATION WITH HIGHEST ANNUAL MEAN**		
MEDIUM OR PATHWAY SAMPLED (UNIT OF MEASUREMENT)	TYPES OF ANALYSIS PERFORMED	NUMBER OF ANALYSIS PERFORMED	REQUIRED LOWER LIMIT OF DETECTION (LLD)	MEAN(M) (F) RANGE	MEAN(M) (F) RANGE	MEAN(M) (F) RANGE	STATION # NAME DISTANCE AND DIRECTION	NUMBER OF NONROUTINE REPORTED MEASUREMENTS
	GAMMA	3						
	MN-54		15	<LLD	N/A	-	-	0
	CO-58		15	<LLD	N/A	-	-	0
	FE-59		30	<LLD	N/A	-	-	0
	CO-60		15	<LLD	N/A	-	-	0
	ZN-65		30	<LLD	N/A	-	-	0
	NB-95		15	<LLD	N/A	-	-	0
	ZR-95		30	<LLD	N/A	-	-	0
	I-131		15	<LLD	<LLD	-	-	0

MEAN AND RANGEMEAN AND RANGE BASED ON DETECTABLE MEASUREMENTS ONLY (M)
FRACTION OF DETECTABLE MEASUREMENTS AT SPECIFIED LOCATIONS IS INDICATED IN PARENTHESES (F)

TABLE A-1 RADIOLOGICAL ENVIRONMENTAL MONITORING PROGRAM 1ST QUARTER SUMMARY FOR BRAIDWOOD STATION, 2005

Name of Facility:	**BRAIDWOOD**				**DOCKET NUMBER:**		**50-456 & 50-457**	
Location of Facility:	**BRACEVILLE, IL**				**REPORTING PERIOD:**		**1ST QUARTER, 2005**	
				INDICATOR LOCATIONS	**CONTROL LOCATION**	**LOCATION WITH HIGHEST ANNUAL MEAN**		
MEDIUM OR PATHWAY SAMPLED (UNIT OF MEASUREMENT)	TYPES OF ANALYSIS PERFORMED	NUMBER OF ANALYSIS PERFORMED	REQUIRED LOWER LIMIT OF DETECTION (LLD)	MEAN(M) (F) RANGE	MEAN(M) (F) RANGE	MEAN(M) (F) RANGE	STATION # NAME DISTANCE AND DIRECTION	NUMBER OF NONROUTINE REPORTED MEASUREMENTS
	CS-134		15	<LLD	N/A	-	-	0
	CS-137		18	<LLD	N/A	-	-	0
	BA-140		60	<LLD	N/A	-	-	0
	LA-140		15	<LLD	N/A	-	-	0
GROUND/WELL WATER (PCI/LITER)	H-3	5	200	335 (1/5)	N/A	335 (1/1)	BD-36 INDICATOR HUTTON WELL 4.7 MILES E OF SITE	0
	GAMMA MN-54	5	15	<LLD	N/A	-	-	0
	CO-58		15	<LLD	N/A	-	-	0
	FE-59		30	<LLD	N/A	-	-	0

MEAN AND RANGEMEAN AND RANGE BASED ON DETECTABLE MEASUREMENTS ONLY (M)
FRACTION OF DETECTABLE MEASUREMENTS AT SPECIFIED LOCATIONS IS INDICATED IN PARENTHESES (F)

TABLE A-1 RADIOLOGICAL ENVIRONMENTAL MONITORING PROGRAM 1ST QUARTER SUMMARY FOR BRAIDWOOD STATION, 2005

Name of Facility:	**BRAIDWOOD**				**DOCKET NUMBER:**	**50-456 & 50-457**		
Location of Facility:	**BRACEVILLE, IL**				**REPORTING PERIOD:**	**1ST QUARTER, 2005**		
				INDICATOR LOCATIONS	**CONTROL LOCATION**	**LOCATION WITH HIGHEST ANNUAL MEAN**		
MEDIUM OR PATHWAY SAMPLED (UNIT OF MEASUREMENT)	TYPES OF ANALYSIS PERFORMED	NUMBER OF ANALYSIS PERFORMED	REQUIRED LOWER LIMIT OF DETECTION (LLD)	MEAN(M) (F) RANGE	MEAN(M) (F) RANGE	MEAN(M) (F) RANGE	STATION # NAME DISTANCE AND DIRECTION	NUMBER OF NONROUTINE REPORTED MEASUREMENTS
	CO-60		15	<LLD	N/A	-	-	0
	ZN-65		30	<LLD	N/A	-	-	0
	NB-95		15	<LLD	N/A	-	-	0
	ZR-95		30	<LLD	N/A	-	-	0
	CS-134		15	<LLD	N/A	-	-	0
	CS-137		18	<LLD	N/A	-	-	0
	BA-140		60	<LLD	N/A	-	-	0
	LA-140		15	<LLD	N/A	-	-	0

MEAN AND RANGEMEAN AND RANGE BASED ON DETECTABLE MEASUREMENTS ONLY (M)
FRACTION OF DETECTABLE MEASUREMENTS AT SPECIFIED LOCATIONS IS INDICATED IN PARENTHESES (F)

TABLE A-1 RADIOLOGICAL ENVIRONMENTAL MONITORING PROGRAM 1ST QUARTER SUMMARY FOR BRAIDWOOD STATION, 2005

Name of Facility:	**BRAIDWOOD**				**DOCKET NUMBER:**	**50-456 & 50-457**		
Location of Facility:	**BRACEVILLE, IL**				**REPORTING PERIOD:**	**1ST QUARTER, 2005**		
				INDICATOR LOCATIONS	**CONTROL LOCATION**	**LOCATION WITH HIGHEST ANNUAL MEAN**		
MEDIUM OR PATHWAY SAMPLED (UNIT OF MEASUREMENT)	TYPES OF ANALYSIS PERFORMED	NUMBER OF ANALYSIS PERFORMED	REQUIRED LOWER LIMIT OF DETECTION (LLD)	MEAN(M) (F) RANGE	MEAN(M) (F) RANGE	MEAN(M) (F) RANGE	STATION # NAME DISTANCE AND DIRECTION	NUMBER OF NONROUTINE REPORTED MEASUREMENTS
AIR PARTICULATE (E-3 PCI/CU.METER)	GR-B	65	10	25 (52/52) (13/45)	24 (13/13) (10/39)	26 (13/13) (16/39)	BD-19 INDICATOR NEARSITE NW 0.3 MILES NW OF SITE	0
	GAMMA	5						
	MN-54		N/A	<LLD	<LLD	-	-	0
	CO-58		N/A	<LLD	<LLD	-	-	0
	FE-59		N/A	<LLD	<LLD	-	-	0
	CO-60		N/A	<LLD	<LLD	-	-	0
	ZN-65		N/A	<LLD	<LLD	-	-	0
	ZRNB-95		N/A	<LLD	<LLD	-	-	0
	CS-134		50	<LLD	<LLD	-	-	0

MEAN AND RANGEMEAN AND RANGE BASED ON DETECTABLE MEASUREMENTS ONLY (M)
FRACTION OF DETECTABLE MEASUREMENTS AT SPECIFIED LOCATIONS IS INDICATED IN PARENTHESES (F)

TABLE A-1 RADIOLOGICAL ENVIRONMENTAL MONITORING PROGRAM 1ST QUARTER SUMMARY FOR BRAIDWOOD STATION, 2005

Name of Facility:	**BRAIDWOOD**				**DOCKET NUMBER:**	**50-456 & 50-457**		
Location of Facility:	**BRACEVILLE, IL**				**REPORTING PERIOD:**	**1ST QUARTER, 2005**		
				INDICATOR LOCATIONS	**CONTROL LOCATION**	**LOCATION WITH HIGHEST ANNUAL MEAN**		
MEDIUM OR PATHWAY SAMPLED (UNIT OF MEASUREMENT)	TYPES OF ANALYSIS PERFORMED	NUMBER OF ANALYSIS PERFORMED	REQUIRED LOWER LIMIT OF DETECTION (LLD)	MEAN(M) (F) RANGE	MEAN(M) (F) RANGE	MEAN(M) (F) RANGE	STATION # NAME DISTANCE AND DIRECTION	NUMBER OF NONROUTINE REPORTED MEASUREMENTS
	CS-137		60	<LLD	<LLD	-	-	0
	BALA140		N/A	<LLD	<LLD	-	-	0
AIR IODINE (E-3 PCI/CU.METER)	I-131	30	70	<LLD	<LLD	-	-	0
MILK (PCI/LITER)	I-131	6	1	<LLD	<LLD	-	-	0
	GAMMA	6						
	MN-54		N/A	<LLD	<LLD	-	-	0
	CO-58		N/A	<LLD	<LLD	-	-	0
	FE-59		N/A	<LLD	<LLD	-	-	0
	CO-60		N/A	<LLD	<LLD	-	-	0

MEAN AND RANGEMEAN AND RANGE BASED ON DETECTABLE MEASUREMENTS ONLY (M)
FRACTION OF DETECTABLE MEASUREMENTS AT SPECIFIED LOCATIONS IS INDICATED IN PARENTHESES (F)

TABLE A-1 RADIOLOGICAL ENVIRONMENTAL MONITORING PROGRAM 1ST QUARTER SUMMARY FOR BRAIDWOOD STATION, 2005

Name of Facility:	**BRAIDWOOD**				**DOCKET NUMBER:**	**50-456 & 50-457**		
Location of Facility:	**BRACEVILLE, IL**				**REPORTING PERIOD:**	**1ST QUARTER, 2005**		
				INDICATOR LOCATIONS	**CONTROL LOCATION**	**LOCATION WITH HIGHEST ANNUAL MEAN**		
MEDIUM OR PATHWAY SAMPLED (UNIT OF MEASUREMENT)	TYPES OF ANALYSIS PERFORMED	NUMBER OF ANALYSIS PERFORMED	REQUIRED LOWER LIMIT OF DETECTION (LLD)	MEAN(M) (F) RANGE	MEAN(M) (F) RANGE	MEAN(M) (F) RANGE	STATION # NAME DISTANCE AND DIRECTION	NUMBER OF NONROUTINE REPORTED MEASUREMENTS
	ZN-65		N/A	<LLD	<LLD	-	-	0
	ZRNB-95		N/A	<LLD	<LLD	-	-	0
	CS-134		15	<LLD	<LLD	-	-	0
	CS-137		18	<LLD	<LLD	-	-	0
	BA-140		60	<LLD	<LLD	-	-	0
	LA-140		15	<LLD	<LLD	-	-	0
DIRECT RADIATION (MILLI-ROENTGEN/QUARTER)	TLD-QUARTERLY	79	N/A	26 (77/77) (21/32)	29 (2/2) (28/29)	32 (1/1)	BD-212-4 INDICATOR 5.0 MILES WSW OF SITE	0

MEAN AND RANGEMEAN AND RANGE BASED ON DETECTABLE MEASUREMENTS ONLY (M)
FRACTION OF DETECTABLE MEASUREMENTS AT SPECIFIED LOCATIONS IS INDICATED IN PARENTHESES (F)

TABLE A-1 RADIOLOGICAL ENVIRONMENTAL MONITORING PROGRAM 2ND QUARTER SUMMARY FOR BRAIDWOOD STATION, 2005

Name of Facility:	**BRAIDWOOD**				**DOCKET NUMBER:**		**50-456 & 50-457**	
Location of Facility:	**BRACEVILLE, IL**				**REPORTING PERIOD:**		**2ND QUARTER, 2005**	
				INDICATOR LOCATIONS	**CONTROL LOCATION**	**LOCATION WITH HIGHEST ANNUAL MEAN**		
MEDIUM OR PATHWAY SAMPLED (UNIT OF MEASUREMENT)	TYPES OF ANALYSIS PERFORMED	NUMBER OF ANALYSIS PERFORMED	REQUIRED LOWER LIMIT OF DETECTION (LLD)	MEAN(M) (F) RANGE	MEAN(M) (F) RANGE	MEAN(M) (F) RANGE	STATION # NAME DISTANCE AND DIRECTION	NUMBER OF NONROUTINE REPORTED MEASUREMENTS
SURFACE WATER (PCI/LITER)	GR-B	6	4	4.0 (1/3) (4.0/9.7)	6.6 (3/3) (4.0/9.7)	6.6 (3/3) (4.0/9.7)	BD-25 CONTROL KANKAKEE RIVER UPSTREAM 9.6 MILES E OF SITE	0
	H-3	2	200	<LLD	<LLD	-	-	0
	GAMMA	6						
	MN-54		15	<LLD	<LLD	-	-	0
	CO-58		15	<LLD	<LLD	-	-	0
	FE-59		30	<LLD	<LLD	-	-	0
	CO-60		15	<LLD	<LLD	-	-	0
	ZN-65		30	<LLD	<LLD	-	-	0
	NB-95		15	<LLD	<LLD	-	-	0

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TABLE A-1 RADIOLOGICAL ENVIRONMENTAL MONITORING PROGRAM 2ND QUARTER SUMMARY FOR BRAIDWOOD STATION, 2005

Name of Facility:	**BRAIDWOOD**				**DOCKET NUMBER:**	**50-456 & 50-457**		
Location of Facility:	**BRACEVILLE, IL**				**REPORTING PERIOD:**	**2ND QUARTER, 2005**		
				INDICATOR LOCATIONS	**CONTROL LOCATION**	**LOCATION WITH HIGHEST ANNUAL MEAN**		
MEDIUM OR PATHWAY SAMPLED (UNIT OF MEASUREMENT)	TYPES OF ANALYSIS PERFORMED	NUMBER OF ANALYSIS PERFORMED	REQUIRED LOWER LIMIT OF DETECTION (LLD)	MEAN(M) (F) RANGE	MEAN(M) (F) RANGE	MEAN(M) (F) RANGE	STATION # NAME DISTANCE AND DIRECTION	NUMBER OF NONROUTINE REPORTED MEASUREMENTS
	ZR-95		30	<LLD	<LLD	-	-	0
	I-131		15	<LLD	<LLD	-	-	0
	CS-134		15	<LLD	<LLD	-	-	0
	CS-137		18	<LLD	<LLD	-	-	0
	BA-140		60	<LLD	<LLD	-	-	0
	LA-140		15	<LLD	<LLD	-	-	0
PUBLIC WATER (PCI/LITER)	GR-B	3	4	<LLD	N/A	-	-	0
	H-3	3	200	412 (2/3) (346/478)	N/A	412 (2/3) (346/478)	BD-22 INDICATOR WILMINGTON 6.0 MILES NE OF SITE	0

MEAN AND RANGE BASED ON DETECTABLE MEASUREMENTS ONLY (M)
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TABLE A-1 RADIOLOGICAL ENVIRONMENTAL MONITORING PROGRAM 2ND QUARTER SUMMARY FOR BRAIDWOOD STATION, 2005

Name of Facility:	**BRAIDWOOD**				**DOCKET NUMBER:**		**50-456 & 50-457**	
Location of Facility:	**BRACEVILLE, IL**				**REPORTING PERIOD:**		**2ND QUARTER, 2005**	
				INDICATOR LOCATIONS	**CONTROL LOCATION**	**LOCATION WITH HIGHEST ANNUAL MEAN**		
MEDIUM OR PATHWAY SAMPLED (UNIT OF MEASUREMENT)	TYPES OF ANALYSIS PERFORMED	NUMBER OF ANALYSIS PERFORMED	REQUIRED LOWER LIMIT OF DETECTION (LLD)	MEAN(M) (F) RANGE	MEAN(M) (F) RANGE	MEAN(M) (F) RANGE	STATION # NAME DISTANCE AND DIRECTION	NUMBER OF NONROUTINE REPORTED MEASUREMENTS
	GAMMA	3						
	MN-54		15	<LLD	N/A	-	-	0
	CO-58		15	<LLD	N/A	-	-	0
	FE-59		30	<LLD	N/A	-	-	0
	CO-60		15	<LLD	N/A	-	-	0
	ZN-65		30	<LLD	N/A	-	-	0
	NB-95		15	<LLD	N/A	-	-	0
	ZR-95		30	<LLD	N/A	-	-	0
	I-131		15	<LLD	<LLD	-	-	0

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TABLE A-1 RADIOLOGICAL ENVIRONMENTAL MONITORING PROGRAM 2ND QUARTER SUMMARY FOR BRAIDWOOD STATION, 2005

Name of Facility:	**BRAIDWOOD**				**DOCKET NUMBER:**		**50-456 & 50-457**	
Location of Facility:	**BRACEVILLE, IL**				**REPORTING PERIOD:**		**2ND QUARTER, 2005**	
				INDICATOR LOCATIONS	**CONTROL LOCATION**	**LOCATION WITH HIGHEST ANNUAL MEAN**		
MEDIUM OR PATHWAY SAMPLED (UNIT OF MEASUREMENT)	TYPES OF ANALYSIS PERFORMED	NUMBER OF ANALYSIS PERFORMED	REQUIRED LOWER LIMIT OF DETECTION (LLD)	MEAN(M) (F) RANGE	MEAN(M) (F) RANGE	MEAN(M) (F) RANGE	STATION # NAME DISTANCE AND DIRECTION	NUMBER OF NONROUTINE REPORTED MEASUREMENTS
	CS-134		15	<LLD	<LLD	-	-	0
	CS-137		18	<LLD	N/A	-	- -	0
	BA-140		60	<LLD	N/A	-	-	0
	LA-140		15	<LLD	N/A	-	-	0
GROUND/WELL WATER (PCI/LITER)	H-3	5	200	248 (1/5)	N/A	248 (1/1)	BD-36 INDICATOR HUTTON WELL 4.7 MILES E OF SITE	0
	GAMMA MN-54	5	15	<LLD	N/A	-	-	0
	CO-58		15	<LLD	N/A	-	-	0
	FE-59		30	<LLD	N/A	-	-	0

MEAN AND RANGE BASED ON DETECTABLE MEASUREMENTS ONLY (M)
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TABLE A-1 RADIOLOGICAL ENVIRONMENTAL MONITORING PROGRAM 2ND QUARTER SUMMARY FOR BRAIDWOOD STATION, 2005

Name of Facility:	**BRAIDWOOD**				**DOCKET NUMBER:**		**50-456 & 50-457**	
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				INDICATOR LOCATIONS	**CONTROL LOCATION**	**LOCATION WITH HIGHEST ANNUAL MEAN**		
MEDIUM OR PATHWAY SAMPLED (UNIT OF MEASUREMENT)	TYPES OF ANALYSIS PERFORMED	NUMBER OF ANALYSIS PERFORMED	REQUIRED LOWER LIMIT OF DETECTION (LLD)	MEAN(M) (F) RANGE	MEAN(M) (F) RANGE	MEAN(M) (F) RANGE	STATION # NAME DISTANCE AND DIRECTION	NUMBER OF NONROUTINE REPORTED MEASUREMENTS
	CO-60		15	<LLD	N/A	-	-	0
	ZN-65		30	<LLD	N/A	-	-	0
	NB-95		15	<LLD	N/A	-	-	0
	ZR-95		30	<LLD	N/A	-	-	0
	CS-134		15	<LLD	N/A	-	-	0
	CS-137		18	<LLD	N/A	-	-	0
	BA-140		60	<LLD	N/A	-	-	0
	LA-140		15	<LLD	N/A	-	-	0

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TABLE A-1 RADIOLOGICAL ENVIRONMENTAL MONITORING PROGRAM 2ND QUARTER SUMMARY FOR BRAIDWOOD STATION, 2005

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Location of Facility:	**BRACEVILLE, IL**				**REPORTING PERIOD:**	**2ND QUARTER, 2005**		
				INDICATOR LOCATIONS	**CONTROL LOCATION**	**LOCATION WITH HIGHEST ANNUAL MEAN**		
MEDIUM OR PATHWAY SAMPLED (UNIT OF MEASUREMENT)	TYPES OF ANALYSIS PERFORMED	NUMBER OF ANALYSIS PERFORMED	REQUIRED LOWER LIMIT OF DETECTION (LLD)	MEAN(M) (F) RANGE	MEAN(M) (F) RANGE	MEAN(M) (F) RANGE	STATION # NAME DISTANCE AND DIRECTION	NUMBER OF NONROUTINE REPORTED MEASUREMENTS
FISH (PCI/KG WET)	GAMMA	4						
	MN-54		130	<LLD	<LLD	-	-	0
	CO-58		130	<LLD	<LLD	-	-	0
	FE-59		260	<LLD	<LLD	-	-	0
	CO-60		130	<LLD	<LLD	-	-	0
	ZN-65		260	<LLD	<LLD	-	-	0
	ZRNB-95		N/A	<LLD	<LLD	-	-	0
	CS-134		130	<LLD	<LLD	-	-	0
	CS-137		150	<LLD	<LLD	-	-	0

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TABLE A-1 RADIOLOGICAL ENVIRONMENTAL MONITORING PROGRAM 2ND QUARTER SUMMARY FOR BRAIDWOOD STATION, 2005

Name of Facility:	**BRAIDWOOD**				**DOCKET NUMBER:**	**50-456 & 50-457**		
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				INDICATOR LOCATIONS	**CONTROL LOCATION**	**LOCATION WITH HIGHEST ANNUAL MEAN**		
MEDIUM OR PATHWAY SAMPLED (UNIT OF MEASUREMENT)	TYPES OF ANALYSIS PERFORMED	NUMBER OF ANALYSIS PERFORMED	REQUIRED LOWER LIMIT OF DETECTION (LLD)	MEAN(M) (F) RANGE	MEAN(M) (F) RANGE	MEAN(M) (F) RANGE	STATION # NAME DISTANCE AND DIRECTION	NUMBER OF NONROUTINE REPORTED MEASUREMENTS
	BALA140		N/A	<LLD	<LLD	-	-	0
SEDIMENT (PCI/KG DRY)	GAMMA	1						
	MN-54		N/A	<LLD	N/A	-	-	0
	CO-58		N/A	<LLD	N/A	-	-	0
	FE-59		N/A	<LLD	N/A	-	-	0
	CO-60		N/A	<LLD	N/A	-	-	0
	ZN-65		N/A	<LLD	N/A	-	-	0
	ZRNB-95		N/A	<LLD	N/A	-	-	0
	CS-134		150	<LLD	N/A	-	-	0

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TABLE A-1 RADIOLOGICAL ENVIRONMENTAL MONITORING PROGRAM 2ND QUARTER SUMMARY FOR BRAIDWOOD STATION, 2005

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				INDICATOR LOCATIONS	**CONTROL LOCATION**	**LOCATION WITH HIGHEST ANNUAL MEAN**		
MEDIUM OR PATHWAY SAMPLED (UNIT OF MEASUREMENT)	TYPES OF ANALYSIS PERFORMED	NUMBER OF ANALYSIS PERFORMED	REQUIRED LOWER LIMIT OF DETECTION (LLD)	MEAN(M) (F) RANGE	MEAN(M) (F) RANGE	MEAN(M) (F) RANGE	STATION # NAME DISTANCE AND DIRECTION	NUMBER OF NONROUTINE REPORTED MEASUREMENTS
	CS-137		180	<LLD	N/A	-	-	0
	BALA140		N/A	<LLD	N/A	-	-	0
AIR PARTICULATE (E-3 PCI/CU.METER)	GR-B	65	10	21 (52/52) (13/47)	20 (13/13) (12/42)	22 (13/13) (14/47)	BD-19 INDICATOR NEARSITE NW 0.3 MILES NW OF SITE	0
	GAMMA	5						
	MN-54		N/A	<LLD	<LLD	-	-	0
	CO-58		N/A	<LLD	<LLD	-	-	0
	FE-59		N/A	<LLD	<LLD	-	-	0
	CO-60		N/A	<LLD	<LLD	-	-	0
	ZN-65		N/A	<LLD	<LLD	-	-	0

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MEDIUM OR PATHWAY SAMPLED (UNIT OF MEASUREMENT)	TYPES OF ANALYSIS PERFORMED	NUMBER OF ANALYSIS PERFORMED	REQUIRED LOWER LIMIT OF DETECTION (LLD)	MEAN(M) (F) RANGE	MEAN(M) (F) RANGE	MEAN(M) (F) RANGE	STATION # NAME DISTANCE AND DIRECTION	NUMBER OF NONROUTINE REPORTED MEASUREMENTS
	ZRNB-95		N/A	<LLD	<LLD	-	-	0
	CS-134		50	<LLD	<LLD	-	-	0
	CS-137		60	<LLD	<LLD	-	-	0
	BALA140		N/A	<LLD	<LLD	-	-	0
AIR IODINE (E-3 PCI/CU.METER)	I-131	35	70	<LLD	<LLD	-	-	0
MILK (PCI/LITER)	I-131	11	1	<LLD	<LLD	-	-	0
	GAMMA	11						
	MN-54		N/A	<LLD	<LLD	-	-	0
	CO-58		N/A	<LLD	<LLD	-	-	0

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				INDICATOR LOCATIONS	**CONTROL LOCATION**	**LOCATION WITH HIGHEST ANNUAL MEAN**		
MEDIUM OR PATHWAY SAMPLED (UNIT OF MEASUREMENT)	TYPES OF ANALYSIS PERFORMED	NUMBER OF ANALYSIS PERFORMED	REQUIRED LOWER LIMIT OF DETECTION (LLD)	MEAN(M) (F) RANGE	MEAN(M) (F) RANGE	MEAN(M) (F) RANGE	STATION # NAME DISTANCE AND DIRECTION	NUMBER OF NONROUTINE REPORTED MEASUREMENTS
	FE-59		N/A	<LLD	<LLD	-	-	0
	CO-60		N/A	<LLD	<LLD	-	-	0
	ZN-65		N/A	<LLD	<LLD	-	-	0
	ZRNB-95		N/A	<LLD	<LLD	-	-	0
	CS-134		15	<LLD	<LLD	-	-	0
	CS-137		18	<LLD	<LLD	-	-	0
	BA-140		60	<LLD	<LLD	-	-	0
	LA-140		15	<LLD	<LLD	-	-	0

MEAN AND RANGE BASED ON DETECTABLE MEASUREMENTS ONLY (M)
FRACTION OF DETECTABLE MEASUREMENTS AT SPECIFIED LOCATIONS IS INDICATED IN PARENTHESES (F)

TABLE A-1 RADIOLOGICAL ENVIRONMENTAL MONITORING PROGRAM 2ND QUARTER SUMMARY FOR BRAIDWOOD STATION, 2005

Name of Facility:	**BRAIDWOOD**				**DOCKET NUMBER:**		**50-456 & 50-457**	
Location of Facility:	**BRACEVILLE, IL**				**REPORTING PERIOD:**		**2ND QUARTER, 2005**	
				INDICATOR LOCATIONS	**CONTROL LOCATION**	**LOCATION WITH HIGHEST ANNUAL MEAN**		
MEDIUM OR PATHWAY SAMPLED (UNIT OF MEASUREMENT)	TYPES OF ANALYSIS PERFORMED	NUMBER OF ANALYSIS PERFORMED	REQUIRED LOWER LIMIT OF DETECTION (LLD)	MEAN(M) (F) RANGE	MEAN(M) (F) RANGE	MEAN(M) (F) RANGE	STATION # NAME DISTANCE AND DIRECTION	NUMBER OF NONROUTINE REPORTED MEASUREMENTS
DIRECT RADIATION (MILLI-ROENTGEN/QUARTER)	TLD-QUARTERLY	80	N/A	19 (78/78) (16/25)	19 (2/2) (18/19)	25 (1/1)	BD-109-2 INDICATOR 3.8 MILES S OF SITE	0

MEAN AND RANGE BASED ON DETECTABLE MEASUREMENTS ONLY (M)
FRACTION OF DETECTABLE MEASUREMENTS AT SPECIFIED LOCATIONS IS INDICATED IN PARENTHESES (F)

TABLE A-1 RADIOLOGICAL ENVIRONMENTAL MONITORING PROGRAM 3RD QUARTER SUMMARY FOR BRAIDWOOD STATION, 2005

Name of Facility:	**BRAIDWOOD**				**DOCKET NUMBER:**		**50-456 & 50-457**	
Location of Facility:	**BRACEVILLE, IL**				**REPORTING PERIOD:**		**3RD QUARTER, 2005**	
				INDICATOR LOCATIONS	**CONTROL LOCATION**	**LOCATION WITH HIGHEST ANNUAL MEAN**		
MEDIUM OR PATHWAY SAMPLED (UNIT OF MEASUREMENT)	TYPES OF ANALYSIS PERFORMED	NUMBER OF ANALYSIS PERFORMED	REQUIRED LOWER LIMIT OF DETECTION (LLD)	MEAN(M) (F) RANGE	MEAN(M) (F) RANGE	MEAN(M) (F) RANGE	STATION # NAME DISTANCE AND DIRECTION	NUMBER OF NONROUTINE REPORTED MEASUREMENTS
SURFACE WATER (PCI/LITER)	GR-B	6	4	6.4 (3/3) (4.6/8.2)	7.8 (3/3) (7.4/8.5)	7.8 (3/3) (7.4/8.5)	BD-25 CONTROL KANKAKEE RIVER UPSTREAM 9.6 MILES E	0
	H-3	2	200	720 (1/1)	229 (1/1)	720 (1/1)	BD-10 INDICATOR KANKAKEE RIVER DOWNSTREAM 5.4 MILES NE	0
	GAMMA	6						
	MN-54		15	<LLD	<LLD	-	-	0
	CO-58		15	<LLD	<LLD	-	-	0
	FE-59		30	<LLD	<LLD	-	-	0
	CO-60		15	<LLD	<LLD	-	-	0
	ZN-65		30	<LLD	<LLD	-	-	0
	NB-95		15	<LLD	<LLD	-	-	0

MEAN AND RANGE BASED ON DETECTABLE MEASUREMENTS ONLY (M)
FRACTION OF DETECTABLE MEASUREMENTS AT SPECIFIED LOCATIONS IS INDICATED IN PARENTHESES (F)

TABLE A-1 RADIOLOGICAL ENVIRONMENTAL MONITORING PROGRAM 3RD QUARTER SUMMARY FOR BRAIDWOOD STATION, 2005

Name of Facility:	**BRAIDWOOD**				**DOCKET NUMBER:**		**50-456 & 50-457**	
Location of Facility:	**BRACEVILLE, IL**				**REPORTING PERIOD:**		**3RD QUARTER, 2005**	
				INDICATOR LOCATIONS	**CONTROL LOCATION**	**LOCATION WITH HIGHEST ANNUAL MEAN**		
MEDIUM OR PATHWAY SAMPLED (UNIT OF MEASUREMENT)	TYPES OF ANALYSIS PERFORMED	NUMBER OF ANALYSIS PERFORMED	REQUIRED LOWER LIMIT OF DETECTION (LLD)	MEAN(M) (F) RANGE	MEAN(M) (F) RANGE	MEAN(M) (F) RANGE	STATION # NAME DISTANCE AND DIRECTION	NUMBER OF NONROUTINE REPORTED MEASUREMENTS
	ZR-95		30	<LLD	<LLD	-	-	0
	I-131		15	<LLD	<LLD	-	-	0
	CS-134		15	<LLD	<LLD	-	-	0
	CS-137		18	<LLD	<LLD	-	-	0
	BA-140		60	<LLD	<LLD	-	-	0
	LA-140		15	<LLD	<LLD	-	-	0
PUBLIC WATER (PCI/LITER)	GR-B	3	4	4.7 (3/3) (3.9/5.8)	N/A	4.7 (3/3) (3.9/5.8)	BD-22 INDICATOR WILMINGTON 6.0 MILES NE	0
	H-3	3	200	1590 (2/3) (1160/2020)	N/A	1590 (2/3) (1160/2020)	BD-22 INDICATOR WILMINGTON 6.0 MILES NE	0

MEAN AND RANGE BASED ON DETECTABLE MEASUREMENTS ONLY (M)
FRACTION OF DETECTABLE MEASUREMENTS AT SPECIFIED LOCATIONS IS INDICATED IN PARENTHESES (F)

TABLE A-1 RADIOLOGICAL ENVIRONMENTAL MONITORING PROGRAM 3RD QUARTER SUMMARY FOR BRAIDWOOD STATION, 2005

Name of Facility:	**BRAIDWOOD**				**DOCKET NUMBER:**		**50-456 & 50-457**	
Location of Facility:	**BRACEVILLE, IL**				**REPORTING PERIOD:**		**3RD QUARTER, 2005**	
				INDICATOR LOCATIONS	**CONTROL LOCATION**	**LOCATION WITH HIGHEST ANNUAL MEAN**		
MEDIUM OR PATHWAY SAMPLED (UNIT OF MEASUREMENT)	TYPES OF ANALYSIS PERFORMED	NUMBER OF ANALYSIS PERFORMED	REQUIRED LOWER LIMIT OF DETECTION (LLD)	MEAN(M) (F) RANGE	MEAN(M) (F) RANGE	MEAN(M) (F) RANGE	STATION # NAME DISTANCE AND DIRECTION	NUMBER OF NONROUTINE REPORTED MEASUREMENTS
	GAMMA	3						
	MN-54		15	<LLD	N/A	-	-	0
	CO-58		15	<LLD	N/A	-	-	0
	FE-59		30	<LLD	N/A	-	-	0
	CO-60		15	<LLD	N/A	-	-	0
	ZN-65		30	<LLD	N/A	-	-	0
	NB-95		15	<LLD	N/A	-	-	0
	ZR-95		30	<LLD	N/A	-	-	0
	I-131		15	<LLD	<LLD	-	-	0

MEAN AND RANGE BASED ON DETECTABLE MEASUREMENTS ONLY (M)
FRACTION OF DETECTABLE MEASUREMENTS AT SPECIFIED LOCATIONS IS INDICATED IN PARENTHESES (F)

TABLE A-1 RADIOLOGICAL ENVIRONMENTAL MONITORING PROGRAM 3RD QUARTER SUMMARY FOR BRAIDWOOD STATION, 2005

Name of Facility:	**BRAIDWOOD**				**DOCKET NUMBER:**		**50-456 & 50-457**	
Location of Facility:	**BRACEVILLE, IL**				**REPORTING PERIOD:**		**3RD QUARTER, 2005**	
				INDICATOR LOCATIONS	**CONTROL LOCATION**	**LOCATION WITH HIGHEST ANNUAL MEAN**		
MEDIUM OR PATHWAY SAMPLED (UNIT OF MEASUREMENT)	TYPES OF ANALYSIS PERFORMED	NUMBER OF ANALYSIS PERFORMED	REQUIRED LOWER LIMIT OF DETECTION (LLD)	MEAN(M) (F) RANGE	MEAN(M) (F) RANGE	MEAN(M) (F) RANGE	STATION # NAME DISTANCE AND DIRECTION	NUMBER OF NONROUTINE REPORTED MEASUREMENTS
	CS-134		15	<LLD	<LLD	-	-	0
	CS-137		18	<LLD	N/A	-	-	0
	BA-140		60	<LLD	N/A	-	-	0
	LA-140		15	<LLD	N/A	-	-	0
GROUND/WELL WATER (PCI/LITER)	H-3	5	200	378 (1/5)	N/A	378 (1/1)	BD-36 INDICATOR HUTTON WELL 4.7 MILES E	0
	GAMMA MN-54	5	15	<LLD	N/A	-	-	0
	CO-58		15	<LLD	N/A	-	-	0
	FE-59		30	<LLD	N/A	-	-	0

MEAN AND RANGE BASED ON DETECTABLE MEASUREMENTS ONLY (M)
FRACTION OF DETECTABLE MEASUREMENTS AT SPECIFIED LOCATIONS IS INDICATED IN PARENTHESES (F)

TABLE A-1 RADIOLOGICAL ENVIRONMENTAL MONITORING PROGRAM 3RD QUARTER SUMMARY FOR BRAIDWOOD STATION, 2005

Name of Facility:	**BRAIDWOOD**				**DOCKET NUMBER:**		**50-456 & 50-457**	
Location of Facility:	**BRACEVILLE, IL**				**REPORTING PERIOD:**		**3RD QUARTER, 2005**	
				INDICATOR LOCATIONS	**CONTROL LOCATION**	**LOCATION WITH HIGHEST ANNUAL MEAN**		
MEDIUM OR PATHWAY SAMPLED (UNIT OF MEASUREMENT)	TYPES OF ANALYSIS PERFORMED	NUMBER OF ANALYSIS PERFORMED	REQUIRED LOWER LIMIT OF DETECTION (LLD)	MEAN(M) (F) RANGE	MEAN(M) (F) RANGE	MEAN(M) (F) RANGE	STATION # NAME DISTANCE AND DIRECTION	NUMBER OF NONROUTINE REPORTED MEASUREMENTS
	CO-60		15	<LLD	N/A	-	-	0
	ZN-65		30	<LLD	N/A	-	-	0
	NB-95		15	<LLD	N/A	-	-	0
	ZR-95		30	<LLD	N/A	-	-	0
	CS-134		15	<LLD	N/A	-	-	0
	CS-137		18	<LLD	N/A	-	-	0
	BA-140		60	<LLD	N/A	-	-	0
	LA-140		15	<LLD	N/A	-	-	0

MEAN AND RANGE BASED ON DETECTABLE MEASUREMENTS ONLY (M)
FRACTION OF DETECTABLE MEASUREMENTS AT SPECIFIED LOCATIONS IS INDICATED IN PARENTHESES (F)

TABLE A-1 RADIOLOGICAL ENVIRONMENTAL MONITORING PROGRAM 3RD QUARTER SUMMARY FOR BRAIDWOOD STATION, 2005

Name of Facility:	**BRAIDWOOD**				**DOCKET NUMBER:**	**50-456 & 50-457**		
Location of Facility:	**BRACEVILLE, IL**				**REPORTING PERIOD:**	**3RD QUARTER, 2005**		
				INDICATOR LOCATIONS	**CONTROL LOCATION**	**LOCATION WITH HIGHEST ANNUAL MEAN**		
MEDIUM OR PATHWAY SAMPLED (UNIT OF MEASUREMENT)	TYPES OF ANALYSIS PERFORMED	NUMBER OF ANALYSIS PERFORMED	REQUIRED LOWER LIMIT OF DETECTION (LLD)	MEAN(M) (F) RANGE	MEAN(M) (F) RANGE	MEAN(M) (F) RANGE	STATION # NAME DISTANCE AND DIRECTION	NUMBER OF NONROUTINE REPORTED MEASUREMENTS
AIR PARTICULATE (E-3 PCI/CU.METER)	GR-B	104	10	21 (87/91) (7/46)	20 (12/13) (13/37)	23 (12/13) (14/46)	BD-05 INDICATOR GARDNER 5.5 MILES SW	0
	GAMMA	8						
	MN-54		N/A	<LLD	<LLD	-	-	0
	CO-58		N/A	<LLD	<LLD	-	-	0
	FE-59		N/A	<LLD	<LLD	-	-	0
	CO-60		N/A	<LLD	<LLD	-	-	0
	ZN-65		N/A	<LLD	<LLD	-	-	0
	ZRNB-95		N/A	<LLD	<LLD	-	-	0
	CS-134		50	<LLD	<LLD	-	-	0

MEAN AND RANGE BASED ON DETECTABLE MEASUREMENTS ONLY (M)
FRACTION OF DETECTABLE MEASUREMENTS AT SPECIFIED LOCATIONS IS INDICATED IN PARENTHESES (F)

TABLE A-1 RADIOLOGICAL ENVIRONMENTAL MONITORING PROGRAM 3RD QUARTER SUMMARY FOR BRAIDWOOD STATION, 2005

Name of Facility:	**BRAIDWOOD**				**DOCKET NUMBER:**		**50-456 & 50-457**	
Location of Facility:	**BRACEVILLE, IL**				**REPORTING PERIOD:**		**3RD QUARTER, 2005**	
				INDICATOR LOCATIONS	**CONTROL LOCATION**	**LOCATION WITH HIGHEST ANNUAL MEAN**		
MEDIUM OR PATHWAY SAMPLED (UNIT OF MEASUREMENT)	TYPES OF ANALYSIS PERFORMED	NUMBER OF ANALYSIS PERFORMED	REQUIRED LOWER LIMIT OF DETECTION (LLD)	MEAN(M) (F) RANGE	MEAN(M) (F) RANGE	MEAN(M) (F) RANGE	STATION # NAME DISTANCE AND DIRECTION	NUMBER OF NONROUTINE REPORTED MEASUREMENTS
	CS-137		60	<LLD	<LLD	-	-	0
	BALA140		N/A	<LLD	<LLD	-	-	0
AIR IODINE (E-3 PCI/CU.METER)	I-131	56	70	<LLD	<LLD	-	-	0
MILK (PCI/LITER)	I-131	13	1	<LLD	<LLD	-	-	0
	GAMMA	13						
	MN-54		N/A	<LLD	<LLD	-	-	0
	CO-58		N/A	<LLD	<LLD	-	-	0
	FE-59		N/A	<LLD	<LLD	-	-	0
	CO-60		N/A	<LLD	<LLD	-	-	0

MEAN AND RANGE BASED ON DETECTABLE MEASUREMENTS ONLY (M)
FRACTION OF DETECTABLE MEASUREMENTS AT SPECIFIED LOCATIONS IS INDICATED IN PARENTHESES (F)

TABLE A-1 RADIOLOGICAL ENVIRONMENTAL MONITORING PROGRAM 3RD QUARTER SUMMARY FOR BRAIDWOOD STATION, 2005

Name of Facility:	**BRAIDWOOD**				**DOCKET NUMBER:**	**50-456 & 50-457**		
Location of Facility:	**BRACEVILLE, IL**				**REPORTING PERIOD:**	**3RD QUARTER, 2005**		
				INDICATOR LOCATIONS	**CONTROL LOCATION**	**LOCATION WITH HIGHEST ANNUAL MEAN**		
MEDIUM OR PATHWAY SAMPLED (UNIT OF MEASUREMENT)	TYPES OF ANALYSIS PERFORMED	NUMBER OF ANALYSIS PERFORMED	REQUIRED LOWER LIMIT OF DETECTION (LLD)	MEAN(M) (F) RANGE	MEAN(M) (F) RANGE	MEAN(M) (F) RANGE	STATION # NAME DISTANCE AND DIRECTION	NUMBER OF NONROUTINE REPORTED MEASUREMENTS
	ZN-65		N/A	<LLD	<LLD	-	-	0
	ZRNB-95		N/A	<LLD	<LLD	-	-	0
	CS-134		15	<LLD	<LLD	-	-	0
	CS-137		18	<LLD	<LLD	-	-	0
	BA-140		60	<LLD	<LLD	-	-	0
	LA-140		15	<LLD	<LLD	-	-	0
FOOD PRODUCTS (PCI/KG WET)	GAMMA	10						
	MN-54		N/A	<LLD	<LLD	-	-	0
	CO-58		N/A	<LLD	<LLD	-	-	0

MEAN AND RANGE BASED ON DETECTABLE MEASUREMENTS ONLY (M)
FRACTION OF DETECTABLE MEASUREMENTS AT SPECIFIED LOCATIONS IS INDICATED IN PARENTHESES (F)

TABLE A-1 RADIOLOGICAL ENVIRONMENTAL MONITORING PROGRAM 3RD QUARTER SUMMARY FOR BRAIDWOOD STATION, 2005

Name of Facility:	**BRAIDWOOD**				**DOCKET NUMBER:**	**50-456 & 50-457**		
Location of Facility:	**BRACEVILLE, IL**				**REPORTING PERIOD:**	**3RD QUARTER, 2005**		
				INDICATOR LOCATIONS	**CONTROL LOCATION**	**LOCATION WITH HIGHEST ANNUAL MEAN**		
MEDIUM OR PATHWAY SAMPLED (UNIT OF MEASUREMENT)	TYPES OF ANALYSIS PERFORMED	NUMBER OF ANALYSIS PERFORMED	REQUIRED LOWER LIMIT OF DETECTION (LLD)	MEAN(M) (F) RANGE	MEAN(M) (F) RANGE	MEAN(M) (F) RANGE	STATION # NAME DISTANCE AND DIRECTION	NUMBER OF NONROUTINE REPORTED MEASUREMENTS
	FE-59		N/A	<LLD	<LLD	-	-	0
	CO-60		N/A	<LLD	<LLD	-	-	0
	ZN-65		N/A	<LLD	<LLD	-	-	0
	ZRNB-95		N/A	<LLD	<LLD	-	-	0
	I-131		60	<LLD	<LLD	-	-	0
	CS-134		60	<LLD	<LLD	-	-	0
	CS-137		80	<LLD	<LLD	-	-	0
	BALA140		N/A	<LLD	<LLD	-	-	0

MEAN AND RANGE BASED ON DETECTABLE MEASUREMENTS ONLY (M)
FRACTION OF DETECTABLE MEASUREMENTS AT SPECIFIED LOCATIONS IS INDICATED IN PARENTHESES (F)

TABLE A-1 RADIOLOGICAL ENVIRONMENTAL MONITORING PROGRAM 3RD QUARTER SUMMARY FOR BRAIDWOOD STATION, 2005

Name of Facility:	**BRAIDWOOD**				**DOCKET NUMBER:**		**50-456 & 50-457**	
Location of Facility:	**BRACEVILLE, IL**				**REPORTING PERIOD:**		**3RD QUARTER, 2005**	
				INDICATOR LOCATIONS	**CONTROL LOCATION**	**LOCATION WITH HIGHEST ANNUAL MEAN**		
MEDIUM OR PATHWAY SAMPLED (UNIT OF MEASUREMENT)	TYPES OF ANALYSIS PERFORMED	NUMBER OF ANALYSIS PERFORMED	REQUIRED LOWER LIMIT OF DETECTION (LLD)	MEAN(M) (F) RANGE	MEAN(M) (F) RANGE	MEAN(M) (F) RANGE	STATION # NAME DISTANCE AND DIRECTION	NUMBER OF NONROUTINE REPORTED MEASUREMENTS
DIRECT RADIATION (MILLI-ROENTGEN/QUARTER)	TLD-QUARTERLY	79	N/A	23 (77/77) (19/28)	23 (2/2) (21/24)	28 (1/1)	BD-201-1* INDICATOR 4.2 MILES N OF SITE	0

* Locations BD-211-1 & -2, BD-212-4 and BD-216-1 had identical results of 28 mR. Only BD-201-1 is detailed in this summary.

