Nebraska Public Power District

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NLS2007028
May 15, 2007

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

Subject: Annual Radiological Environmental Report
Cooper Nuclear Station, Docket No. 50-298, DPR-46

Dear Sir or Madam:

The purpose of this letter is to submit the Cooper Nuclear Station (CNS) Annual Radiological Environmental Report for the period January 1, 2006, through December 31, 2006. The enclosed report is being submitted per the requirements of Technical Specification 5.6.2 and CNS Offsite Dose Assessment Manual Section D 5.2.

Should you have any questions or require additional information, please contact Paul Fleming, Licensing Manager, at (402) 825-2774.

Sincerely,

for

Paul V. Fleming
Licensing Manager

/jf

Enclosure

cc: Regional Administrator w/ enclosure
USNRC – Region IV

Cooper Project Manager w/ enclosure
USNRC – NRR Project Directorate IV-1

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CNS - USNRC

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IE25

ATTACHMENT 3 LIST OF REGULATORY COMMITMENTS©

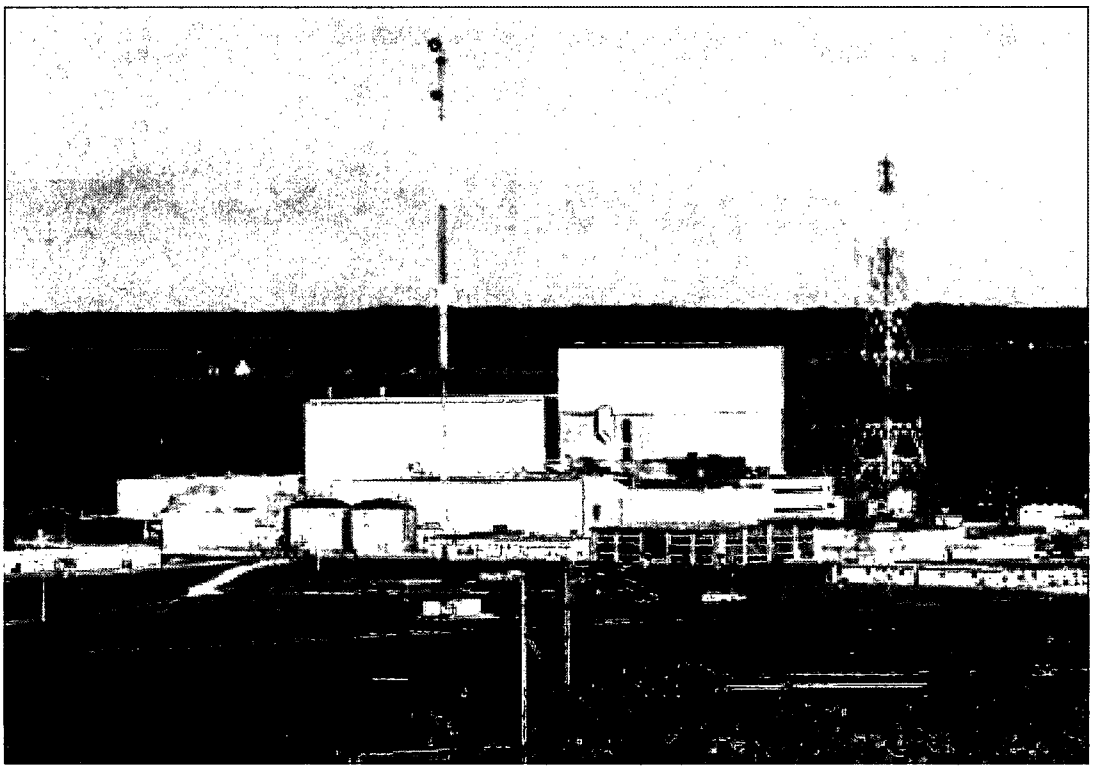
Correspondence Number: **NLS2007028**

The following table identifies those actions committed to by Nebraska Public Power District (NPPD) in this document. Any other actions discussed in the submittal represent intended or planned actions by NPPD. They are described for information only and are not regulatory commitments. Please notify the Licensing Manager at Cooper Nuclear Station of any questions regarding this document or any associated regulatory commitments.

COMMITMENT	COMMITMENT NUMBER	COMMITTED DATE OR OUTAGE
None		

Enclosure

Annual Radiological Environmental Report
January 1, 2006 through December 31, 2006



NEBRASKA PUBLIC POWER DISTRICT

COOPER NUCLEAR STATION

Radiological Environmental Monitoring Program

2006 Annual Report

January 1, 2006 to December 31, 2006

Approved by Keith Jeter

Keith Jeter
Laboratory Director

Prepared by
Teledyne Brown Engineering
2508 Quality Lane
Knoxville, TN 37931-3133

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PREFACE

This report covers the period of January 1 through December 31, 2006. Personnel of the Nebraska Public Power District made all sample collections. Analyses were performed and reports of analyses were prepared by Teledyne Brown Engineering – Environmental Services and forwarded to Nebraska Public Power District. Environmental Thermoluminescent Dosimeter (TLD) analyses were performed and reports of analyses were prepared by Global Dosimetry Solutions.

SECTION I. INTRODUCTION

I. INTRODUCTION

This report contains a complete tabulation of data collected during the period January through December 2006, for the operational Radiological Environmental Monitoring Program performed for the Cooper Nuclear Station (CNS) of the Nebraska Public Power District (NPPD) by Teledyne Brown Engineering - Environmental Services.

Cooper Nuclear Station is located in Nemaha County in the southeast corner of Nebraska on the Missouri River. A portion of the site extends into Missouri. The reactor is a 778-megawatt (net electrical) boiling water reactor. Initial criticality was attained on February 21, 1974. The reactor reached 50 percent power on June 25, 1974 and 100 percent power on November 20, 1974.

Radiological environmental monitoring began in 1971 before the plant became operational and has continued to the present. The program monitors radiation levels in air, terrestrial and aquatic environments. All samples are collected by NPPD personnel. All samples are shipped for analysis to a contractor's laboratory where there exists special facilities required for measurements of extremely low levels of radioactivity. From 1971 through 1976 the contractor was Teledyne Isotopes, Westwood, New Jersey. NALCO Environmental Sciences assumed responsibility for the analyses effective January 1, 1977.

On November 1, 1978 Hazelton Environmental Sciences Corporation (HESC) assumed responsibility for the program. Prior to November 1, 1978 Hazelton Environmental Sciences operated as NALCO Environmental Sciences. Teledyne Isotopes (now trading as Teledyne Brown Engineering - Environmental Services) again assumed responsibility for the analyses effective January 1, 1979 through December 31, 2006.

The United States Nuclear Regulatory Commission (USNRC) regulations (10CFR50.34a) require that nuclear power plants be designed, constructed, and operated to keep levels of radioactive material in effluents to unrestricted areas as low as is reasonably achievable (ALARA). To ensure these criteria are met, the operating license for Nebraska Public Power District's Cooper Nuclear Station includes the Technical Requirement Manual, which addresses the release of radioactive effluents. Inplant monitoring is used to ensure that these release limits are not exceeded. As a precaution against unexpected or undefined environmental processes, which might allow undue accumulation of radioactivity in the environment, a program for monitoring the plant environs is also included in NPPD's CNS Offsite Dose Assessment Manual (ODAM).

A. Atmospheric Nuclear Tests

Three atmospheric nuclear detonations in the People's Republic of China influenced program results significantly in late 1976 and in 1977. Two of these detonations occurred in late 1976 (September 26 and November 17) and one in late 1977 (September 17). As a consequence of these tests elevated activities of gross beta in air particulate filters and I-131 in milk were observed throughout most of the United States. No atmospheric nuclear tests have been conducted since 1980, thus no short-lived fission products were detected in air particulate samples.

On April 26, 1986 the fire and explosion of Chernobyl Reactor No. 4 in the Soviet Union resulted in the release of fission products to the atmosphere and worldwide fallout. Following the explosion, elevated levels of gross beta activities in air particulates and Iodine-131 in charcoal filters and milk samples were measured. Additionally, in 1986, Cesium-137 and the short-lived radionuclides Iodine-131, Ruthenium-106, and Cesium-134 were detected in broadleaf vegetation. Similar results occurred in other areas of the United States and the entire Northern Hemisphere.

B. Program Objectives and Data Interpretation

The objective of the monitoring program is to detect and assess the impact of possible releases to the environs of radionuclides from the operations of the Cooper Nuclear Station. This objective requires measurements of low levels of radioactivity equal to or lower than pre-determined limits of detection. In addition the source of the environmental radiation must be established. Sources of environmental radiation include:

(1) Natural background radiation from cosmic rays (Beryllium-7).

(2) Terrestrial, primordial radionuclides from the environment (potassium-40, radium-226, thorium-228).

(3) Fallout from atmospheric nuclear tests such as the September 1977 detonation by the Peoples' Republic of China and the atmospheric weapons test of October 16, 1980 (fission products and fusion products).

(4) Releases from nuclear power plants such as CNS (fission products and neutron activation products).

(5) Fallout from the Chernobyl Nuclear Reactor Accident.

Radiation levels measured in the vicinity of an operating power station are compared with preoperational measurements at the same locations to distinguish power plant effects from other sources. Also, results of the monitoring program are related to events known to cause elevated levels of radiation in the environment, e.g., atmospheric nuclear detonations or abnormal plant releases.

SECTION II. SUMMARY

II. SUMMARY

Presented in this report are summaries and discussions of the data generated for the Radiological Environmental Monitoring Program (REMP) for the Cooper Nuclear Station (CNS) of the Nebraska Public Power District (NPPD) for 2006.

The sampling and analyses program is described in Section III. It contains the sampling schedule and required analyses in Table 1 and the site map.

A discussion of each type of sample analyzed and its impact, if any, on the environment is presented in Section IV. Included are graphs of the radionuclides of interest for the past several years and the statistical results for each quarter of the year.

Section V presents the yearly conclusions of the program.

Section VI is the Radiological Environmental Monitoring Program Summary. It contains the yearly summary of the program with the total number of samples of each type analyzed. It lists the yearly average and range for the control locations versus the indicator locations and the number of detections per total number of samples. It identifies the station with the highest yearly average, the distance and location of that station and provides the range of detection.

Section VII contains the complete data tables for the period.

References are presented in Section VIII.

SECTION III. SAMPLING AND ANALYSES PROGRAM

III. SAMPLING AND ANALYSES PROGRAM

The 2006 sampling and analyses program is described in Table 1. Teledyne Brown Engineering - Environmental Services has a comprehensive quality assurance/quality control program designed to assure the reliability of data obtained. The results for the 2006 Interlaboratory Comparison Program conducted by the Analytics', Inc., MAPEP and Environmental Resource Associates are contained in Appendix B.

Sampling locations are indicated in the map labeled Figure 1. The sample types collected at each location and the approximate distance and direction from the reactor elevated release point are specified.

The annual land use census for 2006 is described in Appendix A. There were no milk animals found within three miles of CNS in 2006 and no evidence of potable water use from the river. The nearest garden to CNS is in sector M, 1.9 mile from CNS. Gardens were found in nine sectors during 2000, in eight sectors during 2001, in seven sectors during 2002, in eight sectors during 2003, in nine sectors during 2004, in five sectors during 2005 and in 9 sectors during 2006. The nearest resident to CNS is in sector Q, 0.9 miles from CNS.

All of the required 2006 environmental monitoring, including sampling and analyses, was conducted as specified in Table D4.1-1 of the CNS Offsite Dose Assessment Manual (ODAM), except as noted in Appendix E, REMP Sampling and Analytical Exceptions table.

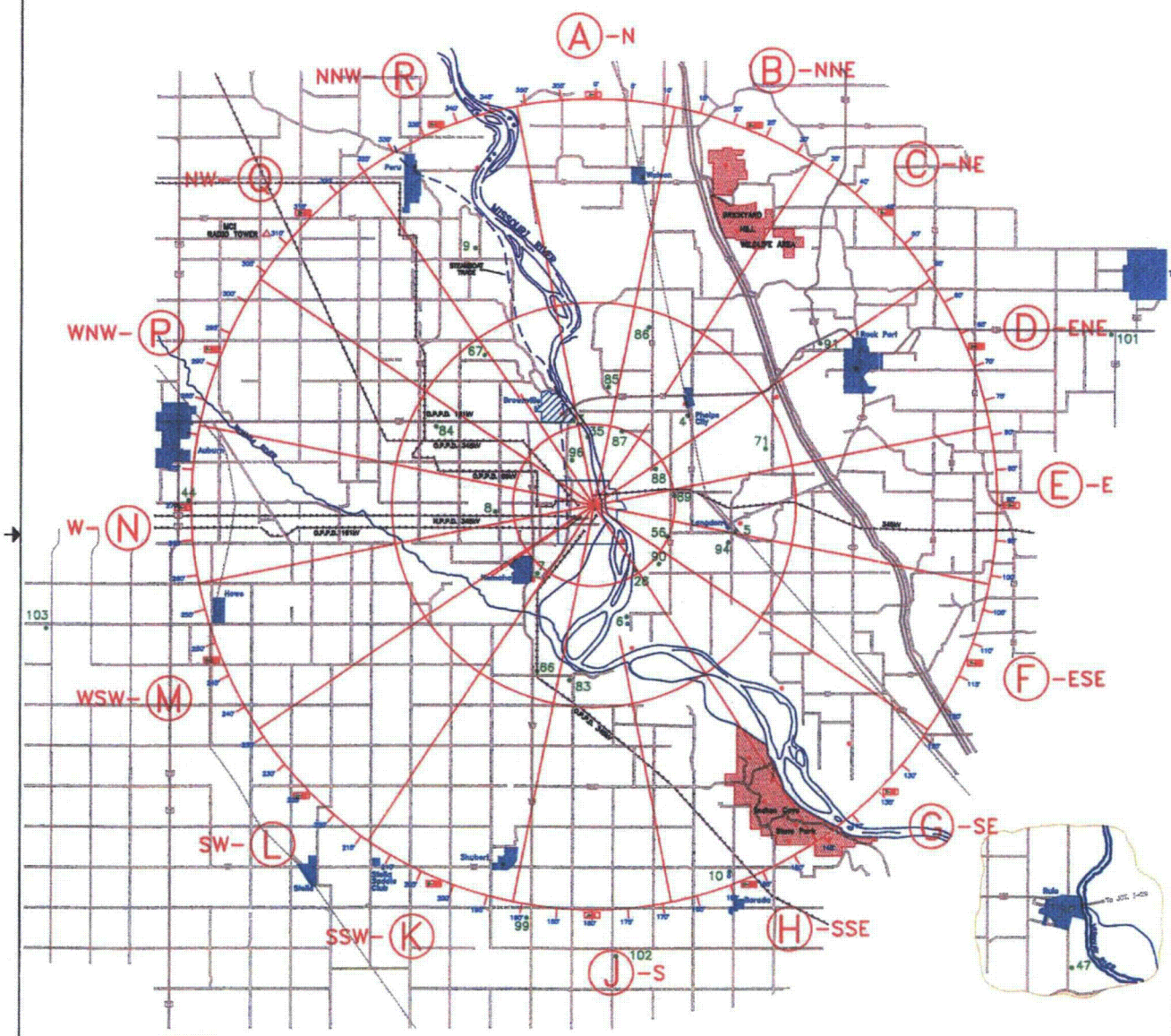
TABLE 1

NEBRASKA PUBLIC POWER DISTRICT

COOPER NUCLEAR STATION
Environmental Radiation Surveillance Program
Sampling Schedule and Analyses

Sample Type	*Station*	*Frequency*	*Analyses*
Airborne/ Particulate	1-10	Once per 7 days	Gross beta. Gamma Isotopic on quarterly composite of each station, and on each sample in which gross beta activity is >10 times the yearly mean of control samples
Airborne/Iodine	1-10	Once per 7 days	I-131
Milk / Nearest Producer peak pasture only	99	Once per 15 days	I-131 (low level), Gamma Isotopic analysis of each sample
River Water	28, 35	Once per 31 days	Gamma Isotopic, each sample Tritium on quarterly composite
Milk/ Nearest Producer Non-peak pasture	99	Once per 31 days	I-131 (low level), Gamma Isotopic analysis of each sample
Food Products / Broadleaf Vegetation	28, 35, 96, 101	Monthly when required	I-131 (low level), Gamma Isotopic analysis of each sample
Background Radiation Thermoluminescent Dosimeters	1-10, 20, 44, 56, 58, 59, 66, 67, 71, 79-91, 94	Once per 92 days	TLD Readout (gamma dose)
Groundwater	11, 47	Once per 92 days	I-131 (low level), Gamma Isotopic, Tritium
Milk Other Producers	102, 103	Once per 92 days	I-131 (low level), Gamma Isotopic
Fish (Summer and Fall)	28, 35	Two times per year	Gamma Isotopic on edible portions
Shoreline Sediment	28, 35	Two times per year	Gamma Isotopic

Figure 1



LEGEND

- Federal HWY
- Nebraska State HWY
- Interstate
- Missouri State HWY
- Missouri County Road
- Transmission Line
- ONS Environmental Sample Stations

SAMPLING LOCATION KEY (AREA)

Station Number	Distance* (miles)	Direction* (degrees)	Classification	Sample Type(s)
3	2.5	338	IND	AP, C, TL
4	3	43	IND	AP, C, TL
5	3.5	102	IND	AP, C, TL
6	3	165	IND	AP, C, TL
7	2.5	220	IND	AP, C, TL
8	2.5	260	IND	AP, C, TL
9	7.3	335	IND	AP, C, TL
10	10	160	IND	AP, C, TL
28	1.8	150	IND	WR,FI,SH,VT
35	2	350	IND & CON	VT, FI, WR
44	10.3	270	CON	TL
47	25.8	154	IND	WG
56	1.9	118	IND	TL
66	4.5	200	IND	TL
67	4.8	325	IND	TL
71	4.3	71	IND	TL
83	4.4	189	IND	TL
84	4.4	297	IND	TL
85	3.1	3	IND	TL
86	4.6	16	IND	TL
87	1.75	20	IND	TL
88	1.75	63	IND	TL
89	2	86	IND	TL
90	2.25	134	IND	TL
91	6.9	54	IND	TL
94	3.6	108	IND	TL
96	1.25	334	IND	VT
99	10.5	189	IND	M (Nearest)
101	13.3	73	CON	VT
102	11.5	177	IND	M(Other)
103	13.5	257	IND	M (Other)

* Approximate distance and direction with respect to reactor Elevated Release Point (ERP)

NOTE:
Environmental sample type codes: AP = air particulate filters; C = charcoal cartridges; FI = fish; M = milk; SH = shoreline sediment; TL = environmental thermoluminescent dosimeters; VT = broadleaf vegetation; WG = groundwater; WR = river water.
IND = Indicator; CON = Control

CADD DRAWING

SAMPLING STATIONS AREA

Nebraska Public Power District

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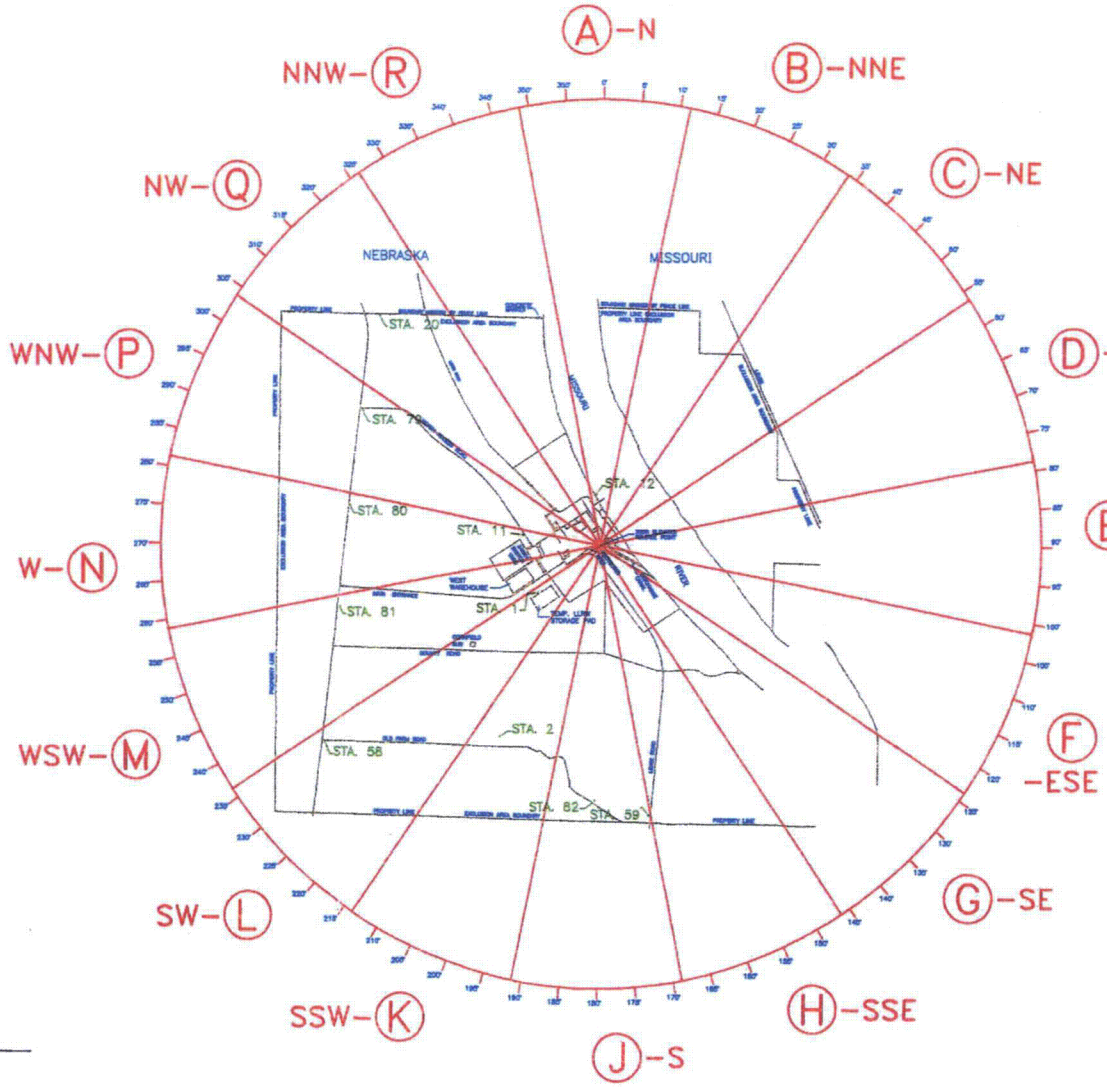

N

LEGEND

- Federal HWY
- Nebraska State HWY
- Interstate
- Missouri State HWY
- Missouri County Road
- Transmission Line
- CNS Environmental Sample Stations

SAMPLING LOCATION KEY (SITE)

Station Number	Distance* (miles)	Direction* (degrees)	Classification	Sample Type(s)
1	0.1	230	IND	AP, C, TL
2	0.75	210	IND	AP, C, TL
11	0.15	275	IND	WG
12	0.1	355	CON	WR
20	0.96	315	IND	TL
58	1.1	234	IND	TL
59	1	170	IND	TL
79	0.85	299	IND	TL
80	0.75	280	IND	TL
81	0.8	255	IND	TL
82	0.8	185	IND	TL

* Approximate distance and direction with respect to reactor Elevated Release Point (ERP)

NOTE:
Environmental sample type codes: AP = air particulate filters; C = charcoal cartridges FI = fish; M = milk; SH = shoreline sediment; TL = environmental thermoluminescent dosimeters; VT = broadleaf vegetation; WG = groundwater; WR = river water.

CADD DRAWING
DO NOT REVISE MANUALLY

MAP OF SAMPLING STATIONS SITE

TAC 3-15-00

Nebraska Public Power District

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SECTION IV. SUMMARY AND DISCUSSION OF 2006 ANALYTICAL RESULTS

IV. SUMMARY AND DISCUSSION OF 2006 ANALYTICAL RESULTS

Data from the radiological analyses of environmental media collected during 2006 are tabulated and discussed below. The procedures and specifications followed in the laboratory for these analyses are as required in the Teledyne Brown Engineering Quality Assurance manual and are explained in the Teledyne Brown Engineering Analytical Procedures. A synopsis of analytical procedures used for the environmental samples is provided in Appendix C. In addition to internal quality control measures performed by Teledyne, the laboratory also participates in an Interlaboratory Comparison Program. Participation in this program ensures that independent checks on the precision and accuracy of the measurements of radioactive material in environmental samples are performed. The results of the Interlaboratory Comparison are provided in Appendix B.

Radiological analyses of environmental media characteristically approach and frequently fall below the detection limits of state-of-the-art measurement methods. The "less than" values in the data tables were calculated from each specific analysis and are dependent on sample size, detector efficiency, length of counting time, chemical yield (when appropriate) and the radioactive decay factor from time of counting to time of collection. Teledyne Brown Engineering's analytical methods meet or are below the Lower Limit of Detection (LLD) requirements given in Table 2 of the USNRC Branch Technical Position, Radiological Monitoring Acceptable Program (November 1979, Revision 1). Section C contains a discussion of the LLD formulas.

The following is a discussion and summary of the results of the environmental measurements taken during the 2006 reporting period:

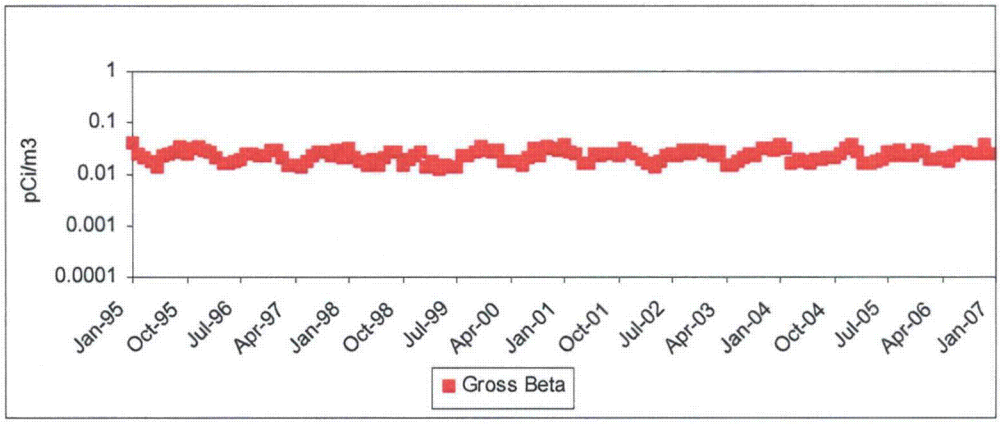
A. Airborne Particulates

Gross beta activity was observed in 529 of the 529 indicator samples collected during 2006. The average concentration was 0.024 pCi/m^3 with a range of 0.003 to 0.063 pCi/m^3. The results of the gross beta activities are presented in Section VII-1 and Trending Graph 1. The gross beta activities for 2006 were comparable to levels measured in the previous several years. Prior to that period the gross beta activities were higher due to atmospheric nuclear weapons testing performed in other countries. The preoperational period of 1971 through 1974 averaged 0.098 pCi/m^3 gross beta.

Air particulate filters were collected weekly and composited by locations on a quarterly basis. They were analyzed by gamma ray spectroscopy. The results are presented in Section VII-2. Beryllium-7, which is produced continuously in the upper atmosphere by cosmic radiation, was measured in 36 of 40 composite samples. The indicator locations had an average concentration of 0.147 pCi/m^3 with a range of 0.065 to 0.260 pCi/m^3. During the preoperational period, beryllium-7 was measured at comparable levels. All other gamma emitters were below the detection limits.

TRENDING GRAPH 1

GROSS BETA IN AIR PARTICULATES
MONTHLY AVERAGE – ALL LOCATIONS

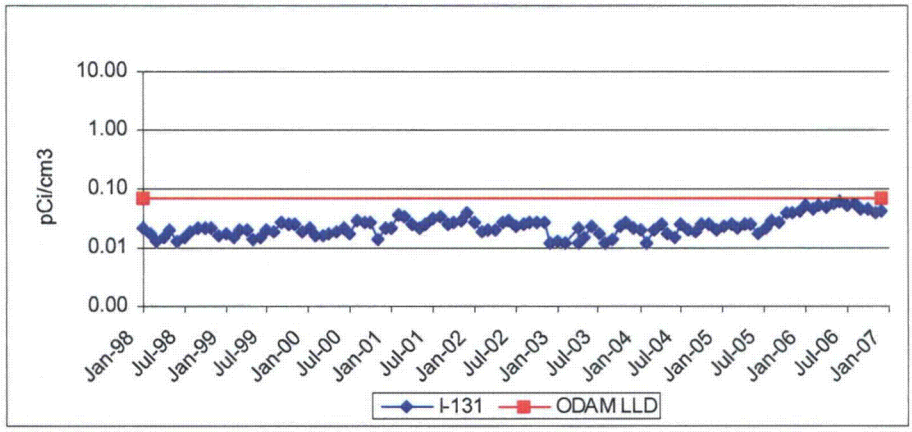


B. Airborne Iodine

Charcoal cartridges used to collect airborne iodine were collected weekly and analyzed by gamma spectrometry for iodine-131. Stations 01 through 10 and 111 were monitored. The results are presented in Section VII-1 and Trending Graph 2. All results were below the required lower limit of detection.

TRENDING GRAPH 2

IODINE-131 IN CHARCOAL FILTERS
MONTHLY AVERAGE – ALL LOCATIONS



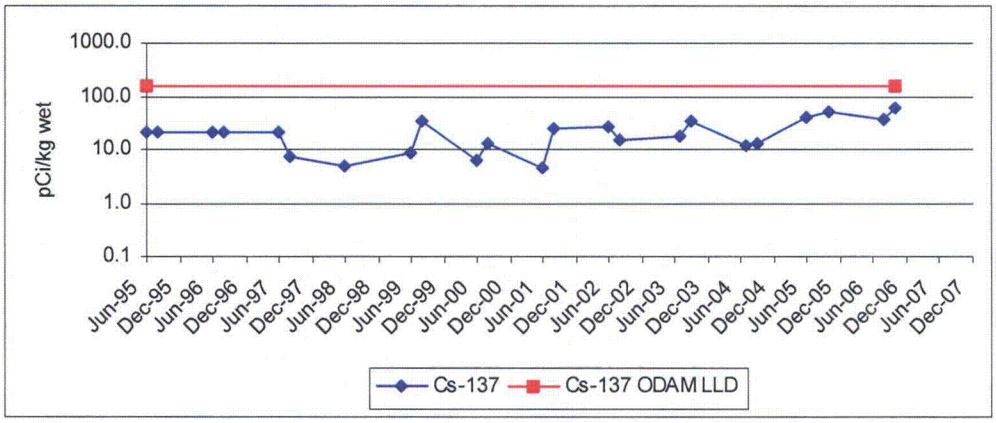
C. Fish

Aquatic biota can be sensitive indicators of radionuclide accumulation in the environment because of their ability to concentrate certain chemical elements, which have radioisotopes. The results are presented in Table VII-3 and Trending

Graph 3. Eight samples of fish were collected during the summer and fall of 2006. A middle-top feeding fish (carp) and a bottom feeding fish (catfish) were collected in July and September. These samples were analyzed by gamma ray spectroscopy. Naturally occurring potassium-40 was detected in all samples. The average concentration at the upstream control location was 3143 pCi/kg (wet weight) with a range of 2770 to 3870 pCi/kg (wet weight). The average concentration for the four indicator samples was 3628 pCi/kg (wet weight) with a range of 3000 to 4200 pCi/kg (wet weight). The preoperational period of 1971 through 1974 averaged 2400 pCi/kg potassium-40. All other gamma emitters were below their detection levels.

TRENDING GRAPH 3

CESIUM-137 IN FISH
ALL LOCATIONS

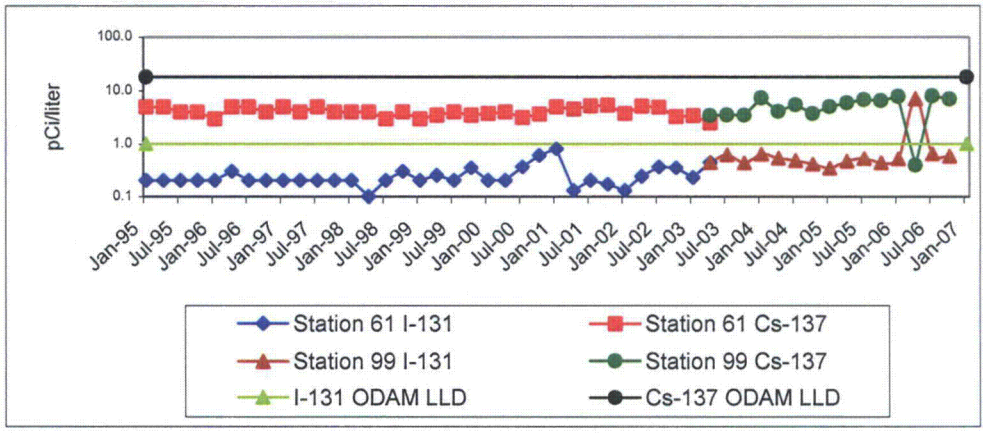


D. Milk – Nearest Producer

Milk samples are collected once every 15 days in peak pasture season and once every 31 days the rest of the year from Station 99. The results are presented in Table VII-4 and Trending Graph 4. Eighteen samples were analyzed by gamma ray spectroscopy and for low-level iodine-131 by radiochemical separation. Naturally occurring potassium-40 was measured in all samples with an average concentration of 1291 pCi/liter and a range of 1190 to 1450 pCi/liter. All other gamma emitters were below their detection levels.

TRENDING GRAPH 4

IODINE-131 AND CESIUM-137 IN MILK – NEAREST PRODUCER
STATIONS 61 & 99



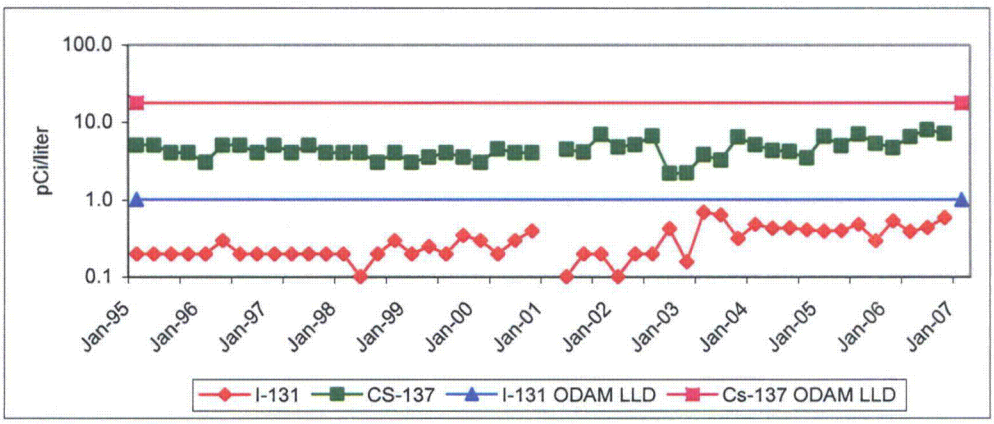
Station 61 went out of business in May of 2003. Station 99 replaced station 61 in May of 2003.
07/11/06 I-131 LLD missed due to technical problems with I-131 filter paper in the laboratory.

E. Milk – Other Producers

Five milk samples were collected from two locations of other producers during 2006 and results are presented in Table VII-5 and Trending Graph 5. Stations 102 and 103 were sampled quarterly in 2006. Naturally occurring potassium-40 was detected in all eight samples analyzed with an average concentration of 1310 pCi/liter and a range of 1200 to 1440 pCi/liter. Station 103 had the highest average concentration of 1338 pCi/liter with a range of 1270 to 1440 pCi/liter. All other gamma emitters were below their detection levels. The operation of the Cooper Nuclear Station has no discernable impact on milk samples.

TRENDING GRAPH 5

IODINE-131 AND CESIUM-137 IN MILK – OTHER PRODUCERS
QUARTERLY AVERAGE – ALL LOCATIONS



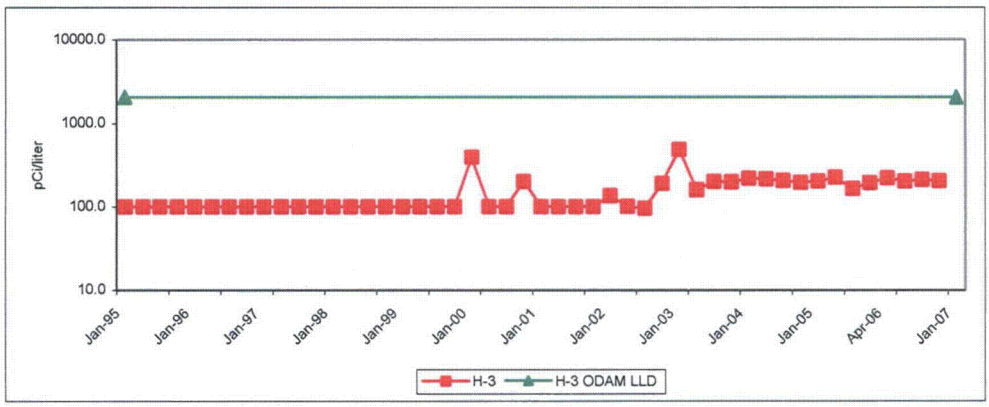
Due to delay in analysis, sample results for I-131 for the first quarter of 2001 were excluded and are not plotted.

F. Ground Water

Groundwater was collected from two stations quarterly and analyzed for tritium and for gamma emitting radionuclides. Station 11 is located 0.15 miles from the plant and station 47 is 25.8 miles from the plant. The results are presented in Table VII-6 and Trending Graph 6. Naturally occurring potassium-40 was detected in one of twenty samples analyzed with a concentration of 62 pCi/liter. All other gamma emitters were below their detection levels.

TRENDING GRAPH 6

TRITIUM IN GROUND WATER
QUARTERLY AVERAGE – ALL LOCATIONS

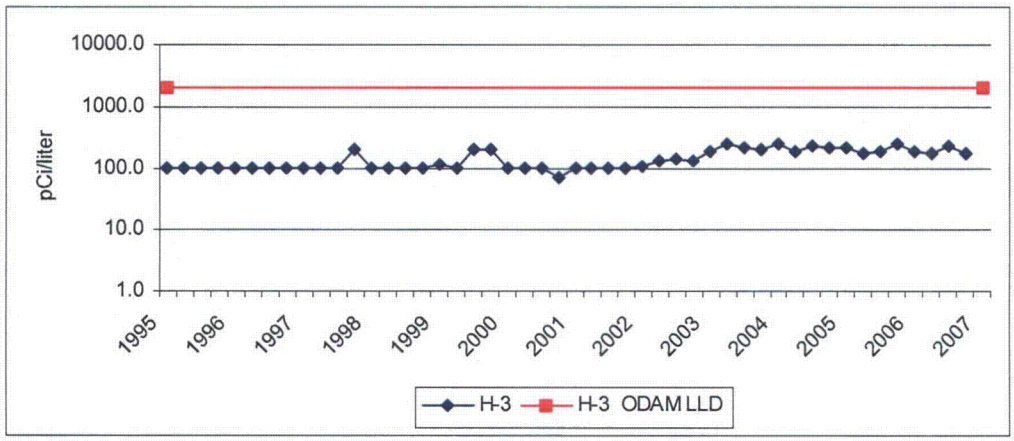


G. River Water

River water was collected monthly and monitored for gamma emitting radionuclides. A quarterly composite was measured for tritium. In May 2006, tritium was also measured monthly. The results are presented in Table VII-7 and Trending Graph 7. The average concentration for two of the twelve supplemental stations was 171 pCi/liter and a range of 118 to 223 pCi/liter. The concentration for one of the twelve indicator stations was 45 pCi/liter. All other gamma emitters were below their detection levels.

TRENDING GRAPH 7

TRITIUM IN RIVER WATER
QUARTERLY AVERAGE – ALL LOCATIONS

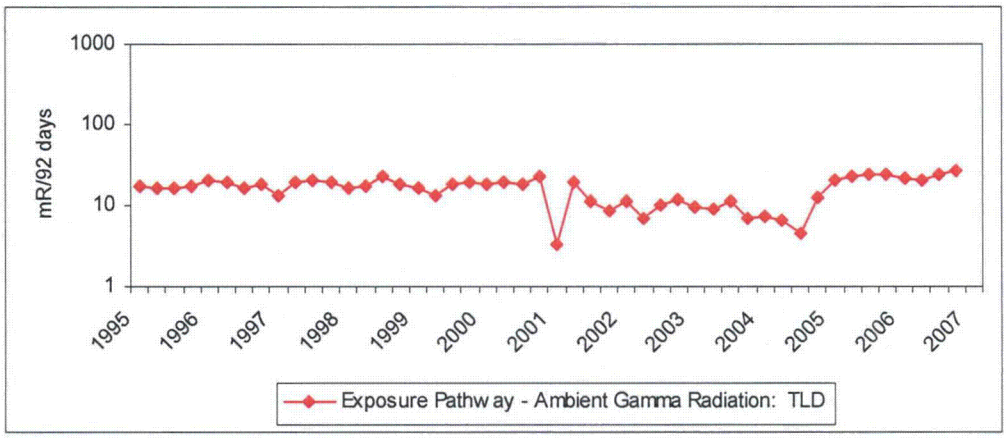


H. Thermoluminescent Dosimeters

Thermoluminescent dosimeters (TLDs) determine environmental radiation doses and the results are presented in Table VII-8 and Trending Graph 8. Ambient radiation was monitored at 32 locations within a 10 mile radius of the Cooper Nuclear Station and collected quarterly. The quarterly average for the indicator locations was 22.8 millirem/quarter and a range from 18.0 to 33.3 millirem/quarter. The control station 44, which is located 10.5 miles, 270 degrees had an average of 25.1 millirem/quarter and a range from 22.3 to 29.0 millirem/quarter. The highest station was Station 94 with an average of 25.2 millirem/quarter and a range from 21.3 to 30.7 millirem/quarter. The preoperational period of 1971 through 1974 averaged 7.0 millirem/quarter. The data from year to year is in good agreement and indicates no adverse changes in radiation exposure to the population near the Cooper Nuclear Station.

TRENDING GRAPH 8

THERMOLUMINESCENT DOSIMETRY
QUARTERLY AVERAGE – ALL LOCATIONS

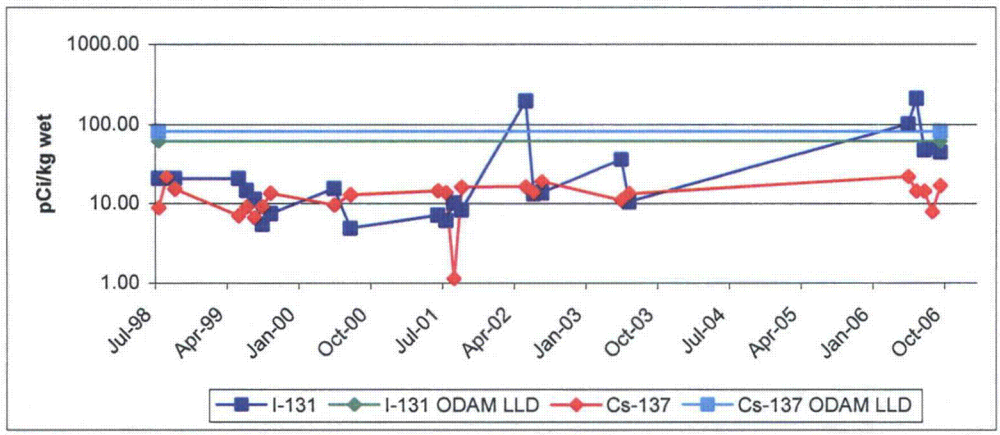


I. Food – Broadleaf Vegetation

Thirty-three broadleaf vegetation samples were collected May through September from three locations during 2006. The samples were analyzed by gamma ray spectroscopy and for low-level iodine-131 by radiochemical separation. The results are presented in Table VII-9 and Trending Graph 9. Beryllium-7, which is produced continuously in the upper atmosphere by cosmic radiation was measured in all thirty-three samples analyzed. The average concentration for the two indicator locations was 1872 pCi/kg wet and a range of 153 to 6650 pCi/kg wet. The average concentration for the control location was 1079 pCi/kg wet with a range of 578 to 1610 pCi/kg wet. Naturally occurring potassium-40 was measured on all thirty-three samples analyzed. The average concentration for the two indicator locations was 5890 pCi/kg wet and a range of 3150 to 9320 pCi/liter. The average concentration for the control location was 5810 pCi/kg wet with a range of 4440 to 7880 pCi/kg wet. Thorium-228 was measured in five of thirty-three samples analyzed. The average concentration for the indicator locations was 25 pCi/kg wet with a range of 13 to 37 pCi/kg wet. The average concentration for the control location was 31 pCi/kg wet with a range of 22 to 46 pCi/kg wet. All other gamma emitters were below their detection levels. The operation of the Cooper Nuclear Station has no discernable impact on broadleaf vegetation samples.

TRENDING GRAPH 9

IODINE-131 AND CESIUM-137 IN FOOD – BROADLEAF VEGETATION
ALL LOCATIONS



The low Cs-137 value reported in July 2001 was due to the wrong aliquot being entered for the gamma analysis.
Due to delay in sample receipt, the I-131 had decayed away, resulting in a high LLD for May 2002.
Due to delay in counting sample, the I-131 had decayed away, resulting in a high LLD for June 2006. The I-131 by chemical separation met required I-131 LLD.

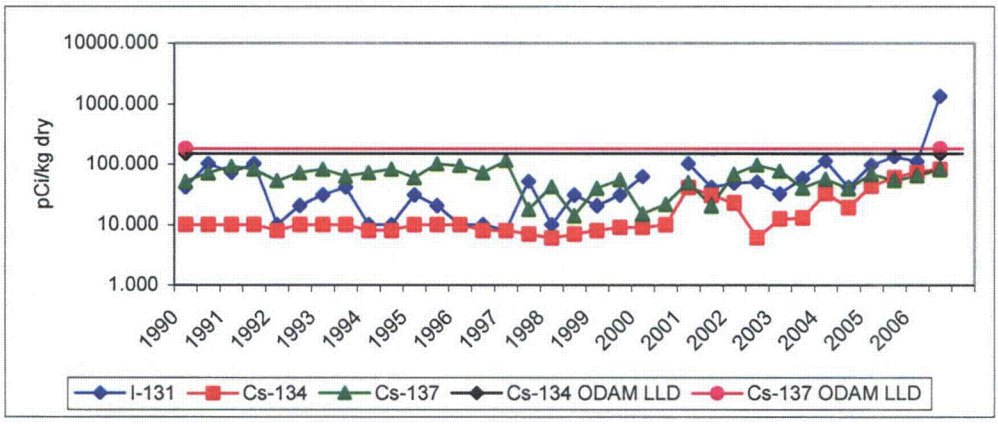
J. Shoreline Sediment

Sediment samples were collected during May and October from Stations 28 and 35 and were analyzed by gamma spectrometry. The results are presented in Table VII-10 and Trending Graph 10. A number of naturally occurring radionuclides were detected in these samples. Beryllium-7 was detected in one indicator sample with a concentration of 961 pCi/kg (dry weight). Naturally occurring potassium-40 was observed in all samples. The average concentration for the two supplemental stations was 15300 pCi/kg (dry weight) with a range of 14900 to 15700 pCi/kg (dry weight). The average concentration for the two indicator stations was 16900 pCi/kg (dry weight) with a range of 16700 to 17100 pCi/kg (dry weight). Radium-226 was measured in one indicator sample with a concentration of 1930 pCi/kg (dry weight) and one supplemental sample with a concentration of 1540 pCi/kg (dry weight). Thorium-228 was observed in all samples. The average concentration for the two supplemental stations was 679 pCi/kg (dry weight) and a range of 646 to 711 pCi/kg (dry weight). The average concentration for the two indicator stations was 982 pCi/kg (dry weight) and a range of 933 to 1030 pCi/kg (dry weight). All other gamma emitters were below their detection limits. Two samples were analyzed for tritium. Tritium was measured in one indicator sample at a concentration of 1890 pCi/kg (dry weight). The ODAM does not list an LLD for tritium.