MEAN AND RANGE BASED ON DETECTABLE MEASUREMENTS ONLY (M)
FRACTION OF DETECTABLE MEASUREMENTS AT SPECIFIED LOCATIONS IS INDICATED IN PARENTHESES (F)

TABLE A-1 RADIOLOGICAL ENVIRONMENTAL MONITORING PROGRAM 4TH QUARTER SUMMARY FOR BRAIDWOOD STATION, 2005

Name of Facility:	**BRAIDWOOD**				**DOCKET NUMBER:**		**50-456 & 50-457**	
Location of Facility:	**BRACEVILLE, IL**				**REPORTING PERIOD:**		**4TH QUARTER, 2005**	
				INDICATOR LOCATIONS	**CONTROL LOCATION**	**LOCATION WITH HIGHEST ANNUAL MEAN**		
MEDIUM OR PATHWAY SAMPLED (UNIT OF MEASUREMENT)	TYPES OF ANALYSIS PERFORMED	NUMBER OF ANALYSIS PERFORMED	REQUIRED LOWER LIMIT OF DETECTION (LLD)	MEAN(M) (F) RANGE	MEAN(M) (F) RANGE	MEAN(M) (F) RANGE	STATION # NAME DISTANCE AND DIRECTION	NUMBER OF NONROUTINE REPORTED MEASUREMENTS
SURFACE WATER (PCI/LITER)	GR-B	6	4	6.2 (3/3) (5.6/7.2)	8.2 (3/3) (6/11)	8.2 (3/3) (6/11)	BD-25 CONTROL KANKAKEE RIVER UPSTREAM 9.6 MILES E	0
	H-3	2	200	253 (1/1)	155 (1/1)	253 (1/1)	BD-10 INDICATOR KANKAKEE RIVER DOWNSTREAM 5.4 MILES NE	0
	GAMMA	6						
	MN-54		15	<LLD	<LLD	-	-	0
	CO-58		15	<LLD	<LLD	-	-	0
	FE-59		30	<LLD	<LLD	-	-	0
	CO-60		15	<LLD	<LLD	-	-	0
	ZN-65		30	<LLD	<LLD	-	-	0
	NB-95		15	<LLD	<LLD	-	-	0

MEAN AND RANGE BASED ON DETECTABLE MEASUREMENTS ONLY (M)
FRACTION OF DETECTABLE MEASUREMENTS AT SPECIFIED LOCATIONS IS INDICATED IN PARENTHESES (F)

TABLE A-1 RADIOLOGICAL ENVIRONMENTAL MONITORING PROGRAM 4TH QUARTER SUMMARY FOR BRAIDWOOD STATION, 2005

Name of Facility:	**BRAIDWOOD**				**DOCKET NUMBER:**		**50-456 & 50-457**	
Location of Facility:	**BRACEVILLE, IL**				**REPORTING PERIOD:**		**4TH QUARTER, 2005**	
				INDICATOR LOCATIONS	**CONTROL LOCATION**	**LOCATION WITH HIGHEST ANNUAL MEAN**		
MEDIUM OR PATHWAY SAMPLED (UNIT OF MEASUREMENT)	TYPES OF ANALYSIS PERFORMED	NUMBER OF ANALYSIS PERFORMED	REQUIRED LOWER LIMIT OF DETECTION (LLD)	MEAN(M) (F) RANGE	MEAN(M) (F) RANGE	MEAN(M) (F) RANGE	STATION # NAME DISTANCE AND DIRECTION	NUMBER OF NONROUTINE REPORTED MEASUREMENTS
	ZR-95		30	<LLD	<LLD	-	-	0
	I-131		15	<LLD	<LLD	-	-	0
	CS-134		15	<LLD	<LLD	-	-	0
	CS-137		18	<LLD	<LLD	-	-	0
	BA-140		60	<LLD	<LLD	-	-	0
	LA-140		15	<LLD	<LLD	-	-	0
PUBLIC WATER (PCI/LITER)	GR-B	3	4	4.5 (3/3) (4.0/5.2)	N/A	4.5 (3/3) (4.0/5.2)	BD-22 INDICATOR WILMINGTON 6.0 MILES NE	0
	H-3	3	200	1329 (3/3) (313/3050)	N/A (0/0) (N/A-N/A)	1329 (3/3) (313/3050)	BD-22 INDICATOR WILMINGTON 6.0 MILES NE	0

MEAN AND RANGE BASED ON DETECTABLE MEASUREMENTS ONLY (M)
FRACTION OF DETECTABLE MEASUREMENTS AT SPECIFIED LOCATIONS IS INDICATED IN PARENTHESES (F)

TABLE A-1 RADIOLOGICAL ENVIRONMENTAL MONITORING PROGRAM 4TH QUARTER SUMMARY FOR BRAIDWOOD STATION, 2005

Name of Facility:	**BRAIDWOOD**				**DOCKET NUMBER:**		**50-456 & 50-457**	
Location of Facility:	**BRACEVILLE, IL**				**REPORTING PERIOD:**		**4TH QUARTER, 2005**	
				INDICATOR LOCATIONS	**CONTROL LOCATION**	**LOCATION WITH HIGHEST ANNUAL MEAN**		
MEDIUM OR PATHWAY SAMPLED (UNIT OF MEASUREMENT)	TYPES OF ANALYSIS PERFORMED	NUMBER OF ANALYSIS PERFORMED	REQUIRED LOWER LIMIT OF DETECTION (LLD)	MEAN(M) (F) RANGE	MEAN(M) (F) RANGE	MEAN(M) (F) RANGE	STATION # NAME DISTANCE AND DIRECTION	NUMBER OF NONROUTINE REPORTED MEASUREMENTS
	GAMMA	3						
	MN-54		15	<LLD	N/A	-	-	0
	CO-58		15	<LLD	N/A	-	-	0
	FE-59		30	<LLD	N/A	-	-	0
	CO-60		15	<LLD	N/A	-	-	0
	ZN-65		30	<LLD	N/A	-	-	0
	NB-95		15	<LLD	N/A	-	-	0
	ZR-95		30	<LLD	N/A	-	-	0
	I-131		15	<LLD	N/A	-	-	0

MEAN AND RANGE BASED ON DETECTABLE MEASUREMENTS ONLY (M)
FRACTION OF DETECTABLE MEASUREMENTS AT SPECIFIED LOCATIONS IS INDICATED IN PARENTHESES (F)

TABLE A-1 RADIOLOGICAL ENVIRONMENTAL MONITORING PROGRAM 4TH QUARTER SUMMARY FOR BRAIDWOOD STATION, 2005

Name of Facility:	**BRAIDWOOD**				**DOCKET NUMBER:**		**50-456 & 50-457**	
Location of Facility:	**BRACEVILLE, IL**				**REPORTING PERIOD:**		**4TH QUARTER, 2005**	
				INDICATOR LOCATIONS	**CONTROL LOCATION**	**LOCATION WITH HIGHEST ANNUAL MEAN**		
MEDIUM OR PATHWAY SAMPLED (UNIT OF MEASUREMENT)	TYPES OF ANALYSIS PERFORMED	NUMBER OF ANALYSIS PERFORMED	REQUIRED LOWER LIMIT OF DETECTION (LLD)	MEAN(M) (F) RANGE	MEAN(M) (F) RANGE	MEAN(M) (F) RANGE	STATION # NAME DISTANCE AND DIRECTION	NUMBER OF NONROUTINE REPORTED MEASUREMENTS
	CS-134		15	<LLD	N/A	-	-	0
	CS-137		18	<LLD	N/A	-	-	0
	BA-140		60	<LLD	N/A	-	-	0
	LA-140		15	<LLD	N/A	-	-	0
GROUND/WELL WATER (PCI/LITER)	H-3	5	200	255 (1/5)	N/A	255 (1/1)	BD-36 INDICATOR HUTTON WELL 4.7 MILES E OF SITE	0
	GAMMA MN-54	5	15	<LLD	N/A	-	-	0
	CO-58		15	<LLD	N/A	-	-	0
	FE-59		30	<LLD	N/A	-	-	0

MEAN AND RANGE BASED ON DETECTABLE MEASUREMENTS ONLY (M)
FRACTION OF DETECTABLE MEASUREMENTS AT SPECIFIED LOCATIONS IS INDICATED IN PARENTHESES (F)

TABLE A-1 RADIOLOGICAL ENVIRONMENTAL MONITORING PROGRAM 4TH QUARTER SUMMARY FOR BRAIDWOOD STATION, 2005

Name of Facility:	**BRAIDWOOD**				**DOCKET NUMBER:**		**50-456 & 50-457**	
Location of Facility:	**BRACEVILLE, IL**				**REPORTING PERIOD:**		**4TH QUARTER, 2005**	
				INDICATOR LOCATIONS	**CONTROL LOCATION**	**LOCATION WITH HIGHEST ANNUAL MEAN**		
MEDIUM OR PATHWAY SAMPLED (UNIT OF MEASUREMENT)	TYPES OF ANALYSIS PERFORMED	NUMBER OF ANALYSIS PERFORMED	REQUIRED LOWER LIMIT OF DETECTION (LLD)	MEAN(M) (F) RANGE	MEAN(M) (F) RANGE	MEAN(M) (F) RANGE	STATION # NAME DISTANCE AND DIRECTION	NUMBER OF NONROUTINE REPORTED MEASUREMENTS
	CO-60		15	<LLD	N/A	-	-	0
	ZN-65		30	<LLD	N/A	-	-	0
	NB-95		15	<LLD	N/A	-	-	0
	ZR-95		30	<LLD	N/A	-	-	0
	CS-134		15	<LLD	N/A	-	-	0
	CS-137		18	<LLD	N/A	-	-	0
	BA-140		60	<LLD	N/A	-	-	0
	LA-140		15	<LLD	N/A	-	-	0

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				INDICATOR LOCATIONS	**CONTROL LOCATION**	**LOCATION WITH HIGHEST ANNUAL MEAN**		
MEDIUM OR PATHWAY SAMPLED (UNIT OF MEASUREMENT)	TYPES OF ANALYSIS PERFORMED	NUMBER OF ANALYSIS PERFORMED	REQUIRED LOWER LIMIT OF DETECTION (LLD)	MEAN(M) (F) RANGE	MEAN(M) (F) RANGE	MEAN(M) (F) RANGE	STATION # NAME DISTANCE AND DIRECTION	NUMBER OF NONROUTINE REPORTED MEASUREMENTS
FISH (PCI/KG WET)	GAMMA	4						
	MN-54		130	<LLD	<LLD	-	-	0
	CO-58		130	<LLD	<LLD	-	-	0
	FE-59		260	<LLD	<LLD	-	-	0
	CO-60		130	<LLD	<LLD	-	-	0
	ZN-65		260	<LLD	<LLD	-	-	0
	ZRNB-95		N/A	<LLD	<LLD	-	-	0
	CS-134		130	<LLD	<LLD	-	-	0
	CS-137		150	<LLD	<LLD	-	-	0

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				INDICATOR LOCATIONS	**CONTROL LOCATION**	**LOCATION WITH HIGHEST ANNUAL MEAN**		
MEDIUM OR PATHWAY SAMPLED (UNIT OF MEASUREMENT)	TYPES OF ANALYSIS PERFORMED	NUMBER OF ANALYSIS PERFORMED	REQUIRED LOWER LIMIT OF DETECTION (LLD)	MEAN(M) (F) RANGE	MEAN(M) (F) RANGE	MEAN(M) (F) RANGE	STATION # NAME DISTANCE AND DIRECTION	NUMBER OF NONROUTINE REPORTED MEASUREMENTS
	BALA140		N/A	<LLD	<LLD	-	-	0
SEDIMENT (PCI/KG DRY)	GAMMA	1						
	MN-54		N/A	<LLD	<LLD	-	-	0
	CO-58		N/A	<LLD	<LLD	-	-	0
	FE-59		N/A	<LLD	<LLD	-	-	0
	CO-60		N/A	<LLD	<LLD	-	-	0
	ZN-65		N/A	<LLD	<LLD	-	-	0
	ZRNB-95		N/A	<LLD	<LLD	-	-	0
	CS-134		150	<LLD	<LLD	-	-	0

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				INDICATOR LOCATIONS	**CONTROL LOCATION**	**LOCATION WITH HIGHEST ANNUAL MEAN**		
MEDIUM OR PATHWAY SAMPLED (UNIT OF MEASUREMENT)	TYPES OF ANALYSIS PERFORMED	NUMBER OF ANALYSIS PERFORMED	REQUIRED LOWER LIMIT OF DETECTION (LLD)	MEAN(M) (F) RANGE	MEAN(M) (F) RANGE	MEAN(M) (F) RANGE	STATION # NAME DISTANCE AND DIRECTION	NUMBER OF NONROUTINE REPORTED MEASUREMENTS
	CS-137		180	139 (1/1) N/A-N/A	N/A (0/0) (N/A-N/A)	139 (1/1) N/A-N/A	BD-10 INDICATOR KANKAKEE RIVER DOWNSTREAM 5.4 MILES NE	0
	BALA140		N/A	<LLD	<LLD	-	-	0
AIR PARTICULATE (E-3 PCI/CU.METER)	GR-B	104	10	23 (91/91) (6/43)	24 (13/13) (6/47)	25 (13/13) (6/38)	BD-02 INDICATOR CUSTER PARK 5.0 MILES E	0
	GAMMA MN-54	8	N/A	<LLD	<LLD	-	-	0
	CO-58		N/A	<LLD	<LLD	-	-	0
	FE-59		N/A	<LLD	<LLD	-	-	0
	CO-60		N/A	<LLD	<LLD	-	-	0
	ZN-65		N/A	<LLD	<LLD	-	-	0

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MEDIUM OR PATHWAY SAMPLED (UNIT OF MEASUREMENT)	TYPES OF ANALYSIS PERFORMED	NUMBER OF ANALYSIS PERFORMED	REQUIRED LOWER LIMIT OF DETECTION (LLD)	MEAN(M) (F) RANGE	MEAN(M) (F) RANGE	MEAN(M) (F) RANGE	STATION # NAME DISTANCE AND DIRECTION	NUMBER OF NONROUTINE REPORTED MEASUREMENTS
	ZRNB-95		N/A	<LLD	<LLD	-	-	0
	CS-134		50	<LLD	<LLD	-	-	0
	CS-137		60	<LLD	<LLD	-	-	0
	BALA140		N/A	<LLD	<LLD	-	-	0
AIR IODINE (E-3 PCI/CU.METER)	I-131	48	70	<LLD	<LLD	-	-	0
MILK (PCI/LITER)	I-131	8	1	<LLD	<LLD	-	-	0
	GAMMA	8						
	MN-54		N/A	<LLD	<LLD	-	-	0
	CO-58		N/A	<LLD	<LLD	-	-	0

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MEDIUM OR PATHWAY SAMPLED (UNIT OF MEASUREMENT)	TYPES OF ANALYSIS PERFORMED	NUMBER OF ANALYSIS PERFORMED	REQUIRED LOWER LIMIT OF DETECTION (LLD)	MEAN(M) (F) RANGE	MEAN(M) (F) RANGE	MEAN(M) (F) RANGE	STATION # NAME DISTANCE AND DIRECTION	NUMBER OF NONROUTINE REPORTED MEASUREMENTS
	FE-59		N/A	<LLD	<LLD	-	-	0
	CO-60		N/A	<LLD	<LLD	-	-	0
	ZN-65		N/A	<LLD	<LLD	-	-	0
	ZRNB-95		N/A	<LLD	<LLD	-	-	0
	CS-134		15	<LLD	<LLD	-	-	0
	CS-137		18	<LLD	<LLD	-	-	0
	BA-140		60	<LLD	<LLD	-	-	0
	LA-140		15	<LLD	<LLD	-	-	0

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MEDIUM OR PATHWAY SAMPLED (UNIT OF MEASUREMENT)	TYPES OF ANALYSIS PERFORMED	NUMBER OF ANALYSIS PERFORMED	REQUIRED LOWER LIMIT OF DETECTION (LLD)	MEAN(M) (F) RANGE	MEAN(M) (F) RANGE	MEAN(M) (F) RANGE	STATION # NAME DISTANCE AND DIRECTION	NUMBER OF NONROUTINE REPORTED MEASUREMENTS
DIRECT RADIATION (MILLI-ROENTGEN/QUARTER)	TLD-QUARTERLY	80	N/A	22 (78/78) (19/28)	22 (2/2) (21/22)	28 (1/1)	BD-211-1 INDICATOR 4.8 MILES SW OF SITE	0

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Name of Facility:	**BRAIDWOOD**				**DOCKET NUMBER:**		**50-456 & 50-457**	
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MEDIUM OR PATHWAY SAMPLED (UNIT OF MEASUREMENT)	TYPES OF ANALYSIS PERFORMED	NUMBER OF ANALYSIS PERFORMED	REQUIRED LOWER LIMIT OF DETECTION (LLD)	MEAN(M) (F) RANGE	MEAN(M) (F) RANGE	MEAN(M) (F) RANGE	STATION # NAME DISTANCE AND DIRECTION	NUMBER OF NONROUTINE REPORTED MEASUREMENTS
SURFACE WATER (PCI/LITER)	GR-B	24	4	6 (7/12) (4/8.2)	7.5 (11/12) (4/11.1)	7.5 (11/12) (4/11.1)	BD-25 CONTROL KANKAKEE RIVER UPSTREAM 9.6 MILES E OF SITE	0
	H-3	8	200	487 (2/4) (253/720)	192 (2/4) (155/229)	487 (2/4) (253/720)	BD-10 INDICATOR KANKAKEE RIVER DOWNSTREAM 5.4 MILES NE OF SITE	0
	GAMMA	24						
	MN-54		15	<LLD	<LLD	-	-	0
	CO-58		15	<LLD	<LLD	-	-	0
	FE-59		30	<LLD	<LLD	-	-	0
	CO-60		15	<LLD	<LLD	-	-	0
	ZN-65		30	<LLD	<LLD	-	-	0
	NB-95		15	<LLD	<LLD	-	-	0

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	ZR-95		30	<LLD	<LLD	-	-	0
	I-131		15	<LLD	<LLD	-	-	0
	CS-134		15	<LLD	<LLD	-	-	0
	CS-137		18	<LLD	<LLD	-	-	0
	BA-140		60	<LLD	<LLD	-	-	0
	LA-140		15	<LLD	<LLD	-	-	0
PUBLIC WATER (PCI/LITER)	GR-B	12	4	4.6 (6/12) (3.9/5.8)	N/A	4.6 (6/12) (3.9/5.8)	BD-22 INDICATOR WILMINGTON 6.0 MILES NE OF SITE	0
	H-3	12	200	1031 (8/12) (260/3050)	N/A	1031 (8/12) (260/3050)	BD-22 INDICATOR WILMINGTON 6.0 MILES NE OF SITE	0

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MEDIUM OR PATHWAY SAMPLED (UNIT OF MEASUREMENT)	TYPES OF ANALYSIS PERFORMED	NUMBER OF ANALYSIS PERFORMED	REQUIRED LOWER LIMIT OF DETECTION (LLD)	MEAN(M) (F) RANGE	MEAN(M) (F) RANGE	MEAN(M) (F) RANGE	STATION # NAME DISTANCE AND DIRECTION	NUMBER OF NONROUTINE REPORTED MEASUREMENTS
	GAMMA	12						
	MN-54		15	<LLD	N/A	-	-	0
	CO-58		15	<LLD	N/A	-	-	0
	FE-59		30	<LLD	N/A	-	-	0
	CO-60		15	<LLD	N/A	-	-	0
	ZN-65		30	<LLD	N/A	-	-	0
	NB-95		15	<LLD	N/A	-	-	0
	ZR-95		30	<LLD	N/A	-	-	0
	I-131		15	<LLD	N/A	-	-	0

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MEDIUM OR PATHWAY SAMPLED (UNIT OF MEASUREMENT)	TYPES OF ANALYSIS PERFORMED	NUMBER OF ANALYSIS PERFORMED	REQUIRED LOWER LIMIT OF DETECTION (LLD)	MEAN(M) (F) RANGE	MEAN(M) (F) RANGE	MEAN(M) (F) RANGE	STATION # NAME DISTANCE AND DIRECTION	NUMBER OF NONROUTINE REPORTED MEASUREMENTS
	CS-134		15	<LLD	N/A	-	-	0
	CS-137		18	<LLD	N/A	-	-	0
	BA-140		60	<LLD	N/A	-	-	0
	LA-140		15	<LLD	N/A	-	-	0
GROUND/WELL WATER (PCI/LITER)	H-3	20	200	304 (4/20) (248/378)	N/A	304 (4/4) (248/378)	BD-36 INDICATOR HUTTON WELL 4.7 MILES E OF SITE	0
	GAMMA	20						
	MN-54		15	<LLD	N/A	-	-	0
	CO-58		15	<LLD	N/A	-	-	0
	FE-59		30	<LLD	N/A	-	-	0

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MEDIUM OR PATHWAY SAMPLED (UNIT OF MEASUREMENT)	TYPES OF ANALYSIS PERFORMED	NUMBER OF ANALYSIS PERFORMED	REQUIRED LOWER LIMIT OF DETECTION (LLD)	MEAN(M) (F) RANGE	MEAN(M) (F) RANGE	MEAN(M) (F) RANGE	STATION # NAME DISTANCE AND DIRECTION	NUMBER OF NONROUTINE REPORTED MEASUREMENTS
	CO-60		15	<LLD	N/A	-	-	0
	ZN-65		30	<LLD	N/A	-	-	0
	NB-95		15	<LLD	N/A	-	-	0
	ZR-95		30	<LLD	N/A	-	-	0
	CS-134		15	<LLD	N/A	-	-	0
	CS-137		18	<LLD	N/A	-	-	0
	BA-140		60	<LLD	N/A	-	-	0
	LA-140		15	<LLD	N/A	-	-	0

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MEDIUM OR PATHWAY SAMPLED (UNIT OF MEASUREMENT)	TYPES OF ANALYSIS PERFORMED	NUMBER OF ANALYSIS PERFORMED	REQUIRED LOWER LIMIT OF DETECTION (LLD)	MEAN(M) (F) RANGE	MEAN(M) (F) RANGE	MEAN(M) (F) RANGE	STATION # NAME DISTANCE AND DIRECTION	NUMBER OF NONROUTINE REPORTED MEASUREMENTS
FISH (PCI/KG WET)	GAMMA	8						
	MN-54		130	<LLD	<LLD	-	-	0
	CO-58		130	<LLD	<LLD	-	-	0
	FE-59		260	<LLD	<LLD	-	-	0
	CO-60		130	<LLD	<LLD	-	-	0
	ZN-65		260	<LLD	<LLD	-	-	0
	ZRNB-95		N/A	<LLD	<LLD	-	-	0
	CS-134		130	<LLD	<LLD	-	-	0
	CS-137		150	<LLD	<LLD	-	-	0

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	BALA140		N/A	<LLD	<LLD	-	-	0
SEDIMENT (PCI/KG DRY)	GAMMA MN-54	2	N/A	<LLD	N/A	-	-	0
	CO-58		N/A	<LLD	N/A	-	-	0
	FE-59		N/A	<LLD	N/A	-	-	0
	CO-60		N/A	<LLD	N/A	-	-	0
	ZN-65		N/A	<LLD	N/A	-	-	0
	ZRNB-95		N/A	<LLD	N/A	-	-	0
	CS-134		150	<LLD	N/A	-	-	0

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MEDIUM OR PATHWAY SAMPLED (UNIT OF MEASUREMENT)	TYPES OF ANALYSIS PERFORMED	NUMBER OF ANALYSIS PERFORMED	REQUIRED LOWER LIMIT OF DETECTION (LLD)	MEAN(M) (F) RANGE	MEAN(M) (F) RANGE	MEAN(M) (F) RANGE	STATION # NAME DISTANCE AND DIRECTION	NUMBER OF NONROUTINE REPORTED MEASUREMENTS
	CS-137		180	139 (1/2)	N/A	139 (1/2)	BD-10 INDICATOR KANKAKEE RIVER DOWNSTREAM 5.4 MILES NE OF SITE	0
	BALA140		N/A	<LLD	N/A	-	-	0
AIR PARTICULATE (E-3 PCI/CU.METER)	GR-B	338	10	22 (282/286) (6/47)	22 (51/52) (6/47)	23 (52/52) (9/47)	BD-19 INDICATOR NEARSITE NW 0.3 MILES NW OF SITE	0
	GAMMA MN-54	26	N/A	<LLD	<LLD	-	-	0
	CO-58		N/A	<LLD	<LLD	-	-	0
	FE-59		N/A	<LLD	<LLD	-	-	0
	CO-60		N/A	<LLD	<LLD	-	-	0
	ZN-65		N/A	<LLD	<LLD	-	-	0

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Location of Facility:	**BRACEVILLE, IL**				**REPORTING PERIOD:**	**ANNUAL 2005**		
				INDICATOR LOCATIONS	**CONTROL LOCATION**	**LOCATION WITH HIGHEST ANNUAL MEAN**		
MEDIUM OR PATHWAY SAMPLED (UNIT OF MEASUREMENT)	TYPES OF ANALYSIS PERFORMED	NUMBER OF ANALYSIS PERFORMED	REQUIRED LOWER LIMIT OF DETECTION (LLD)	MEAN(M) (F) RANGE	MEAN(M) (F) RANGE	MEAN(M) (F) RANGE	STATION # NAME DISTANCE AND DIRECTION	NUMBER OF NONROUTINE REPORTED MEASUREMENTS
	ZRNB-95		N/A	<LLD	<LLD	-	-	0
	CS-134		50	<LLD	<LLD	-	-	0
	CS-137		60	<LLD	<LLD	-	-	0
	BALA140		N/A	<LLD	<LLD	-	-	0
AIR IODINE (E-3 PCI/CU.METER)	I-131	169	70	<LLD	<LLD	-	-	0
MILK (PCI/LITER)	I-131	38	1	<LLD	<LLD	-	-	0
	GAMMA MN-54	38	N/A	<LLD	<LLD	-	-	0
	CO-58		N/A	<LLD	<LLD	-	-	0

MEAN AND RANGE BASED ON DETECTABLE MEASUREMENTS ONLY (M)
FRACTION OF DETECTABLE MEASUREMENTS AT SPECIFIED LOCATIONS IS INDICATED IN PARENTHESES (F)

TABLE A-1 RADIOLOGICAL ENVIRONMENTAL MONITORING PROGRAM ANNUAL SUMMARY FOR BRAIDWOOD STATION, 2005

Name of Facility:	**BRAIDWOOD**				**DOCKET NUMBER:**	**50-456 & 50-457**		
Location of Facility:	**BRACEVILLE, IL**				**REPORTING PERIOD:**	**ANNUAL 2005**		
				INDICATOR LOCATIONS	**CONTROL LOCATION**	**LOCATION WITH HIGHEST ANNUAL MEAN**		
MEDIUM OR PATHWAY SAMPLED (UNIT OF MEASUREMENT)	TYPES OF ANALYSIS PERFORMED	NUMBER OF ANALYSIS PERFORMED	REQUIRED LOWER LIMIT OF DETECTION (LLD)	MEAN(M) (F) RANGE	MEAN(M) (F) RANGE	MEAN(M) (F) RANGE	STATION # NAME DISTANCE AND DIRECTION	NUMBER OF NONROUTINE REPORTED MEASUREMENTS
	FE-59		N/A	<LLD	<LLD	-	-	0
	CO-60		N/A	<LLD	<LLD	-	-	0
	ZN-65		N/A	<LLD	<LLD	-	-	0
	ZRNB-95		N/A	<LLD	<LLD	-	-	0
	CS-134		15	<LLD	<LLD	-	-	0
	CS-137		18	<LLD	<LLD	-	-	0
	BA-140		60	<LLD	<LLD	-	-	0
	LA-140		15	<LLD	<LLD	-	-	0

MEAN AND RANGE BASED ON DETECTABLE MEASUREMENTS ONLY (M)
FRACTION OF DETECTABLE MEASUREMENTS AT SPECIFIED LOCATIONS IS INDICATED IN PARENTHESES (F)

TABLE A-1 RADIOLOGICAL ENVIRONMENTAL MONITORING PROGRAM ANNUAL SUMMARY FOR BRAIDWOOD STATION, 2005

Name of Facility:	**BRAIDWOOD**				**DOCKET NUMBER:**	**50-456 & 50-457**		
Location of Facility:	**BRACEVILLE, IL**				**REPORTING PERIOD:**	**ANNUAL 2005**		
				INDICATOR LOCATIONS	**CONTROL LOCATION**	**LOCATION WITH HIGHEST ANNUAL MEAN**		
MEDIUM OR PATHWAY SAMPLED (UNIT OF MEASUREMENT)	TYPES OF ANALYSIS PERFORMED	NUMBER OF ANALYSIS PERFORMED	REQUIRED LOWER LIMIT OF DETECTION (LLD)	MEAN(M) (F) RANGE	MEAN(M) (F) RANGE	MEAN(M) (F) RANGE	STATION # NAME DISTANCE AND DIRECTION	NUMBER OF NONROUTINE REPORTED MEASUREMENTS
FOOD PRODUCTS (PCI/KG WET)	GAMMA	10						
	MN-54		N/A	<LLD	<LLD	-	-	0
	CO-58		N/A	<LLD	<LLD	-	-	0
	FE-59		N/A	<LLD	<LLD	-	-	0
	CO-60		N/A	<LLD	<LLD	-	-	0
	ZN-65		N/A	<LLD	<LLD	-	-	0
	ZRNB-95		N/A	<LLD	<LLD	-	-	0
	I-131		60	<LLD	<LLD	-	-	0
	CS-134		60	<LLD	<LLD	-	-	0

MEAN AND RANGE BASED ON DETECTABLE MEASUREMENTS ONLY (M)
FRACTION OF DETECTABLE MEASUREMENTS AT SPECIFIED LOCATIONS IS INDICATED IN PARENTHESES (F)

TABLE A-1 RADIOLOGICAL ENVIRONMENTAL MONITORING PROGRAM ANNUAL SUMMARY FOR BRAIDWOOD STATION, 2005

Name of Facility:	**BRAIDWOOD**				**DOCKET NUMBER:**	**50-456 & 50-457**		
Location of Facility:	**BRACEVILLE, IL**				**REPORTING PERIOD:**	**ANNUAL 2005**		
				INDICATOR LOCATIONS	**CONTROL LOCATION**	**LOCATION WITH HIGHEST ANNUAL MEAN**		
MEDIUM OR PATHWAY SAMPLED (UNIT OF MEASUREMENT)	TYPES OF ANALYSIS PERFORMED	NUMBER OF ANALYSIS PERFORMED	REQUIRED LOWER LIMIT OF DETECTION (LLD)	MEAN(M) (F) RANGE	MEAN(M) (F) RANGE	MEAN(M) (F) RANGE	STATION # NAME DISTANCE AND DIRECTION	NUMBER OF NONROUTINE REPORTED MEASUREMENTS
	CS-137		80	<LLD	<LLD	-	-	0
	BALA140		N/A	<LLD	<LLD	-	-	0
DIRECT RADIATION (MILLI-ROENTGEN/QUARTER)	TLD-QUARTERLY	318	N/A	23 (310/310) (16/32)	23 (8/8) (18/29)	28 (4/4) (24/32)	BD-212-4 INDICATOR 5.0 MILES WSW OF SITE	0

MEAN AND RANGE BASED ON DETECTABLE MEASUREMENTS ONLY (M)
FRACTION OF DETECTABLE MEASUREMENTS AT SPECIFIED LOCATIONS IS INDICATED IN PARENTHESES (F)

APPENDIX B

LOCATION DESIGNATION, DISTANCE & DIRECTION, AND SAMPLE COLLECTION & ANALYTICAL METHODS

TABLE B-1: Radiological Environmental Monitoring Program - Sampling Locations, Distance and Direction, Braidwood Station, 2005

Location	Location Description	Distance & Direction From Site
A. Surface Water		
BD-10	Kankakee River Downstream (indicator)	5.4 miles NE
BD-25	Kankakee River Upstream (control)	9.6 miles E
B. Drinking (Potable) Water		
BD-22	Wilmington (indicator)	6.0 miles NE
C. Ground/Well Water		
BD-13	Braidwood City Hall Well (indicator)	1.7 miles NNE
BD-34	Gibson Well (indicator)	4.7 miles E
BD-35	Joly Well (indicator)	4.7 miles E
BD-36	Hutton Well (indicator)	4.7 miles E
BD-37	Nurczyk Well (indicator)	4.7 miles E
D. Milk - bi-weekly / monthly		
BD-17	Halpin's Dairy (indicator)	5.5 miles SSW
BD-18	Biros' Farm (control)	8.7 miles W
E. Air Particulates / Air Iodine		
BD-02	Custer Park (indicator)	5.0 miles E
BD-03	County Line Road (control)	6.2 miles ESE
BD-04	Essex (indicator)	4.8 miles SSE
BD-05	Gardner (indicator)	5.5 miles SW
BD-06	Godley (indicator)	0.5 miles WSW
BD-19	Nearsite NW (indicator)	0.3 miles NW
BD-20	Nearsite N (indicator)	0.6 miles N
BD-21	Nearsite NE (indicator)	0.5 miles NE
F. Fish		
BD-25	Kankakee River, Upstream (control)	5.0 miles E
BD-28	Kankakee River, Discharge (indicator)	5.4 miles E
G. Sediment		
BD-10	Kankakee River, Downstream (indicator)	5.4 miles NE
H. Food Products		
Quadrant 1	Clark Farm	3.8 miles ENE
Quadrant 2	W.F. Soltwisch	4.5 miles SSE
Quadrant 3	Terri Schultz	4.8 miles SSW
Quadrant 4	Bruce Sinkular	1.9 miles NNW
Control	Gorman Farm	9.0 miles NE

TABLE B-1: Radiological Environmental Monitoring Program - Sampling Locations, Distance and Direction, Braidwood Station, 2005

Location	Location Description	Distance & Direction From Site
I. Environmental Dosimetry - TLD		
Site Boundary		
BD-101-3 and -4		0.5 miles N
BD-102-1 and -2		1.1 miles NNE
BD-103-1 and -2		1.0 miles NE
BD-104-1 and -2		0.7 miles ENE
BD-105-1 and -2		2.2 miles E
BD-106-1 and -2		2.5 miles ESE
BD-107-1 and -2		3.2 miles SE
BD-108-1 and -2		3.2 miles SSE
BD-109-1 and -2		3.8 miles S
BD-110-1 and -2		2.8 miles SSW
BD-111a-1 and -2		1.4 miles SW
BD-112-1 and -2		0.7 miles WSW
BD-113a-1 and -2		0.5 miles W
BD-114-1 and -2		0.4 miles WNW
BD-115-1 and -2		0.3 miles NW
BD-116-1		0.4 miles NNW
BD-116-2		0.5 miles NNW
Intermediate Distance		
BD-201-1 and -2		4.2 miles N
BD-202-1 and -2		4.8 miles NNE
BD-203-1 and -2		4.9 miles NE
BD-204-1 and -2		4.3 miles ENE
BD-205-1 and -2		4.0 miles E
BD-206-1 and -2		4.5 miles ESE
BD-207-1 and -2		4.5 miles SE
BD-208-1 and -2		4.5 miles SSE
BD-209-1 and -2		4.8 miles S
BD-210-1 and -2		5.3 miles SSW
BD-211-1 and -2		4.8 miles SW
BD-212-3 and -4		5.0 miles WSW
BD-213-3 and -4		4.8 miles W
BD-214-1 and -2		4.3 miles WNW
BD-215-1 and -2		4.5 miles NW
BD-216-1 and -2		4.0 miles NNW
Other		
BD-02-1 and -2	Custer Park (indicator)	5.0 miles E
BD-04-1 and -2	Essex (indicator)	4.8 miles SSE
BD-05-1 and -2	Gardner (indicator)	5.5 miles SW
BD-06-1 and -2	Godley (indicator)	0.5 miles WSW
BD-19-1 and -2	Nearsite NW (indicator)	0.3 miles NW
BD-20-1 and -2	Nearsite N (indicator)	0.6 miles N
BD-21-1 and -2	Nearsite NE (indicator)	0.5 miles NE
Control and Special Interest		
BD-03-1 and -2	Onsite 2	0.3 miles NE

TABLE B-2: Radiological Environmental Monitoring Program – Summary of Sample Collection and Analytical Methods, Braidwood Station, 2005

Sample Medium	Analysis	Sampling Method	Analytical Procedure Number
Surface Water	Gamma Spectroscopy	Monthly composite from weekly grab samples.	TBE, TBE-2007 Gamma emitting radioisotope analysis Env. Inc., GS-01 Determination of gamma emitters by gamma spectroscopy
Surface Water	Gross Beta	Monthly composite from weekly grab samples.	TBE, TBE-2008 Gross Alpha and/or gross beta activity in various matrices Env. Inc., W(DS)-01 Determination of gross alpha and/or gross beta in water (dissolved solids or total residue)
Surface Water	Tritium	Quarterly composite from weekly grab samples.	TBE, TBE-2011 Tritium analysis in drinking water by liquid scintillation Env. Inc., T-02 Determination of tritium in water (direct method)
Drinking Water	Gross Beta	Monthly composite from weekly grab samples.	TBE, TBE-2008 Gross Alpha and/or gross beta activity in various matrices Env. Inc., W(DS)-01 Determination of gross alpha and/or gross beta in water (dissolved solids or total residue)
Drinking Water	Gamma Spectroscopy	Monthly composite from weekly grab samples.	TBE, TBE-2007 Gamma emitting radioisotope analysis Env. Inc., GS-01 Determination of gamma emitters by gamma spectroscopy
Drinking Water	Tritium	Quarterly composite from weekly grab samples.	TBE, TBE-2011 Tritium analysis in drinking water by liquid scintillation Env. Inc., T-02 Determination of tritium in water (direct method)
Drinking Water	Gamma Spectroscopy	Quarterly grab samples.	TBE, TBE-2007 Gamma emitting radioisotope analysis Env. Inc., GS-01 Determination of gamma emitters by gamma spectroscopy
Ground/well Water	Tritium	Quarterly grab samples.	TBE, TBE-2011 Tritium analysis in drinking water by liquid scintillation Env. Inc., T-02 Determination of tritium in water (direct method)
Fish	Gamma Spectroscopy	Samples collected twice annually via electroshocking or other techniques	TBE-2007 Gamma emitting radioisotope analysis Env. Inc., GS-01 Determination of gamma emitters by gamma spectroscopy

TABLE B-2: Radiological Environmental Monitoring Program – Summary of Sample Collection and Analytical Methods, Braidwood Station, 2005

Sample Medium	Analysis	Sampling Method	Analytical Procedure Number
Air Particulates	Gross Beta	One-week composite of continuous air sampling through glass fiber filter paper	TBE, TBE-2008 Gross Alpha and/or gross beta activity in various matrices Env. Inc., AP-02 Determination of gross alpha and/or gross beta in air particulate filters
Air Particulates	Gamma Spectroscopy	Quarterly composite of each station	TBE, TBE-2007 Gamma emitting radioisotope analysis Env. Inc., GS-01 Determination of gamma emitters by gamma spectroscopy
Air Iodine	Gamma Spectroscopy	Biweekly composite of continuous air sampling through charcoal filter	TBE, TBE-2007 Gamma emitting radioisotope analysis Env. Inc., GS-01 Determination of gamma emitters by gamma spectroscopy
Milk	I-131	Bi-weekly grab sample May through October. Monthly all other times	TBE, TBE-2012 Radioiodine in various matrices Env. Inc., I-131-01 Determination of I-131 in milk by anion exchange
Milk	Gamma Spectroscopy	Bi-weekly grab sample May through October. Monthly all other times	TBE, TBE-2007 Gamma emitting radioisotope analysis Env. Inc., GS-01 Determination of gamma emitters by gamma spectroscopy
Food Products	Gamma Spectroscopy	Annual grab samples.	TBE, TBE-2007 Gamma emitting radioisotope analysis Env. Inc., GS-01 Determination of gamma emitters by gamma spectroscopy
TLD	Thermoluminescence Dosimetry	Quarterly TLDs comprised of two Global Dosimetry CaF_2 elements.	Global Dosimetry

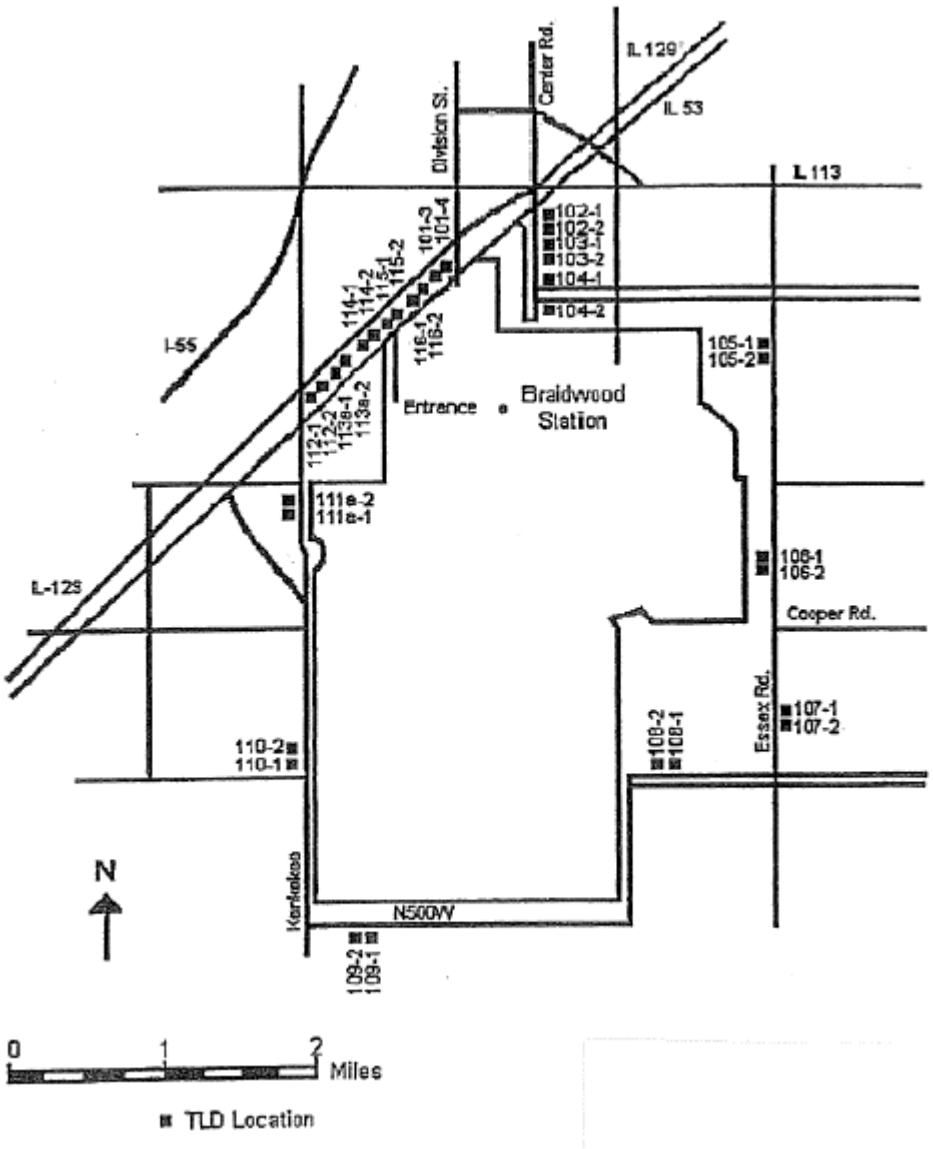

Figure B-1
Inner Ring TLD Locations of the
Braidwood Station, 2005

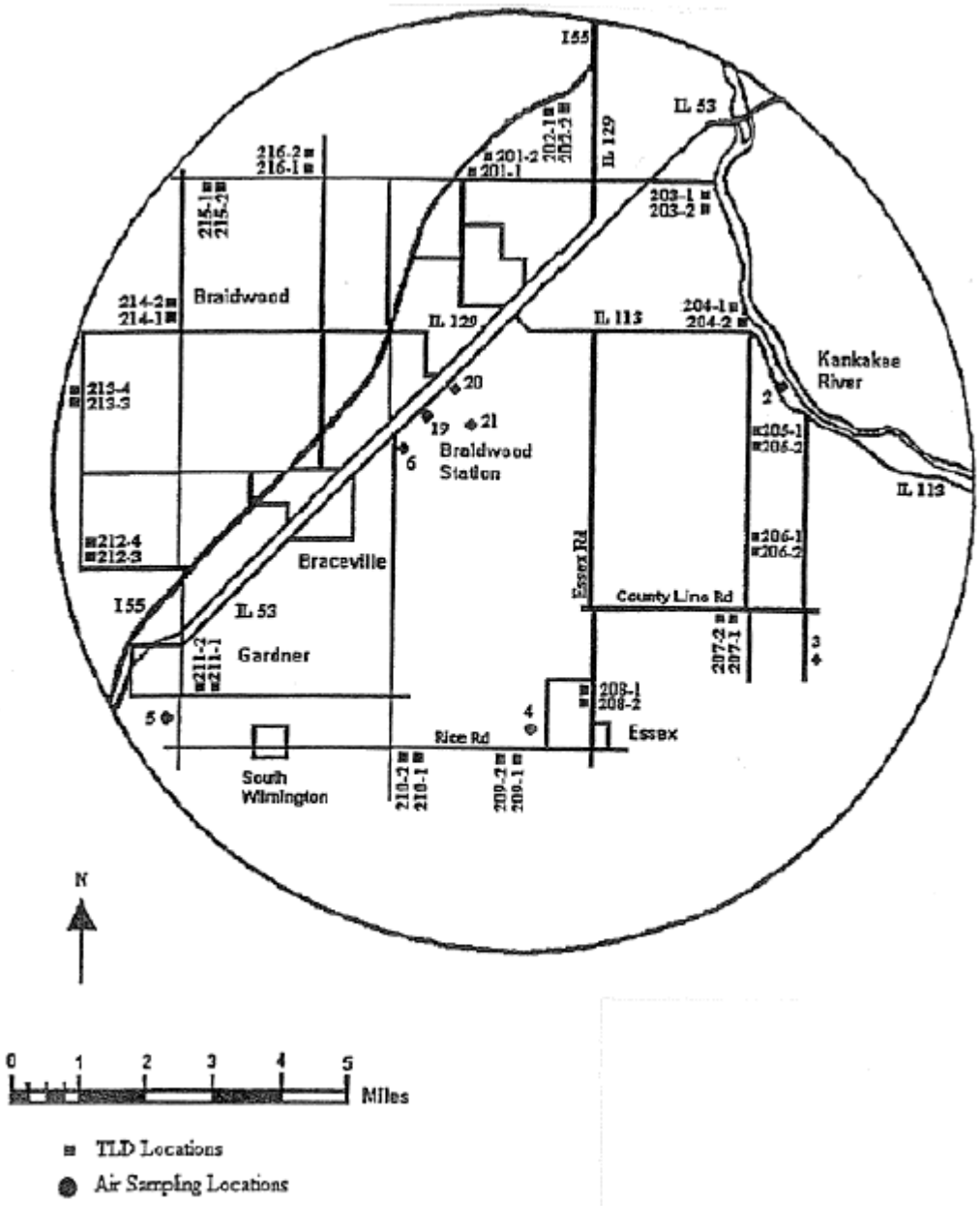

Figure B-2
Fixed Air Sampling and Outer Ring TLD Locations
of the Braidwood Station, 2005

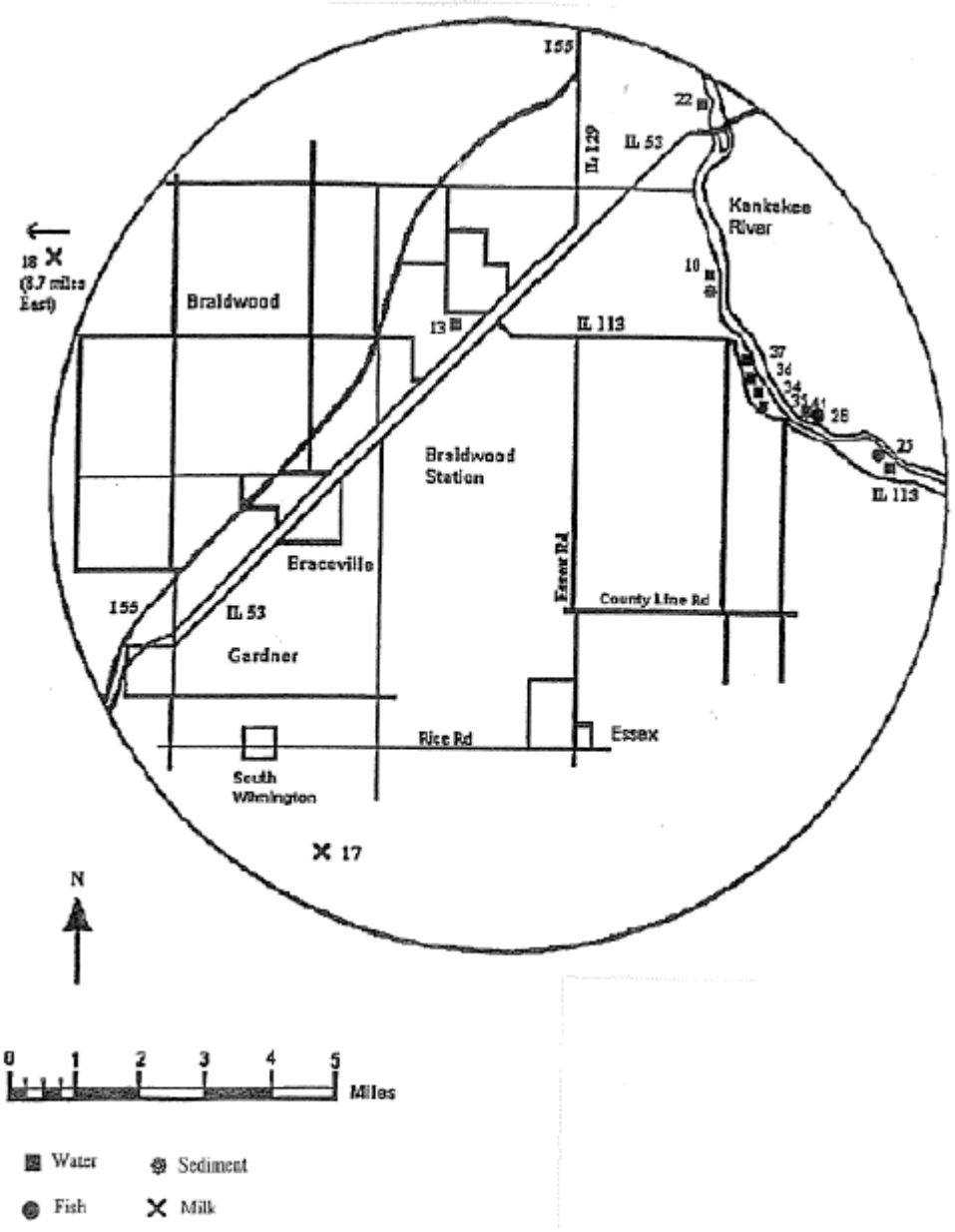

Figure B-3
Ingestion and Waterborne Exposure Pathway Sample Locations
of the Braidwood Station, 2005

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APPENDIX C

DATA TABLES AND FIGURES
PRIMARY LABORATORY

TABLE C-I.1 CONCENTRATIONS OF GROSS BETA IN SURFACE WATER SAMPLES COLLECTED IN THE VICINITY OF BRAIDWOOD STATION, 2005

RESULTS IN UNITS OF PCI/LITER ± 2 SIGMA

COLLECTION PERIOD	BD-10	BD-25
JAN	< 4.0	5.8 ± 1.9
FEB	< 4.0	8.5 ± 2.3
MAR	< 4.0	< 4.0
APR	< 4.0	4.0 ± 1.0
MAY	< 4.0	6.1 ± 1.2
JUN	4.0 ± 1.3	9.7 ± 1.1
JUL	4.6 ± 1.9	8.5 ± 1.9
AUG	8.2 ± 2.3	7.4 ± 2.2
SEP	6.4 ± 2.0	7.6 ± 2.1
OCT	5.6 ± 1.9	6.0 ± 1.9
NOV	7.2 ± 2.0	7.6 ± 2.0
DEC	5.7 ± 2.2	11 ± 2.7

TABLE C-I.2 CONCENTRATIONS OF TRITIUM IN SURFACE WATER SAMPLES COLLECTED IN THE VICINITY OF BRAIDWOOD STATION, 2005

RESULTS IN UNITS OF PCI/LITER ± 2 SIGMA

COLLECTION PERIOD	BD-10	BD-25
JAN-MAR	< 200	< 200
APR-JUN	< 200	< 200
JUL-SEP	720 ± 133	229 ± 124
OCT-DEC	253 ± 99	155 ± 96

DUE TO VENDOR CHANGE, < VALUES ARE LLD VALUES JANUARY THROUGH JUNE AND MDC VALUES JULY THROUGH DECEMBER

TABLE C-I.3 CONCENTRATIONS OF GAMMA EMITTERS IN SURFACE WATER SAMPLES COLLECTED IN THE VICINITY OF BRAIDWOOD STATION, 2005

RESULTS IN UNITS OF PCI/LITER ± 2 SIGMA

STC	COLLECTION PERIOD	MN-54	CO-58	FE-59	CO-60	ZN-65	NB-95	ZR-95	I-131	CS-134	CS-137	BA-140	LA-140
BD-10	JAN	< 15	< 15	< 30	< 15	< 30	< 15	< 30	< 15	< 15	< 18	< 60	< 15
	FEB	< 15	< 15	< 30	< 15	< 30	< 15	< 30	< 15	< 15	< 18	< 60	< 15
	MAR	< 15	< 15	< 30	< 15	< 30	< 15	< 30	< 15	< 15	< 18	< 60	< 15
	APR	< 15	< 15	< 30	< 15	< 30	< 15	< 30	< 15	< 15	< 18	< 60	< 15
	MAY	< 15	< 15	< 30	< 15	< 30	< 15	< 30	< 15	< 15	< 18	< 60	< 15
	JUN	< 15	< 15	< 30	< 15	< 30	< 15	< 30	< 15	< 15	< 18	< 60	< 15
	JUL	< 1	< 2	< 4	< 1	< 3	< 2	< 3	< 12	< 1	< 1	< 18	< 6
	AUG	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 3	< 1	< 1	< 5	< 2
	SEP	< 3	< 4	< 7	< 3	< 9	< 5	< 9	< 11	< 3	< 4	< 24	< 10
	OCT	< 5	< 5	< 11	< 3	< 7	< 4	< 7	< 13	< 4	< 5	< 31	< 8
	NOV	< 3	< 4	< 7	< 5	< 6	< 3	< 8	< 8	< 3	< 4	< 21	< 7
	DEC	< 1	< 1	< 3	< 2	< 3	< 1	< 3	< 4	< 1	< 1	< 10	< 3
BD-25	JAN	< 15	< 15	< 30	< 15	< 30	< 15	< 30	< 15	< 15	< 18	< 60	< 15
	FEB	< 15	< 15	< 30	< 15	< 30	< 15	< 30	< 15	< 15	< 18	< 60	< 15
	MAR	< 15	< 15	< 30	< 15	< 30	< 15	< 30	< 15	< 15	< 18	< 60	< 15
	APR	< 15	< 15	< 30	< 15	< 30	< 15	< 30	< 15	< 15	< 18	< 60	< 15
	MAY	< 15	< 15	< 30	< 15	< 30	< 15	< 30	< 15	< 15	< 18	< 60	< 15
	JUN	< 15	< 15	< 30	< 15	< 30	< 15	< 30	< 15	< 15	< 18	< 60	< 15
	JUL	< 1	< 1	< 3	< 1	< 2	< 1	< 2	< 10	< 1	< 1	< 14	< 5
	AUG	< 1	< 1	< 2	< 1	< 2	< 1	< 1	< 3	< 1	< 1	< 6	< 2
	SEP	< 5	< 5	< 11	< 5	< 9	< 6	< 11	< 14	< 5	< 5	< 31	< 12
	OCT	< 3	< 3	< 8	< 4	< 8	< 4	< 6	< 14	< 3	< 4	< 28	< 10
	NOV	< 4	< 4	< 8	< 4	< 12	< 4	< 9	< 9	< 4	< 4	< 24	< 7
	DEC	< 3	< 3	< 7	< 3	< 7	< 3	< 5	< 9	< 3	< 3	< 20	< 7

DUE TO VENDOR CHANGE, < VALUES ARE LLD VALUES JANUARY THROUGH JUNE AND MDC VALUES JULY THROUGH DECEMBER

TABLE C-II.1 CONCENTRATIONS OF GROSS BETA IN PUBLIC WATER SAMPLES COLLECTED IN THE VICINITY OF BRAIDWOOD STATION, 2005

RESULTS IN UNITS OF PCI/LITER ± 2 SIGMA

COLLECTION PERIOD	BD-22
JAN	< 4.0
FEB	< 4.0
MAR	< 4.0
APR	< 4.0
MAY	< 4.0
JUN	< 4.0
JUL	3.9 ± 1.7
AUG	5.8 ± 1.8
SEP	4.5 ± 1.7
OCT	4.0 ± 1.5
NOV	4.5 ± 1.9
DEC	5.2 ± 2.0

TABLE C-II.2 CONCENTRATIONS OF TRITIUM IN PUBLIC WATER SAMPLES COLLECTED IN THE VICINITY OF BRAIDWOOD STATION, 2005

RESULTS IN UNITS OF PCI/LITER ± 2 SIGMA

COLLECTION PERIOD	BD-22
JAN	< 200
FEB	< 200
MAR	260 ± 87
APR	478 ± 93
MAY	< 200
JUN	346 ± 100
JUL	2020 ± 159
AUG	< 162
SEP	1160 ± 129
OCT	625 ± 116
NOV	3050 ± 168
DEC	313 ± 110

DUE TO VENDOR CHANGE, < VALUES ARE LLD VALUES JANUARY THROUGH JUNE AND MDC VALUES JULY THROUGH DECEMBER

TABLE C-II.3 CONCENTRATIONS OF GAMMA EMITTERS IN PUBLIC WATER SAMPLES COLLECTED IN THE VICINITY OF BRAIDWOOD STATION, 2005

RESULTS IN UNITS OF PCI/L ± 2 SIGMA

STC	COLLECTION PERIOD	MN-54	CO-58	FE-59	CO-60	ZN-65	NB-95	ZR-95	I-131	CS-134	CS-137	BA-140	LA-140
BD-22	JAN	< 15	< 15	< 30	< 15	< 30	< 15	< 30	< 15	< 15	< 18	< 60	< 15
	FEB	< 15	< 15	< 30	< 15	< 30	< 15	< 30	< 15	< 15	< 18	< 60	< 15
	MAR	< 15	< 15	< 30	< 15	< 30	< 15	< 30	< 15	< 15	< 18	< 60	< 15
	APR	< 15	< 15	< 30	< 15	< 30	< 15	< 30	< 15	< 15	< 18	< 60	< 15
	MAY	< 15	< 15	< 30	< 15	< 30	< 15	< 30	< 15	< 15	< 18	< 60	< 15
	JUN	< 15	< 15	< 30	< 15	< 30	< 15	< 30	< 15	< 15	< 18	< 60	< 15
	JUL	< 1	< 1	< 3	< 1	< 2	< 1	< 2	< 11	< 1	< 1	< 15	< 4
	AUG	< 1	< 2	< 4	< 1	< 3	< 2	< 3	< 7	< 1	< 1	< 39	< 13
	SEP	< 4	< 5	< 11	< 5	< 9	< 5	< 8	< 13	< 4	< 5	< 32	< 9
	OCT	< 3	< 3	< 9	< 4	< 9	< 4	< 7	< 9	< 3	< 4	< 22	< 11
	NOV	< 1	< 1	< 3	< 1	< 2	< 1	< 2	< 7	< 1	< 1	< 12	< 4
	DEC	< 3	< 3	< 4	< 4	< 7	< 3	< 6	< 5	< 3	< 3	< 16	< 5

DUE TO VENDOR CHANGE, < VALUES ARE LLD VALUES JANUARY THROUGH JUNE AND MDC VALUES JULY THROUGH DECEMBER

TABLE C-III.1 CONCENTRATIONS OF TRITIUM IN GROUND/WELL WATER SAMPLES COLLECTED IN THE VICINITY OF BRAIDWOOD STATION, 2005

RESULTS IN UNITS OF PCI/LITER ± 2 SIGMA

COLLECTION PERIOD	BD-13	BD-34	BD-35	BD-36	BD-37
JAN-MAR	< 200	< 200	< 200	335 ± 100	< 200
APR-JUN	< 200	< 200	< 200	248 ± 109	< 200
JUL-SEP	< 180	< 138	< 141	378 ± 93	< 141
OCT-DEC	< 179	< 172	< 172	255 ± 121	< 187

DUE TO VENDOR CHANGE, < VALUES ARE LLD VALUES JANUARY THROUGH JUNE AND MDC VALUES JULY THROUGH DECEMBER

TABLE C-III.2 CONCENTRATIONS OF GAMMA EMITTERS IN GROUND/WELL WATER SAMPLES COLLECTED IN THE VICINITY OF BRAIDWOOD STATION, 2005

RESULTS IN UNITS OF PCI/L ± 2 SIGMA

STC	COLLECTION PERIOD	MN-54	CO-58	FE-59	CO-60	ZN-65	NB-95	ZR-95	CS-134	CS-137	BA-140	LA-140
BD-13	JAN	< 15	< 15	< 30	< 15	< 30	< 15	< 30	< 15	< 18	< 60	< 15
	APR	< 15	< 15	< 30	< 15	< 30	< 15	< 30	< 15	< 18	< 60	< 15
	JUL	< 6	< 6	< 12	< 6	< 13	< 7	< 12	< 5	< 7	< 28	< 9
	OCT	< 3	< 3	< 5	< 5	< 6	< 4	< 7	< 3	< 5	< 19	< 9
BD-34	JAN	< 15	< 15	< 30	< 15	< 30	< 15	< 30	< 15	< 18	< 60	< 15
	APR	< 15	< 15	< 30	< 15	< 30	< 15	< 30	< 15	< 18	< 60	< 15
	JUL	< 4	< 6	< 10	< 5	< 11	< 4	< 7	< 5	< 5	< 22	< 9
	OCT	< 5	< 6	< 8	< 4	< 13	< 6	< 9	< 5	< 6	< 34	< 13
BD-35	JAN	< 15	< 15	< 30	< 15	< 30	< 15	< 30	< 15	< 18	< 60	< 15
	APR	< 15	< 15	< 30	< 15	< 30	< 15	< 30	< 15	< 18	< 60	< 15
	JUL	< 9	< 8	< 17	< 9	< 16	< 8	< 15	< 8	< 7	< 41	< 15
	OCT	< 4	< 5	< 11	< 4	< 9	< 5	< 8	< 4	< 4	< 25	< 8
BD-36	JAN	< 15	< 15	< 30	< 15	< 30	< 15	< 30	< 15	< 18	< 60	< 15
	APR	< 15	< 15	< 30	< 15	< 30	< 15	< 30	< 15	< 18	< 60	< 15
	JUL	< 7	< 7	< 6	< 5	< 14	< 8	< 9	< 7	< 7	< 37	< 12
	OCT	< 4	< 6	< 11	< 5	< 13	< 6	< 12	< 5	< 5	< 30	< 10

DUE TO VENDOR CHANGE, < VALUES ARE LLD VALUES JANUARY THROUGH JUNE AND MDC VALUES JULY THROUGH DECEMBER

TABLE C-III.2 CONCENTRATIONS OF GAMMA EMITTERS IN GROUND/WELL WATER SAMPLES COLLECTED IN THE VICINITY OF BRAIDWOOD STATION, 2005

RESULTS IN UNITS OF PCI/L ± 2 SIGMA

STC	COLLECTION PERIOD	MN-54	CO-58	FE-59	CO-60	ZN-65	NB-95	ZR-95	CS-134	CS-137	BA-140	LA-140
BD-37	JAN	< 15	< 15	< 30	< 15	< 30	< 15	< 30	< 15	< 18	< 60	< 15
	APR	< 15	< 15	< 30	< 15	< 30	< 15	< 30	< 15	< 18	< 60	< 15
	JUL	< 5	< 4	< 8	< 7	< 10	< 5	< 6	< 5	< 5	< 21	< 8
	OCT	< 5	< 5	< 10	< 6	< 11	< 5	< 8	< 4	< 5	< 28	< 9

DUE TO VENDOR CHANGE, < VALUES ARE LLD VALUES JANUARY THROUGH JUNE AND MDC VALUES JULY THROUGH DECEMBER

TABLE C-IV.1 **CONCENTRATIONS OF GAMMA EMITTERS IN FISH SAMPLES COLLECTED IN THE VICINITY OF BRAIDWOOD STATION, 2005**

RESULTS IN UNITS OF PCI/KG WET ± 2 SIGMA

STC	COLLECTION PERIOD	MN-54	CO-58	FE-59	CO-60	ZN-65	ZRNB-95	CS-134	CS-137	BALA-140
BD-25										
Smallmouth Bass	05/17/05	< 130	< 130	< 260	< 130	< 260	< 200	< 100	< 100	< 300
Golden Redhorse	05/17/05	< 130	< 130	< 260	< 130	< 260	< 200	< 100	< 100	< 300
Rock Bass	10/27/05	< 53	< 62	< 111	< 74	< 137	< 61	< 54	< 47	< 119
Carp	10/27/05	< 39	< 39	< 90	< 33	< 70	< 40	< 38	< 36	< 91
BD-28										
Golden Redhorse	05/17/05	< 130	< 130	< 260	< 130	< 260	< 200	< 100	< 100	< 300
Channel Catfish	05/17/05	< 130	< 130	< 260	< 130	< 260	< 200	< 100	< 100	< 300
Smallmouth Bass	10/27/05	< 48	< 44	< 96	< 55	< 95	< 48	< 37	< 47	< 98
Carp	10/27/05	< 22	< 31	< 44	< 25	< 68	< 27	< 29	< 25	< 42

DUE TO VENDOR CHANGE, < VALUES ARE LLD VALUES JANUARY THROUGH JUNE AND MDC VALUES JULY THROUGH DECEMBER

TABLE C-V.1 CONCENTRATIONS OF GAMMA EMITTERS IN SEDIMENT SAMPLES COLLECTED IN THE VICINITY OF BRAIDWOOD STATION, 2005

RESULTS IN UNITS OF PCI/KG DRY ± 2 SIGMA

STC	COLLECTION PERIOD	MN-54	CO-58	FE-59	CO-60	ZN-65	ZRNB-95	CS-134	CS-137	BALA-140
BD-10	05/19/05	< 150	< 100	< 600	< 100	< 600	< 200	< 150	< 180	< 600
	10/06/05	< 78	< 67	< 199	< 91	< 180	< 91	< 77	139 ± 73	< 158

DUE TO VENDOR CHANGE, < VALUES ARE LLD VALUES JANUARY THROUGH JUNE AND MDC VALUES JULY THROUGH DECEMBER

TABLE C-VI.1 CONCENTRATIONS OF GROSS BETA IN AIR PARTICULATE SAMPLES COLLECTED IN THE VICINITY OF BRAIDWOOD STATION, 2005

RESULTS IN UNITS OF E-3 PCI/CU METER + SIGMA

	GROUP I				GROUP II			GROUP III
WEEK	BD-06	BD-19	BD-20	BD-21	BD-02	BD-04	BD-05	BD-03
1	30 ± 4	27 ± 4	27 ± 4	30 ± 4	(1)	(1)	(1)	33 ± 4
2	21 ± 4	26 ± 4	24 ± 4	28 ± 4				25 ± 4
3	45 ± 4	39 ± 4	41 ± 4	40 ± 4				39 ± 4
4	26 ± 3	25 ± 3	26 ± 4	26 ± 4				10 ± 5
5	23 ± 4	24 ± 4	31 ± 4	26 ± 4				25 ± 4
6	31 ± 5	27 ± 4	25 ± 4	28 ± 4				27 ± 4
7	24 ± 3	24 ± 3	21 ± 3	23 ± 3				24 ± 3
8	25 ± 3	28 ± 4	25 ± 3	29 ± 4				28 ± 4
9	25 ± 4	28 ± 4	26 ± 4	24 ± 4				23 ± 4
10	23 ± 4	29 ± 4	24 ± 4	21 ± 4				25 ± 4
11	19 ± 3	20 ± 3	22 ± 3	18 ± 3				16 ± 3
12	18 ± 3	16 ± 3	16 ± 3	13 ± 3				15 ± 3
13	20 ± 3	23 ± 3	17 ± 3	14 ± 3				21 ± 3
14	20 ± 3	22 ± 4	20 ± 4	18 ± 3				23 ± 4
15	19 ± 4	20 ± 4	17 ± 4	19 ± 4				23 ± 4
16	23 ± 4	22 ± 4	24 ± 4	26 ± 4				20 ± 3
17	15 ± 3	20 ± 4	20 ± 4	15 ± 3				14 ± 3
18	20 ± 3	20 ± 3	23 ± 3	20 ± 3				19 ± 3
19	27 ± 4	28 ± 4	29 ± 4	26 ± 4				27 ± 4
20	16 ± 3	19 ± 3	13 ± 3	15 ± 3				17 ± 3
21	14 ± 3	14 ± 3	15 ± 3	16 ± 3				15 ± 3
22	15 ± 3	17 ± 3	19 ± 3	17 ± 3				17 ± 3
23	22 ± 4	25 ± 4	22 ± 4	22 ± 4				18 ± 3
24	13 ± 3	14 ± 3	14 ± 3	13 ± 3				13 ± 3
25	13 ± 3	17 ± 3	18 ± 3	15 ± 3				12 ± 3
26	41 ± 4	47 ± 4	45 ± 4	38 ± 4				42 ± 4
27	10 ± 4	14 ± 5	8 ± 4	7 ± 4	9 ± 4	10 ± 4	14 ± 5	13 ± 5
28	19 ± 5	24 ± 5	23 ± 5	20 ± 5	21 ± 5	19 ± 5	18 ± 5	22 ± 5
29	17 ± 5	21 ± 5	22 ± 6	16 ± 5	19 ± 5	15 ± 5	16 ± 5	14 ± 5
30	14 ± 5	11 ± 4	9 ± 4	12 ± 4	13 ± 5	12 ± 5	14 ± 5	13 ± 5
31	21 ± 5	23 ± 6	21 ± 5	21 ± 5	19 ± 5	19 ± 5	27 ± 6	18 ± 5
32	20 ± 5	25 ± 5	25 ± 5	24 ± 5	22 ± 5	26 ± 5	22 ± 5	23 ± 5
33	22 ± 5	21 ± 5	21 ± 5	16 ± 5	22 ± 5	19 ± 5	20 ± 5	15 ± 5
34	< 7	10 ± 5	< 7	7 ± 5	8 ± 5	< 7	< 7	< 7
35	32 ± 5	21 ± 5	27 ± 5	30 ± 5	29 ± 5	27 ± 5	29 ± 5	30 ± 5
36	19 ± 5	26 ± 5	19 ± 5	23 ± 5	22 ± 5	22 ± 5	23 ± 5	18 ± 5
37	41 ± 6	41 ± 6	39 ± 6	37 ± 5	41 ± 6	38 ± 5	46 ± 6	37 ± 5
38	23 ± 5	19 ± 5	20 ± 5	20 ± 5	20 ± 5	20 ± 5	21 ± 5	22 ± 5
39	19 ± 4	19 ± 4	15 ± 4	17 ± 4	17 ± 4	21 ± 4	22 ± 4	17 ± 4
40	19 ± 4	26 ± 5	19 ± 4	19 ± 4	30 ± 5	26 ± 5	20 ± 4	21 ± 5
41	7 ± 4	9 ± 4	6 ± 4	10 ± 4	6 ± 4	10 ± 4	9 ± 4	6 ± 4
42	22 ± 5	25 ± 5	23 ± 5	23 ± 5	23 ± 5	21 ± 5	23 ± 5	22 ± 5
43	11 ± 4	14 ± 4	11 ± 4	10 ± 3	13 ± 4	13 ± 4	11 ± 4	11 ± 4
44	27 ± 5	24 ± 5	21 ± 4	28 ± 5	23 ± 4	31 ± 5	30 ± 5	24 ± 5
45	39 ± 6	36 ± 6	34 ± 5	30 ± 5	37 ± 6	31 ± 5	37 ± 6	36 ± 6
46	17 ± 4	13 ± 4	16 ± 4	13 ± 4	20 ± 4	12 ± 4	13 ± 4	14 ± 4
47	19 ± 4	21 ± 4	19 ± 4	19 ± 4	22 ± 4	23 ± 4	21 ± 4	19 ± 4
48	18 ± 5	21 ± 5	19 ± 5	16 ± 4	19 ± 5	16 ± 4	17 ± 5	22 ± 5
49	30 ± 5	29 ± 5	27 ± 5	32 ± 5	29 ± 5	31 ± 5	31 ± 5	26 ± 5
50	29 ± 5	29 ± 5	20 ± 4	35 ± 5	34 ± 5	29 ± 5	33 ± 5	32 ± 5
51	43 ± 6	41 ± 5	40 ± 5	40 ± 5	38 ± 5	39 ± 5	42 ± 5	47 ± 6
52	29 ± 5	24 ± 5	25 ± 5	29 ± 5	25 ± 5	22 ± 5	22 ± 5	27 ± 5
MEAN	22 ± 17	23 ± 15	22 ± 16	22 ± 16	22 ± 18	21 ± 17	23 ± 19	22 ± 17

* THE MEAN AND 2 STANDARD DEVIATION VALUES ARE CALCULATED USING BOTH THE MDA AND POSITIVE VALUES

(1) SEE PROGRAM CHANGES SECTION FOR EXPLANATION

TABLE C-VI.2 MONTHLY AND YEARLY MEAN VALUES OF GROSS BETA CONCENTRATIONS (E-3 PCI/CU METER) IN AIR PARTICULATE SAMPLES COLLECTED IN THE VICINITY OF BRAIDWOOD STATION, 2005

GROUP I - NEAR FIELD LOCATIONS				GROUP II - FAR FIELD LOCATIONS				GROUP III - CONTROL LOCATIONS			
COLLECTION PERIOD	MIN.	MAX.	MEAN ± 2 SD	COLLECTION PERIOD	MIN.	MAX.	MEAN ± 2 SD	COLLECTION PERIOD	MIN.	MAX.	MEAN ± 2 SD
12/30/04 - 02/03/05	21	45	29 ± 13	12/30/04 - 02/03/05	(1)	(1)	(1)	12/30/04 - 02/03/05	10	39	26 ± 22
02/10/05 - 03/03/05	21	29	25 ± 5	02/10/05 - 03/03/05				02/10/05 - 03/03/05	23	28	25 ± 5
03/10/05 - 03/31/05	13	23	18 ± 6	03/10/05 - 03/31/05				03/10/05 - 03/31/05	15	21	17 ± 6
04/06/05 - 04/28/05	15	26	20 ± 7	04/06/05 - 04/28/05				04/06/05 - 04/28/05	14	23	19 ± 9
04/28/05 - 06/02/05	13	29	19 ± 10	04/28/05 - 06/02/05				04/28/05 - 06/02/05	15	27	19 ± 9
06/02/05 - 06/30/05	13	47	24 ± 24	06/02/05 - 06/30/05				06/02/05 - 06/30/05	12	42	21 ± 28
06/30/05 - 07/28/05	7	24	15 ± 11	06/30/05 - 07/28/05	9	21	15 ± 8	06/30/05 - 07/28/05	13	22	16 ± 9
07/28/05 - 09/01/05	< 7	32	20 ± 15	07/28/05 - 09/01/05	< 7	29	20 ± 15	07/28/05 - 09/01/05	< 7	30	18 ± 17
09/01/05 - 09/29/05	15	41	25 ± 18	09/01/05 - 09/29/05	17	46	26 ± 19	09/01/05 - 09/29/05	17	37	23 ± 18
09/29/05 - 11/03/05	6	28	18 ± 14	09/29/05 - 11/03/05	6	31	19 ± 17	09/29/05 - 11/03/05	6	24	17 ± 16
11/03/05 - 12/01/05	13	39	22 ± 17	11/03/05 - 12/01/05	12	37	22 ± 17	11/03/05 - 12/01/05	14	36	23 ± 19
12/01/05 - 12/29/05	20	43	31 ± 13	12/01/05 - 12/29/05	22	42	31 ± 13	12/01/05 - 12/29/05	26	47	33 ± 20
12/30/04 - 12/29/05	6	47	22 ± 10	12/30/04 - 12/29/05	6	46	22 ± 11	12/30/04 - 12/29/05	6	47	21 ± 10

* THE MEAN AND 2 STANDARD DEVIATION VALUES ARE CALCULATED USING BOTH THE MDA AND POSITIVE VALUES

(1) SEE PROGRAM CHANGES SECTION FOR EXPLANATION

TABLE C-VI.3 **CONCENTRATIONS OF GAMMA EMITTERS IN AIR PARTICULATE SAMPLES COLLECTED IN THE VICINITY OF BRAIDWOOD STATION, 2005**

RESULTS IN UNITS OF E-3 PCI/CU METER ± 2 SIGMA

STC	COLLECTION PERIOD	MN-54	CO-58	FE-59	CO-60	ZN-65	ZRNB-95	CS-134	CS-137	BALA140
BD-02	12/30/04 - 03/31/05	(1)								
	03/31/05 - 06/30/05	(1)								
	06/30/05 - 09/29/05	< 1.9	< 3.4	< 12	< 2.4	< 7.4	< 3.0	< 2.7	< 1.8	< 106
	09/29/05 - 12/29/05	< 2.3	< 2.3	< 5.6	< 2.9	< 4.7	< 3.2	< 2.2	< 1.8	< 7.3
BD-03	12/30/04 - 03/31/05	< 10	< 10	< 15	< 10	< 40	< 10	< 50	< 60	< 25
	03/31/05 - 06/30/05	< 10	< 10	< 15	< 10	< 40	< 10	< 50	< 60	< 25
	06/30/05 - 09/29/05	< 3.0	< 5.1	< 13	< 2.4	< 7.4	< 6.2	< 3.3	< 3.0	< 90
	09/29/05 - 12/29/05	< 2.7	< 2.1	< 4.7	< 2.0	< 4.6	< 2.4	< 2.0	< 2.0	< 10
BD-04	12/30/04 - 03/31/05	(1)								
	03/31/05 - 06/30/05	(1)								
	06/30/05 - 09/29/05	< 2.6	< 5.6	< 12	< 3.2	< 9.1	< 4.8	< 3.2	< 2.9	< 141
	09/29/05 - 12/29/05	< 1.9	< 1.9	< 6.0	< 2.5	< 6.5	< 2.5	< 2.4	< 2.4	< 11
BD-05	12/30/04 - 03/31/05	(1)								
	03/31/05 - 06/30/05	(1)								
	06/30/05 - 09/29/05	< 3.3	< 6.3	< 15	< 4.3	< 5.8	< 5.2	< 3.9	< 3.2	< 96
	09/29/05 - 12/29/05	< 2.8	< 2.8	< 5.5	< 3.5	< 6.6	< 3.0	< 3.1	< 2.7	< 9.7

DUE TO VENDOR CHANGE, < VALUES ARE LLD VALUES JANUARY THROUGH JUNE AND MDC VALUES JULY THROUGH DECEMBER

(1) SEE PROGRAM CHANGES SECTION FOR EXPLANATION

TABLE C-VI.3 **CONCENTRATIONS OF GAMMA EMITTERS IN AIR PARTICULATE SAMPLES COLLECTED IN THE VICINITY OF BRAIDWOOD STATION, 2005**

RESULTS IN UNITS OF E-3 PCI/CU METER ± 2 SIGMA

STC	COLLECTION PERIOD	MN-54	CO-58	FE-59	CO-60	ZN-65	NB-95	CS-134	CS-137	BALA140
BD-06	12/30/04 - 03/31/05	< 10	< 10	< 15	< 10	< 40	< 10	< 50	< 60	< 25
	03/31/05 - 06/30/05	< 10	< 10	< 15	< 10	< 40	< 10	< 50	< 60	< 25
	06/30/05 - 09/29/05	< 2.4	< 4.2	< 6.1	< 1.5	< 7.9	< 5.3	< 2.8	< 1.7	< 74
	09/29/05 - 12/29/05	< 2.0	< 2.4	< 5.7	< 2.2	< 5.4	< 2.8	< 2.0	< 2.3	< 6.5
BD-19	12/30/04 - 03/31/05	< 10	< 10	< 15	< 10	< 40	< 10	< 50	< 60	< 25
	03/31/05 - 06/30/05	< 10	< 10	< 15	< 10	< 40	< 10	< 50	< 60	< 25
	06/30/05 - 09/29/05	< 2.9	< 5.5	< 19	< 4.0	< 4.7	< 8.1	< 3.6	< 3.9	< 69
	09/29/05 - 12/29/05	< 2.2	< 2.8	< 6.8	< 2.0	< 5.9	< 2.6	< 2.2	< 2.2	< 9.4
BD-20	12/30/04 - 03/31/05	< 10	< 10	< 15	< 10	< 40	< 10	< 50	< 60	< 25
	03/31/05 - 06/30/05	< 10	< 10	< 15	< 10	< 40	< 10	< 50	< 60	< 25
	07/01/05 - 09/30/05	< 2.3	< 3.1	< 9.2	< 4.0	< 6.7	< 5.6	< 2.2	< 1.7	< 85
	09/30/05 - 12/30/05	< 2.5	< 2.6	< 5.9	< 2.6	< 6.6	< 2.9	< 2.3	< 2.5	< 6.0
BD-21	12/30/04 - 03/31/05	< 10	< 10	< 15	< 10	< 40	< 10	< 50	< 60	< 25
	03/31/05 - 06/30/05	< 10	< 10	< 15	< 10	< 40	< 10	< 50	< 60	< 25
	06/30/05 - 09/29/05	< 1.9	< 4.4	< 7.8	< 3.1	< 6.6	< 4.8	< 2.2	< 2.9	< 72
	09/29/05 - 12/29/05	< 2.0	< 2.7	< 7.4	< 2.2	< 4.0	< 2.9	< 2.6	< 2.4	< 5.2

DUE TO VENDOR CHANGE, < VALUES ARE LLD VALUES JANUARY THROUGH JUNE AND MDC VALUES JULY THROUGH DECEMBER

TABLE C-VII.1 CONCENTRATIONS OF I-131 IN AIR IODINE SAMPLES COLLECTED IN THE VICINITY OF BRAIDWOOD STATION, 2005

RESULTS IN UNITS OF E-3 PCI/CU METER + SIGMA

	GROUP I				GROUP II			GROUP III
WEEK	BD-06	BD-19	BD-20	BD-21	BD-02	BD-04	BD-05	BD-03
1								
2	< 70	< 70	< 70	< 70	(1)	(1)	(1)	< 70
3								
4	< 70	< 70	< 70	< 70				< 70
5								
6	< 70	< 70	< 70	< 70				< 70
7								
8	< 70	< 70	< 70	< 70				< 70
9								
10	< 70	< 70	< 70	< 70				< 70
11								
12	< 70	< 70	< 70	< 70				< 70
13								
14	< 70	< 70	< 70	< 70				< 70
15								
16	< 70	< 70	< 70	< 70				< 70
17								
18	< 70	< 70	< 70	< 70				< 70
19								
20	< 70	< 70	< 70	< 70				< 70
21								
22	< 70	< 70	< 70	< 70				< 70
23								
24	< 70	< 70	< 70	< 70				< 70
25								
26	< 70	< 70	< 70	< 70				< 70
27								
28	< 12	< 12	< 12	< 12	< 11	< 11	< 11	< 11
29								
30	< 12	< 12	< 12	< 12	< 16	< 16	< 16	< 16
31								
32	< 17	< 17	< 17	< 17	< 17	< 17	< 17	< 17
33								
34	< 21	< 21	< 21	< 21	< 28	< 28	< 28	< 28
35								
36	< 16	< 16	< 16	< 16	< 10	< 10	< 10	< 10
37								
38	< 10	< 15	< 15	< 15	< 11	< 11	< 11	< 11
39								
40	< 8	< 8	< 14	< 14	< 10	< 11	< 11	< 11
41								
42	< 21	< 21	< 21	< 21	< 21	< 21	< 21	< 21
43								
44	< 22	< 22	< 22	< 22	< 16	< 17	< 17	< 16
45								
46	< 15	< 15	< 16	< 12	< 21	< 21	< 21	< 21
47								
48	< 22	< 22	< 22	< 22	< 17	< 17	< 17	< 17
49								
50	< 16	< 16	< 16	< 16	< 11	< 17	< 17	< 17
51								
52	< 17	< 17	< 17	< 17	< 15	< 15	< 15	< 15

DUE TO VENDOR CHANGE, < VALUES ARE LLD VALUES JANUARY THROUGH JUNE AND MDC VALUES JULY THROUGH DECEMBER

(1) SEE PROGRAM CHANGES SECTION FOR EXPLANATION

TABLE C-VIII.1 CONCENTRATIONS OF I-131 IN MILK SAMPLES COLLECTED IN THE VICINITY OF BRAIDWOOD STATION, 2005

RESULTS IN UNITS OF PCI/LITER ± 2 SIGMA

COLLECTION	CONTROL FARM	INDICATOR FARM
PERIOD	BD-18	BD-17
01/06/05	< 1.0	< 1.0
02/03/05	< 1.0	< 1.0
03/03/05	< 1.0	< 1.0
04/06/05	< 1.0	< 1.0
05/05/05	< 1.0	< 1.0
05/19/05	< 1.0	< 1.0
06/02/05	< 1.0	< 1.0
06/16/05	< 1.0	< 1.0
06/30/05	< 1.0	< 1.0
07/15/05	< 0.7	< 0.8
07/29/05	< 1.0	< 0.8
08/11/05	< 0.3	< 0.4
08/26/05	< 0.4	< 0.6
09/09/05	< 0.8	< 0.5
09/23/05	< 0.6	< 0.9
10/07/05	< 0.5	< 0.5
10/21/05	< 0.2	< 0.3
11/04/05	< 0.5	< 0.5
12/01/05	< 0.6	< 0.7