TRENDING GRAPH 10

IODINE-131, CESIUM-134, AND CESIUM-137 IN SHORELINE SEDIMENT

STATIONS 28 AND 35



Due to delay in analysis, sample results for I-131 for the second quarter of 2000 were excluded and are not plotted.

Due to delay in counting the samples and shortened count times, the I-131 LLD for 10/11/06 samples was higher than normally reported.

The ODAM does not list an LLD for I-131.

SECTION V. CONCLUSIONS

V. CONCLUSIONS

The results of the 2006 Radiological Environmental Monitoring Program (REMP) for the Cooper Nuclear Station (CNS) of the Nebraska Public Power District (NPPD) have been presented. The report contains data tables, summaries, and discussions of the data and trending graphs.

Naturally occurring radioactivity and residual traces of fallout were observed in sample media in the expected ranges. They have been discussed individually in the text. Observed radioactivity was at very low concentrations.

The results of the analyses have been presented. Based on the evidence of the Radiological Environmental Monitoring Program, the Nebraska Public Power District, Cooper Nuclear Station has had no discernable radiological impact on the environment and is operating within regulatory limits.

SECTION VI. RADIOLOGICAL ENVIRONMENTAL MONITORING PROGRAM SUMMARY TABLE - 2006

ENVIRONMENTAL RADIOLOGICAL MONITORING PROGRAM SUMMARY

Name of Facility: Cooper Nuclear Station
Location of Facility: Nemaha, Nebraska (County, State)
Docket No. 50-298
Reporting Period: January 1, 2006 to December 31, 2006

Medium of Pathway Sampled (Unit of Measurement)	Type & Total No. of Analyses Performed		Lower Limit of Detection (1) (LLD)	All Indicator Locations Mean (2) Range (2)	Location with Highest Annual Mean: Name	Location with Highest Annual Mean: Mean ( ) (2) Range (2)	Control Location Mean ( ) (2) Range (2)	No. of Reportable Occurrences
Air Iodine (pCi/m^3)	I-131	530	0.07	ND(0/530) (ND-ND)	NA	NA (NA-NA)	NA(0/0) (NA-NA)	0
Air Particulate (pCi/m3)	Gross Beta (Weekly)	529	0.01	0.024(529/529) (0.003/0.063)	Sta. 05 3.5 mi.	0.025(53/53) (0.011/0.056)	NA(0/0) (NA-NA)	0
	Be-7	40	NA	0.143(36/40) (0.065/0.260)	Sta. 09 7.3 mi.	0.176(3/7) (0.103/0.236)	NA(0/0) (NA-NA)	0
	Co-60	40	NA	ND(0/40) (ND-ND)	NA	NA(0/0) (NA-NA)	NA(0/0) (NA-NA)	0
	Th-228	40	NA	ND(0/40) (ND-ND)	NA	NA(0/0) (NA-NA)	NA(0/0) (NA-NA)	0
Fish (pCi/kg Wet)	K-40	8	NA	3628(4/4) (3000/4200)	Sta. 28 1.8 mi.	3628(4/4) (3000/4200)	3143(4/4) (2770/3870)	0
	Co-60	8	130	ND(0/4) (ND-ND)	NA	NA (NA-NA)	ND(0/4) (ND-ND)	0
	Cs-137	8	150	ND(0/4) (ND-ND)	NA	NA (NA-NA)	ND(0/4) (ND-ND)	0

(1) Nominal Lower Limit of Detection (LLD), as stated in ODAM.
(2) Mean and Range based upon detectable measurements only. Fraction of detectable measurements at specified location indicated in brackets().
(3) ND = Non Detectable.
(4) NA = Not Applicable.

ENVIRONMENTAL RADIOLOGICAL MONITORING PROGRAM SUMMARY

Name of Facility: Cooper Nuclear Station
Location of Facility: Nemaha, Nebraska (County, State)
Docket No. 50-298
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Medium of Pathway Sampled (Unit of Measurement)	Type & Total No. of Analyses Performed		Lower Limit of Detection (1) (LLD)	All Indicator Locations Mean (2) Range (2)	Location with Highest Annual Mean: Name	Mean ( ) (2) Range (2)	Control Location Mean ( ) (2) Range (2)	No. of Reportable Occurrences
Fish (pCi/kg Wet)	Th-228	8	NA	ND(0/4) (ND-ND)	NA	NA (NA-NA)	148(1/4) NA-NA	0
Milk Nearest Producer (pCi/liter)	I-131	18	1.0	ND(0/18) (ND-ND)	NA	NA (NA-NA)	NA(0/0) (NA-NA)	0
	K-40	18	NA	1291(18/18) (1190/1450)	Sta. 99 10.5 mi.	1291(18/18) (1190/1450)	NA(0/0) (NA-NA)	0
	Ra-226	18	NA	ND(0/18) (ND-ND)	NA	NA (NA-NA)	NA(0/0) (NA-NA)	0
Milk Other Producers (pCi/liter)	I-131	5	1.0	ND(0/5) (ND-ND)	NA	NA (NA-NA)	NA(0/0) (NA-NA)	0
	K-40	5	NA	1310(5/5) (1200/1440)	Sta. 103 13.5 mi.	1338(4/4) (1270/1440)	NA(0/0) (NA-NA)	0
	Ra-226	5	NA	ND(0/5) (ND-ND)	NA	NA(0/0) (NA-NA)	NA(0/0) (NA-NA)	0
	Th-228	5	NA	ND(0/5) (ND-ND)	NA	NA (NA-NA)	NA(0/0) (NA-NA)	0

(1) Nominal Lower Limit of Detection (LLD), as stated in ODAM.
(2) Mean and Range based upon detectable measurements only. Fraction of detectable measurements at specified location indicated in brackets().
(3) ND = Non Detectable.
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ENVIRONMENTAL RADIOLOGICAL MONITORING PROGRAM SUMMARY

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Medium of Pathway Sampled (Unit of Measurement)	Type & Total No. of Analyses Performed		Lower Limit of Detection (1) (LLD)	All Indicator Locations Mean (2) Range (2)	Location with Highest Annual Mean: Name	Mean ( ) (2) Range (2)	Control Location Mean ( ) (2) Range (2)	No. of Reportable Occurrences
Ground Water (pCi/liter)	I-131	20	1	ND(0/20) (ND-ND)	NA	NA (NA-NA)	NA(0/0) (NA-NA)	0
	H-3	20	2000	ND(0/20) (ND-ND)	NA	NA (NA-NA)	NA(0/0) (NA-NA)	0
	K-40	20	NA	62(1/20) NA-NA	Sta. 47 25.8 mi.	62(1/20) NA-NA	NA(0/0) (NA-NA)	0
	Th-228	20	NA	ND(0/20) (ND-ND)	NA	NA (NA-NA)	NA(0/0) (NA-NA)	0
River Water (pCi/liter)	H-3	22	2000	ND(0/11) (ND-ND)	NA	NA(0/0) (NA-NA)	ND(0/11) (ND-ND)	0
	K-40	24	NA	45(1/12) NA-NA	Sta. 35 2.0 mi.	171(2/12) (118/223)	171(2/12) (118/223)	0
	Th-228	24	NA	ND(0/12) (ND-ND)	Sta. 35 2.0 mi.	4(1/12) NA-NA	4(1/12) NA-NA	0

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ENVIRONMENTAL RADIOLOGICAL MONITORING PROGRAM SUMMARY

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Medium of Pathway Sampled (Unit of Measurement)	Type & Total No. of Analyses Performed	Lower Limit of Detection (1) (LLD)	All Indicator Locations Mean (2) Range (2)	Location with Highest Annual Mean: Name	Mean ( ) (2) Range (2)	Control Location Mean ( ) (2) Range (2)	No. of Reportable Occurrences
Thermoluminescence Dosimeter (mR/Standard Quarter)	Gamma Dose Quarterly	128	NA	22.8(124/124) (18.0/33.3)	Sta. 94 20.0 miles	25.2(4/4) (21.3/30.7)	25.1(4/4) (22.3/29)	0
Broadleaf Vegetation (pCi/kg wet)	I-131	33	60	ND(0/27) (ND-ND)	NA	NA(0/0) (NA-NA)	ND(0/6) (ND-ND)	0
	BE-7	33	NA	1872(27/27) (153/6650)	Sta. 101	1909(15/15) (397/6650)	1079(6/6) (578/1610)	
	K-40	33	NA	5890(27/27) (3150/9320)	Sta. 96	6727(12/12) (5240/9320)	5810(6/6) (4440/7880)	0
	Ra-226	33	NA	ND(0/27) (ND-ND)	NA	NA(0/0) (NA-NA)	ND(0/6) (ND-ND)	0
	Th-228	33	NA	25(2/27) (13/37)	Sta. 35 2.0 mi.	31(3/6) (22/46)	31(3/6) (22/46)	0
Shoreline Soil (pCi/kg dry)	H-3	2	NA	1890(1/1) NA-NA	Sta. 28 1.8 mi.	1890(1/1) NA-NA	ND(0/1) (ND-ND)	0

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Shoreline Soil (pCi/kg dry)	Be-7 4	NA	961(1/2) NA-NA	Sta. 28 1.8 mi.	961(1/2) NA-NA	ND(0/2) (ND-ND)	0
	K-40 4	NA	16900(2/2) (16700/17100)	Sta. 28 1.8 mi.	16900(2/2) (16700/17100)	15300(2/2) (14900/15700)	0
	Cs-137 4	180	ND(0/2) (ND-ND)	NA	NA (NA-NA)	ND(0/2) (ND-ND)	0
	Ra-226 4	NA	1930(1/2) NA-NA	Sta. 28 1.8 mi.	1930(1/2) NA-NA	1540(1/2) NA-NA	0
	Th-228 4	NA	982(2/2) (933/1030)	Sta. 28 1.8 mi.	982(2/2) (933/1030)	679(2/2) (646/711)	0

(1) Nominal Lower Limit of Detection (LLD), as stated in ODAM.
(2) Mean and Range based upon detectable measurements only. Fraction of detectable measurements at specified location indicated in brackets().
(3) ND = Non Detectable.
(4) NA = Not Applicable.

SECTION VII. COMPLETE DATA TABLES

VII-1

NEBRASKA PUBLIC POWER DISTRICT

COOPER NUCLEAR STATION

EXPOSURE PATHWAY - AIRBORNE

AIR PARTICULATE & CHARCOAL FILTERS

STATION NUMBER 01

COLL. START DATE	TIME STOP DATE	SAMPLE VOLUME	SAMPLE UNITS	AP FILTER GROSS BETA (PCI/CU.M.)	CHARCOAL FILTER I-131 (PCI/CU.M.)
12/27/05	01/03/06	1.00E+04	CU.FT.	2.69E-02 ± 4.74E-03	L.T. 6E-02
01/03/06	01/10/06	1.00E+04	CU.FT.	2.52E-02 ± 4.52E-03	L.T. 6E-02
01/10/06	01/17/06	1.00E+04	CU.FT.	2.35E-02 ± 4.38E-03	L.T. 5E-02
01/17/06	01/24/06	1.01E+04	CU.FT.	2.11E-02 ± 4.50E-03	L.T. 3E-02
01/24/06	01/31/06	1.01E+04	CU.FT.	5.04E-02 ± 6.00E-03	L.T. 6E-02
01/31/06	02/06/06	8.60E+03	CU.FT.	1.88E-02 ± 4.42E-03	L.T. 4E-02
02/06/06	02/14/06	1.15E+04	CU.FT.	1.81E-02 ± 3.84E-03	L.T. 5E-02
02/14/06	02/21/06	9.92E+03	CU.FT.	2.60E-02 ± 4.58E-03	L.T. 4E-02
02/21/06	02/28/06	1.01E+04	CU.FT.	2.51E-02 ± 4.60E-03	L.T. 5E-02
02/28/06	03/07/06	1.00E+04	CU.FT.	2.90E-02 ± 4.59E-03	L.T. 5E-02
03/07/06	03/14/06	1.00E+04	CU.FT.	1.42E-02 ± 3.88E-03	L.T. 4E-02
03/14/06	03/21/06	1.02E+04	CU.FT.	1.86E-02 ± 3.81E-03	L.T. 6E-02
03/21/06	03/27/06	8.48E+03	CU.FT.	1.14E-02 ± 4.00E-03	L.T. 5E-02
03/27/06	04/03/06	1.00E+04	CU.FT.	1.40E-02 ± 3.73E-03	L.T. 2E-02
04/03/06	04/10/06	1.00E+04	CU.FT.	1.97E-02 ± 4.16E-03	L.T. 7E-02
04/10/06	04/17/06	9.93E+03	CU.FT.	2.44E-02 ± 4.44E-03	L.T. 4E-02
04/17/06	04/25/06	1.16E+04	CU.FT.	1.94E-02 ± 3.56E-03	L.T. 3E-02
04/25/06	05/02/06	1.00E+04	CU.FT.	2.14E-02 ± 4.06E-03	L.T. 5E-02
05/02/06	05/09/06	1.00E+04	CU.FT.	1.45E-02 ± 3.86E-03	L.T. 6E-02
05/09/06	05/16/06	1.00E+04	CU.FT.	1.46E-02 ± 3.56E-03	L.T. 5E-02
05/16/06	05/23/06	1.00E+04	CU.FT.	2.24E-02 ± 4.20E-03	L.T. 7E-02
05/23/06	05/30/06	1.00E+04	CU.FT.	2.12E-02 ± 4.27E-03	L.T. 6E-02
05/30/06	06/06/06	1.00E+04	CU.FT.	2.54E-02 ± 4.51E-03	L.T. 5E-02
06/06/06	06/12/06	8.71E+03	CU.FT.	2.26E-02 ± 4.73E-03	L.T. 6E-02
06/12/06	06/20/06	1.15E+04	CU.FT.	2.18E-02 ± 3.89E-03	L.T. 7E-02
06/20/06	06/26/06	8.58E+03	CU.FT.	1.83E-02 ± 4.39E-03	L.T. 6E-02

VII-1

NEBRASKA PUBLIC POWER DISTRICT

COOPER NUCLEAR STATION

EXPOSURE PATHWAY - AIRBORNE

AIR PARTICULATE & CHARCOAL FILTERS

STATION NUMBER 01

COLL. START DATE	TIME STOP DATE	SAMPLE VOLUME	UNITS	AP FILTER GROSS BETA (PCI/CU.M.)	CHARCOAL FILTER I-131 (PCI/CU.M.)
06/26/06	07/05/06	1.29E+04	CU.FT.	2.84E-02 ± 4.08E-03	L.T. 5E-02
07/05/06	07/11/06	8.70E+03	CU.FT.	2.66E-02 ± 4.89E-03	L.T. 6E-02
07/11/06	07/18/06	9.93E+03	CU.FT.	2.92E-02 ± 4.76E-03	L.T. 6E-02
07/18/06	07/24/06	8.72E+03	CU.FT.	2.43E-02 ± 4.89E-03	L.T. 6E-02
07/24/06	07/31/06	1.00E+04	CU.FT.	2.82E-02 ± 4.75E-03	L.T. 4E-02
07/31/06	08/08/06	1.14E+04	CU.FT.	2.16E-02 ± 3.73E-03	L.T. 6E-02
08/08/06	08/15/06	9.99E+03	CU.FT.	2.54E-02 ± 4.37E-03	L.T. 6E-02
08/15/06	08/22/06	1.00E+04	CU.FT.	2.26E-02 ± 4.40E-03	L.T. 5E-02
08/22/06	08/29/06	1.03E+04	CU.FT.	3.29E-02 ± 4.81E-03	L.T. 7E-02
08/29/06	09/05/06	9.96E+03	CU.FT.	2.47E-02 ± 4.46E-03	L.T. 2E-02
09/05/06	09/12/06	1.01E+04	CU.FT.	3.42E-02 ± 5.10E-03	L.T. 4E-02
09/12/06	09/18/06	8.61E+03	CU.FT.	2.65E-02 ± 4.97E-03	L.T. 6E-02
09/18/06	09/25/06	9.96E+03	CU.FT.	1.34E-02 ± 3.71E-03	L.T. 5E-02
09/25/06	10/03/06	1.14E+04	CU.FT.	2.76E-02 ± 4.24E-03	L.T. 5E-02
10/03/06	10/09/06	8.59E+03	CU.FT.	2.98E-02 ± 4.96E-03	L.T. 3E-02
10/09/06	10/17/06	1.15E+04	CU.FT.	1.62E-02 ± 3.43E-03	L.T. 6E-02
10/17/06	10/24/06	1.00E+04	CU.FT.	2.55E-02 ± 4.46E-03	L.T. 4E-02
10/24/06	10/31/06	1.01E+04	CU.FT.	2.71E-02 ± 4.36E-03	L.T. 4E-02
10/31/06	11/07/06	9.99E+03	CU.FT.	3.45E-02 ± 4.98E-03	L.T. 6E-02
11/07/06	11/13/06	8.59E+03	CU.FT.	2.75E-02 ± 5.02E-03	L.T. 2E-02
11/13/06	11/21/06	1.14E+04	CU.FT.	4.13E-02 ± 5.18E-03	L.T. 4E-02
11/21/06	11/28/06	1.01E+04	CU.FT.	4.81E-02 ± 5.68E-03	L.T. 2E-02
11/28/06	12/05/06	1.01E+04	CU.FT.	3.67E-02 ± 5.14E-03	L.T. 3E-02
12/05/06	12/11/06	1.00E+04	CU.FT.	3.03E-02 ± 4.76E-03	L.T. 5E-02
12/12/06	12/19/06	1.01E+04	CU.FT.	3.02E-02 ± 4.63E-03	L.T. 2E-02
12/19/06	12/26/06	9.91E+03	CU.FT.	2.00E-02 ± 4.03E-03	L.T. 4E-02
12/26/06	01/02/07	1.03E+04	CU.FT.	1.94E-02 ± 3.76E-03	L.T. 5E-02

VII-1

NEBRASKA PUBLIC POWER DISTRICT

COOPER NUCLEAR STATION

EXPOSURE PATHWAY - AIRBORNE

AIR PARTICULATE & CHARCOAL FILTERS

STATION NUMBER 02

COLL. START DATE	TIME STOP DATE	SAMPLE VOLUME	UNITS	AP FILTER GROSS BETA (PCI/CU.M.)	CHARCOAL FILTER I-131 (PCI/CU.M.)
12/27/05	01/03/06	9.91E+03	CU.FT.	2.52E-03 ± 4.66E-04	L.T. 4E-02
01/03/06	01/10/06	1.00E+04	CU.FT.	2.69E-02 ± 4.63E-03	L.T. 7E-02
01/10/06	01/17/06	1.00E+04	CU.FT.	1.63E-02 ± 3.86E-03	L.T. 5E-02
01/17/06	01/24/06	1.01E+04	CU.FT.	2.04E-02 ± 4.45E-03	L.T. 3E-02
01/24/06	01/31/06	1.01E+04	CU.FT.	5.01E-02 ± 5.98E-03	L.T. 6E-02
01/31/06	02/06/06	8.60E+03	CU.FT.	1.49E-02 ± 4.11E-03	L.T. 4E-02
02/06/06	02/14/06	1.15E+04	CU.FT.	1.64E-02 ± 3.73E-03	L.T. 5E-02
02/14/06	02/21/06	9.93E+03	CU.FT.	2.15E-02 ± 4.27E-03	L.T. 4E-02
02/21/06	02/28/06	1.01E+04	CU.FT.	2.17E-02 ± 4.38E-03	L.T. 5E-02
02/28/06	03/07/06	1.00E+04	CU.FT.	3.26E-02 ± 4.82E-03	L.T. 5E-02
03/07/06	03/14/06	1.00E+04	CU.FT.	1.79E-02 ± 4.16E-03	L.T. 4E-02
03/14/06	03/21/06	1.02E+04	CU.FT.	2.36E-02 ± 4.17E-03	L.T. 6E-02
03/21/06	03/27/06	8.48E+03	CU.FT.	1.60E-02 ± 4.39E-03	L.T. 5E-02
03/27/06	04/03/06	1.03E+04	CU.FT.	1.75E-02 ± 3.92E-03	L.T. 2E-02
04/03/06	04/10/06	9.73E+03	CU.FT.	2.16E-02 ± 4.37E-03	L.T. 7E-02
04/10/06	04/17/06	7.69E+03	CU.FT.	2.93E-02 ± 5.59E-03	L.T. 4E-02
04/17/06	04/25/06	1.16E+04	CU.FT.	1.48E-02 ± 3.21E-03	L.T. 3E-02
04/25/06	05/02/06	1.00E+04	CU.FT.	1.78E-02 ± 3.79E-03	L.T. 5E-02
05/02/06	05/09/06	1.00E+04	CU.FT.	1.34E-02 ± 3.78E-03	L.T. 6E-02
05/09/06	05/16/06	1.00E+04	CU.FT.	1.40E-02 ± 3.51E-03	L.T. 5E-02
05/16/06	05/23/06	9.99E+03	CU.FT.	1.32E-02 ± 3.49E-03	L.T. 7E-02
05/23/06	05/30/06	5.64E+03	CU.FT.	3.65E-02 ± 7.49E-03	L.T. 6E-02
05/30/06	06/06/06	1.01E+04	CU.FT.	2.37E-02 ± 4.37E-03	L.T. 5E-02
06/06/06	06/12/06	8.61E+03	CU.FT.	2.48E-02 ± 4.92E-03	L.T. 6E-02
06/12/06	06/20/06	1.15E+04	CU.FT.	2.38E-02 ± 4.02E-03	L.T. 7E-02
06/20/06	06/26/06	8.58E+03	CU.FT.	2.14E-02 ± 4.63E-03	L.T. 6E-02

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NEBRASKA PUBLIC POWER DISTRICT

COOPER NUCLEAR STATION

EXPOSURE PATHWAY - AIRBORNE

AIR PARTICULATE & CHARCOAL FILTERS

STATION NUMBER 02

COLL. START DATE	TIME STOP DATE	SAMPLE VOLUME	SAMPLE UNITS	AP FILTER GROSS BETA (PCI/CU.M.)	CHARCOAL FILTER I-131 (PCI/CU.M.)
06/26/06	07/05/06	1.29E+04	CU.FT.	2.67E-02 ± 3.99E-03	L.T. 5E-02
07/05/06	07/11/06	8.72E+03	CU.FT.	2.31E-02 ± 4.63E-03	L.T. 6E-02
07/11/06	07/18/06	9.91E+03	CU.FT.	2.91E-02 ± 4.76E-03	L.T. 6E-02
07/18/06	07/24/06	8.72E+03	CU.FT.	2.54E-02 ± 4.96E-03	L.T. 6E-02
07/24/06	07/31/06	1.00E+04	CU.FT.	2.46E-02 ± 4.52E-03	L.T. 4E-02
07/31/06	08/08/06	9.60E+03	CU.FT.	2.33E-02 ± 4.27E-03	L.T. 4E-02
08/08/06	08/15/06	9.99E+03	CU.FT.	2.90E-02 ± 4.61E-03	L.T. 6E-02
08/15/06	08/22/06	1.00E+04	CU.FT.	2.56E-02 ± 4.59E-03	L.T. 5E-02
08/22/06	08/29/06	1.03E+04	CU.FT.	3.51E-02 ± 4.94E-03	L.T. 7E-02
08/29/06	09/05/06	9.97E+03	CU.FT.	2.44E-02 ± 4.43E-03	L.T. 2E-02
09/05/06	09/12/06	1.00E+04	CU.FT.	3.15E-02 ± 4.97E-03	L.T. 4E-02
09/12/06	09/18/06	8.61E+03	CU.FT.	2.93E-02 ± 5.16E-03	L.T. 6E-02
09/18/06	09/25/06	1.00E+04	CU.FT.	1.24E-02 ± 3.62E-03	L.T. 5E-02
09/25/06	10/03/06	1.14E+04	CU.FT.	2.64E-02 ± 4.16E-03	L.T. 5E-02
10/03/06	10/09/06	8.60E+03	CU.FT.	3.46E-02 ± 5.28E-03	L.T. 4E-02
10/09/06	10/17/06	1.15E+04	CU.FT.	1.90E-02 ± 3.64E-03	L.T. 6E-02
10/17/06	10/24/06	1.00E+04	CU.FT.	2.60E-02 ± 4.49E-03	L.T. 4E-02
10/24/06	10/31/06	1.01E+04	CU.FT.	2.82E-02 ± 4.44E-03	L.T. 4E-02
10/31/06	11/07/06	1.01E+04	CU.FT.	3.48E-02 ± 5.00E-03	L.T. 6E-02
11/07/06	11/13/06	8.59E+03	CU.FT.	2.83E-02 ± 5.08E-03	L.T. 2E-02
11/13/06	11/21/06	1.14E+04	CU.FT.	4.45E-02 ± 5.34E-03	L.T. 4E-02
11/21/06	11/28/06	1.01E+04	CU.FT.	5.27E-02 ± 5.92E-03	L.T. 3E-02
11/28/06	12/05/06	1.01E+04	CU.FT.	4.30E-02 ± 5.49E-03	L.T. 3E-02
12/05/06	12/11/06	9.98E+03	CU.FT.	3.05E-02 ± 4.78E-03	L.T. 5E-02
12/12/06	12/19/06	1.01E+04	CU.FT.	3.27E-02 ± 4.79E-03	L.T. 2E-02
12/19/06	12/26/06	9.91E+03	CU.FT.	2.02E-02 ± 4.04E-03	L.T. 4E-02
12/26/06	01/02/07	1.03E+04	CU.FT.	2.57E-02 ± 4.21E-03	L.T. 5E-02

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NEBRASKA PUBLIC POWER DISTRICT

COOPER NUCLEAR STATION

EXPOSURE PATHWAY - AIRBORNE

AIR PARTICULATE & CHARCOAL FILTERS

STATION NUMBER 03

COLL. START DATE	TIME STOP DATE	SAMPLE VOLUME	UNITS	AP FILTER GROSS BETA (PCI/CU.M.)	CHARCOAL FILTER I-131 (PCI/CU.M.)
12/27/05	01/03/06	1.00E+04	CU.FT.	2.12E-02 ± 4.37E-03	L.T. 6E-02
01/03/06	01/10/06	1.01E+04	CU.FT.	2.11E-02 ± 4.21E-03	L.T. 7E-02
01/10/06	01/17/06	9.85E+03	CU.FT.	1.71E-02 ± 3.97E-03	L.T. 5E-02
01/17/06	01/24/06	1.02E+04	CU.FT.	1.86E-02 ± 4.29E-03	L.T. 3E-02
01/24/06	01/31/06	1.00E+04	CU.FT.	4.54E-02 ± 5.78E-03	L.T. 6E-02
01/31/06	02/06/06	8.58E+03	CU.FT.	(a)	L.T. 3E-02
02/06/06	02/14/06	1.16E+04	CU.FT.	1.55E-02 ± 3.64E-03	L.T. 5E-02
02/14/06	02/21/06	9.93E+03	CU.FT.	2.18E-02 ± 4.29E-03	L.T. 4E-02
02/21/06	02/28/06	1.01E+04	CU.FT.	2.20E-02 ± 4.40E-03	L.T. 5E-02
02/28/06	03/07/06	1.00E+04	CU.FT.	2.87E-02 ± 4.57E-03	L.T. 5E-02
03/07/06	03/14/06	1.00E+04	CU.FT.	1.30E-02 ± 3.79E-03	L.T. 4E-02
03/14/06	03/21/06	1.01E+04	CU.FT.	1.76E-02 ± 3.75E-03	L.T. 6E-02
03/21/06	03/27/06	8.52E+03	CU.FT.	1.23E-02 ± 4.06E-03	L.T. 5E-02
03/27/06	04/03/06	1.01E+04	CU.FT.	1.55E-02 ± 3.82E-03	L.T. 2E-02
04/03/06	04/10/06	1.00E+04	CU.FT.	1.81E-02 ± 4.04E-03	L.T. 6E-02
04/10/06	04/17/06	9.97E+03	CU.FT.	2.88E-02 ± 4.72E-03	L.T. 3E-02
04/17/06	04/25/06	1.16E+04	CU.FT.	1.65E-02 ± 3.34E-03	L.T. 3E-02
04/25/06	05/02/06	1.00E+04	CU.FT.	2.17E-02 ± 4.09E-03	L.T. 5E-02
05/02/06	05/09/06	1.00E+04	CU.FT.	1.72E-02 ± 4.06E-03	L.T. 6E-02
05/09/06	05/16/06	1.00E+04	CU.FT.	1.18E-02 ± 3.31E-03	L.T. 5E-02
05/16/06	05/23/06	1.00E+04	CU.FT.	2.46E-02 ± 4.36E-03	L.T. 7E-02
05/23/06	05/30/06	1.00E+04	CU.FT.	2.03E-02 ± 4.20E-03	L.T. 6E-02
05/30/06	06/06/06	1.00E+04	CU.FT.	2.43E-02 ± 4.44E-03	L.T. 5E-02
06/06/06	06/12/06	8.71E+03	CU.FT.	2.45E-02 ± 4.86E-03	L.T. 6E-02
06/12/06	06/20/06	1.14E+00	CU.FT.	2.37E-02 ± 4.03E-03	L.T. 7E-02
06/20/06	06/26/06	8.52E+03	CU.FT.	2.05E-02 ± 4.58E-03	L.T. 6E-02

(a) The AP media adhering to the filter paper from Station 03 was partially lost during collection.

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NEBRASKA PUBLIC POWER DISTRICT

COOPER NUCLEAR STATION

EXPOSURE PATHWAY - AIRBORNE

AIR PARTICULATE & CHARCOAL FILTERS

STATION NUMBER 03

COLL. START DATE	TIME STOP DATE	SAMPLE VOLUME	SAMPLE UNITS	AP FILTER GROSS BETA (PCI/CU.M.)	CHARCOAL FILTER I-131 (PCI/CU.M.)
06/26/06	07/05/06	1.29E+04	CU.FT.	2.72E-02 ± 4.02E-03	L.T. 5E-02
07/05/06	07/11/06	8.88E+03	CU.FT.	2.62E-02 ± 4.80E-03	L.T. 6E-02
07/11/06	07/18/06	9.96E+03	CU.FT.	2.55E-02 ± 4.51E-03	L.T. 6E-02
07/18/06	07/24/06	8.47E+03	CU.FT.	2.82E-02 ± 5.26E-03	L.T. 6E-02
07/24/06	07/31/06	1.01E+04	CU.FT.	2.99E-02 ± 4.82E-03	L.T. 4E-02
07/31/06	08/08/06	1.17E+04	CU.FT.	2.35E-02 ± 3.80E-03	L.T. 6E-02
08/08/06	08/15/06	1.00E+04	CU.FT.	2.51E-02 ± 4.35E-03	L.T. 6E-02
08/15/06	08/22/06	9.96E+03	CU.FT.	2.88E-02 ± 4.81E-03	L.T. 5E-02
08/22/06	08/29/06	1.01E+04	CU.FT.	3.40E-02 ± 4.93E-03	L.T. 7E-02
08/29/06	09/05/06	7.46E+03	CU.FT.	2.62E-02 ± 5.48E-03	L.T. 3E-02
09/05/06	09/12/06	9.99E+03	CU.FT.	2.93E-02 ± 4.84E-03	L.T. 4E-02
09/12/06	09/18/06	8.61E+03	CU.FT.	2.85E-02 ± 5.10E-03	L.T. 6E-02
09/18/06	09/25/06	1.00E+04	CU.FT.	9.17E-03 ± 3.35E-03	L.T. 4E-02
09/25/06	10/03/06	1.14E+04	CU.FT.	2.31E-02 ± 3.95E-03	L.T. 5E-02
10/03/06	10/09/06	8.46E+03	CU.FT.	2.96E-02 ± 4.98E-03	L.T. 4E-02
10/09/06	10/17/06	1.17E+04	CU.FT.	1.87E-02 ± 3.58E-03	L.T. 6E-02
10/17/06	10/24/06	9.90E+03	CU.FT.	2.61E-02 ± 4.53E-03	L.T. 3E-02
10/24/06	10/31/06	1.01E+04	CU.FT.	2.40E-02 ± 4.14E-03	L.T. 4E-02
10/31/06	11/07/06	1.01E+04	CU.FT.	2.93E-02 ± 4.63E-03	L.T. 6E-02
11/07/06	11/13/06	8.35E+03	CU.FT.	2.08E-02 ± 4.61E-03	L.T. 2E-02
11/13/06	11/21/06	1.15E+04	CU.FT.	4.16E-02 ± 5.17E-03	L.T. 4E-02
11/21/06	11/28/06	1.02E+04	CU.FT.	5.05E-02 ± 5.77E-03	L.T. 3E-02
11/28/06	12/05/06	1.01E+04	CU.FT.	3.83E-02 ± 5.23E-03	L.T. 3E-02
12/05/06	12/11/06	9.72E+03	CU.FT.	3.01E-02 ± 4.83E-03	L.T. 5E-02
12/12/06	12/19/06	1.02E+04	CU.FT.	2.50E-02 ± 4.26E-03	L.T. 2E-02
12/19/06	12/26/06	9.84E+03	CU.FT.	2.05E-02 ± 4.08E-03	L.T. 4E-02
12/26/06	01/02/07	1.04E+04	CU.FT.	2.12E-02 ± 3.87E-03	L.T. 5E-02

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NEBRASKA PUBLIC POWER DISTRICT

COOPER NUCLEAR STATION

EXPOSURE PATHWAY - AIRBORNE

AIR PARTICULATE & CHARCOAL FILTERS

STATION NUMBER 04

COLL. START DATE	TIME STOP DATE	SAMPLE VOLUME	SAMPLE UNITS	AP FILTER GROSS BETA (PCI/CU.M.)	CHARCOAL FILTER I-131 (PCI/CU.M.)
12/27/05	01/03/06	1.00E+04	CU.FT.	2.52E-02 ± 4.64E-03	L.T. 6E-02
01/03/06	01/10/06	9.93E+03	CU.FT.	2.62E-02 ± 4.60E-03	L.T. 7E-02
01/10/06	01/17/06	1.00E+04	CU.FT.	2.06E-02 ± 4.18E-03	L.T. 5E-02
01/17/06	01/24/06	1.01E+04	CU.FT.	1.67E-02 ± 4.19E-03	L.T. 3E-02
01/24/06	01/31/06	1.01E+04	CU.FT.	6.26E-02 ± 6.57E-03	L.T. 6E-02
01/31/06	02/06/06	8.55E+03	CU.FT.	1.50E-02 ± 4.13E-03	L.T. 4E-02
02/06/06	02/14/06	1.16E+04	CU.FT.	1.49E-02 ± 3.61E-03	L.T. 5E-02
02/14/06	02/21/06	9.90E+03	CU.FT.	2.55E-02 ± 4.55E-03	L.T. 4E-02
02/21/06	02/28/06	1.01E+04	CU.FT.	2.22E-02 ± 4.41E-03	L.T. 4E-02
02/28/06	03/07/06	1.00E+04	CU.FT.	3.33E-02 ± 4.86E-03	L.T. 5E-02
03/07/06	03/14/06	1.01E+04	CU.FT.	1.57E-02 ± 3.97E-03	L.T. 4E-02
03/14/06	03/21/06	1.00E+04	CU.FT.	1.54E-02 ± 3.60E-03	L.T. 6E-02
03/21/06	03/27/06	8.52E+03	CU.FT.	1.05E-02 ± 3.90E-03	L.T. 5E-02
03/27/06	04/03/06	1.01E+04	CU.FT.	1.46E-02 ± 3.75E-03	L.T. 2E-02
04/03/06	04/10/06	1.00E+04	CU.FT.	1.79E-02 ± 4.03E-03	L.T. 6E-02
04/10/06	04/17/06	1.00E+04	CU.FT.	2.02E-02 ± 4.13E-03	L.T. 6E-02
04/17/06	04/25/06	1.16E+04	CU.FT.	1.91E-02 ± 3.53E-03	L.T. 3E-02
04/25/06	05/02/06	1.00E+04	CU.FT.	1.84E-02 ± 3.84E-03	L.T. 5E-02
05/02/06	05/09/06	1.00E+04	CU.FT.	1.70E-02 ± 4.05E-03	L.T. 6E-02
05/09/06	05/16/06	1.00E+04	CU.FT.	1.48E-02 ± 3.57E-03	L.T. 5E-02
05/16/06	05/23/06	1.01E+04	CU.FT.	1.89E-02 ± 3.92E-03	L.T. 7E-02
05/23/06	05/30/06	1.00E+04	CU.FT.	2.05E-02 ± 4.21E-03	L.T. 6E-02
05/30/06	06/06/06	9.97E+03	CU.FT.	2.41E-02 ± 4.43E-03	L.T. 5E-02
06/06/06	06/12/06	8.83E+03	CU.FT.	2.18E-02 ± 4.63E-03	L.T. 6E-02
06/12/06	06/20/06	1.14E+04	CU.FT.	2.52E-02 ± 4.13E-03	L.T. 7E-02
06/20/06	06/26/06	8.52E+03	CU.FT.	2.17E-02 ± 4.68E-03	L.T. 6E-02

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NEBRASKA PUBLIC POWER DISTRICT

COOPER NUCLEAR STATION

EXPOSURE PATHWAY - AIRBORNE

AIR PARTICULATE & CHARCOAL FILTERS

STATION NUMBER 04

COLL. START DATE	TIME STOP DATE	SAMPLE VOLUME	UNITS	AP FILTER GROSS BETA (PCI/CU.M.)	CHARCOAL FILTER I-131 (PCI/CU.M.)
06/26/06	07/05/06	1.29E+04	CU.FT.	2.91E-02 ± 4.12E-03	L.T. 5E-02
07/05/06	07/11/06	8.84E+03	CU.FT.	2.72E-02 ± 4.89E-03	L.T. 6E-02
07/11/06	07/18/06	9.92E+03	CU.FT.	2.97E-02 ± 4.79E-03	L.T. 6E-02
07/18/06	07/24/06	8.55E+03	CU.FT.	1.85E-02 ± 4.53E-03	L.T. 6E-02
07/24/06	07/31/06	1.01E+04	CU.FT.	3.08E-02 ± 4.88E-03	L.T. 4E-02
07/31/06	08/08/06	1.14E+04	CU.FT.	2.32E-02 ± 3.84E-03	L.T. 6E-02
08/08/06	08/15/06	1.02E+04	CU.FT.	2.37E-02 ± 4.20E-03	L.T. 6E-02
08/15/06	08/22/06	9.91E+03	CU.FT.	2.55E-02 ± 4.62E-03	L.T. 3E-02
08/22/06	08/29/06	1.00E+04	CU.FT.	3.24E-02 ± 4.86E-03	L.T. 7E-02
08/29/06	09/05/06	9.97E+03	CU.FT.	2.65E-02 ± 4.57E-03	L.T. 2E-02
09/05/06	09/12/06	1.01E+04	CU.FT.	3.48E-02 ± 5.13E-03	L.T. 4E-02
09/12/06	09/18/06	8.64E+03	CU.FT.	2.37E-02 ± 4.75E-03	L.T. 6E-02
09/18/06	09/25/06	1.00E+04	CU.FT.	1.45E-02 ± 3.79E-03	L.T. 3E-02
09/25/06	10/03/06	1.14E+04	CU.FT.	2.56E-02 ± 4.11E-03	L.T. 5E-02
10/03/06	10/09/06	8.47E+03	CU.FT.	3.16E-02 ± 5.12E-03	L.T. 4E-02
10/09/06	10/17/06	1.17E+04	CU.FT.	1.97E-02 ± 3.65E-03	L.T. 6E-02
10/17/06	10/24/06	9.90E+03	CU.FT.	2.81E-02 ± 4.66E-03	L.T. 3E-02
10/24/06	10/31/06	1.01E+04	CU.FT.	3.28E-02 ± 4.73E-03	L.T. 4E-02
10/31/06	11/07/06	1.01E+04	CU.FT.	3.71E-02 ± 5.10E-03	L.T. 7E-02
11/07/06	11/13/06	8.40E+03	CU.FT.	3.13E-02 ± 5.35E-03	L.T. 1E-02
11/13/06	11/21/06	1.15E+04	CU.FT.	4.05E-02 ± 5.12E-03	L.T. 4E-02
11/21/06	11/28/06	1.02E+04	CU.FT.	5.59E-02 ± 6.04E-03	L.T. 3E-02
11/28/06	12/05/06	1.01E+04	CU.FT.	3.79E-02 ± 5.21E-03	L.T. 3E-02
12/05/06	12/11/06	9.79E+03	CU.FT.	3.07E-02 ± 4.85E-03	L.T. 5E-02
12/12/06	12/19/06	1.02E+04	CU.FT.	3.10E-02 ± 4.66E-03	L.T. 4E-02
12/19/06	12/26/06	9.84E+03	CU.FT.	2.24E-02 ± 4.22E-03	L.T. 4E-02
12/26/06	01/02/07	1.04E+04	CU.FT.	2.48E-02 ± 4.12E-03	L.T. 5E-02

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NEBRASKA PUBLIC POWER DISTRICT

COOPER NUCLEAR STATION

EXPOSURE PATHWAY - AIRBORNE

AIR PARTICULATE & CHARCOAL FILTERS

STATION NUMBER 05

COLL. START DATE	TIME STOP DATE	SAMPLE VOLUME	UNITS	AP FILTER GROSS BETA (PCI/CU.M.)	CHARCOAL FILTER I-131 (PCI/CU.M.)
12/27/05	01/03/06	1.00E+04	CU.FT.	2.84E-02 + 4.84E-03	L.T. 6E-02
01/03/06	01/10/06	9.92E+03	CU.FT.	2.79E-02 ± 4.71E-03	L.T. 5E-02
01/10/06	01/17/06	1.00E+04	CU.FT.	2.60E-02 ± 4.55E-03	L.T. 3E-02
01/17/06	01/24/06	1.01E+04	CU.FT.	1.89E-02 ± 4.35E-03	L.T. 3E-02
01/24/06	01/31/06	1.01E+04	CU.FT.	5.01E-02 ± 5.98E-03	L.T. 3E-02
01/31/06	02/06/06	8.55E+03	CU.FT.	1.68E-02 ± 4.28E-03	L.T. 4E-02
02/06/06	02/14/06	1.16E+04	CU.FT.	1.78E-02 ± 3.80E-03	L.T. 6E-02
02/14/06	02/21/06	9.90E+03	CU.FT.	2.35E-02 ± 4.41E-03	L.T. 3E-02
02/21/06	02/28/06	1.01E+04	CU.FT.	2.07E-02 ± 4.31E-03	L.T. 5E-02
02/28/06	03/07/06	1.00E+04	CU.FT.	3.35E-02 ± 4.87E-03	L.T. 7E-02
03/07/06	03/14/06	1.00E+04	CU.FT.	2.12E-02 ± 4.39E-03	L.T. 3E-02
03/14/06	03/21/06	1.01E+04	CU.FT.	1.67E-02 ± 3.68E-03	L.T. 7E-02
03/21/06	03/27/06	8.52E+03	CU.FT.	1.05E-02 ± 3.90E-03	L.T. 6E-02
03/27/06	04/03/06	1.01E+04	CU.FT.	1.35E-02 ± 3.66E-03	L.T. 4E-02
04/03/06	04/10/06	1.00E+04	CU.FT.	1.91E-02 ± 4.12E-03	L.T. 7E-02
04/10/06	04/17/06	9.97E+03	CU.FT.	2.76E-02 ± 4.64E-03	L.T. 6E-02
04/17/06	04/25/06	1.16E+04	CU.FT.	1.92E-02 ± 3.54E-03	L.T. 5E-02
04/25/06	05/02/06	1.00E+04	CU.FT.	2.26E-02 ± 4.15E-03	L.T. 4E-02
05/02/06	05/09/06	1.00E+04	CU.FT.	1.84E-02 ± 4.15E-03	L.T. 6E-02
05/09/06	05/16/06	1.00E+04	CU.FT.	1.31E-02 ± 3.43E-03	L.T. 6E-02
05/16/06	05/23/06	1.00E+04	CU.FT.	2.63E-02 ± 4.47E-03	L.T. 7E-02
05/23/06	05/30/06	1.00E+04	CU.FT.	1.85E-02 ± 4.07E-03	L.T. 6E-02
05/30/06	06/06/06	9.97E+03	CU.FT.	2.22E-02 ± 4.30E-03	L.T. 5E-02
06/06/06	06/12/06	8.71E+03	CU.FT.	2.56E-02 ± 4.93E-03	L.T. 6E-02
06/12/06	06/20/06	1.14E+04	CU.FT.	2.46E-02 ± 4.09E-03	L.T. 7E-02
06/20/06	06/26/06	8.52E+03	CU.FT.	2.10E-02 ± 4.63E-03	L.T. 3E-02

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NEBRASKA PUBLIC POWER DISTRICT

COOPER NUCLEAR STATION

EXPOSURE PATHWAY - AIRBORNE

AIR PARTICULATE & CHARCOAL FILTERS

STATION NUMBER 05

COLL. START DATE	TIME STOP DATE	SAMPLE VOLUME	UNITS	AP FILTER GROSS BETA (PCI/CU.M.)	CHARCOAL FILTER I-131 (PCI/CU.M.)
06/26/06	07/05/06	1.29E+04	CU.FT.	2.77E-02 ± 4.04E-03	L.T. 4E-02
07/05/06	07/11/06	8.84E+03	CU.FT.	2.42E-02 ± 4.67E-03	L.T. 4E-02
07/11/06	07/18/06	9.92E+03	CU.FT.	2.67E-02 ± 4.60E-03	L.T. 5E-02
07/18/06	07/24/06	8.55E+03	CU.FT.	2.25E-02 ± 4.83E-03	L.T. 7E-02
07/24/06	07/31/06	1.01E+04	CU.FT.	2.44E-02 ± 4.48E-03	L.T. 7E-02
07/31/06	08/08/06	1.14E+04	CU.FT.	2.19E-02 ± 3.75E-03	L.T. 6E-02
08/08/06	08/15/06	1.02E+04	CU.FT.	2.49E-02 ± 4.28E-03	L.T. 6E-02
08/15/06	08/22/06	9.93E+03	CU.FT.	2.22E-02 ± 4.39E-03	L.T. 5E-02
08/22/06	08/29/06	1.01E+04	CU.FT.	2.68E-02 ± 4.48E-03	L.T. 6E-02
08/29/06	09/05/06	9.97E+03	CU.FT.	2.41E-02 ± 4.41E-03	L.T. 7E-02
09/05/06	09/12/06	1.01E+04	CU.FT.	3.58E-02 ± 5.19E-03	L.T. 3E-02
09/12/06	09/18/06	8.64E+03	CU.FT.	2.90E-02 ± 5.13E-03	L.T. 3E-02
09/18/06	09/25/06	1.00E+04	CU.FT.	1.42E-02 ± 3.77E-03	L.T. 4E-02
09/25/06	10/03/06	1.14E+04	CU.FT.	2.60E-02 ± 4.14E-03	L.T. 4E-02
10/03/06	10/09/06	8.47E+03	CU.FT.	3.21E-02 ± 5.16E-03	L.T. 4E-02
10/09/06	10/17/06	1.17E+04	CU.FT.	2.02E-02 ± 3.68E-03	L.T. 5E-02
10/17/06	10/24/06	9.90E+03	CU.FT.	2.70E-02 ± 4.59E-03	L.T. 4E-02
10/24/06	10/31/06	1.01E+04	CU.FT.	2.62E-02 ± 4.30E-03	L.T. 3E-02
10/31/06	11/07/06	1.01E+04	CU.FT.	3.36E-02 ± 4.89E-03	L.T. 7E-02
11/07/06	11/13/06	8.40E+03	CU.FT.	2.90E-02 ± 5.19E-03	L.T. 1E-02
11/13/06	11/21/06	1.15E+04	CU.FT.	4.34E-02 ± 5.26E-03	L.T. 2E-02
11/21/06	11/28/06	1.02E+04	CU.FT.	5.63E-02 ± 6.06E-03	L.T. 3E-02
11/28/06	12/05/06	1.01E+04	CU.FT.	3.71E-02 ± 5.17E-03	L.T. 4E-02
12/05/06	12/11/06	9.78E+03	CU.FT.	3.50E-02 ± 5.11E-03	L.T. 7E-02
12/12/06	12/19/06	1.02E+04	CU.FT.	2.93E-02 ± 4.55E-03	L.T. 4E-02
12/19/06	12/26/06	9.84E+03	CU.FT.	2.60E-02 ± 4.47E-03	L.T. 4E-02
12/26/06	01/02/07	1.04E+04	CU.FT.	2.18E-02 ± 3.91E-03	L.T. 7E-02