DUE TO VENDOR CHANGE, < VALUES ARE LLD VALUES JANUARY THROUGH JUNE AND MDC VALUES JULY THROUGH DECEMBER

TABLE C-VIII.2 CONCENTRATIONS OF GAMMA EMITTERS IN MILK SAMPLES COLLECTED IN THE VICINITY OF BRAIDWOOD STATION, 2005

RESULTS IN UNITS OF PCI/LITER ± 2 SIGMA

STC	COLLECTION PERIOD	MN-54	CO-58	FE-59	CO-60	ZN-65	ZRNB-95	CS-134	CS-137	BA-140	LA-140
BD-17	01/06/05	< 10	< 10	< 15	< 10	< 15	< 10	< 15	< 18	< 60	< 15
	02/03/05	< 10	< 10	< 15	< 10	< 15	< 10	< 15	< 18	< 60	< 15
	03/03/05	< 10	< 10	< 15	< 10	< 15	< 10	< 15	< 18	< 60	< 15
	04/06/05	< 10	< 10	< 15	< 10	< 15	< 10	< 15	< 18	< 60	< 15
	05/05/05	< 10	< 10	< 15	< 10	< 15	< 10	< 15	< 18	< 60	< 15
	05/19/05	< 10	< 10	< 15	< 10	< 15	< 10	< 15	< 18	< 60	< 15
	06/02/05	< 10	< 10	< 15	< 10	< 15	< 10	< 15	< 18	< 60	< 15
	06/16/05	< 10	< 10	< 15	< 10	< 15	< 10	< 15	< 18	< 60	< 15
	06/30/05	< 10	< 10	< 15	< 10	< 15	< 10	< 15	< 18	< 60	< 15
	07/14/05	< 6	< 6	< 15	< 6	< 15	< 6	< 5	< 6	< 25	< 6
	07/28/05	< 7	< 6	< 14	< 6	< 15	< 8	< 5	< 6	< 33	< 11
	08/11/05	< 4	< 4	< 9	< 5	< 7	< 3	< 3	< 4	< 17	< 5
	08/25/05	< 5	< 6	< 12	< 6	< 13	< 6	< 5	< 5	< 32	< 9
	09/08/05	< 1	< 2	< 4	< 2	< 3	< 2	< 1	< 2	< 9	< 3
	09/22/05	< 3	< 4	< 9	< 2	< 9	< 5	< 3	< 3	< 23	< 9
	10/06/05	< 6	< 7	< 17	< 7	< 14	< 7	< 6	< 7	< 39	< 12
	10/20/05	< 4	< 4	< 10	< 7	< 10	< 4	< 3	< 5	< 20	< 5
	11/03/05	< 5	< 4	< 11	< 4	< 10	< 5	< 4	< 5	< 24	< 7
	12/01/05	< 6	< 6	< 13	< 6	< 11	< 6	< 4	< 6	< 24	< 8

DUE TO VENDOR CHANGE, < VALUES ARE LLD VALUES JANUARY THROUGH JUNE AND MDC VALUES JULY THROUGH DECEMBER

TABLE C-VIII.2 CONCENTRATIONS OF GAMMA EMITTERS IN MILK SAMPLES COLLECTED IN THE VICINITY OF BRAIDWOOD STATION, 2005

RESULTS IN UNITS OF PCI/LITER ± 2 SIGMA

STC	COLLECTION PERIOD	MN-54	CO-58	FE-59	CO-60	ZN-65	ZRNB-95	CS-134	CS-137	BA-140	LA-140
BD-18	01/06/05	< 10	< 10	< 15	< 10	< 15	< 10	< 15	< 18	< 60	< 15
	02/03/05	< 10	< 10	< 15	< 10	< 15	< 10	< 15	< 18	< 60	< 15
	03/03/05	< 10	< 10	< 15	< 10	< 15	< 10	< 15	< 18	< 60	< 15
	04/06/05	< 10	< 10	< 15	< 10	< 15	< 10	< 15	< 18	< 60	< 15
	05/05/05	< 10	< 10	< 15	< 10	< 15	< 10	< 15	< 18	< 60	< 15
	05/19/05	< 10	< 10	< 15	< 10	< 15	< 10	< 15	< 18	< 60	< 15
	06/02/05	< 10	< 10	< 15	< 10	< 15	< 10	< 15	< 18	< 60	< 15
	06/16/05	< 10	< 10	< 15	< 10	< 15	< 10	< 15	< 18	< 60	< 15
	06/30/05	< 10	< 10	< 15	< 10	< 15	< 10	< 15	< 18	< 60	< 15
	07/15/05	< 7	< 7	< 14	< 5	< 19	< 7	< 7	< 8	< 28	< 12
	07/29/05	< 4	< 3	< 8	< 4	< 8	< 4	< 3	< 4	< 20	< 6
	08/10/05	< 5	< 3	< 9	< 4	< 10	< 4	< 4	< 4	< 19	< 6
	08/26/05	< 4	< 6	< 13	< 4	< 12	< 5	< 4	< 5	< 33	< 2
	09/09/05	< 6	< 6	< 13	< 6	< 13	< 6	< 5	< 5	< 33	< 10
	09/23/05	< 5	< 7	< 14	< 7	< 15	< 7	< 5	< 7	< 38	< 10
	10/07/05	< 4	< 5	< 13	< 4	< 13	< 5	< 4	< 5	< 25	< 8
	10/21/05	< 7	< 7	< 12	< 7	< 15	< 6	< 7	< 8	< 31	< 11
	11/04/05	< 6	< 6	< 11	< 8	< 15	< 6	< 6	< 7	< 33	< 10
	12/01/05	< 4	< 4	< 11	< 4	< 8	< 4	< 4	< 4	< 23	< 6

DUE TO VENDOR CHANGE, < VALUES ARE LLD VALUES JANUARY THROUGH JUNE AND MDC VALUES JULY THROUGH DECEMBER

TABLE C-IX.1 **CONCENTRATIONS OF GAMMA EMITTERS IN VEGETATION SAMPLES COLLECTED IN THE VICINITY OF BRAIDWOOD STATION, 2005**

RESULTS IN UNITS OF PCI/KG WET ± 2 SIGMA

STC	COLLECTION PERIOD	MN-54	CO-58	FE-59	CO-60	ZN-65	ZRNB-95	CS-134	CS-137	BALA140
BD-QUAD 1 Cabbage	09/17/05	< 8	< 12	< 24	< 8	< 21	< 10	< 9	< 10	< 17
BD-QUAD 1 Potatoes	09/17/05	< 12	< 12	< 30	< 14	< 29	< 12	< 11	< 12	< 18
	MEAN	10 ± 5	12 ± 0	27 ± 8	11 ± 8	25 ± 11	11 ± 3	10 ± 3	11 ± 3	17 ± 2
BD-QUAD 2 Cabbage	09/10/05	< 11	< 11	< 30	< 15	< 26	< 12	< 8	< 13	< 27
BD-QUAD 2 Sweet Potatoes	09/10/05	< 13	< 9	< 30	< 15	< 30	< 10	< 9	< 11	< 30
	MEAN	12 ± 3	10 ± 3	30 ± 1	15 ± 1	28 ± 5	11 ± 3	9 ± 2	12 ± 4	29 ± 4
BD-QUAD 3 Collards	09/10/05	< 8	< 13	< 28	< 12	< 29	< 10	< 11	< 13	< 25
BD-QUAD 3 Turnips	09/10/05	< 14	< 15	< 46	< 15	< 40	< 20	< 14	< 22	< 38
	MEAN	11 ± 8	14 ± 3	37 ± 26	14 ± 4	35 ± 16	15 ± 14	12 ± 5	17 ± 13	32 ± 18
BD-QUAD 4 Cabbage	09/10/05	< 17	< 18	< 41	< 15	< 39	< 19	< 14	< 16	< 33
BD-QUAD 4 Onions	09/10/05	< 10	< 9	< 24	< 14	< 25	< 9	< 10	< 9	< 25
	MEAN	14 ± 9	14 ± 13	33 ± 24	14 ± 2	32 ± 19	14 ± 13	12 ± 6	13 ± 11	29 ± 12
BD-QUAD-C Beet Greens	09/10/05	< 13	< 16	< 39	< 15	< 37	< 17	< 14	< 16	< 25
BD-QUAD-C Beets	09/10/05	< 11	< 13	< 33	< 13	< 30	< 16	< 10	< 12	< 29
	MEAN	12 ± 4	14 ± 3	36 ± 8	14 ± 4	34 ± 10	16 ± 1	12 ± 6	14 ± 6	27 ± 6

TABLE C-X.1 QUARTERLY TLD RESULTS FOR BRAIDWOOD STATION, 2005

RESULTS IN UNITS OF MILLI-ROENTGEN/QUARTER ± 2 STANDARD DEVIATIONS

STATION CODE	MEAN ± 2 S. D.	JAN - MAR	APR-JUN	JUL-SEP	OCT-DEC
BD-02-1	22.5 ± 7.4	27	18	23	22
BD-02-2	22.8 ± 9.1	29	18	22	22
BD-03-1	22.0 ± 8.5	28	18	21	21
BD-03-2	23.5 ± 8.4	29	19	24	22
BD-04-1	22.0 ± 5.9	25	18	23	22
BD-04-2	22.5 ± 6.6	27	20	23	20
BD-05-1	25.5 ± 9.0	31	20	26	25
BD-05-2	24.5 ± 8.4	30	20	25	23
BD-06-1	20.8 ± 5.7	25	19	20	19
BD-06-2	21.8 ± 8.2	27	18	23	19
BD-19-1	22.5 ± 9.3	29	18	21	22
BD-19-2	23.3 ± 9.0	29	18	23	23
BD-20-1	21.5 ± 9.3	28	17	21	20
BD-20-2	21.0 ± 5.9	25	18	21	20
BD-21-1	20.5 ± 5.3	24	18	21	19
BD-21-2	22.5 ± 4.2	25	20	23	22
BD-101-3	23.0 ± 9.1	28	17	24	23
BD-101-4	23.3 ± 9.1	30	20	21	22
BD-102-1	22.5 ± 5.3	26	20	23	21
BD-102-2	23.3 ± 7.7	27	18	25	23
BD-103-1	23.0 ± 5.4	27	22	22	21
BD-103-2	24.0 ± 7.7	29	21	25	21
BD-104-1	21.0 ± 10.2	28	16	19	21
BD-104-2	20.8 ± 8.5	26	16	22	19
BD-105-1	22.3 ± 6.6	26	18	23	22
BD-105-2	22.0 ± 8.8	27	17	24	20
BD-106-1	21.8 ± 9.7	28	17	23	19
BD-106-2	22.5 ± 7.4	27	18	23	22
BD-107-1	22.3 ± 8.7	28	18	23	20
BD-107-2	21.3 ± 8.4	27	17	21	20
BD-108-1	21.5 ± 9.6	28	17	22	19
BD-108-2	23.0 ± 8.6	29	19	23	21
BD-109-1	25.7 ± 10.1	31	21	(1)	25
BD-109-2	26.0 ± 4.0	29	25	25	25
BD-110-1	22.5 ± 8.7	28	19	24	19
BD-110-2	24.3 ± 7.7	30	22	23	22
BD-111a-1	20.5 ± 6.2	24	17	22	19
BD-111a-2	22.3 ± 6.2	25	18	24	22
BD-112-1	22.0 ± 10.6	29	17	23	19
BD-112-2	22.8 ± 8.2	28	19	24	20
BD-113a-1	23.3 ± 6.0	27	20	24	22
BD-113a-2	22.0 ± 5.7	24	18	24	22
BD-114-1	21.3 ± 5.5	24	18	23	20
BD-114-2	21.5 ± 6.2	24	17	23	22
BD-115-1	23.0 ± 8.2	28	18	23	23
BD-115-2	22.5 ± 7.4	27	19	24	20
BD-116-1	22.3 ± 4.1	25	20	22	22
BD-116-2	22.5 ± 7.4	27	18	23	22
BD-201-1	27.0 ± 9.1	32	21	28	27
BD-201-2	23.3 ± 4.4	26	21	24	22
BD-202-1	21.8 ± 5.3	24	18	23	22
BD-202-2	21.3 ± 4.4	23	18	22	22
BD-203-1	22.0 ± 6.3	25	18	24	21

(1) SEE PROGRAM EXCEPTIONS SECTION FOR EXPLANATION

TABLE C-X.1 QUARTERLY TLD RESULTS FOR BRAIDWOOD STATION, 2005

RESULTS IN UNITS OF MILLI-ROENTGEN/QUARTER ± 2 STANDARD DEVIATIONS

STATION CODE	MEAN ± 2 S. D.	JAN - MAR	APR-JUN	JUL-SEP	OCT-DEC
BD-203-2	21.5 ± 4.8	23	18	22	23
BD-204-1	21.8 ± 7.5	26	17	23	21
BD-204-2	19.8 ± 5.7	22	16	19	22
BD-205-1	20.5 ± 4.8	21	17	22	22
BD-205-2	20.0 ± 4.9	22	17	22	19
BD-206-1	21.8 ± 4.1	24	20	23	20
BD-206-2	21.3 ± 5.5	24	18	23	20
BD-207-1	21.5 ± 3.5	23	20	23	20
BD-207-2	20.5 ± 4.8	22	18	23	19
BD-208-1	21.0 ± 5.7	23	17	23	21
BD-208-2	21.0 ± 5.3	(1)	18	23	22
BD-209-1	25.5 ± 9.0	31	20	25	26
BD-209-2	26.3 ± 3.4	28	24	27	26
BD-210-1	24.3 ± 5.7	26	20	25	26
BD-210-2	21.8 ± 5.3	24	18	23	22
BD-211-1	26.3 ± 5.7	27	22	28	28
BD-211-2	26.8 ± 8.5	32	22	28	25
BD-212-3	20.8 ± 4.4	23	18	20	22
BD-212-4	27.8 ± 6.6	32	24	28	27
BD-213-3	21.0 ± 4.9	23	18	23	20
BD-213-4	21.8 ± 4.1	24	20	23	20
BD-214-1	22.0 ± 5.7	24	18	24	22
BD-214-2	24.8 ± 6.4	26	20	27	26
BD-215-1	21.0 ± 5.4	23	17	22	22
BD-215-2	22.0 ± 9.1	28	17	22	21
BD-216-1	24.8 ± 8.5	28	19	28	24
BD-216-2	23.0 ± 5.9	26	19	24	23

(1) SEE PROGRAM EXCEPTIONS SECTION FOR EXPLANATION

TABLE C-X.2 MEAN QUARTERLY TLD RESULTS FOR THE INNER RING, OUTER RING, OTHER AND CONTROL LOCATIONS FOR BRAIDWOOD STATION, 2005

RESULTS IN UNITS OF MILLI-ROENTGEN/QUARTER ± 2 STANDARD DEVIATIONS OF THE STATION DATA

STATION CODE	INNER RING ± 2 S. D.	OUTER RING	OTHER	CONTROL
JAN-MAR	27.2 ± 3.7	25.3 ± 6.2	27.2 ± 4.4	28.5 ± 1.4
APR-JUN	18.7 ± 4.0	19.0 ± 4.0	18.6 ± 2.0	18.5 ± 1.4
JUL-SEP	23.0 ± 2.6	23.9 ± 4.8	22.5 ± 3.3	22.5 ± 4.2
OCT-DEC	21.2 ± 3.3	22.6 ± 5.0	21.3 ± 3.6	21.5 ± 1.4

TABLE C-X.3 SUMMARY OF THE AMBIENT DOSIMETRY PROGRAM FOR BRAIDWOOD STATION, 2005

RESULTS IN UNITS OF MILLI-ROENTGEN/STD. MONTH

LOCATION	SAMPLES ANALYZED	PERIOD MINIMUM	PERIOD MAXIMUM	PERIOD MEAN ± 2 S. D.
INNER RING	127	16	31	22.5 ± 7.1
OUTER RING	127	16	32	22.7 ± 6.9
OTHER	56	17	31	22.4 ± 7.1
CONTROL	8	18	29	22.8 ± 8.0

SITE STATIONS - BD-101-3, BD-101-4, BD-102-1, BD-102-2, BD-103-1, BD-103-2, BD-104-1 BD-104-2, BD-105-1, BD-105-2, BD-106-1, BD-106-2, BD-107-1, BD-107-2, BD-108-1, BD-108-2, BD-109-1, BD-109-2, BD-110-1, BD-110-2, BD-111A-1, BD-111A-2, BD-112-1, BD-112-2, BD-113A-1 BD-113A-2, BD-114-1, BD-114-2, BD-115-1, BD-115-2, BD-116-1, BD-116-2

INTERMEDIATE STATIONS - BD-201-1, BD-201-2, BD-202-1, BD-202-2, BD-203-1, BD-203-2, BD-204-2, BD-205-1, BD-205-2, BD-206-1, BD-206-2, BD-207-1, BD-207-2, BD-208-1, BD-208-2, BD-209-1, BD-209-2, BD-210-1, BD-210-2, BD-211-1, BD-211-4, BD-212-1, BD-212-4, BD-213-1 BD-213-4, BD-214-1, BD-214-4, BD-215-1, BD-215-4, BD-216-1, BD-216-2

OTHER STATIONS - BD-02-1, BD-02-2, BD-04-1, BD-04-2, BD-05-1, BD-05-2, BD-06-1, BD-06-2, BD-19-1, BD-19-2, BD-20-1, BD-20-2, BD-21-1, BD-21-2

CONTROL STATIONS = BD-03-1, BD-03-2

TABLE C-XI.1 SUMMARY OF COLLECTION DATES FOR SAMPLES COLLECTED IN THE VICINITY OF BRAIDWOOD STATION, 2005

SURFACE WATER (TRITIUM LIQUID SCINTILLATION)

COLLECTION PERIOD	BD-10	BD-25
JAN-MAR	01/06/05 - 03/31/05	01/06/05 - 03/31/05
APR-JUN	04/07/05 - 06/30/05	04/07/05 - 06/30/05
JUL-SEP	07/07/05 - 09/29/05	07/07/05 - 09/29/05
OCT-DEC	10/06/05 - 12/29/05	10/06/05 - 12/29/05

SURFACE WATER (GROSS BETA & GAMMA SPECTROSCOPY)

COLLECTION PERIOD	BD-10	BD-25
JAN	01/06/05 - 01/27/05	01/06/05 - 01/27/05
FEB	02/03/05 - 02/24/05	02/03/05 - 02/24/05
MAR	03/03/05 - 03/31/05	03/03/05 - 03/31/05
APR	04/07/05 - 04/28/05	04/07/05 - 04/28/05
MAY	05/05/05 - 05/26/05	05/05/05 - 05/26/05
JUN	06/02/05 - 06/30/05	06/02/05 - 06/30/05
JUL	07/07/05 - 07/28/05	07/07/05 - 07/28/05
AUG	08/04/05 - 08/25/05	08/04/05 - 08/25/05
SEP	09/01/05 - 09/29/05	09/01/05 - 09/29/05
OCT	10/06/05 - 10/27/05	10/06/05 - 10/27/05
NOV	11/03/05 - 11/25/05	11/03/05 - 11/25/05
DEC	12/01/05 - 12/29/05	12/01/05 - 12/29/05

PUBLIC WATER (TRITIUM & GAMMA SPECTROSCOPY)

COLLECTION PERIOD	BD-10	
JAN	01/06/05	01/27/05
FEB	02/03/05	02/24/05
MAR	03/03/05	03/31/05
APR	04/07/05	04/28/05
MAY	05/05/05	05/26/05
JUN	06/02/05	06/30/05
JUL	07/07/05	07/28/05
AUG	08/04/05	08/25/05
SEP	09/01/05	09/29/05
OCT	10/06/05	10/27/05
NOV	11/03/05	11/25/05
DEC	12/01/05	12/29/05

TABLE C-XI.1 SUMMARY OF COLLECTION DATES FOR SAMPLES COLLECTED IN THE VICINITY OF BRAIDWOOD STATION, 2005

GROUND/WELL WATER (TRITIUM LIQUID SCINTILLATION AND GAMMA SPECTROSCOPY)

COLLECTION PERIOD	BD-13	BD-34	BD-35	BD-37
JAN-MAR	01/13/05	01/13/05	01/13/05	01/13/05
APR-JUN	04/13/05	04/13/05	04/13/05	04/13/05
JUL-SEP	07/14/05	07/14/05	07/14/05	07/14/05
OCT-DEC	10/13/05	10/13/05	10/13/05	10/13/05

AIR PARTICULATE (GAMMA SPECTROSCOPY)

COLLECTION PERIOD	BD-02	BD-03	BD-04	BD-05	BD-06
JAN-MAR	(1)	12/30/04 - 03/31/05	(1)	(1)	12/30/04 - 03/31/05
APR-JUN	(1)	03/31/05 - 06/30/05	(1)	(1)	03/31/05 - 06/30/05
JUL-SEP	06/30/05 - 09/29/05	06/30/05 - 09/29/05	06/30/05 - 09/29/05	06/30/05 - 09/29/05	06/30/05 - 09/29/05
OCT-DEC	09/29/05 - 12/29/05	09/29/05 - 12/29/05	09/29/05 - 12/29/05	09/29/05 - 12/29/05	09/29/05 - 12/29/05

AIR PARTICULATE (GAMMA SPECTROSCOPY)

COLLECTION PERIOD	BD-19	BD-20	BD-21
JAN-MAR	12/30/04 - 03/31/05	12/30/04 - 03/31/05	12/30/04 - 03/31/05
APR-JUN	03/31/05 - 06/30/05	03/31/05 - 06/30/05	03/31/05 - 06/30/05
JUL-SEP	06/30/05 - 09/29/05	06/30/05 - 09/29/05	06/30/05 - 09/29/05
OCT-DEC	09/29/05 - 12/29/05	09/29/05 - 12/29/05	09/29/05 - 12/29/05

(1) SEE PROGRAM CHANGES SECTION FOR EXPLANATION

TABLE C-XI.1 SUMMARY OF COLLECTION DATES FOR SAMPLES COLLECTED IN THE VICINITY OF BRAIDWOOD STATION, 2005

AIR PARTICULATE (GROSS BETA & I-131)

COLLECTION PERIOD		BD-02	BD-03	BD-04	BD-05	BD-06
1	*	12/30/04 - 01/07/05	12/30/04 - 01/07/05	12/30/04 - 01/07/05	12/30/04 - 01/07/05	12/30/04 - 01/07/05
2		01/06/05 - 01/14/05	01/06/05 - 01/14/05	01/06/05 - 01/14/05	01/06/05 - 01/14/05	01/06/05 - 01/14/05
3	*	01/13/05 - 01/21/05	01/13/05 - 01/21/05	01/13/05 - 01/21/05	01/13/05 - 01/21/05	01/13/05 - 01/21/05
4		01/20/05 - 01/28/05	01/20/05 - 01/28/05	01/20/05 - 01/28/05	01/20/05 - 01/28/05	01/20/05 - 01/28/05
5	*	01/27/05 - 02/04/05	01/27/05 - 02/04/05	01/27/05 - 02/04/05	01/27/05 - 02/04/05	01/27/05 - 02/04/05
6		02/03/05 - 02/09/05	02/03/05 - 02/09/05	02/03/05 - 02/09/05	02/03/05 - 02/09/05	02/03/05 - 02/09/05
7	*	02/09/05 - 02/17/05	02/09/05 - 02/17/05	02/09/05 - 02/17/05	02/09/05 - 02/17/05	02/09/05 - 02/17/05
8		02/17/05 - 02/24/05	02/17/05 - 02/24/05	02/17/05 - 02/24/05	02/17/05 - 02/24/05	02/17/05 - 02/24/05
9	*	02/24/05 - 03/03/05	02/24/05 - 03/03/05	02/24/05 - 03/03/05	02/24/05 - 03/03/05	02/24/05 - 03/03/05
10		03/03/05 - 03/09/05	03/03/05 - 03/09/05	03/03/05 - 03/09/05	03/03/05 - 03/09/05	03/03/05 - 03/09/05
11	*	03/09/05 - 03/17/05	03/09/05 - 03/17/05	03/09/05 - 03/17/05	03/09/05 - 03/17/05	03/09/05 - 03/17/05
12		03/17/05 - 03/24/05	03/17/05 - 03/24/05	03/17/05 - 03/24/05	03/17/05 - 03/24/05	03/17/05 - 03/24/05
13	*	03/24/05 - 03/31/05	03/24/05 - 03/31/05	03/24/05 - 03/31/05	03/24/05 - 03/31/05	03/24/05 - 03/31/05
14		03/31/05 - 04/06/05	03/31/05 - 04/06/05	03/31/05 - 04/06/05	03/31/05 - 04/06/05	03/31/05 - 04/06/05
15	*	04/06/05 - 04/13/05	04/06/05 - 04/13/05	04/06/05 - 04/13/05	04/06/05 - 04/13/05	04/06/05 - 04/13/05
16		04/13/05 - 04/21/05	04/13/05 - 04/21/05	04/13/05 - 04/21/05	04/13/05 - 04/21/05	04/13/05 - 04/21/05
17	*	04/21/05 - 04/28/05	04/21/05 - 04/28/05	04/21/05 - 04/28/05	04/21/05 - 04/28/05	04/21/05 - 04/28/05
18		04/28/05 - 05/05/05	04/28/05 - 05/05/05	04/28/05 - 05/05/05	04/28/05 - 05/05/05	04/28/05 - 05/05/05
19	*	05/05/05 - 05/12/05	05/05/05 - 05/12/05	05/05/05 - 05/12/05	05/05/05 - 05/12/05	05/05/05 - 05/12/05
20		05/12/05 - 05/19/05	05/12/05 - 05/19/05	05/12/05 - 05/19/05	05/12/05 - 05/19/05	05/12/05 - 05/19/05
21	*	05/19/05 - 05/26/05	05/19/05 - 05/26/05	05/19/05 - 05/26/05	05/19/05 - 05/26/05	05/19/05 - 05/26/05
22		05/26/05 - 06/02/05	05/26/05 - 06/02/05	05/26/05 - 06/02/05	05/26/05 - 06/02/05	05/26/05 - 06/02/05
23	*	06/02/05 - 06/09/05	06/02/05 - 06/09/05	06/02/05 - 06/09/05	06/02/05 - 06/09/05	06/02/05 - 06/09/05
24		06/09/05 - 06/16/05	06/09/05 - 06/16/05	06/09/05 - 06/16/05	06/09/05 - 06/16/05	06/09/05 - 06/16/05
25	*	06/16/05 - 06/23/05	06/16/05 - 06/23/05	06/16/05 - 06/23/05	06/16/05 - 06/23/05	06/16/05 - 06/23/05
26		06/23/05 - 06/30/05	06/23/05 - 06/30/05	06/23/05 - 06/30/05	06/23/05 - 06/30/05	06/23/05 - 06/30/05
27	*	06/30/05 - 07/07/05	06/30/05 - 07/07/05	06/30/05 - 07/07/05	06/30/05 - 07/07/05	06/30/05 - 07/07/05
28		07/07/05 - 07/14/05	07/07/05 - 07/14/05	07/07/05 - 07/14/05	07/07/05 - 07/14/05	07/07/05 - 07/14/05
29	*	07/14/05 - 07/21/05	07/14/05 - 07/21/05	07/14/05 - 07/21/05	07/14/05 - 07/21/05	07/14/05 - 07/21/05
30		07/21/05 - 07/28/05	07/21/05 - 07/28/05	07/21/05 - 07/28/05	07/21/05 - 07/28/05	07/21/05 - 07/28/05
31	*	07/28/05 - 08/04/05	07/28/05 - 08/04/05	07/28/05 - 08/04/05	07/28/05 - 08/04/05	07/28/05 - 08/04/05
32		08/04/05 - 08/11/05	08/04/05 - 08/11/05	08/04/05 - 08/11/05	08/04/05 - 08/11/05	08/04/05 - 08/11/05
33	*	08/11/05 - 08/18/05	08/11/05 - 08/18/05	08/11/05 - 08/18/05	08/11/05 - 08/18/05	08/11/05 - 08/18/05
34		08/18/05 - 08/25/05	08/18/05 - 08/25/05	08/18/05 - 08/25/05	08/18/05 - 08/25/05	08/18/05 - 08/25/05
35	*	08/25/05 - 09/01/05	08/25/05 - 09/01/05	08/25/05 - 09/01/05	08/25/05 - 09/01/05	08/25/05 - 09/01/05
36		09/01/05 - 09/08/05	09/01/05 - 09/08/05	09/01/05 - 09/08/05	09/01/05 - 09/08/05	09/01/05 - 09/08/05
37	*	09/08/05 - 09/15/05	09/08/05 - 09/15/05	09/08/05 - 09/15/05	09/08/05 - 09/15/05	09/08/05 - 09/15/05
38		09/15/05 - 09/22/05	09/15/05 - 09/22/05	09/15/05 - 09/22/05	09/15/05 - 09/22/05	09/15/05 - 09/22/05
39	*	09/22/05 - 09/29/05	09/22/05 - 09/29/05	09/22/05 - 09/29/05	09/22/05 - 09/29/05	09/22/05 - 09/29/05
40		09/29/05 - 10/06/05	09/29/05 - 10/06/05	09/29/05 - 10/06/05	09/29/05 - 10/06/05	09/29/05 - 10/06/05
41	*	10/06/05 - 10/13/05	10/06/05 - 10/13/05	10/06/05 - 10/13/05	10/06/05 - 10/13/05	10/06/05 - 10/13/05
42		10/13/05 - 10/20/05	10/13/05 - 10/20/05	10/13/05 - 10/20/05	10/13/05 - 10/20/05	10/13/05 - 10/20/05
43	*	10/20/05 - 10/27/05	10/20/05 - 10/27/05	10/20/05 - 10/27/05	10/20/05 - 10/27/05	10/20/05 - 10/27/05
44		10/27/05 - 11/03/05	10/27/05 - 11/03/05	10/27/05 - 11/03/05	10/27/05 - 11/03/05	10/27/05 - 11/03/05
45	*	11/03/05 - 11/10/05	11/03/05 - 11/10/05	11/03/05 - 11/10/05	11/03/05 - 11/10/05	11/03/05 - 11/10/05
46		11/10/05 - 11/17/05	11/10/05 - 11/17/05	11/10/05 - 11/17/05	11/10/05 - 11/17/05	11/10/05 - 11/17/05
47	*	11/17/05 - 11/25/05	11/17/05 - 11/25/05	11/17/05 - 11/25/05	11/17/05 - 11/25/05	11/17/05 - 11/25/05
48		11/25/05 - 12/01/05	11/25/05 - 12/01/05	11/25/05 - 12/01/05	11/25/05 - 12/01/05	11/25/05 - 12/01/05
49	*	12/01/05 - 12/08/05	12/01/05 - 12/08/05	12/01/05 - 12/08/05	12/01/05 - 12/08/05	12/01/05 - 12/08/05
50		12/08/05 - 12/15/05	12/08/05 - 12/15/05	12/08/05 - 12/15/05	12/08/05 - 12/15/05	12/08/05 - 12/15/05
51	*	12/15/05 - 12/22/05	12/15/05 - 12/22/05	12/15/05 - 12/22/05	12/15/05 - 12/22/05	12/15/05 - 12/22/05
52		12/22/05 - 12/29/05	12/22/05 - 12/29/05	12/22/05 - 12/29/05	12/22/05 - 12/29/05	12/22/05 - 12/29/05

* AIR IODINE SAMPLES COLLECTED BIWEEKLY

TABLE C-XI.1 SUMMARY OF COLLECTION DATES FOR SAMPLES COLLECTED IN THE VICINITY OF BRAIDWOOD STATION, 2005

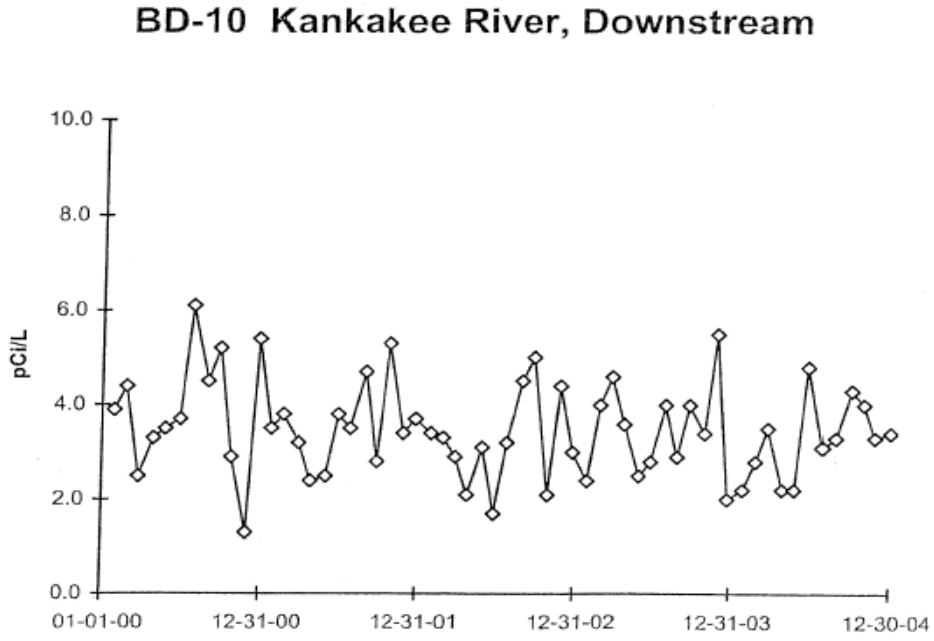
AIR PARTICULATE (GROSS BETA & I-131)

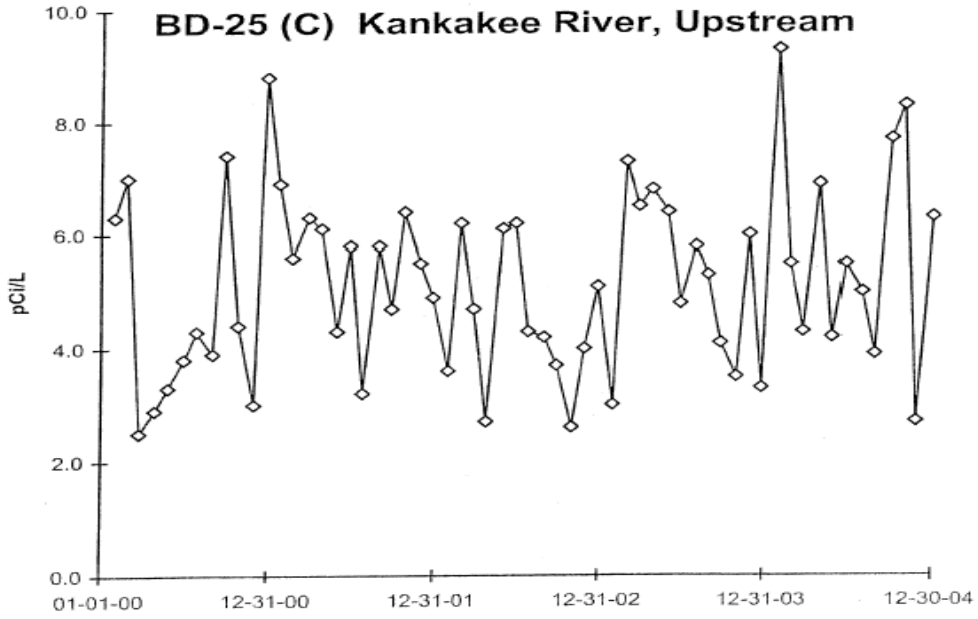
COLLECTION PERIOD		BD-19	BD-20	BD-21
1	*	12/30/04 - 01/07/05	12/30/04 - 01/07/05	12/30/04 - 01/07/05
2		01/06/05 - 01/14/05	01/06/05 - 01/14/05	01/06/05 - 01/14/05
3	*	01/13/05 - 01/21/05	01/13/05 - 01/21/05	01/13/05 - 01/21/05
4		01/20/05 - 01/28/05	01/20/05 - 01/28/05	01/20/05 - 01/28/05
5	*	01/27/05 - 02/04/05	01/27/05 - 02/04/05	01/27/05 - 02/04/05
6		02/03/05 - 02/09/05	02/03/05 - 02/09/05	02/03/05 - 02/09/05
7	*	02/09/05 - 02/17/05	02/09/05 - 02/17/05	02/09/05 - 02/17/05
8		02/17/05 - 02/24/05	02/17/05 - 02/24/05	02/17/05 - 02/24/05
9	*	02/24/05 - 03/03/05	02/24/05 - 03/03/05	02/24/05 - 03/03/05
10		03/03/05 - 03/09/05	03/03/05 - 03/09/05	03/03/05 - 03/09/05
11	*	03/09/05 - 03/17/05	03/09/05 - 03/17/05	03/09/05 - 03/17/05
12		03/17/05 - 03/24/05	03/17/05 - 03/24/05	03/17/05 - 03/24/05
13	*	03/24/05 - 03/31/05	03/24/05 - 03/31/05	03/24/05 - 03/31/05
14		03/31/05 - 04/06/05	03/31/05 - 04/06/05	03/31/05 - 04/06/05
15	*	04/06/05 - 04/13/05	04/06/05 - 04/13/05	04/06/05 - 04/13/05
16		04/13/05 - 04/21/05	04/13/05 - 04/21/05	04/13/05 - 04/21/05
17	*	04/21/05 - 04/28/05	04/21/05 - 04/28/05	04/21/05 - 04/28/05
18		04/28/05 - 05/05/05	04/28/05 - 05/05/05	04/28/05 - 05/05/05
19	*	05/05/05 - 05/12/05	05/05/05 - 05/12/05	05/05/05 - 05/12/05
20		05/12/05 - 05/19/05	05/12/05 - 05/19/05	05/12/05 - 05/19/05
21	*	05/19/05 - 05/26/05	05/19/05 - 05/26/05	05/19/05 - 05/26/05
22		05/26/05 - 06/02/05	05/26/05 - 06/02/05	05/26/05 - 06/02/05
23	*	06/02/05 - 06/09/05	06/02/05 - 06/09/05	06/02/05 - 06/09/05
24		06/09/05 - 06/16/05	06/09/05 - 06/16/05	06/09/05 - 06/16/05
25	*	06/16/05 - 06/23/05	06/16/05 - 06/23/05	06/16/05 - 06/23/05
26		06/23/05 - 06/30/05	06/23/05 - 06/30/05	06/23/05 - 06/30/05
27	*	06/30/05 - 07/07/05	06/30/05 - 07/07/05	06/30/05 - 07/07/05
28		07/07/05 - 07/14/05	07/07/05 - 07/14/05	07/07/05 - 07/14/05
29	*	07/14/05 - 07/21/05	07/14/05 - 07/21/05	07/14/05 - 07/21/05
30		07/21/05 - 07/28/05	07/21/05 - 07/28/05	07/21/05 - 07/28/05
31	*	07/28/05 - 08/04/05	07/28/05 - 08/04/05	07/28/05 - 08/04/05
32		08/04/05 - 08/11/05	08/04/05 - 08/11/05	08/04/05 - 08/11/05
33	*	08/11/05 - 08/18/05	08/11/05 - 08/18/05	08/11/05 - 08/18/05
34		08/18/05 - 08/25/05	08/18/05 - 08/25/05	08/18/05 - 08/25/05
35	*	08/25/05 - 09/01/05	08/25/05 - 09/01/05	08/25/05 - 09/01/05
36		09/01/05 - 09/08/05	09/01/05 - 09/08/05	09/01/05 - 09/08/05
37	*	09/08/05 - 09/15/05	09/08/05 - 09/15/05	09/08/05 - 09/15/05
38		09/15/05 - 09/22/05	09/15/05 - 09/22/05	09/15/05 - 09/22/05
39	*	09/22/05 - 09/29/05	09/22/05 - 09/29/05	09/22/05 - 09/29/05
40		09/29/05 - 10/06/05	09/29/05 - 10/06/05	09/29/05 - 10/06/05
41	*	10/06/05 - 10/13/05	10/06/05 - 10/13/05	10/06/05 - 10/13/05
42		10/13/05 - 10/20/05	10/13/05 - 10/20/05	10/13/05 - 10/20/05
43	*	10/20/05 - 10/27/05	10/20/05 - 10/27/05	10/20/05 - 10/27/05
44		10/27/05 - 11/03/05	10/27/05 - 11/03/05	10/27/05 - 11/03/05
45	*	11/03/05 - 11/10/05	11/03/05 - 11/10/05	11/03/05 - 11/10/05
46		11/10/05 - 11/17/05	11/10/05 - 11/17/05	11/10/05 - 11/17/05
47	*	11/17/05 - 11/25/05	11/17/05 - 11/25/05	11/17/05 - 11/25/05
48		11/25/05 - 12/01/05	11/25/05 - 12/01/05	11/25/05 - 12/01/05
49	*	12/01/05 - 12/08/05	12/01/05 - 12/08/05	12/01/05 - 12/08/05
50		12/08/05 - 12/15/05	12/08/05 - 12/15/05	12/08/05 - 12/15/05
51	*	12/15/05 - 12/22/05	12/15/05 - 12/22/05	12/15/05 - 12/22/05
52		12/22/05 - 12/29/05	12/22/05 - 12/29/05	12/22/05 - 12/29/05

* AIR IODINE SAMPLES COLLECTED BIWEEKLY

Intentionally left blank

FIGURE C-1
Surface Water - Gross Beta - Stations BD-10 and BD-25 (C) Collected in the Vicinity of Braidwood Station, 2000 - 2004

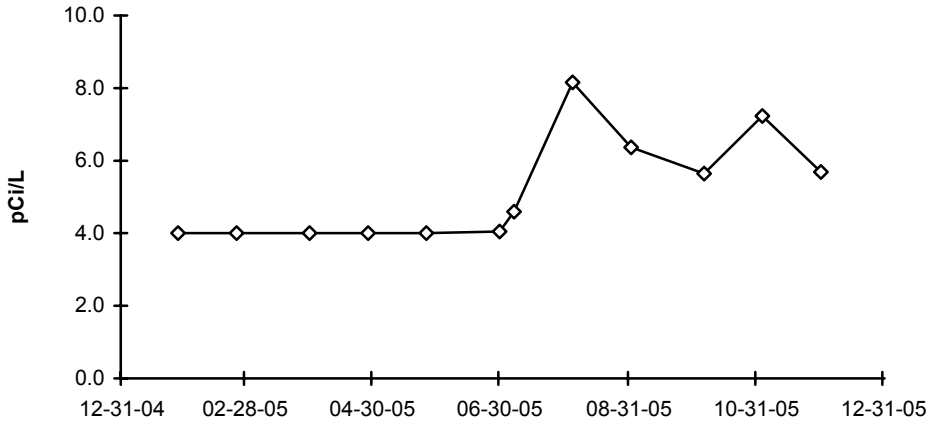




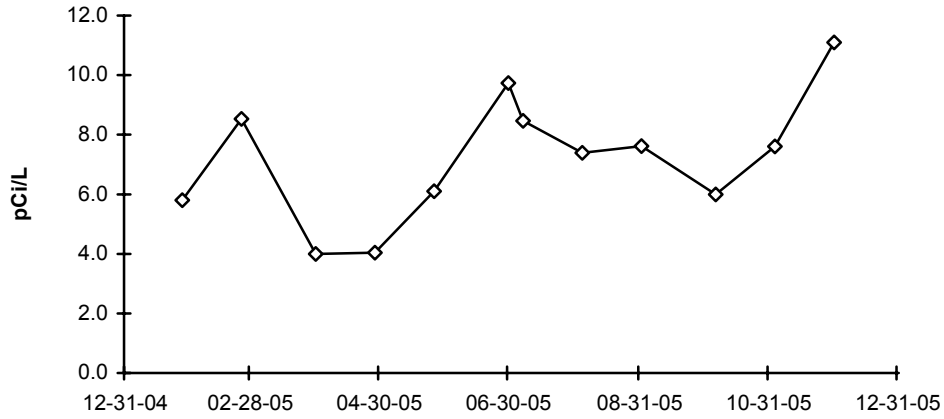
DUE TO VENDOR CHANGE, < VALUES ARE LLD VALUES JANUARY THROUGH JUNE AND MDC VALUES JULY THROUGH DECEMBER

FIGURE C-1 (cont.)
Surface Water - Gross Beta - Stations BD-10 and BD-25 (C)
Collected in the Vicinity of Braidwood Station, 2005

BD-10 Kankaee River, Downstream

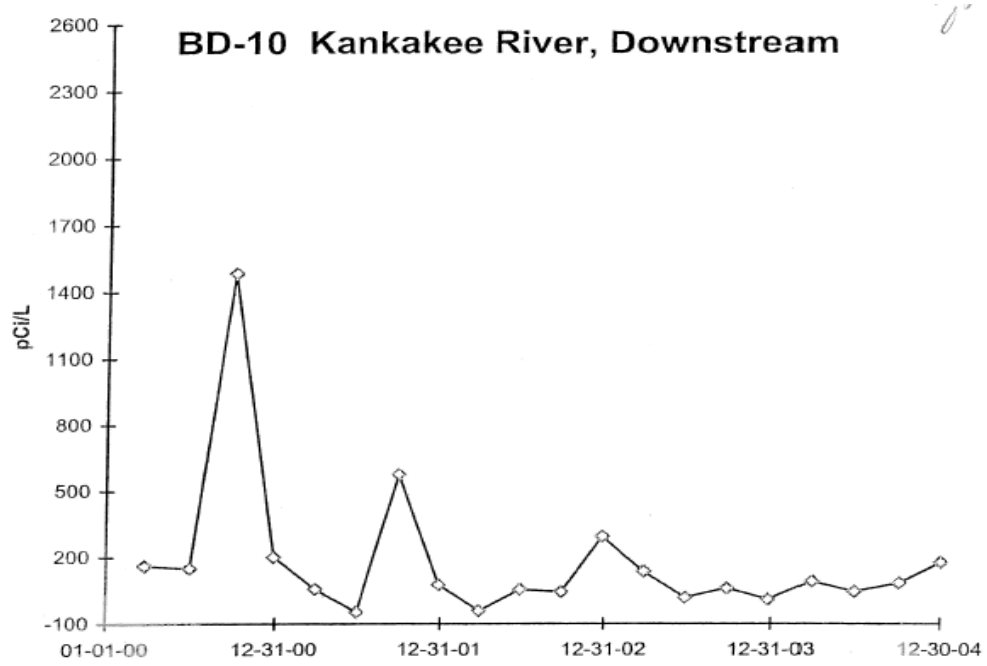


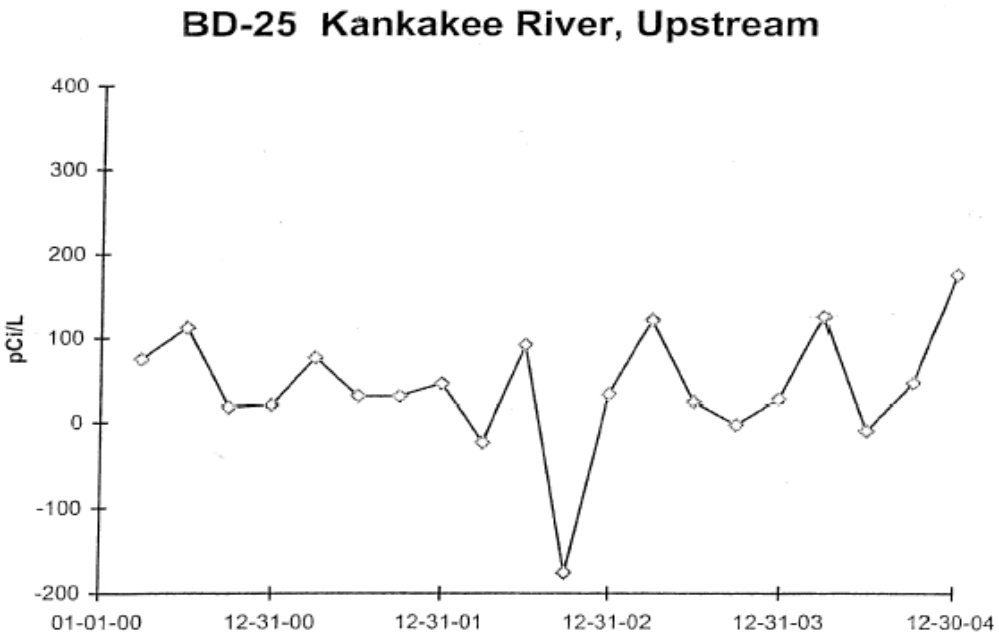
BD-25 (C) Kankakee River, Upstream



DUE TO VENDOR CHANGE, < VALUES ARE LLD VALUES JANUARY THROUGH JUNE AND MDC VALUES JULY THROUGH DECEMBER

FIGURE C-2
Surface Water - Tritium - Stations BD-10 and BD-25 (C) Collected in the Vicinity of Braidwood Station, 2000 - 2004

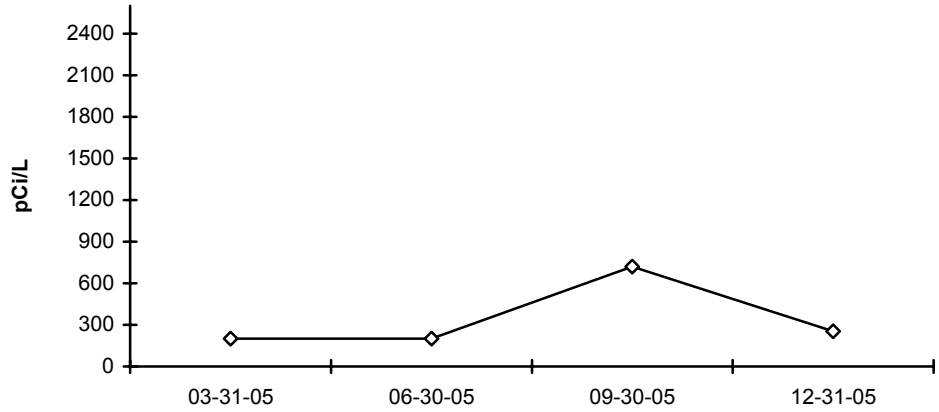




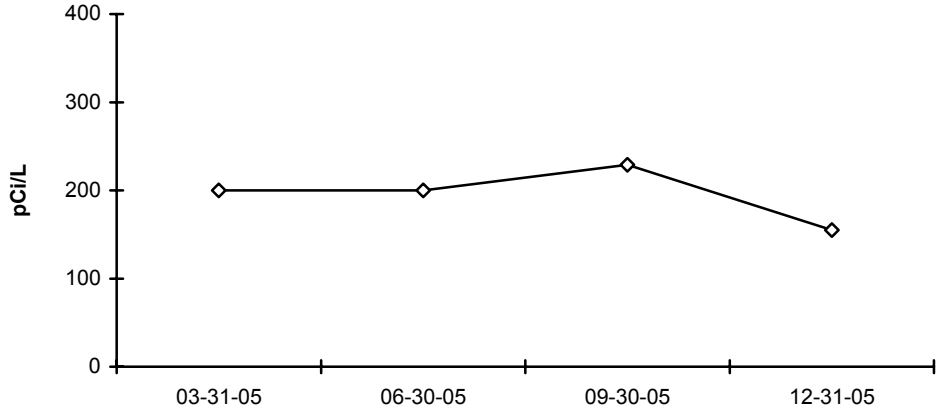
DUE TO VENDOR CHANGE, < VALUES ARE LLD VALUES JANUARY THROUGH JUNE AND MDC VALUES JULY THROUGH DECEMBER

FIGURE C-2 (cont.)
Surface Water - Tritium - Stations BD-10 and BD-25 (C)
Collected in the Vicinity of Braidwood Station, 2005

BD-10 Kankakee River, Downstream



BD-25 (C) Kankakee River, Upstream



DUE TO VENDOR CHANGE, < VALUES ARE LLD VALUES JANUARY THROUGH JUNE AND MDC VALUES JULY THROUGH DECEMBER

FIGURE C-3
Public Water - Gross Beta - Station BD-22
Collected in the Vicinity of Braidwood Station, 2000 - 2004

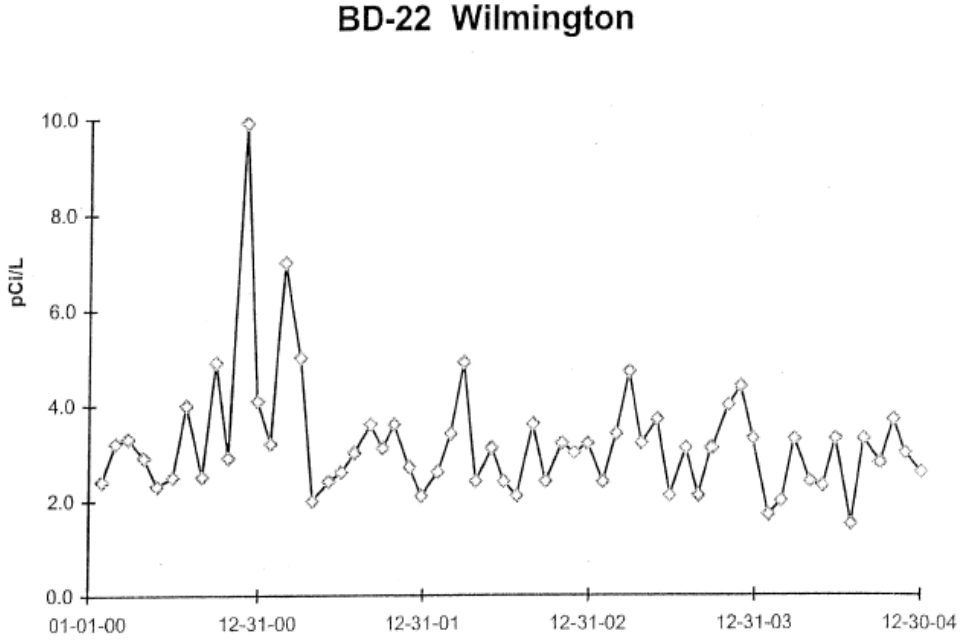
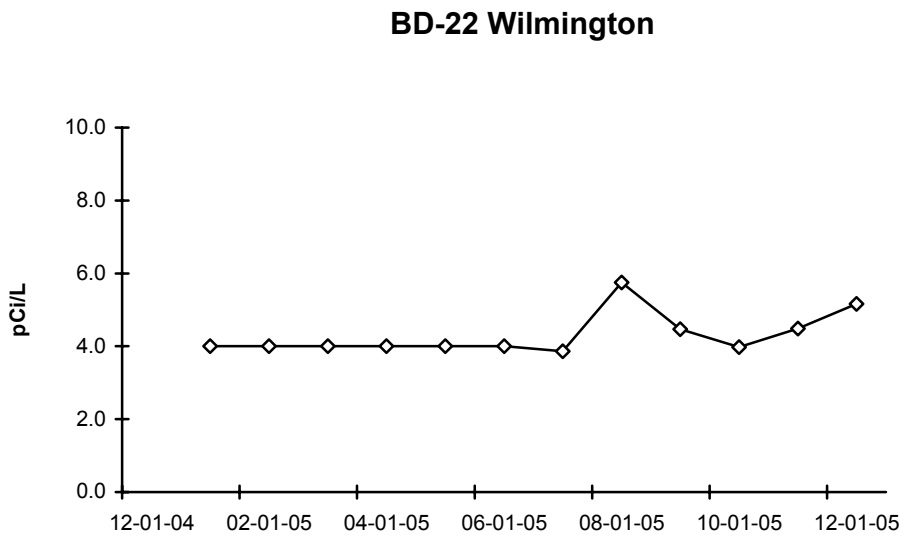


FIGURE C-3 (cont.)
Public Water - Gross Beta - Station BD-22
Collected in the Vicinity of Braidwood Station, 2005



DUE TO VENDOR CHANGE, < VALUES ARE LLD VALUES JANUARY THROUGH JUNE AND MDC VALUES JULY THROUGH DECEMBER

FIGURE C-4
Public Water - Tritium - Station BD-22
Collected in the Vicinity of Braidwood Station, 2000 - 2004

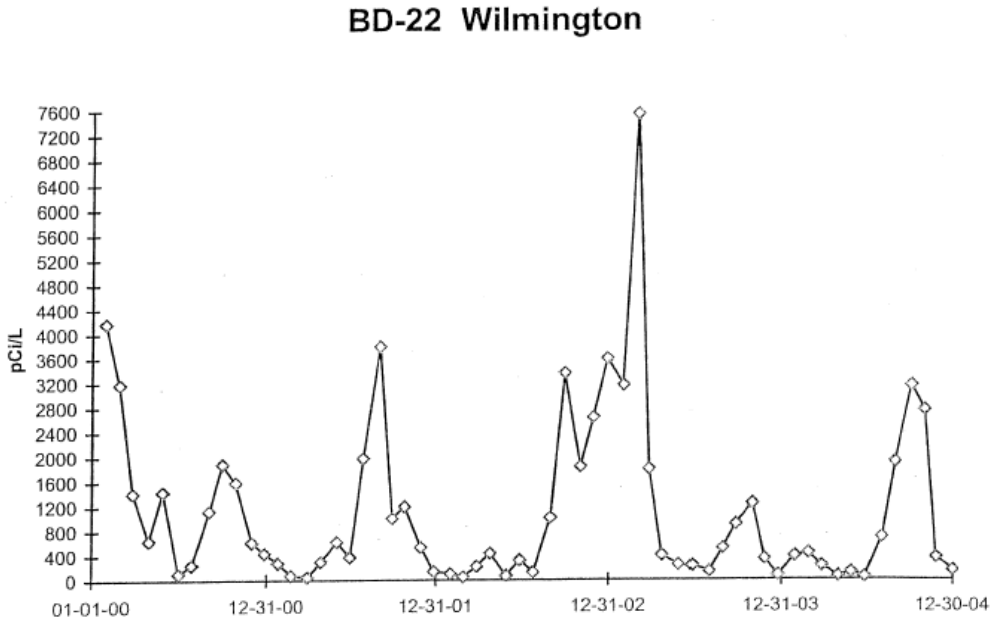
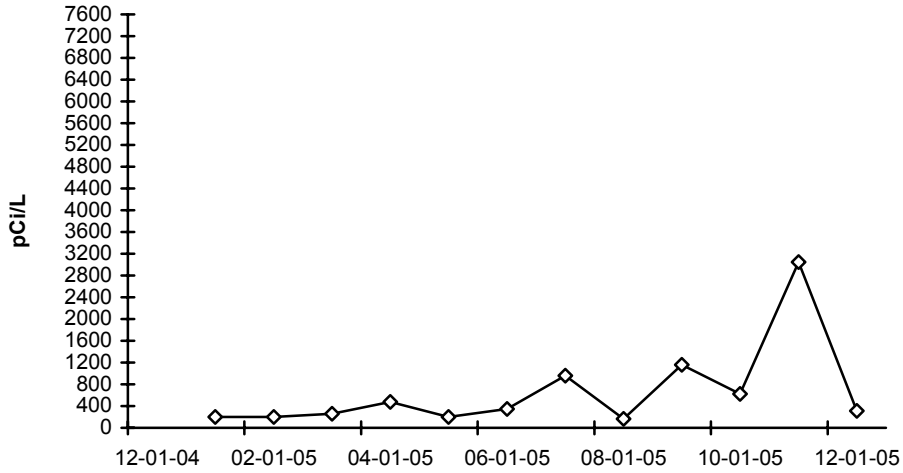
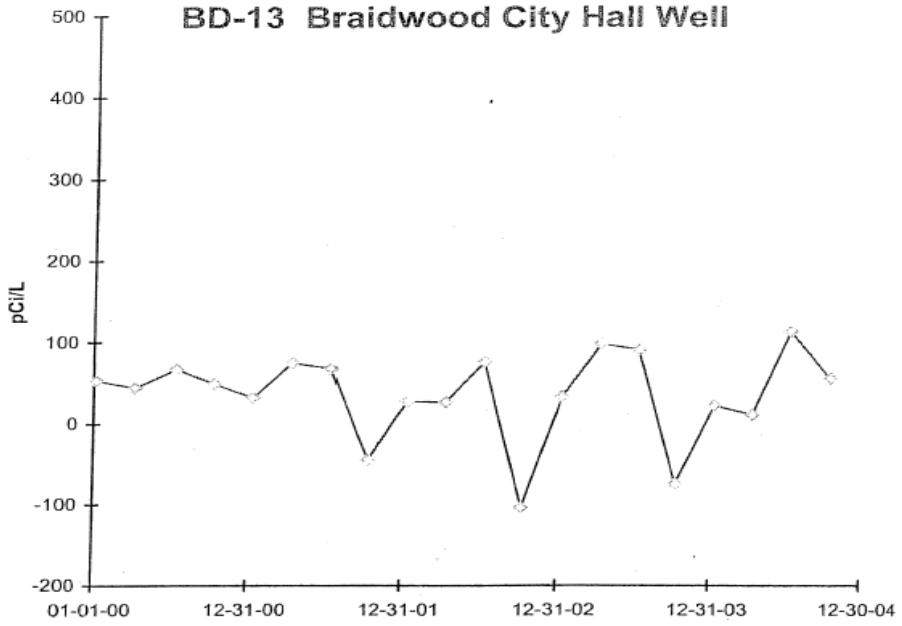


FIGURE C-4 (cont.)
Public Water - Tritium - Station BD-22
Collected in the Vicinity of Braidwood Station, 2005



DUE TO VENDOR CHANGE, < VALUES ARE LLD VALUES JANUARY THROUGH JUNE AND MDC VALUES JULY THROUGH DECEMBER

FIGURE C-5
Ground/Well Water - Tritium - Stations BD-13 and BD-34 Collected in the Vicinity of Braidwood Station, 2000 - 2004



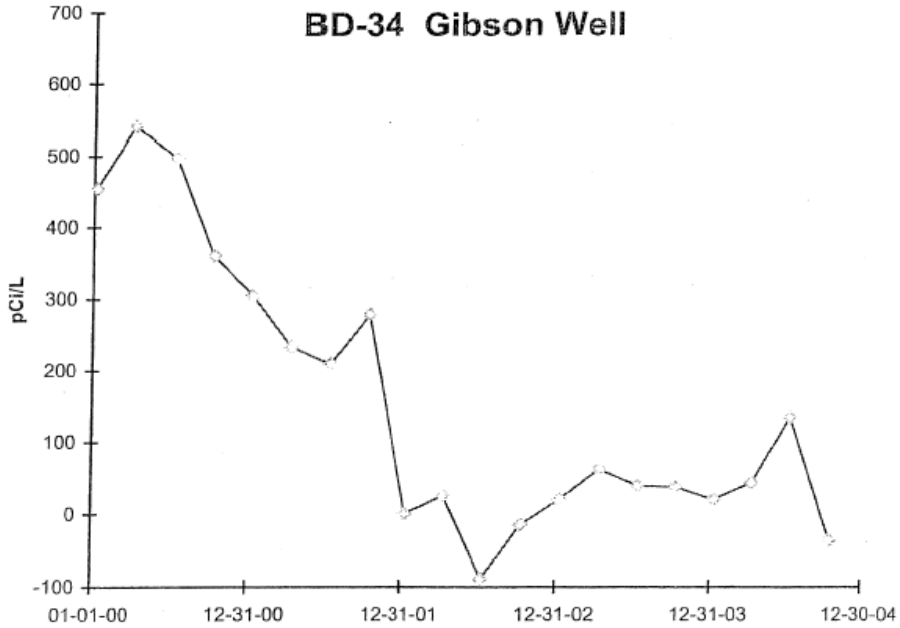
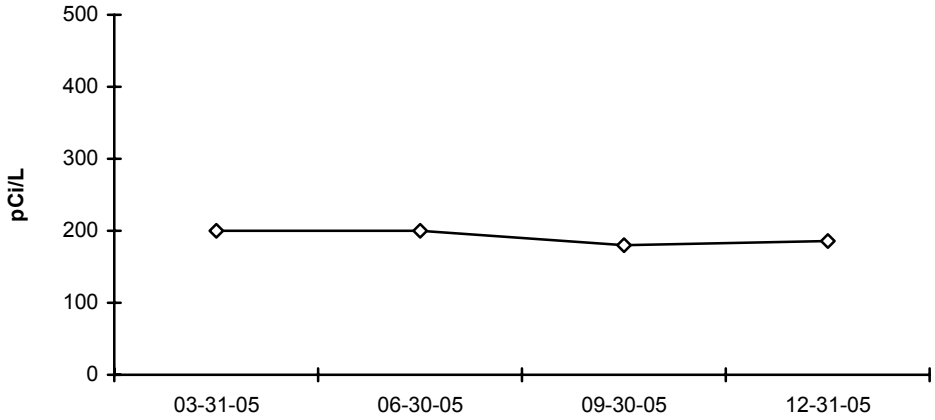
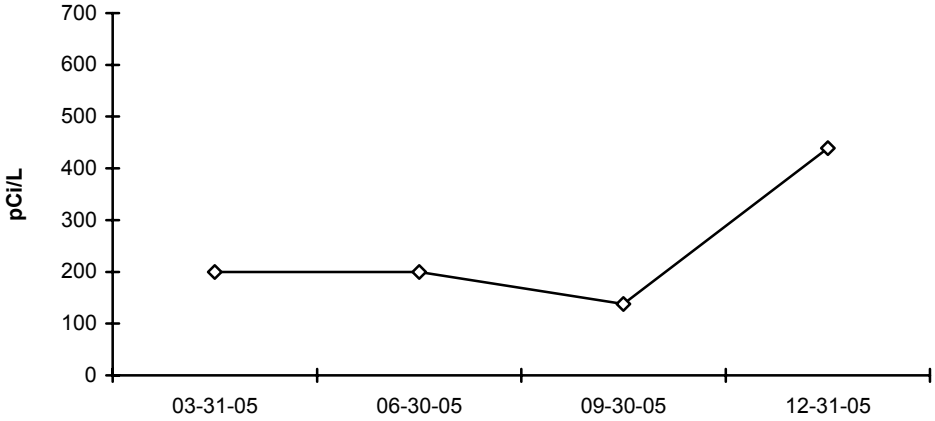


FIGURE C-5 (cont.)
Ground/Well Water - Tritium - Stations BD-13 and BD-34 Collected in the Vicinity of Braidwood Station, 2005

BD-13 Braidwood City Hall Well

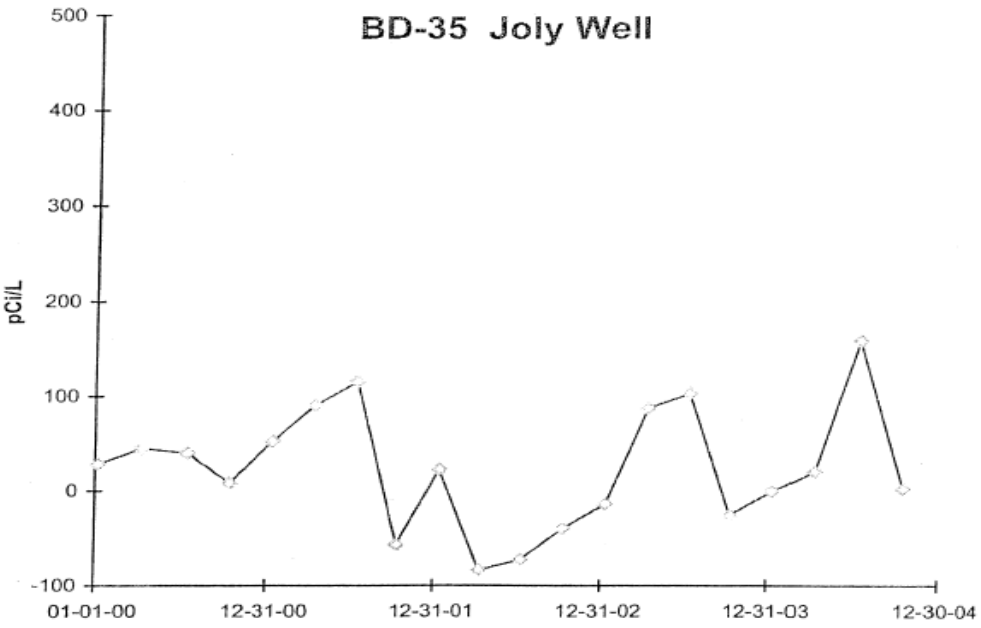


BD-34 Gibson Well



DUE TO VENDOR CHANGE, < VALUES ARE LLD VALUES JANUARY THROUGH JUNE AND MDC VALUES JULY THROUGH DECEMBER

FIGURE C-6
Ground/Well Water - Tritium - Stations BD-35 and BD-36 Collected in the Vicinity of Braidwood Station, 2000 - 2004



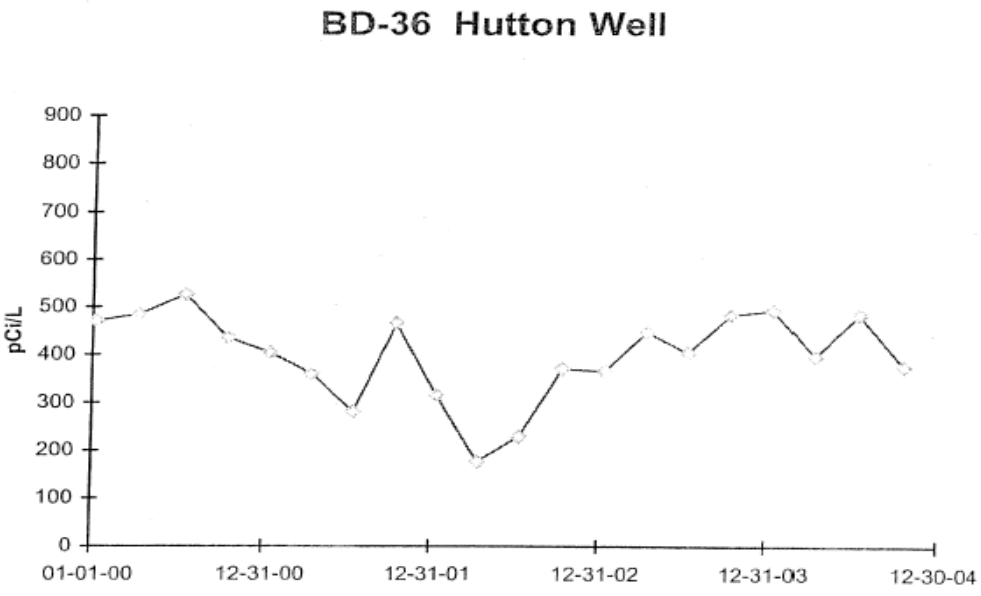
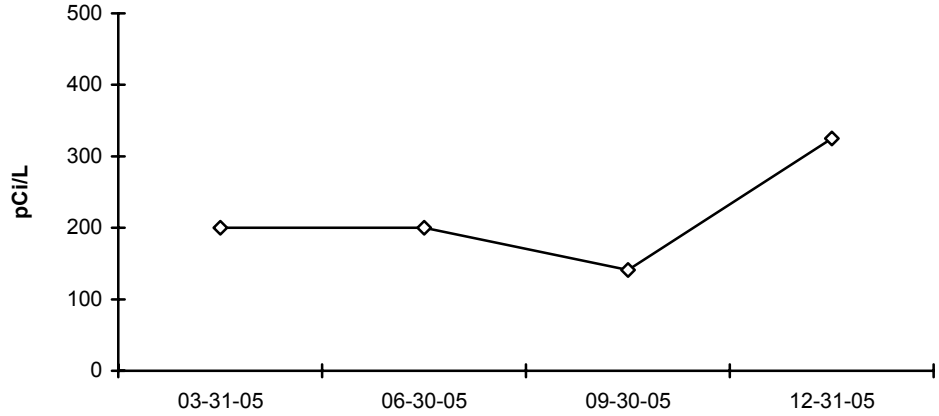
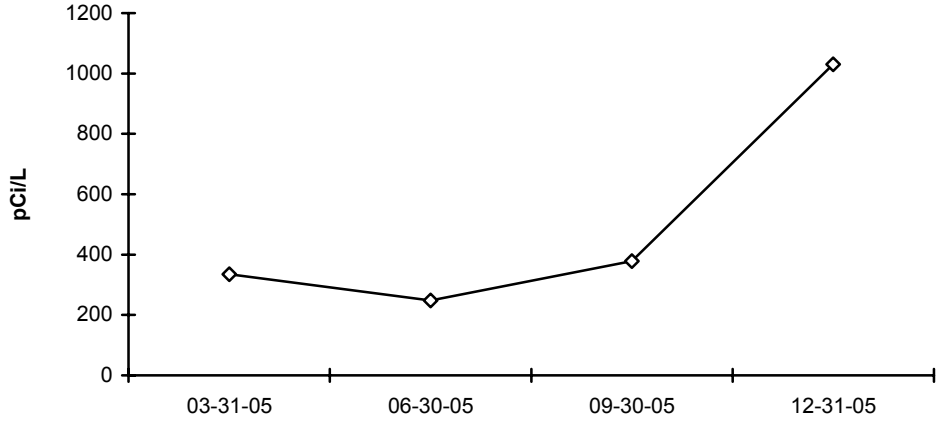


FIGURE C-6 (cont.)
Ground/Well Water - Tritium - Stations BD-35 and BD-36 Collected in the Vicinity of Braidwood Station, 2000 - 2004

BD-35 Joly Well



BD-36 Hutton Well



DUE TO VENDOR CHANGE, < VALUES ARE LLD VALUES JANUARY THROUGH JUNE AND MDC VALUES JULY THROUGH DECEMBER

FIGURE C-7
Ground/Well Water - Tritium - Station BD-37
Collected in the Vicinity of Braidwood Station, 2000 - 2004

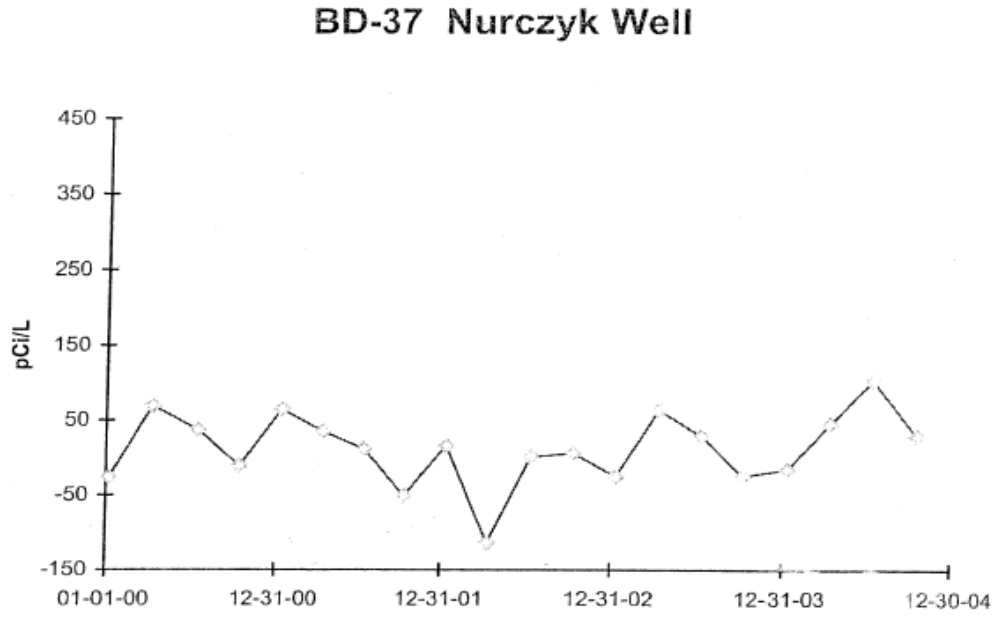
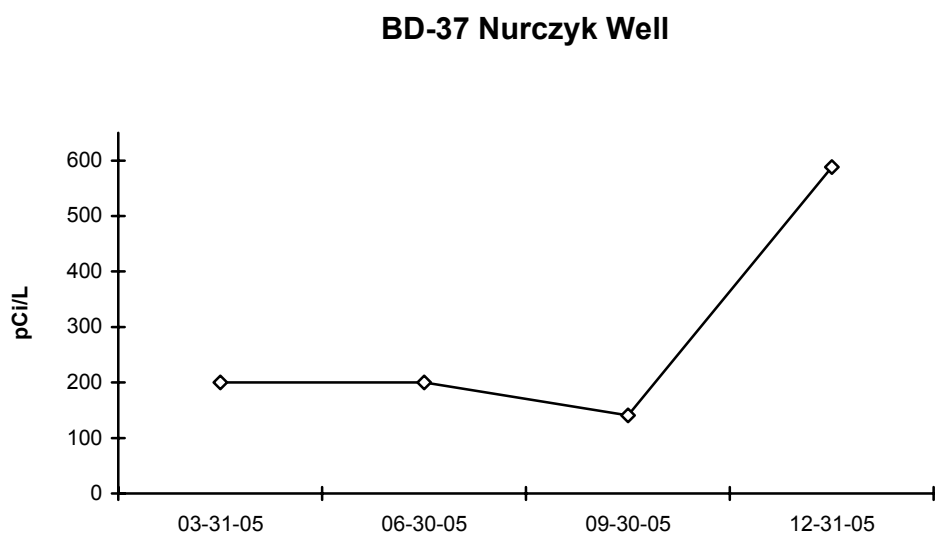
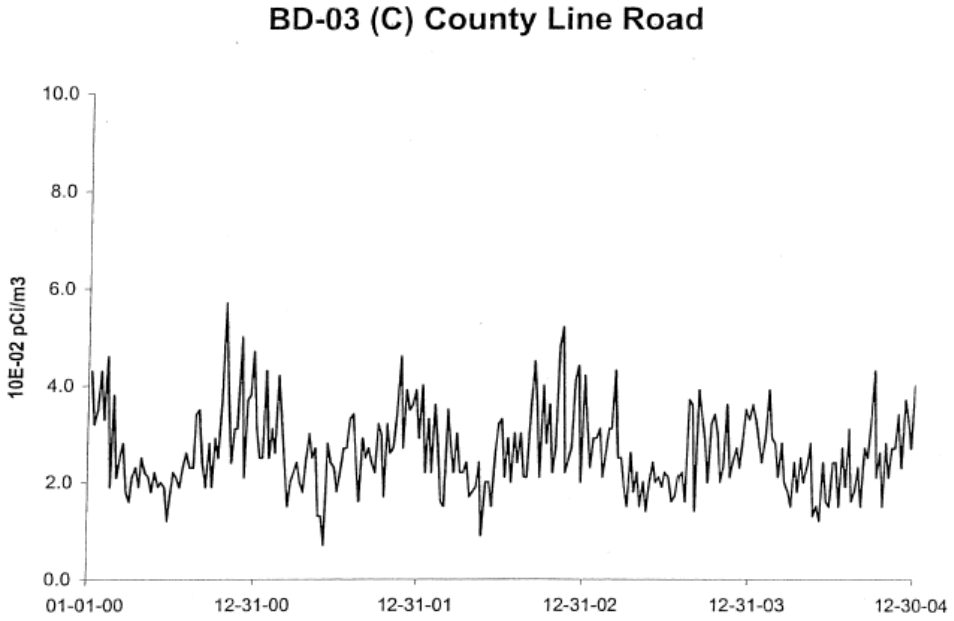


FIGURE C-7 (cont.)
Ground/Well Water - Tritium - Station BD-37
Collected in the Vicinity of Braidwood Station, 2005



DUE TO VENDOR CHANGE, < VALUES ARE LLD VALUES JANUARY THROUGH JUNE AND MDC VALUES JULY THROUGH DECEMBER

FIGURE C-8
Air Particulates - Gross Beta- Stations BD-03 (C) and BD-06 Collected in the Vicinity of Braidwood Station, 2000 - 2004



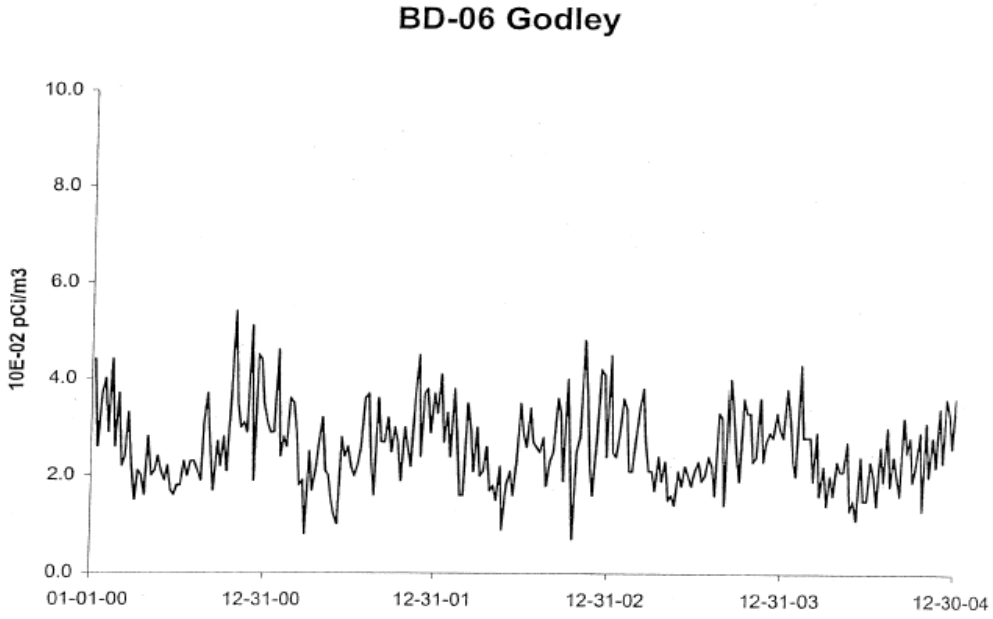
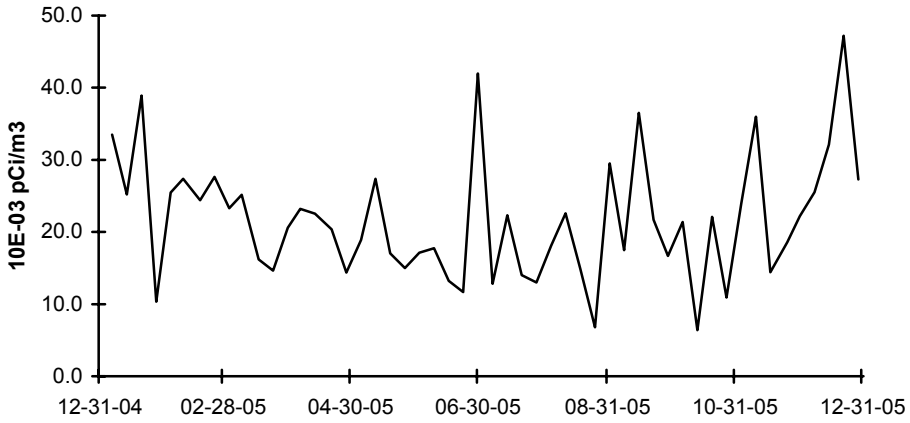
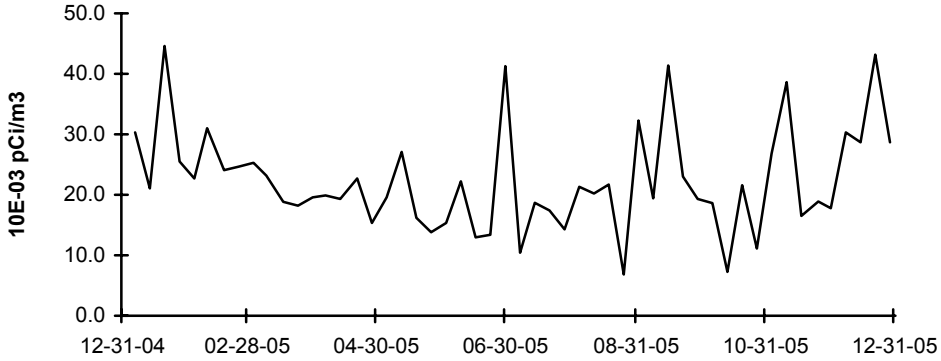


FIGURE C-8 (cont.)
Air Particulates - Gross Beta- Stations BD-03 (C) and BD-06 Collected in the Vicinity of Braidwood Station, 2005

BD-03 (C) County Line Road



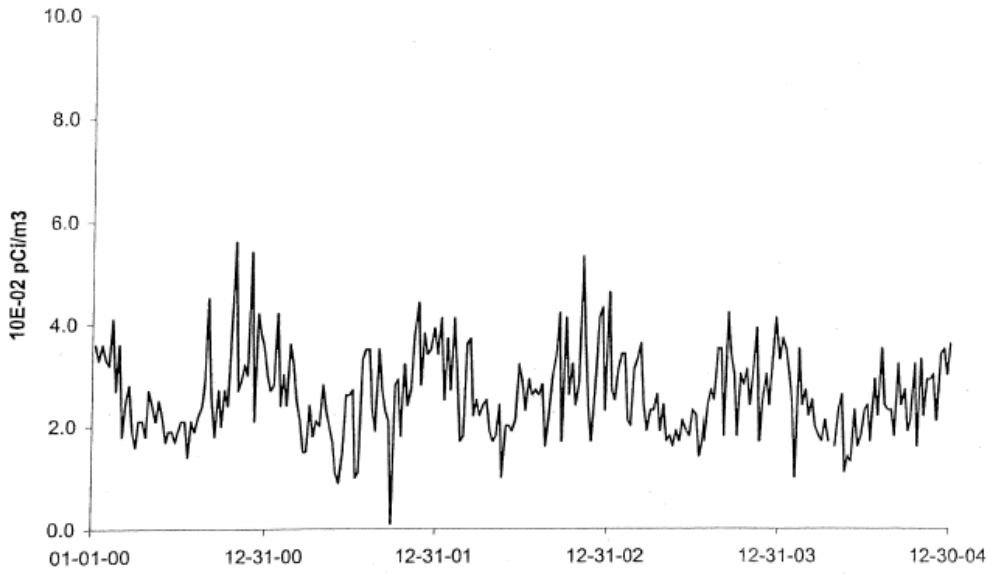
BD-06 Godley



DUE TO VENDOR CHANGE, THE REPORTED UNITS CHANGED FROM E-02 PCI/M3 TO E-03 PCI/M3

FIGURE C-9
Air Particulates - Gross Beta- Stations BD-19 and BD-20 Collected in the Vicinity of Braidwood Station, 2000 - 2004

BD-19 Nearsite, NW



BD-20 Nearsite, N

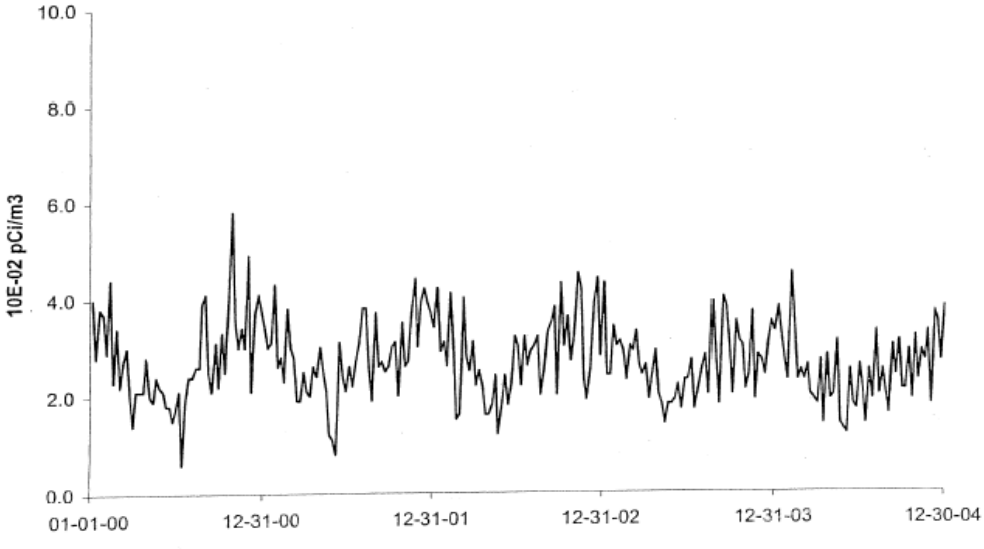
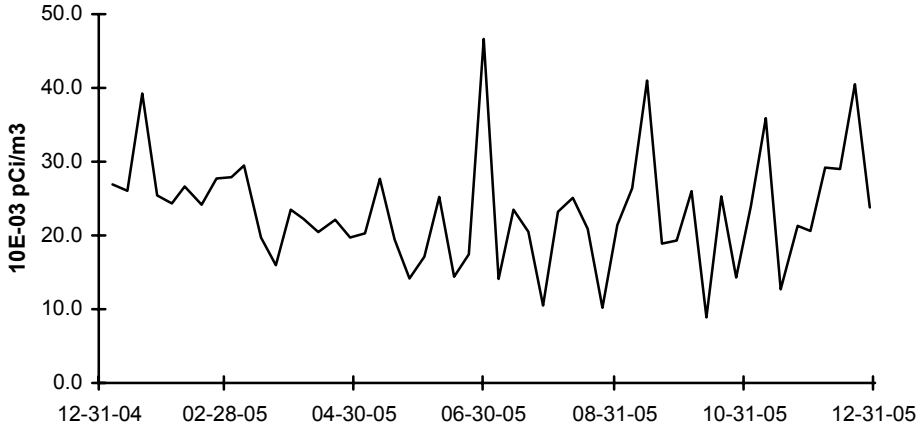
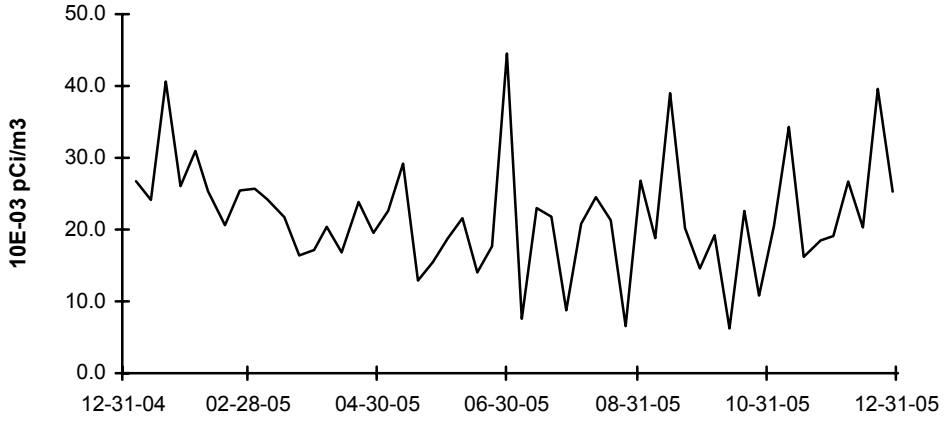