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NEBRASKA PUBLIC POWER DISTRICT

COOPER NUCLEAR STATION

EXPOSURE PATHWAY - AIRBORNE

AIR PARTICULATE & CHARCOAL FILTERS

STATION NUMBER 06

COLL. START DATE	TIME STOP DATE	SAMPLE VOLUME	UNITS	AP FILTER GROSS BETA (PCI/CU.M.)	CHARCOAL FILTER I-131 (PCI/CU.M.)
12/27/05	01/03/06	1.00E+04	CU.FT.	1.76E-02 ± 4.12E-03	L.T. 4E-02
01/03/06	01/10/06	9.92E+03	CU.FT.	2.79E-02 ± 4.71E-03	L.T. 6E-02
01/10/06	01/17/06	1.00E+04	CU.FT.	2.21E-02 ± 4.29E-03	L.T. 6E-02
01/17/06	01/24/06	1.01E+04	CU.FT.	1.83E-02 ± 4.31E-03	L.T. 3E-02
01/24/06	01/31/06	1.01E+04	CU.FT.	4.84E-02 ± 5.89E-03	L.T. 3E-02
01/31/06	02/06/06	8.55E+03	CU.FT.	1.90E-02 ± 4.46E-03	L.T. 4E-02
02/06/06	02/14/06	1.16E+04	CU.FT.	1.53E-02 ± 3.63E-03	L.T. 6E-02
02/14/06	02/21/06	9.90E+03	CU.FT.	2.10E-02 ± 4.24E-03	L.T. 4E-02
02/21/06	02/28/06	1.00E+04	CU.FT.	2.36E-02 ± 4.53E-03	L.T. 5E-02
02/28/06	03/07/06	1.00E+04	CU.FT.	3.05E-02 ± 4.69E-03	L.T. 7E-02
03/07/06	03/14/06	1.00E+04	CU.FT.	1.52E-02 ± 3.96E-03	L.T. 3E-02
03/14/06	03/21/06	1.01E+04	CU.FT.	1.97E-02 ± 3.91E-03	L.T. 7E-02
03/21/06	03/27/06	8.52E+03	CU.FT.	1.49E-02 ± 4.28E-03	L.T. 6E-02
03/27/06	04/03/06	1.01E+04	CU.FT.	2.16E-02 ± 4.27E-03	L.T. 4E-02
04/03/06	04/10/06	1.00E+04	CU.FT.	2.35E-02 ± 4.42E-03	L.T. 7E-02
04/10/06	04/17/06	9.97E+03	CU.FT.	2.38E-02 ± 4.39E-03	L.T. 6E-02
04/17/06	04/25/06	1.16E+04	CU.FT.	1.76E-02 ± 3.43E-03	L.T. 5E-02
04/25/06	05/02/06	1.00E+04	CU.FT.	2.08E-02 ± 4.02E-03	L.T. 4E-02
05/02/06	05/09/06	1.00E+04	CU.FT.	1.33E-02 ± 3.77E-03	L.T. 6E-02
05/09/06	05/16/06	1.00E+04	CU.FT.	1.48E-02 ± 3.57E-03	L.T. 6E-02
05/16/06	05/23/06	1.00E+04	CU.FT.	2.02E-02 ± 4.04E-03	L.T. 7E-02
05/23/06	05/30/06	1.00E+04	CU.FT.	1.93E-02 ± 4.13E-03	L.T. 4E-02
05/30/06	06/06/06	9.97E+03	CU.FT.	2.26E-02 ± 4.33E-03	L.T. 5E-02
06/06/06	06/12/06	8.71E+03	CU.FT.	1.87E-02 ± 4.43E-03	L.T. 6E-02
06/12/06	06/20/06	1.14E+04	CU.FT.	2.21E-02 ± 3.93E-03	L.T. 7E-02
06/20/06	06/26/06	8.52E+03	CU.FT.	2.02E-02 ± 4.56E-03	L.T. 6E-02

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NEBRASKA PUBLIC POWER DISTRICT

COOPER NUCLEAR STATION

EXPOSURE PATHWAY - AIRBORNE

AIR PARTICULATE & CHARCOAL FILTERS

STATION NUMBER 06

COLL. START DATE	TIME STOP DATE	SAMPLE VOLUME	UNITS	AP FILTER GROSS BETA (PCI/CU.M.)	CHARCOAL FILTER I-131 (PCI/CU.M.)
06/26/06	07/05/06	1.29E+04	CU.FT.	2.72E-02 ± 4.02E-03	L.T. 4E-02
07/05/06	07/11/06	8.84E+03	CU.FT.	2.45E-02 ± 4.69E-03	L.T. 4E-02
07/11/06	07/18/06	9.92E+03	CU.FT.	2.36E-02 ± 4.39E-03	L.T. 5E-02
07/18/06	07/24/06	8.55E+03	CU.FT.	2.20E-02 ± 4.79E-03	L.T. 7E-02
07/24/06	07/31/06	1.01E+04	CU.FT.	2.78E-02 ± 4.70E-03	L.T. 7E-02
07/31/06	08/08/06	1.14E+04	CU.FT.	1.83E-02 ± 3.50E-03	L.T. 6E-02
08/08/06	08/15/06	1.02E+04	CU.FT.	2.78E-02 ± 4.48E-03	L.T. 6E-02
08/15/06	08/22/06	9.93E+03	CU.FT.	2.00E-02 ± 4.24E-03	L.T. 5E-02
08/22/06	08/29/06	1.01E+04	CU.FT.	3.30E-02 ± 4.87E-03	L.T. 6E-02
08/29/06	09/05/06	9.98E+03	CU.FT.	2.13E-02 ± 4.21E-03	L.T. 7E-02
09/05/06	09/12/06	1.01E+04	CU.FT.	2.71E-02 ± 4.67E-03	L.T. 5E-02
09/12/06	09/18/06	8.61E+03	CU.FT.	2.05E-02 ± 4.52E-03	L.T. 3E-02
09/18/06	09/25/06	1.00E+04	CU.FT.	1.26E-02 ± 3.64E-03	L.T. 4E-02
09/25/06	10/03/06	1.14E+04	CU.FT.	2.31E-02 ± 3.95E-03	L.T. 4E-02
10/03/06	10/09/06	8.47E+03	CU.FT.	2.46E-02 ± 4.62E-03	L.T. 6E-02
10/09/06	10/17/06	1.17E+04	CU.FT.	1.81E-02 ± 3.53E-03	L.T. 5E-02
10/17/06	10/24/06	9.87E+03	CU.FT.	2.41E-02 ± 4.40E-03	L.T. 4E-02
10/24/06	10/31/06	1.01E+04	CU.FT.	3.05E-02 ± 4.58E-03	L.T. 3E-02
10/31/06	11/07/06	1.01E+04	CU.FT.	3.56E-02 ± 5.02E-03	L.T. 7E-02
11/07/06	11/13/06	8.37E+03	CU.FT.	3.46E-02 ± 5.58E-03	L.T. 1E-02
11/13/06	11/21/06	1.15E+04	CU.FT.	4.69E-02 ± 5.43E-03	L.T. 2E-02
11/21/06	11/28/06	1.02E+04	CU.FT.	5.59E-02 ± 6.04E-03	L.T. 3E-02
11/28/06	12/05/06	1.01E+04	CU.FT.	3.34E-02 ± 4.95E-03	L.T. 4E-02
12/05/06	12/11/06	9.79E+03	CU.FT.	3.40E-02 ± 5.05E-03	L.T. 7E-02
12/12/06	12/19/06	1.02E+04	CU.FT.	3.45E-02 ± 4.87E-03	L.T. 4E-02
12/19/06	12/26/06	9.84E+03	CU.FT.	2.35E-02 ± 4.30E-03	L.T. 4E-02
12/26/06	01/02/07	1.04E+04	CU.FT.	1.92E-02 ± 3.72E-03	L.T. 7E-02

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NEBRASKA PUBLIC POWER DISTRICT

COOPER NUCLEAR STATION

EXPOSURE PATHWAY - AIRBORNE

AIR PARTICULATE & CHARCOAL FILTERS

STATION NUMBER 07

COLL. START DATE	TIME STOP DATE	SAMPLE VOLUME	SAMPLE UNITS	AP FILTER GROSS BETA (PCI/CU.M.)	CHARCOAL FILTER I-131 (PCI/CU.M.)
12/27/05	01/03/06	1.00E+04	CU.FT.	2.12E-02 ± 4.37E-03	L.T. 4E-02
01/03/06	01/10/06	1.00E+04	CU.FT.	2.14E-02 ± 4.26E-03	L.T. 6E-02
01/10/06	01/17/06	1.00E+04	CU.FT.	2.12E-02 ± 4.22E-03	L.T. 6E-02
01/17/06	01/24/06	1.01E+04	CU.FT.	1.55E-02 ± 4.11E-03	L.T. 3E-02
01/24/06	01/31/06	1.01E+04	CU.FT.	3.15E-02 ± 4.98E-03	L.T. 3E-02
01/31/06	02/06/06	8.60E+03	CU.FT.	1.32E-02 ± 3.96E-03	L.T. 4E-02
02/06/06	02/14/06	1.15E+04	CU.FT.	1.58E-02 ± 3.69E-03	L.T. 6E-02
02/14/06	02/21/06	9.92E+03	CU.FT.	2.91E-02 ± 4.77E-03	L.T. 4E-02
02/21/06	02/28/06	1.01E+04	CU.FT.	1.05E-02 ± 3.54E-03	L.T. 5E-02
02/28/06	03/07/06	1.00E+04	CU.FT.	3.75E-02 ± 5.11E-03	L.T. 7E-02
03/07/06	03/14/06	1.00E+04	CU.FT.	1.52E-02 ± 3.96E-03	L.T. 3E-02
03/14/06	03/21/06	1.02E+04	CU.FT.	1.82E-02 ± 3.77E-03	L.T. 7E-02
03/21/06	03/27/06	8.48E+03	CU.FT.	1.71E-02 ± 4.47E-03	L.T. 6E-02
03/27/06	04/03/06	1.00E+04	CU.FT.	1.61E-02 ± 3.89E-03	L.T. 5E-02
04/03/06	04/10/06	1.00E+04	CU.FT.	2.21E-02 ± 4.33E-03	L.T. 7E-02
04/10/06	04/17/06	9.97E+03	CU.FT.	2.70E-02 ± 4.60E-03	L.T. 6E-02
04/17/06	04/25/06	1.16E+04	CU.FT.	1.69E-02 ± 3.37E-03	L.T. 5E-02
04/25/06	05/02/06	1.00E+04	CU.FT.	1.67E-02 ± 3.71E-03	L.T. 4E-02
05/02/06	05/09/06	1.00E+04	CU.FT.	1.30E-02 ± 3.74E-03	L.T. 6E-02
05/09/06	05/16/06	1.00E+04	CU.FT.	1.34E-02 ± 3.46E-03	L.T. 6E-02
05/16/06	05/23/06	9.99E+03	CU.FT.	1.30E-02 ± 3.47E-03	L.T. 7E-02
05/23/06	05/30/06	5.64E+03	CU.FT.	2.01E-02 ± 6.22E-03	L.T. 6E-02
05/30/06	06/06/06	1.01E+04	CU.FT.	2.19E-02 ± 4.25E-03	L.T. 5E-02
06/06/06	06/12/06	8.61E+03	CU.FT.	1.82E-02 ± 4.43E-03	L.T. 6E-02
06/12/06	06/20/06	1.14E+04	CU.FT.	2.08E-02 ± 3.84E-03	L.T. 7E-02
06/20/06	06/26/06	8.58E+03	CU.FT.	1.79E-02 ± 4.36E-03	L.T. 6E-02

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NEBRASKA PUBLIC POWER DISTRICT

COOPER NUCLEAR STATION

EXPOSURE PATHWAY - AIRBORNE

AIR PARTICULATE & CHARCOAL FILTERS

STATION NUMBER 07

COLL. START DATE	TIME STOP DATE	SAMPLE VOLUME	UNITS	AP FILTER GROSS BETA (PCI/CU.M.)	CHARCOAL FILTER I-131 (PCI/CU.M.)
06/26/06	07/05/06	1.29E+04	CU.FT.	2.21E-02 ± 3.71E-03	L.T. 4E-02
07/05/06	07/11/06	8.72E+03	CU.FT.	2.00E-02 ± 4.40E-03	L.T. 4E-02
07/11/06	07/18/06	9.91E+03	CU.FT.	3.07E-02 ± 4.86E-03	L.T. 5E-02
07/18/06	07/24/06	8.72E+03	CU.FT.	2.09E-02 ± 4.65E-03	L.T. 7E-02
07/24/06	07/31/06	1.00E+04	CU.FT.	1.43E-02 ± 3.78E-03	L.T. 7E-02
07/31/06	08/08/06	1.15E+04	CU.FT.	1.58E-02 ± 3.29E-03	L.T. 6E-02
08/08/06	08/15/06	9.93E+03	CU.FT.	2.27E-02 ± 4.20E-03	L.T. 6E-02
08/15/06	08/22/06	1.00E+04	CU.FT.	2.34E-02 ± 4.45E-03	L.T. 5E-02
08/22/06	08/29/06	1.03E+04	CU.FT.	2.67E-02 ± 4.42E-03	L.T. 6E-02
08/29/06	09/05/06	9.97E+03	CU.FT.	2.16E-02 ± 4.24E-03	L.T. 7E-02
09/05/06	09/12/06	1.00E+04	CU.FT.	2.18E-02 ± 4.35E-03	L.T. 5E-02
09/12/06	09/18/06	8.61E+03	CU.FT.	2.43E-02 ± 4.81E-03	L.T. 3E-02
09/18/06	09/25/06	1.00E+04	CU.FT.	1.36E-02 ± 3.72E-03	L.T. 4E-02
09/25/06	10/03/06	1.14E+04	CU.FT.	1.04E-02 ± 3.01E-03	L.T. 4E-02
10/03/06	10/09/06	8.60E+03	CU.FT.	2.10E-02 ± 4.30E-03	L.T. 6E-02
10/09/06	10/17/06	1.15E+04	CU.FT.	1.49E-02 ± 3.34E-03	L.T. 4E-02
10/17/06	10/24/06	1.00E+04	CU.FT.	2.48E-02 ± 4.41E-03	L.T. 3E-02
10/24/06	10/31/06	1.01E+04	CU.FT.	2.44E-02 ± 4.17E-03	L.T. 3E-02
10/31/06	11/07/06	9.97E+03	CU.FT.	2.06E-02 ± 4.08E-03	L.T. 7E-02
11/07/06	11/13/06	8.58E+03	CU.FT.	2.28E-02 ± 4.68E-03	L.T. 1E-02
11/13/06	11/21/06	1.14E+04	CU.FT.	3.67E-02 ± 4.94E-03	L.T. 3E-02
11/21/06	11/28/06	1.01E+04	CU.FT.	4.44E-02 ± 5.49E-03	L.T. 3E-02
11/28/06	12/05/06	1.01E+04	CU.FT.	3.59E-02 ± 5.10E-03	L.T. 4E-02
12/05/06	12/11/06	9.96E+03	CU.FT.	2.47E-02 ± 4.41E-03	L.T. 7E-02
12/12/06	12/19/06	1.01E+04	CU.FT.	2.53E-02 ± 4.32E-03	L.T. 4E-02
12/19/06	12/26/06	9.91E+03	CU.FT.	1.75E-02 ± 3.84E-03	L.T. 4E-02
12/26/06	01/02/07	1.03E+04	CU.FT.	1.52E-02 ± 3.42E-03	L.T. 7E-02

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NEBRASKA PUBLIC POWER DISTRICT

COOPER NUCLEAR STATION

EXPOSURE PATHWAY - AIRBORNE

AIR PARTICULATE & CHARCOAL FILTERS

STATION NUMBER 08

COLL. START DATE	TIME STOP DATE	SAMPLE VOLUME	UNITS	AP FILTER GROSS BETA (PCI/CU.M.)	CHARCOAL FILTER I-131 (PCI/CU.M.)
12/27/05	01/03/06	1.00E+04	CU.FT.	2.29E-02 ± 4.48E-03	L.T. 4E-02
01/03/06	01/10/06	1.00E+04	CU.FT.	2.27E-02 ± 4.35E-03	L.T. 6E-02
01/10/06	01/17/06	1.01E+04	CU.FT.	2.17E-02 ± 4.23E-03	L.T. 6E-02
01/17/06	01/24/06	1.01E+04	CU.FT.	2.03E-02 ± 4.44E-03	L.T. 6E-02
01/24/06	01/31/06	1.01E+04	CU.FT.	3.43E-02 ± 5.14E-03	L.T. 3E-02
01/31/06	02/06/06	8.58E+03	CU.FT.	1.36E-02 ± 4.00E-03	L.T. 4E-02
02/06/06	02/14/06	1.16E+04	CU.FT.	1.62E-02 ± 3.70E-03	L.T. 6E-02
02/14/06	02/21/06	9.90E+03	CU.FT.	2.88E-02 ± 4.76E-03	L.T. 4E-02
02/21/06	02/28/06	1.01E+04	CU.FT.	3.08E-02 ± 4.95E-03	L.T. 5E-02
02/28/06	03/07/06	1.00E+04	CU.FT.	4.02E-02 ± 5.27E-03	L.T. 7E-02
03/07/06	03/14/06	1.00E+04	CU.FT.	1.94E-02 ± 4.27E-03	L.T. 3E-02
03/14/06	03/21/06	1.02E+04	CU.FT.	2.02E-02 ± 3.93E-03	L.T. 7E-02
03/21/06	03/27/06	8.40E+03	CU.FT.	1.55E-02 ± 4.37E-03	L.T. 6E-02
03/27/06	04/03/06	1.03E+04	CU.FT.	1.75E-02 ± 3.92E-03	L.T. 4E-02
04/03/06	04/10/06	9.72E+03	CU.FT.	2.31E-02 ± 4.47E-03	L.T. 7E-02
04/10/06	04/17/06	9.97E+03	CU.FT.	2.58E-02 ± 4.52E-03	L.T. 6E-02
04/17/06	04/25/06	1.16E+04	CU.FT.	2.02E-02 ± 3.61E-03	L.T. 5E-02
04/25/06	05/02/06	1.01E+04	CU.FT.	1.73E-02 ± 3.73E-03	L.T. 4E-02
05/02/06	05/09/06	1.00E+04	CU.FT.	1.09E-02 ± 3.57E-03	L.T. 6E-02
05/09/06	05/16/06	1.00E+04	CU.FT.	1.33E-02 ± 3.45E-03	L.T. 6E-02
05/16/06	05/23/06	9.90E+03	CU.FT.	2.26E-02 ± 4.25E-03	L.T. 7E-02
05/23/06	05/30/06	1.02E+04	CU.FT.	2.01E-02 ± 4.13E-03	L.T. 4E-02
05/30/06	06/06/06	9.97E+03	CU.FT.	2.19E-02 ± 4.28E-03	L.T. 5E-02
06/06/06	06/12/06	8.55E+03	CU.FT.	2.48E-02 ± 4.94E-03	L.T. 6E-02
06/12/06	06/20/06	1.16E+04	CU.FT.	1.42E-02 ± 2.69E-03	L.T. 7E-02
06/20/06	06/26/06	8.53E+03	CU.FT.	2.29E-02 ± 4.76E-03	L.T. 6E-02

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NEBRASKA PUBLIC POWER DISTRICT

COOPER NUCLEAR STATION

EXPOSURE PATHWAY - AIRBORNE

AIR PARTICULATE & CHARCOAL FILTERS

STATION NUMBER 08

COLL. START DATE	TIME STOP DATE	SAMPLE VOLUME	SAMPLE UNITS	AP FILTER GROSS BETA (PCI/CU.M.)	CHARCOAL FILTER I-131 (PCI/CU.M.)
06/26/06	07/05/06	1.29E+04	CU.FT.	2.98E-02 ± 4.16E-03	L.T. 4E-02
07/05/06	07/11/06	8.94E+03	CU.FT.	2.56E-02 ± 4.74E-03	L.T. 4E-02
07/11/06	07/18/06	9.69E+03	CU.FT.	2.57E-02 ± 4.60E-03	L.T. 5E-02
07/18/06	07/24/06	8.70E+03	CU.FT.	2.32E-02 ± 4.82E-03	L.T. 7E-02
07/24/06	07/31/06	1.01E+04	CU.FT.	2.19E-02 ± 4.31E-03	L.T. 7E-02
07/31/06	08/08/06	1.13E+04	CU.FT.	2.02E-02 ± 3.65E-03	L.T. 6E-02
08/08/06	08/15/06	1.00E+04	CU.FT.	2.37E-02 ± 4.26E-03	L.T. 6E-02
08/15/06	08/22/06	1.00E+04	CU.FT.	2.47E-02 ± 4.54E-03	L.T. 5E-02
08/22/06	08/29/06	1.03E+04	CU.FT.	3.60E-02 ± 4.99E-03	L.T. 6E-02
08/29/06	09/05/06	9.97E+03	CU.FT.	2.23E-02 ± 4.29E-03	L.T. 7E-02
09/05/06	09/12/06	1.01E+04	CU.FT.	3.11E-02 ± 4.91E-03	L.T. 5E-02
09/12/06	09/18/06	8.60E+03	CU.FT.	2.83E-02 ± 5.09E-03	L.T. 3E-02
09/18/06	09/25/06	1.01E+04	CU.FT.	1.27E-02 ± 3.62E-03	L.T. 4E-02
09/25/06	10/03/06	1.14E+04	CU.FT.	2.35E-02 ± 3.98E-03	L.T. 4E-02
10/03/06	10/09/06	8.53E+03	CU.FT.	2.62E-02 ± 4.72E-03	L.T. 6E-02
10/09/06	10/17/06	1.70E+04	CU.FT.	2.01E-02 ± 3.67E-03	L.T. 4E-02
10/17/06	10/24/06	9.86E+03	CU.FT.	2.54E-02 ± 4.49E-03	L.T. 4E-02
10/24/06	10/31/06	1.01E+04	CU.FT.	2.65E-02 ± 4.32E-03	L.T. 3E-02
10/31/06	11/07/06	9.91E+03	CU.FT.	3.43E-02 ± 5.00E-03	L.T. 6E-02
11/07/06	11/13/06	8.64E+03	CU.FT.	2.23E-02 ± 4.63E-03	L.T. 2E-02
11/13/06	11/21/06	1.15E+04	CU.FT.	3.99E-02 ± 5.08E-03	L.T. 6E-02
11/21/06	11/28/06	1.00E+04	CU.FT.	5.43E-02 ± 6.03E-03	L.T. 3E-02
11/28/06	12/05/06	1.01E+04	CU.FT.	3.08E-02 ± 4.79E-03	L.T. 4E-02
12/05/06	12/11/06	9.97E+03	CU.FT.	3.00E-02 ± 4.75E-03	L.T. 7E-02
12/12/06	12/19/06	1.02E+04	CU.FT.	3.45E-02 ± 4.87E-03	L.T. 2E-02
12/19/06	12/26/06	9.90E+03	CU.FT.	2.26E-02 ± 4.22E-03	L.T. 4E-02
12/26/06	01/02/07	1.02E+04	CU.FT.	1.84E-02 ± 3.70E-03	L.T. 7E-02

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NEBRASKA PUBLIC POWER DISTRICT

COOPER NUCLEAR STATION

EXPOSURE PATHWAY - AIRBORNE

AIR PARTICULATE & CHARCOAL FILTERS

STATION NUMBER 09

COLL. START DATE	TIME STOP DATE	SAMPLE VOLUME	UNITS	AP FILTER GROSS BETA (PCI/CU.M.)	CHARCOAL FILTER I-131 (PCI/CU.M.)
12/27/05	01/03/06	1.00E+04	CU.FT.	1.78E-02 ± 4.13E-03	L.T. 4E-02
01/03/06	01/10/06	9.93E+03	CU.FT.	2.69E-02 ± 4.65E-03	L.T. 6E-02
01/10/06	01/17/06	1.01E+04	CU.FT.	1.95E-02 ± 4.08E-03	L.T. 6E-02
01/17/06	01/24/06	1.01E+04	CU.FT.	1.57E-02 ± 4.12E-03	L.T. 6E-02
01/24/06	01/31/06	1.01E+04	CU.FT.	2.50E-02 ± 4.57E-03	L.T. 4E-02
01/31/06	02/06/06	8.60E+03	CU.FT.	1.16E-02 ± 3.82E-03	L.T. 5E-02
02/06/06	02/14/06	1.16E+04	CU.FT.	1.44E-02 ± 3.57E-03	L.T. 6E-02
02/14/06	02/21/06	9.90E+03	CU.FT.	2.10E-02 ± 4.24E-03	L.T. 4E-02
02/21/06	02/28/06	1.01E+04	CU.FT.	2.04E-02 ± 4.29E-03	L.T. 6E-02
02/28/06	03/07/06	1.00E+04	CU.FT.	2.69E-02 ± 4.45E-03	L.T. 6E-02
03/07/06	03/14/06	1.00E+04	CU.FT.	1.30E-02 ± 3.79E-03	L.T. 1E-02
03/14/06	03/21/06	1.02E+04	CU.FT.	1.68E-02 ± 3.67E-03	L.T. 6E-02
03/21/06	03/27/06	8.49E+03	CU.FT.	1.16E-02 ± 4.01E-03	L.T. 2E-02
03/27/06	04/03/06	1.00E+04	CU.FT.	1.09E-02 ± 3.47E-03	L.T. 5E-02
04/03/06	04/10/06	1.00E+04	CU.FT.	1.82E-02 ± 4.05E-03	L.T. 7E-02
04/10/06	04/17/06	9.97E+03	CU.FT.	2.47E-02 ± 4.45E-03	L.T. 6E-02
04/17/06	04/25/06	1.17E+04	CU.FT.	1.79E-02 ± 3.43E-03	L.T. 4E-02
04/25/06	05/02/06	9.97E+03	CU.FT.	2.01E-02 ± 3.98E-03	L.T. 4E-02
05/02/06	05/09/06	8.71E+03	CU.FT.	9.77E-03 ± 3.87E-03	L.T. 6E-02
05/09/06	05/16/06	8.70E+03	CU.FT.	1.32E-02 ± 3.78E-03	L.T. 7E-02
05/16/06	05/23/06	9.92E+03	CU.FT.	2.38E-02 ± 4.32E-03	L.T. 6E-02
05/23/06	05/30/06	1.01E+04	CU.FT.	2.07E-02 ± 4.20E-03	L.T. 6E-02
05/30/06	06/06/06	1.01E+04	CU.FT.	2.25E-02 ± 4.29E-03	L.T. 5E-02
06/06/06	06/12/06	8.55E+03	CU.FT.	2.80E-02 ± 5.16E-03	L.T. 7E-02
06/12/06	06/20/06	1.16E+04	CU.FT.	1.83E-02 ± 2.96E-03	L.T. 6E-02
06/20/06	06/26/06	8.58E+03	CU.FT.	1.79E-02 ± 4.36E-03	L.T. 3E-02

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NEBRASKA PUBLIC POWER DISTRICT

COOPER NUCLEAR STATION

EXPOSURE PATHWAY - AIRBORNE

AIR PARTICULATE & CHARCOAL FILTERS

STATION NUMBER 09

COLL. START DATE	TIME STOP DATE	SAMPLE VOLUME	UNITS	AP FILTER GROSS BETA (PCI/CU.M.)	CHARCOAL FILTER I-131 (PCI/CU.M.)
06/26/06	07/05/06	1.29E+04	CU.FT.	3.01E-02 ± 4.18E-03	L.T. 4E-02
07/05/06	07/11/06	8.95E+03	CU.FT.	2.74E-02 ± 4.86E-03	L.T. 3E-02
07/11/06	07/18/06	9.68E+03	CU.FT.	3.04E-02 ± 4.91E-03	L.T. 5E-02
07/18/06	07/24/06	8.70E+03	CU.FT.	2.58E-02 ± 5.00E-03	L.T. 4E-02
07/24/06	07/31/06	1.01E+04	CU.FT.	2.68E-02 ± 4.63E-03	L.T. 4E-02
07/31/06	08/08/06	1.01E+04	CU.FT.	2.03E-02 ± 3.91E-03	L.T. 3E-02
08/08/06	08/15/06	9.91E+03	CU.FT.	2.85E-02 ± 4.60E-03	L.T. 6E-02
08/15/06	08/22/06	1.00E+04	CU.FT.	2.71E-02 ± 4.69E-03	L.T. 6E-02
08/22/06	08/29/06	1.03E+04	CU.FT.	3.68E-02 ± 5.04E-03	L.T. 5E-02
08/29/06	09/05/06	9.97E+03	CU.FT.	2.61E-02 ± 4.54E-03	L.T. 5E-02
09/05/06	09/12/06	1.01E+04	CU.FT.	3.59E-02 ± 5.20E-03	L.T. 5E-02
09/12/06	09/18/06	8.60E+03	CU.FT.	2.99E-02 ± 5.20E-03	L.T. 6E-02
09/18/06	09/25/06	1.01E+04	CU.FT.	1.60E-02 ± 3.88E-03	L.T. 6E-02
09/25/06	10/03/06	1.14E+04	CU.FT.	2.95E-02 ± 4.35E-03	L.T. 6E-02
10/03/06	10/09/06	8.47E+03	CU.FT.	3.30E-02 ± 5.22E-03	L.T. 6E-02
10/09/06	10/17/06	1.70E+04	CU.FT.	1.83E-02 ± 3.55E-03	L.T. 3E-02
10/17/06	10/24/06	9.87E+03	CU.FT.	2.97E-02 ± 4.77E-03	L.T. 4E-02
10/24/06	10/31/06	1.01E+04	CU.FT.	2.80E-02 ± 4.42E-03	L.T. 3E-02
10/31/06	11/07/06	9.91E+03	CU.FT.	3.52E-02 ± 5.05E-03	L.T. 6E-02
11/07/06	11/13/06	8.64E+03	CU.FT.	3.20E-02 ± 5.30E-03	L.T. 2E-02
11/13/06	11/21/06	1.15E+04	CU.FT.	4.86E-02 ± 5.51E-03	L.T. 2E-02
11/21/06	11/28/06	1.00E+04	CU.FT.	5.65E-02 ± 6.14E-03	L.T. 3E-02
11/28/06	12/05/06	1.01E+04	CU.FT.	3.43E-02 ± 5.00E-03	L.T. 4E-02
12/05/06	12/11/06	9.92E+03	CU.FT.	2.70E-02 ± 4.57E-03	L.T. 7E-02
12/12/06	12/19/06	1.02E+04	CU.FT.	3.38E-02 ± 4.83E-03	L.T. 2E-02
12/19/06	12/26/06	9.90E+03	CU.FT.	2.27E-02 ± 4.23E-03	L.T. 4E-02
12/26/06	01/02/07	9.93E+03	CU.FT.	2.50E-02 ± 4.26E-03	L.T. 5E-02

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NEBRASKA PUBLIC POWER DISTRICT

COOPER NUCLEAR STATION

EXPOSURE PATHWAY - AIRBORNE

AIR PARTICULATE & CHARCOAL FILTERS

STATION NUMBER 10

COLL. START DATE	TIME STOP DATE	SAMPLE VOLUME	UNITS	AP FILTER GROSS BETA (PCI/CU.M.)	CHARCOAL FILTER I-131 (PCI/CU.M.)
12/27/05	01/03/06	1.00E+04	CU.FT.	2.82E-02 ± 4.83E-03	L.T. 3E-02
01/03/06	01/10/06	1.02E+04	CU.FT.	2.78E-02 ± 4.63E-03	L.T. 3E-02
01/10/06	01/17/06	9.79E+03	CU.FT.	2.14E-02 ± 4.29E-03	L.T. 6E-02
01/17/06	01/24/06	1.01E+04	CU.FT.	2.29E-02 ± 4.61E-03	L.T. 6E-02
01/24/06	01/31/06	1.01E+04	CU.FT.	2.53E-02 ± 4.59E-03	L.T. 4E-02
01/31/06	02/06/06	8.59E+03	CU.FT.	1.22E-02 ± 3.87E-03	L.T. 5E-02
02/06/06	02/14/06	1.16E+04	CU.FT.	1.58E-02 ± 3.67E-03	L.T. 6E-02
02/14/06	02/21/06	9.92E+03	CU.FT.	2.24E-02 ± 4.33E-03	L.T. 4E-02
02/21/06	02/28/06	1.01E+04	CU.FT.	1.98E-02 ± 4.25E-03	L.T. 6E-02
02/28/06	03/07/06	1.00E+04	CU.FT.	2.70E-02 ± 4.46E-03	L.T. 6E-02
03/07/06	03/14/06	1.00E+04	CU.FT.	1.45E-02 ± 3.91E-03	L.T. 1E-02
03/14/06	03/21/06	1.02E+04	CU.FT.	2.05E-02 ± 3.95E-03	L.T. 5E-02
03/21/06	03/27/06	8.47E+03	CU.FT.	1.53E-02 ± 4.33E-03	L.T. 2E-02
03/27/06	04/03/06	1.00E+04	CU.FT.	1.34E-02 ± 3.68E-03	L.T. 5E-02
04/03/06	04/10/06	1.00E+04	CU.FT.	2.17E-02 ± 4.30E-03	L.T. 7E-02
04/10/06	04/17/06	9.97E+03	CU.FT.	2.41E-02 ± 4.41E-03	L.T. 6E-02
04/17/06	04/25/06	1.16E+04	CU.FT.	1.84E-02 ± 3.48E-03	L.T. 4E-02
04/25/06	05/02/06	1.00E+04	CU.FT.	1.88E-02 ± 3.87E-03	L.T. 4E-02
05/02/06	05/09/06	1.00E+04	CU.FT.	1.79E-02 ± 4.12E-03	L.T. 5E-02
05/09/06	05/16/06	1.00E+04	CU.FT.	1.40E-02 ± 3.51E-03	L.T. 6E-02
05/16/06	05/23/06	1.00E+04	CU.FT.	2.20E-02 ± 4.17E-03	L.T. 6E-02
05/23/06	05/30/06	1.00E+04	CU.FT.	2.39E-02 ± 4.45E-03	L.T. 6E-02
05/30/06	06/06/06	1.01E+04	CU.FT.	2.60E-02 ± 4.52E-03	L.T. 5E-02
06/06/06	06/12/06	8.71E+03	CU.FT.	2.07E-02 ± 4.59E-03	L.T. 7E-02
06/12/06	06/20/06	1.14E+04	CU.FT.	2.14E-02 ± 3.88E-03	L.T. 6E-02
06/20/06	06/26/06	8.54E+03	CU.FT.	2.20E-02 ± 4.69E-03	L.T. 3E-02

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NEBRASKA PUBLIC POWER DISTRICT

COOPER NUCLEAR STATION

EXPOSURE PATHWAY - AIRBORNE

AIR PARTICULATE & CHARCOAL FILTERS

STATION NUMBER 10

COLL. START DATE	TIME STOP DATE	SAMPLE VOLUME	SAMPLE UNITS	AP FILTER GROSS BETA (PCI/CU.M.)	CHARCOAL FILTER I-131 (PCI/CU.M.)
06/26/06	07/05/06	1.29E+04	CU.FT.	2.45E-02 ± 3.86E-03	L.T. 4E-02
07/05/06	07/11/06	8.71E+03	CU.FT.	3.48E-02 ± 5.43E-03	L.T. 3E-02
07/11/06	07/18/06	9.91E+03	CU.FT.	2.88E-02 ± 4.74E-03	L.T. 5E-02
07/18/06	07/24/06	8.72E+03	CU.FT.	2.83E-02 ± 5.16E-03	L.T. 4E-02
07/24/06	07/31/06	1.00E+04	CU.FT.	2.48E-02 ± 4.53E-03	L.T. 4E-02
07/31/06	08/08/06	9.12E+03	CU.FT.	2.01E-02 ± 4.16E-03	L.T. 2E-02
08/08/06	08/15/06	7.17E+03	CU.FT.	2.71E-02 ± 5.50E-03	L.T. 5E-02
08/15/06	08/22/06	1.00E+04	CU.FT.	2.52E-02 ± 4.57E-03	L.T. 6E-02
08/22/06	08/29/06	1.03E+04	CU.FT.	3.61E-02 ± 5.00E-03	L.T. 6E-02
08/29/06	09/05/06	9.97E+03	CU.FT.	2.43E-02 ± 4.42E-03	L.T. 6E-02
09/05/06	09/12/06	1.00E+04	CU.FT.	3.41E-02 ± 5.12E-03	L.T. 4E-02
09/12/06	09/18/06	8.61E+03	CU.FT.	2.85E-02 ± 5.10E-03	L.T. 7E-02
09/18/06	09/25/06	1.00E+04	CU.FT.	1.51E-02 ± 3.84E-03	L.T. 6E-02
09/25/06	10/03/06	1.14E+04	CU.FT.	2.41E-02 ± 4.02E-03	L.T. 6E-02
10/03/06	10/09/06	8.60E+03	CU.FT.	2.86E-02 ± 4.87E-03	L.T. 4E-02
10/09/06	10/17/06	1.50E+04	CU.FT.	1.78E-02 ± 3.55E-03	L.T. 4E-02
10/17/06	10/24/06	9.90E+03	CU.FT.	2.67E-02 ± 4.57E-03	L.T. 4E-02
10/24/06	10/31/06	1.01E+04	CU.FT.	2.60E-02 ± 4.29E-03	L.T. 3E-02
10/31/06	11/07/06	1.00E+04	CU.FT.	3.14E-02 ± 4.79E-03	L.T. 6E-02
11/07/06	11/13/06	8.49E+03	CU.FT.	3.15E-02 ± 5.32E-03	L.T. 2E-02
11/13/06	11/21/06	1.14E+04	CU.FT.	3.71E-02 ± 4.97E-03	L.T. 6E-02
11/21/06	11/28/06	1.01E+04	CU.FT.	5.04E-02 ± 5.80E-03	L.T. 3E-02
11/28/06	12/05/06	1.01E+04	CU.FT.	3.06E-02 ± 4.78E-03	L.T. 4E-02
12/05/06	12/11/06	9.96E+03	CU.FT.	2.33E-02 ± 4.32E-03	L.T. 7E-02
12/12/06	12/19/06	1.01E+04	CU.FT.	3.52E-02 ± 4.94E-03	L.T. 2E-02
12/19/06	12/26/06	9.91E+03	CU.FT.	1.87E-02 ± 3.93E-03	L.T. 4E-02
12/26/06	01/02/07	1.03E+04	CU.FT.	2.28E-02 ± 4.01E-03	L.T. 5E-02

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NEBRASKA PUBLIC POWER DISTRICT

COOPER NUCLEAR STATION

EXPOSURE PATHWAY - AIRBORNE

COMPOSITE AIR PARTICULATE FILTERS

(PCI/CU. M.)

STATION NUMBER 01

DATE COLLECTED	12/27 - 03/27/06	03/27 - 06/26/06	06/26 - 10/03/06	10/03 - 01/02
GAMMA SPECTRUM ANALYSIS:				
BE-7	L.T. 9.E-02	1.39E-01 ± 6.33E-02	1.84E-01 ± 4.50E-02	1.09E-01 ± 3.13E-02
K-40	L.T. 5.E-02	L.T. 6.E-02	L.T. 2.E-02	L.T. 2.E-02
MN-54	L.T. 3.E-03	L.T. 3.E-03	L.T. 1.E-03	L.T. 2.E-03
CO-58	L.T. 8.E-03	L.T. 9.E-03	L.T. 2.E-03	L.T. 3.E-03
FE-59	L.T. 2.E-02	L.T. 2.E-02	L.T. 1.E-02	L.T. 9.E-03
CO-60	L.T. 2.E-03	L.T. 4.E-03	L.T. 1.E-03	L.T. 2.E-03
ZN-65	L.T. 6.E-03	L.T. 9.E-03	L.T. 4.E-03	L.T. 7.E-03
ZR-95	L.T. 2.E-02	L.T. 1.E-02	L.T. 7.E-03	L.T. 8.E-03
RU-103	L.T. 2.E-02	L.T. 1.E-02	L.T. 8.E-03	L.T. 6.E-03
RU-106	L.T. 3.E-02	L.T. 3.E-02	L.T. 9.E-03	L.T. 2.E-02
I-131	L.T. 3.E+01	L.T. 3.E+01	L.T. 1.E+01	L.T. 9.E-01
CS-134	L.T. 3.E-03	L.T. 3.E-03	L.T. 1.E-03	L.T. 3.E-03
CS-137	L.T. 3.E-03	L.T. 3.E-03	L.T. 1.E-03	L.T. 2.E-03
BA-140	L.T. 4.E+00	L.T. 4.E+00	L.T. 1.E+00	L.T. 3.E-01
CE-141	L.T. 3.E-02	L.T. 3.E-02	L.T. 2.E-02	L.T. 8.E-03
CE-144	L.T. 2.E-02	L.T. 2.E-02	L.T. 1.E-02	L.T. 1.E-02
RA-226	L.T. 5.E-02	L.T. 5.E-02	L.T. 3.E-02	L.T. 4.E-02
TH-228	L.T. 5.E-03	L.T. 5.E-03	L.T. 3.E-03	L.T. 3.E-03

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NEBRASKA PUBLIC POWER DISTRICT

COOPER NUCLEAR STATION

EXPOSURE PATHWAY - AIRBORNE

COMPOSITE AIR PARTICULATE FILTERS

(PCI/CU. M.)

STATION NUMBER 02

DATE COLLECTED	12/27 - 03/27/06	03/27 - 06/26/06	06/26 - 10/03/06	10/03 - 01/02
GAMMA SPECTRUM ANALYSIS:				
BE-7	6.47E-02 ± 3.76E-02	2.51E-01 ± 6.42E-02	1.79E-01 ± 7.73E-02	1.30E-01 ± 4.39E-02
K-40	L.T. 3.E-02	L.T. 5.E-02	L.T. 4.E-02	L.T. 2.E-02
MN-54	L.T. 2.E-03	L.T. 5.E-03	L.T. 3.E-03	L.T. 3.E-03
CO-58	L.T. 4.E-03	L.T. 1.E-02	L.T. 5.E-03	L.T. 4.E-03
FE-59	L.T. 1.E-02	L.T. 4.E-02	L.T. 2.E-02	L.T. 1.E-02
CO-60	L.T. 2.E-03	L.T. 4.E-03	L.T. 2.E-03	L.T. 2.E-03
ZN-65	L.T. 4.E-03	L.T. 1.E-02	L.T. 8.E-03	L.T. 6.E-03
ZR-95	L.T. 8.E-03	L.T. 1.E-02	L.T. 1.E-02	L.T. 7.E-03
RU-103	L.T. 1.E-02	L.T. 1.E-02	L.T. 1.E-02	L.T. 7.E-03
RU-106	L.T. 2.E-02	L.T. 3.E-02	L.T. 3.E-02	L.T. 2.E-02
I-131	L.T. 2.E+01	L.T. 3.E+01	L.T. 2.E+01	L.T. 1.E+00
CS-134	L.T. 2.E-03	L.T. 4.E-03	L.T. 3.E-03	L.T. 3.E-03
CS-137	L.T. 2.E-03	L.T. 3.E-03	L.T. 3.E-03	L.T. 2.E-03
BA-140	L.T. 2.E+00	L.T. 4.E+00	L.T. 2.E+00	L.T. 4.E-01
CE-141	L.T. 2.E-02	L.T. 3.E-02	L.T. 3.E-02	L.T. 9.E-03
CE-144	L.T. 8.E-03	L.T. 2.E-02	L.T. 2.E-02	L.T. 1.E-02
RA-226	L.T. 3.E-02	L.T. 6.E-02	L.T. 5.E-02	L.T. 3.E-02
TH-228	L.T. 3.E-03	L.T. 5.E-03	L.T. 5.E-03	L.T. 3.E-03

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NEBRASKA PUBLIC POWER DISTRICT

COOPER NUCLEAR STATION

EXPOSURE PATHWAY - AIRBORNE

COMPOSITE AIR PARTICULATE FILTERS

(PCI/CU. M.)

STATION NUMBER 03

DATE COLLECTED	12/27 - 03/27/06	03/27 - 06/26/06	06/26 - 10/03/06	10/03 - 01/02
GAMMA SPECTRUM ANALYSIS:				
BE-7	7.43E-02 ± 4.81E-02	9.19E-02 ± 6.08E-02	1.73E-01 ± 6.00E-02	1.22E-01 ± 3.70E-02
K-40	L.T. 4.E-02	L.T. 6.E-02	L.T. 4.E-02	L.T. 2.E-02
MN-54	L.T. 3.E-03	L.T. 3.E-03	L.T. 2.E-03	L.T. 2.E-03
CO-58	L.T. 7.E-03	L.T. 7.E-03	L.T. 4.E-03	L.T. 5.E-03
FE-59	L.T. 2.E-02	L.T. 3.E-02	L.T. 2.E-02	L.T. 1.E-02
CO-60	L.T. 3.E-03	L.T. 4.E-03	L.T. 2.E-03	L.T. 3.E-03
ZN-65	L.T. 5.E-03	L.T. 9.E-03	L.T. 6.E-03	L.T. 6.E-03
ZR-95	L.T. 1.E-02	L.T. 2.E-02	L.T. 9.E-03	L.T. 8.E-03
RU-103	L.T. 2.E-02	L.T. 1.E-02	L.T. 1.E-02	L.T. 7.E-03
RU-106	L.T. 2.E-02	L.T. 3.E-02	L.T. 2.E-02	L.T. 2.E-02
I-131	L.T. 3.E+01	L.T. 3.E+01	L.T. 1.E+01	L.T. 1.E+00
CS-134	L.T. 2.E-03	L.T. 3.E-03	L.T. 2.E-03	L.T. 3.E-03
CS-137	L.T. 2.E-03	L.T. 3.E-03	L.T. 2.E-03	L.T. 3.E-03
BA-140	L.T. 2.E+00	L.T. 3.E+00	L.T. 2.E+00	L.T. 4.E-01
CE-141	L.T. 3.E-02	L.T. 3.E-02	L.T. 2.E-02	L.T. 1.E-02
CE-144	L.T. 2.E-02	L.T. 2.E-02	L.T. 1.E-02	L.T. 1.E-02
RA-226	L.T. 5.E-02	L.T. 5.E-02	L.T. 4.E-02	L.T. 3.E-02
TH-228	L.T. 4.E-03	L.T. 4.E-03	L.T. 3.E-03	L.T. 3.E-03

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NEBRASKA PUBLIC POWER DISTRICT

COOPER NUCLEAR STATION

EXPOSURE PATHWAY - AIRBORNE

COMPOSITE AIR PARTICULATE FILTERS

(PCI/CU. M.)