FIGURE C-9 (cont.)
Air Particulates - Gross Beta- Stations BD-19 and BD-20 Collected in the Vicinity of Braidwood Station, 2005

BD-19 Nearsite, NW



BD-20 Neasite, N



DUE TO VENDOR CHANGE, THE REPORTED UNITS CHANGED FROM E-02 PCI/M3 TO E-03 PCI/M3

FIGURE C-10
Air Particulates - Gross Beta- Station BD-21
Collected in the Vicinity of Braidwood Station, 2000 - 2004

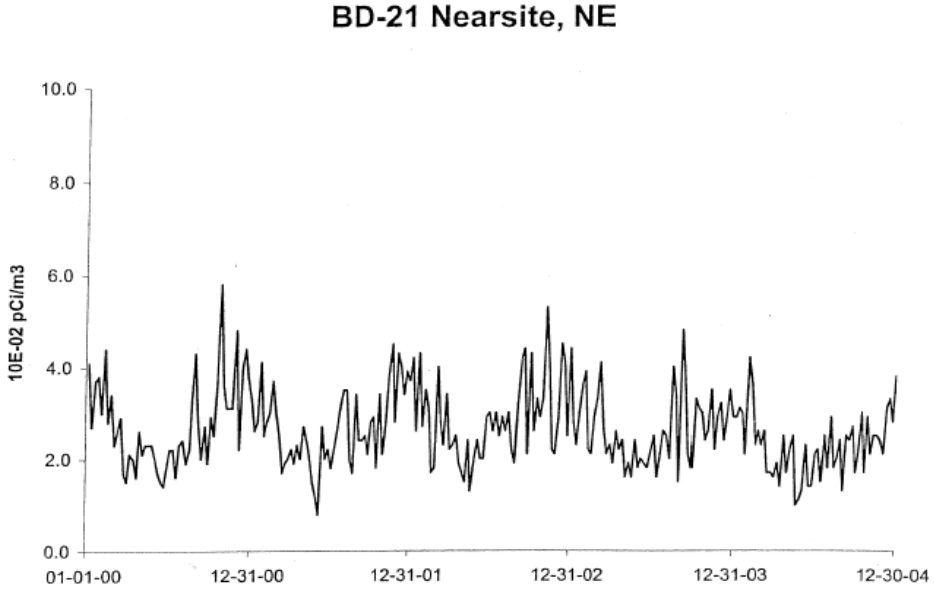
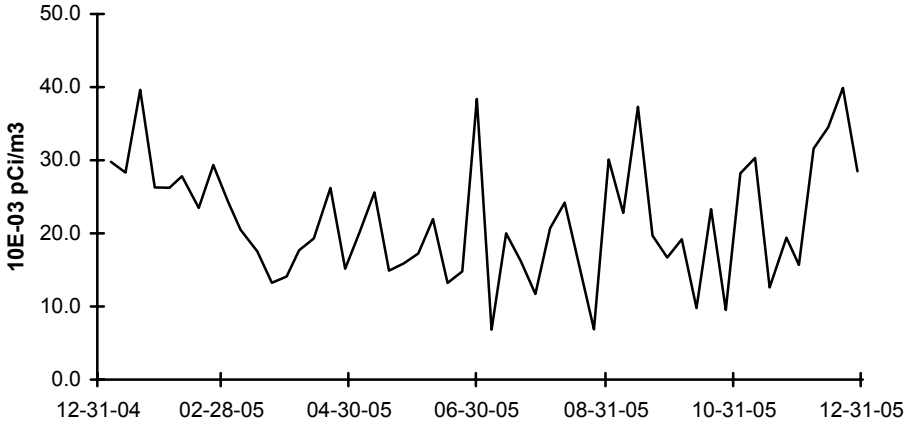


FIGURE C-10 (cont.)
Air Particulates - Gross Beta- Station BD-21
Collected in the Vicinity of Braidwood Station, 2005

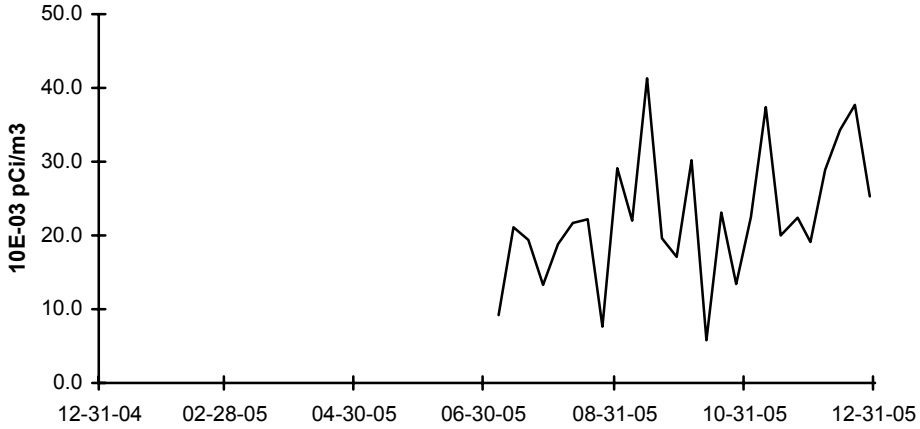
BD-21 Nearsite, NE



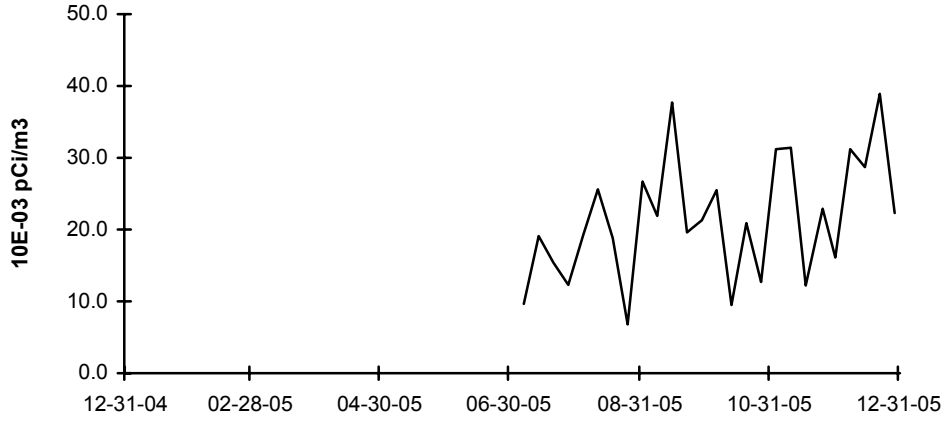
DUE TO VENDOR CHANGE, THE REPORTED UNITS CHANGED FROM E-02 PCI/M3 TO E-03 PCI/M3

FIGURE C-11
Air Particulates - Gross Beta- Stations BD-02 and BD-04 Collected in the Vicinity of Braidwood Station, 2005

BD-02 Nearsite, NW



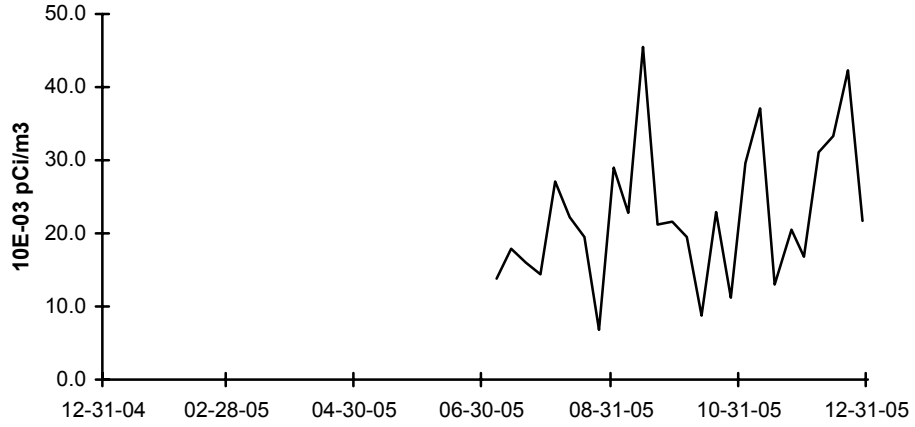
BD-04 Neasite, N



DUE TO VENDOR CHANGE, THE REPORTED UNITS CHANGED FROM E-02 PCI/M3 TO E-03 PCI/M3

FIGURE C-12
Air Particulates - Gross Beta- Station BD-05
Collected in the Vicinity of Braidwood Station, 2005

BD-21 Nearsite, NE



DUE TO VENDOR CHANGE, THE REPORTED UNITS CHANGED FROM E-02 PCI/M3 TO E-03 PCI/M3

APPENDIX D

INTER-LABORATORY COMPARISON PROGRAM

TABLE D-1 ANALYTICS ENVIRONMENTAL RADIOACTIVITY CROSS CHECK PROGRAM
TELEDYNE BROWN ENGINEERING, 2005
(PAGE 1 OF 3)

Month/Year	Identification Number	Matrix	Nuclide	Units	Reported Value (a)	Known Value (b)	Ratio (c) TBE/Analytics	Evaluation (d)
March 2005	E4522-396	Milk	Sr-89	pCi/L	96.9	107	0.91	A
			Sr-90	pCi/L	16.9	17.9	0.94	A
	E4523-396	Milk	I-131	pCi/L	82.7	92.3	0.90	A
			Ce-141	pCi/L	217	229	0.95	A
			Cr-51	pCi/L	314	334	0.94	A
			Cs-134	pCi/L	123	139	0.89	A
			Cs-137	pCi/L	125	130	0.96	A
			Co-58	pCi/L	110	115	0.96	A
			Mn-54	pCi/L	158	160	0.99	A
			Fe-59	pCi/L	118	111	1.06	A
			Zn-65	pCi/L	191	198	0.96	A
			Co-60	pCi/L	140	144	0.97	A
	E4525-396	AP	Ce-141	pCi	150	172	0.87	A
			Cr-51	pCi	278	250	1.11	A
			Cs-134	pCi	105	104	1.01	A
			Cs-137	pCi	95.6	97.1	0.98	A
			Co-58	pCi	84.4	86.3	0.98	A
			Mn-54	pCi	112	120	0.93	A
			Fe-59	pCi	92.8	83.2	1.12	A
			Zn-65	pCi	162	148	1.09	A
			Co-60	pCi	102	108	0.94	A
	E4524-396	Charcoal	I-131	pCi	67.4	60.7	1.11	A
June 2005	E4630-396	Milk	Sr-89	pCi/L	89.4	88.1	1.01	A
			Sr-90	pCi/L	11.6	11.4	1.02	A
	E4631-396	Milk	I-131	pCi/L	82.3	86.9	0.95	A
			Ce-141	pCi/L	91.6	92.4	0.99	A
			Cr-51	pCi/L	278	303	0.92	A
			Cs-134	pCi/L	81.1	95.0	0.85	A
			Cs-137	pCi/L	180	189	0.95	A
			Mn-54	pCi/L	124	125	0.99	A
			Fe-59	pCi/L	61.1	63.9	0.96	A
			Zn-65	pCi/L	156	155	1.01	A
			Co-60	pCi/L	136	145	0.94	A
	E4633-396	AP	Ce-141	pCi	79.2	64.2	1.23	W
			Cr-51	pCi	263	210	1.25	W
			Cs-134	pCi	69.7	66.1	1.05	A
			Cs-137	pCi	135	131	1.03	A
			Mn-54	pCi	94.9	87.0	1.09	A
			Fe-59	pCi	48	44.4	1.09	A
			Zn-65	pCi	120	108	1.11	A
			Co-60	pCi	104	101	1.03	A
	E4632-396	Charcoal	I-131	pCi	88.9	92.5	0.96	A

TABLE D-1 ANALYTICS ENVIRONMENTAL RADIOACTIVITY CROSS CHECK PROGRAM
TELEDYNE BROWN ENGINEERING, 2005
(PAGE 2 OF 3)

Month/Year	Identification Number	Matrix	Nuclide	Units	Reported Value (a)	Known Value (b)	Ratio (c) TBE/Analytics	Evaluation (d)
September 2005	E4766-396	Milk	Sr-89	pCi/L	135.0	146.0	0.92	A
			Sr-90	pCi/L	9.7	11.5	0.84	A
	E4767-396	Milk	I-131	pCi/L	87.5	94.3	0.93	A
			Ce-141	pCi/L	203	233	0.87	A
			Cr-51	pCi/L	279	338	0.83	A
			Cs-134	pCi/L	102	122.0	0.84	A
			Cs-137	pCi/L	178	195	0.91	A
			Co-58	pCi/L	55.3	63.4	0.87	A
			Mn-54	pCi/L	81.8	92.0	0.89	A
			Fe-59	pCi/L	59.9	61.0	0.98	A
			Zn-65	pCi/L	120	123	0.98	A
			Co-60	pCi/L	146	167	0.87	A
	E4769-396	AP	Ce-141	pCi	193	169	1.14	A
			Cr-51	pCi	267	246	1.09	A
			Cs-134	pCi	78.4	88.8	0.88	A
			Cs-137	pCi	166	142	1.17	A
			Co-58	pCi	53.7	46.0	1.17	A
			Mn-54	pCi	81.6	66.8	1.22	W
			Fe-59	pCi	59.6	44.3	1.35	N (1)
			Zn-65	pCi	107	89.6	1.19	A
			Co-60	pCi	133	122	1.09	A
	E4768-396	Charcoal	I-131	pCi	63.9	64.2	1.00	A
December 2005	E4766-396	Milk	Sr-89	pCi/L	114	128	0.89	A
			Sr-90	pCi/L	11.6	10.3	1.13	A
	E4767-396	Milk	I-131	pCi/L	79.6	74.6	1.07	A
			Ce-141	pCi/L	202	224	0.90	A
			Cr-51	pCi/L	185	193	0.96	A
			Cs-134	pCi/L	74.9	87.3	0.86	A
			Cs-137	pCi/L	177	189	0.94	A
			Co-58	pCi/L	73.9	77.5	0.95	A
			Mn-54	pCi/L	152	152	1.00	A
			Fe-59	pCi/L	97.5	82.4	1.18	A
			Zn-65	pCi/L	161	154	1.05	A
			Co-60	pCi/L	102	111	0.92	A
	E4633-396	AP	Ce-141	pCi	221	201	1.10	A
			Cr-51	pCi	195	173	1.13	A
			Cs-134	pCi	68.4	78.3	0.87	A
			Cs-137	pCi	194	170	1.14	A
			Co-58	pCi	77.4	69.4	1.12	A
			Mn-54	pCi	171	137	1.25	W
			Fe-59	pCi	94.2	73.9	1.27	W
			Zn-65	pCi	173	138	1.25	W
			Co-60	pCi	109	99.1	1.10	A

TABLE D-1 ANALYTICS ENVIRONMENTAL RADIOACTIVITY CROSS CHECK PROGRAM
TELEDYNE BROWN ENGINEERING, 2005
(PAGE 3 OF 3)

Month/Year	Identification Number	Matrix	Nuclide	Units	Reported Value (a)	Known Value (b)	Ratio (c) TBE/Analytics	Evaluation (d)
December 2005	E4632-396	Charcoal	I-131	pCi	73.3	73.3	1.00	A

(1) New technician - AP not counted in petri dish resulted in high Fe-59 activity. Counting in petri dish, the Fe-59 would have been acceptable as evidenced by the 4Q05 AP recount data. NCR 06-01

(a) Teledyne Brown Engineering reported result.

(b) The Analytics known value is equal to 100% of the parameter present in the standard as determined by gravimetric and/or volumetric measurements made during standard preparation.

(c) Ratio of Teledyne Brown Engineering to Analytics results.

(d) Analytics evaluation based on TBE internal QC limits: A= Acceptable. Reported result falls within ratio limits of 0.80-1.20. W-Acceptable with warning. Reported result falls within 0.70-0.80 or 1.20-1.30. N = Not Acceptable. Reported result falls outside the ratio limits of < 0.70 and > 1.30.

TABLE D-2 ERA ENVIRONMENTAL RADIOACTIVITY CROSS CHECK PROGRAM
TELEDYNE BROWN ENGINEERING, 2005

Month/Year	Identification Number	Media	Nuclide	Units	Reported Value (a)	Known Value (b)	Control Limits	Evaluation (c)
May 2005	Rad 61	Water	Sr-89	pCi/L	37.5	41.3	32.6 - 50.0	A
			Sr-90	pCi/L	5.37	5.92	0.00 - 14.6	A
			Ba-133	pCi/L	88.6	88.4	73.1 - 104	A
			Cs-134	pCi/L	70.5	78.6	69.9 - 87.3	A
			Cs-137	pCi/L	201	201	184 - 218	A
			Co-60	pCi/L	37.5	37.0	28.3 - 45.7	A
			Zn-65	pCi/L	122	118	97.6 - 138	A
			Gr-A	pCi/L	35.5	37.0	21.0 - 53.0	A
			Gr-B	pCi/L	35.6	34.2	25.5 - 42.9	A
			H-3	pCi/L	24600	24400	20200 - 28600	A
	Rad 61	Water	I-131	pCi/L	13.6	15.5	10.3 - 20.7	A
November 2005	Rad 63	Water	Sr-89	pCi/L	18.0	19.0	10.3 - 27.7	A
			Sr-90	pCi/L	16.6	16.0	7.37 - 24.7	A
			Ba-133	pCi/L	31.7	31.2	22.5 - 39.9	A
			Cs-134	pCi/L	30.8	33.9	25.2 - 42.6	A
			Cs-137	pCi/L	26.8	28.3	19.6 - 37.0	A
			Co-60	pCi/L	83.9	84.1	75.4 - 92.8	A
			Zn-65	pCi/L	109	105	86.8 - 123	A
			Gr-A	pCi/L	19.5	23.3	13.2 - 33.4	A
			Gr-B	pCi/L	34.0	39.1	30.4 - 47.8	A
			H-3	pCi/L	12400	12200	10100 - 14300	A
	Rad 63	Water	I-131	pCi/L	17.8	17.4	12.2 - 22.6	A

(a) Teledyne Brown Engineering reported result.

(b) The ERA known value is equal to 100% of the parameter present in the standard as determined by gravimetric and/or volumetric measurements made during standard preparation.

(c) ERA evaluation: A=acceptable. Reported result falls within the Warning Limits. NA=not acceptable. Reported result falls outside of the Control Limits. CE=check for Error. Reported result falls within the Control Limits and outside of the Warning Limit.

TABLE D-3 DOE'S MIXED ANALYTE PERFORMANCE EVALUATION PROGRAM (MAPEP)
TELEDYNE BROWN ENGINEERING, 2005
(PAGE 1 OF 2)

Month/Year	Identification Number	Media	Nuclide	Units	Reported Value (a)	Known Value (b)	Acceptance Range	Evaluation (c)
April 2005	05-MaW13	Water	Cs-134	Bq/L	108	127	88.90 - 165.10	A
			Cs-137	Bq/L	305	332	232.40 - 461.60	A
			Co-57	Bq/L	215	227	158.90 - 295.10	A
			Co-60	Bq/L	241	251	175.70 - 326.30	A
			H-3	Bq/L	283	280	196.00 - 364.00	A
			Mn-54	Bq/L	314	331	231.70 - 430.30	A
			Sr-90	Bq/L	0.093		no range given (1)	A
			Zn-65	Bq/L	509	496	347.20 - 644.80	A
	MaS13	Soil	Cs-134	Bq/L	655	759	531.30 - 986.70	A
			Cs-137	Bq/L	310	315	220.50 - 409.50	A
			Co-57	Bq/L	234	242	169.40 - 314.60	A
			Co-60	Bq/L	219	212	148.40 - 275.60	A
			Mn-54	Bq/L	512	485	339.50 - 630.50	A
			K-40	Bq/L	642	604	422.80 - 785.20	A
			Zn-65	Bq/L	890	810	567.00 - 1053	A
	GrW13	Water	Gr-A	Bq/L	0.601	0.525	>0.0 - 1.05	A
			Gr-B	Bq/L	1.54	1.67	0.84 - 2.51	A
	RdF13	AP	Cs-134	Bq/sample	3.26	3.51	2.46 - 4.56	A
			Cs-137	Bq/sample	2.05	2.26	1.58 - 2.94	A
			Co-57	Bq/sample	4.78	4.92	3.44 - 6.40	A
			Co-60	Bq/sample	3.02	3.03	2.12 - 3.94	A
			Mn-54	Bq/sample	3.31	3.33	2.33 - 4.33	A
			Sr-90	Bq/sample	1.15	1.35	0.95 - 1.76	A
			Zn-65	Bq/sample	3.14	3.14	2.20 - 4.08	A
	GrF13	AP	Gr-A	Bq/sample	0.0764	0.232	>0.0 - 0.46	A
			Gr-B	Bq/sample	0.305	0.297	0.15 - 0.45	A
April 2005	RdV13	Vegetation	Cs-134	Bq/kg	5.45	5	3.50 - 6.50	A
			Cs-137	Bq/kg	4.80	4.1	2.88 - 5.34	A
			Co-57	Bq/kg	13.4	9.88	6.92 - 12.84	A *
			Co-60	Bq/kg	3.67	3.15	2.21 - 4.10	A
			Mn-54	Bq/kg	6.45	5.18	3.63 - 6.73	A
			Sr-90	Bq/kg	1.49	1.65	1.16 - 2.15	A
			Zn-65	Bq/kg	7.71	6.29	4.40 - 8.18	A
October 2005	05-MaW14	Water	Cs-134	Bq/L	142	167	116.90 - 217.10	A
			Cs-137	Bq/L	302	333	233.10 - 432.90	A
			Co-57	Bq/L	251	272	190.40 - 353.60	A
			Co-60	Bq/L	243	261	182.70 - 339.30	A
			H-3	Bq/L	547	527	368.90 - 685.10	A
			Mn-54	Bq/L	383	418	292.60 - 543.40	A
			Sr-90	Bq/L	8.75	8.98	6.29 - 11.67	A
			Zn-65	Bq/L	324	330	231.00 - 429.00	A

TABLE D-3 DOE'S MIXED ANALYTE PERFORMANCE EVALUATION PROGRAM (MAPEP)
TELEDYNE BROWN ENGINEERING, 2005
(PAGE 2 OF 2)

Month/Year	Identification Number	Media	Nuclide	Units	Reported Value (a)	Known Value (b)	Acceptance Range	Evaluation (c)
October 2005	MaS14	Soil	Cs-134	Bq/L	494	568	397.60 - 738.40	A
			Cs-137	Bq/L	446	439	307.30 - 570.70	A
			Co-57	Bq/L	506	524	366.80 - 681.20	A
			Co-60	Bq/L	289	287	200.90 - 373.10	A
			Mn-54	Bq/L	460	439	307.30 - 570.70	A
			K-40	Bq/L	626	604	422.80 - 785.20	A
			Zn-65	Bq/L	889	823	576.10 - 1070	A
	GrW14	Water	Gr-A	Bq/L	0.858	0.79	0.21 - 1.38	A
			Gr-B	Bq/L	1.22	1.35	0.85 - 1.92	A
October 2005	RdF14	AP	Cs-134	Bq/sample	4.11	3.85	2.70 - 5.01	A
			Cs-137	Bq/sample	3.16	3.23	2.26 - 4.20	A
			Co-57	Bq/sample	6.14	6.2	4.34 - 8.06	A
			Co-60	Bq/sample	2.86	2.85	2.00 - 3.71	A
			Mn-54	Bq/sample	4.54	4.37	3.06 - 5.68	A
			Sr-90	Bq/sample	2.12	2.25	1.58 - 2.93	A
			Zn-65	Bq/sample	4.28	4.33	3.03 - 5.63	A
	GrF14	AP	Gr-A	Bq/sample	0.304	0.482	>0.0 - 0.80	A
			Gr-B	Bq/sample	0.858	0.827	0.55 - 1.22	A
	RdV13	Vegetation	Cs-134	Bq/kg	4.35	4.09	2.86 - 5.32	A
			Cs-137	Bq/kg	5.99	5.4	3.80 - 7.06	A
			Co-57	Bq/kg	17.0	13.30	9.31 - 17.29	W
			Co-60	Bq/kg	4.87	4.43	3.10 - 5.76	A
			Mn-54	Bq/kg	7.40	6.57	4.60 - 8.54	A
			Sr-90	Bq/kg	2.03	2.42	1.69 - 3.15	A
			Zn-65	Bq/kg	11.8	10.2	7.14 - 13.26	A

** MAPEP reported the result as acceptable although the reported value of 13.4 is higher than the acceptance range upper limit of 12.84. The acceptance range was expanded to +- 40% bias due to confusion regarding preparation process. MAPEP did not corrected the acceptance range on the report.*

(1) The Sr-90 in water was a MAPEP false positive test. The TBE reported result of 0.093 ± 0.0908 Bq/L was the forced Sr-90 activity and uncertainty, as required by MAPEP. The MDC for the sample was 0.145 pCi/L.

(a) Teledyne Brown Engineering reported result.

(b) The MAPEP known value is equal to 100% of the parameter present in the standard as determined by gravimetric and/or volumetric measurements made during standard preparation.

(c) DOE/MAPEP evaluation: A=acceptable, W=acceptable with warning, N=not acceptable.

TABLE D-4 **ERA[(a)] STATISTICAL SUMMARY PROFICIENCY TESTING PROGRAM**
ENVIRONMENTAL, INC., 2005

Lab Code	Date	Concentration (pCi/L)				
		Analysis	Laboratory Result[b]	ERA Result[c]	Control Limits	Acceptance
STW-1051	02/15/05	Sr-89	28.0 ± 1.2	29.4	20.7 - 38.1	Pass
STW-1051	02/15/05	Sr-90	25.1 ± 0.7	24.4	15.7 - 33.1	Pass
STW-1052	02/15/05	Ba-133	52.9 ± 2.8	53.4	44.2 - 62.6	Pass
STW-1052	02/15/05	Co-60	54.4 ± 0.4	56.6	47.9 - 65.3	Pass
STW-1052	02/15/05	Cs-134	67.7 ± 1.8	64.9	56.2 - 73.6	Pass
STW-1052	02/15/05	Cs-137	39.6 ± 1.8	40.2	31.5 - 48.9	Pass
STW-1052	02/15/05	Zn-65	159.7 ± 3.0	161.0	133.0 - 189.0	Pass
STW-1053	02/15/05	Gr. Alpha	55.1 ± 1.8	67.9	38.5 - 97.3	Pass
STW-1053	02/15/05	Gr. Beta	46.8 ± 1.3	51.1	38.5 - 97.3	Pass
STW-1054	02/15/05	Ra-226	13.7 ± 1.5	14.1	10.4 - 17.8	Pass
STW-1054	02/15/05	Ra-228	13.3 ± 0.6	13.7	7.8 - 19.6	Pass
STW-1054	02/15/05	Uranium	5.1 ± 0.2	5.0	0.0 - 10.2	Pass
STW-1055	05/17/05	Sr-89	45.1 ± 4.1	41.3	32.6 - 50.0	Pass
STW-1055	05/17/05	Sr-90	7.5 ± 0.9	5.9	0.0 - 14.6	Pass
STW-1056	05/17/05	Ba-133	87.1 ± 2.0	88.4	73.1 - 104.0	Pass
STW-1056	05/17/05	Co-60	38.4 ± 0.8	37.0	28.3 - 45.7	Pass
STW-1056	05/17/05	Cs-134	75.3 ± 0.7	78.6	69.9 - 87.3	Pass
STW-1056	05/17/05	Cs-137	201.0 ± 8.4	194.0	184.0 - 218.0	Pass
STW-1056	05/17/05	Zn-65	130.0 ± 6.7	118.0	97.6 - 138.0	Pass
STW-1057	05/17/05	Gr. Alpha	42.7 ± 2.9	37.0	21.0 - 53.0	Pass
STW-1057	05/17/05	Gr. Beta	34.0 ± 0.4	34.2	25.5 - 42.9	Pass
STW-1058	05/17/05	I-131	14.7 ± 0.5	15.5	10.3 - 20.7	Pass
STW-1059	05/17/05	Ra-226	6.6 ± 0.1	7.6	5.6 - 9.5	Pass
STW-1059	05/17/05	Ra-228	19.3 ± 0.7	18.9	10.7 - 27.1	Pass
STW-1059	05/17/05	Uranium	9.6 ± 0.1	10.1	4.9 - 15.3	Pass
STW-1060	05/17/05	H-3	24100.0 ± 109.0	24400.0	20200.0 - 28600.0	Pass
STW-1067	08/16/05	Sr-89	29.1 ± 3.0	28.0	19.3 - 36.7	Pass
STW-1067	08/16/05	Sr-90	36.0 ± 0.6	33.8	25.1 - 42.5	Pass
STW-1068	08/16/05	Ba-133	107.0 ± 1.7	106.0	87.7 - 124.0	Pass
STW-1068	08/16/05	Co-60	15.2 ± 0.2	13.5	4.8 - 22.2	Pass
STW-1068	08/16/05	Cs-134	89.1 ± 0.3	92.1	83.4 - 101.0	Pass
STW-1068	08/16/05	Cs-137	72.1 ± 1.0	72.7	64.0 - 81.4	Pass
STW-1068	08/16/05	Zn-65	67.4 ± 1.4	65.7	54.3 - 77.1	Pass
STW-1069	08/16/05	Gr. Alpha	44.3 ± 1.5	55.7	31.6 - 79.8	Pass
STW-1069	08/16/05	Gr. Beta	58.4 ± 2.1	61.3	44.0 - 78.6	Pass
STW-1070	08/16/05	Ra-226	16.6 ± 1.5	16.6	12.3 - 20.9	Pass
STW-1070	08/16/05	Ra-228	6.2 ± 0.3	6.2	3.5 - 8.9	Pass
STW-1070	08/16/05	Uranium	4.5 ± 0.1	4.5	0.0 - 9.7	Pass

TABLE D-4 **ERA[(a)] STATISTICAL SUMMARY PROFICIENCY TESTING PROGRAM**
ENVIRONMENTAL, INC., 2005

Lab Code	Date	Concentration (pCi/L)				
		Analysis	Laboratory Result[b]	ERA Result[c]	Control Limits	Acceptance
STW-1072	11/15/05	Sr-89	20.6 ± 0.4	19.0	10.3 - 27.7	Pass
STW-1072	11/15/05	Sr-90	15.0 ± 0.3	16.0	7.3 - 24.7	Pass
STW-1073	11/15/05	Ba-133	31.8 ± 1.8	31.2	22.5 - 39.9	Pass
STW-1073	11/15/05	Co-60	85.0 ± 1.4	84.1	75.4 - 92.8	Pass
STW-1073	11/15/05	Cs-134	37.2 ± 2.1	33.9	25.2 - 42.6	Pass
STW-1073	11/15/05	Cs-137	27.8 ± 0.7	28.3	19.6 - 37.0	Pass
STW-1073	11/15/05	Zn-65	109.0 ± 1.0	105.0	86.8 - 123.0	Pass
STW-1074 [d]	11/15/05	Gr. Alpha	41.1 ± 1.2	23.3	13.2 - 33.4	Fail
STW-1074	11/15/05	Gr. Beta	42.7 ± 0.5	39.1	30.4 - 47.8	Pass
STW-1075	11/15/05	I-131	20.5 ± 0.6	17.4	12.2 - 22.6	Pass
STW-1076	11/15/05	Ra-226	7.8 ± 0.6	8.3	6.2 - 10.5	Pass
STW-1076 [e]	11/15/05	Ra-228	5.5 ± 0.6	3.5	2.0 - 5.0	Fail
STW-1076	11/15/05	Uranium	15.5 ± 0.3	16.1	10.9 - 21.3	Pass
STW-1077	11/15/05	H-3	12500.0 ± 238.0	12200.0	10100.0 - 14300.0	Pass

[a] Results obtained by Environmental, Inc., Midwest Laboratory as a participant in the crosscheck program for proficiency testing in drinking water conducted by Environmental Resources Associates (ERA).

[b] Unless otherwise indicated, the laboratory result is given as the mean ± standard deviation for three determinations.

[c] Results are presented as the known values, expected laboratory precision (1 sigma, 1 determination) and control limits as provided by ERA.

[d] The original samples were calculated using an Am-241 efficiency. The samples were spiked with Th-232. Samples were recounted and calculated using the Th-232 efficiency. Results of the recount: 27.01 ± 2.35 pCi/L.

[e] Decay of short-lived radium daughters contributed to a higher counting rate. Delay of counting for 100 minutes provided better results. The reported result was the average of the first cycle of 100 minutes, the average of the second cycle counts was 4.01 pCi/L

TABLE D-5 DOE'S MIXED ANALYTE PERFORMANCE EVALUATION PROGRAM (MAPEP)[a]
ENVIRONMENTAL, INC., 2005

		Concentration [b]				
Lab Code[c]	Date	Analysis	Laboratory result	Known Activity	Control Limits [d]	Acceptance
STW-1045	01/01/05	Gr. Alpha	0.45 ± 0.10	0.53	0.00 - 1.05	Pass
STW-1045	01/01/05	Gr. Beta	1.90 ± 0.10	1.67	0.84 - 2.51	Pass
STW-1046	01/01/05	Am-241	1.62 ± 0.12	1.72	1.20 - 2.24	Pass
STW-1046	01/01/05	Co-57	239.40 ± 1.20	227.00	158.90 - 295.10	Pass
STW-1046	01/01/05	Co-60	248.70 ± 1.00	251.00	175.70 - 326.30	Pass
STW-1046	01/01/05	Cs-134	115.50 ± 1.80	127.00	88.90 - 165.10	Pass
STW-1046	01/01/05	Cs-137	328.50 ± 1.70	332.00	232.40 - 431.60	Pass
STW-1046	01/01/05	Fe-55	64.90 ± 7.00	75.90	53.13 - 98.67	Pass
STW-1046	01/01/05	H-3	304.00 ± 9.70	280.00	196.00 - 364.00	Pass
STW-1046	01/01/05	Mn-54	334.80 ± 1.90	331.00	231.70 - 430.30	Pass
STW-1046	01/01/05	Ni-63	7.10 ± 1.60	9.00	0.00 - 20.00	Pass
STW-1046	01/01/05	Pu-238	0.01 ± 0.02	0.02	0.00 - 1.00	Pass
STW-1046	01/01/05	Pu-239/40	2.50 ± 0.14	2.40	1.68 - 3.12	Pass
STW-1046	01/01/05	Sr-90	0.70 ± 0.80	0.00	0.00 - 5.00	Pass
STW-1046	01/01/05	Tc-99	43.20 ± 1.40	42.90	30.03 - 55.77	Pass
STW-1046	01/01/05	U-233/4	3.31 ± 0.20	3.24	2.27 - 4.21	Pass
STW-1046	01/01/05	U-238	3.38 ± 0.20	3.33	2.33 - 4.33	Pass
STW-1046	01/01/05	Zn-65	538.40 ± 3.80	496.00	347.20 - 644.80	Pass
STVE-1047	01/01/05	Co-57	10.60 ± 0.20	9.88	6.92 - 12.84	Pass
STVE-1047	01/01/05	Co-60	3.00 ± 0.20	3.15	2.21 - 4.10	Pass
STVE-1047	01/01/05	Cs-134	4.80 ± 0.40	5.00	3.50 - 6.50	Pass
STVE-1047	01/01/05	Cs-137	4.10 ± 0.30	4.11	2.88 - 5.34	Pass
STVE-1047	01/01/05	Mn-54	5.10 ± 0.30	5.18	3.63 - 6.73	Pass
STVE-1047	01/01/05	Zn-65	6.20 ± 0.50	6.29	4.40 - 8.18	Pass
STSO-1048	01/01/05	Am-241	96.60 ± 10.00	109.00	76.30 - 141.70	Pass
STSO-1048	01/01/05	Co-57	264.00 ± 2.00	242.00	169.40 - 314.60	Pass
STSO-1048	01/01/05	Co-60	226.50 ± 2.20	212.00	148.40 - 275.60	Pass
STSO-1048	01/01/05	Cs-134	760.60 ± 3.70	759.00	531.30 - 986.70	Pass
STSO-1048	01/01/05	Cs-137	336.20 ± 3.60	315.00	220.50 - 409.50	Pass
STSO-1048	01/01/05	K-40	663.70 ± 18.00	604.00	422.80 - 785.20	Pass
STSO-1048	01/01/05	Mn-54	541.30 ± 3.90	485.00	339.50 - 630.50	Pass
STSO-1048	01/01/05	Ni-63	924.30 ± 17.20	1220.00	854.00 - 1586.00	Pass
STSO-1048	01/01/05	Pu-238	0.60 ± 0.80	0.48	0.00 - 1.00	Pass
STSO-1048	01/01/05	Pu-239/40	78.00 ± 4.80	89.50	62.65 - 116.35	Pass
STSO-1048	01/01/05	Sr-90	514.60 ± 18.70	640.00	448.00 - 832.00	Pass
STSO-1048	01/01/05	U-233/4	47.90 ± 4.00	62.50	43.75 - 81.25	Pass
STSO-1048	01/01/05	U-238	226.30 ± 8.60	249.00	174.30 - 323.70	Pass
STSO-1048	01/01/05	Zn-65	851.30 ± 7.30	810.00	567.00 - 1053.00	Pass
STAP-1050	01/01/05	Gr. Alpha	0.11 ± 0.03	0.23	0.00 - 0.46	Pass
STAP-1050	01/01/05	Gr. Beta	0.38 ± 0.05	0.30	0.15 - 0.45	Pass

TABLE D-5 DOE'S MIXED ANALYTE PERFORMANCE EVALUATION PROGRAM (MAPEP)[a]
ENVIRONMENTAL, INC., 2005

Lab Code[c]	Date	Analysis	Concentration [b] Laboratory result	Known Activity	Control Limits [d]	Acceptance
STAP-1049	01/01/05	Am-241	0.10 ± 0.04	0.10	0.07 - 0.13	Pass
STAP-1049	01/01/05	Co-57	4.76 ± 0.64	4.92	3.44 - 6.40	Pass
STAP-1049	01/01/05	Co-60	2.84 ± 0.22	3.03	2.12 - 3.94	Pass
STAP-1049	01/01/05	Cs-134	3.54 ± 0.37	3.51	2.46 - 4.56	Pass
STAP-1049	01/01/05	Cs-137	2.20 ± 0.27	2.26	1.58 - 2.94	Pass
STAP-1049	01/01/05	Mn-54	3.15 ± 0.21	3.33	2.33 - 4.33	Pass
STAP-1049	01/01/05	Pu-238	0.16 ± 0.04	0.20	0.14 - 0.25	Pass
STAP-1049	01/01/05	Pu-239/40	0.17 ± 0.02	0.17	0.14 - 0.25	Pass
STAP-1049 [e]	01/01/05	Sr-90	2.24 ± 0.34	1.35	0.95 - 1.76	Fail
STAP-1049	01/01/05	U-233/4	0.34 ± 0.02	0.34	0.24 - 0.44	Pass
STAP-1049	01/01/05	U-238	0.35 ± 0.02	0.35	0.25 - 0.46	Pass
STAP-1049	01/01/05	Zn-65	3.12 ± 0.15	3.14	2.20 - 4.08	Pass
STW-1061	07/01/05	Am-241	2.21 ± 0.13	2.23	1.56 - 2.90	Pass
STW-1061	07/01/05	Co-57	293.20 ± 7.30	272.00	190.40 - 353.60	Pass
STW-1061	07/01/05	Co-60	275.70 ± 1.30	261.00	182.70 - 339.30	Pass
STW-1061	07/01/05	Cs-134	171.80 ± 4.00	167.00	116.90 - 217.10	Pass
STW-1061	07/01/05	Cs-137	342.10 ± 2.20	333.00	233.10 - 432.90	Pass
STW-1061	07/01/05	Fe-55	167.80 ± 9.30	196.00	137.20 - 254.80	Pass
STW-1061	07/01/05	H-3	514.20 ± 12.60	527.00	368.90 - 685.10	Pass
STW-1061	07/01/05	Mn-54	437.00 ± 2.50	418.00	292.60 - 543.40	Pass
STW-1061	07/01/05	Ni-63	105.10 ± 3.60	100.00	70.00 - 130.00	Pass
STW-1061	07/01/05	Pu-238	1.64 ± 0.12	1.91	1.34 - 2.48	Pass
STW-1061	07/01/05	Pu-239/40	2.32 ± 0.13	2.75	1.93 - 3.58	Pass
STW-1061	07/01/05	Sr-90	9.20 ± 1.30	8.98	6.29 - 11.67	Pass
STW-1061	07/01/05	Tc-99	72.30 ± 2.30	66.50	46.55 - 86.45	Pass
STW-1061	07/01/05	U-233/4	4.11 ± 0.18	4.10	2.87 - 5.33	Pass
STW-1061	07/01/05	U-238	4.14 ± 0.18	4.26	2.98 - 5.54	Pass
STW-1061	07/01/05	Zn-65	364.60 ± 4.90	330.00	231.00 - 429.00	Pass
STW-1062	07/01/05	Gr. Alpha	0.57 ± 0.05	0.79	0.21 - 1.38	Pass
STW-1062	07/01/05	Gr. Beta	1.36 ± 0.05	1.35	0.85 - 1.92	Pass
STSO-1063 f	07/01/05	Am-241	48.40 ± 3.90	81.10	56.77 - 105.43	Fail
STSO-1063	07/01/05	Co-57	608.30 ± 2.80	524.00	366.80 - 681.20	Pass
STSO-1063	07/01/05	Co-60	322.70 ± 2.40	287.00	200.90 - 373.10	Pass
STSO-1063	07/01/05	Cs-134	632.10 ± 5.20	568.00	397.60 - 738.40	Pass
STSO-1063	07/01/05	Cs-137	512.40 ± 4.20	439.00	307.30 - 570.70	Pass
STSO-1063	07/01/05	K-40	720.50 ± 19.00	604.00	422.80 - 785.20	Pass
STSO-1063	07/01/05	Mn-54	516.80 ± 5.10	439.00	307.30 - 570.70	Pass
STSO-1063	07/01/05	Ni-63	366.50 ± 13.30	445.00	311.50 - 578.50	Pass
STSO-1063	07/01/05	Pu-238	68.80 ± 15.00	60.80	42.56 - 79.04	Pass
STSO-1063	07/01/05	Pu-239/40	0.00 ± 0.00	0.00	0.00 - 0.00	
STSO-1063	07/01/05	Sr-90	602.90 ± 17.20	757.00	529.90 - 984.10	Pass
STSO-1063	07/01/05	U-233/4	61.50 ± 1.00	52.50	36.75 - 68.25	Pass
STSO-1063	07/01/05	U-238	164.50 ± 16.70	168.00	117.60 - 218.40	Pass
STSO-1063	07/01/05	Zn-65	874.70 ± 8.40	823.00	576.10 - 1070.00	Pass

TABLE D-5 DOE'S MIXED ANALYTE PERFORMANCE EVALUATION PROGRAM (MAPEP)[a] ENVIRONMENTAL, INC., 2005

		Concentration [b]				
Lab Code[c]	Date	Analysis	Laboratory result	Known Activity	Control Limits [d]	Acceptance
STVE-1064	07/01/05	Am-241	0.18 ± 0.03	0.23	0.16 - 0.30	Pass
STVE-1064	07/01/05	Co-57	15.90 ± 0.20	13.30	9.31 - 17.29	Pass
STVE-1064	07/01/05	Co-60	4.80 ± 0.10	4.43	3.10 - 5.76	Pass
STVE-1064	07/01/05	Cs-134	4.60 ± 0.20	4.09	2.86 - 5.32	Pass
STVE-1064	07/01/05	Cs-137	5.90 ± 0.30	5.43	3.80 - 7.06	Pass
STVE-1064	07/01/05	Mn-54	7.20 ± 0.20	6.57	4.60 - 8.54	Pass
STVE-1064	07/01/05	Pu-238	0.04 ± 0.02	0.00	0.00 - 1.00	Pass
STVE-1064	07/01/05	Pu-239/40	0.13 ± 0.02	0.16	0.11 - 0.21	Pass
STVE-1064	07/01/05	Sr-90	2.80 ± 0.30	2.42	1.69 - 3.15	Pass
STVE-1064	07/01/05	U-233/4	0.28 ± 0.03	0.33	0.23 - 0.43	Pass
STVE-1064	07/01/05	U-238	0.33 ± 0.04	0.35	0.24 - 0.45	Pass
STVE-1064	07/01/05	Zn-65	11.00 ± 0.50	10.20	7.14 - 13.26	Pass
STAP-1065	07/01/05	Gr. Alpha	0.30 ± 0.04	0.48	0.00 - 0.80	Pass
STAP-1065	07/01/05	Gr. Beta	0.97 ± 0.06	0.83	0.55 - 1.22	Pass
STAP-1066	07/01/05	Am-241	0.14 ± 0.03	0.16	0.11 - 0.21	Pass
STAP-1066	07/01/05	Co-57	5.81 ± 0.17	6.20	4.34 - 8.06	Pass
STAP-1066	07/01/05	Co-60	2.79 ± 0.14	2.85	2.00 - 3.71	Pass
STAP-1066	07/01/05	Cs-134	3.67 ± 0.12	3.85	2.70 - 5.01	Pass
STAP-1066	07/01/05	Cs-137	2.93 ± 0.23	3.23	2.26 - 4.20	Pass
STAP-1066	07/01/05	Mn-54	4.11 ± 0.26	4.37	3.06 - 5.68	Pass
STAP-1066	07/01/05	Pu-238	0.11 ± 0.02	0.10	0.07 - 0.13	Pass
STAP-1066	07/01/05	Pu-239/40	0.10 ± 0.01	0.09	0.06 - 0.12	Pass
STAP-1066	07/01/05	Sr-90	2.25 ± 0.29	2.25	1.58 - 2.93	Pass
STAP-1066	07/01/05	U-233/4	0.28 ± 0.02	0.27	0.19 - 0.35	Pass
STAP-1066	07/01/05	U-238	0.28 ± 0.02	0.28	0.20 - 0.37	Pass
STAP-1066	07/01/05	Zn-65	4.11 ± 0.26	4.33	3.06 - 5.68	Pass

[a] Results obtained by Environmental, Inc., Midwest Laboratory as a participant in the Department of Energy's Mixed Analyte Performance Evaluation Program, Idaho Operations office, Idaho Falls, Idaho

[b] Results are reported in units of Bq/kg (soil), Bq/L (water) or Bq/total sample (filters, vegetation) as requested by the Department of Energy.