STATION NUMBER 04

DATE COLLECTED	12/27 - 03/27/06	03/27 - 06/26/06	06/26 - 10/03/06	10/03 - 01/02
GAMMA SPECTRUM ANALYSIS:				
BE-7	1.02E-01 ± 4.59E-02	L.T. 9.20E-02	1.54E-01 ± 4.92E-02	1.45E-01 ± 3.26E-02
K-40	L.T. 7.E-02	L.T. 5.E-02	L.T. 3.E-02	L.T. 3.E-02
MN-54	L.T. 3.E-03	L.T. 4.E-03	L.T. 4.E-03	L.T. 2.E-03
CO-58	L.T. 7.E-03	L.T. 7.E-03	L.T. 6.E-03	L.T. 5.E-03
FE-59	L.T. 3.E-02	L.T. 3.E-02	L.T. 2.E-02	L.T. 4.E-03
CO-60	L.T. 4.E-03	L.T. 3.E-03	L.T. 3.E-03	L.T. 2.E-03
ZN-65	L.T. 8.E-03	L.T. 1.E-02	L.T. 7.E-03	L.T. 7.E-03
ZR-95	L.T. 2.E-02	L.T. 2.E-02	L.T. 9.E-03	L.T. 8.E-03
RU-103	L.T. 2.E-02	L.T. 2.E-02	L.T. 1.E-02	L.T. 6.E-03
RU-106	L.T. 4.E-02	L.T. 3.E-02	L.T. 2.E-02	L.T. 2.E-02
I-131	L.T. 3.E+01	L.T. 3.E+01	L.T. 2.E+01	L.T. 1.E+00
CS-134	L.T. 3.E-03	L.T. 3.E-03	L.T. 3.E-03	L.T. 2.E-03
CS-137	L.T. 2.E-03	L.T. 2.E-03	L.T. 2.E-03	L.T. 2.E-03
BA-140	L.T. 3.E+00	L.T. 3.E+00	L.T. 2.E+00	L.T. 3.E-01
CE-141	L.T. 3.E-02	L.T. 3.E-02	L.T. 3.E-02	L.T. 1.E-02
CE-144	L.T. 2.E-02	L.T. 2.E-02	L.T. 2.E-02	L.T. 1.E-02
RA-226	L.T. 5.E-02	L.T. 5.E-02	L.T. 5.E-02	L.T. 4.E-02
TH-228	L.T. 4.E-03	L.T. 5.E-03	L.T. 4.E-03	L.T. 3.E-03

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NEBRASKA PUBLIC POWER DISTRICT

COOPER NUCLEAR STATION

EXPOSURE PATHWAY - AIRBORNE

COMPOSITE AIR PARTICULATE FILTERS

(PCI/CU. M.)

STATION NUMBER 05

DATE COLLECTED	12/27 - 03/27/06	03/27 - 06/26/06	06/26 - 10/03/06	10/03 - 01/02
GAMMA SPECTRUM ANALYSIS:				
BE-7	L.T. 6.E-02	2.05E-01 ± 5.52E-02	1.42E-01 ± 6.16E-02	1.21E-01 ± 3.67E-02
K-40	L.T. 5.E-02	L.T. 2.E-02	L.T. 6.E-02	L.T. 1.E-02
MN-54	L.T. 2.E-03	L.T. 3.E-03	L.T. 4.E-03	L.T. 2.E-03
CO-58	L.T. 6.E-03	L.T. 5.E-03	L.T. 7.E-03	L.T. 3.E-03
FE-59	L.T. 2.E-02	L.T. 2.E-02	L.T. 2.E-02	L.T. 1.E-02
CO-60	L.T. 4.E-03	L.T. 2.E-03	L.T. 3.E-03	L.T. 2.E-03
ZN-65	L.T. 7.E-03	L.T. 6.E-03	L.T. 1.E-02	L.T. 4.E-03
ZR-95	L.T. 2.E-02	L.T. 1.E-02	L.T. 1.E-02	L.T. 7.E-03
RU-103	L.T. 1.E-02	L.T. 1.E-02	L.T. 1.E-02	L.T. 7.E-03
RU-106	L.T. 3.E-02	L.T. 2.E-02	L.T. 3.E-02	L.T. 2.E-02
I-131	L.T. 3.E+01	L.T. 2.E+01	L.T. 2.E+01	L.T. 1.E+00
CS-134	L.T. 3.E-03	L.T. 2.E-03	L.T. 4.E-03	L.T. 2.E-03
CS-137	L.T. 3.E-03	L.T. 2.E-03	L.T. 3.E-03	L.T. 2.E-03
BA-140	L.T. 3.E+00	L.T. 2.E+00	L.T. 3.E+00	L.T. 4.E-01
CE-141	L.T. 2.E-02	L.T. 2.E-02	L.T. 3.E-02	L.T. 1.E-02
CE-144	L.T. 1.E-02	L.T. 1.E-02	L.T. 2.E-02	L.T. 1.E-02
RA-226	L.T. 4.E-02	L.T. 4.E-02	L.T. 6.E-02	L.T. 4.E-02
TH-228	L.T. 4.E-03	L.T. 3.E-03	L.T. 5.E-03	L.T. 3.E-03

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NEBRASKA PUBLIC POWER DISTRICT

COOPER NUCLEAR STATION

EXPOSURE PATHWAY - AIRBORNE

COMPOSITE AIR PARTICULATE FILTERS

(PCI/CU. M.)

STATION NUMBER 06

DATE COLLECTED	12/27 - 03/27/06	03/27 - 06/26/06	06/26 - 10/03/06	10/03 - 01/02
GAMMA SPECTRUM ANALYSIS:				
BE-7	9.84E-02 ± 4.41E-02	2.60E-01 ± 7.07E-02	1.19E-01 ± 6.41E-02	1.02E-01 ± 2.83E-02
K-40	L.T. 4.E-02	L.T. 5.E-02	L.T. 2.E-02	L.T. 3.E-02
MN-54	L.T. 3.E-03	L.T. 4.E-03	L.T. 4.E-03	L.T. 2.E-03
CO-58	L.T. 7.E-03	L.T. 8.E-03	L.T. 4.E-03	L.T. 3.E-03
FE-59	L.T. 3.E-02	L.T. 2.E-02	L.T. 3.E-02	L.T. 1.E-02
CO-60	L.T. 3.E-03	L.T. 4.E-03	L.T. 3.E-03	L.T. 2.E-03
ZN-65	L.T. 7.E-03	L.T. 8.E-03	L.T. 1.E-02	L.T. 5.E-03
ZR-95	L.T. 1.E-02	L.T. 2.E-02	L.T. 2.E-02	L.T. 6.E-03
RU-103	L.T. 1.E-02	L.T. 2.E-02	L.T. 1.E-02	L.T. 7.E-03
RU-106	L.T. 3.E-02	L.T. 4.E-02	L.T. 3.E-02	L.T. 2.E-02
I-131	L.T. 3.E+01	L.T. 3.E+01	L.T. 3.E+01	L.T. 9.E-01
CS-134	L.T. 3.E-03	L.T. 3.E-03	L.T. 3.E-03	L.T. 3.E-03
CS-137	L.T. 2.E-03	L.T. 3.E-03	L.T. 2.E-03	L.T. 2.E-03
BA-140	L.T. 3.E+00	L.T. 3.E+00	L.T. 2.E+00	L.T. 3.E-01
CE-141	L.T. 2.E-02	L.T. 3.E-02	L.T. 4.E-02	L.T. 9.E-03
CE-144	L.T. 1.E-02	L.T. 2.E-02	L.T. 2.E-02	L.T. 1.E-02
RA-226	L.T. 4.E-02	L.T. 4.E-02	L.T. 6.E-02	L.T. 3.E-02
TH-228	L.T. 3.E-03	L.T. 4.E-03	L.T. 5.E-03	L.T. 3.E-03

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NEBRASKA PUBLIC POWER DISTRICT

COOPER NUCLEAR STATION

EXPOSURE PATHWAY - AIRBORNE

COMPOSITE AIR PARTICULATE FILTERS

(PCI/CU. M.)

STATION NUMBER 07

DATE COLLECTED	12/27 - 03/27/06	03/27 - 06/26/06	06/26 - 10/03/06	10/03 - 01/02
GAMMA SPECTRUM ANALYSIS:				
BE-7	9.30E-02 ± 4.86E-02	1.27E-01 ± 5.97E-02	7.84E-02 ± 4.78E-02	1.21E-01 ± 3.44E-02
K-40	L.T. 5.E-02	L.T. 3.E-02	L.T. 3.E-02	L.T. 3.E-02
MN-54	L.T. 4.E-03	L.T. 4.E-03	L.T. 3.E-03	L.T. 1.E-03
CO-58	L.T. 7.E-03	L.T. 1.E-02	L.T. 6.E-03	L.T. 2.E-03
FE-59	L.T. 3.E-02	L.T. 3.E-02	L.T. 3.E-02	L.T. 9.E-03
CO-60	L.T. 4.E-03	L.T. 2.E-03	L.T. 3.E-03	L.T. 1.E-03
ZN-65	L.T. 1.E-02	L.T. 1.E-02	L.T. 1.E-02	L.T. 5.E-03
ZR-95	L.T. 2.E-02	L.T. 2.E-02	L.T. 2.E-02	L.T. 5.E-03
RU-103	L.T. 2.E-02	L.T. 2.E-02	L.T. 2.E-02	L.T. 4.E-03
RU-106	L.T. 3.E-02	L.T. 3.E-02	L.T. 2.E-02	L.T. 2.E-02
I-131	L.T. 3.E+01	L.T. 3.E+01	L.T. 2.E+01	L.T. 6.E-01
CS-134	L.T. 3.E-03	L.T. 4.E-03	L.T. 2.E-03	L.T. 1.E-03
CS-137	L.T. 3.E-03	L.T. 3.E-03	L.T. 2.E-03	L.T. 1.E-03
BA-140	L.T. 4.E+00	L.T. 4.E+00	L.T. 3.E+00	L.T. 2.E-01
CE-141	L.T. 3.E-02	L.T. 3.E-02	L.T. 4.E-02	L.T. 7.E-03
CE-144	L.T. 1.E-02	L.T. 2.E-02	L.T. 2.E-02	L.T. 7.E-03
RA-226	L.T. 5.E-02	L.T. 5.E-02	L.T. 6.E-02	L.T. 3.E-02
TH-228	L.T. 4.E-03	L.T. 5.E-03	L.T. 5.E-03	L.T. 2.E-03

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NEBRASKA PUBLIC POWER DISTRICT

COOPER NUCLEAR STATION

EXPOSURE PATHWAY - AIRBORNE

COMPOSITE AIR PARTICULATE FILTERS

(PCI/CU. M.)

STATION NUMBER 08

DATE COLLECTED	12/27 - 03/27/06	03/27 - 06/26/06	06/26 - 10/03/06	10/03 - 01/02
GAMMA SPECTRUM ANALYSIS:				
BE-7	1.02E-01 ± 4.06E-02	1.86E-01 ± 5.85E-02	1.79E-01 ± 7.88E-02	1.34E-01 ± 5.11E-02
K-40	L.T. 4.E-02	L.T. 3.E-02	L.T. 5.E-02	L.T. 4.E-02
MN-54	L.T. 2.E-03	L.T. 3.E-03	L.T. 4.E-03	L.T. 3.E-03
CO-58	L.T. 5.E-03	L.T. 8.E-03	L.T. 9.E-03	L.T. 6.E-03
FE-59	L.T. 2.E-02	L.T. 3.E-02	L.T. 3.E-02	L.T. 1.E-02
CO-60	L.T. 3.E-03	L.T. 4.E-03	L.T. 2.E-03	L.T. 2.E-03
ZN-65	L.T. 7.E-03	L.T. 7.E-03	L.T. 8.E-03	L.T. 7.E-03
ZR-95	L.T. 1.E-02	L.T. 1.E-02	L.T. 1.E-02	L.T. 1.E-02
RU-103	L.T. 2.E-02	L.T. 2.E-02	L.T. 1.E-02	L.T. 9.E-03
RU-106	L.T. 2.E-02	L.T. 2.E-02	L.T. 3.E-02	L.T. 3.E-02
I-131	L.T. 2.E+01	L.T. 3.E+01	L.T. 3.E+01	L.T. 1.E+00
CS-134	L.T. 2.E-03	L.T. 3.E-03	L.T. 4.E-03	L.T. 3.E-03
CS-137	L.T. 2.E-03	L.T. 2.E-03	L.T. 3.E-03	L.T. 3.E-03
BA-140	L.T. 3.E+00	L.T. 3.E+00	L.T. 3.E+00	L.T. 5.E-01
CE-141	L.T. 3.E-02	L.T. 3.E-02	L.T. 3.E-02	L.T. 1.E-02
CE-144	L.T. 2.E-02	L.T. 1.E-02	L.T. 2.E-02	L.T. 1.E-02
RA-226	L.T. 5.E-02	L.T. 5.E-02	L.T. 6.E-02	L.T. 4.E-02
TH-228	L.T. 4.E-03	L.T. 3.E-03	L.T. 5.E-03	L.T. 4.E-03

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NEBRASKA PUBLIC POWER DISTRICT

COOPER NUCLEAR STATION

EXPOSURE PATHWAY - AIRBORNE

COMPOSITE AIR PARTICULATE FILTERS

(PCI/CU. M.)

STATION NUMBER 09

DATE COLLECTED	12/27 - 03/27/06	03/27 - 06/26/06	06/26 - 10/03/06	10/03 - 01/02
GAMMA SPECTRUM ANALYSIS:				
BE-7	1.03E-01 ± 4.85E-02	1.90E-01 ± 6.22E-02	2.36E-01 ± 9.95E-02	L.T. 4.E-02
K-40	L.T. 3.E-02	L.T. 3.E-02	L.T. 7.E-02	L.T. 3.E-02
MN-54	L.T. 4.E-03	L.T. 4.E-03	L.T. 3.E-03	L.T. 3.E-03
CO-58	L.T. 5.E-03	L.T. 9.E-03	L.T. 1.E-02	L.T. 4.E-03
FE-59	L.T. 3.E-02	L.T. 3.E-02	L.T. 2.E-02	L.T. 1.E-02
CO-60	L.T. 4.E-03	L.T. 3.E-03	L.T. 3.E-03	L.T. 2.E-03
ZN-65	L.T. 1.E-02	L.T. 6.E-03	L.T. 1.E-02	L.T. 6.E-03
ZR-95	L.T. 1.E-02	L.T. 2.E-02	L.T. 2.E-02	L.T. 9.E-03
RU-103	L.T. 2.E-02	L.T. 2.E-02	L.T. 2.E-02	L.T. 5.E-03
RU-106	L.T. 3.E-02	L.T. 4.E-02	L.T. 3.E-02	L.T. 2.E-02
I-131	L.T. 3.E+01	L.T. 4.E+01	L.T. 3.E+01	L.T. 1.E+00
CS-134	L.T. 3.E-03	L.T. 3.E-03	L.T. 3.E-03	L.T. 2.E-03
CS-137	L.T. 3.E-03	L.T. 3.E-03	L.T. 5.E-03	L.T. 3.E-03
BA-140	L.T. 4.E+00	L.T. 4.E+00	L.T. 4.E+00	L.T. 3.E-01
CE-141	L.T. 3.E-02	L.T. 3.E-02	L.T. 5.E-02	L.T. 9.E-03
CE-144	L.T. 1.E-02	L.T. 2.E-02	L.T. 3.E-02	L.T. 1.E-02
RA-226	L.T. 4.E-02	L.T. 6.E-02	L.T. 8.E-02	L.T. 3.E-02
TH-228	L.T. 4.E-03	L.T. 5.E-03	L.T. 7.E-03	L.T. 3.E-03

VII-2

NEBRASKA PUBLIC POWER DISTRICT

COOPER NUCLEAR STATION

EXPOSURE PATHWAY - AIRBORNE

COMPOSITE AIR PARTICULATE FILTERS

(PCI/CU. M.)

STATION NUMBER 10

DATE COLLECTED	12/27 - 03/27/06	03/27 - 06/26/06	06/26 - 10/03/06	10/03 - 01/02
GAMMA SPECTRUM ANALYSIS:				
BE-7	1.18E-01 ± 6.21E-02	2.09E-01 ± 6.35E-02	1.85E-01 ± 9.72E-02	1.24E-01 ± 4.87E-02
K-40	L.T. 6.E-02	L.T. 6.E-02	L.T. 6.E-02	L.T. 5.E-02
MN-54	L.T. 3.E-03	L.T. 4.E-03	L.T. 6.E-03	L.T. 3.E-03
CO-58	L.T. 7.E-03	L.T. 9.E-03	L.T. 7.E-03	L.T. 5.E-03
FE-59	L.T. 3.E-02	L.T. 4.E-02	L.T. 4.E-02	L.T. 2.E-02
CO-60	L.T. 3.E-03	L.T. 3.E-03	L.T. 5.E-03	L.T. 3.E-03
ZN-65	L.T. 1.E-02	L.T. 6.E-03	L.T. 1.E-02	L.T. 8.E-03
ZR-95	L.T. 2.E-02	L.T. 2.E-02	L.T. 2.E-02	L.T. 1.E-02
RU-103	L.T. 1.E-02	L.T. 2.E-02	L.T. 3.E-02	L.T. 9.E-03
RU-106	L.T. 3.E-02	L.T. 3.E-02	L.T. 4.E-02	L.T. 3.E-02
I-131	L.T. 3.E+01	L.T. 3.E+01	L.T. 4.E+01	L.T. 1.E+00
CS-134	L.T. 3.E-03	L.T. 4.E-03	L.T. 4.E-03	L.T. 3.E-03
CS-137	L.T. 2.E-03	L.T. 3.E-03	L.T. 4.E-03	L.T. 2.E-03
BA-140	L.T. 4.E+00	L.T. 3.E+00	L.T. 4.E+00	L.T. 5.E-01
CE-141	L.T. 3.E-02	L.T. 3.E-02	L.T. 4.E-02	L.T. 1.E-02
CE-144	L.T. 1.E-02	L.T. 1.E-02	L.T. 3.E-02	L.T. 1.E-02
RA-226	L.T. 4.E-02	L.T. 5.E-02	L.T. 9.E-02	L.T. 5.E-02
TH-228	L.T. 4.E-03	L.T. 5.E-03	L.T. 7.E-03	L.T. 4.E-03

VII-3

NEBRASKA PUBLIC POWER DISTRICT

COOPER NUCLEAR STATION

EXPOSURE PATHWAY - INGESTION

FISH

(PCI/KG WET)

STATION NUMBER 28

DATE COLLECTED:	07/25/2006 CATFISH	07/25/2006 CARP	09/26/2006 CATFISH	09/26/2006 CARP
GAMMA SPECTRUM ANALYSIS:				
BE-7	L.T. 5E+02	L.T. 3E+02	L.T. 6E+02	L.T. 6E+02
K-40	3.76E+03 ± 5.39E+02	3.00E+03 ± 4.03E+02	3.55E+03 ± 1.04E+03	4.20E+03 ± 1.16E+03
MN-54	L.T. 4E+01	L.T. 3E+01	L.T. 5E+01	L.T. 7E+01
CO-58	L.T. 5E+01	L.T. 3E+01	L.T. 7E+01	L.T. 5E+01
FE-59	L.T. 1E+02	L.T. 7E+01	L.T. 2E+02	L.T. 2E+02
CO-60	L.T. 3E+01	L.T. 2E+01	L.T. 5E+01	L.T. 6E+01
ZN-65	L.T. 7E+01	L.T. 5E+01	L.T. 2E+02	L.T. 1E+02
ZR-95	L.T. 8E+01	L.T. 6E+01	L.T. 1E+02	L.T. 1E+02
RU-103	L.T. 6E+01	L.T. 4E+01	L.T. 7E+01	L.T. 8E+01
RU-106	L.T. 4E+02	L.T. 2E+02	L.T. 5E+02	L.T. 5E+02
I-131	L.T. 7E+02	L.T. 4E+02	L.T. 2E+02	L.T. 2E+02
CS-134	L.T. 3E+01	L.T. 2E+01	L.T. 6E+01	L.T. 6E+01
CS-137	L.T. 4E+01	L.T. 3E+01	L.T. 6E+01	L.T. 7E+01
BA-140	L.T. 8E+02	L.T. 5E+02	L.T. 6E+02	L.T. 5E+02
CE-141	L.T. 1E+02	L.T. 9E+01	L.T. 1E+02	L.T. 1E+02
CE-144	L.T. 3E+02	L.T. 2E+02	L.T. 4E+02	L.T. 4E+02
RA-226	L.T. 1E+03	L.T. 6E+02	L.T. 1E+03	L.T. 1E+03
TH-228	L.T. 7E+01	L.T. 6E+01	L.T. 1E+02	L.T. 9E+01

VII-3

NEBRASKA PUBLIC POWER DISTRICT

COOPER NUCLEAR STATION

EXPOSURE PATHWAY - INGESTION

FISH

(PCI/KG WET)

STATION NUMBER 35

DATE COLLECTED:	07/25/2006 CATFISH	07/25/2006 CARP	09/26/2006 CATFISH	09/26/2006 CARP
GAMMA SPECTRUM ANALYSIS:				
BE-7	L.T. 4E+02	L.T. 4E+02	L.T. 5E+02	L.T. 4E+02
K-40	3.07E+03 ± 6.87E+02	2.86E+03 ± 6.05E+02	3.87E+03 ± 8.09E+02	2.77E+03 ± 8.89E+02
MN-54	L.T. 4E+01	L.T. 3E+01	L.T. 4E+01	L.T. 5E+01
CO-58	L.T. 4E+01	L.T. 4E+01	L.T. 6E+01	L.T. 5E+01
FE-59	L.T. 1E+02	L.T. 1E+02	L.T. 1E+02	L.T. 1E+02
CO-60	L.T. 4E+01	L.T. 4E+01	L.T. 4E+01	L.T. 6E+01
ZN-65	L.T. 7E+01	L.T. 8E+01	L.T. 1E+02	L.T. 7E+01
ZR-95	L.T. 8E+01	L.T. 8E+01	L.T. 1E+02	L.T. 8E+01
RU-103	L.T. 6E+01	L.T. 6E+01	L.T. 5E+01	L.T. 6E+01
RU-106	L.T. 3E+02	L.T. 3E+02	L.T. 3E+02	L.T. 4E+02
I-131	L.T. 6E+02	L.T. 6E+02	L.T. 2E+02	L.T. 2E+02
CS-134	L.T. 4E+01	L.T. 3E+01	L.T. 5E+01	L.T. 4E+01
CS-137	L.T. 4E+01	L.T. 4E+01	L.T. 5E+01	L.T. 5E+01
BA-140	L.T. 7E+02	L.T. 8E+02	L.T. 3E+02	L.T. 4E+02
CE-141	L.T. 9E+01	L.T. 8E+01	L.T. 7E+01	L.T. 8E+01
CE-144	L.T. 2E+02	L.T. 2E+02	L.T. 3E+02	L.T. 2E+02
RA-226	L.T. 8E+02	L.T. 6E+02	L.T. 8E+02	L.T. 7E+02
TH-228	L.T. 6E+01	L.T. 6E+01	L.T. 8E+01	L.T. 6E+01

VII-4

NEBRASKA PUBLIC POWER DISTRICT

COOPER NUCLEAR STATION

EXPOSURE PATHWAY - INGESTION

MILK NEAREST PRODUCER

(PCI/LITER)

STATION NUMBER 99

DATE COLLECTED:	01/03/2006	02/06/2006	03/07/2006	04/04/2006
RADIOCHEMICAL ANALYSIS:				
I-131	L.T. 6E-01	L.T. 4E-01	L.T. 6E-01	L.T. 5E-01
GAMMA SPECTRUM ANALYSIS:				
BE-7	L.T. 5E+01	L.T. 7E+01	L.T. 6E+01	L.T. 7E+01
K-40	1.25E+03 ± 1.66E+02	1.29E+03 ± 1.71E+02	1.21E+03 ± 1.34E+02	1.24E+03 ± 1.38E+02
MN-54	L.T. 7E+00	L.T. 9E+00	L.T. 8E+00	L.T. 9E+00
CO-58	L.T. 7E+00	L.T. 1E+01	L.T. 8E+00	L.T. 8E+00
FE-59	L.T. 2E+01	L.T. 2E+01	L.T. 2E+01	L.T. 2E+01
CO-60	L.T. 7E+00	L.T. 1E+01	L.T. 9E+00	L.T. 9E+00
ZN-65	L.T. 2E+01	L.T. 3E+01	L.T. 2E+01	L.T. 2E+01
ZR-95	L.T. 1E+01	L.T. 1E+01	L.T. 1E+01	L.T. 1E+01
RU-103	L.T. 7E+00	L.T. 1E+01	L.T. 8E+00	L.T. 1E+01
RU-106	L.T. 6E+01	L.T. 8E+01	L.T. 7E+01	L.T. 8E+01
I-131	L.T. 1E+01	L.T. 1E+01	L.T. 1E+01	L.T. 1E+01
CS-134	L.T. 6E+00	L.T. 1E+01	L.T. 9E+00	L.T. 8E+00
CS-137	L.T. 7E+00	L.T. 1E+01	L.T. 7E+00	L.T. 9E+00
BA-140	L.T. 3E+01	L.T. 4E+01	L.T. 3E+01	L.T. 4E+01
CE-141	L.T. 1E+01	L.T. 2E+01	L.T. 1E+01	L.T. 1E+01
CE-144	L.T. 5E+01	L.T. 7E+01	L.T. 5E+01	L.T. 6E+01
RA-226	L.T. 2E+02	L.T. 2E+02	L.T. 2E+02	L.T. 2E+02
TH-228	L.T. 1E+01	L.T. 2E+01	L.T. 1E+01	L.T. 2E+01

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NEBRASKA PUBLIC POWER DISTRICT

COOPER NUCLEAR STATION

EXPOSURE PATHWAY - INGESTION

MILK NEAREST PRODUCER

(PCI/LITER)

STATION NUMBER 99

DATE COLLECTED:	05/02/2006	05/23/2006	06/06/2006	06/20/2006
RADIOCHEMICAL ANALYSIS:				
I-131	L.T. 5E-01	L.T. 2E-01	L.T. 5E-01	L.T. 9E-01
GAMMA SPECTRUM ANALYSIS:				
BE-7	L.T. 7E+01	L.T. 3E+01	L.T. 6E+01	L.T. 6E+01
K-40	1.29E+03 ± 1.51E+02	1.22E+03 ± 6.05E+01	1.23E+03 ± 1.06E+02	1.30E+03 ± 1.16E+02
MN-54	L.T. 9E+00	L.T. 4E+00	L.T. 6E+00	L.T. 7E+00
CO-58	L.T. 9E+00	L.T. 4E+00	L.T. 7E+00	L.T. 7E+00
FE-59	L.T. 2E+01	L.T. 1E+01	L.T. 2E+01	L.T. 2E+01
CO-60	L.T. 1E+01	L.T. 4E+00	L.T. 6E+00	L.T. 7E+00
ZN-65	L.T. 2E+01	L.T. 9E+00	L.T. 1E+01	L.T. 2E+01
ZR-95	L.T. 2E+01	L.T. 7E+00	L.T. 1E+01	L.T. 1E+01
RU-103	L.T. 9E+00	L.T. 5E+00	L.T. 8E+00	L.T. 7E+00
RU-106	L.T. 7E+01	L.T. 3E+01	L.T. 5E+01	L.T. 6E+01
I-131	L.T. 2E+01	L.T. 2E+01	L.T. 3E+01	L.T. 1E+01
CS-134	L.T. 1E+01	L.T. 4E+00	L.T. 6E+00	L.T. 7E+00
CS-137	L.T. 1E+01	L.T. 4E+00	L.T. 6E+00	L.T. 7E+00
BA-140	L.T. 5E+01	L.T. 3E+01	L.T. 6E+01	L.T. 3E+01
CE-141	L.T. 1E+01	L.T. 8E+00	L.T. 1E+01	L.T. 1E+01
CE-144	L.T. 6E+01	L.T. 2E+01	L.T. 4E+01	L.T. 5E+01
RA-226	L.T. 2E+02	L.T. 8E+01	L.T. 1E+02	L.T. 2E+02
TH-228	L.T. 1E+01	L.T. 6E+00	L.T. 1E+01	L.T. 1E+01

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NEBRASKA PUBLIC POWER DISTRICT

COOPER NUCLEAR STATION

EXPOSURE PATHWAY - INGESTION

MILK NEAREST PRODUCER

(PCI/LITER)

STATION NUMBER 99

DATE COLLECTED:	07/11/2006	07/18/2006	07/31/2006	08/08/2006
RADIOCHEMICAL ANALYSIS:				
I-131	L.T. 1E+00 (a)	L.T. 8E-01	L.T. 9E-01	L.T. 8E-01
GAMMA SPECTRUM ANALYSIS:				
BE-7	L.T. 8E+01	L.T. 8E+01	L.T. 7E+01	L.T. 4E+01
K-40	1.45E+03 ± 1.84E+02	1.35E+03 ± 1.81E+02	1.31E+03 ± 1.37E+02	1.45E+03 ± 1.33E+02
MN-54	L.T. 1E+01	L.T. 1E+01	L.T. 8E+00	L.T. 5E+00
CO-58	L.T. 1E+01	L.T. 1E+01	L.T. 8E+00	L.T. 5E+00
FE-59	L.T. 3E+01	L.T. 2E+01	L.T. 2E+01	L.T. 1E+01
CO-60	L.T. 1E+01	L.T. 1E+01	L.T. 8E+00	L.T. 7E+00
ZN-65	L.T. 3E+01	L.T. 3E+01	L.T. 2E+01	L.T. 1E+01
ZR-95	L.T. 2E+01	L.T. 2E+01	L.T. 1E+01	L.T. 1E+01
RU-103	L.T. 1E+01	L.T. 1E+01	L.T. 8E+00	L.T. 6E+00
RU-106	L.T. 9E+01	L.T. 8E+01	L.T. 6E+01	L.T. 5E+01
I-131	L.T. 2E+01	L.T. 2E+01	L.T. 1E+01	L.T. 1E+01
CS-134	L.T. 1E+01	L.T. 1E+01	L.T. 8E+00	L.T. 5E+00
CS-137	L.T. 1E+01	L.T. 1E+01	L.T. 8E+00	L.T. 7E+00
BA-140	L.T. 5E+01	L.T. 5E+01	L.T. 4E+01	L.T. 3E+01
CE-141	L.T. 2E+01	L.T. 2E+01	L.T. 1E+01	L.T. 1E+01
CE-144	L.T. 7E+01	L.T. 7E+01	L.T. 6E+01	L.T. 4E+01
RA-226	L.T. 2E+02	L.T. 2E+02	L.T. 2E+02	L.T. 1E+02
TH-228	L.T. 2E+01	L.T. 2E+01	L.T. 1E+01	L.T. 9E+00

(b) I-131 LLD missed due to technical problems with I-131 filter paper in the laboratory.

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NEBRASKA PUBLIC POWER DISTRICT

COOPER NUCLEAR STATION

EXPOSURE PATHWAY - INGESTION

MILK NEAREST PRODUCER

(PCI/LITER)

STATION NUMBER 99

DATE COLLECTED:	08/15/2006	09/06/2006	09/19/2006	10/03/2006
RADIOCHEMICAL ANALYSIS:				
I-131	L.T. 4E-01	L.T. 3E-01	L.T. 3E-01	L.T. 7E-01
GAMMA SPECTRUM ANALYSIS:				
BE-7	L.T. 5E+01	L.T. 7E+01	L.T. 4E+01	L.T. 5E+01
K-40	1.28E+03 ± 1.31E+02	1.19E+03 ± 1.50E+02	1.26E+03 ± 1.32E+02	1.28E+03 ± 1.88E+02
MN-54	L.T. 5E+00	L.T. 7E+00	L.T. 6E+00	L.T. 7E+00
CO-58	L.T. 6E+00	L.T. 7E+00	L.T. 6E+00	L.T. 8E+00
FE-59	L.T. 1E+01	L.T. 2E+01	L.T. 1E+01	L.T. 2E+01
CO-60	L.T. 5E+00	L.T. 6E+00	L.T. 6E+00	L.T. 8E+00
ZN-65	L.T. 1E+01	L.T. 1E+01	L.T. 1E+01	L.T. 2E+01
ZR-95	L.T. 9E+00	L.T. 1E+01	L.T. 9E+00	L.T. 1E+01
RU-103	L.T. 7E+00	L.T. 6E+00	L.T. 6E+00	L.T. 6E+00
RU-106	L.T. 5E+01	L.T. 7E+01	L.T. 6E+01	L.T. 7E+01
I-131	L.T. 1E+01	L.T. 1E+01	L.T. 1E+01	L.T. 2E+01
CS-134	L.T. 4E+00	L.T. 6E+00	L.T. 6E+00	L.T. 6E+00
CS-137	L.T. 7E+00	L.T. 7E+00	L.T. 6E+00	L.T. 8E+00
BA-140	L.T. 3E+01	L.T. 3E+01	L.T. 3E+01	L.T. 4E+01
CE-141	L.T. 1E+01	L.T. 1E+01	L.T. 1E+01	L.T. 1E+01
CE-144	L.T. 4E+01	L.T. 5E+01	L.T. 4E+01	L.T. 5E+01
RA-226	L.T. 1E+02	L.T. 2E+02	L.T. 1E+02	L.T. 2E+02
TH-228	L.T. 1E+01	L.T. 1E+01	L.T. 1E+01	L.T. 1E+01

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NEBRASKA PUBLIC POWER DISTRICT

COOPER NUCLEAR STATION

EXPOSURE PATHWAY - INGESTION

MILK NEAREST PRODUCER

(PCI/LITER)

STATION NUMBER 99

DATE COLLECTED:	11/07/2006	12/05/2006
RADIOCHEMICAL ANALYSIS:		
I-131	L.T. 6E-01	L.T. 5E-01
GAMMA SPECTRUM ANALYSIS:		
BE-7	L.T. 5E+01	L.T. 5E+01
K-40	1.38E+03 ± 1.50E+02	1.26E+03 ± 1.40E+02
MN-54	L.T. 5E+00	L.T. 7E+00
CO-58	L.T. 7E+00	L.T. 7E+00
FE-59	L.T. 2E+01	L.T. 1E+01
CO-60	L.T. 8E+00	L.T. 7E+00
ZN-65	L.T. 2E+01	L.T. 2E+01
ZR-95	L.T. 1E+01	L.T. 1E+01
RU-103	L.T. 8E+00	L.T. 7E+00
RU-106	L.T. 6E+01	L.T. 5E+01
I-131	L.T. 2E+01	L.T. 1E+01
CS-134	L.T. 5E+00	L.T. 6E+00
CS-137	L.T. 7E+00	L.T. 6E+00
BA-140	L.T. 4E+01	L.T. 3E+01
CE-141	L.T. 1E+01	L.T. 1E+01
CE-144	L.T. 4E+01	L.T. 4E+01
RA-226	L.T. 1E+02	L.T. 1E+02
TH-228	L.T. 1E+01	L.T. 1E+01

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NEBRASKA PUBLIC POWER DISTRICT

COOPER NUCLEAR STATION

EXPOSURE PATHWAY - INGESTION

MILK OTHER PRODUCERS

(PCI/LITER)

STATION NUMBER 102

DATE COLLECTED:	01/03/06	04/04/06
		(a)
RADIOCHEMICAL ANALYSIS:		
I-131	L.T. 6E-01	
GAMMA SPECTRUM ANALYSIS:		
BE-7	L.T. 4E+01	
K-40	1.20E+03 ± 1.27E+02	
MN-54	L.T. 5E+00	
CO-58	L.T. 4E+00	
FE-59	L.T. 1E+01	
CO-60	L.T. 6E+00	
ZN-65	L.T. 1E+01	
ZR-95	L.T. 8E+00	
RU-103	L.T. 5E+00	
RU-106	L.T. 4E+01	
I-131	L.T. 8E+00	
CS-134	L.T. 4E+00	
CS-137	L.T. 5E+00	
BA-140	L.T. 2E+01	
CE-141	L.T. 8E+00	
CE-144	L.T. 3E+01	
RA-226	L.T. 1E+02	
TH-228	L.T. 9E+00	

(a) Milk farm went out of business.

VII-5

NEBRASKA PUBLIC POWER DISTRICT

COOPER NUCLEAR STATION

EXPOSURE PATHWAY - INGESTION

MILK OTHER PRODUCERS

(PCI/LITER)

STATION NUMBER 103

DATE COLLECTED:	01/03/06	04/04/06	07/11/06	10/03/06
RADIOCHEMICAL ANALYSIS:				
I-131	L.T. 5E-01	L.T. 4E-01	L.T. 4E-01	L.T. 6E-01
GAMMA SPECTRUM ANALYSIS:				
BE-7	L.T. 3E+01	L.T. 5E+01	L.T. 6E+01	L.T. 6E+01
K-40	1.27E+03 ± 1.44E+02	1.29E+03 ± 1.20E+02	1.44E+03 ± 1.40E+02	1.35E+03 ± 1.51E+02
MN-54	L.T. 4E+00	L.T. 6E+00	L.T. 8E+00	L.T. 7E+00
CO-58	L.T. 3E+00	L.T. 7E+00	L.T. 8E+00	L.T. 7E+00
FE-59	L.T. 1E+01	L.T. 1E+01	L.T. 2E+01	L.T. 2E+01
CO-60	L.T. 4E+00	L.T. 7E+00	L.T. 8E+00	L.T. 9E+00
ZN-65	L.T. 9E+00	L.T. 2E+01	L.T. 2E+01	L.T. 2E+01
ZR-95	L.T. 6E+00	L.T. 1E+01	L.T. 1E+01	L.T. 1E+01
RU-103	L.T. 5E+00	L.T. 7E+00	L.T. 8E+00	L.T. 8E+00
RU-106	L.T. 4E+01	L.T. 5E+01	L.T. 6E+01	L.T. 6E+01
I-131	L.T. 6E+00	L.T. 1E+01	L.T. 1E+01	L.T. 2E+01
CS-134	L.T. 3E+00	L.T. 7E+00	L.T. 9E+00	L.T. 6E+00
CS-137	L.T. 4E+00	L.T. 6E+00	L.T. 8E+00	L.T. 7E+00
BA-140	L.T. 2E+01	L.T. 3E+01	L.T. 4E+01	L.T. 4E+01
CE-141	L.T. 6E+00	L.T. 1E+01	L.T. 1E+01	L.T. 1E+01
CE-144	L.T. 3E+01	L.T. 4E+01	L.T. 5E+01	L.T. 6E+01
RA-226	L.T. 9E+01	L.T. 1E+02	L.T. 2E+02	L.T. 2E+02
TH-228	L.T. 7E+00	L.T. 1E+01	L.T. 1E+01	L.T. 1E+01

VII-6

NEBRASKA PUBLIC POWER DISTRICT

COOPER NUCLEAR STATION

EXPOSURE PATHWAY - INGESTION

WATER - GROUND

(PCI/LITER)

STATION NUMBER 11

DATE COLLECTED:	01/10/06	04/10/06	05/23/06 (a)	06/12/06
RADIOCHEMICAL ANALYSIS:				
I-131	L.T. 4.E-01	L.T. 9.E-01	L.T. 4.E-01	L.T. 5.E+00 (b)
GAMMA SPECTRUM ANALYSIS:				
BE-7	L.T. 4.E+01	L.T. 7.E+01	L.T. 3.E+01	L.T. 7.E+01
K-40	L.T. 4.E+01	L.T. 1.E+02	L.T. 3.E+01	L.T. 1.E+02
MN-54	L.T. 5.E+00	L.T. 7.E+00	L.T. 3.E+00	L.T. 6.E+00
CO-58	L.T. 5.E+00	L.T. 8.E+00	L.T. 4.E+00	L.T. 9.E+00
FE-59	L.T. 1.E+01	L.T. 2.E+01	L.T. 8.E+00	L.T. 2.E+01
CO-60	L.T. 6.E+00	L.T. 8.E+00	L.T. 3.E+00	L.T. 8.E+00
ZN-65	L.T. 1.E+01	L.T. 2.E+01	L.T. 7.E+00	L.T. 1.E+01
ZR-95	L.T. 9.E+00	L.T. 1.E+01	L.T. 7.E+00	L.T. 1.E+01
RU-103	L.T. 6.E+00	L.T. 9.E+00	L.T. 5.E+00	L.T. 1.E+01
RU-106	L.T. 4.E+01	L.T. 7.E+01	L.T. 3.E+01	L.T. 7.E+01
I-131	L.T. 1.E+01	L.T. 1.E+01	L.T. 4.E+01	L.T. 3.E+01
CS-134	L.T. 5.E+00	L.T. 8.E+00	L.T. 3.E+00	L.T. 7.E+00
CS-137	L.T. 4.E+00	L.T. 9.E+00	L.T. 3.E+00	L.T. 8.E+00
BA-140	L.T. 3.E+01	L.T. 4.E+01	L.T. 5.E+01	L.T. 5.E+01
CE-141	L.T. 9.E+00	L.T. 2.E+01	L.T. 9.E+00	L.T. 2.E+01
CE-144	L.T. 3.E+01	L.T. 6.E+01	L.T. 2.E+01	L.T. 6.E+01
RA-226	L.T. 1.E+02	L.T. 2.E+02	L.T. 7.E+01	L.T. 2.E+02
TH-228	L.T. 8.E+00	L.T. 2.E+01	L.T. 5.E+00	L.T. 1.E+01
TRITIUM ANALYSIS:				
H-3	L.T. 3.E+02	L.T. 2.E+02	L.T. 2.E+02	L.T. 2.E+02

(a) Sampling changed from quarterly to monthly in May 2006.

(b) I-131 LLD Missed due to technical problems with the I-131 filter paper in the laboratory.

VII-6

NEBRASKA PUBLIC POWER DISTRICT

COOPER NUCLEAR STATION

EXPOSURE PATHWAY - INGESTION

WATER - GROUND

(PCI/LITER)

STATION NUMBER 11

DATE COLLECTED:	07/12/06	08/22/06	09/13/06	10/11/06
RADIOCHEMICAL ANALYSIS:				
I-131	L.T. 4.E-01	L.T. 5.E-01	L.T. 2.E-01	L.T. 6.E-01
GAMMA SPECTRUM ANALYSIS:				
BE-7	L.T. 4.E+01	L.T. 4.E+01	L.T. 6.E+01	L.T. 5.E+01
K-40	L.T. 6.E+01	L.T. 4.E+01	L.T. 6.E+01	L.T. 1.E+02
MN-54	L.T. 4.E+00	L.T. 4.E+00	L.T. 5.E+00	L.T. 5.E+00
CO-58	L.T. 4.E+00	L.T. 4.E+00	L.T. 5.E+00	L.T. 5.E+00
FE-59	L.T. 8.E+00	L.T. 1.E+01	L.T. 1.E+01	L.T. 1.E+01
CO-60	L.T. 4.E+00	L.T. 5.E+00	L.T. 8.E+00	L.T. 5.E+00
ZN-65	L.T. 1.E+01	L.T. 8.E+00	L.T. 1.E+01	L.T. 1.E+01
ZR-95	L.T. 8.E+00	L.T. 7.E+00	L.T. 1.E+01	L.T. 9.E+00
RU-103	L.T. 5.E+00	L.T. 5.E+00	L.T. 5.E+00	L.T. 6.E+00
RU-106	L.T. 4.E+01	L.T. 3.E+01	L.T. 5.E+01	L.T. 4.E+01
I-131	L.T. 8.E+00	L.T. 2.E+01	L.T. 9.E+00	L.T. 3.E+01
CS-134	L.T. 5.E+00	L.T. 3.E+00	L.T. 5.E+00	L.T. 4.E+00
CS-137	L.T. 5.E+00	L.T. 4.E+00	L.T. 5.E+00	L.T. 4.E+00
BA-140	L.T. 2.E+01	L.T. 4.E+01	L.T. 2.E+01	L.T. 6.E+01
CE-141	L.T. 8.E+00	L.T. 9.E+00	L.T. 9.E+00	L.T. 1.E+01
CE-144	L.T. 3.E+01	L.T. 3.E+01	L.T. 4.E+01	L.T. 4.E+01
RA-226	L.T. 1.E+02	L.T. 1.E+02	L.T. 1.E+02	L.T. 1.E+02
TH-228	L.T. 8.E+00	L.T. 8.E+00	L.T. 1.E+01	L.T. 1.E+01
TRITIUM ANALYSIS:				
H-3	L.T. 2.E+02	L.T. 2.E+02	L.T. 2.E+02	L.T. 2.E+02

VII-6

NEBRASKA PUBLIC POWER DISTRICT

COOPER NUCLEAR STATION

EXPOSURE PATHWAY - INGESTION

WATER - GROUND

(PCI/LITER)

STATION NUMBER 11

DATE COLLECTED:	11/07/06	12/05/06
RADIOCHEMICAL ANALYSIS:		
I-131	L.T. 5.E-01	L.T. 4.E-01
GAMMA SPECTRUM ANALYSIS:		
BE-7	L.T. 4.E+01	L.T. 4.E+01
K-40	L.T. 8.E+01	L.T. 4.E+01
MN-54	L.T. 3.E+00	L.T. 4.E+00
CO-58	L.T. 4.E+00	L.T. 4.E+00
FE-59	L.T. 9.E+00	L.T. 9.E+00
CO-60	L.T. 3.E+00	L.T. 3.E+00
ZN-65	L.T. 7.E+00	L.T. 9.E+00
ZR-95	L.T. 7.E+00	L.T. 9.E+00
RU-103	L.T. 6.E+00	L.T. 6.E+00
RU-106	L.T. 3.E+01	L.T. 4.E+01
I-131	L.T. 4.E+01	L.T. 1.E+01
CS-134	L.T. 3.E+00	L.T. 4.E+00
CS-137	L.T. 3.E+00	L.T. 5.E+00
BA-140	L.T. 5.E+01	L.T. 4.E+01
CE-141	L.T. 9.E+00	L.T. 1.E+01
CE-144	L.T. 3.E+01	L.T. 3.E+01
RA-226	L.T. 9.E+01	L.T. 1.E+02
TH-228	L.T. 7.E+00	L.T. 9.E+00
TRITIUM ANALYSIS:		
H-3	L.T. 2.E+02	L.T. 2.E+02

VII-6

NEBRASKA PUBLIC POWER DISTRICT

COOPER NUCLEAR STATION

EXPOSURE PATHWAY - INGESTION

WATER - GROUND

(PCI/LITER)

STATION NUMBER 47

DATE COLLECTED:	01/10/06	04/10/06	05/23/06 (a)	06/12/06
RADIOCHEMICAL ANALYSIS:				
I-131	L.T. 4.E-01	L.T. 7.E-01	L.T. 3.E-01	L.T. 2.E+00 (b)
GAMMA SPECTRUM ANALYSIS:				
BE-7	L.T. 7.E+01	L.T. 8.E+01	L.T. 4.E+01	L.T. 7.E+01
K-40	L.T. 1.E+02	L.T. 1.E+02	L.T. 3.E+01	L.T. 7.E+01
MN-54	L.T. 8.E+00	L.T. 8.E+00	L.T. 3.E+00	L.T. 7.E+00
CO-58	L.T. 8.E+00	L.T. 8.E+00	L.T. 4.E+00	L.T. 7.E+00
FE-59	L.T. 2.E+01	L.T. 2.E+01	L.T. 1.E+01	L.T. 2.E+01
CO-60	L.T. 9.E+00	L.T. 1.E+01	L.T. 4.E+00	L.T. 6.E+00
ZN-65	L.T. 3.E+01	L.T. 2.E+01	L.T. 8.E+00	L.T. 1.E+01
ZR-95	L.T. 1.E+01	L.T. 2.E+01	L.T. 8.E+00	L.T. 1.E+01
RU-103	L.T. 9.E+00	L.T. 1.E+01	L.T. 6.E+00	L.T. 9.E+00
RU-106	L.T. 8.E+01	L.T. 8.E+01	L.T. 3.E+01	L.T. 6.E+01
I-131	L.T. 1.E+01	L.T. 2.E+01	L.T. 4.E+01	L.T. 2.E+01
CS-134	L.T. 1.E+01	L.T. 1.E+01	L.T. 4.E+00	L.T. 8.E+00
CS-137	L.T. 8.E+00	L.T. 1.E+01	L.T. 4.E+00	L.T. 8.E+00
BA-140	L.T. 4.E+01	L.T. 4.E+01	L.T. 6.E+01	L.T. 5.E+01
CE-141	L.T. 2.E+01	L.T. 2.E+01	L.T. 1.E+01	L.T. 1.E+01
CE-144	L.T. 6.E+01	L.T. 7.E+01	L.T. 3.E+01	L.T. 5.E+01
RA-226	L.T. 2.E+02	L.T. 2.E+02	L.T. 8.E+01	L.T. 2.E+02
TH-228	L.T. 2.E+01	L.T. 2.E+01	L.T. 6.E+00	L.T. 1.E+01
TRITIUM ANALYSIS:				
H-3	L.T. 2.E+02	L.T. 2.E+02	L.T. 2.E+02	L.T. 2.E+02

(a) Sampling changed from quarterly to monthly in May 2006.

(b) I-131 LLD Missed due to technical problems with the I-131 filter paper in the laboratory.