[c] Laboratory codes as follows: STW (water), STAP (air filter), STSO (soil), STVE (vegetation).

[d] MAPEP results are presented as the known values and expected laboratory precision (1 sigma, 1 determination) and control limits as defined by the MAPEP.

[e] The strontium carbonate precipitates were redissolved and processed. The average of the three analyses was 1.34 pCi/L, although the recovery was only 30%. The result of a new analysis was 1.56 pCi/L.

[f] Incorrect sample weight used in calculation. Result of recalculation: 97.0 ± 7.8 Bq/kg.

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APPENDIX E

EFFLUENT DATA

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INTRODUCTION

Braidwood Station, a two-unit PWR station, is located in Will County, Illinois, fifteen (15) miles south-southwest of Joliet, Illinois. Each reactor is designed to have a capacity of 3586.6 thermal megawatts. Units No. 1 went critical on May 29, 1987, and unit No. 2 went critical on March 8, 1988. The station has been designed to keep releases to the environment at levels below those specified in the regulations.

Liquid effluents from Braidwood Station are released to the Kankakee River in controlled batches after radioassay of each batch. Gaseous effluents are released to the atmosphere and are calculated on the basis of analyses of grab samples of noble gases and tritium, as well as continuously collected composite samples of iodine and particulate activity sampled during the course of the year. The results of effluent analyses are summarized on a monthly basis. Airborne concentrations of noble gases, I-131, and particulate radioactivity in offsite areas are calculated using effluent and meteorological data.

Environmental monitoring is conducted by sampling at indicator and control (background) locations in the vicinity of Braidwood Station to measure changes in radiation or radioactivity levels that may be attributable to station operations. If significant changes attributable to Braidwood Station are measured, these changes are correlated with effluent releases. External gamma radiation exposure from noble gases and internal dose from I-131 in milk are the critical pathways at this site; however, an environmental monitoring program is conducted which also includes other pathways.

SUMMARY

Calculations based on gaseous and liquid effluents, Kankakee River Flow and meteorological data indicate that public dose due to radioactive material attributable to Braidwood Station during the period does not exceed regulatory or Offsite Dose Calculation Manual (ODCM) limits.

The Total Effective Dose Equivalent (TEDE) due to licensed activities at Braidwood Station calculated for the maximally exposed individual for the period is 3.62E-01 mrem. The annual limit on TEDE is 100 mrem.

The assessment of radiation doses to the public is performed in accordance with the ODCM. The results of these analyses confirm that the station is operating in compliance with 10CFR50 Appendix I, 10CFR20 and 40CFR190.

1.0 EFFLUENTS

1.1 Gaseous Effluents to the Atmosphere

Measured concentrations of noble gases, radioiodine, and particulate radioactivity released to the atmosphere during the year, are listed in Table 1.1-1.

A total of 1.76E+01 curies of fission and activation gases were released with a maximum quarterly average release rate of 1.21E+00 µCi/sec at Unit 1 and 3.36E-01 µCi/sec at Unit 2.

A total of 2.59E-04 curies of 1-131 were released during the year with a maximum average quarterly release rate of 1.74E-05 µCi/sec for Unit 1 and 1.48E-06 µCi/sec for Unit 2.

A total of 1.71E-05 curies of beta-gamma emitters were released as airborne particulate matter with a maximum average release rate of 1.28E-06 µCi/sec at Unit 1 and 8.95E-07 µCi/sec at Unit 2. Alpha-emitting radionuclides were below the lower limit of detection (LLD) for the year.

A total of 3.99E+02 curies of tritium were released with a maximum average quarterly release rate of 5.70E+00 uCi/sec at Unit 1 and 2.10E+01 uCi/sec at Unit 2.

1.2 Liquids Released to Kankakee River

A total of 1.19E+07 liters of radioactive liquid wastes (prior to dilution) containing 5.44E-02 curies (excluding tritium, noble gases and alpha) were discharged from the station. These wastes were released at a maximum quarterly diluted average concentration of 2.51E-09 µCi/ml. Alpha-emitting radionuclides were less than the LLD for the year. A total of 1.76E+03 curies of tritium was released from the station. Quarterly release activities are given in Table 1.2-1.

2.0 SOLID RADIOACTIVE WASTE

Solid radioactive wastes were shipped by truck to the Envirocare of Utah disposal facility; the Barnwell, South Carolina disposal facility and various waste processors. For detail, refer the Braidwood Station 2005 Radioactive Effluent Release Report.

3.0 DOSE TO MAN

3.1 Gaseous Effluent Pathways

Table 3.1-1 summarizes the doses resulting from releases of airborne radioactivity via the different exposure pathways.

Isopleth figures and any references to them were removed from the report in 2004 due to a Change Management decision between the station and the Met Tower contractor. Associated information for iodine and particulate concentrations in air under previous sections 3.1.2.1 and 3.1.3 has also been removed. Subsequent sections have been renumbered accordingly.

3.1.1 Noble Gases

3.1.1.1 Gamma Dose Rates

Offsite Gamma air and total body dose rates are shown in Table 3.1-1 and were calculated based on measured effluents and average meteorological data. Based on measured effluents and average meteorological data, the maximum total body dose to an individual would be 8.49E-02 mrem for the year (Table 3.1-1) with an occupancy or shielding factor of 0.7 used. The maximum total body dose based on measured effluents and concurrent meteorological data would be 1.10E-03 mrem (Table 3.4-1). The maximum gamma air dose was 1.87E-03 mrad (Table 3.1-1) based on measured effluents and average meteorological data and 1.93E-03 mrad based on concurrent meteorological date (Table 3.4-1).

3.1.1.2 Beta Air and Skin Dose Rates

The range of beta particles in air is relatively small (on the order of a few meters or less); consequently, plumes of gaseous effluents may be considered "infinite" for purpose of calculating the dose from beta radiation incident on the skin. However, the actual dose to sensitive skin tissues is difficult to calculate due to the effect of the beta particle energies, thickness of inert skin and

clothing covering sensitive tissues. For purposes of this report the skin is taken to have a thickness of 7.0 mg/cm^2 and an occupancy factor of 1.0 is used. The skin dose from beta and gamma radiation for the year was 3.07E-03 mrem based on concurrent meteorological data (Table 3.4-1).

The maximum offsite beta air dose for the year was 1.17E-03 mrad (Table 3.1-1) based on measured effluents and average meteorological data and 2.69E-03 mrad based on concurrent meteorological data (Table 3.4-1).

3.1.2 Radioactive Iodine

The human thyroid exhibits a significant capacity to concentrate ingested or inhaled iodine and the radionuclide I-131. Minimal levels of radioiodine released during routine operation of the station may be made available to man, thus resulting in a dose to the thyroid. The principal pathway of interest for this radionuclide is ingestion of radioiodine in milk. Calculations are performed annually but the levels released from the station in previous years indicated that contributions to doses from inhalation of I-131 and I-133, and ingestion of I-133 in milk are negligible.

3.1.2.1 Dose to Thyroid

The hypothetical thyroid dose to the maximum exposed individual living near the station via ingestion of milk was calculated. The radionuclide considered was I-131 and the source of milk was taken to be the nearest dairy farm with the cows pastured from May through October. The maximum thyroid dose did not exceed 1.65E-01 mrem during the year (Table 3.1-1[infant]).

3.2 Liquid Effluent Pathways

The three principal pathways through the aquatic environment for potential doses to man from liquid waste are ingestion of potable water, eating aquatic foods, and exposure while on the shoreline. Not all of these pathways are significant or applicable at a given time or station but a reasonable approximation of the dose can be made by adjusting the dose formula for season of the year or type and degree of use of the aquatic environment. NRC developed

equations* were used to calculate the doses to the whole body, lower GI tracts, thyroid, bone and skin; specific parameters for use in the equations are given in the Exelon Offsite Dose Calculation Manual. The maximum whole body dose for the year was 8.56E-02 mrem and no organ dose exceeded 9.84E-02 mrem (Table 3.2-1 [child]).

In the spring of 2005, tritium was detected above background level concentrations in the site's east side perimeter ditch. The issue and the corrective actions planned are documented in the Braidwood Station Corrective Action Program in Issue Report #428868. This prompted groundwater studies in the summer and fall of 2005 that indicated contamination of the groundwater. Past failures of Circulating Water Blowdown vacuum breaker valves in1996, 1998, 2000 and 2003 were known to have released tritium (as well as other radionuclides in much lower concentrations) into the ground. A preliminary remedial action plan has been submitted to the Illinois Environmental Protection Agency (IEPA). A final remedial action plan will be submitted to IEPA in 2006.

The offsite dose to a member of the public as a result of the vacuum breaker failures was assessed based upon conservative assumptions. This assessment has been submitted as Attachment 2 of the 2005 Braidwood Station Annual Radioactive Effluent Release Report. The dose receptor for the groundwater contamination pathway assessment represents a different location and exposure pathway than that assumed for the maximally exposed individual in the Offsite Dose Calculation Manual. The dose assessment demonstrated that at no time did the dose exceed that of the maximum individual dose reported for the 1996-2005 time period. Thus there is no increase in reported dose to the maximum individual for the years 1996 to 2005.Therefore the doses already reported for those years continue to represent the highest potential dose to a member of the public.

3.3 Assessment of Dose to Member of Public

During the period January to December, 2005, Braidwood Station did not exceed the following limits as shown in Table 3.1-1 and Table 3.2-1 (based on annual average meteorological data), Figure 3.1-1 (based on concurrent meteorological data), and Table 3.3-1:

- The RETS limits on dose or dose commitment to an individual due to radioactive materials in liquid effluents from

each reactor unit (1.5 mrem to the whole body or 5 mrem to any organ during any calendar year; 3 mrem to the whole body or 10 mrem to any organ during the calendar year).

- The RETS limits on air dose in noble gases released in gaseous effluents to a member of the public from each reactor unit (5 mrads for gamma radiation or 10 mrad for beta radiation during any calendar quarter; 10 mrad for gamma radiation or 20 mrad for beta radiation during a calendar year).

- The RETS limits on dose to a member of the public due to iodine-131, iodine-133, tritium, and radionuclides in particulate form with half-lives greater than eight days in gaseous effluents released from each reactor unit (7.5 mrem to any organ during any calendar quarter; 15 mrem to any organ during any calendar year).

- The 10CFR20 limit on Total Effective Dose Equivalent to individual members of the public (100 mrem) during any calendar year.

4.0 SITE METEOROLOGY

A summary of the site meteorological measurements taken during each calendar quarter of the year is given in Appendix E. The data are presented as cumulative joint frequency distributions of the wind direction for the 203' level and wind speed class by atmospheric stability class determined from the temperature difference between the 199' and 30' levels. Data recovery for these measurements was 99.5% during 2005.

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*Nuclear Regulatory Commission, Regulatory Guide 1.109 (Rev. 1)

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APPENDIX E-1

DATA TABLES AND FIGURES

Table 1.1-1

GASEOUS EFFLUENTS SUMMATION OF ALL RELEASES

BRAIDWOOD NUCLEAR POWER STATION
ANNUAL EFFLUENT REPORT FOR 2005
GAS RELEASES
UNIT 1 (Docket Number 50-456)
SUMMATION OF ALL RELEASES

	Units	1st Qtr	2nd Qtr	3rd Qtr	4th Qtr	Est. Total Error%
A. Fission and Activation Gas Releases						
1. Total Release Activity	Ci	1.99E+00	8.08E-01	9.60E+00	6.98E-01	7.59
2. Average Release Rate	uCi/sec	2.56E-01	1.03E-01	1.21E+00	8.78E-02	
3. Percent of ODCM Limit - gamma	%	1.38E-04	8.39E-05	3.67E-02	1.14E-04	
4. Percent of ODCM Limit - beta	%	1.18E-03	4.11E-04	7.49E-03	2.72E-04	
B. Iodine Releases						
1. Total I-131 Activity	Ci	1.37E-05	8.36E-05	1.38E-04	1.22E-05	33.20
2. Average Release Rate	uCi/sec	1.76E-06	1.06E-05	1.74E-05	1.53E-06	
3. Percent of ODCM Limit - gamma	%	1.24E-01	5.02E-01	5.47E-01	1.50E-01	
C. Particulate (> 8 day half-life) Releases						
1. Gross Activity	Ci	<LLD	1.01E-05	<LLD	<LLD	19.80
2. Average Release Rate	uCi/sec	0.00E+00	1.28E-06	0.00E+00	0.00E+00	
3. Percent of ODCM Limit	%	N/A	5.02E-01	N/A	N/A	
4. Gross Alpha Activity	Ci	<LLD	<LLD	<LLD	<LLD	
D. Tritium Releases						
1. Total Release Activity	Ci	3.90E+01	1.65E+01	4.53E+01	9.86E+00	8.07
2. Average Release Rate	uCi/sec	5.02E+00	2.10E+00	5.70E+00	1.24E+00	
3. Percent of ODCM Limit	%	1.24E-01	5.02E-01	5.47E-01	1.50E-01	

Table 1.1-1 (continued)

GASEOUS EFFLUENTS SUMMATION OF ALL RELEASES

BRAIDWOOD NUCLEAR POWER STATION
ANNUAL EFFLUENT REPORT FOR 2005
GAS RELEASES
UNIT 2 (Docket Number 50-457)
SUMMATION OF ALL RELEASES

	Units	1st Qtr	2nd Qtr	3rd Qtr	4th Qtr	Est. Total Error%
A. Fission and Activation Gas Releases						
1. Total Activity Released	Ci	1.38E+00	4.24E-01	2.67E+00	1.37E-02	7.59
2. Average Release Rate	uCi/sec	1.77E-01	5.39E-02	3.36E-01	1.72E-03	
3. Percent of ODCM Limit - gamma	%	4.21E-05	2.86E-05	3.77E-04	2.18E-06	
4. Percent of ODCM Limit - beta	%	9.41E-04	2.67E-04	1.18E-03	5.28E-06	
B. Iodine Releases						
1. Total I-131 Activity	Ci	<LLD	1.16E-05	<LLD	<LLD	33.20
2. Average Release Rate	uCi/sec	0.00E+00	1.48E-06	0.00E+00	0.00E+00	
3. Percent of ODCM Limit	%	N/A	1.87E-01	N/A	N/A	
C. Particulate (> 8 day half-life) Releases						
1. Gross Activity	Ci	<LLD	7.04E-06	<LLD	<LLD	19.80
2. Average Release Rate	uCi/sec	0.00E+00	8.95E-07	0.00E+00	0.00E+00	
3. Percent of OCDM Limit	%	NA	1.87E-01	N/A	N/A	
4. Gross Alpha Activity	Ci	<LLD	<LLD	<LLD	<LLD	
D. Tritium Releases						
1. Total Release Activity	Ci	6.22E+01	1.75E+01	4.12E+01	1.67E+02	8.07
2. Average Release Rate	uCi/sec	8.00E+00	2.23E+00	5.18E+00	2.10E+01	
3. Percent of ODCM Limit	%	1.77E-01	1.87E-01	1.17E-01	4.74E-01	

Table 1.2-1

LIQUID EFFLUENTS SUMMATION OF ALL RELEASES

BRAIDWOOD NUCLEAR POWER STATION
ANNUAL EFFLUENT REPORT FOR 2005
LIQUID RELEASES
UNIT 1 (Docket Number 50-456)
SUMMATION OF ALL RELEASES

	Units	1st Qtr	2nd Qtr	3rd Qtr	4th Qtr	Est. Total Error %
A. Fission and Activation Products						
1. Total Activity Released	Ci	1.17E-02	8.52E-03	4.43E-03	2.56E-03	2.64
2. Average Concentration Released	uCi/ml	2.17E-09	2.51E-09	1.76E-09	8.45E-10	
percent of limit	%	*	*	*	*	
B. Tritium						
1. Total Activity Released	Ci	2.69E+02	2.10E+02	1.82E+02	2.20E+02	5.85
2. Average Concentration Released	uCi/ml	5.00E-05	6.19E-05	7.25E-05	7.26E-05	
3. % of Limit (1E-2 uCi/ml)	%	5.00E-01	6.19E-01	7.25E-01	7.26E-01	
C. Dissolved Noble Gases						
1. Total Activity Released	Ci	8.29E-04	2.41E-03	7.41E-04	8.11E-04	2.64
2. Average Concentration Released	uCi/ml	1.54E-10	7.10E-10	2.95E-10	2.68E-10	
3. % of Limit (2E-4 uCi/ml)	%	7.70E-05	3.55E-04	1.48E-04	1.34E-04	
D. Gross Alpha						
1. Total Activity Released	Ci	<LLD	<LLD	<LLD	<LLD	14.70
2. Average Concentration Released	uCi/ml	<LLD	<LLD	<LLD	<LLD	
E. Volume of Releases						
1. Volume of Liquid Waste to Discharge	liters	1.55E+06	1.98E+06	1.67E+06	7.41E+05	
2. Volume of Dilution Water	liters	5.38E+09	3.39E+09	2.51E+09	3.03E+09	

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

Table 1.2-1 (continued)

LIQUID EFFLUENTS SUMMATION OF ALL RELEASES

BRAIDWOOD NUCLEAR POWER STATION
ANNUAL EFFLUENT REPORT FOR 2005
LIQUID RELEASES
UNIT 2 (Docket Number 50-457)
SUMMATION OF ALL RELEASES

	Units	1st Qtr	2nd Qtr	3rd Qtr	4th Qtr	Est. Total Error %
A. Fission and Activation Products						
1. Total Activity Released	Ci	1.17E-02	8.52E-03	4.43E-03	2.56E-03	2.64
2. Average Concentration Released	uCi/ml	2.17E-09	2.51E-09	1.76E-09	8.45E-10	
Percent of limit	%	*	*	*	*	
B. Tritium						
1. Total Activity Released	Ci	2.69E+02	2.10E+02	1.82E+02	2.20E+02	5.85
2. Average Concentration Released	uCi/ml	5.00E-05	6.19E-05	7.25E-05	7.26E-05	
3. % of Limit (1E-3 uCi/ml)	%	5.00E-01	6.19E-01	7.25E-01	7.26E-01	
C. Dissolved Noble Gases						
1. Total Activity Released	Ci	8.29E-04	2.41E-03	7.41E-04	8.11E-04	2.64
2. Average Concentration Released	uCi/ml	1.54E-10	7.10E-10	2.95E-10	2.68E-10	
3. % of Limit (2E-4 uCi/ml)	%	7.70E-05	3.55E-04	1.48E-04	1.34E-04	
D. Gross Alpha						
1. Total Activity Released	Ci	<LLD	<LLD	<LLD	<LLD	14.70
2. Average Concentration Released	uCi/ml	<LLD	<LLD	<LLD	<LLD	
E. Volume of Releases						
1. Volume of Liquid Waste to Discharge	liters	1.55E+06	1.98E+06	1.67E+06	7.41E+05	
2. Volume of Dilution Water	liters	5.38E+09	3.39E+09	2.51E+09	3.03E+09	

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

Table 3.1-1

MAXIMUM DOSES RESULTING FROM AIRBORNE RELEASES

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

Release ID.....: 1 All Gas Release Types
Period Start Date....: 01/01/2005 00:00
Period End Date......: 01/01/2006 00:00
Period Duration (min): 5.256E+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	9.87E-02	31-day	2.25E-01	4.39E+01	3.00E-01	3.29E+01
Qrtr->End	INFANT	THYROID	9.87E-02	Quarter	5.63E+00	1.75E+00	7.50E+00	1.32E+00
Year->End	INFANT	THYROID	9.87E-02	Annual	1.13E+01	8.77E-01	1.50E+01	6.58E-01

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

Nuclide	Percentage
H-3	1.85E+01
I-131	7.95E+01
I-132	6.52E-05
I-133	1.87E+00
I-135	3.76E-04

=== 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	2.36E-02	31-day	1.50E-01	1.58E+01	2.00E-01	1.18E+01
Qrtr->End	CHILD	TBODY	2.36E-02	Quarter	5.25E+00	4.50E-01	7.50E+00	3.15E-01
Year->End	CHILD	TBODY	2.36E-02	Annual	1.05E+01	2.25E-01	1.50E+01	1.58E-01

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

Nuclide	Percentage
H-3	9.98E+01
I-131	2.50E-01
I-132	2.84E-05
I-133	8.16E-03
I-135	4.86E-05

Date/Time: 04/21/2006 15:31   retdasID: Retdas

Table 3.1-1 (continued)

MAXIMUM DOSES RESULTING FROM AIRBORNE RELEASES

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

Release ID.....: 1 All Gas Release Types
Period Start Date....: 01/01/2005 00:00
Period End Date......: 01/01/2006 00:00
Period Duration (min): 5.256E+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	1.85E-03	31-day	1.50E-01	1.24E+00	2.00E-01	9.27E-01
Qrtr->End	Gamma	1.85E-03	Quarter	3.75E+00	4.94E-02	5.00E+00	3.71E-02
Year->End	Gamma	1.85E-03	Annual	7.50E+00	2.47E-02	1.00E+01	1.85E-02

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

Nuclide	Percentage
AR-41	1.43E-02
KR-85M	2.42E-03
KR-85	4.00E-02
XE-133M	1.10E-02
KR-88	9.74E+01
XE-131M	4.97E-03
XE-135	6.13E-02
XE-133	2.51E+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	9.35E-04	31-day	3.00E-01	3.12E-01	4.00E-01	2.34E-01
Qrtr->End	Beta	9.35E-04	Quarter	7.50E+00	1.25E-02	1.00E+01	9.35E-03
Year->End	Beta	9.35E-04	Annual	1.50E+01	6.23E-03	2.00E+01	4.68E-03

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

Nuclide	Percentage
AR-41	1.63E-02
KR-85M	1.25E-02
KR-85	1.47E+01
XE-133M	1.62E-01
KR-88	6.06E+01
XE-131M	1.14E-01
XE-135	2.54E-01
XE-133	2.41E+01

Date/Time: 04/21/2006 15:31   retdasID: Retdas

Table 3.1-1 (continued)

MAXIMUM DOSES RESULTING FROM AIRBORNE RELEASES

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

Release ID.....: 1 All Gas Release Types
Period Start Date....: 01/01/2005 00:00
Period End Date......: 01/01/2006 00:00
Period Duration (min): 5.256E+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	CHILD	THYROID	6.62E-02	31-day	2.25E-01	2.94E+01	3.00E-01	2.21E+01
Qrtr->End	CHILD	THYROID	6.62E-02	Quarter	5.63E+00	1.18E+00	7.50E+00	8.82E-01
Year->End	CHILD	THYROID	6.62E-02	Annual	1.13E+01	5.88E-01	1.50E+01	4.41E-01

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

Nuclide	Percentage
H-3	9.27E+01
CO-58	1.34E-03
I-131	7.29E+00
I-133	1.83E-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	6.13E-02	31-day	1.50E-01	4.09E+01	2.00E-01	3.07E+01
Qrtr->End	CHILD	TBODY	6.13E-02	Quarter	5.25E+00	1.17E+00	7.50E+00	8.18E-01
Year->End	CHILD	TBODY	6.13E-02	Annual	1.05E+01	5.84E-01	1.50E+01	4.09E-01

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

Nuclide	Percentage
H-3	9.99E+01
CO-58	2.54E-03
I-131	1.36E-02
I-133	4.50E-05

Date/Time: 04/21/2006 15:33   retdasID: Retdas

Table 3.1-1 (continued)

MAXIMUM DOSES RESULTING FROM AIRBORNE RELEASES

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

Release ID.....: 1 All Gas Release Types
Period Start Date....: 01/01/2005 00:00
Period End Date......: 01/01/2006 00:00
Period Duration (min): 5.256E+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	2.25E-05	31-day	1.50E-01	1.50E-02	2.00E-01	1.12E-02
Qrtr->End	Gamma	2.25E-05	Quarter	3.75E+00	6.00E-04	5.00E+00	4.50E-04
Year->End	Gamma	2.25E-05	Annual	7.50E+00	3.00E-04	1.00E+01	2.25E-04

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

Nuclide	Percentage
AR-41	1.17E+00
KR-85	3.29E+00
XE-133M	9.10E-01
XE-131M	4.09E-01
XE-135	5.85E+00
XE-133	8.84E+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	2.39E-04	31-day	3.00E-01	7.96E-02	4.00E-01	5.97E-02
Qrtr->End	Beta	2.39E-04	Quarter	7.50E+00	3.19E-03	1.00E+01	2.39E-03
Year->End	Beta	2.39E-04	Annual	1.50E+01	1.59E-03	2.00E+01	1.19E-03

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

Nuclide	Percentage
AR-41	6.36E-02
KR-85	5.73E+01
XE-133M	6.32E-01
XE-131M	4.47E-01
XE-135	1.15E+00
XE-133	4.04E+01

Date/Time: 04/21/2006 15:33   retdasID: Retdas   LAST Page - 5

Table 3.2-1

MAXIMUM DOSES RESULTING FROM LIQUID EFFLUENTS

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

Release ID.....: 1 All Liquid Release Types
Period Start Date.....: 01/01/2005 00:00
Period End Date.....: 01/01/2006 00:00
Period Duration (mins): 5.256E+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	CHILD	LIVER	4.92E-02	31-day	1.50E-01	3.28E+01	2.00E-01	2.46E+01
Qrtr->End	CHILD	LIVER	4.92E-02	Quarter	3.75E+00	1.31E+00	5.00E+00	9.83E-01
Year->End	CHILD	LIVER	4.92E-02	Annual	7.50E+00	6.56E-01	1.00E+01	4.92E-01

Critical Pathway.....: 0 Potable Water (PWtr)
Major Contributors.....: 0.0 % or greater to total

Nuclide	Percentage
H-3	6.39E+01
CR-51	0.00E+00
MN-54	4.66E-02
FE-59	1.03E-02
CO-58	4.84E-02
CO-60	3.48E-02
ZR-95	5.19E-07
NB-95	2.36E-03
TE-125M	5.94E-01
I-132	4.74E-06
CS-134	2.34E+01
CS-137	1.20E+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	4.28E-02	31-day	4.50E-02	9.51E+01	6.00E-02	7.13E+01
Qrtr->End	ADULT	TBODY	4.28E-02	Quarter	1.13E+00	3.81E+00	1.50E+00	2.85E+00
Year->End	ADULT	TBODY	4.28E-02	Annual	2.25E+00	1.90E+00	3.00E+00	1.43E+00

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

Nuclide	Percentage
H-3	6.42E+01
CR-51	2.36E-02
MN-54	1.32E-02
FE-59	5.14E-03
CO-58	1.50E-01
CO-60	1.04E-01

Date/Time: 04/21/2006 15:24   retdasID: Retdas

Table 3.2-1 (continued)

MAXIMUM DOSES RESULTING FROM LIQUID EFFLUENTS

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

Release ID.....: 1 All Liquid Release Types
Period Start Date.....: 01/01/2005 00:00
Period End Date.....: 01/01/2006 00:00
Period Duration (mins): 5.256E+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	CHILD	LIVER	4.92E-02	31-day	1.50E-01	3.28E+01	2.00E-01	2.46E+01
Qrtr->End	CHILD	LIVER	4.92E-02	Quarter	3.75E+00	1.31E+00	5.00E+00	9.83E-01
Year->End	CHILD	LIVER	4.92E-02	Annual	7.50E+00	6.56E-01	1.00E+01	4.92E-01

Critical Pathway.....: 0 Potable Water (PWtr)
Major Contributors.....: 0.0 % or greater to total

Nuclide	Percentage
H-3	6.39E+01
CR-51	0.00E+00
MN-54	4.66E-02
FE-59	1.03E-02
CO-58	4.84E-02
CO-60	3.48E-02
ZR-95	5.19E-07
NB-95	2.36E-03
TE-125M	5.94E-01
I-132	4.74E-06
CS-134	2.34E+01
CS-137	1.20E+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	4.28E-02	31-day	4.50E-02	9.51E+01	6.00E-02	7.13E+01
Qrtr->End	ADULT	TBODY	4.28E-02	Quarter	1.13E+00	3.81E+00	1.50E+00	2.85E+00
Year->End	ADULT	TBODY	4.28E-02	Annual	2.25E+00	1.90E+00	3.00E+00	1.43E+00

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

Nuclide	Percentage
H-3	6.42E+01
CR-51	2.36E-02
MN-54	1.32E-02
FE-59	5.14E-03
CO-58	1.50E-01
CO-60	1.04E-01

Date/Time: 04/21/2006 15:29   retdasID: Retdas

Table 3.3-1

10CFR20 COMPLIANCE ASSESSMENT

Braidwood Nuclear Station

Unit 1

10 CFR 20 Compliance Assessment

Period of Assessment: 1/1/05 through 12/31/05
Calculated 4/27/06

10 CFR 20.1301(a)(1) Compliance

Total Effective Dose Equivalent (TEDE)	mrem/year	1.96E-01
10 CFR 20.1301(a)(1) limit	mrem/year	100.00
	% of limit	0.20

Compliance Summary

	1st Qtr	2nd Qtr	3rd Qtr	4th Qtr	Total
TEDE (mrem)	3.99E-02	6.35E-02	6.16E-02	3.10E-02	1.96E-01

Table 3.3-1 (continued)

10CFR20 COMPLIANCE ASSESSMENT

Braidwood Nuclear Station

Unit 2

10 CFR 20 Compliance Assessment

Period of Assessment: 1/1/05 through 12/31/05
Calculated 4/27/06

10 CFR 20.1301(a)(1) Compliance

Total Effective Dose Equivalent (TEDE)	mrem/year	1.66E-01
10 CFR 20.1301(a)(1) limit	mrem/year	100.00
	% of limit	0.17

Compliance Summary

	1st Qtr	2nd Qtr	3rd Qtr	4th Qtr	Total
TEDE (mrem)	4.39E-02	3.99E-02	2.68E-02	5.52E-02	1.66E-01

Table 3.4-1

MAXIMUM DOSES RESULTING FROM AIRBORNE RELEASES BASED ON CONCURRENT METEORLOGICAL DATA

Braidwood Station - Unit 1

MAXIMUM DOSES RESULTING FROM AIRBORNE RELEASES

2005

TYPE OF DOSE	FIRST QUARTER	SECOND QUARTER	THIRD QUARTER	FOURTH QUARTER	ANNUAL
GAMMA AIR (mrad)	7.740E-06(WSW)	6.150E-06(W)	1.880E-03(W)	1.250E-07(N)	1.894E-03(W)
BETA AIR (mrad)	1.380E-04(WSW)	1.000E-04(W)	1.990E-03(WNW)	5.180E-07(N)	2.215E-03(WNW)
WHOLE BODY (mrem)	3.710E-06(SW)	3.290E-06(W)	1.080E-03(W)	1.200E-07(N)	1.087E-03(W)
SKIN (mrem)	8.590E-05(SW)	4.570E-05(W)	2.740E-03(W)	4.410E-07(N)	2.856E-03(W)
ORGAN (mrem)	1.100E-03(WSW)	9.990E-04(W)	2.900E-03(WNW)	3.660E-04(N)	5.082E-03(W)
CRITICAL PERSON	Teenager	Teenager	Teenager	Teenager	Teenager
CRITICAL ORGAN	Liver	Thyroid	Thyroid	Thyroid	Thyroid

COMPLIANCE STATUS

TYPE OF DOSE	10 CFR 50 APP. I QUARTERLY OBJECTIVE	% OF APP. I	10 CFR 50 APP.I YEARLY OBJECTIVE	% OF APP. I
GAMMA AIR (mrad)	5.0	0.04	10.0	0.02
BETA AIR (mrad)	10.0	0.02	20.0	0.01
WHOLE BODY (mrem)	2.5	0.04	5.0	0.02
SKIN (mrem)	7.5	0.04	15.0	0.02
ORGAN (mrem)	7.5	0.04	15.0	0.03
CRITICAL PERSON		Teenager		Teenager
CRITICAL ORGAN		Thyroid		Thyroid

Calculation used release data from the following:
Unit 1 - Vent

Date of calculation: 4/6/2006

Table 3.4-1 (continued)

MAXIMUM DOSES RESULTING FROM AIRBORNE RELEASES BASED ON CONCURRENT METEORLOGICAL DATA

Braidwood Station - Unit 2

MAXIMUM DOSES RESULTING FROM AIRBORNE RELEASES

2005

TYPE OF DOSE	FIRST QUARTER	SECOND QUARTER	THIRD QUARTER	FOURTH QUARTER	ANNUAL
GAMMA AIR (mrad)	2.250E-06(WSW)	2.040E-06(W)	3.010E-05(W)	1.110E-07(N)	3.436E-05(W)
BETA AIR (mrad)	1.100E-04(WSW)	6.050E-05(W)	3.110E-04(WNW)	8.190E-07(N)	4.726E-04(WNW)
WHOLE BODY (mrem)	9.230E-07(SW)	2.100E-06(W)	1.460E-05(W)	4.700E-08(N)	1.760E-05(W)
SKIN (mrem)	7.250E-05(SW)	3.250E-05(W)	1.220E-04(W)	2.620E-07(N)	2.140E-04(W)
ORGAN (mrem)	1.750E-03(WSW)	1.040E-03(W)	2.610E-03(WNW)	6.130E-03(N)	9.104E-03(N)
CRITICAL PERSON	Teenager	Teenager	Teenager	Teenager	Teenager
CRITICAL ORGAN	Liver	Thyroid	Liver	Liver	Thyroid

COMPLIANCE STATUS

TYPE OF DOSE	10 CFR 50 APP. I QUARTERLY OBJECTIVE	% OF APP. I	10 CFR 50 APP.I YEARLY OBJECTIVE	% OF APP. I
GAMMA AIR (mrad)	5.0	0.00	10.0	0.00
BETA AIR (mrad)	10.0	0.00	20.0	0.00
WHOLE BODY (mrem)	2.5	0.00	5.0	0.00
SKIN (mrem)	7.5	0.00	15.0	0.00
ORGAN (mrem)	7.5	0.08	15.0	0.06
CRITICAL PERSON		Teenager		Teenager
CRITICAL ORGAN		Liver		Thyroid

Calculation used release data from the following:
Unit 2 - Vent

Date of calculation: 4/6/2006

APPENDIX F

METEOROLOGICAL

Braidwood Nuclear Station

Period of Record: January - March 2005
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	4	0	0	0	4
NNE	0	0	1	0	0	0	1
NE	0	3	9	0	0	0	12
ENE	0	6	1	0	0	0	7
E	0	9	0	0	0	0	9
ESE	0	1	2	0	0	0	3
SE	0	0	4	0	0	0	4
SSE	0	2	1	4	0	0	7
S	0	2	3	6	2	0	13
SSW	1	8	4	2	0	0	15
SW	0	4	3	0	0	0	7
WSW	1	4	5	4	0	0	14
W	0	5	5	4	0	0	14
WNW	0	6	14	4	0	0	24
NW	0	8	20	7	0	0	35
NNW	0	0	20	2	0	0	22
Variable	0	0	0	0	0	0	0
Total	2	58	96	33	2	0	191

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 Nuclear Station

Period of Record: January - March 2005
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	2	2	0	0	5
NNE	0	0	1	0	0	0	1
NE	0	5	1	0	0	0	6
ENE	0	4	0	0	0	0	4
E	0	3	1	0	0	0	4
ESE	0	3	1	0	0	0	4
SE	0	1	1	0	0	0	2
SSE	0	0	1	0	0	0	1
S	0	2	1	1	0	0	4
SSW	1	1	1	1	0	0	4
SW	0	3	4	0	0	0	7
WSW	0	4	1	1	0	0	6
W	0	8	2	3	0	0	13
WNW	1	3	3	0	0	0	7
NW	0	3	10	0	0	0	13
NNW	0	5	7	0	0	0	12
Variable	0	0	0	0	0	0	0
Total	2	46	37	8	0	0	93

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 Nuclear Station

Period of Record: January - March 2005
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	0	0	1	0	0	1
NNE	0	2	0	0	0	0	2
NE	0	2	1	0	0	0	3

ENE	1	3	1	0	0	0	5
E	0	5	0	0	0	0	5
ESE	0	1	1	0	0	0	2
SE	0	1	1	0	0	0	2
SSE	0	2	1	1	0	0	4
S	0	1	1	1	0	0	3
SSW	0	2	0	0	0	0	2
SW	0	0	1	0	0	0	1
WSW	0	3	4	1	0	0	8
W	0	3	5	3	0	0	11
WNW	0	2	3	1	0	0	6
NW	0	12	5	0	0	0	17
NNW	1	4	6	0	0	0	11
Variable	0	0	0	0	0	0	0
Total	2	43	30	8	0	0	83

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 Nuclear Station

Period of Record: January - March 2005
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	5	14	16	10	0	0	45
NNE	7	39	35	0	0	0	81
NE	4	45	70	13	0	0	132
ENE	6	48	19	0	0	0	73
E	12	23	1	0	0	0	36
ESE	4	26	23	0	0	0	53
SE	2	5	20	0	0	0	27

SSE	0	12	14	2	0	0	28
S	0	8	32	14	3	0	57
SSW	0	2	23	11	3	0	39
SW	1	13	29	17	0	0	60
WSW	2	9	14	6	1	0	32
W	4	19	18	15	1	0	57
WNW	7	23	32	10	0	0	72
NW	2	60	36	4	0	0	102
NNW	4	43	43	12	0	0	102
Variable	0	0	0	0	0	0	0
Total	60	389	425	114	8	0	996

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 Nuclear Station

Period of Record: January - March 2005
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	11	17	5	0	0	0	33
NNE	9	12	0	0	0	0	21
NE	7	20	0	1	0	0	28
ENE	27	29	1	0	0	0	57
E	23	8	0	0	0	0	31
ESE	6	30	6	0	0	0	42
SE	3	8	15	1	0	0	27
SSE	4	17	14	1	0	0	36
S	2	10	18	8	0	0	38
SSW	1	6	13	6	2	0	28
SW	1	14	20	8	0	0	43
WSW	2	14	16	0	0	0	32

W	6	7	7	1	0	0	21
WNW	13	29	7	2	0	0	51
NW	20	23	1	0	0	0	44
NNW	12	19	9	2	0	0	42
Variable	0	0	0	0	0	0	0
Total	147	263	132	30	2	0	574

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 Nuclear Station

Period of Record: January - March 2005
Stability Class - Moderately Stable - 199Ft-30Ft Delta-T (F)
Winds Measured at 34 Feet

Wind Direction	Wind Speed (in mph) 1-3	4-7	8-12	13-18	19-24	> 24	Total
N	3	0	0	0	0	0	3
NNE	7	0	0	0	0	0	7
NE	7	0	0	0	0	0	7
ENE	12	0	0	0	0	0	12
E	12	0	0	0	0	0	12
ESE	5	1	0	0	0	0	6
SE	0	4	0	0	0	0	4
SSE	1	9	0	0	0	0	10
S	0	4	0	0	0	0	4
SSW	1	0	2	0	0	0	3
SW	2	0	1	0	0	0	3
WSW	0	10	0	0	0	0	10
W	13	9	0	0	0	0	22
WNW	7	1	0	0	0	0	8
NW	5	1	0	0	0	0	6
NNW	3	2	0	0	0	0	5

Variable	0	0	0	0	0	0	0
Total	78	41	3	0	0	0	122

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 Nuclear Station

Period of Record: January - March 2005
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	0	0	0	0	0	0	0
NNE	2	0	0	0	0	0	2
NE	2	0	0	0	0	0	2
ENE	1	0	0	0	0	0	1
E	5	0	0	0	0	0	5
ESE	0	0	0	0	0	0	0
SE	0	0	0	0	0	0	0
SSE	0	0	0	0	0	0	0
S	0	0	0	0	0	0	0
SSW	0	0	0	0	0	0	0
SW	0	0	0	0	0	0	0
WSW	1	0	0	0	0	0	1
W	6	4	0	0	0	0	10
WNW	4	0	0	0	0	0	4
NW	3	0	0	0	0	0	3
NNW	2	0	0	0	0	0	2
Variable	0	0	0	0	0	0	0
Total	26	4	0	0	0	0	30

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 Nuclear Station

Period of Record: January - March 2005
Stability Class - Extremely Unstable - 199Ft-30Ft Delta-T (F)
Winds Measured at 203 Feet

Wind Direction	Wind Speed (in mph) 1-3	4-7	8-12	13-18	19-24	> 24	Total
N	0	0	4	0	0	0	4
NNE	0	0	2	0	0	0	2
NE	0	0	1	0	0	0	1
ENE	0	1	12	3	0	0	16
E	0	0	10	0	0	0	10
ESE	0	0	1	3	0	0	4
SE	0	0	2	3	0	0	5
SSE	0	0	2	1	4	0	7
S	0	1	1	3	4	4	13
SSW	1	5	7	0	2	0	15
SW	0	2	2	3	0	0	7
WSW	0	1	3	4	2	2	12
W	0	1	4	5	3	0	13
WNW	0	5	7	5	2	4	23
NW	0	1	11	11	9	1	33
NNW	0	0	7	17	0	0	24
Variable	0	0	0	0	0	0	0
Total	1	17	76	58	26	11	189

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: 25

Braidwood Nuclear Station

Period of Record: January - March 2005
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	4	0	0	4
NNE	0	0	0	0	0	0	0
NE	0	2	3	2	0	0	7
ENE	0	1	1	0	0	0	2
E	0	1	3	2	0	0	6
ESE	0	1	2	1	0	0	4
SE	0	1	0	1	0	0	2
SSE	0	1	0	1	0	0	2
S	0	0	1	1	1	0	3
SSW	0	2	1	0	1	0	4
SW	1	2	3	2	0	0	8
WSW	0	2	2	2	0	0	6
W	0	2	4	1	2	0	9
WNW	1	1	4	1	1	1	9
NW	0	1	9	4	1	0	15
NNW	0	1	6	3	0	0	10
Variable	0	0	0	0	0	0	0
Total	2	18	39	25	6	1	91

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: 25

Braidwood Nuclear Station

Period of Record: January - March 2005
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	0	1	0	0	1
NNE	0	1	1	0	0	0	2
NE	1	1	3	0	0	0	5