VII-6

NEBRASKA PUBLIC POWER DISTRICT

COOPER NUCLEAR STATION

EXPOSURE PATHWAY - INGESTION

WATER - GROUND

(PCI/LITER)

STATION NUMBER 47

DATE COLLECTED:	07/12/06	08/22/06	09/13/06	10/11/06
RADIOCHEMICAL ANALYSIS:				
I-131	L.T. 4.E-01	L.T. 4.E-01	L.T. 2.E-01	L.T. 6.E-01
GAMMA SPECTRUM ANALYSIS:				
BE-7	L.T. 4.E+01	L.T. 5.E+01	L.T. 5.E+01	L.T. 5.E+01
K-40	L.T. 4.E+01	L.T. 9.E+01	L.T. 6.E+01	L.T. 1.E+02
MN-54	L.T. 4.E+00	L.T. 5.E+00	L.T. 5.E+00	L.T. 5.E+00
CO-58	L.T. 5.E+00	L.T. 6.E+00	L.T. 6.E+00	L.T. 5.E+00
FE-59	L.T. 9.E+00	L.T. 1.E+01	L.T. 1.E+01	L.T. 1.E+01
CO-60	L.T. 5.E+00	L.T. 5.E+00	L.T. 5.E+00	L.T. 5.E+00
ZN-65	L.T. 1.E+01	L.T. 8.E+00	L.T. 1.E+01	L.T. 8.E+00
ZR-95	L.T. 8.E+00	L.T. 9.E+00	L.T. 1.E+01	L.T. 1.E+01
RU-103	L.T. 5.E+00	L.T. 7.E+00	L.T. 5.E+00	L.T. 7.E+00
RU-106	L.T. 4.E+01	L.T. 4.E+01	L.T. 5.E+01	L.T. 4.E+01
I-131	L.T. 8.E+00	L.T. 3.E+01	L.T. 9.E+00	L.T. 3.E+01
CS-134	L.T. 5.E+00	L.T. 4.E+00	L.T. 5.E+00	L.T. 4.E+00
CS-137	L.T. 5.E+00	L.T. 4.E+00	L.T. 5.E+00	L.T. 5.E+00
BA-140	L.T. 2.E+01	L.T. 4.E+01	L.T. 3.E+01	L.T. 4.E+01
CE-141	L.T. 8.E+00	L.T. 1.E+01	L.T. 1.E+01	L.T. 1.E+01
CE-144	L.T. 3.E+01	L.T. 4.E+01	L.T. 4.E+01	L.T. 3.E+01
RA-226	L.T. 1.E+02	L.T. 1.E+02	L.T. 2.E+02	L.T. 1.E+02
TH-228	L.T. 8.E+00	L.T. 1.E+01	L.T. 1.E+01	L.T. 7.E+00
TRITIUM ANALYSIS:				
H-3	L.T. 2.E+02	L.T. 2.E+02	L.T. 2.E+02	L.T. 2.E+02

VII-6

NEBRASKA PUBLIC POWER DISTRICT

COOPER NUCLEAR STATION

EXPOSURE PATHWAY - INGESTION

WATER - GROUND

(PCI/LITER)

STATION NUMBER 47

DATE COLLECTED:	11/07/06	12/05/06
RADIOCHEMICAL ANALYSIS:		
I-131	L.T. 6.E-01	L.T. 6.E-01
GAMMA SPECTRUM ANALYSIS:		
BE-7	L.T. 3.E+01	L.T. 5.E+01
K-40	6.23E+01 ± 4.05E+01	L.T. 5.E+01
MN-54	L.T. 3.E+00	L.T. 5.E+00
CO-58	L.T. 4.E+00	L.T. 4.E+00
FE-59	L.T. 8.E+00	L.T. 1.E+01
CO-60	L.T. 3.E+00	L.T. 5.E+00
ZN-65	L.T. 5.E+00	L.T. 8.E+00
ZR-95	L.T. 6.E+00	L.T. 9.E+00
RU-103	L.T. 5.E+00	L.T. 6.E+00
RU-106	L.T. 3.E+01	L.T. 4.E+01
I-131	L.T. 4.E+01	L.T. 1.E+01
CS-134	L.T. 3.E+00	L.T. 4.E+00
CS-137	L.T. 3.E+00	L.T. 5.E+00
BA-140	L.T. 5.E+01	L.T. 3.E+01
CE-141	L.T. 8.E+00	L.T. 1.E+01
CE-144	L.T. 2.E+01	L.T. 3.E+01
RA-226	L.T. 6.E+01	L.T. 9.E+01
TH-228	L.T. 5.E+00	L.T. 9.E+00
TRITIUM ANALYSIS:		
H-3	L.T. 2.E+02	L.T. 2.E+02

VII-7

NEBRASKA PUBLIC POWER DISTRICT

COOPER NUCLEAR STATION

EXPOSURE PATHWAY - INGESTION

WATER - RIVER

(PCI/LITER)

STATION NUMBER 28

DATE COLLECTED:	01/03/06	02/06/06	03/07/06	04/03/06
GAMMA SPECTRUM ANALYSIS:				
BE-7	L.T. 7.E+01	L.T. 8.E+01	L.T. 9.E+01	L.T. 2.E+01
K-40	L.T. 7.E+01	L.T. 1.E+02	L.T. 9.E+01	L.T. 2.E+01
MN-54	L.T. 8.E+00	L.T. 7.E+00	L.T. 1.E+01	L.T. 3.E+00
CO-58	L.T. 9.E+00	L.T. 9.E+00	L.T. 1.E+01	L.T. 3.E+00
FE-59	L.T. 2.E+01	L.T. 2.E+01	L.T. 2.E+01	L.T. 5.E+00
CO-60	L.T. 7.E+00	L.T. 7.E+00	L.T. 1.E+01	L.T. 3.E+00
ZN-65	L.T. 2.E+01	L.T. 2.E+01	L.T. 2.E+01	L.T. 5.E+00
ZR-95	L.T. 1.E+01	L.T. 2.E+01	L.T. 2.E+01	L.T. 5.E+00
RU-103	L.T. 9.E+00	L.T. 9.E+00	L.T. 1.E+01	L.T. 3.E+00
RU-106	L.T. 7.E+01	L.T. 7.E+01	L.T. 1.E+02	L.T. 2.E+01
I-131	L.T. 1.E+01	L.T. 1.E+01	L.T. 2.E+01	L.T. 5.E+00
CS-134	L.T. 9.E+00	L.T. 9.E+00	L.T. 1.E+01	L.T. 3.E+00
CS-137	L.T. 9.E+00	L.T. 9.E+00	L.T. 1.E+01	L.T. 3.E+00
BA-140	L.T. 4.E+01	L.T. 3.E+01	L.T. 4.E+01	L.T. 1.E+01
CE-141	L.T. 1.E+01	L.T. 1.E+01	L.T. 2.E+01	L.T. 5.E+00
CE-144	L.T. 6.E+01	L.T. 6.E+01	L.T. 6.E+01	L.T. 2.E+01
RA-226	L.T. 2.E+02	L.T. 2.E+02	L.T. 2.E+02	L.T. 6.E+01
TH-228	L.T. 1.E+01	L.T. 2.E+01	L.T. 2.E+01	L.T. 5.E+00
TRITIUM ANALYSIS:				
H-3, MONTHLY				
H-3, QUARTERLY			01/03 - 03/07	
			L.T. 2.E+02	

VII-7

NEBRASKA PUBLIC POWER DISTRICT

COOPER NUCLEAR STATION

EXPOSURE PATHWAY - INGESTION

WATER - RIVER

(PCI/LITER)

STATION NUMBER 28

DATE COLLECTED:	05/02/06	06/06/06	07/12/06	08/08/06
GAMMA SPECTRUM ANALYSIS:				
BE-7	L.T. 5.E+01	L.T. 6.E+01	L.T. 3.E+01	L.T. 4.E+01
K-40	L.T. 1.E+02	L.T. 5.E+01	4.54E+01 ± 2.89E+01	L.T. 3.E+01
MN-54	L.T. 7.E+00	L.T. 5.E+00	L.T. 3.E+00	L.T. 4.E+00
CO-58	L.T. 6.E+00	L.T. 6.E+00	L.T. 3.E+00	L.T. 4.E+00
FE-59	L.T. 1.E+01	L.T. 1.E+01	L.T. 6.E+00	L.T. 9.E+00
CO-60	L.T. 6.E+00	L.T. 5.E+00	L.T. 3.E+00	L.T. 3.E+00
ZN-65	L.T. 1.E+01	L.T. 1.E+01	L.T. 6.E+00	L.T. 6.E+00
ZR-95	L.T. 1.E+01	L.T. 1.E+01	L.T. 5.E+00	L.T. 8.E+00
RU-103	L.T. 7.E+00	L.T. 7.E+00	L.T. 3.E+00	L.T. 5.E+00
RU-106	L.T. 6.E+01	L.T. 5.E+01	L.T. 2.E+01	L.T. 3.E+01
I-131	L.T. 1.E+01	L.T. 2.E+01	L.T. 1.E+01	L.T. 3.E+01
CS-134	L.T. 7.E+00	L.T. 6.E+00	L.T. 3.E+00	L.T. 3.E+00
CS-137	L.T. 7.E+00	L.T. 6.E+00	L.T. 3.E+00	L.T. 3.E+00
BA-140	L.T. 3.E+01	L.T. 5.E+01	L.T. 2.E+01	L.T. 5.E+01
CE-141	L.T. 1.E+01	L.T. 1.E+01	L.T. 6.E+00	L.T. 8.E+00
CE-144	L.T. 4.E+01	L.T. 5.E+01	L.T. 2.E+01	L.T. 2.E+01
RA-226	L.T. 1.E+02	L.T. 1.E+02	L.T. 6.E+01	L.T. 9.E+01
TH-228	L.T. 1.E+01	L.T. 1.E+01	L.T. 5.E+00	L.T. 6.E+00

TRITIUM ANALYSIS:	06/06/06	07/12/06	08/08/06
H-3, MONTHLY	L.T. 2.E+02	L.T. 3.E+02	L.T. 2.E+02

H-3, QUARTERLY	04/03-06/06
	L.T. 2.E+02

VII-7

NEBRASKA PUBLIC POWER DISTRICT

COOPER NUCLEAR STATION

EXPOSURE PATHWAY - INGESTION

WATER - RIVER

(PCI/LITER)

STATION NUMBER 28

DATE COLLECTED:	09/05/06	10/03/06	11/07/06	12/05/06
GAMMA SPECTRUM ANALYSIS:				
BE-7	L.T. 2.E+01	L.T. 5.E+01	L.T. 3.E+01	L.T. 4.E+01
K-40	L.T. 2.E+01	L.T. 5.E+01	L.T. 3.E+01	L.T. 1.E+02
MN-54	L.T. 2.E+00	L.T. 5.E+00	L.T. 3.E+00	L.T. 5.E+00
CO-58	L.T. 3.E+00	L.T. 6.E+00	L.T. 4.E+00	L.T. 5.E+00
FE-59	L.T. 6.E+00	L.T. 1.E+01	L.T. 8.E+00	L.T. 9.E+00
CO-60	L.T. 2.E+00	L.T. 5.E+00	L.T. 3.E+00	L.T. 5.E+00
ZN-65	L.T. 6.E+00	L.T. 1.E+01	L.T. 6.E+00	L.T. 9.E+00
ZR-95	L.T. 5.E+00	L.T. 1.E+01	L.T. 6.E+00	L.T. 9.E+00
RU-103	L.T. 3.E+00	L.T. 7.E+00	L.T. 4.E+00	L.T. 6.E+00
RU-106	L.T. 2.E+01	L.T. 5.E+01	L.T. 3.E+01	L.T. 5.E+01
I-131	L.T. 1.E+01	L.T. 2.E+01	L.T. 2.E+01	L.T. 1.E+01
CS-134	L.T. 2.E+00	L.T. 5.E+00	L.T. 3.E+00	L.T. 5.E+00
CS-137	L.T. 2.E+00	L.T. 6.E+00	L.T. 3.E+00	L.T. 5.E+00
BA-140	L.T. 2.E+01	L.T. 4.E+01	L.T. 3.E+01	L.T. 3.E+01
CE-141	L.T. 6.E+00	L.T. 1.E+01	L.T. 7.E+00	L.T. 1.E+01
CE-144	L.T. 2.E+01	L.T. 4.E+01	L.T. 2.E+01	L.T. 4.E+01
RA-226	L.T. 6.E+01	L.T. 1.E+02	L.T. 7.E+01	L.T. 1.E+02
TH-228	L.T. 5.E+00	L.T. 1.E+01	L.T. 6.E+00	L.T. 9.E+00
TRITIUM ANALYSIS:	09/05/06	10/03/06	11/07/06	12/05/06
H-3, MONTHLY	L.T. 2.E+02	L.T. 2.E+02	L.T. 2.E+02	L.T. 2.E+02
H-3, QUARTERLY	07/12-09/05			10/03-12/05
	L.T. 1.E+02			L.T. 2.E+02

VII-7

NEBRASKA PUBLIC POWER DISTRICT

COOPER NUCLEAR STATION

EXPOSURE PATHWAY - INGESTION

WATER - RIVER

(PCI/LITER)

STATION NUMBER 35

DATE COLLECTED:	01/03/06	02/06/06	03/07/06	04/03/06
GAMMA SPECTRUM ANALYSIS:				
BE-7	L.T. 6.E+01	L.T. 7.E+01	L.T. 6.E+01	L.T. 2.E+01
K-40	L.T. 1.E+02	L.T. 7.E+01	L.T. 6.E+01	L.T. 2.E+01
MN-54	L.T. 6.E+00	L.T. 7.E+00	L.T. 7.E+00	L.T. 2.E+00
CO-58	L.T. 6.E+00	L.T. 7.E+00	L.T. 7.E+00	L.T. 2.E+00
FE-59	L.T. 1.E+01	L.T. 2.E+01	L.T. 1.E+01	L.T. 5.E+00
CO-60	L.T. 7.E+00	L.T. 8.E+00	L.T. 8.E+00	L.T. 2.E+00
ZN-65	L.T. 2.E+01	L.T. 2.E+01	L.T. 2.E+01	L.T. 5.E+00
ZR-95	L.T. 1.E+01	L.T. 1.E+01	L.T. 1.E+01	L.T. 4.E+00
RU-103	L.T. 7.E+00	L.T. 9.E+00	L.T. 8.E+00	L.T. 3.E+00
RU-106	L.T. 6.E+01	L.T. 6.E+01	L.T. 6.E+01	L.T. 2.E+01
I-131	L.T. 1.E+01	L.T. 1.E+01	L.T. 1.E+01	L.T. 4.E+00
CS-134	L.T. 8.E+00	L.T. 1.E+01	L.T. 7.E+00	L.T. 3.E+00
CS-137	L.T. 7.E+00	L.T. 8.E+00	L.T. 8.E+00	L.T. 3.E+00
BA-140	L.T. 3.E+01	L.T. 3.E+01	L.T. 3.E+01	L.T. 1.E+01
CE-141	L.T. 1.E+01	L.T. 1.E+01	L.T. 1.E+01	L.T. 4.E+00
CE-144	L.T. 4.E+01	L.T. 6.E+01	L.T. 5.E+01	L.T. 2.E+01
RA-226	L.T. 2.E+02	L.T. 2.E+02	L.T. 1.E+02	L.T. 6.E+01
TH-228	L.T. 1.E+01	L.T. 1.E+01	L.T. 1.E+01	4.19E+00 ± 2.59E+00
TRITIUM ANALYSIS:				
H-3, MONTHLY				
H-3, QUARTERLY			01/03 - 03/07	
			L.T. 2.E+02	

VII-7

NEBRASKA PUBLIC POWER DISTRICT

COOPER NUCLEAR STATION

EXPOSURE PATHWAY - INGESTION

WATER - RIVER

(PCI/LITER)

STATION NUMBER 35

DATE COLLECTED:	05/02/06	06/06/06	07/12/06	08/08/06
GAMMA SPECTRUM ANALYSIS:				
BE-7	L.T. 6.E+01	L.T. 4.E+01	L.T. 3.E+01	L.T. 2.E+01
K-40	L.T. 6.E+01	1.18E+02 ± 4.48E+01	2.23E+02 ± 2.38E+01	L.T. 1.E+01
MN-54	L.T. 7.E+00	L.T. 5.E+00	L.T. 3.E+00	L.T. 2.E+00
CO-58	L.T. 6.E+00	L.T. 5.E+00	L.T. 3.E+00	L.T. 2.E+00
FE-59	L.T. 2.E+01	L.T. 1.E+01	L.T. 6.E+00	L.T. 4.E+00
CO-60	L.T. 9.E+00	L.T. 5.E+00	L.T. 3.E+00	L.T. 1.E+00
ZN-65	L.T. 2.E+01	L.T. 1.E+01	L.T. 6.E+00	L.T. 3.E+00
ZR-95	L.T. 1.E+01	L.T. 9.E+00	L.T. 5.E+00	L.T. 3.E+00
RU-103	L.T. 9.E+00	L.T. 6.E+00	L.T. 4.E+00	L.T. 2.E+00
RU-106	L.T. 6.E+01	L.T. 4.E+01	L.T. 3.E+01	L.T. 1.E+01
I-131	L.T. 1.E+01	L.T. 2.E+01	L.T. 1.E+01	L.T. 1.E+01
CS-134	L.T. 7.E+00	L.T. 4.E+00	L.T. 3.E+00	L.T. 1.E+00
CS-137	L.T. 7.E+00	L.T. 5.E+00	L.T. 3.E+00	L.T. 2.E+00
BA-140	L.T. 4.E+01	L.T. 4.E+01	L.T. 2.E+01	L.T. 2.E+01
CE-141	L.T. 1.E+01	L.T. 1.E+01	L.T. 7.E+00	L.T. 4.E+00
CE-144	L.T. 5.E+01	L.T. 3.E+01	L.T. 2.E+01	L.T. 1.E+01
RA-226	L.T. 2.E+02	L.T. 1.E+02	L.T. 6.E+01	L.T. 3.E+01
TH-228	L.T. 1.E+01	L.T. 8.E+00	L.T. 5.E+00	L.T. 3.E+00

TRITIUM ANALYSIS:	06/06/06	07/12/06	08/08/06
H-3, MONTHLY	L.T. 2.E+02	L.T. 2.E+02	L.T. 2.E+02
H-3, QUARTERLY	04/03 - 06/06 L.T. 2.E+02		

VII-7

NEBRASKA PUBLIC POWER DISTRICT

COOPER NUCLEAR STATION

EXPOSURE PATHWAY - INGESTION

WATER - RIVER

(PCI/LITER)

STATION NUMBER 35

DATE COLLECTED:	09/05/06	10/03/06	11/07/06	12/05/06
GAMMA SPECTRUM ANALYSIS:				
BE-7	L.T. 2.E+01	L.T. 6.E+01	L.T. 4.E+01	L.T. 5.E+01
K-40	L.T. 2.E+01	L.T. 1.E+02	L.T. 6.E+01	L.T. 9.E+01
MN-54	L.T. 2.E+00	L.T. 6.E+00	L.T. 3.E+00	L.T. 4.E+00
CO-58	L.T. 2.E+00	L.T. 6.E+00	L.T. 4.E+00	L.T. 5.E+00
FE-59	L.T. 6.E+00	L.T. 1.E+01	L.T. 9.E+00	L.T. 1.E+01
CO-60	L.T. 2.E+00	L.T. 8.E+00	L.T. 3.E+00	L.T. 5.E+00
ZN-65	L.T. 5.E+00	L.T. 1.E+01	L.T. 6.E+00	L.T. 1.E+01
ZR-95	L.T. 5.E+00	L.T. 1.E+01	L.T. 7.E+00	L.T. 1.E+01
RU-103	L.T. 3.E+00	L.T. 7.E+00	L.T. 5.E+00	L.T. 6.E+00
RU-106	L.T. 2.E+01	L.T. 5.E+01	L.T. 3.E+01	L.T. 4.E+01
I-131	L.T. 1.E+01	L.T. 2.E+01	L.T. 2.E+01	L.T. 1.E+01
CS-134	L.T. 2.E+00	L.T. 5.E+00	L.T. 4.E+00	L.T. 5.E+00
CS-137	L.T. 2.E+00	L.T. 6.E+00	L.T. 4.E+00	L.T. 5.E+00
BA-140	L.T. 3.E+01	L.T. 5.E+01	L.T. 4.E+01	L.T. 3.E+01
CE-141	L.T. 6.E+00	L.T. 1.E+01	L.T. 9.E+00	L.T. 1.E+01
CE-144	L.T. 2.E+01	L.T. 4.E+01	L.T. 3.E+01	L.T. 4.E+01
RA-226	L.T. 5.E+01	L.T. 1.E+02	L.T. 8.E+01	L.T. 1.E+02
TH-228	L.T. 5.E+00	L.T. 1.E+01	L.T. 6.E+00	L.T. 8.E+00
TRITIUM ANALYSIS:	09/05/06	10/03/06	11/07/06	12/05/06
H-3, MONTHLY	L.T. 2.E+02	L.T. 2.E+02	L.T. 2.E+02	L.T. 2.E+02
H-3, QUARTERLY	07/12 - 09/05 L.T. 1.E+02			10/03 - 12/13 L.T. 2.E+02

VII-8

NEBRASKA PUBLIC POWER DISTRICT

COOPER NUCLEAR STATION

EXPOSURE PATHWAY - THERMOLUMINESCENT DOSIMETRY - TLD

millirem/Quarter 2006

Sample Nuclide	Station Number	First Quarter 01/04-04/03	Second Quarter 04/03-07/05	Third Quarter 07/05-10/04	Fourth Quarter 10/04-01/10	Quarter Average ± 1 std dev.
TLD	01	19.7 ± 0.6	19.7 ± 0.6	22.3 ± 1.5	24.7 ± 0.6	21.6 ± 2.4
	02	19.0 ± 0.0	18.0 ± 0.0	22.3 ± 0.6	23.3 ± 0.6	20.7 ± 2.5
	03	20.7 ± 1.5	20.3 ± 1.2	22.3 ± 0.6	23.7 ± 0.6	21.8 ± 1.6
	04	20.3 ± 0.6	20.0 ± 1.0	26.0 ± 1.0	25.0 ± 0.0	22.8 ± 3.1
	05	22.0 ± 0.0	20.3 ± 0.6	21.7 ± 0.6	26.3 ± 2.3	22.6 ± 2.6
	06	19.7 ± 0.6	19.3 ± 0.6	22.5 ± 0.7	25.3 ± 0.6	21.7 ± 2.8
	07	20.3 ± 0.6	19.0 ± 0.0	22.7 ± 1.2	23.3 ± 0.6	21.3 ± 2.0
	08	20.0 ± 1.0	20.0 ± 1.0	26.7 ± 2.1	28.3 ± 1.5	23.8 ± 4.4
	09	18.3 ± 0.6	18.3 ± 0.6	21.7 ± 0.6	23.7 ± 0.6	20.5 ± 2.7
	10	20.0 ± 0.0	18.3 ± 1.5	22.7 ± 0.6	23.0 ± 1.0	21.0 ± 2.2
	20	21.3 ± 0.6	21.7 ± 0.6	24.7 ± 0.6	27.7 ± 0.6	23.9 ± 3.0
	44	23.0 ± 1.0	22.3 ± 0.6	26.0 ± 1.0	29.0 ± 1.0	25.1 ± 3.1
	56	20.3 ± 0.6	21.0 ± 1.0	23.0 ± 0.0	26.0 ± 0.0	22.6 ± 2.6
	58	22.7 ± 3.8	20.0 ± 1.0	23.3 ± 1.2	25.7 ± 0.6	22.9 ± 2.3
	59	21.0 ± 1.0	20.7 ± 0.6	23.7 ± 0.6	27.7 ± 2.5	23.3 ± 3.2
	66	20.5 ± 0.7	20.7 ± 0.6	26.0 ± 2.7	27.3 ± 0.6	23.6 ± 3.5
	67	21.0 ± 0.0	21.3 ± 0.6	23.7 ± 0.6	26.7 ± 0.6	23.2 ± 2.6
	71	22.0 ± 0.0	21.7 ± 0.6	23.7 ± 0.6	26.0 ± 1.0	23.4 ± 2.0
	79	20.0 ± 1.0	21.0 ± 1.7	24.0 ± 1.0	29.0 ± 1.0	23.5 ± 4.0
	80	21.7 ± 0.6	21.7 ± 0.6	24.7 ± 1.2	27.0 ± 0.0	23.8 ± 2.6
	81	21.0 ± 0.0	22.0 ± 1.7	22.7 ± 0.6	28.3 ± 0.6	23.5 ± 3.3
	82	21.3 ± 0.6	23.0 ± 1.0	23.7 ± 0.6	24.7 ± 0.6	23.2 ± 1.4
	83	22.3 ± 0.6	21.0 ± 1.0	24.3 ± 0.6	29.3 ± 4.2	24.2 ± 3.6
	84	20.3 ± 0.6	21.7 ± 0.6	24.3 ± 0.6	28.0 ± 0.0	23.6 ± 3.4
	85	21.0 ± 0.0	21.0 ± 0.0	23.3 ± 0.6	23.0 ± 0.0	22.1 ± 1.2

VII-8

NEBRASKA PUBLIC POWER DISTRICT

COOPER NUCLEAR STATION

EXPOSURE PATHWAY - THERMOLUMINESCENT DOSIMETRY - TLD

millirem/Quarter 2006

Sample Nuclide	Station Number	First Quarter 01/04-04/03	Second Quarter 04/03-07/05	Third Quarter 07/05-10/04	Fourth Quarter 10/04-01/10	Quarter Average ± 1 std dev.
TLD	86	20.0 ± 0.0	20.7 ± 0.6	24.3 ± 1.5	25.0 ± 0.0	22.5 ± 2.5
	87	20.0 ± 0.0	19.3 ± 0.6	23.0 ± 1.0	25.0 ± 0.0	21.8 ± 2.7
	88	20.7 ± 0.6	19.3 ± 0.6	24.0 ± 1.0	26.3 ± 0.6	22.6 ± 3.2
	89	20.7 ± 0.6	20.0 ± 0.0	23.0 ± 0.0	33.3 ± 2.5	24.3 ± 6.2
	90	22.0 ± 0.0	21.3 ± 1.2	23.3 ± 0.6	26.7 ± 0.6	23.3 ± 2.4
	91	20.0 ± 0.0	18.7 ± 0.6	22.3 ± 0.6	25.3 ± 1.2	21.6 ± 2.9
	94	30.7 ± 8.5	21.3 ± 0.6	23.3 ± 0.6	25.3 ± 0.6	25.2 ± 4.0
Average/Quarter		21.0 ± 2.0 mrem/100 days	20.5 ± 1.2 mrem/84 days	23.6 ± 1.3 mrem/139 days	26.2 ± 2.2 mrem/84 days	
Average/Day		0.210 ± 0.02 mrem/day	0.244 ± 0.01 mrem/day	0.170 ± 0.01 mrem/day	0.312 ± 0.03 mrem/day	
Range		(6.5-16.1) mrem/100 days	(1.3-11.7) mrem/84 days	(6.5-14.2) mrem/139 days	(8.2-20.6) mrem/84 days	
Detection/Total		32/32	32/32	32/32	32/32	

VII-9

NEBRASKA PUBLIC POWER DISTRICT

COOPER NUCLEAR STATION

EXPOSURE PATHWAY - INGESTION

VEGETATION-TERRESTRIAL, BROADLEAF

(PCI/KG WET)

STATION NUMBER 28

DATE COLLECTED (a)

RADIOCHEMICAL ANALYSIS:

I-131

GAMMA SPECTRUM ANALYSIS:

BE-7
K-40
MN-54
CO-58
FE-59
CO-60
ZN-65
ZR-95
RU-103
RU-106
I-131
CS-134
CS-137
BA-140
CE-141
CE-144
RA-226
TH-228

(a) No vegetation samples were collected from Station 28 in 2006.

VII-9

NEBRASKA PUBLIC POWER DISTRICT

COOPER NUCLEAR STATION

EXPOSURE PATHWAY - INGESTION

VEGETATION-TERRESTRIAL, BROADLEAF

(PCI/KG WET)

STATION NUMBER 35

DATE COLLECTED	05/16/06 (a)	05/16/06 (a)	05/16/06 (a)	06/06/06
RADIOCHEMICAL ANALYSIS:				
I-131				L.T. 4.E+01
GAMMA SPECTRUM ANALYSIS:				
BE-7				1.61E+03 ± 8.39E+01
K-40				6.94E+03 ± 1.77E+02
MN-54				L.T. 7.E+00
CO-58				L.T. 9.E+00
FE-59				L.T. 2.E+01
CO-60				L.T. 7.E+00
ZN-65				L.T. 2.E+01
ZR-95				L.T. 2.E+01
RU-103				L.T. 1.E+01
RU-106				L.T. 7.E+01
I-131				L.T. 1.E+02 (b)
CS-134				L.T. 7.E+00
CS-137				L.T. 7.E+00
BA-140				L.T. 1.E+02
CE-141				L.T. 2.E+01
CE-144				L.T. 4.E+01
RA-226				L.T. 2.E+02
TH-228				2.19E+01 ± 1.33E+01

(a) No broadleaf vegetation was available.

(b) Gamma I-131 LLD was missed due to delay in counting. I-131 by chemical separation met I-131 LLD requirement.

VII-9

NEBRASKA PUBLIC POWER DISTRICT

COOPER NUCLEAR STATION

EXPOSURE PATHWAY - INGESTION

VEGETATION-TERRESTRIAL, BROADLEAF

(PCI/KG WET)

STATION NUMBER 35

DATE COLLECTED	06/06/06	06/06/06	07/18/06 (a)	07/18/06 (a)
RADIOCHEMICAL ANALYSIS:				
I-131	L.T. 3.E+01	L.T. 4.E+01		
GAMMA SPECTRUM ANALYSIS:				
BE-7	1.55E+03 ± 1.27E+02	1.55E+03 ± 1.12E+02		
K-40	7.88E+03 ± 2.36E+02	5.50E+03 ± 1.71E+02		
MN-54	L.T. 1.E+01	L.T. 8.E+00		
CO-58	L.T. 2.E+01	L.T. 1.E+01		
FE-59	L.T. 4.E+01	L.T. 2.E+01		
CO-60	L.T. 1.E+01	L.T. 8.E+00		
ZN-65	L.T. 3.E+01	L.T. 2.E+01		
ZR-95	L.T. 3.E+01	L.T. 2.E+01		
RU-103	L.T. 2.E+01	L.T. 1.E+01		
RU-106	L.T. 1.E+02	L.T. 7.E+01		
I-131	L.T. 2.E+02 (b)	L.T. 1.E+02 (b)		
CS-134	L.T. 1.E+01	L.T. 8.E+00		
CS-137	L.T. 1.E+01	L.T. 8.E+00		
BA-140	L.T. 2.E+02	L.T. 2.E+02		
CE-141	L.T. 4.E+01	L.T. 3.E+01		
CE-144	L.T. 8.E+01	L.T. 7.E+01		
RA-226	L.T. 3.E+02	L.T. 2.E+02		
TH-228	4.61E+01 ± 1.79E+01	2.43E+01 ± 1.47E+01		

(a) No broadleaf vegetation was available.

(b) Gamma I-131 LLD was missed due to delay in counting. I-131 by chemical separation met I-131 LLD requirement.

VII-9

NEBRASKA PUBLIC POWER DISTRICT

COOPER NUCLEAR STATION

EXPOSURE PATHWAY - INGESTION

VEGETATION-TERRESTRIAL, BROADLEAF

(PCI/KG WET)

STATION NUMBER 35

DATE COLLECTED	07/18/06	08/30/06	08/30/06	08/30/06
	(a)	(a)	(a)	(a)
RADIOCHEMICAL ANALYSIS:				
I-131				
GAMMA SPECTRUM ANALYSIS:				
BE-7				
K-40				
MN-54				
CO-58				
FE-59				
CO-60				
ZN-65				
ZR-95				
RU-103				
RU-106				
I-131				
CS-134				
CS-137				
BA-140				
CE-141				
CE-144				
RA-226				
TH-228				

(a) No broadleaf vegetation was available.

VII-9

NEBRASKA PUBLIC POWER DISTRICT

COOPER NUCLEAR STATION

EXPOSURE PATHWAY - INGESTION

VEGETATION-TERRESTRIAL, BROADLEAF

(PCI/KG WET)

STATION NUMBER 35

DATE COLLECTED	09/13/06	09/13/06	09/13/06
RADIOCHEMICAL ANALYSIS:			
I-131	L.T. 3.E+01	L.T. 3.E+01	L.T. 3.E+01
GAMMA SPECTRUM ANALYSIS:			
BE-7	5.83E+02 ± 1.70E+02	5.78E+02 ± 1.54E+02	6.01E+02 ± 1.52E+02
K-40	4.44E+03 ± 4.20E+02	5.28E+03 ± 3.77E+02	4.82E+03 ± 4.27E+02
MN-54	L.T. 1.E+01	L.T. 1.E+01	L.T. 1.E+01
CO-58	L.T. 2.E+01	L.T. 1.E+01	L.T. 2.E+01
FE-59	L.T. 4.E+01	L.T. 4.E+01	L.T. 4.E+01
CO-60	L.T. 2.E+01	L.T. 1.E+01	L.T. 2.E+01
ZN-65	L.T. 3.E+01	L.T. 3.E+01	L.T. 4.E+01
ZR-95	L.T. 3.E+01	L.T. 2.E+01	L.T. 3.E+01
RU-103	L.T. 1.E+01	L.T. 1.E+01	L.T. 1.E+01
RU-106	L.T. 1.E+02	L.T. 1.E+02	L.T. 1.E+02
I-131	L.T. 3.E+01	L.T. 4.E+01	L.T. 4.E+01
CS-134	L.T. 1.E+01	L.T. 1.E+01	L.T. 1.E+01
CS-137	L.T. 2.E+01	L.T. 1.E+01	L.T. 2.E+01
BA-140	L.T. 1.E+02	L.T. 9.E+01	L.T. 1.E+02
CE-141	L.T. 2.E+01	L.T. 2.E+01	L.T. 3.E+01
CE-144	L.T. 7.E+01	L.T. 8.E+01	L.T. 1.E+02
RA-226	L.T. 3.E+02	L.T. 3.E+02	L.T. 3.E+02
TH-228	L.T. 2.E+01	L.T. 2.E+01	L.T. 3.E+01

VII-9

NEBRASKA PUBLIC POWER DISTRICT

COOPER NUCLEAR STATION

EXPOSURE PATHWAY - INGESTION

VEGETATION-TERRESTRIAL, BROADLEAF

(PCI/KG WET)

STATION NUMBER 96

DATE COLLECTED	05/16/06	05/16/06	05/16/06	06/16/06	
RADIOCHEMICAL ANALYSIS:					
I-131	L.T. 2.E+01	L.T. 2.E+01	L.T. 3.E+01	L.T. 4.E+01	
GAMMA SPECTRUM ANALYSIS:					
BE-7	2.21E+02 ± 1.37E+02	2.96E+02 ± 1.08E+02	1.53E+02 ± 8.59E+01	9.16E+02 ± 2.96E+02	
K-40	7.09E+03 ± 3.42E+02	5.47E+03 ± 3.34E+02	6.87E+03 ± 2.13E+02	5.88E+03 ± 6.27E+02	
MN-54	L.T. 2.E+01	L.T. 2.E+01	L.T. 1.E+01	L.T. 3.E+01	
CO-58	L.T. 2.E+01	L.T. 2.E+01	L.T. 1.E+01	L.T. 4.E+01	
FE-59	L.T. 5.E+01	L.T. 4.E+01	L.T. 3.E+01	L.T. 1.E+02	
CO-60	L.T. 2.E+01	L.T. 2.E+01	L.T. 1.E+01	L.T. 3.E+01	
ZN-65	L.T. 5.E+01	L.T. 5.E+01	L.T. 3.E+01	L.T. 9.E+01	
ZR-95	L.T. 4.E+01	L.T. 3.E+01	L.T. 2.E+01	L.T. 7.E+01	
RU-103	L.T. 2.E+01	L.T. 2.E+01	L.T. 1.E+01	L.T. 5.E+01	
RU-106	L.T. 2.E+02	L.T. 1.E+02	L.T. 9.E+01	L.T. 3.E+02	
I-131	L.T. 6.E+01	L.T. 6.E+01	L.T. 5.E+01	L.T. 4.E+02	(b)
CS-134	L.T. 2.E+01	L.T. 2.E+01	L.T. 1.E+01	L.T. 3.E+01	
CS-137	L.T. 2.E+01	L.T. 2.E+01	L.T. 1.E+01	L.T. 3.E+01	
BA-140	L.T. 1.E+02	L.T. 1.E+02	L.T. 1.E+02	L.T. 5.E+02	
CE-141	L.T. 3.E+01	L.T. 3.E+01	L.T. 2.E+01	L.T. 9.E+01	
CE-144	L.T. 1.E+02	L.T. 1.E+02	L.T. 7.E+01	L.T. 2.E+02	
RA-226	L.T. 3.E+02	L.T. 4.E+02	L.T. 2.E+02	L.T. 7.E+02	
TH-228	L.T. 3.E+01	L.T. 3.E+01	L.T. 2.E+01	L.T. 6.E+01	

(b) Gamma I-131 LLD was missed due to delay in counting. I-131 by chemical separation met I-131 LLD requirement.

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NEBRASKA PUBLIC POWER DISTRICT

COOPER NUCLEAR STATION

EXPOSURE PATHWAY - INGESTION

VEGETATION-TERRESTRIAL, BROADLEAF

(PCI/KG WET)

STATION NUMBER 96

DATE COLLECTED	06/16/06	06/16/06	07/18/06	07/18/06
RADIOCHEMICAL ANALYSIS:				
I-131	L.T. 4.E+01	L.T. 5.E+01	L.T. 3.E+01	L.T. 4.E+01
GAMMA SPECTRUM ANALYSIS:				
BE-7	9.14E+02 ± 4.37E+01	8.12E+02 ± 5.19E+01	1.96E+03 ± 1.21E+02	3.85E+03 ± 1.59E+02
K-40	6.51E+03 ± 1.15E+02	6.64E+03 ± 1.28E+02	7.22E+03 ± 2.50E+02	9.32E+03 ± 2.92E+02
MN-54	L.T. 5.E+00	L.T. 5.E+00	L.T. 1.E+01	L.T. 1.E+01
CO-58	L.T. 5.E+00	L.T. 6.E+00	L.T. 1.E+01	L.T. 1.E+01
FE-59	L.T. 1.E+01	L.T. 2.E+01	L.T. 3.E+01	L.T. 3.E+01
CO-60	L.T. 5.E+00	L.T. 5.E+00	L.T. 1.E+01	L.T. 1.E+01
ZN-65	L.T. 1.E+01	L.T. 1.E+01	L.T. 4.E+01	L.T. 3.E+01
ZR-95	L.T. 1.E+01	L.T. 1.E+01	L.T. 3.E+01	L.T. 2.E+01
RU-103	L.T. 7.E+00	L.T. 8.E+00	L.T. 2.E+01	L.T. 1.E+01
RU-106	L.T. 4.E+01	L.T. 5.E+01	L.T. 1.E+02	L.T. 1.E+02
I-131	L.T. 4.E+01	L.T. 6.E+01	L.T. 5.E+01	L.T. 4.E+01
CS-134	L.T. 4.E+00	L.T. 5.E+00	L.T. 2.E+01	L.T. 1.E+01
CS-137	L.T. 5.E+00	L.T. 5.E+00	L.T. 1.E+01	L.T. 1.E+01
BA-140	L.T. 6.E+01	L.T. 8.E+01	L.T. 9.E+01	L.T. 8.E+01
CE-141	L.T. 1.E+01	L.T. 2.E+01	L.T. 3.E+01	L.T. 2.E+01
CE-144	L.T. 4.E+01	L.T. 4.E+01	L.T. 9.E+01	L.T. 8.E+01
RA-226	L.T. 1.E+02	L.T. 1.E+02	L.T. 3.E+02	L.T. 3.E+02
TH-228	L.T. 9.E+00	L.T. 1.E+01	L.T. 2.E+01	L.T. 2.E+01

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NEBRASKA PUBLIC POWER DISTRICT

COOPER NUCLEAR STATION

EXPOSURE PATHWAY - INGESTION

VEGETATION-TERRESTRIAL, BROADLEAF

(PCI/KG WET)

STATION NUMBER 96

DATE COLLECTED	07/18/06	08/30/06	08/30/06	08/30/06
RADIOCHEMICAL ANALYSIS:				
I-131	L.T. 4.E+01	L.T. 3.E+01	L.T. 3.E+01	L.T. 4.E+01
GAMMA SPECTRUM ANALYSIS:				
BE-7	2.93E+03 ± 1.51E+02	2.76E+03 ± 1.21E+02	3.05E+03 ± 1.72E+02	4.06E+03 ± 2.00E+02
K-40	5.30E+03 ± 2.44E+02	7.30E+03 ± 2.42E+02	5.24E+03 ± 2.39E+02	7.88E+03 ± 3.21E+02
MN-54	L.T. 1.E+01	L.T. 8.E+00	L.T. 8.E+00	L.T. 8.E+00
CO-58	L.T. 1.E+01	L.T. 9.E+00	L.T. 9.E+00	L.T. 9.E+00
FE-59	L.T. 3.E+01	L.T. 2.E+01	L.T. 2.E+01	L.T. 2.E+01
CO-60	L.T. 1.E+01	L.T. 8.E+00	L.T. 9.E+00	L.T. 9.E+00
ZN-65	L.T. 3.E+01	L.T. 2.E+01	L.T. 2.E+01	L.T. 2.E+01
ZR-95	L.T. 2.E+01	L.T. 2.E+01	L.T. 2.E+01	L.T. 2.E+01
RU-103	L.T. 1.E+01	L.T. 9.E+00	L.T. 1.E+01	L.T. 1.E+01
RU-106	L.T. 1.E+02	L.T. 6.E+01	L.T. 7.E+01	L.T. 8.E+01
I-131	L.T. 4.E+01	L.T. 4.E+01	L.T. 5.E+01	L.T. 6.E+01
CS-134	L.T. 1.E+01	L.T. 7.E+00	L.T. 7.E+00	L.T. 8.E+00
CS-137	L.T. 1.E+01	L.T. 8.E+00	L.T. 8.E+00	L.T. 9.E+00
BA-140	L.T. 9.E+01	L.T. 7.E+01	L.T. 9.E+01	L.T. 1.E+02
CE-141	L.T. 2.E+01	L.T. 1.E+01	L.T. 2.E+01	L.T. 2.E+01
CE-144	L.T. 8.E+01	L.T. 4.E+01	L.T. 6.E+01	L.T. 6.E+01
RA-226	L.T. 3.E+02	L.T. 2.E+02	L.T. 2.E+02	L.T. 2.E+02
TH-228	L.T. 2.E+01	L.T. 1.E+01	L.T. 2.E+01	L.T. 2.E+01

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NEBRASKA PUBLIC POWER DISTRICT

COOPER NUCLEAR STATION

EXPOSURE PATHWAY - INGESTION

VEGETATION-TERRESTRIAL, BROADLEAF

(PCI/KG WET)

STATION NUMBER 96

DATE COLLECTED	09/13/06 (a)	09/13/06	09/13/06
RADIOCHEMICAL ANALYSIS:			
I-131			
GAMMA SPECTRUM ANALYSIS:			
BE-7			
K-40			
MN-54			
CO-58			
FE-59			
CO-60			
ZN-65			
ZR-95			
RU-103			
RU-106			
I-131			
CS-134			
CS-137			
BA-140			
CE-141			
CE-144			
RA-226			
TH-228			

(a) No broadleaf vegetation was available.

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NEBRASKA PUBLIC POWER DISTRICT

COOPER NUCLEAR STATION

EXPOSURE PATHWAY - INGESTION

VEGETATION-TERRESTRIAL, BROADLEAF

(PCI/KG WET)

STATION NUMBER 101

DATE COLLECTED	05/16/06	05/16/06	05/16/06	06/06/06	
RADIOCHEMICAL ANALYSIS:					
I-131	L.T. 4.E+01	L.T. 2.E+01	L.T. 1.E+01	L.T. 4.E+01	
GAMMA SPECTRUM ANALYSIS:					
BE-7	5.30E+02 ± 2.09E+02	4.06E+02 ± 1.85E+02	4.81E+02 ± 1.74E+02	1.22E+03 ± 5.60E+01	
K-40	5.96E+03 ± 5.35E+02	5.22E+03 ± 4.04E+02	4.86E+03 ± 4.34E+02	3.15E+03 ± 9.68E+01	
MN-54	L.T. 3.E+01	L.T. 2.E+01	L.T. 3.E+01	L.T. 5.E+00	
CO-58	L.T. 3.E+01	L.T. 3.E+01	L.T. 3.E+01	L.T. 6.E+00	
FE-59	L.T. 8.E+01	L.T. 7.E+01	L.T. 7.E+01	L.T. 2.E+01	
CO-60	L.T. 3.E+01	L.T. 2.E+01	L.T. 3.E+01	L.T. 5.E+00	
ZN-65	L.T. 8.E+01	L.T. 6.E+01	L.T. 7.E+01	L.T. 1.E+01	
ZR-95	L.T. 7.E+01	L.T. 5.E+01	L.T. 6.E+01	L.T. 1.E+01	
RU-103	L.T. 4.E+01	L.T. 3.E+01	L.T. 4.E+01	L.T. 9.E+00	
RU-106	L.T. 2.E+02	L.T. 2.E+02	L.T. 2.E+02	L.T. 5.E+01	
I-131	L.T. 2.E+02	L.T. 1.E+02	L.T. 1.E+02	L.T. 9.E+01	(b)
CS-134	L.T. 3.E+01	L.T. 3.E+01	L.T. 3.E+01	L.T. 6.E+00	
CS-137	L.T. 3.E+01	L.T. 2.E+01	L.T. 3.E+01	L.T. 5.E+00	
BA-140	L.T. 3.E+02	L.T. 2.E+02	L.T. 2.E+02	L.T. 1.E+02	
CE-141	L.T. 6.E+01	L.T. 5.E+01	L.T. 6.E+01	L.T. 2.E+01	
CE-144	L.T. 2.E+02	L.T. 2.E+02	L.T. 2.E+02	L.T. 4.E+01	
RA-226	L.T. 6.E+02	L.T. 5.E+02	L.T. 7.E+02	L.T. 1.E+02	
TH-228	L.T. 5.E+01	L.T. 4.E+01	L.T. 5.E+01	1.30E+01 ± 8.58E+00	

(b) Gamma I-131 LLD was missed due to delay in counting. I-131 by chemical separation met I-131 LLD requirement.

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NEBRASKA PUBLIC POWER DISTRICT

COOPER NUCLEAR STATION

EXPOSURE PATHWAY - INGESTION

VEGETATION-TERRESTRIAL, BROADLEAF

(PCI/KG WET)

STATION NUMBER 101

DATE COLLECTED	06/06/06	06/06/06	07/18/06	07/18/06
RADIOCHEMICAL ANALYSIS:				
I-131	L.T. 4.E+01	L.T. 3.E+01	L.T. 5.E+01	L.T. 5.E+01
GAMMA SPECTRUM ANALYSIS:				
BE-7	1.29E+03 ± 3.15E+02	1.44E+03 ± 1.30E+02	5.71E+03 ± 2.11E+02	2.81E+03 ± 1.33E+02
K-40	8.03E+03 ± 6.46E+02	7.39E+03 ± 2.29E+02	3.75E+03 ± 2.55E+02	6.07E+03 ± 2.46E+02
MN-54	L.T. 4.E+01	L.T. 1.E+01	L.T. 1.E+01	L.T. 1.E+01
CO-58	L.T. 5.E+01	L.T. 1.E+01	L.T. 2.E+01	L.T. 1.E+01
FE-59	L.T. 1.E+02	L.T. 4.E+01	L.T. 3.E+01	L.T. 3.E+01
CO-60	L.T. 4.E+01	L.T. 1.E+01	L.T. 1.E+01	L.T. 1.E+01
ZN-65	L.T. 1.E+02	L.T. 3.E+01	L.T. 3.E+01	L.T. 3.E+01
ZR-95	L.T. 9.E+01	L.T. 3.E+01	L.T. 3.E+01	L.T. 2.E+01
RU-103	L.T. 6.E+01	L.T. 2.E+01	L.T. 2.E+01	L.T. 1.E+01
RU-106	L.T. 4.E+02	L.T. 1.E+02	L.T. 1.E+02	L.T. 1.E+02
I-131	L.T. 6.E+02 (b)	L.T. 2.E+02 (b)	L.T. 5.E+01	L.T. 4.E+01
CS-134	L.T. 4.E+01	L.T. 1.E+01	L.T. 2.E+01	L.T. 1.E+01
CS-137	L.T. 4.E+01	L.T. 1.E+01	L.T. 2.E+01	L.T. 1.E+01
BA-140	L.T. 7.E+02	L.T. 2.E+02	L.T. 1.E+02	L.T. 8.E+01
CE-141	L.T. 1.E+02	L.T. 4.E+01	L.T. 3.E+01	L.T. 3.E+01
CE-144	L.T. 3.E+02	L.T. 8.E+01	L.T. 1.E+02	L.T. 8.E+01
RA-226	L.T. 1.E+03	L.T. 3.E+02	L.T. 4.E+02	L.T. 3.E+02
TH-228	L.T. 9.E+01	L.T. 2.E+01	L.T. 3.E+01	3.69E+01 ± 1.86E+01

(b) Gamma I-131 LLD was missed due to delay in counting. I-131 by chemical separation met I-131 LLD requirement.

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NEBRASKA PUBLIC POWER DISTRICT

COOPER NUCLEAR STATION

EXPOSURE PATHWAY - INGESTION

VEGETATION-TERRESTRIAL, BROADLEAF

(PCI/KG WET)

STATION NUMBER 101

DATE COLLECTED	07/18/06	08/30/06	08/30/06	08/30/06
RADIOCHEMICAL ANALYSIS:				
I-131	L.T. 5.E+01	L.T. 3.E+01	L.T. 3.E+01	L.T. 4.E+01
GAMMA SPECTRUM ANALYSIS:				
BE-7	6.65E+03 ± 2.94E+02	2.59E+03 ± 1.64E+02	1.79E+03 ± 1.63E+02	4.63E+02 ± 6.03E+01
K-40	3.67E+03 ± 3.37E+02	5.15E+03 ± 2.38E+02	6.73E+03 ± 2.77E+02	5.61E+03 ± 1.58E+02
MN-54	L.T. 2.E+01	L.T. 8.E+00	L.T. 8.E+00	L.T. 5.E+00
CO-58	L.T. 2.E+01	L.T. 9.E+00	L.T. 8.E+00	L.T. 6.E+00
FE-59	L.T. 4.E+01	L.T. 2.E+01	L.T. 2.E+01	L.T. 2.E+01
CO-60	L.T. 2.E+01	L.T. 8.E+00	L.T. 8.E+00	L.T. 6.E+00
ZN-65	L.T. 4.E+01	L.T. 2.E+01	L.T. 2.E+01	L.T. 1.E+01
ZR-95	L.T. 3.E+01	L.T. 2.E+01	L.T. 1.E+01	L.T. 1.E+01
RU-103	L.T. 2.E+01	L.T. 1.E+01	L.T. 1.E+01	L.T. 7.E+00
RU-106	L.T. 2.E+02	L.T. 8.E+01	L.T. 7.E+01	L.T. 5.E+01
I-131	L.T. 6.E+01	L.T. 6.E+01	L.T. 5.E+01	L.T. 3.E+01
CS-134	L.T. 2.E+01	L.T. 8.E+00	L.T. 7.E+00	L.T. 5.E+00
CS-137	L.T. 2.E+01	L.T. 9.E+00	L.T. 8.E+00	L.T. 6.E+00
BA-140	L.T. 1.E+02	L.T. 9.E+01	L.T. 9.E+01	L.T. 5.E+01
CE-141	L.T. 4.E+01	L.T. 2.E+01	L.T. 2.E+01	L.T. 1.E+01
CE-144	L.T. 1.E+02	L.T. 6.E+01	L.T. 5.E+01	L.T. 3.E+01
RA-226	L.T. 4.E+02	L.T. 2.E+02	L.T. 2.E+02	L.T. 1.E+02
TH-228	L.T. 4.E+01	L.T. 2.E+01	L.T. 2.E+01	L.T. 8.E+00

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NEBRASKA PUBLIC POWER DISTRICT

COOPER NUCLEAR STATION

EXPOSURE PATHWAY - INGESTION

VEGETATION-TERRESTRIAL, BROADLEAF

(PCI/KG WET)

STATION NUMBER 101

DATE COLLECTED	09/13/06	09/13/06	09/13/06
RADIOCHEMICAL ANALYSIS:			
I-131	L.T. 3.E+01	L.T. 3.E+01	L.T. 3.E+01
GAMMA SPECTRUM ANALYSIS:			
BE-7	3.97E+02 ± 1.60E+02	2.37E+03 ± 2.93E+02	4.88E+02 ± 1.38E+02
K-40	4.44E+03 ± 4.13E+02	3.80E+03 ± 4.95E+02	4.49E+03 ± 4.07E+02
MN-54	L.T. 1.E+01	L.T. 2.E+01	L.T. 2.E+01
CO-58	L.T. 2.E+01	L.T. 2.E+01	L.T. 2.E+01
FE-59	L.T. 3.E+01	L.T. 5.E+01	L.T. 4.E+01
CO-60	L.T. 2.E+01	L.T. 2.E+01	L.T. 3.E+01
ZN-65	L.T. 4.E+01	L.T. 4.E+01	L.T. 4.E+01
ZR-95	L.T. 3.E+01	L.T. 4.E+01	L.T. 3.E+01
RU-103	L.T. 2.E+01	L.T. 2.E+01	L.T. 2.E+01
RU-106	L.T. 1.E+02	L.T. 2.E+02	L.T. 1.E+02
I-131	L.T. 4.E+01	L.T. 5.E+01	L.T. 5.E+01
CS-134	L.T. 1.E+01	L.T. 2.E+01	L.T. 1.E+01
CS-137	L.T. 2.E+01	L.T. 2.E+01	L.T. 2.E+01
BA-140	L.T. 1.E+02	L.T. 1.E+02	L.T. 1.E+02
CE-141	L.T. 3.E+01	L.T. 4.E+01	L.T. 3.E+01
CE-144	L.T. 9.E+01	L.T. 1.E+02	L.T. 1.E+02
RA-226	L.T. 3.E+02	L.T. 5.E+02	L.T. 3.E+02
TH-228	L.T. 3.E+01	L.T. 4.E+01	L.T. 3.E+01

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NEBRASKA PUBLIC POWER DISTRICT

COOPER NUCLEAR STATION

EXPOSURE PATHWAY - AIRBORNE

SHORELINE SEDIMENT

(PCI/KG DRY)

STATION NUMBER 28

DATE COLLECTED:	05/02/06	10/11/06
GAMMA SPECTRUM ANALYSIS:		
BE-7	9.61E+02 ± 3.61E+02	L.T. 1.E+03
K-40	1.67E+04 ± 1.02E+03	2.E+04 ± 1.94E+03
MN-54	L.T. 6.E+01	L.T. 9.E+01
CO-58	L.T. 6.E+01	L.T. 1.E+02
FE-59	L.T. 1.E+02	L.T. 3.E+02
CO-60	L.T. 6.E+01	L.T. 1.E+02
ZN-65	L.T. 2.E+02	L.T. 2.E+02
ZR-95	L.T. 1.E+02	L.T. 2.E+02
RU-103	L.T. 6.E+01	L.T. 1.E+02
RU-106	L.T. 5.E+02	L.T. 8.E+02
I-131	L.T. 1.E+02	L.T. 1.E+03
CS-134	L.T. 7.E+01	L.T. 9.E+01
CS-137	L.T. 6.E+01	L.T. 1.E+02
BA-140	L.T. 3.E+02	L.T. 2.E+03
CE-141	L.T. 1.E+02	L.T. 2.E+02
CE-144	L.T. 5.E+02	L.T. 5.E+02
RA-226	1.93E+03 ± 8.46E+02	L.T. 2.E+03
TH-228	9.33E+02 ± 1.06E+02	1.03E+03 ± 1.41E+02
TRITIUM ANALYSIS:		
H-3		1.89E+03 ± 8.48E+02

VII-10

NEBRASKA PUBLIC POWER DISTRICT

COOPER NUCLEAR STATION

EXPOSURE PATHWAY - AIRBORNE

SHORELINE SEDIMENT

(PCI/KG DRY)

STATION NUMBER 35

DATE COLLECTED:	05/02/06	10/11/06
GAMMA SPECTRUM ANALYSIS:		
BE-7	L.T. 4.E+02	L.T. 8.E+02
K-40	1.57E+04 ± 9.46E+02	1.49E+04 ± 1.88E+03
MN-54	L.T. 5.E+01	L.T. 8.E+01
CO-58	L.T. 5.E+01	L.T. 9.E+01
FE-59	L.T. 1.E+02	L.T. 2.E+02
CO-60	L.T. 5.E+01	L.T. 1.E+02
ZN-65	L.T. 2.E+02	L.T. 2.E+02
ZR-95	L.T. 1.E+02	L.T. 1.E+02
RU-103	L.T. 5.E+01	L.T. 1.E+02
RU-106	L.T. 4.E+02	L.T. 7.E+02
I-131	L.T. 1.E+02	L.T. 1.E+03
CS-134	L.T. 8.E+01	L.T. 7.E+01
CS-137	L.T. 6.E+01	L.T. 6.E+01
BA-140	L.T. 3.E+02	L.T. 1.E+03
CE-141	L.T. 8.E+01	L.T. 2.E+02
CE-144	L.T. 3.E+02	L.T. 5.E+02
RA-226	1.54E+03 ± 6.45E+02	L.T. 1.E+03
TH-228	6.46E+02 ± 6.91E+01	7.11E+02 ± 1.27E+02
TRITIUM ANALYSIS:		
H-3		L.T. 1.E+03

SECTION VIII. REFERENCES

VIII. REFERENCES

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5. U.S. Environmental Protection Agency; Environmental Radiation Data, Report 35, July -- September 1983, Report 39, July -- September 1985; Report 40, October -- December 1984; Report 41, January -- March 1985. Report 42, April -- June 1985; Report 43, July-September 1985, Report 44-45, October-March 1986; Report 46, April-June 1986; Report 47, July-September 1986; Report 48, October-December 1986; Report 49, January-March 1987. Environmental Radiation Facility, Montgomery, Alabama.

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APPENDIX A
2006 LAND USE CENSUS

2006 LAND USE CENSUS

Conducted August 1, 2006
0-3 miles

Cooper Nuclear Station (CNS) Offsite Dose Assessment Manual (ODAM) requires an annual land use census. This census identifies the location of the nearest garden that is greater than 500 square feet in area and yields leafy green vegetables, the nearest milk animal, and the location of the nearest resident in each of the 16 meteorological sectors within 3 miles of CNS.

A land use census was performed on August 1, 2006, in accordance with the CNS ODAM. The nearest residence was found in sector Q, 0.9 miles from CNS, and the nearest garden was found in sector L, 1.3 miles from CNS.

No milk animals were found within 3 miles of CNS and there was no evidence of potable water use from the Missouri River within three miles of CNS.

2006 LAND USE CENSUS

August 1, 2006
0-3 Miles

SECTOR	NEAREST RESIDENT Distance	Direction in Degrees	NEAREST GARDEN Distance	Direction in Degrees	NEAREST MILK ANIMAL
A/N	2.5 Miles	1.0°	2.5 Miles	1.0°	NONE
B/NNE	NONE	NA	NONE	NA	NONE
C/NE	2.8 Miles	42.0°	2.8 Miles	42.0°	NONE
D/ENE	1.7 Miles	62.0°	NONE	NA	NONE
E/E	1.9 Miles	97.0°	1.9 Miles	97.0°	NONE
F/ESE	2.3 Miles	112.0°	3.0 Miles	108.0°	NONE
G/SE	2.2 Miles	133.0°	2.2 Miles	133.0°	NONE
H/SSE	2.9 Miles	165.0°	2.9 Miles	165.0°	NONE
J/S	NONE	NA	NONE	NA	NONE
K/SSW	NONE	NA	NONE	NA	NONE
L/SW	1.3 Miles	232.0°	1.3 Miles	232.0°	NONE
M/WSW	1.3 Miles	253.0°	1.9 Miles	241.0°	NONE
N/W	1.0 Miles	265.0°	NONE	NA	NONE
P/WNW	1.7 Miles	299.0°	2.4 Miles	298.0°	NONE
Q/NW	0.9 Miles	307.0°	NONE	NA	NONE
R/NNW	1.9 Miles	339.0°	NONE	NA	NONE

APPENDIX B
SUMMARY OF INTERLABORATORY COMPARISONS

The Teledyne Brown Engineering ICP report is presented in this section

INTERLABORATORY COMPARISION PROGRAM

The purpose of the Interlaboratory Comparison Program (ICP) is to confirm the accuracy of results produced by Teledyne Brown Engineering. Samples of various matrices (i.e. soil, water, vegetation, air filters, and milk) are spiked with known amounts of radioactivity by commercial vendors of this service and by departments within the government. TBE participates in four programs. Two are commercial, Analytics Inc. and Environmental Resource Associates (ERA) and two are government sponsored programs, the Department of Energy's (DOE) Environmental Measurements Laboratory (EML) and the Mixed Analyte Performance Evaluation Program (MAPEP). The DOE's Idaho National Engineering Laboratory administers the MAPEP. All four programs are blind performance evaluation studies in which samples with known activities are sent to TBE for analysis. Once analyzed, TBE submits the results to the respective agency for evaluation. The results of these evaluations are published in TBE's quarterly and annual QA reports.

The 2006 Interlaboratory Comparison Program includes all contractually required matrices and analyses we supply to customers.

The US Environmental Protection Agency (EPA) discontinued their Interlaboratory Comparison Program in December 1998. However, on May 1, 2001, accreditation was granted to Environmental Resource Associates' (ERA) RadCheM Proficiency Testing Program to complete the process of replacing the USEPA-LV Nuclear Radiation Assessment Division program.

The Department of Energy's Environmental Measurement Laboratory (EML) program terminated performance assessments at the end of the March 2004 test session. The MAPEP sample distribution was expanded to include water, soil, vegetation and air particulate testing material previously provided by DOE/EML.

The National Institute of Standards and Technology (NIST) is the approval authority for laboratory providers participating in Intercomparison Study Programs; however, at this time, there are no approved laboratories for environmental and/or radiochemical isotope analyses.

Trending graphs are provided in this section for the Analytics and ERA Programs.

ANALYTICS ENVIRONMENTAL RADIOACTIVITY CROSS CHECK PROGRAM
TELEDYNE QC SPIKE PROGRAM
TELEDYNE BROWN ENGINEERING ENVIRONMENTAL SERVICES

Month/Year	Identification Number	Matrix	Nuclide	Units	Reported Value (a)	Known Value (b)	Ratio (c) TBE/Analytics	Evaluation (d)
March 2006	E4964-396	Milk	Sr-89	pCi/L	91.5	99.2	0.92	A
			Sr-90	pCi/L	12.2	10.8	1.13	A
	E4965-396	Milk	I-131	pCi/L	74.4	78.0	0.95	A
			Ce-141	pCi/L	95.1	104	0.91	A
			Cr-51	pCi/L	278	280	0.99	A
			Cs-134	pCi/L	103	121	0.85	A
			Cs-137	pCi/L	87.6	88.8	0.99	A
			Co-58	pCi/L	93.9	105	0.89	A
			Mn-54	pCi/L	90.0	93.3	0.96	A
			Fe-59	pCi/L	83.0	86.6	0.96	A
			Zn-65	pCi/L	178	176	1.01	A
			Co-60	pCi/L	118	128	0.92	A
	E4967-396	AP	Ce-141	pCi	89.9	74	1.21	W
			Cr-51	pCi	253	200	1.27	W
			Cs-134	pCi	71.5	86.1	0.83	A
			Cs-137	pCi	67.5	63.3	1.07	A
			Co-58	pCi	79.7	74.6	1.07	A
			Mn-54	pCi	74.9	67	1.12	A
			Fe-59	pCi	75.5	61.8	1.22	W
			Zn-65	pCi	146	126	1.16	A
			Co-60	pCi	91.2	91	1.00	A
	E4966-396	Charcoal	I-131	pCi	87.4	86.2	1.01	A
June 2006	E5018-396	Milk	Sr-89	pCi/L	118	129	0.91	A
			Sr-90	pCi/L	9.29	9.74	0.95	A
	E5019-396	Milk	I-131	pCi/L	49.9	63.2	0.79	W
			Ce-141	pCi/L	174	184	0.95	A
			Cr-51	pCi/L	266	259	1.03	A
			Cs-134	pCi/L	111	127	0.88	A
			Cs-137	pCi/L	116	117	0.99	A
			Co-58	pCi/L	101	100	1.01	A
			Mn-54	pCi/L	144	146	0.98	A
			Fe-59	pCi/L	96.7	93.6	1.03	A
			Zn-65	pCi/L	182	185	0.98	A
			Co-60	pCi/L	126	129	0.98	A
	E5021-396	AP	Ce-141	pCi	113	124	0.91	A
			Cr-51	pCi	176	174	1.01	A
			Cs-134	pCi	63.7	85.1	0.75	W
			Cs-137	pCi	76.8	79.0	0.97	A
			Co-58	pCi	63.1	67.4	0.94	A
			Mn-54	pCi	102	99	1.04	A
			Fe-59	pCi	64.6	62.9	1.03	A
			Zn-65	pCi	131	125	1.05	A
			Co-60	pCi	81.6	86.5	0.94	A
	E5020-396	Charcoal	I-131	pCi	65.4	65.9	0.99	A

ANALYTICS ENVIRONMENTAL RADIOACTIVITY CROSS CHECK PROGRAM
TELEDYNE QC SPIKE PROGRAM
TELEDYNE BROWN ENGINEERING ENVIRONMENTAL SERVICES
(PAGE 2 OF 3)

Month/Year	Identification Number	Matrix	Nuclide	Units	Reported Value (a)	Known Value (b)	Ratio (c) TBE/Analytics	Evaluation (d)
September 2006	E5120-396	Milk	Sr-89	pCi/L	90.3	89.2	1.01	A
			Sr-90	pCi/L	11.6	12.4	0.94	A
	E5121-396	Milk	I-131	pCi/L	67.8	73.8	0.92	A
			Ce-141	pCi/L	85.0	86.0	0.99	A
			Cr-51	pCi/L	263	282	0.93	A
			Cs-134	pCi/L	74.7	85.0	0.88	A
			Cs-137	pCi/L	172	175	0.98	A
			Co-58	pCi/L	107	109	0.98	A
			Mn-54	pCi/L	110	113	0.98	A
			Fe-59	pCi/L	46.6	43.7	1.07	A
			Zn-65	pCi/L	144	145	0.99	A
			Co-60	pCi/L	127	134	0.95	A
	E5123-396	AP	Ce-141	pCi	67.1	66.4	1.01	A
			Cr-51	pCi	223	217	1.03	A
			Cs-134	pCi	51.7	65.6	0.79	W
			Cs-137	pCi	134	135.0	0.99	A
			Co-58	pCi	84.8	84.3	1.01	A
			Mn-54	pCi	95.2	87	1.10	A
			Fe-59	pCi	41.6	33.7	1.23	W
			Zn-65	pCi	123	112	1.10	A
			Co-60	pCi	98.9	103	0.96	A
			Co-57	pCi	0.922	(1)	NA	NA
	E5122-396	Charcoal	I-131	pCi	77.7	90.7	0.86	A
December 2006	E5172-396	Milk	Sr-89	pCi/L	72.4	72.0	1.01	A
			Sr-90	pCi/L	7.05	5.90	1.19	A
	E5173-396	Milk	I-131	pCi/L	71.9	70.8	1.02	A
			Ce-141	pCi/L	268	294	0.91	A
			Cr-51	pCi/L	420	433	0.97	A
			Cs-134	pCi/L	128	147	0.87	A
			Cs-137	pCi/L	231	237	0.97	A
			Co-58	pCi/L	82.0	83.8	0.98	A
			Mn-54	pCi/L	113	111	1.02	A
			Fe-59	pCi/L	79.8	79.7	1.00	A
			Zn-65	pCi/L	170	164	1.04	A
			Co-60	pCi/L	265	281	0.94	A
	E5175-396	AP	Ce-141	pCi	220	210	1.05	A
			Cr-51	pCi	343	309	1.11	A
			Cs-134	pCi	90.8	105	0.86	A
			Cs-137	pCi	185	169.0	1.09	A
			Co-58	pCi	65.0	59.7	1.09	A
			Mn-54	pCi	90.6	79	1.15	A
			Fe-59	pCi	70.7	56.7	1.25	W
			Zn-65	pCi	136	117	1.16	A
			Co-60	pCi	208	200	1.04	A

ANALYTICS ENVIRONMENTAL RADIOACTIVITY CROSS CHECK PROGRAM
TELEDYNE QC SPIKE PROGRAM
TELEDYNE BROWN ENGINEERING ENVIRONMENTAL SERVICES
(PAGE 3 OF 3)

Month/Year	Identification Number	Matrix	Nuclide	Units	Reported Value (a)	Known Value (b)	Ratio (c) TBE/Analytics	Evaluation (d)
December 2006	E5174-396	Charcoal	I-131	pCi	77.4	85.4	0.91	A

(1) Impurity detected but not measured by Analytics.
(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.

MAPEP ENVIRONMENTAL RADIOACTIVITY CROSS CHECK PROGRAM
TELEDYNE QC SPIKE PROGRAM
TELEDYNE BROWN ENGINEERING ENVIRONMENTAL SERVICES
(PAGE 1 OF 2)

Month/Year	Identification Number	Media	Nuclide	Units	Reported Value (a)	Known Value (b)	Acceptance Range	Evaluation (c)
April 2006	06-MaW15	Water	Cs-134	Bq/L	79.2	95.1	66.57 - 123.63	A
			Cs-137	Bq/L	-0.188			A
			Co-57	Bq/L	151	166.12	116.28 - 215.96	A
			Co-60	Bq/L	141	153.50	107.45 - 199.55	A
			H-3	Bq/L	988	952.01	666.41 - 1237.61	A
			Mn-54	Bq/L	297	315.00	220.50 - 409.50	A
			Sr-90	Bq/L	12.6	13.16	9.21- 17.11	A
			Zn-65	Bq/L	219	228.16	159.71 - 296.61	A
	06-MaS15	Soil	Cs-134	Bq/kg	15.9			N (1)
			Cs-137	Bq/kg	370	339.69	237.78 - 441.60	A
			Co-57	Bq/kg	667	656.29	459.40 - 853.18	A
			Co-60	Bq/kg	478	447.10	312.97 - 581.23	A
			Mn-54	Bq/kg	384	346.77	242.74 - 450.80	A
			K-40	Bq/kg	667	604	423 - 785	A
			Zn-65	Bq/kg	740	657.36	460.15 - 854.57	A
	06-GrW15	Water	Gr-A	Bq/L	0.575	0.581	>0.0 - 1.162	A
			Gr-B	Bq/L	1.52	1.13	0.56 - 1.70	A
	06-RdF15	AP	Cs-134	Bq/sample	2.34	2.934	2.054 - 3.814	A
			Cs-137	Bq/sample	2.45	2.531	1.772 - 3.290	A
			Co-57	Bq/sample	3.87	4.096	2.867 - 5.325	A
			Co-60	Bq/sample	2.12	2.186	1.530 - 2.842	A
			Mn-54	Bq/sample	0.0206			A
			Sr-90	Bq/sample	0.761	0.792	0.554 - 1.030	A
			Zn-65	Bq/sample	3.86	3.423	2.396 - 4.450	A
	06-GrF15	AP	Gr-A	Bq/sample	0.257	0.361	>0.0 - 0.722	A
			Gr-B	Bq/sample	0.398	0.481	0.241 - 0.722	A
	06-RdV15	Vegetation	Cs-134	Bq/sample	0.369			A
			Cs-137	Bq/sample	3.15	3.074	2.152 - 3.996	A
			Co-57	Bq/sample	10.1	8.578	6.005 - 11.151	A
			Co-60	Bq/sample	4.69	4.520	3.164 - 5.876	A
			Mn-54	Bq/sample	6.53	6.247	4.373 - 8.121	A
			Sr-90	Bq/sample	2.22	1.561	1.093 - 2.029	N (2)
			Zn-65	Bq/sample	10.5	9.798	6.859 - 12.737	A
October 2006	06-MaW16	Water	Cs-134	Bq/L	99.8	112.82	78.98 - 146.66	A
			Cs-137	Bq/L	191	196.14	137.30 - 254.98	A
			Co-57	Bq/L	203	213.08	149.16 - 277.00	A
			Co-60	Bq/L	46.2	47.5	33.2 - 61.8	A
			H-3	Bq/L	471	428.85	300.20 - 557.50	A
			Sr-90	Bq/L	13.7	15.69	10.98- 20.40	A
			Zn-65	Bq/L	178	176.37	123.46 - 229.28	A
	06-GrW16	Water	Gr-A	Bq/L	1.52	1.033	>0.0 - 2.066	A
			Gr-B	Bq/L	1.18	1.03	0.52 - 1.54	A

MAPEP ENVIRONMENTAL RADIOACTIVITY CROSS CHECK PROGRAM
TELEDYNE QC SPIKE PROGRAM
TELEDYNE BROWN ENGINEERING ENVIRONMENTAL SERVICES

Month/Year	Identification Number	Media	Nuclide	Units	Reported Value (a)	Known Value (b)	Acceptance Range	Evaluation (c)
October 2006	06-MaS16	Soil	Cs-134	Bq/kg	393	452.13	316.49 - 587.77	A
			Cs-137	Bq/kg	522	525.73	368.01 - 683.45	A
			Co-57	Bq/kg	636	676.33	473.43 - 879.23	A
			Co-60	Bq/kg	3.78	1.98		A (3)
			Mn-54	Bq/kg	598	594.25	415.98 - 772.52	A
			K-40	Bq/kg	615	604	423 - 785	A
			Zn-65	Bq/kg	937	903.61	632.53 - 1174.69	A
	06-GrF16	AP	Gr-A	Bq/sample	0.134	0.290	>0.0 - 0.580	A
			Gr-B	Bq/sample	0.358	0.359	0.180 - 0.538	A
	06-RdF16	AP	Cs-134	Bq/sample	2.62	3.147	2.203 - 4.091	A
			Cs-137	Bq/sample	1.98	1.805	1.263 - 2.346	A
			Co-57	Bq/sample	2.65	2.582	1.807 - 3.357	A
			Co-60	Bq/sample	1.63	1.577	1.104 - 2.050	A
			Mn-54	Bq/sample	2.10	1.92	1.34 - 2.50	A
			Sr-90	Bq/sample	0.549	0.62	0.43 - 0.81	A
			Zn-65	Bq/sample	-0.163	NA		A

(1) Evaluated as a false positive by MAPEP although we considered the result a non-detect due to the peak not being identified by the gamma software. MAPEP suggests the Bi-214 is not being differentiated from the Cs-134 peak. See email attached with MAPEP results in Appendix A. NCR 06-07.

(2) Sr samples analyzed in triplicate and one high result of 2.43 pCi/kg biased the submitted results on the high side. We were unable to determine the cause for the higher result. Since we do not analyze vegetation for isotpic Pu, no NCR was initiated for the Pu failure. MAPEP suggest pyrosulfate fusion preparation prior to analysis for isotopic Pu in vegetation samples.

(3) Not detected, reported a statistically zero result. (False positive test)

(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.

ERA ENVIRONMENTAL RADIOACTIVITY CROSS CHECK PROGRAM
TELEDYNE QC SPIKE PROGRAM
TELEDYNE BROWN ENGINEERING, 2006
(PAGE 1 OF 1)

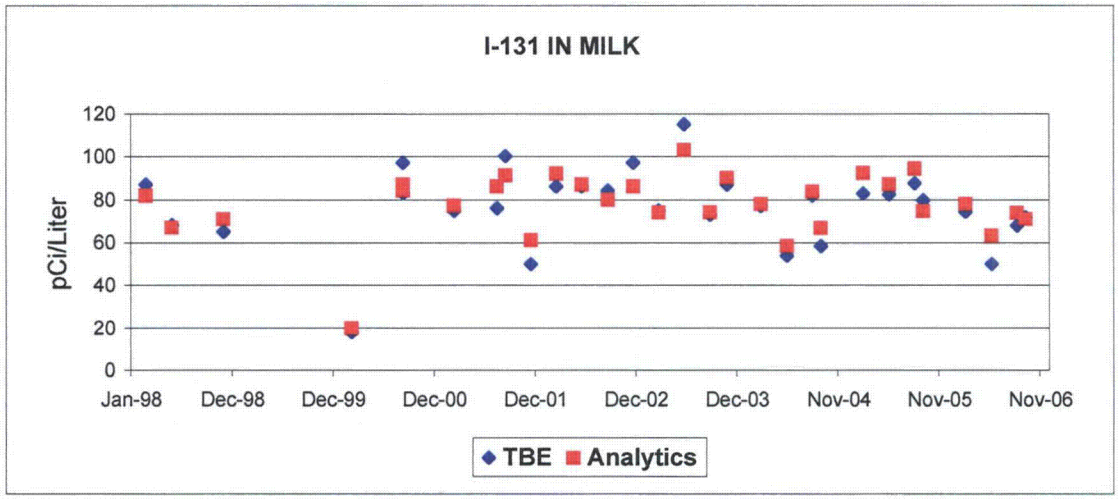
Month/Year	Identification Number	Media	Nuclide	Units	Reported Value (a)	Known Value (b)	Control Limits	Evaluation (c)
May 2006	Rad 65	Water	Sr-89	pCi/L	30.2	32.4	23.6 - 41.1	A
			Sr-90	pCi/L	8.74	9.00	0.340 - 17.7	A
			Ba-133	pCi/L	10.9	10.0	1.34 - 18.7	A
			Cs-134	pCi/L	39.7	43.4	34.7 - 52.1	A
			Cs-137	pCi/L	199	214	195 - 233	A
			Co-60	pCi/L	111	113.0	103 - 123	A
			Zn-65	pCi/L	146	152	126 - 178	A
			Gr-A	pCi/L	22.9	21.3	12.1 - 30.5	A
			Gr-B	pCi/L	23.7	23.0	14.3 - 31.7	A
			H-3	pCi/L	7950	8130	6720 - 9540	A
	Rad 65	Water	I-131	pCi/L	18.2	19.1	13.9 - 24.3	A
November 2006	Rad 67	Water	Sr-89	pCi/L	40.0	39.9	31.2 - 48.6	A
			Sr-90	pCi/L	16.2	16.0	7.34 - 24.7	A
			Ba-133	pCi/L	65.0	70.2	58.1 - 82.3	A
			Cs-134	pCi/L	27.4	29.9	21.2 - 38.6	A
			Cs-137	pCi/L	74.4	78.2	69.5 - 86.9	A
			Co-60	pCi/L	61.6	62.3	53.6 - 71.0	A
			Zn-65	pCi/L	277	277	229 - 325	A
			Gr-A	pCi/L	23.3	28.7	16.3 - 41.1	A
			Gr-B	pCi/L	22.0	20.9	12.2 - 29.6	A
			H-3	pCi/L	2930	3050	2430 - 3670	A
		Water	I-131	pCi/L	19.8	22.1	16.9 - 27.3	A

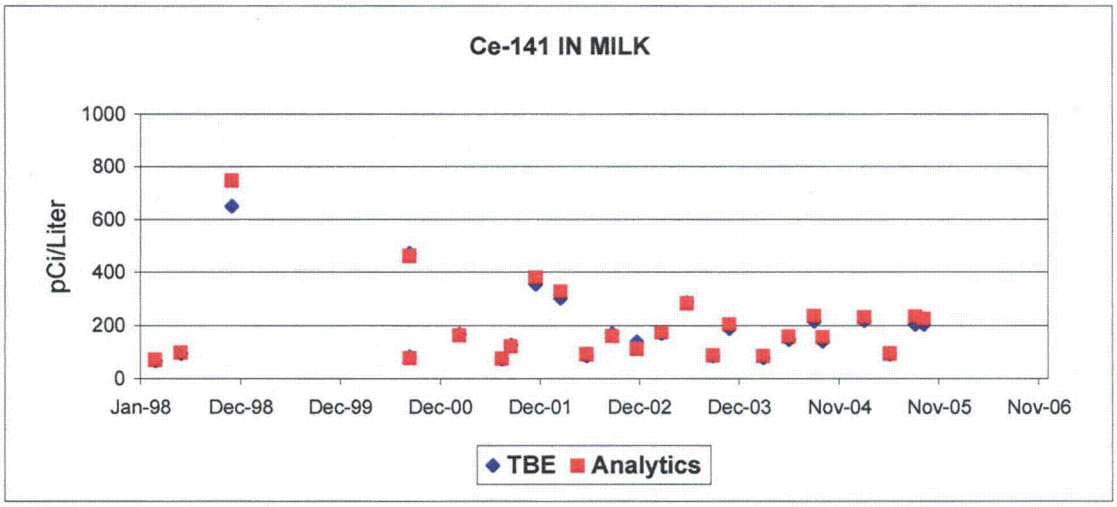
(a) Teledyne Brown Engineering reported result.

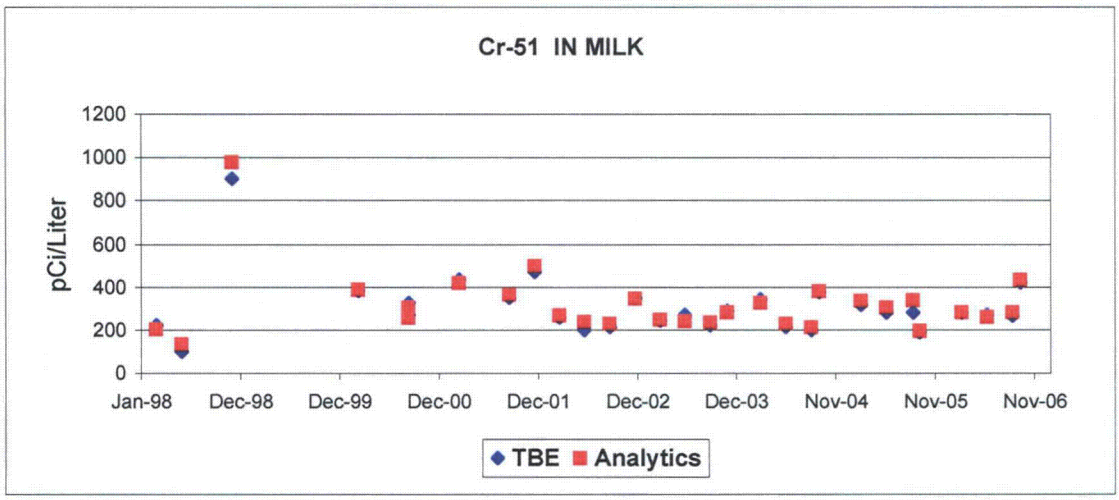
(b) The ERA known value is equal to 100% of the parameter present in the standard as determined by gravimetric and/or volumetric measurements made during standard preparation.

(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.

INTERLABORATORY COMPARISON PROGRAM GRAPHS







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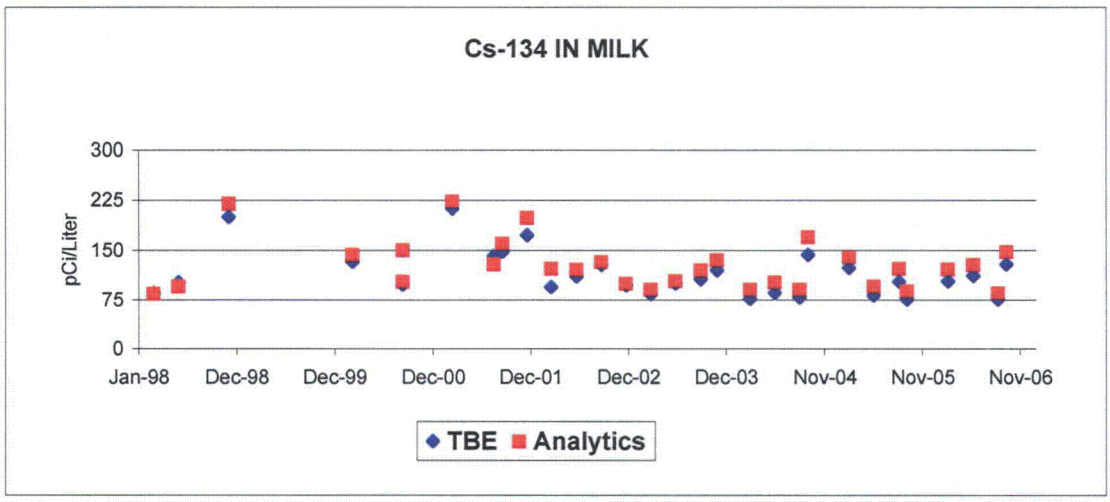

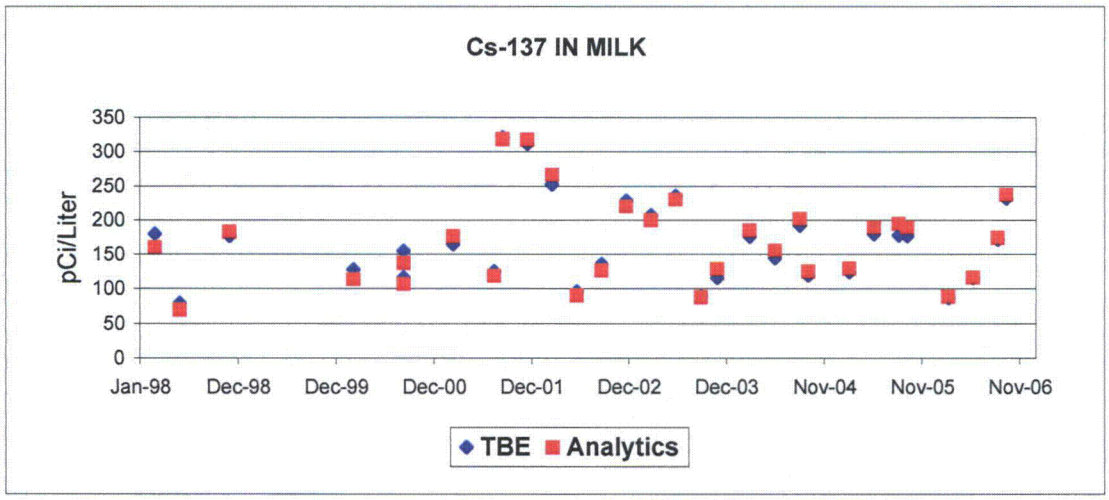

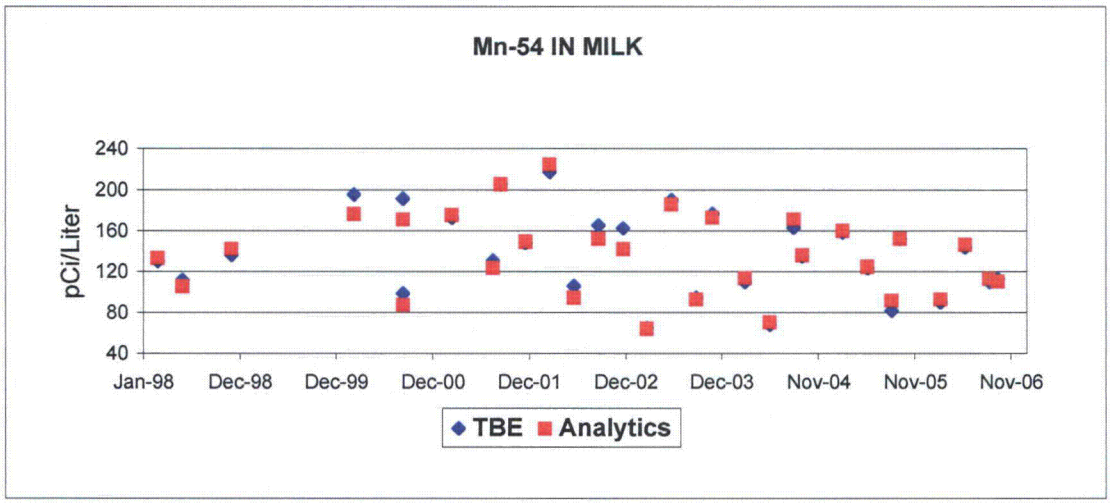

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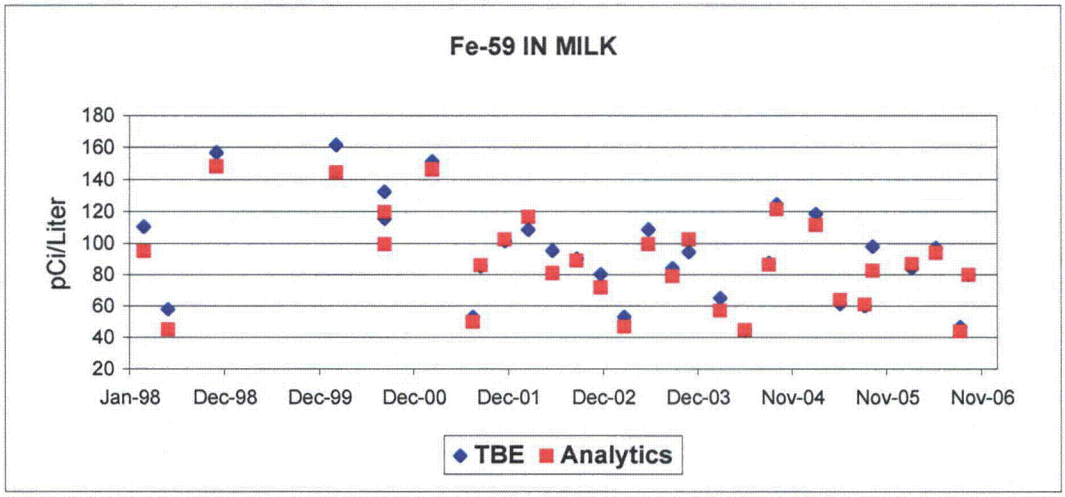

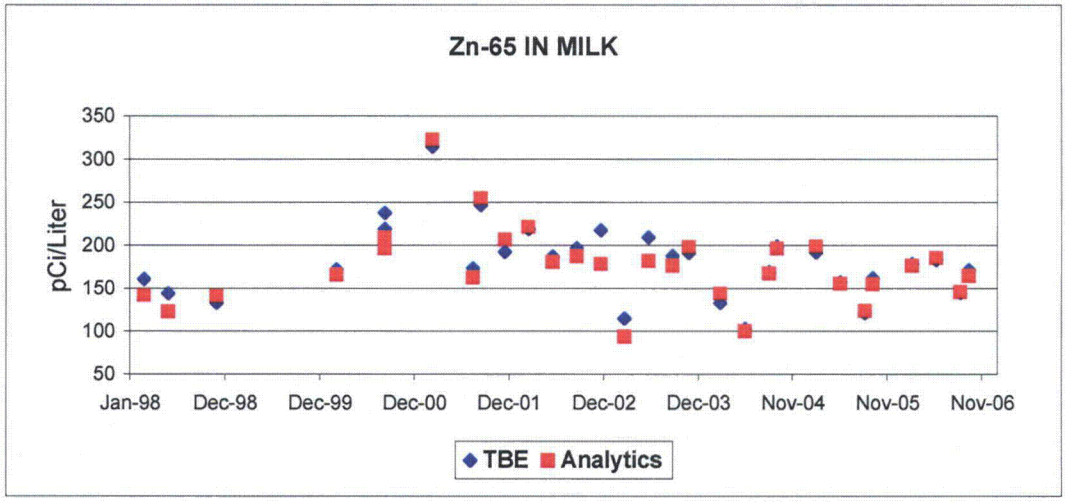

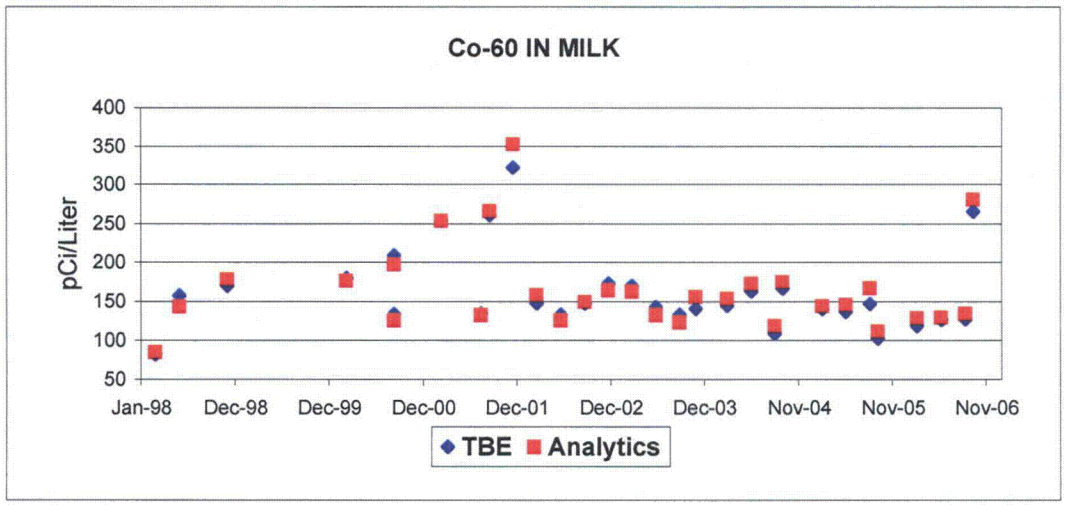

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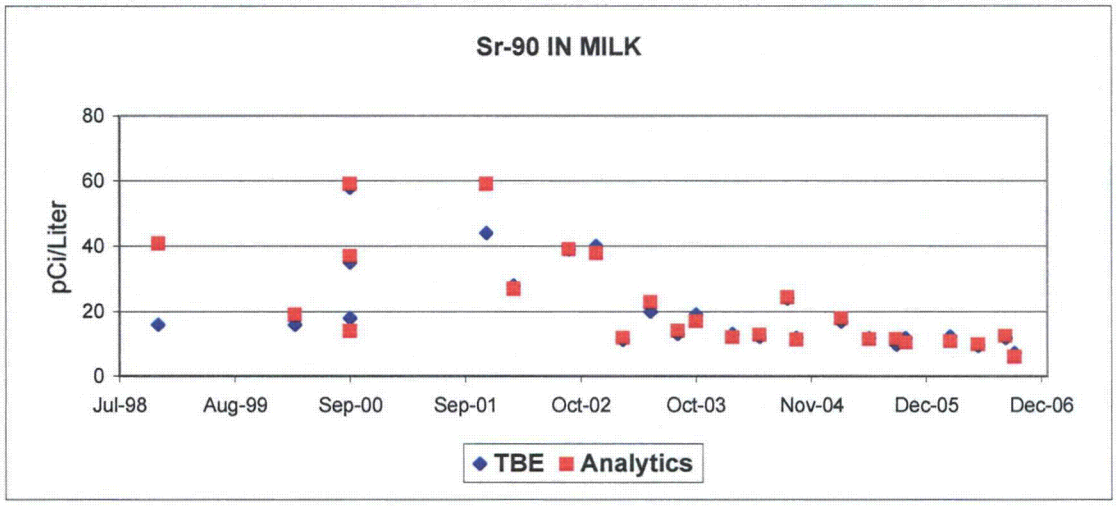