ENE	0	1	0	0	0	0	1
E	0	3	3	1	0	0	7
ESE	0	1	1	1	0	0	3
SE	0	1	0	1	0	0	2
SSE	0	1	1	1	0	0	3
S	0	1	0	1	1	1	4
SSW	0	2	0	0	0	0	2
SW	0	0	1	1	0	0	2
WSW	0	1	3	1	1	0	6
W	0	2	1	1	0	1	5
WNW	0	2	3	3	4	0	12
NW	0	4	7	2	2	0	15
NNW	0	1	8	4	0	0	13
Variable	0	0	0	0	0	0	0
Total	1	22	32	18	8	2	83

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: 25

Braidwood Nuclear Station

Period of Record: January - March 2005
Stability Class - Neutral - 199Ft-30Ft Delta-T (F)
Winds Measured at 203 Feet

Wind Direction	Wind Speed (in mph) 1-3	4-7	8-12	13-18	19-24	> 24	Total
N	1	10	15	11	11	0	48
NNE	3	7	36	19	0	0	65
NE	1	3	51	52	10	0	117
ENE	6	16	32	30	7	0	91
E	1	12	30	5	0	0	48
ESE	1	10	12	22	11	0	56
SE	0	3	6	13	8	0	30

SSE	1	0	10	10	3	0	24
S	0	2	18	20	12	7	59
SSW	0	0	5	25	14	6	50
SW	1	3	17	13	12	3	49
WSW	1	6	10	8	7	1	33
W	0	12	13	11	9	3	48
WNW	0	6	15	16	17	5	59
NW	1	7	50	41	12	1	112
NNW	1	10	59	27	8	1	106
Variable	0	0	0	0	0	0	0
Total	18	107	379	323	141	27	995

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: 25

Braidwood Nuclear Station

Period of Record: January - March 2005
Stability Class - Slightly Stable - 199Ft-30Ft Delta-T (F)
Winds Measured at 203 Feet

Wind Direction	Wind Speed (in mph) 1-3	4-7	8-12	13-18	19-24	> 24	Total
N	0	8	30	1	0	0	39
NNE	0	6	13	2	0	0	21
NE	0	8	19	0	1	0	28
ENE	2	9	25	1	0	0	37
E	1	13	24	1	0	0	39
ESE	1	5	14	22	3	0	45
SE	0	6	6	8	4	0	24
SSE	0	7	9	22	7	0	45
S	1	2	5	21	8	7	44
SSW	1	1	3	11	11	7	34
SW	2	2	11	14	7	2	38
WSW	0	1	8	19	2	0	30

W	1	2	6	8	3	0	20
WNW	1	2	6	10	5	0	24
NW	0	4	48	6	1	0	59
NNW	1	7	24	10	3	0	45
Variable	0	0	0	0	0	0	0
Total	11	83	251	156	55	16	572

Hours of calm in this stability class: 0
Hours of missing wind measurements in this stability class: 13
Hours of missing stability measurements in all stability classes: 25

Braidwood Nuclear Station

Period of Record: January - March 2005
Stability Class - Moderately Stable - 199Ft-30Ft Delta-T (F)
Winds Measured at 203 Feet

Wind Direction	Wind Speed (in mph) 1-3	4-7	8-12	13-18	19-24	> 24	Total
N	0	1	3	1	0	0	5
NNE	0	3	5	0	0	0	8
NE	0	3	1	0	0	0	4
ENE	1	6	1	0	0	0	8
E	4	10	4	0	0	0	18
ESE	0	1	4	0	0	0	5
SE	1	4	2	1	0	0	8
SSE	0	6	2	1	0	0	9
S	2	2	5	5	0	0	14
SSW	2	1	1	2	0	0	6
SW	0	2	0	1	2	0	5
WSW	0	2	2	2	0	0	6
W	1	0	6	3	0	0	10
WNW	0	0	10	2	0	0	12
NW	0	0	8	1	0	0	9
NNW	0	2	7	0	0	0	9

Variable	0	0	0	0	0	0	0
Total	11	43	61	19	2	0	136

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: 25

Braidwood Nuclear Station

Period of Record: January - March 2005
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	1	2	1	0	0	0	4
NE	0	1	0	0	0	0	1
ENE	2	0	0	0	0	0	2
E	1	0	0	0	0	0	1
ESE	1	2	0	0	0	0	3
SE	0	3	2	0	0	0	5
SSE	1	3	0	0	0	0	4
S	0	2	0	0	0	0	2
SSW	0	1	0	0	0	0	1
SW	0	0	0	0	0	0	0
WSW	0	0	0	0	0	0	0
W	0	0	1	0	0	0	1
WNW	0	3	5	0	0	0	8
NW	0	2	3	0	0	0	5
NNW	1	1	1	0	0	0	3
Variable	0	0	0	0	0	0	0
Total	7	20	13	0	0	0	40

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: 25

Braidwood Nuclear Station

Period of Record: April - June 2005
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	6	2	0	0	9
NNE	0	8	13	9	0	0	30
NE	0	24	12	2	0	0	38
ENE	1	19	2	0	0	0	22
E	0	21	6	0	0	0	27
ESE	0	8	8	0	0	0	16
SE	1	12	8	0	0	0	21
SSE	0	15	15	1	0	0	31
S	1	30	27	1	0	0	59
SSW	1	16	19	12	1	0	49
SW	1	12	9	7	0	0	29
WSW	2	5	18	9	0	0	34
W	0	12	32	13	0	0	57
WNW	2	9	39	3	0	0	53
NW	0	10	12	5	0	0	27
NNW	0	9	2	9	0	0	20
Variable	0	0	0	0	0	0	0
Total	9	211	228	73	1	0	522

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 Nuclear Station

Period of Record: April - June 2005
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	1	0	0	0	1
NNE	0	3	1	4	0	0	8
NE	2	2	4	1	0	0	9
ENE	2	9	0	0	0	0	11
E	0	3	2	0	0	0	5
ESE	0	0	0	0	0	0	0
SE	0	5	2	0	0	0	7
SSE	0	5	3	0	0	0	8
S	0	5	2	2	0	0	9
SSW	0	3	4	1	0	0	8
SW	0	4	5	3	0	0	12
WSW	2	1	3	1	0	0	7
W	1	5	4	6	0	0	16
WNW	0	2	5	1	0	0	8
NW	0	1	3	1	0	0	5
NNW	0	0	0	4	0	0	4
Variable	0	0	0	0	0	0	0
Total	7	48	39	24	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: 0

Braidwood Nuclear Station

Period of Record: April - June 2005
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	0	2	0	0	0	2
NNE	0	8	1	4	0	0	13
NE	1	4	4	0	0	0	9

ENE	1	3	0	0	0	0	4
E	0	3	2	0	0	0	5
ESE	0	4	2	0	0	0	6
SE	0	5	4	0	0	0	9
SSE	1	2	1	0	0	0	4
S	1	1	3	3	0	0	8
SSW	0	2	3	0	0	0	5
SW	0	1	0	1	0	0	2
WSW	0	0	2	1	0	0	3
W	1	3	5	2	0	0	11
WNW	1	2	12	3	0	0	18
NW	0	1	1	0	0	0	2
NNW	0	0	1	5	0	0	6
Variable	0	0	0	0	0	0	0
Total	6	39	43	19	0	0	107

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 Nuclear Station

Period of Record: April - June 2005
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	2	10	14	0	0	28
NNE	0	16	24	13	0	0	53
NE	4	22	40	1	0	0	67
ENE	14	27	6	0	0	0	47
E	13	17	8	0	0	0	38
ESE	2	9	12	1	0	0	24
SE	3	15	6	0	0	0	24

SSE	3	15	8	0	0	0	26
S	0	8	20	3	0	0	31
SSW	0	3	14	6	1	0	24
SW	1	8	17	7	1	0	34
WSW	1	16	15	2	0	0	34
W	4	7	19	5	0	0	35
WNW	1	13	15	2	0	0	31
NW	2	9	10	0	0	0	21
NNW	0	1	8	5	0	0	14
Variable	0	0	0	0	0	0	0
Total	50	188	232	59	2	0	531

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 Nuclear Station

Period of Record: April - June 2005
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	4	4	1	0	0	0	9
NNE	5	28	5	0	0	0	38
NE	5	31	1	0	0	0	37
ENE	10	21	0	0	0	0	31
E	20	5	2	0	0	0	27
ESE	10	24	12	0	0	0	46
SE	6	41	4	0	0	0	51
SSE	3	38	18	0	0	0	59
S	3	32	47	2	0	0	84
SSW	0	18	31	0	0	0	49
SW	0	14	13	0	0	0	27
WSW	6	29	8	0	0	0	43

W	9	22	11	1	0	0	43
WNW	6	14	3	0	0	0	23
NW	2	3	3	0	0	0	8
NNW	1	2	3	0	0	0	6
Variable	0	0	0	0	0	0	0
Total	90	326	162	3	0	0	581

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 Nuclear Station

Period of Record: April - June 2005
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	9	1	0	0	0	0	10
NNE	4	5	0	0	0	0	9
NE	4	0	0	0	0	0	4
ENE	6	1	0	0	0	0	7
E	19	3	0	0	0	0	22
ESE	14	10	0	0	0	0	24
SE	5	11	1	0	0	0	17
SSE	6	4	0	0	0	0	10
S	4	1	0	0	0	0	5
SSW	5	5	0	0	0	0	10
SW	1	8	0	0	0	0	9
WSW	6	14	0	0	0	0	20
W	16	10	0	0	0	0	26
WNW	10	1	0	0	0	0	11
NW	3	1	0	0	0	0	4
NNW	2	0	0	0	0	0	2

Variable	0	0	0	0	0	0	0
Total	114	75	1	0	0	0	190

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 Nuclear Station

Period of Record: April - June 2005
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	2	0	0	0	0	2
NE	2	0	0	0	0	0	2
ENE	2	0	0	0	0	0	2
E	11	1	0	0	0	0	12
ESE	5	2	0	0	0	0	7
SE	3	1	0	0	0	0	4
SSE	0	0	0	0	0	0	0
S	0	0	0	0	0	0	0
SSW	1	0	0	0	0	0	1
SW	3	0	0	0	0	0	3
WSW	7	1	0	0	0	0	8
W	6	0	0	0	0	0	6
WNW	2	0	0	0	0	0	2
NW	2	0	0	0	0	0	2
NNW	1	0	0	0	0	0	1
Variable	0	0	0	0	0	0	0
Total	46	7	0	0	0	0	53

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 Nuclear Station

Period of Record: April - June 2005
Stability Class - Extremely Unstable - 199Ft-30Ft Delta-T (F)
Winds Measured at 203 Feet

Wind Direction	Wind Speed (in mph) 1-3	4-7	8-12	13-18	19-24	> 24	Total
N	0	2	5	4	1	0	12
NNE	0	2	6	10	7	0	25
NE	0	10	15	5	2	0	32
ENE	0	14	13	5	0	0	32
E	0	9	12	2	3	0	26
ESE	1	1	6	8	1	0	17
SE	1	8	9	5	0	0	23
SSE	0	8	10	10	1	0	29
S	0	17	33	16	0	0	66
SSW	1	10	8	13	10	3	45
SW	0	7	8	6	3	0	24
WSW	0	5	3	21	6	0	35
W	0	9	6	28	5	1	49
WNW	0	5	11	24	6	4	50
NW	0	2	15	13	11	0	41
NNW	0	3	7	1	6	0	17
Variable	0	0	0	0	0	0	0
Total	3	112	167	171	62	8	523

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 Nuclear Station

Period of Record: April - June 2005
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	1	0	0	1
NNE	0	2	1	0	0	0	3
NE	0	1	3	3	4	1	12
ENE	1	6	3	0	0	0	10
E	0	4	0	3	0	0	7
ESE	1	0	1	0	0	0	2
SE	0	3	2	1	0	0	6
SSE	0	1	5	4	0	0	10
S	0	1	4	1	0	2	8
SSW	0	3	5	3	0	1	12
SW	1	0	3	2	3	0	9
WSW	1	0	1	3	1	0	6
W	1	2	2	3	5	1	14
WNW	0	1	2	2	3	0	8
NW	0	1	1	3	1	1	7
NNW	0	0	0	0	4	0	4
Variable	0	0	0	0	0	0	0
Total	5	25	33	29	21	6	119

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 Nuclear Station

Period of Record: April - June 2005
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	2	0	1	0	3
NNE	0	1	4	1	2	0	8
NE	1	1	6	2	3	0	13

ENE	2	1	2	0	0	0	5
E	0	1	2	1	1	0	5
ESE	0	1	2	2	1	0	6
SE	0	4	3	2	0	0	9
SSE	0	1	2	1	0	0	4
S	1	0	3	2	2	1	9
SSW	0	0	1	3	0	0	4
SW	0	0	1	0	1	0	2
WSW	0	0	0	2	0	1	3
W	1	2	0	3	1	0	7
WNW	0	0	3	8	10	1	22
NW	1	0	1	1	0	0	3
NNW	0	0	0	1	4	0	5
Variable	0	0	0	0	0	0	0
Total	6	12	32	29	26	3	108

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 Nuclear Station

Period of Record: April - June 2005
Stability Class - Neutral - 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	10	14	0	29
NNE	0	1	10	13	9	0	33
NE	2	6	22	34	15	0	79
ENE	1	13	16	10	0	0	40
E	2	24	14	10	6	1	57
ESE	1	3	7	6	9	3	29
SE	0	5	9	7	2	0	23

SSE	1	3	9	7	0	0	20
S	0	2	6	17	4	1	30
SSW	1	0	4	14	7	5	31
SW	0	2	16	10	6	1	35
WSW	1	2	12	11	2	0	28
W	1	1	4	10	8	0	24
WNW	1	2	8	24	8	1	44
NW	0	0	6	10	3	0	19
NNW	1	1	0	6	5	0	13
Variable	0	0	0	0	0	0	0
Total	13	67	145	199	98	12	534

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 Nuclear Station

Period of Record: April - June 2005
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	2	1	3	0	0	0	6
NNE	1	3	15	10	0	0	29
NE	0	3	22	9	0	0	34
ENE	1	7	30	9	0	0	47
E	2	6	22	1	2	0	33
ESE	0	3	14	13	7	4	41
SE	0	3	15	27	1	0	46
SSE	0	3	27	18	7	0	55
S	0	1	26	44	14	0	85
SSW	1	1	8	46	11	0	67
SW	1	3	8	15	2	0	29
WSW	1	3	19	14	0	0	37

W	0	6	9	25	1	0	41
WNW	0	0	9	17	1	0	27
NW	0	1	6	5	1	0	13
NNW	0	2	1	4	0	0	7
Variable	0	0	0	0	0	0	0
Total	9	46	234	257	47	4	597

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: 0

Braidwood Nuclear Station

Period of Record: April - June 2005
Stability Class - Moderately Stable - 199Ft-30Ft Delta-T (F)
Winds Measured at 203 Feet

Wind Direction	Wind Speed (in mph) 1-3	4-7	8-12	13-18	19-24	> 24	Total
N	0	2	6	0	0	0	8
NNE	0	1	4	2	0	0	7
NE	1	2	7	4	0	0	14
ENE	0	8	4	0	0	0	12
E	0	3	10	1	0	0	14
ESE	0	1	7	14	0	0	22
SE	0	1	7	15	0	0	23
SSE	0	4	9	3	0	0	16
S	0	2	5	0	0	0	7
SSW	0	4	3	0	0	0	7
SW	0	2	6	5	0	0	13
WSW	1	4	4	5	0	0	14
W	0	1	2	13	0	0	16
WNW	0	5	15	6	0	0	26
NW	2	2	10	0	0	0	14
NNW	0	3	3	0	0	0	6

Variable	0	0	0	0	0	0	0
Total	4	45	102	68	0	0	219

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 Nuclear Station

Period of Record: April - June 2005
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	2	1	0	0	0	3
NNE	0	1	2	0	0	0	3
NE	0	3	4	1	0	0	8
ENE	0	1	2	0	0	0	3
E	0	1	3	0	0	0	4
ESE	0	1	1	7	0	0	9
SE	0	0	4	2	0	0	6
SSE	2	3	3	1	0	0	9
S	1	0	0	0	0	0	1
SSW	2	2	2	0	0	0	6
SW	0	1	0	0	0	0	1
WSW	1	3	2	0	0	0	6
W	0	3	2	1	0	0	6
WNW	0	3	3	0	0	0	6
NW	1	1	1	0	0	0	3
NNW	0	2	2	0	0	0	4
Variable	0	0	0	0	0	0	0
Total	7	27	32	12	0	0	78

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 Nuclear Station

Period of Record: July - September 2005
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	1	13	4	0	0	0	18
NNE	1	6	11	0	0	0	18
NE	3	13	6	0	0	0	22
ENE	1	15	0	0	0	0	16
E	2	14	0	0	0	0	16
ESE	1	10	2	0	0	0	13
SE	3	16	1	0	0	0	20
SSE	0	34	1	0	0	0	35
S	1	41	9	0	0	0	51
SSW	1	13	34	2	0	0	50
SW	1	13	25	2	0	0	41
WSW	0	15	10	0	0	0	25
W	2	37	16	1	0	0	56
WNW	2	31	12	0	0	0	45
NW	3	33	8	0	0	0	44
NNW	0	22	12	0	0	0	34
Variable	0	0	0	0	0	0	0
Total	22	326	151	5	0	0	504

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 Nuclear Station

Period of Record: July - September 2005
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	6	0	0	0	0	6
NNE	0	9	4	0	0	0	13
NE	1	10	5	0	0	0	16
ENE	1	3	0	0	0	0	4
E	2	5	0	0	0	0	7
ESE	3	1	0	0	0	0	4
SE	1	4	0	0	0	0	5
SSE	1	2	0	0	0	0	3
S	0	6	1	0	0	0	7
SSW	0	1	2	1	0	0	4
SW	1	3	7	1	0	0	12
WSW	1	1	3	0	0	0	5
W	0	6	0	0	0	0	6
WNW	1	0	1	0	0	0	2
NW	1	7	1	0	0	0	9
NNW	0	3	2	0	0	0	5
Variable	0	0	0	0	0	0	0
Total	13	67	26	2	0	0	108

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 Nuclear Station

Period of Record: July - September 2005
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	6	2	0	0	0	8
NNE	0	4	2	0	0	0	6
NE	0	3	0	0	0	0	3

ENE	4	7	0	0	0	0	11
E	2	1	0	0	0	0	3
ESE	1	4	0	0	0	0	5
SE	1	1	0	0	0	0	2
SSE	3	3	0	0	0	0	6
S	1	3	1	0	0	0	5
SSW	0	0	2	0	0	0	2
SW	0	0	3	2	0	0	5
WSW	0	2	2	0	0	0	4
W	1	3	1	0	0	0	5
WNW	2	2	0	0	0	0	4
NW	0	8	0	0	0	0	8
NNW	1	6	4	0	0	0	11
Variable	0	0	0	0	0	0	0
Total	16	53	17	2	0	0	88

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 Nuclear Station

Period of Record: July - September 2005
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	11	12	0	0	0	25
NNE	0	34	27	0	0	0	61
NE	4	38	14	0	0	0	56
ENE	10	22	0	0	0	0	32
E	11	7	0	0	0	0	18
ESE	12	7	0	0	0	0	19
SE	6	10	0	0	0	0	16

SSE	2	14	3	0	0	0	19
S	0	17	8	0	0	0	25
SSW	0	4	25	4	0	0	33
SW	2	7	12	2	0	0	23
WSW	1	5	4	0	0	0	10
W	5	2	2	0	0	0	9
WNW	4	7	0	0	0	0	11
NW	7	7	4	1	0	0	19
NNW	7	15	6	0	0	0	28
Variable	0	0	0	0	0	0	0
Total	73	207	117	7	0	0	404

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 Nuclear Station

Period of Record: July - September 2005
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	9	18	1	0	0	0	28
NNE	14	37	1	0	0	0	52
NE	22	18	0	0	0	0	40
ENE	35	9	0	0	0	0	44
E	36	1	0	0	0	0	37
ESE	22	22	0	0	0	0	44
SE	7	17	0	0	0	0	24
SSE	12	65	10	0	0	0	87
S	7	65	30	0	0	0	102
SSW	1	17	24	0	0	0	42
SW	3	13	6	0	0	0	22
WSW	7	13	2	0	0	0	22

W	11	14	2	0	0	0	27
WNW	17	10	0	0	0	0	27
NW	13	9	1	0	0	0	23
NNW	12	7	0	0	0	0	19
Variable	0	0	0	0	0	0	0
Total	228	335	77	0	0	0	640

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 Nuclear Station

Period of Record: July - September 2005
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	14	3	0	0	0	0	17
NNE	10	3	0	0	0	0	13
NE	10	0	0	0	0	0	10
ENE	13	0	0	0	0	0	13
E	27	0	0	0	0	0	27
ESE	28	10	0	0	0	0	38
SE	13	14	0	0	0	0	27
SSE	14	13	0	0	0	0	27
S	4	7	0	0	0	0	11
SSW	2	11	0	0	0	0	13
SW	2	6	1	0	0	0	9
WSW	5	6	0	0	0	0	11
W	11	2	0	0	0	0	13
WNW	8	0	0	0	0	0	8
NW	13	0	0	0	0	0	13
NNW	7	1	0	0	0	0	8

Variable	0	0	0	0	0	0	0
Total	181	76	1	0	0	0	258

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 Nuclear Station

Period of Record: July - September 2005
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	7	1	0	0	0	0	8
NE	5	0	0	0	0	0	5
ENE	0	0	0	0	0	0	0
E	11	1	0	0	0	0	12
ESE	7	2	0	0	0	0	9
SE	2	2	0	0	0	0	4
SSE	0	0	0	0	0	0	0
S	0	0	0	0	0	0	0
SSW	0	4	0	0	0	0	4
SW	2	0	0	0	0	0	2
WSW	5	5	0	0	0	0	10
W	7	0	0	0	0	0	7
WNW	8	0	0	0	0	0	8
NW	9	0	0	0	0	0	9
NNW	1	0	0	0	0	0	1
Variable	0	0	0	0	0	0	0
Total	67	15	0	0	0	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: 0

Braidwood Nuclear Station

Period of Record: July - September 2005
Stability Class - Extremely Unstable - 199Ft-30Ft Delta-T (F)
Winds Measured at 203 Feet

Wind Direction	Wind Speed (in mph) 1-3	4-7	8-12	13-18	19-24	> 24	Total
N	0	4	8	0	0	0	12
NNE	0	4	7	3	0	0	14
NE	1	5	9	7	0	0	22
ENE	0	12	8	0	0	0	20
E	3	8	8	3	0	0	22
ESE	0	8	6	1	0	0	15
SE	1	13	2	2	0	0	18
SSE	1	24	10	0	0	0	35
S	0	21	31	6	0	0	58
SSW	0	6	14	27	2	0	49
SW	0	7	10	11	2	0	30
WSW	0	9	11	7	0	0	27
W	1	28	16	9	0	0	54
WNW	0	23	17	8	1	0	49
NW	1	11	23	10	0	0	45
NNW	0	20	11	6	0	0	37
Variable	0	0	0	0	0	0	0
Total	8	203	191	100	5	0	507

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 Nuclear Station

Period of Record: July - September 2005
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	4	1	0	0	0	5
NNE	0	6	2	2	0	0	10
NE	3	1	6	6	0	0	16
ENE	1	3	3	0	0	0	7
E	1	5	2	0	0	0	8
ESE	1	2	0	0	0	0	3
SE	0	5	0	0	0	0	5
SSE	1	2	1	0	0	0	4
S	0	2	2	1	0	0	5
SSW	0	1	5	2	1	0	9
SW	0	2	1	2	3	0	8
WSW	0	2	1	1	0	0	4
W	2	4	2	1	0	0	9
WNW	1	0	0	0	0	0	1
NW	0	2	3	3	0	0	8
NNW	1	5	3	0	0	0	9
Variable	0	0	0	0	0	0	0
Total	11	46	32	18	4	0	111

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 Nuclear Station

Period of Record: July - September 2005
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	4	4	1	0	0	9
NNE	0	3	0	1	0	0	4
NE	0	1	2	1	0	0	4

ENE	0	7	4	0	0	0	11
E	2	3	1	0	0	0	6
ESE	1	1	1	1	0	0	4
SE	0	2	0	0	0	0	2
SSE	2	2	4	0	0	0	8
S	0	2	1	1	0	0	4
SSW	0	0	1	1	0	0	2
SW	0	0	1	2	2	0	5
WSW	0	0	3	1	0	0	4
W	0	2	1	1	0	0	4
WNW	0	2	2	0	0	0	4
NW	0	2	5	3	0	0	10
NNW	0	5	3	1	0	0	9
Variable	0	0	0	0	0	0	0
Total	5	36	33	14	2	0	90

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: 0

Braidwood Nuclear Station

Period of Record: July - September 2005
Stability Class - Neutral - 199Ft-30Ft Delta-T (F)
Winds Measured at 203 Feet

Wind Direction	Wind Speed (in mph) 1-3	4-7	8-12	13-18	19-24	> 24	Total
N	0	11	10	6	1	0	28
NNE	2	9	16	19	0	0	46
NE	0	9	33	21	0	0	63
ENE	2	11	23	1	0	0	37
E	3	10	10	0	0	0	23
ESE	0	10	7	1	0	0	18
SE	0	12	7	1	0	0	20

SSE	0	4	10	5	0	0	19
S	0	2	13	7	0	0	22
SSW	0	1	7	24	11	0	43
SW	0	2	6	6	0	0	14
WSW	0	2	4	3	0	0	9
W	0	4	2	1	0	0	7
WNW	2	2	5	2	0	0	11
NW	0	7	7	4	4	1	23
NNW	4	5	9	3	0	0	21
Variable	0	0	0	0	0	0	0
Total	13	101	169	104	16	1	404

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 Nuclear Station

Period of Record: July - September 2005
Stability Class - Slightly Stable - 199Ft-30Ft Delta-T (F)
Winds Measured at 203 Feet

Wind Direction	Wind Speed (in mph) 1-3	4-7	8-12	13-18	19-24	> 24	Total
N	0	9	16	0	0	0	25
NNE	1	8	25	4	0	0	38
NE	0	7	37	3	0	0	47
ENE	2	16	28	0	0	0	46
E	0	21	26	1	0	0	48
ESE	0	5	18	14	0	0	37
SE	0	6	21	6	0	0	33
SSE	0	9	30	33	1	0	73
S	0	7	26	53	2	0	88
SSW	1	2	27	41	2	0	73
SW	1	4	11	5	3	0	24
WSW	1	4	8	2	0	0	15

W	2	13	16	4	0	0	35
WNW	0	4	14	3	0	0	21
NW	0	10	12	3	0	0	25
NNW	2	6	13	0	0	0	21
Variable	0	0	0	0	0	0	0
Total	10	131	328	172	8	0	649

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: 0

Braidwood Nuclear Station

Period of Record: July - September 2005
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	4	10	1	0	0	15
NNE	0	4	13	0	0	0	17
NE	0	4	11	0	0	0	15
ENE	2	13	6	0	0	0	21
E	0	8	14	2	0	0	24
ESE	0	1	16	11	0	0	28
SE	0	3	21	5	0	0	29
SSE	0	9	17	3	0	0	29
S	1	3	18	3	0	0	25
SSW	1	3	19	3	0	0	26
SW	0	3	2	5	0	0	10
WSW	1	1	0	3	0	0	5
W	0	0	4	4	0	0	8
WNW	1	1	13	2	0	0	17
NW	0	1	4	1	0	0	6
NNW	0	1	9	1	0	0	11

Variable	0	0	0	0	0	0	0
Total	6	59	177	44	0	0	286

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 Nuclear Station

Period of Record: July - September 2005
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	5	3	0	0	0	8
NNE	1	4	3	0	0	0	8
NE	0	6	2	3	0	0	11
ENE	2	0	1	0	0	0	3
E	2	1	5	2	0	0	10
ESE	1	4	5	2	0	0	12
SE	3	3	8	2	0	0	16
SSE	2	9	1	0	0	0	12
S	6	2	1	0	0	0	9
SSW	1	3	1	1	0	0	6
SW	4	5	2	1	0	0	12
WSW	3	2	2	1	0	0	8
W	0	5	2	4	0	0	11
WNW	1	1	6	2	0	0	10
NW	2	0	3	2	0	0	7
NNW	0	1	5	3	0	0	9
Variable	0	0	0	0	0	0	0
Total	28	51	50	23	0	0	152

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 Nuclear Station

Period of Record: October - December2005
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	3	3	0	0	0	6
NNE	0	1	3	1	0	0	5
NE	0	6	7	0	0	0	13
ENE	0	1	0	0	0	0	1
E	0	1	0	0	0	0	1
ESE	0	0	0	0	0	0	0
SE	0	0	0	0	0	0	0
SSE	0	1	0	0	0	0	1
S	0	5	3	1	0	0	9
SSW	0	3	13	7	0	0	23
SW	0	1	11	0	0	0	12
WSW	0	3	8	0	0	0	11
W	0	13	13	0	2	1	29
WNW	0	8	18	4	0	0	30
NW	1	6	9	1	0	0	17
NNW	0	2	9	4	0	0	15
Variable	0	0	0	0	0	0	0
Total	1	54	97	18	2	1	173

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 Nuclear Station

Period of Record: October - December2005
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	2	0	0	0	3
NNE	0	1	3	0	0	0	4
NE	0	2	5	0	0	0	7
ENE	0	1	2	0	0	0	3
E	0	0	0	0	0	0	0
ESE	0	1	0	0	0	0	1
SE	0	0	0	0	0	0	0
SSE	0	0	0	0	0	0	0
S	0	3	0	2	0	0	5
SSW	0	2	8	4	0	0	14
SW	1	1	5	6	0	0	13
WSW	0	7	4	1	0	0	12
W	1	6	6	2	1	0	16
WNW	0	4	3	2	0	0	9
NW	0	6	1	1	0	0	8
NNW	0	1	1	0	0	0	2
Variable	0	0	0	0	0	0	0
Total	2	36	40	18	1	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: 0

Braidwood Nuclear Station

Period of Record: October - December2005
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	2	3	0	0	0	6
NNE	0	1	0	0	0	0	1
NE	0	2	5	0	0	0	7

ENE	0	1	0	0	0	0	1
E	0	0	0	0	0	0	0
ESE	0	1	0	0	0	0	1
SE	0	2	1	0	0	0	3
SSE	0	0	0	0	0	0	0
S	0	2	2	0	0	0	4
SSW	0	0	1	4	3	0	8
SW	0	0	3	2	0	0	5
WSW	1	4	5	1	0	0	11
W	1	7	2	3	2	0	15
WNW	0	8	3	1	0	0	12
NW	0	3	1	0	0	0	4
NNW	1	3	3	1	0	0	8
Variable	0	0	0	0	0	0	0
Total	4	36	29	12	5	0	86

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 Nuclear Station

Period of Record: October - December2005
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	11	31	6	1	0	52
NNE	7	8	7	1	0	0	23
NE	3	26	7	0	0	0	36
ENE	10	41	2	0	0	0	53
E	10	39	1	0	0	0	50
ESE	3	14	0	0	0	0	17
SE	3	10	30	2	0	0	45

SSE	0	16	30	3	0	0	49
S	1	9	31	9	1	0	51
SSW	0	3	23	38	1	0	65
SW	0	10	37	32	1	0	80
WSW	2	9	23	17	3	0	54
W	8	31	45	23	9	0	116
WNW	2	24	32	20	0	0	78
NW	4	19	13	5	0	0	41
NNW	4	25	47	3	0	0	79
Variable	0	0	0	0	0	0	0
Total	60	295	359	159	16	0	889

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 Nuclear Station

Period of Record: October - December2005
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	6	0	0	0	26
NNE	6	17	1	0	0	0	24
NE	15	6	0	0	0	0	21
ENE	14	1	0	0	0	0	15
E	12	1	0	0	0	0	13
ESE	10	7	0	0	0	0	17
SE	3	11	9	0	0	0	23
SSE	3	16	15	0	0	0	34
S	2	62	50	13	0	0	127
SSW	0	14	44	32	4	0	94
SW	1	15	23	9	0	0	48
WSW	7	36	7	1	0	0	51

W	17	33	11	1	0	0	62
WNW	26	49	12	2	0	0	89
NW	13	19	0	0	0	0	32
NNW	7	10	11	0	0	0	28
Variable	0	0	0	0	0	0	0
Total	142	311	189	58	4	0	704

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 Nuclear Station

Period of Record: October - December2005
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	6	0	0	0	0	0	6
NNE	2	0	0	0	0	0	2
NE	3	0	0	0	0	0	3
ENE	4	0	0	0	0	0	4
E	6	0	0	0	0	0	6
ESE	3	0	0	0	0	0	3
SE	4	3	0	0	0	0	7
SSE	1	4	0	0	0	0	5
S	2	3	0	0	0	0	5
SSW	3	2	0	0	0	0	5
SW	1	4	4	0	0	0	9
WSW	1	27	0	0	0	0	28
W	13	16	0	0	0	0	29
WNW	34	4	0	0	0	0	38
NW	7	2	0	0	0	0	9
NNW	2	0	0	0	0	0	2

Variable	0	0	0	0	0	0	0
Total	92	65	4	0	0	0	161

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 Nuclear Station

Period of Record: October - December2005
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	4	0	0	0	0	0	4
NNE	2	0	0	0	0	0	2
NE	3	0	0	0	0	0	3
ENE	1	0	0	0	0	0	1
E	3	0	0	0	0	0	3
ESE	1	0	0	0	0	0	1
SE	2	0	0	0	0	0	2
SSE	0	0	0	0	0	0	0
S	1	0	0	0	0	0	1
SSW	0	0	0	0	0	0	0
SW	0	0	2	0	0	0	2
WSW	2	3	0	0	0	0	5
W	6	4	0	0	0	0	10
WNW	18	0	0	0	0	0	18
NW	11	0	0	0	0	0	11
NNW	2	0	0	0	0	0	2
Variable	0	0	0	0	0	0	0
Total	56	7	2	0	0	0	65

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 Nuclear Station

Period of Record: October - December2005
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	2	3	0	0	5
NNE	0	0	1	3	0	0	4
NE	0	0	9	4	1	0	14
ENE	0	0	1	0	0	0	1
E	0	0	1	0	0	0	1
ESE	0	0	0	0	0	0	0
SE	0	0	0	0	0	0	0
SSE	0	1	0	0	0	0	1
S	0	2	7	2	1	0	12
SSW	0	0	2	14	8	0	24
SW	1	0	5	3	0	0	9
WSW	0	2	6	1	0	0	9
W	0	5	17	5	0	3	30
WNW	0	5	13	9	0	4	31
NW	0	3	7	10	1	4	25
NNW	0	1	4	2	0	0	7
Variable	0	0	0	0	0	0	0
Total	1	19	75	56	11	11	173

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 Nuclear Station

Period of Record: October - December2005
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	1	0	0	1
NNE	0	1	0	2	0	0	3
NE	0	0	2	5	0	0	7
ENE	0	1	0	2	0	0	3
E	0	0	0	0	0	0	0
ESE	0	1	0	0	0	0	1
SE	0	0	0	0	0	0	0
SSE	0	1	0	0	0	0	1
S	0	1	1	1	3	0	6
SSW	0	1	2	6	4	2	15
SW	0	2	5	1	3	0	11
WSW	0	5	7	0	1	0	13
W	0	4	6	2	0	2	14
WNW	0	0	5	0	1	2	8
NW	0	3	2	3	1	0	9
NNW	0	2	0	3	0	0	5
Variable	0	0	0	0	0	0	0
Total	0	22	30	26	13	6	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: 2

Braidwood Nuclear Station

Period of Record: October - December2005
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	0	3	0	0	5
NNE	0	1	0	0	0	0	1
NE	0	1	0	6	0	0	7

ENE	0	0	1	0	0	0	1
E	0	0	0	0	0	0	0
ESE	0	0	1	0	0	0	1
SE	0	0	3	0	0	0	3
SSE	0	0	0	0	0	0	0
S	0	1	2	1	0	0	4
SSW	0	0	1	2	3	4	10
SW	0	1	1	2	1	0	5
WSW	1	4	3	3	1	0	12
W	1	1	3	1	2	3	11
WNW	0	2	6	2	2	0	12
NW	1	2	3	1	0	0	7
NNW	0	3	1	2	1	0	7
Variable	0	0	0	0	0	0	0
Total	3	18	25	23	10	7	86

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 Nuclear Station

Period of Record: October - December2005
Stability Class - Neutral - 199Ft-30Ft Delta-T (F)
Winds Measured at 203 Feet

Wind Direction	Wind Speed (in mph) 1-3	4-7	8-12	13-18	19-24	> 24	Total
N	2	8	5	24	3	0	42
NNE	0	8	4	5	1	0	18
NE	1	5	19	8	0	0	33
ENE	2	11	30	7	0	0	50
E	1	13	42	6	0	0	62
ESE	1	0	12	4	0	0	17
SE	2	0	11	22	18	1	54

SSE	0	4	9	22	8	1	44
S	0	4	4	24	12	3	47
SSW	0	0	6	22	44	13	85
SW	1	3	20	21	15	2	62
WSW	2	3	15	16	15	9	60
W	3	14	16	40	16	14	103
WNW	1	6	18	21	13	11	70
NW	3	6	19	18	9	5	60
NNW	0	10	30	36	1	4	81
Variable	0	0	0	0	0	0	0
Total	19	95	260	296	155	63	888

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: 2

Braidwood Nuclear Station

Period of Record: October - December2005
Stability Class - Slightly Stable - 199Ft-30Ft Delta-T (F)
Winds Measured at 203 Feet

Wind Direction	Wind Speed (in mph) 1-3	4-7	8-12	13-18	19-24	> 24	Total
N	1	9	17	4	0	0	31
NNE	0	7	11	1	0	0	19
NE	0	3	15	3	0	0	21
ENE	1	3	8	0	0	0	12
E	2	8	4	0	0	0	14
ESE	0	5	11	3	0	0	19
SE	2	1	9	6	6	0	24
SSE	0	4	7	28	2	0	41
S	0	1	11	53	24	7	96
SSW	0	1	20	61	50	11	143
SW	0	6	8	12	2	0	28
WSW	0	6	16	23	2	2	49

W	1	9	14	18	1	0	43
WNW	0	15	31	32	6	1	85
NW	2	4	35	11	0	0	52
NNW	0	5	9	16	0	0	30
Variable	0	0	0	0	0	0	0
Total	9	87	226	271	93	21	707

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: 2

Braidwood Nuclear Station

Period of Record: October - December2005
Stability Class - Moderately Stable - 199Ft-30Ft Delta-T (F)
Winds Measured at 203 Feet

Wind Direction	Wind Speed (in mph) 1-3	4-7	8-12	13-18	19-24	> 24	Total
N	0	3	6	0	0	0	9
NNE	0	5	3	0	0	0	8
NE	0	2	5	0	0	0	7
ENE	1	1	1	0	0	0	3
E	1	0	2	0	0	0	3
ESE	0	1	2	0	0	0	3
SE	0	0	3	0	0	0	3
SSE	0	0	2	1	0	0	3
S	0	3	4	1	0	0	8
SSW	0	3	6	1	0	0	10
SW	0	0	1	4	2	0	7
WSW	1	0	4	8	0	0	13
W	0	3	11	19	0	0	33
WNW	0	3	13	2	0	0	18
NW	1	4	17	6	0	0	28
NNW	0	5	10	0	0	0	15

Variable	0	0	0	0	0	0	0
Total	4	33	90	42	2	0	171

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 Nuclear Station

Period of Record: October - December2005
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	8	0	0	0	8
NNE	0	1	3	3	0	0	7
NE	1	0	1	0	0	0	2
ENE	0	1	1	0	0	0	2
E	1	1	1	0	0	0	3
ESE	1	2	1	0	0	0	4
SE	0	1	0	0	0	0	1
SSE	0	1	0	0	0	0	1
S	2	1	0	0	0	0	3
SSW	0	0	2	0	0	0	2
SW	2	2	0	1	1	0	6
WSW	0	1	1	0	0	0	2
W	0	1	1	7	0	0	9
WNW	1	1	2	1	0	0	5
NW	0	1	11	1	0	0	13
NNW	0	1	6	2	0	0	9
Variable	0	0	0	0	0	0	0
Total	8	15	38	15	1	0	77

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

APPENDIX F

SPECIAL GROUNDWATER SAMPLING DATA

TABLE F-I.1 CONCENTRATIONS OF TRITIUM IN SPECIAL GROUND WATER SAMPLES COLLECTED IN THE VICINITY OF BRAIDWOOD STATION - 2005

RESULTS IN UNITS OF PCI/LITER ± 2 SIGMA

Collection Date	MW-101	MW-104	MW-105	MW-106	MW-107	MW-108	MW-109	GW-081505-DC-008	GW-111505-DC-VB2-1	GW-111505-DC-VB2-2	GW-111505-DC-VB2-3
07/28/05	< 172	< 172	563 ± 96.8	< 134	158 ± 86	< 139	238 ± 87.4				
08/15/05								2660 ± 402			
11/15/05									< 170	5840 ± 216	3460 ± 176
11/16/05											
11/17/05											
11/18/05											
11/22/05											
11/30/05											

	GW-111505-DC-VB2-4	GW-111505-DC-VB2-5	GW-111505-DC-VB2-6	GW-111505-DC-VB3-1	GW-111505-DC-VB3-2	GW-111505-JK-13	GW-111505-JK-14	GW-111505-JK-15	GW-111505-JK-16	GW-111505-JK-17	GW-111505-JK-18
07/28/05											
08/15/05											
11/15/05											
11/16/05	3350 ± 180	3750 ± 189	2150 ± 153	5460 ± 214	31600 ± 471	1970 ± 161	4330 ± 196	< 171	< 171	< 168	488 ± 118
11/17/05											
11/18/05											
11/22/05											
11/30/05											

TABLE F-I.1 CONCENTRATIONS OF TRITIUM IN SPECIAL GROUND WATER SAMPLES COLLECTED IN THE VICINITY OF BRAIDWOOD STATION - 2005

RESULTS IN UNITS OF PCI/LITER ± 2 SIGMA

Collection Date	GW-111605-DC-VB1-1	GW-111605-DC-VB1-3	GW-111605-DC-VB1-4	GW-111605-DC-VB1-5	GW-111605-DC-VB3-3	GW-111605-DC-VB3-4	GW-111605-JK-19	GW-111605-JK-20	GW-111605-JK-21	GW-111705-JK-BL-01	GW-111705-JK-BL-02
07/28/05											
08/15/05											
11/15/05											
11/16/05	1000 ± 128	< 171	< 171	< 165	42300 ± 525	49200 ± 575	< 164	< 165	< 166		
11/17/05										< 161	< 161
11/18/05											
11/22/05											
11/30/05											

	GW-111705-JK-BL-03	GW-111705-JK-BL-04	GW-111705-JK-BL-05	GW-111705-JK-BL-06	GW-111705-JK-BL-07	GW-111705-JK-BL-08	GW-111705-JK-BL-09	GW-111705-JK-VB1-2	GW-111805-JK-BL-10	GW-111805-JK-BL-11	GW-111805-JK-BL-12
07/28/05											
08/15/05											
11/15/05											
11/16/05											
11/17/05	3600 ± 180	1050 ± 125	< 161	< 161	< 162	< 169	< 167	< 163			
11/18/05									< 168	< 170	< 168
11/22/05											
11/30/05											

TABLE F-I.1 CONCENTRATIONS OF TRITIUM IN SPECIAL GROUND WATER SAMPLES COLLECTED IN THE VICINITY OF BRAIDWOOD STATION - 2005

RESULTS IN UNITS OF PCI/LITER ± 2 SIGMA

Collection Date	GW-111805-JK-BL-13	GW-111805-JK-BL-14	GW-111805-JK-BL-15	GW-112205-JL-VB1-6	GW-112205-JL-VB1-7	GW-112205-JL-VB1-8	GW-112205-JL-VB1-9	GW-112205-JL-VB3-5	GW-112205-JL-VB3-6	JAMES KECA MOM WELL	KECA WELL	LAKE #1
07/28/05												
08/15/05												
11/15/05												
11/16/05												
11/17/05												
11/18/05	< 168	< 166	< 166									
11/22/05				< 177	< 177	< 176	< 178	< 176	51200 ± 565			
11/30/05										< 173	< 174	2200 ± 155

Collection Date	LAKE #2	PHELPS WELL
07/28/05		
08/15/05		
11/15/05		
11/16/05		
11/17/05		
11/18/05		
11/22/05		
11/30/05	2260 ± 157	< 173

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