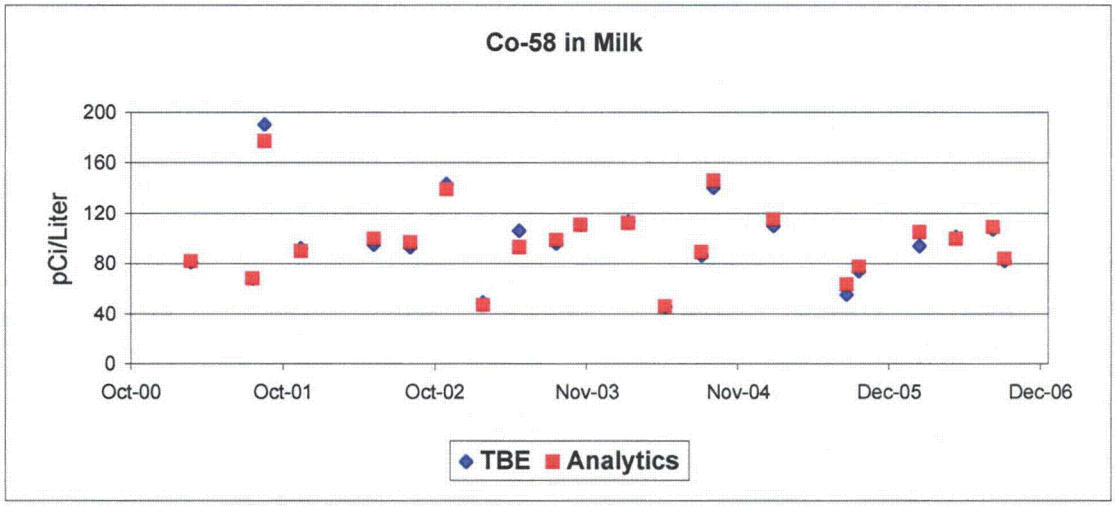

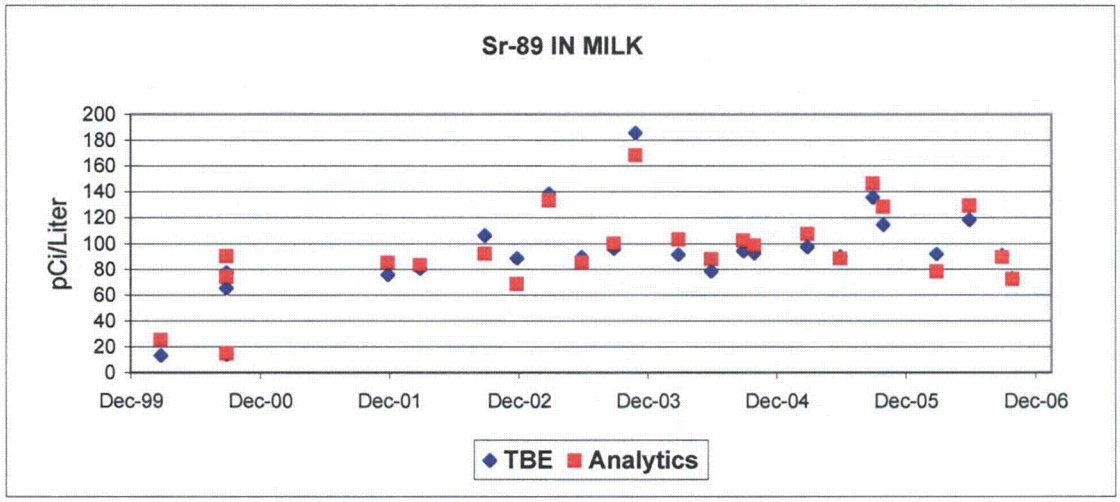

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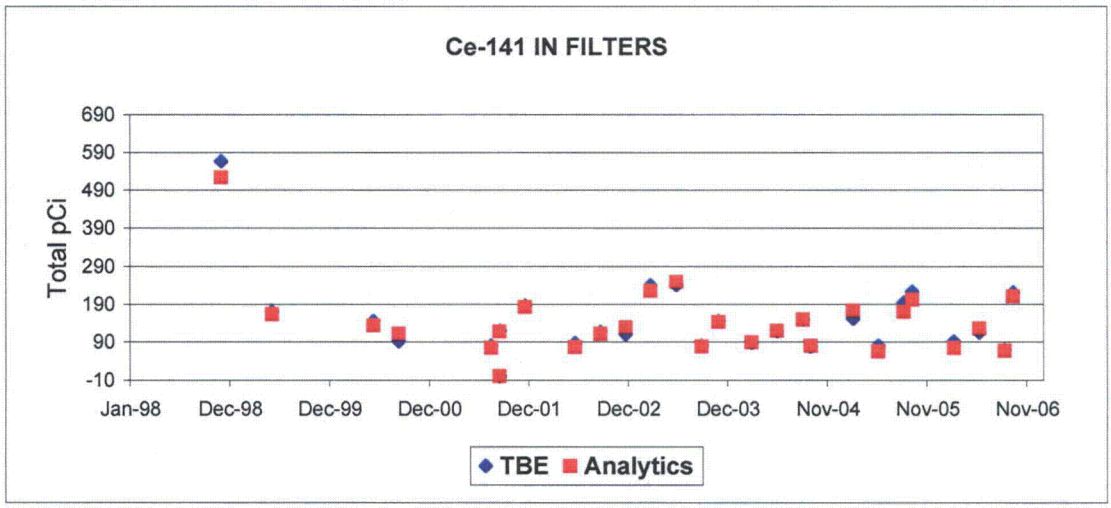

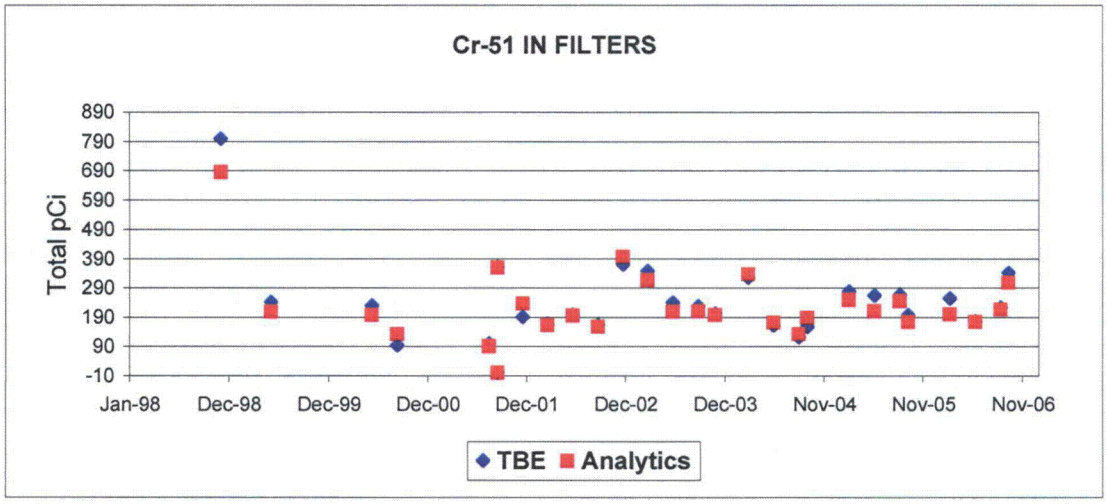

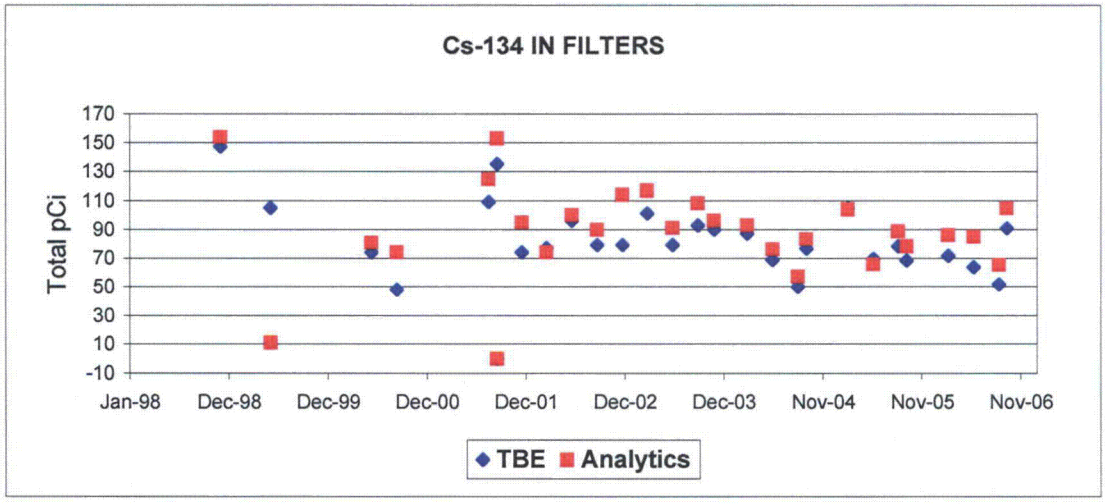

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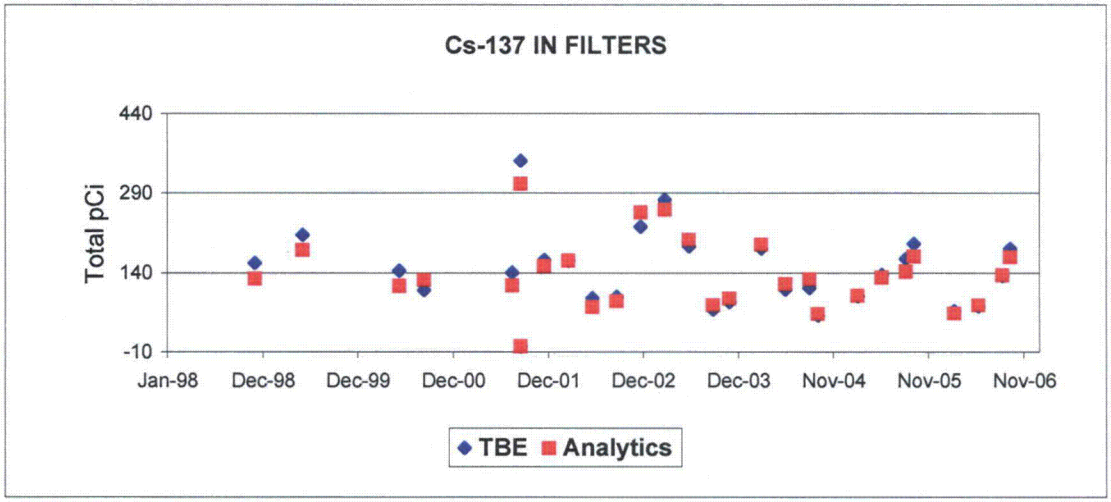

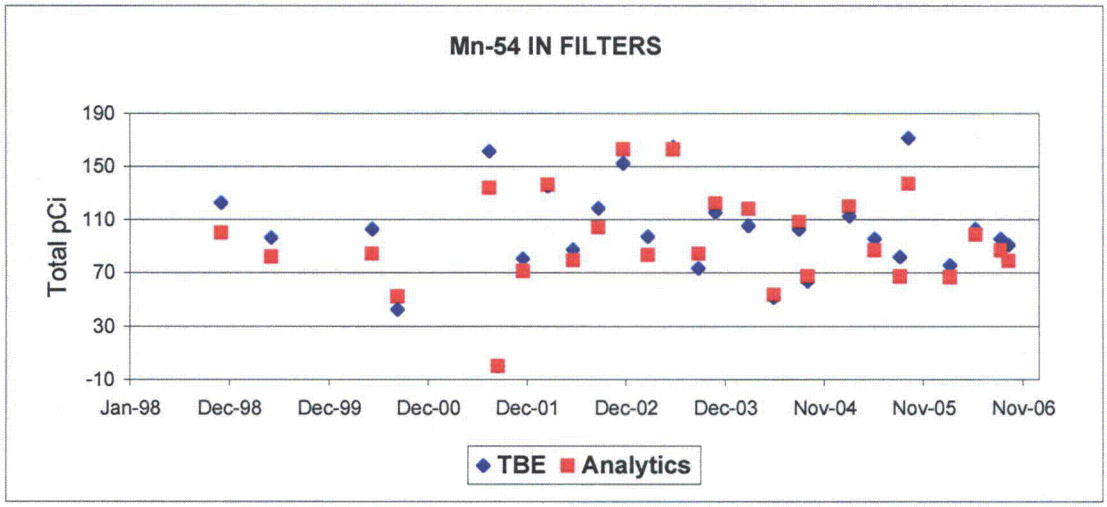

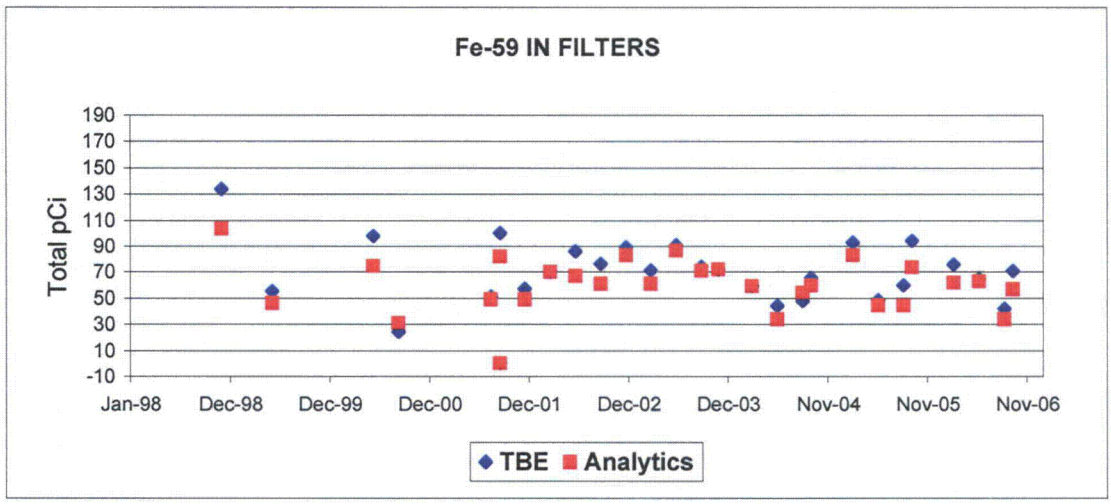

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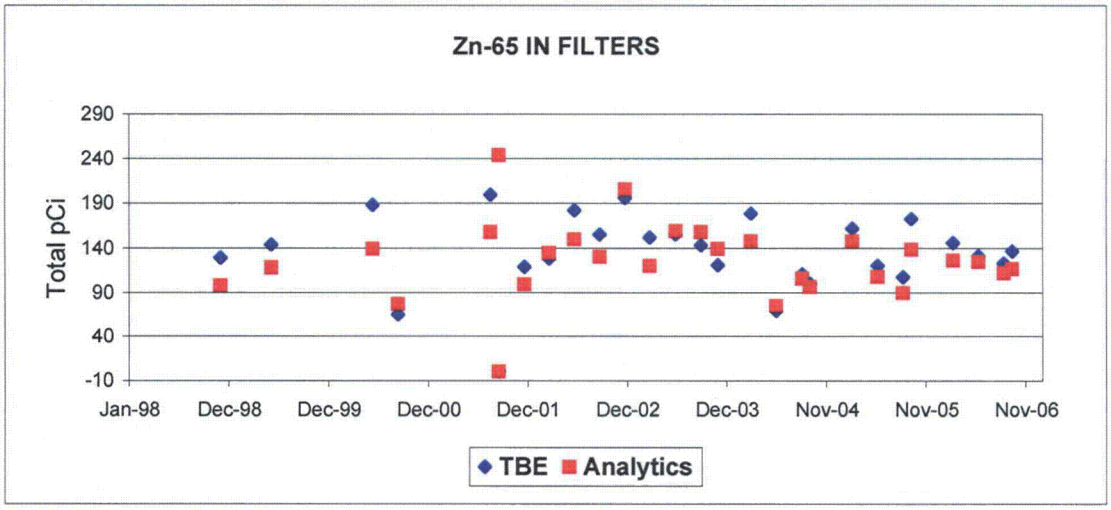

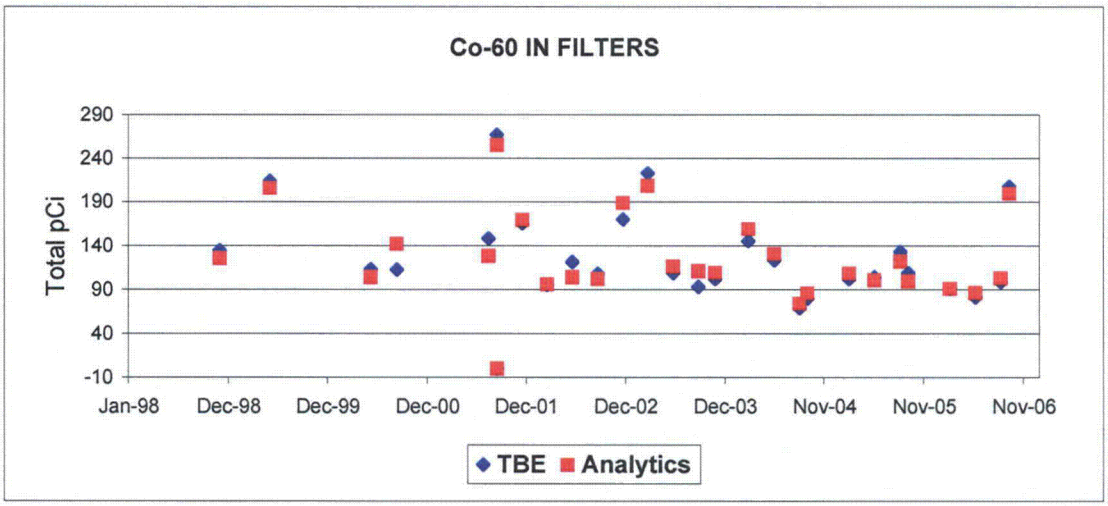

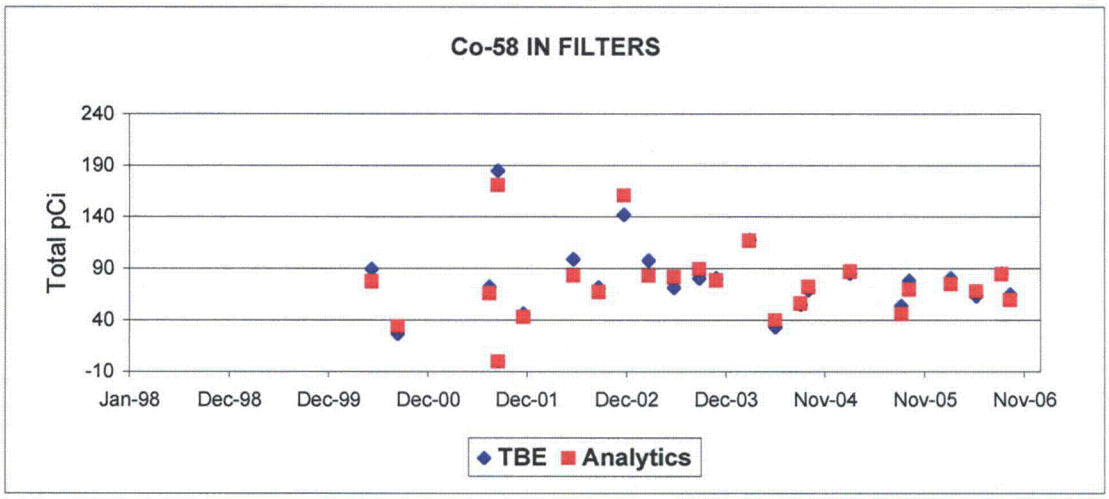

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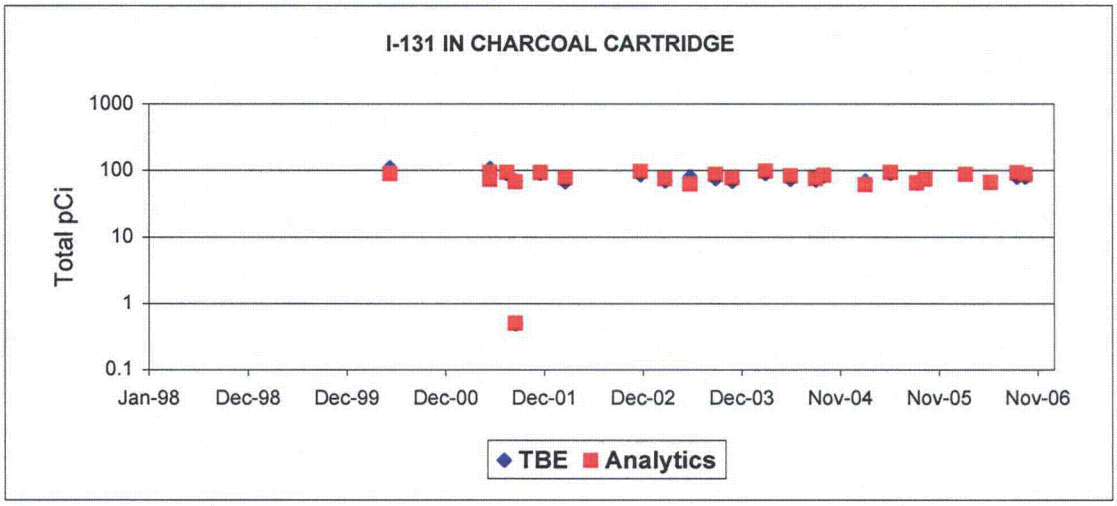

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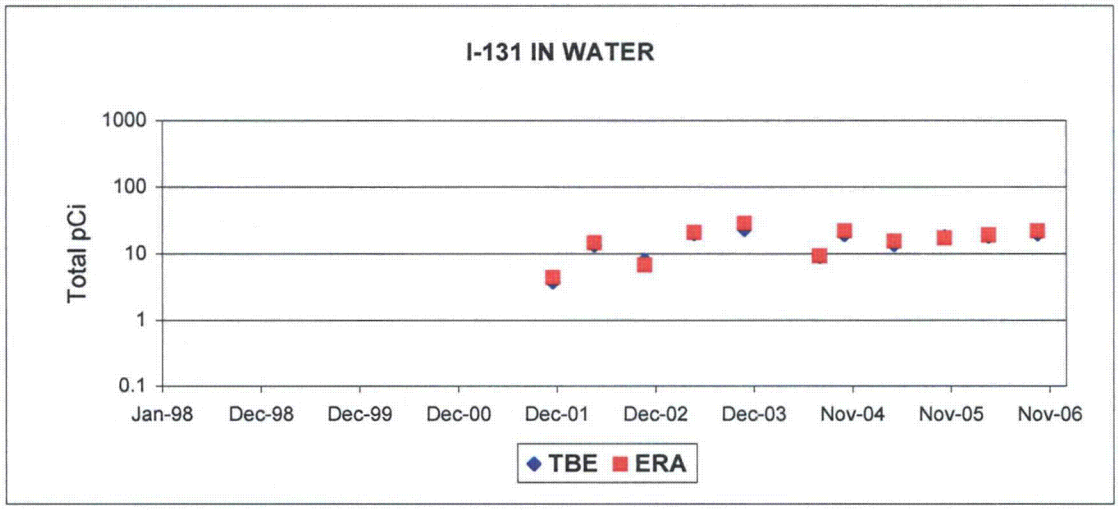

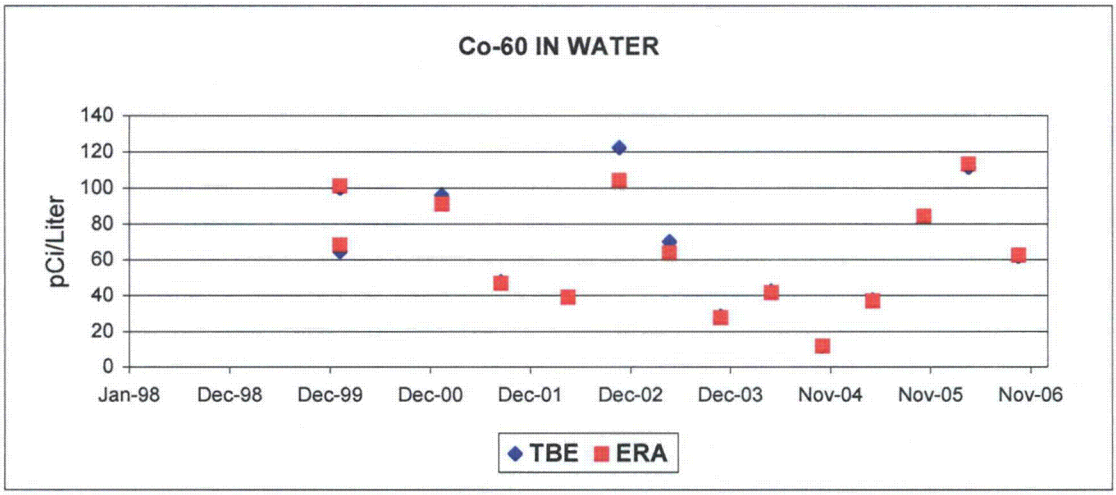

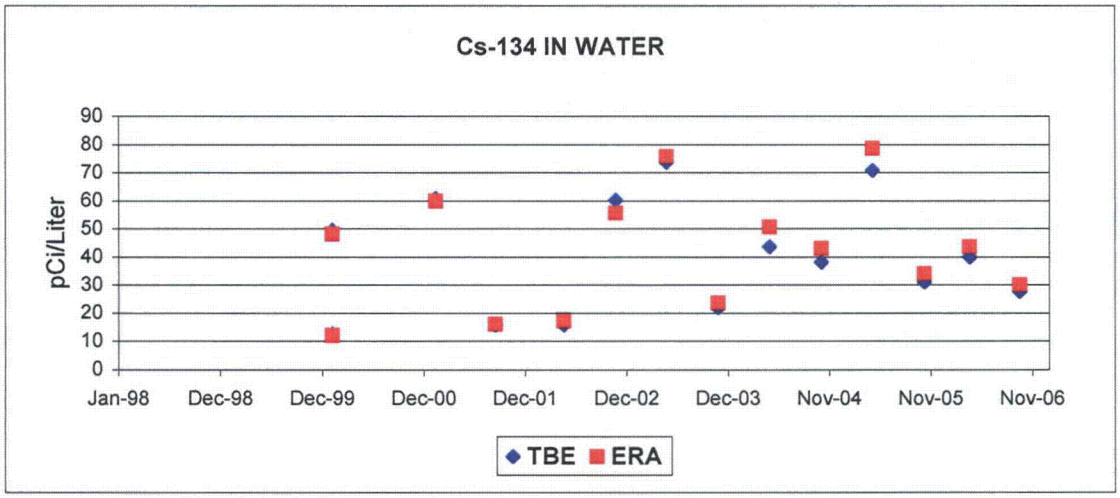

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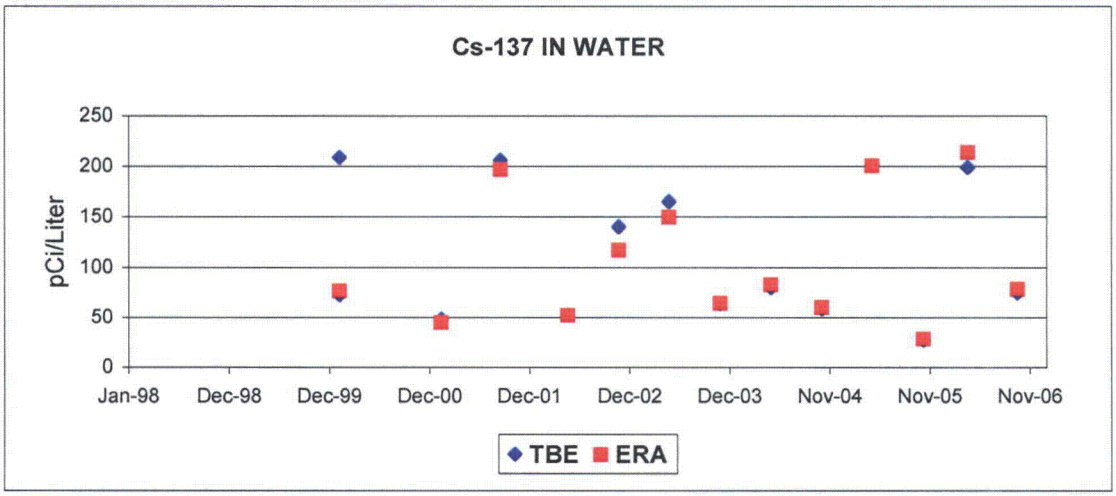

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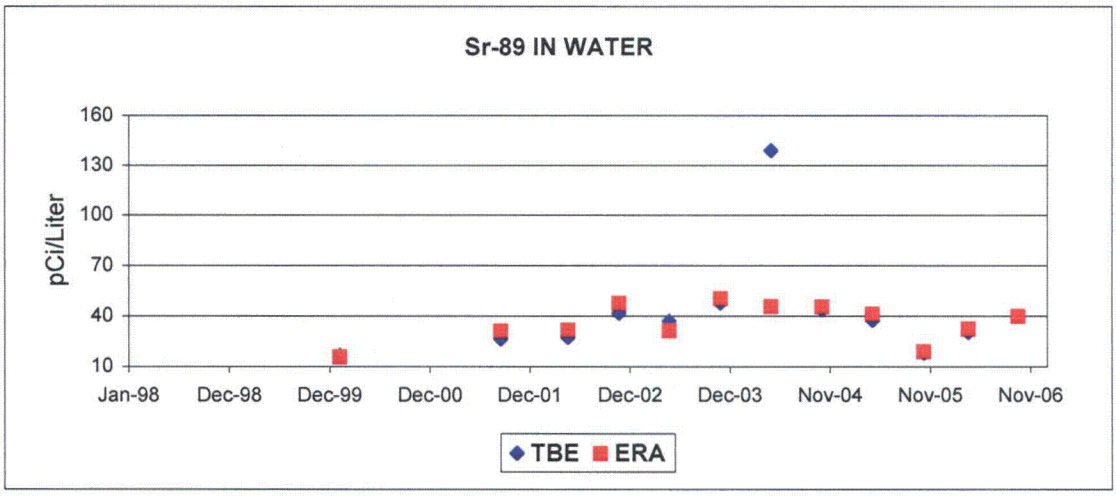

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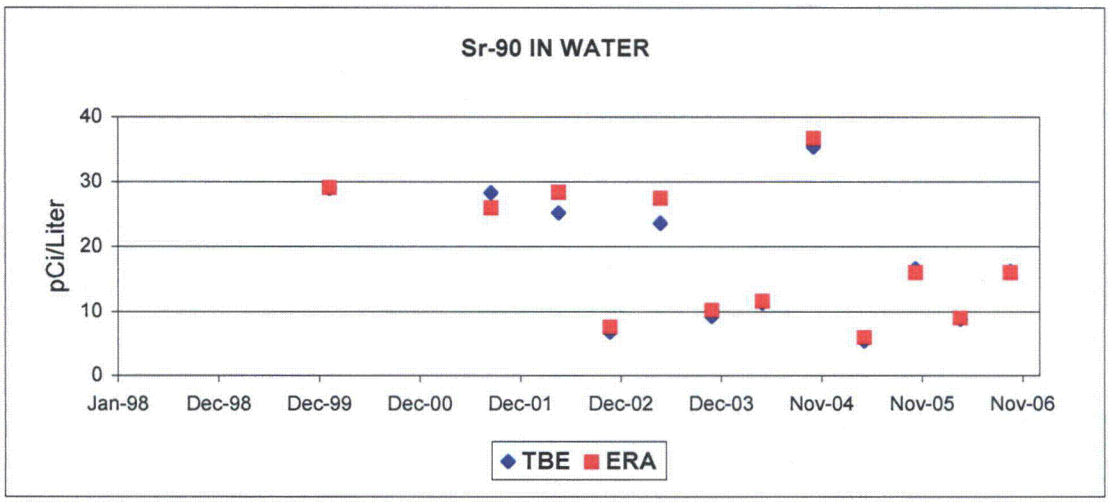

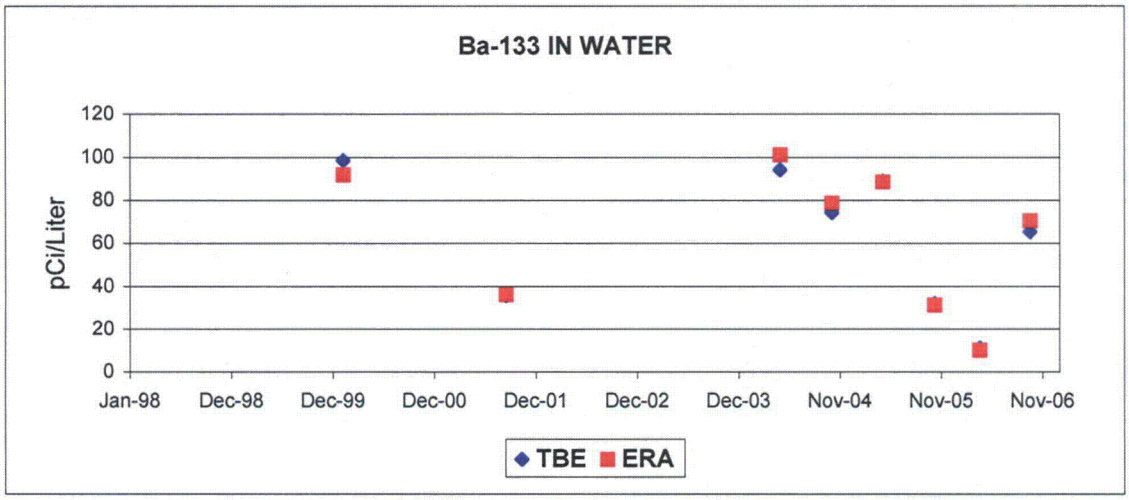

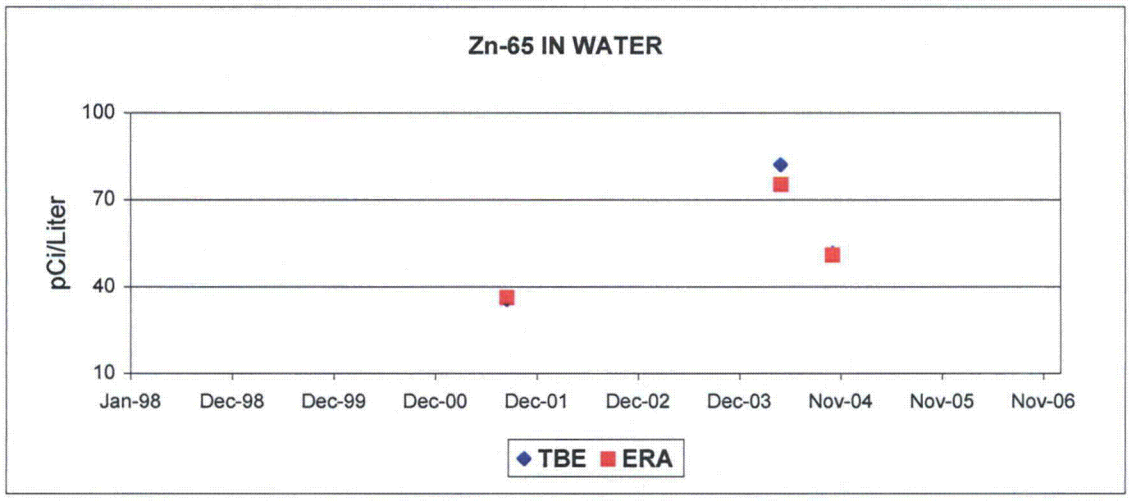

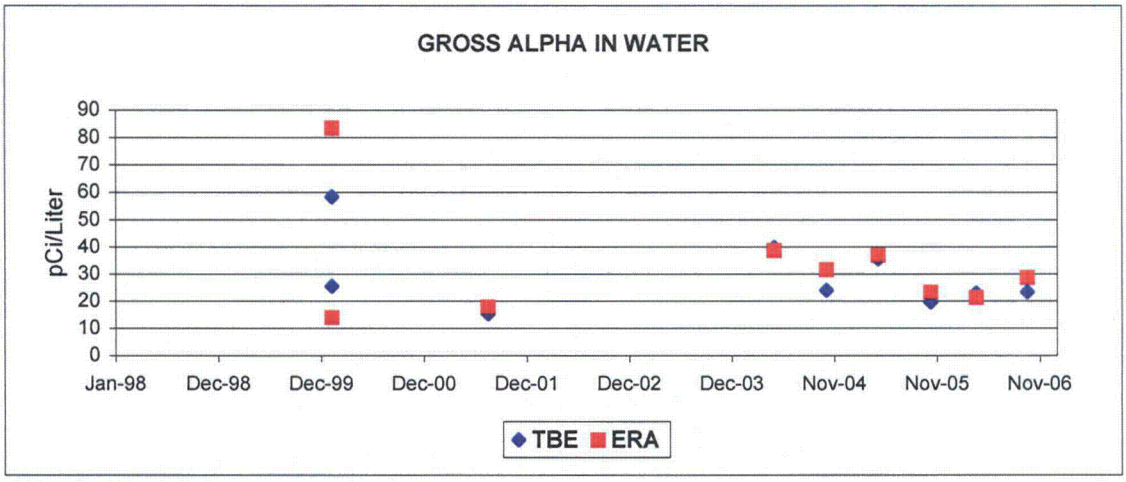

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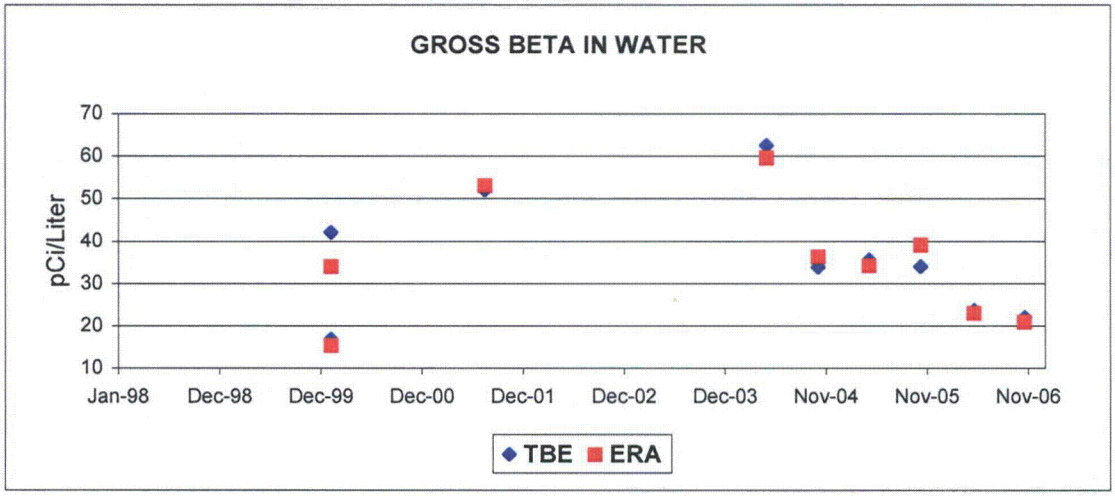
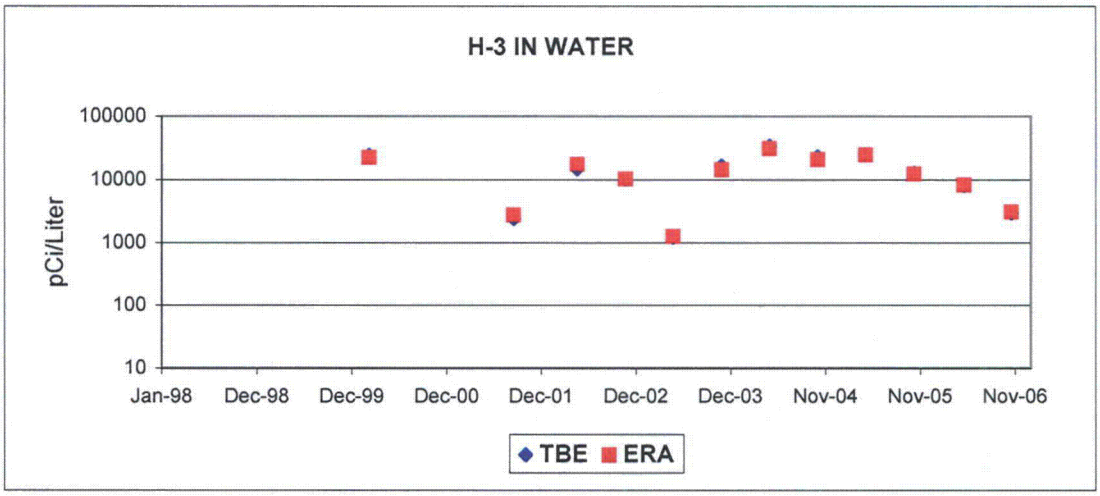
INTERLABORATORY COMPARISON PROGRAM GRAPHS





APPENDIX C
SYNOPSIS OF ANALYTICAL PROCEDURES

ANALYTICAL PROCEDURES SYNOPSIS

Appendix C is a synopsis of the analytical procedures performed during 2006 on samples collected for the Nebraska Public Power Nuclear Plant's Radiological Environmental Monitoring Program. All analyses have been mutually agreed upon by Nebraska Public Power District and Teledyne Brown Engineering and include those recommended by the USNRC Branch Technical Position, Rev. 1, November 1979.

ANALYSIS TITLE **PAGE**

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Air Particulates....C-3

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GROSS BETA ANALYSIS OF AIR PARTICULATE SAMPLES

Air Particulates

After a delay of five or more days, allowing for the radon-222 and radon-220 (thoron) daughter products to decay, the filters are counted in a gas-flow proportional counter.

Calculations of the results, the two sigma error and the lower limit of detection (LLD):

RESULT (pCi/m^3) = $((S/T) - (B/t))/(2.22\ V\ E)$

TWO SIGMA ERROR (pCi/m^3) = $2((S/T^2) + (B/t^2))^{1/2}/(2.22\ V\ E)$

LLD (pCi/m^3) = $4.66(B^{1/2})/(2.22\ V\ E\ t)$

where:

S	=	Gross counts of sample including blank
B	=	Counts of blank
E	=	Counting efficiency
T	=	Number of minutes sample was counted
t	=	Number of minutes blank was counted
V	=	Sample aliquot size (cubic meters)

DETERMINATION OF GROSS BETA ACTIVITY IN WATER SAMPLES

Introduction

The procedures described in this section are used to measure the overall radioactivity of water samples without identifying the radioactive species present. No chemical separation techniques are involved.

One liter of the sample is evaporated on a hot plate. A smaller volume may be used if the sample has a significant salt content as measured gravimetrically. If requested by the customer, the sample is filtered through No. 54 filter paper before evaporation, removing particles greater than 30 microns in size.

After evaporating to a small volume in a beaker, the sample is rinsed into a 2-inch diameter stainless steel planchette, which is stamped with a concentric ring pattern to distribute residue evenly. Final evaporation to dryness takes place under heat lamps.

Residue mass is determined by weighing the planchette before and after mounting the sample. The planchette is counted for beta activity on an automatic proportional counter. Results are calculated using empirical self-absorption curves which allow for the change in effective counting efficiency caused by the residue mass.

Detection Capability

Detection capability depends upon the sample volume actually represented on the planchette, the background and the efficiency of the counting instrument, and upon self-absorption of beta particles by the mounted sample. Because the radioactive species are not identified, no decay corrections are made and the reported activity refers to the counting time.

The minimum detectable level (MDL) for water samples is nominally 1.6 picoCuries per liter for gross beta at the 4.66 sigma level (1.0 pCi/L at the 2.83 sigma level), assuming that 1 liter of sample is used and that ½ gram of sample residue is mounted on the planchette. These figures are based upon a counting time of 50 minutes and upon representative values of counting efficiency and background of 0.2 and 1.2 cpm, respectively

The MDL becomes significantly lower as the mount weight decreases because of reduced self-absorption. At a zero mount weight, the 4.66 sigma MDL for gross beta is 0.9 picoCuries per liter. These values reflect a beta counting efficiency of 0.38.

ANALYSIS OF SAMPLES FOR TRITIUM
(Liquid Scintillation)

Water

Ten milliliters of water are mixed with 10 ml of a liquid scintillation "cocktail" and then the mixture is counted in an automatic liquid scintillator.

Calculation of the results, the two sigma error and the lower limit detection (LLD) in pCi/L:

RESULT = $(N-B)/(2.22\ V\ E)$

TWO SIGMA ERROR = $2((N + B)/\Delta t)^{1/2} / (2.22\ V\ E)$

LLD = $4.66(B/\Delta t)^{1/2}/(2.22\ V\ E)$

where:

N	=	the gross cpm of the sample
B	=	the background of the detector in cpm
2.22	=	conversion factor changing dpm to pCi
V	=	volume of the sample in ml
E	=	efficiency of the detector
Δt	=	counting time for the sample

ANALYSIS OF SAMPLES FOR IODINE-131

Milk or Water

Two or more liters of sample are first equilibrated with stable iodide carrier. A batch treatment with anion exchange resin is used to remove iodine from the sample. The iodine is then stripped from the resin with sodium hypochlorite solution, is reduced with hydroxylamine hydrochloride and is extracted into carbon tetrachloride as free iodine. It is then back-extracted as iodide into sodium bisulfite solution and is precipitated as palladium iodide. The precipitate is weighed for chemical yield and is mounted on a nylon planchette for low-level beta counting.

Calculations of results, two sigma error and the lower limit of detection (LLD) in pCi/L:

RESULT	=	$(N/\Delta t-B)/(2.22\ E\ V\ Y\ DF)$
TWO SIGMA ERROR	=	$2((N/\Delta t+B)/\Delta t)^{1/2}/(2.22\ E\ V\ Y\ DF)$
LLD	=	$4.66(B/\Delta t)^{1/2}/(2.22\ E\ V\ Y\ DF)$

where:	N	=	total counts from sample (counts)
	Δt	=	counting time for sample (min)
	B	=	background rate of counter (cpm)
	2.22	=	dpm/pCi
	V	=	volume or weight of sample analyzed
	Y	=	chemical yield of the mount or sample counted
	DF	=	decay factor from the collection to the counting date
	E	=	efficiency of the counter for I-131, corrected for self absorption effects by the formula
	E	=	$E_s(\exp-0.0061M)/(\exp-0.0061M_s)$
	E_s	=	efficiency of the counter determined from an I-131 standard mount
	Ms	=	mass of PdI_2 on the standard mount, mg
	M	=	mass of PdI_2 on the sample mount, mg

GAMMA SPECTROMETRY OF SAMPLES

Milk or Water

A 1.0 liter Marinelli beaker is filled with a representative aliquot of the sample. The sample is then counted for approximately 1000 minutes with a shielded high purity germanium (HPGe) detector coupled to a VAX-based data acquisition system, which performs pulse height analysis.

Dried Solids other than Soils and Sediments

A large quantity of the sample is dried at a low temperature, less than 100°C. As much as possible (up to the total sample) is loaded into a tared 1-liter Marinelli and weighed. The sample is then counted for approximately 1000 minutes with a shielded HPGe detector coupled to a VAX-based data acquisition system, which performs pulse height analysis.

Fish

As much as possible (up to the total sample) of the edible portion of the sample is loaded into a tared Marinelli and weighed. The sample is then counted for approximately 1000 minutes with a shielded HPGe detector coupled to a VAX-based data acquisition system, which performs pulse height analysis.

Soils and Sediments

Soils and sediments are dried at a low temperature, less than 100°C. The soil or sediment is loaded fully into a tared, standard 300 cc container and weighed. The sample is then counted for approximately six hours with a shielded HPGe detector coupled to a VAX-based data acquisition system, which performs pulse height and analysis.

Charcoal Cartridges (Air Iodine)

Charcoal cartridges are counted up to five at a time, with one positioned on the face of an HPGe detector and up to four on the side of the HPGe detector. Each HPGe detector is calibrated for both positions. The detection limit for I-131 of each charcoal cartridge can be determined (assuming no positive I-131) uniquely from the volume of air, which passed through it. In the event I-131 is observed in the initial counting of a set, each charcoal cartridge is then counted separately, positioned on the face of the detector.

Air Particulates

The thirteen airborne particulate filters for a quarterly composite for each field station are aligned one in front of another and then counted for at least six hours with a shielded HPGe detector coupled to a VAX-based data acquisition system which performs pulse height analysis.

A VAX software program defines peaks by certain changes in the slope of the spectrum. The program also compares the energy of each peak with a library of peaks for isotope identification and then performs the radioactivity calculation using the appropriate fractional gamma ray abundance, half-life, detector efficiency, and net counts in the peak region.

The calculation of results, two sigma error and the lower limit of detection (LLD) in pCi/volume or pCi/mass:

RESULT = $(S-B)/(2.22\ t\ E\ V\ F\ DF)$

TWO SIGMA ERROR = $2(S+B)^{1/2}/(2.22\ t\ E\ V\ F\ DF)$

LLD = $4.66(B)^{1/2}/(2.22\ t\ E\ V\ F\ DF)$

where:

S	=	Area, in counts, of sample peak and background (region of spectrum of interest)
B	=	Background area, in counts, under sample peak, determined by a linear interpolation of the representative backgrounds on either side of the peak
t	=	length of time in minutes the sample was counted
2.22	=	dpm/pCi
E	=	detector efficiency for energy of interest and geometry of sample
V	=	sample aliquot size (liters, cubic meters, kilograms, or grams)
F	=	fractional gamma abundance (specific for each emitted gamma)
DF	=	decay factor from the mid-collection date to the counting date

ADDENDUM TO GAMMA SPECTROMETRY PROCEDURE

Ba-140 (half-life =~12.8d) decays to LA-140 (half-life ~40 hrs) and the daughter radionuclide, La-140 approaches ~ 90 % of the Ba-140 activity within ~ 6 days. The La-140 photon energy at 1596 keV is used to quantify the Ba-140 activity due to its high photon emission probability yield (96%) producing a higher count rate when present and therefore, a smaller associated counting error.

Zr-95 (half-life = ~65d) decays to Nb-95 (half-life = ~35d). The photon energy of Nb-95 (~765 keV) is used to quantify Zr-95 because of the high photon emission probability yield (~100%) yielding a higher count rate and an associated lower counting error. The daughter radionuclide, Nb-95 approaches the Zr-95 activity after a time period of ~65 days, an estimated time interval occurring between sample exposure, collection and shipping, and analysis.

ENVIRONMENTAL DOSIMETRY

Environmental Dosimetry services are provided by Global Dosimetry Solutions, Inc. (GDS). GDS uses a thermoluminescent dosimeter (TLD) manufactured by Panasonic, Inc. Panasonic identifies it as an UD-814A1 TLD. The TLD has four elements, numbered 1-4. Elements and their filtration are composed of:

ELEMENT	MATERIAL	FILTRATION
1	$^{n}Li_2{}^{n}B_4O_7$-Cu	Thin plastic
2	$CaSO_4$-Tm	Lead
3	$CaSO_4$-Tm	Lead
4	$CaSO_4$-Tm	Lead

This material has a high light output, negligible thermally induced signal loss (fading) and negligible self-dosing. The energy response curve (as will as other features) satisfies NRC Regulatory Guide 4.13. Transit doses are accounted for by use of separate TLDs.

Prior to being sent to Cooper Nuclear Station, the GDS badges are exposed to Cs-137, to known a dose and read in the Panasonic UD-710 reader, with reference badges to establish an element response level for each badge. Badges are then re-annealed for assignment and distribution to Cooper Nuclear Station.

Following the field exposure the badges are returned to GDS for processing in a Panasonic UD-710 reader. Each element is heated and the measured light emission is recorded. The transit controls are read in the same manner. Total exposure for each badge is the average of Elements 2, 3, and 4.

Transit Controls are calculated using the following equation:

$$\text{TRANSDOSE} = \frac{(E3_1 + E4_1 + E3_2 + E4_2)}{4} - \frac{(E3_{trans} + E4_{trans})}{2}$$

LOWER LIMIT of DETECTION FORMULAS

The LLD formulas in Section C are consistent with the LLD discussion in the ODAM. The term s_b in the ODAM equals $\sqrt{B/t}$ by Poisson statistics, where B = blank counts and t = blank counting intervals. The decay factor term $e^{-\lambda\Delta t}$ in the ODAM is the same as the DF terms in Section C, but does not appear in certain analyses such as gross beta because decay does not apply. In the tritium analysis, decay is not considered because of the relatively long half-life.

Efficiencies and volumes are consistent between the two documents. Chemical yields appear in Section C where applicable but do not apply to other analyses such as tritium and gross beta.

APPENDIX D
DETECTION LIMITS AND REPORTING LEVELS

NEBRASKA PUBLIC POWER - COOPER NUCLEAR STATION
DETECTION LIMITS AND REPORTING LEVELS

Isotope	ODAM LLD	NRC Rept. Level
Water - pCi/liter		
Gross beta	4	N/A
H-3	2000	20000[a] /30000[b]
Mn-54	15	1000
Fe-59	30	400
Co-58	15	1000
Co-60	15	300
Zn-65	30	300
Zr-95	30	400
Nb-95	15	400
I-131	1[c]	2
Cs-134	15	30
Cs-137	18	50
Ba-140	60	200
La-140	15	200
Air Filter - pCi/m^3		
Gross Beta	0.01	N/A
I-131	0.07	0.9
Cs-134	0.05	10
Cs-137	0.06	20
Fish - pCi/kg-wet		
Mn-54	130	30000
Fe-59	260	10000
Co-58	130	30000
Co-60	130	10000
Zn-65	260	20000
Cs-134	130	1000
Cs-137	150	2000
Milk - pCi/liter		
I-131	1	3
Cs-134	15	60
Cs-137	18	70
Ba-140	60	300
La-140	15	300

(a) For drinking water samples
(b) For samples of water not used as a source of drinking water
(c) LLD for drinking water

NEBRASKA PUBLIC POWER - COOPER NUCLEAR STATION
DETECTION LIMITS AND REPORTING LEVELS

Isotope	ODAM LLD	NRC Rept. Level
Vegetation - pCi/kg-wet		
I-131	60	100
Cs-134	60	1000
Cs-137	80	2000
Sediment - pCi/kg-dry		
Cs-134	150	N/A
Cs-137	180	N/A

APPENDIX E
REMP SAMPLING AND ANALYTICAL EXCEPTIONS

EXCEPTIONS

Appendix E contains the exceptions to the 2006 REMP Program. Where possible, causes of the deviation have been corrected to prevent recurrence.

Any deviations from the sampling schedule are documented on the data tables. Data Tables are in Section VII.

Exceptions for Scheduled REMP Sampling and Analysis During 2006, NPPD Cooper Nuclear Station

The I-131 LLD of 1.0 pCi/liter was missed on groundwater stations 11 and 47 for the week of 06/12/06 due to problems with the I-131 filter paper in the Teledyne Brown Engineering Laboratory.

The I-131 LLD of 1.0 pCi/liter was missed on milk station 99 for the week of 07/11/06 due to problems with the I-131 filter paper in the Teledyne Brown Engineering Laboratory.

APPENDIX F

SUMMARY OF DOSES TO A MEMBER OF THE PUBLIC OFFSITE

LIQUID EFFLUENT DOSE CALCULATIONS

Doses to the maximum individual and 0 to 50 - mile population resulting from the release of radioactive material in liquid effluents from Cooper Nuclear Station were calculated using the LADTAP II computer program. The LADTAP II program implements the radiological dose models of Regulatory Guide 1.109 for determining the radiation exposure to man from three principal exposure pathways in the aquatic environment -- potable water, aquatic foods, and recreational water use. Doses to both the maximum individual and 0 to 50 mile population are calculated as a function of age group and pathway for significant body organs, and are presented in Tables 1 - 6.

Assumptions and data sources used for input to the LADTAP II code are described in a separate section of this appendix (see page F52).

TABLE 1. Doses to Maximum Individual at the Site Boundary, Resulting From Exposure to Radioactivity Discharged in Liquid Effluents, January-June 2006 Cooper Nuclear Station

Period and Pathway	Dose to Individual, mrem							
	Skin	Bone	Liver	Total Body	Thyroid	Kidney	Lung	GI-LLI
1st Quarter								
Drinking Water		0.00 E+00	0.00 E+00	0.00 E+00	0.00 E+00	0.00 E+00	0.00 E+00	0.00 E+00
Shoreline	0.00 E+00	0.00 E+00	0.00 E+00	0.00 E+00	0.00 E+00	0.00 E+00	0.00 E+00	0.00 E+00
Totals	**0.00 E+00**	**0.00 E+00**	**0.00 E+00**	**0.00 E+00**	**0.00 E+00**	**0.00 E+00**	**0.00 E+00**	**0.00 E+00**
2nd Quarter								
Eating Fish		0.00 E+00	0.00 E+00	0.00 E+00	0.00 E+00	0.00 E+00	0.00 E+00	0.00 E+00
Drinking Water		0.00 E+00	0.00 E+00	0.00 E+00	0.00 E+00	0.00 E+00	0.00 E+00	0.00 E+00
Shoreline	0.00 E+00	0.00 E+00	0.00 E+00	0.00 E+00	0.00 E+00	0.00 E+00	0.00 E+00	0.00 E+00
Totals	**0.00 E+00**	**0.00 E+00**	**0.00 E+00**	**0.00 E+00**	**0.00 E+00**	**0.00 E+00**	**0.00 E+00**	**0.00 E+00**
Totals for 1st & 2nd Quarters	**0.00 E+00**	**0.00 E+00**	**0.00 E+00**	**0.00 E+00**	**0.00 E+00**	**0.00 E+00**	**0.00 E+00**	**0.00 E+00**

Calculated doses are based on the following periods of exposures: Fishing: April - November; Drinking water and shoreline: January - December

TABLE 2. Doses to Maximum Individual at the Site Boundary, Resulting From Exposure to Radioactivity Discharged in Liquid Effluents, July-December 2006, Cooper Nuclear Station

Period and Pathway	Dose to Individual, mrem							
	Skin	Bone	Liver	Total Body	Thyroid	Kidney	Lung	GI-LLI
3rd Quarter								
Eating Fish		4.45 E-01	4.70 E-01	2.96 E-01	6.20 E-05	1.60 E-01	6.22 E-02	1.35 E-02
Drinking Water		1.85 E-02	9.84 E-03	8.55 E-03	2.22 E-03	4.75 E-03	3.20 E-03	5.72 E-03
Shoreline	6.40 E-03	1.14 E-03	5.46 E-03	9.78 E-04	5.46 E-03	5.46 E-03	5.46 E-03	9.78 E-04
Totals	**6.40 E-03**	**4.65 E-01**	**4.86 E-01**	**3.06 E-01**	**7.72 E-03**	**1.70 E-01**	**7.08 E-02**	**2.02 E-02**
4th Quarter								
Eating Fish		0.00 E+00	0.00 E+00	0.00 E+00	0.00 E+00	0.00 E+00	0.00 E+00	0.00 E+00
Drinking Water		0.00 E+00	0.00 E+00	0.00 E+00	0.00 E+00	0.00 E+00	0.00 E+00	0.00 E+00
Shoreline	0.00 E+00	0.00 E+00	0.00 E+00	0.00 E+00	0.00 E+00	0.00 E+00	0.00 E+00	0.00 E+00
Totals	**0.00 E+00**	**0.00 E+00**	**0.00 E+00**	**0.00 E+00**	**0.00 E+00**	**0.00 E+00**	**0.00 E+00**	**0.00 E+00**
Totals for 3rd & 4th Quarters	**6.40 E-03**	**4.65 E-01**	**4.86 E-01**	**3.06 E-01**	**7.72 E-03**	**1.70 E-01**	**7.08 E-02**	**2.02 E-02**

Calculated doses are based on the following periods of exposures:
Fishing: April - November; Drinking water and shoreline: January - December

TABLE 3. Summary of Doses to Maximum Individual at the Site Boundary, Resulting from Exposure to Radioactivity Discharged in Liquid Effluents, January-December 2006, Cooper Nuclear Station

Period and Pathway	Dose to Individual, mrem							
	Skin	Bone	Liver	Total Body	Thyroid	Kidney	Lung	GI-LLI
1st Quarter	0.00 E+00	0.00 E+00	0.00 E+00	0.00 E+00	0.00 E+00	0.00 E+00	0.00 E+00	0.00 E+00
2nd Quarter	0.00 E+00	0.00 E+00	0.00 E+00	0.00 E+00	0.00 E+00	0.00 E+00	0.Q0 E+00	0.00 E+00
3rd Quarter	6.40 E-03	4.65 E-01	4.86 E-01	3.06 E-01	7.72 E-03	1.70 E-01	7.08 E-02	2.02 E-02
4th Quarter	0.00 E+00	0.00 E+00	0.00 E+00	0.00 E+00	0.00 E+00	0.00 E+00	0.00 E+00	0.00 E+00
Totals for 2006	**6.40 E-03**	**4.65 E-01**	**4.86 E-01**	**3.06 E-01**	**7.72 E-03**	**1.70 E-01**	**7.08 E-02**	**2.02 E-02**

TABLE 4. Doses to Population Within a 50-Mile Radius, Resulting From Exposure to Radioactivity Discharged in Liquid Effluents, January-June 2006, Cooper Nuclear Station

Period and Pathway	Dose to Population, manrem							
	Skin	Bone	Liver	Total Body	Thyroid	Kidney	Lung	GI-LLI
1st Quarter								
Drinking Water		0.00 E+00	0.00 E+00	0.00 E+00	0.00 E+00	0.00 E+00	0.00 E+00	0.00 E+00
Shoreline	0.00 E+00	0.00 E+00	0.00 E+00	0.00 E+00	0.00 E+00	0.00 E+00	0.00 E+00	0.00 E+00
Totals	**0.00 E+00**	**0.00 E+00**	**0.00 E+00**	**0.00 E+00**	**0.00 E+00**	**0.00 E+00**	**0.00 E+00**	**0.00 E+00**
2nd Quarter								
Eating Fish		0.00 E+00	0.00 E+00	0.00 E+00	0.00 E+00	0.00 E+00	0.00 E+00	0.00 E+00
Drinking Water		0.00 E+00	0.00 E+00	0.00 E+00	0.00 E+00	0.00 E+00	0.00 E+00	0.00 E+00
Shoreline	0.00 E+00	0.00 E+00	0.00 E+00	0.00 E+00	0.00 E+00	0.00 E+00	0.00 E+00	0.00 E+00
Swimming	0.00 E+00	0.00 E+00	0.00 E+00	0.00 E+00	0.00 E+00	0.00 E+00	0.00 E+00	0.00 E+00
Boating	0.00 E+00	0.00 E+00	0.00 E+00	0.00 E+00	0.00 E+00	0.00 E+00	0.00 E+00	0.00 E+00
Totals	**0.00 E+00**	**0.00 E+00**	**0.00 E+00**	**0.00 E+00**	**0.00 E+00**	**0.00 E+00**	**0.00 E+00**	**0.00 E+00**
Totals for 1st & 2nd Quarters	**0.00 E+00**	**0.00 E+00**	**0.00 E+00**	**0.00 E+00**	**0.00 E+00**	**0.00 E+00**	**0.00 E+00**	**0.00 E+00**

Calculated doses are based on the following periods of exposures: Fishing and Boating: April - November; Drinking water and shoreline: January - December; Swimming: June - September
Exposure from drinking water is calculated for the city of St. Joseph, Missouri, nearest public water intake from the Missouri River, 84 miles downstream

TABLE 5. Doses to Population Within a 50-Mile Radius, Resulting From Exposure to Radioactivity Discharged in Liquid Effluents, July-December 2006, Cooper Nuclear Station

Period and Pathway	Dose to Population, manrem							
	Skin	Bone	Liver	Total Body	Thyroid	Kidney	Lung	GI-LLI
3rd Quarter								
Eating Fish		3.44 E-02	4.38 E-02	2.35 E-02	7.16 E-06	1.48 E-02	5.07 E-03	1.11 E-03
Drinking Water		1.45 E-02	2.07 E-02	1.30 E-02	5.26 E-03	1.03 E-02	7.03 E-03	8.98 E-03
Shoreline	2.56 E-03	0.00 E+00	0.00 E+00	2.18 E-03	2.18 E-03	0.00 E+00	0.00 E+00	0.00 E+00
Swimming	0.00 E+00	0.00 E+00	0.00 E+00	9.21 E-06	9.21 E-06	0.00 E+00	0.00 E+00	0.00 E+00
Boating	0.00 E+00	0.00 E+00	0.00 E+00	3.37 E-05	3.37 E-03	0.00 E+00	0.00 E+00	0.00 E+00
Totals	**2.56 E-03**	**4.89 E-02**	**6.45 E-02**	**3.87 E-02**	**7.49 E-03**	**2.51 E-02**	**1.21 E-020**	**1.01 E-02**
4th Quarter								
Eating Fish		0.00 E+00	0.00 E+00	0.00 E+00	0.00 E+00	0.00 E+00	0.00 E+00	0.00 E+00
Drinking Water		0.00 E+00	0.00 E+00	0.00 E+00	0.00 E+00	0.00 E+00	0.00 E+00	0.00 E+00
Shoreline	0.00 E+00	0.00 E+00	0.00 E+00	0.00 E+00	0.00 E+00	0.00 E+00	0.00 E+00	0.00 E+00
Totals	**0.00 E+00**	**0.00 E+00**	**0.00 E+00**	**0.00 E+00**	**0.00 E+00**	**0.00 E+00**	**0.00 E+00**	**0.00 E+00**
Totals for 3rd & 4th Quarters	**2.56 E-03**	**4.89 E-02**	**6.45 E-02**	**3.87 E-02**	**7.49 E-03**	**2.51 E-02**	**1.21 E-02**	**1.01 E-02**

Calculated doses are based on the following periods of exposures: Fishing and Boating: April - November; Drinking water and shoreline: January - December; Swimming: June - September
Exposure from drinking water is calculated for the city of St. Joseph, Missouri, nearest public water intake from the Missouri River, 84 miles downstream

TABLE 6. **Summary of Doses to Population Within a 50-Mile Radius, Resulting from Exposure to Radioactivity Discharged in Liquid Effluents, January-December 2006 Cooper Nuclear Station**

Period and Pathway	Dose to Population, manrem							
	Skin	Bone	Liver	Total Body	Thyroid	Kidney	Lung	GI-LLI
1st Quarter	0.00 E+00	0.00 E+00	0.00 E+00	0.00 E+00	0.00 E+00	0.00 E+00	0.00 E+00	0.00 E+00
2nd Quarter	0.00 E+00	0.00 E+00	0.00 E+00	0.00 E+00	0.00 E+00	0.00 E+00	0.00 E+00	0.00 E+00
3rd Quarter	2.56 E-03	4.89 E-02	6.45 E-02	3.87 E-02	7.49 E-03	2.51 E-02	1.21 E-02	1.01 E-02
4th Quarter	0.00 E+00	0.00 E+00	0.00 E+00	0.00 E+00	0.00 E+00	0.00 E+00	0.00 E+00	0.00 E+00
Totals for 2006	**2.56 E-03**	**4.89 E-02**	**6.45 E-02**	**3.87 E-02**	**7.49 E-03**	**2.51 E-02**	**1.21 E-02**	**1.01 E-02**

GASEOUS EFFLUENT DOSE CALCULATIONS

Doses to the maximum individual and 0 to 50 mile population resulting from the release of radioactive material in gaseous effluents from the Cooper Nuclear Station were calculated using the GASPAR computer code. Four sites were selected for individual dose calculations: the site boundary, the nearest residence, the nearest garden and the nearest cow. GASPAR implements the radiological dose models of Regulatory Guide 1.109 for determining the radiation exposure to man from four principal atmospheric exposure pathways: plume, ground, inhalation, and ingestion. Doses to the maximum individual and the population are calculated as a function of age group and pathway for significant body organs.

Tables 1 through 7 present maximum individual doses. Population doses are given in Tables 8 through 14.

Assumptions and data used for input to the GASPAR code are described in a separate section of this appendix (see page C51).

TABLE 1. DOSES TO MAXIMUM INDIVIDUAL (MREM), JANUARY-MARCH 2006

SPECIAL LOCATION NO. 1 A Site Boundary
AT .69 MILES NNW

ANNUAL BETA AIR DOSE = 2.87E-04 MILLRADS
ANNUAL GAMMA AIR DOSE = 1.51E-04 MILLRADS

PATHWAY	T.BODY	GI-TRACT	BONE	LIVER	KIDNEY	THYROID	LUNG	SKIN
PLUME	9.50E-05	9.50E-05	9.50E-05	9.50E-05	9.50E-05	9.50E-05	9.79E-05	2.50E-04
GROUND	1.25E-03	1.25E-03	1.25E-03	1.25E-03	1.25E-03	1.25E-03	1.25E-03	1.47E-03
VEGET								
ADULT	2.70E-05	2.18E-04	2.02E-04	1.60E-05	7.84E-06	1.27E-03	5.17E-08	0.00E+00
TEEN	4.26E-05	2.37E-04	3.34E-04	2.45E-05	1.19E-05	1.72E-03	9.13E-08	0.00E+00
CHILD	8.89E-05	1.60E-04	8.17E-04	3.82E-05	1.88E-05	3.29E-03	1.34E-07	0.00E+00
MEAT								
ADULT	5.12E-06	4.87E-05	2.07E-06	2.53E-06	2.25E-07	3.43E-05	3.11E-08	0.00E+00
TEEN	4.06E-06	2.62E-05	1.74E-06	1.97E-06	1.81E-07	2.49E-05	2.79E-08	0.00E+00
CHILD	6.32E-06	1.32E-05	3.28E-06	2.35E-06	2.25E-07	3.75E-05	3.15E-08	0.00E+00
COW MILK								
ADULT	3.11E-06	6.13E-05	1.15E-05	3.61E-06	5.26E-06	9.51E-04	5.37E-09	0.00E+00
TEEN	5.29E-06	7.19E-05	2.10E-05	6.35E-06	9.35E-06	1.50E-03	1.07E-08	0.00E+00
CHILD	1.04E-05	4.76E-05	5.18E-05	1.09E-05	1.55E-05	2.97E-03	1.61E-08	0.00E+00
INFANT	1.87E-05	4.18E-05	1.00E-04	2.58E-05	2.68E-05	7.22E-03	3.15E-08	0.00E+00
GOATMILK								
ADULT	2.73E-06	1.11E-05	2.20E-05	3.63E-06	6.05E-06	1.14E-03	6.09E-09	0.00E+00
TEEN	4.63E-06	1.38E-05	4.04E-05	6.44E-06	1.08E-05	1.81E-03	1.25E-08	0.00E+00
CHILD	9.19E-06	9.86E-06	9.99E-05	1.12E-05	1.79E-05	3.57E-03	1.92E-08	0.00E+00
INFANT	1.73E-05	9.18E-06	1.92E-04	2.72E-05	3.11E-05	8.67E-03	3.51E-08	0.00E+00
INHAL								
ADULT	5.24E-07	7.23E-06	6.03E-07	8.33E-07	7.01E-07	9.66E-05	1.00E-04	0.00E+00
TEEN	7.01E-07	1.29E-05	8.53E-07	1.13E-06	9.59E-07	1.20E-04	1.47E-04	0.00E+00
CHILD	8.06E-07	4.53E-05	1.17E-06	1.06E-06	8.91E-07	1.35E-04	1.20E-04	0.00E+00
INFANT	5.11E-07	3.66E-05	8.42E-07	8.85E-07	5.78E-07	1.24E-04	7.90E-05	0.00E+00

TABLE 1. DOSES TO MAXIMUM INDIVIDUAL (MREM), JANUARY-MARCH 2006 (CONTINUED)

SPECIAL LOCATION NO. 2 A Site Boundary
AT .67 MILES N

ANNUAL BETA AIR DOSE = 3.26E-04 MILLRADS
ANNUAL GAMMA AIR DOSE = 1.69E-04 MILLRADS

PATHWAY	T.BODY	GI-TRACT	BONE	LIVER	KIDNEY	THYROID	LUNG	SKIN
PLUME	1.06E-04	1.06E-04	1.06E-04	1.06E-04	1.06E-04	1.06E-04	1.10E-04	2.82E-04
GROUND	1.50E-03	1.50E-03	1.50E-03	1.50E-03	1.50E-03	1.50E-03	1.50E-03	1.77E-03
VEGET								
ADULT	3.19E-05	2.59E-04	2.25E-04	1.92E-05	9.35E-06	1.52E-03	5.64E-08	0.00E+00
TEEN	5.02E-05	2.81E-04	3.73E-04	2.93E-05	1.42E-05	2.04E-03	9.96E-08	0.00E+00
CHILD	1.05E-04	1.89E-04	9.13E-04	4.57E-05	2.24E-05	3.92E-03	1.46E-07	0.00E+00
MEAT								
ADULT	6.13E-06	5.83E-05	2.31E-06	3.02E-06	2.68E-07	4.09E-05	3.39E-08	0.00E+00
TEEN	4.86E-06	3.14E-05	1.95E-06	2.35E-06	2.16E-07	2.96E-05	3.04E-08	0.00E+00
CHILD	7.57E-06	1.59E-05	3.67E-06	2.81E-06	2.68E-07	4.47E-05	3.44E-08	0.00E+00
COW MILK								
ADULT	3.69E-06	7.34E-05	1.30E-05	4.30E-06	6.27E-06	1.13E-03	5.86E-09	0.00E+00
TEEN	6.28E-06	8.60E-05	2.38E-05	7.57E-06	1.11E-05	1.79E-03	1.17E-08	0.00E+00
CHILD	1.24E-05	5.70E-05	5.86E-05	1.29E-05	1.84E-05	3.54E-03	1.75E-08	0.00E+00
INFANT	2.22E-05	5.00E-05	1.13E-04	3.07E-05	3.19E-05	8.61E-03	3.44E-08	0.00E+00
GOATMILK								
ADULT	3.21E-06	1.31E-05	2.47E-05	4.32E-06	7.20E-06	1.36E-03	6.64E-09	0.00E+00
TEEN	5.43E-06	1.62E-05	4.55E-05	7.67E-06	1.28E-05	2.15E-03	1.37E-08	0.00E+00
CHILD	1.08E-05	1.15E-05	1.12E-04	1.33E-05	2.13E-05	4.25E-03	2.10E-08	0.00E+00
INFANT	2.02E-05	1.07E-05	2.16E-04	3.24E-05	3.71E-05	1.03E-02	3.83E-08	0.00E+00
INHAL								
ADULT	5.86E-07	8.53E-06	6.77E-07	9.21E-07	7.96E-07	1.13E-04	1.18E-04	0.00E+00
TEEN	7.83E-07	1.52E-05	9.58E-07	1.24E-06	1.09E-06	1.40E-04	1.74E-04	0.00E+00
CHILD	8.94E-07	5.34E-05	1.31E-06	1.17E-06	1.01E-06	1.59E-04	1.42E-04	0.00E+00
INFANT	5.60E-07	4.31E-05	9.45E-07	9.60E-07	6.56E-07	1.45E-04	9.32E-05	0.00E+00

TABLE 1. DOSES TO MAXIMUM INDIVIDUAL (MREM), JANUARY-MARCH 2006 (CONTINUED)

SPECIAL LOCATION NO. 3 A Nearest Resident
AT .90 MILES NW

ANNUAL BETA AIR DOSE = 1.76E-04 MILLRADS
ANNUAL GAMMA AIR DOSE = 1.17E-04 MILLRADS

PATHWAY	T.BODY	GI-TRACT	BONE	LIVER	KIDNEY	THYROID	LUNG	SKIN
PLUME	7.48E-05	7.48E-05	7.48E-05	7.48E-05	7.48E-05	7.48E-05	7.65E-05	1.78E-04
GROUND	6.03E-04	6.03E-04	6.03E-04	6.03E-04	6.03E-04	6.03E-04	6.03E-04	7.09E-04
VEGET								
ADULT	1.98E-05	1.41E-04	3.23E-04	8.39E-06	4.55E-06	7.59E-04	1.01E-07	0.00E+00
TEEN	3.16E-05	1.59E-04	5.36E-04	1.28E-05	6.91E-06	1.02E-03	1.79E-07	0.00E+00
CHILD	6.96E-05	1.13E-04	1.31E-03	2.01E-05	1.10E-05	1.96E-03	2.61E-07	0.00E+00
MEAT								
ADULT	2.57E-06	2.40E-05	3.27E-06	1.38E-06	1.30E-07	2.05E-05	6.08E-08	0.00E+00
TEEN	2.04E-06	1.30E-05	2.75E-06	1.08E-06	1.05E-07	1.48E-05	5.45E-08	0.00E+00
CHILD	3.19E-06	6.60E-06	5.20E-06	1.29E-06	1.31E-07	2.24E-05	6.16E-08	0.00E+00
COW MILK								
ADULT	2.01E-06	3.10E-05	1.63E-05	2.11E-06	3.12E-06	5.68E-04	1.05E-08	0.00E+00
TEEN	3.44E-06	3.67E-05	3.00E-05	3.73E-06	5.55E-06	8.98E-04	2.09E-08	0.00E+00
CHILD	7.00E-06	2.46E-05	7.42E-05	6.38E-06	9.18E-06	1.77E-03	3.14E-08	0.00E+00
INFANT	1.28E-05	2.19E-05	1.42E-04	1.52E-05	1.59E-05	4.31E-03	6.16E-08	0.00E+00
GOATMILK								
ADULT	2.23E-06	8.99E-06	3.30E-05	2.23E-06	3.63E-06	6.81E-04	1.19E-08	0.00E+00
TEEN	3.83E-06	1.16E-05	6.09E-05	3.95E-06	6.47E-06	1.08E-03	2.45E-08	0.00E+00
CHILD	8.05E-06	8.75E-06	1.51E-04	6.88E-06	1.08E-05	2.13E-03	3.76E-08	0.00E+00
INFANT	1.52E-05	8.46E-06	2.87E-04	1.66E-05	1.87E-05	5.17E-03	6.86E-08	0.00E+00
INHAL								
ADULT	4.64E-07	2.38E-06	5.06E-07	8.41E-07	4.80E-07	3.13E-05	3.08E-05	0.00E+00
TEEN	6.37E-07	4.20E-06	7.16E-07	1.16E-06	6.59E-07	3.88E-05	4.55E-05	0.00E+00
CHILD	7.90E-07	1.49E-05	9.80E-07	1.14E-06	6.16E-07	4.38E-05	3.72E-05	0.00E+00
INFANT	5.61E-07	1.26E-05	7.18E-07	1.05E-06	4.04E-07	4.01E-05	2.48E-05	0.00E+00

TABLE 1. DOSES TO MAXIMUM INDIVIDUAL (MREM), JANUARY-MARCH 2006 (CONTINUED)

SPECIAL LOCATION NO. 4 A Nearest Cow
AT 3.50 MILES NNW

ANNUAL BETA AIR DOSE = 8.61E-05 MILLRADS
ANNUAL GAMMA AIR DOSE = 6.68E-05 MILLRADS

PATHWAY	T.BODY	GI-TRACT	BONE	LIVER	KIDNEY	THYROID	LUNG	SKIN
PLUME	4.31E-05	4.31E-05	4.31E-05	4.31E-05	4.31E-05	4.31E-05	4.40E-05	9.63E-05
GROUND	2.58E-05	2.58E-05	2.58E-05	2.58E-05	2.58E-05	2.58E-05	2.58E-05	3.03E-05
VEGET								
ADULT	1.19E-06	7.90E-06	2.54E-05	3.93E-07	2.33E-07	3.99E-05	8.23E-09	0.00E+00
TEEN	1.92E-06	9.09E-06	4.22E-05	5.99E-07	3.55E-07	5.37E-05	1.45E-08	0.00E+00
CHILD	4.35E-06	6.65E-06	1.03E-04	9.47E-07	5.64E-07	1.03E-04	2.13E-08	0.00E+00
MEAT								
ADULT	1.15E-07	1.06E-06	2.56E-07	6.74E-08	6.62E-09	1.07E-06	4.95E-09	0.00E+00
TEEN	9.15E-08	5.74E-07	2.16E-07	5.27E-08	5.35E-09	7.78E-07	4.43E-09	0.00E+00
CHILD	1.44E-07	2.94E-07	4.07E-07	6.36E-08	6.70E-09	1.17E-06	5.01E-09	0.00E+00
COW MILK								
ADULT	1.12E-07	1.40E-06	1.25E-06	1.09E-07	1.63E-07	2.98E-05	8.54E-10	0.00E+00
TEEN	1.92E-07	1.68E-06	2.30E-06	1.93E-07	2.90E-07	4.71E-05	1.70E-09	0.00E+00
CHILD	4.00E-07	1.14E-06	5.69E-06	3.31E-07	4.80E-07	9.31E-05	2.55E-09	0.00E+00
INFANT	7.37E-07	1.03E-06	1.09E-05	7.89E-07	8.32E-07	2.26E-04	5.01E-09	0.00E+00
GOATMILK								
ADULT	1.42E-07	5.70E-07	2.56E-06	1.20E-07	1.91E-07	3.57E-05	9.69E-10	0.00E+00
TEEN	2.45E-07	7.51E-07	4.72E-06	2.12E-07	3.41E-07	5.65E-05	1.99E-09	0.00E+00
CHILD	5.29E-07	5.79E-07	1.17E-05	3.69E-07	5.67E-07	1.12E-04	3.06E-09	0.00E+00
INFANT	1.00E-06	5.69E-07	2.23E-05	8.88E-07	9.85E-07	2.72E-04	5.58E-09	0.00E+00
INHAL								
ADULT	2.82E-07	3.71E-07	3.01E-07	5.39E-07	2.53E-07	4.30E-06	3.57E-06	0.00E+00
TEEN	3.92E-07	5.49E-07	4.26E-07	7.50E-07	3.49E-07	5.34E-06	5.41E-06	0.00E+00
CHILD	5.02E-07	1.73E-06	5.83E-07	7.50E-07	3.27E-07	6.05E-06	4.48E-06	0.00E+00
INFANT	3.71E-07	1.89E-06	4.29E-07	7.13E-07	2.16E-07	5.53E-06	3.23E-06	0.00E+00

TABLE 1. DOSES TO MAXIMUM INDIVIDUAL (MREM), JANUARY-MARCH 2006 (CONTINUED)

SPECIAL LOCATION NO. 5 A Nearest Garden
AT 2.50 MILES N

ANNUAL BETA AIR DOSE = 5.46E-05 MILLRADS
ANNUAL GAMMA AIR DOSE = 3.79E-05 MILLRADS

PATHWAY	T.BODY	GI-TRACT	BONE	LIVER	KIDNEY	THYROID	LUNG	SKIN
PLUME	2.44E-05	2.44E-05	2.44E-05	2.44E-05	2.44E-05	2.44E-05	2.49E-05	5.67E-05
GROUND	6.35E-05	6.35E-05	6.35E-05	6.35E-05	6.35E-05	6.35E-05	6.35E-05	7.47E-05
VEGET								
ADULT	2.09E-06	1.50E-05	3.45E-05	8.84E-07	4.80E-07	8.01E-05	1.08E-08	0.00E+00
TEEN	3.35E-06	1.68E-05	5.73E-05	1.35E-06	7.29E-07	1.08E-04	1.91E-08	0.00E+00
CHILD	7.39E-06	1.19E-05	1.40E-04	2.12E-06	1.16E-06	2.07E-04	2.79E-08	0.00E+00
MEAT								
ADULT	2.71E-07	2.53E-06	3.49E-07	1.46E-07	1.37E-08	2.16E-06	6.50E-09	0.00E+00
TEEN	2.15E-07	1.37E-06	2.94E-07	1.14E-07	1.10E-08	1.56E-06	5.83E-09	0.00E+00
CHILD	3.36E-07	6.95E-07	5.55E-07	1.37E-07	1.38E-08	2.36E-06	6.59E-09	0.00E+00
COW MILK								
ADULT	2.12E-07	3.26E-06	1.74E-06	2.23E-07	3.29E-07	5.99E-05	1.12E-09	0.00E+00
TEEN	3.64E-07	3.87E-06	3.21E-06	3.93E-07	5.85E-07	9.47E-05	2.24E-09	0.00E+00
CHILD	7.40E-07	2.60E-06	7.92E-06	6.73E-07	9.69E-07	1.87E-04	3.36E-09	0.00E+00
INFANT	1.35E-06	2.31E-06	1.52E-05	1.60E-06	1.68E-06	4.55E-04	6.59E-09	0.00E+00
GOATMILK								
ADULT	2.36E-07	9.55E-07	3.53E-06	2.35E-07	3.83E-07	7.18E-05	1.27E-09	0.00E+00
TEEN	4.06E-07	1.23E-06	6.50E-06	4.17E-07	6.83E-07	1.14E-04	2.62E-09	0.00E+00
CHILD	8.55E-07	9.30E-07	1.61E-05	7.26E-07	1.13E-06	2.25E-04	4.02E-09	0.00E+00
INFANT	1.61E-06	9.00E-07	3.07E-05	1.75E-06	1.97E-06	5.46E-04	7.34E-09	0.00E+00
INHAL								
ADULT	1.52E-07	5.36E-07	1.64E-07	2.80E-07	1.50E-07	7.49E-06	7.00E-06	0.00E+00
TEEN	2.09E-07	8.49E-07	2.32E-07	3.88E-07	2.06E-07	9.29E-06	1.03E-05	0.00E+00
CHILD	2.62E-07	2.62E-06	3.17E-07	3.84E-07	1.93E-07	1.05E-05	8.45E-06	0.00E+00
INFANT	1.89E-07	2.30E-06	2.33E-07	3.58E-07	1.27E-07	9.61E-06	5.66E-06	0.00E+00

TABLE 2. DOSES TO MAXIMUM INDIVIDUAL (MREM), APRIL-JUNE 2006

SPECIAL LOCATION NO. 1 A Site Boundary
AT .69 MILES NNW

ANNUAL BETA AIR DOSE = 1.93E-03 MILLRADS
ANNUAL GAMMA AIR DOSE = 9.71E-04 MILLRADS

PATHWAY	T.BODY	GI-TRACT	BONE	LIVER	KIDNEY	THYROID	LUNG	SKIN
PLUME	6.03E-04	6.03E-04	6.03E-04	6.03E-04	6.03E-04	6.03E-04	6.23E-04	1.54E-03
GROUND	4.53E-04	4.53E-04	4.53E-04	4.53E-04	4.53E-04	4.53E-04	4.53E-04	5.33E-04
VEGET								
ADULT	1.53E-05	8.68E-05	1.37E-04	1.31E-05	1.35E-05	2.38E-03	5.64E-08	0.00E+00
TEEN	2.35E-05	9.58E-05	2.27E-04	1.97E-05	2.03E-05	3.18E-03	1.06E-07	0.00E+00
CHILD	4.82E-05	6.63E-05	5.55E-04	3.19E-05	3.24E-05	6.09E-03	1.61E-07	0.00E+00
MEAT								
ADULT	1.97E-06	1.56E-05	1.45E-06	1.08E-06	3.53E-07	6.29E-05	4.60E-09	0.00E+00
TEEN	1.55E-06	8.43E-06	1.22E-06	8.45E-07	2.88E-07	4.56E-05	4.35E-09	0.00E+00
CHILD	2.40E-06	4.27E-06	2.30E-06	1.03E-06	3.64E-07	6.88E-05	5.12E-09	0.00E+00
COW MILK								
ADULT	4.01E-06	6.36E-06	1.04E-05	6.44E-06	1.02E-05	1.82E-03	3.89E-08	0.00E+00
TEEN	6.60E-06	8.05E-06	1.91E-05	1.14E-05	1.83E-05	2.89E-03	8.04E-08	0.00E+00
CHILD	1.24E-05	5.97E-06	4.70E-05	1.99E-05	3.04E-05	5.77E-03	1.24E-07	0.00E+00
INFANT	2.29E-05	5.65E-06	9.23E-05	4.79E-05	5.28E-05	1.40E-02	2.23E-07	0.00E+00
GOATMILK								
ADULT	4.95E-06	4.82E-06	1.85E-05	8.12E-06	1.25E-05	2.19E-03	1.17E-07	0.00E+00
TEEN	7.85E-06	6.53E-06	3.40E-05	1.44E-05	2.23E-05	3.47E-03	2.41E-07	0.00E+00
CHILD	1.43E-05	5.27E-06	8.35E-05	2.51E-05	3.70E-05	6.92E-03	3.70E-07	0.00E+00
INFANT	2.67E-05	5.26E-06	1.62E-04	6.00E-05	6.44E-05	1.68E-02	6.70E-07	0.00E+00
INHAL								
ADULT	6.51E-07	3.07E-06	1.38E-06	1.64E-06	2.67E-06	2.92E-04	3.05E-05	0.00E+00
TEEN	8.75E-07	6.16E-06	1.95E-06	2.26E-06	3.70E-06	3.80E-04	4.56E-05	0.00E+00
CHILD	1.02E-06	3.30E-05	2.67E-06	2.21E-06	3.48E-06	4.69E-04	3.75E-05	0.00E+00
INFANT	7.16E-07	2.85E-05	2.01E-06	2.04E-06	2.30E-06	4.32E-04	2.61E-05	0.00E+00

TABLE 2. DOSES TO MAXIMUM INDIVIDUAL (MREM), APRIL-JUNE 2006 (CONTINUED)

SPECIAL LOCATION NO. 2 A Site Boundary
AT .67 MILES N

ANNUAL BETA AIR DOSE = 2.70E-03 MILLRADS
ANNUAL GAMMA AIR DOSE = 1.42E-03 MILLRADS

PATHWAY	T.BODY	GI-TRACT	BONE	LIVER	KIDNEY	THYROID	LUNG	SKIN
PLUME	8.90E-04	8.90E-04	8.90E-04	8.90E-04	8.90E-04	8.90E-04	9.17E-04	2.23E-03
GROUND	7.56E-04	7.56E-04	7.56E-04	7.56E-04	7.56E-04	7.56E-04	7.56E-04	8.89E-04
VEGET								
ADULT	2.79E-05	1.53E-04	2.76E-04	2.35E-05	2.45E-05	4.29E-03	1.69E-07	0.00E+00
TEEN	4.25E-05	1.70E-04	4.57E-04	3.55E-05	3.68E-05	5.75E-03	3.17E-07	0.00E+00
CHILD	8.74E-05	1.18E-04	1.12E-03	5.75E-05	5.87E-05	1.10E-02	4.82E-07	0.00E+00
MEAT								
ADULT	3.35E-06	2.61E-05	2.93E-06	1.88E-06	6.54E-07	1.14E-04	1.38E-08	0.00E+00
TEEN	2.62E-06	1.41E-05	2.47E-06	1.47E-06	5.33E-07	8.24E-05	1.31E-08	0.00E+00
CHILD	4.04E-06	7.15E-06	4.65E-06	1.80E-06	6.74E-07	1.24E-04	1.53E-08	0.00E+00
COW MILK								
ADULT	7.48E-06	1.12E-05	2.04E-05	1.19E-05	1.85E-05	3.28E-03	1.17E-07	0.00E+00
TEEN	1.21E-05	1.42E-05	3.74E-05	2.12E-05	3.30E-05	5.21E-03	2.41E-07	0.00E+00
CHILD	2.24E-05	1.06E-05	9.18E-05	3.68E-05	5.49E-05	1.04E-02	3.71E-07	0.00E+00
INFANT	4.15E-05	1.00E-05	1.80E-04	8.82E-05	9.55E-05	2.52E-02	6.70E-07	0.00E+00
GOATMILK								
ADULT	9.80E-06	9.02E-06	3.70E-05	1.58E-05	2.28E-05	3.94E-03	3.50E-07	0.00E+00
TEEN	1.50E-05	1.22E-05	6.78E-05	2.81E-05	4.07E-05	6.25E-03	7.23E-07	0.00E+00
CHILD	2.67E-05	9.87E-06	1.67E-04	4.89E-05	6.77E-05	1.25E-02	1.11E-06	0.00E+00
INFANT	4.92E-05	9.85E-06	3.21E-04	1.15E-04	1.18E-04	3.03E-02	2.01E-06	0.00E+00
INHAL								
ADULT	8.83E-07	4.23E-06	1.88E-06	2.22E-06	3.61E-06	3.94E-04	4.17E-05	0.00E+00
TEEN	1.19E-06	8.49E-06	2.66E-06	3.05E-06	5.00E-06	5.13E-04	6.23E-05	0.00E+00
CHILD	1.38E-06	4.53E-05	3.64E-06	2.99E-06	4.69E-06	6.33E-04	5.13E-05	0.00E+00
INFANT	9.71E-07	3.92E-05	2.74E-06	2.75E-06	3.10E-06	5.82E-04	3.57E-05	0.00E+00

TABLE 2. DOSES TO MAXIMUM INDIVIDUAL (MREM), APRIL-JUNE 2006 (CONTINUED)

SPECIAL LOCATION NO. 3 A Nearest Resident
AT .90 MILES NW

ANNUAL BETA AIR DOSE = 1.13E-03 MILLRADS
ANNUAL GAMMA AIR DOSE = 7.38E-04 MILLRADS

PATHWAY	T.BODY	GI-TRACT	BONE	LIVER	KIDNEY	THYROID	LUNG	SKIN
PLUME	4.71E-04	4.71E-04	4.71E-04	4.71E-04	4.71E-04	4.71E-04	4.82E-04	1.11E-03
GROUND	2.58E-04	2.58E-04	2.58E-04	2.58E-04	2.58E-04	2.58E-04	2.58E-04	3.03E-04
VEGET								
ADULT	1.06E-05	5.59E-05	1.16E-04	8.78E-06	9.27E-06	1.62E-03	9.30E-08	0.00E+00
TEEN	1.61E-05	6.24E-05	1.92E-04	1.33E-05	1.39E-05	2.17E-03	1.74E-07	0.00E+00
CHILD	3.31E-05	4.40E-05	4.70E-04	2.17E-05	2.23E-05	4.15E-03	2.65E-07	0.00E+00
MEAT								
ADULT	1.17E-06	8.93E-06	1.24E-06	6.77E-07	2.53E-07	4.29E-05	7.59E-09	0.00E+00
TEEN	9.09E-07	4.82E-06	1.04E-06	5.32E-07	2.06E-07	3.11E-05	7.18E-09	0.00E+00
CHILD	1.39E-06	2.45E-06	1.97E-06	6.54E-07	2.61E-07	4.69E-05	8.44E-09	0.00E+00
COW MILK								
ADULT	2.92E-06	4.07E-06	8.37E-06	4.64E-06	6.99E-06	1.23E-03	6.42E-08	0.00E+00
TEEN	4.65E-06	5.20E-06	1.53E-05	8.23E-06	1.25E-05	1.96E-03	1.33E-07	0.00E+00
CHILD	8.49E-06	3.89E-06	3.77E-05	1.43E-05	2.07E-05	3.90E-03	2.04E-07	0.00E+00
INFANT	1.56E-05	3.71E-06	7.33E-05	3.40E-05	3.60E-05	9.47E-03	3.69E-07	0.00E+00
GOATMILK								
ADULT	4.07E-06	3.54E-06	1.55E-05	6.47E-06	8.73E-06	1.48E-03	1.92E-07	0.00E+00
TEEN	6.03E-06	4.81E-06	2.84E-05	1.15E-05	1.56E-05	2.35E-03	3.98E-07	0.00E+00
CHILD	1.04E-05	3.87E-06	6.98E-05	2.00E-05	2.59E-05	4.68E-03	6.11E-07	0.00E+00
INFANT	1.90E-05	3.87E-06	1.34E-04	4.63E-05	4.48E-05	1.14E-02	1.11E-06	0.00E+00
INHAL								
ADULT	2.85E-07	1.41E-06	6.20E-07	7.07E-07	1.14E-06	1.24E-04	1.28E-05	0.00E+00
TEEN	3.83E-07	2.78E-06	8.76E-07	9.73E-07	1.58E-06	1.62E-04	1.91E-05	0.00E+00
CHILD	4.46E-07	1.44E-05	1.20E-06	9.54E-07	1.48E-06	2.00E-04	1.57E-05	0.00E+00
INFANT	3.13E-07	1.24E-05	8.98E-07	8.78E-07	9.80E-07	1.84E-04	1.11E-05	0.00E+00

TABLE 2. DOSES TO MAXIMUM INDIVIDUAL (MREM), APRIL-JUNE 2006 (CONTINUED)

SPECIAL LOCATION NO. 4 A Nearest Cow
AT 3.50 MILES NNW

ANNUAL BETA AIR DOSE = 2.73E-04 MILLRADS
ANNUAL GAMMA AIR DOSE = 2.42E-04 MILLRADS

PATHWAY	T.BODY	GI-TRACT	BONE	LIVER	KIDNEY	THYROID	LUNG	SKIN
PLUME	1.58E-04	1.58E-04	1.58E-04	1.58E-04	1.58E-04	1.58E-04	1.61E-04	3.43E-04
GROUND	9.25E-06	9.25E-06	9.25E-06	9.25E-06	9.25E-06	9.25E-06	9.25E-06	1.09E-05
VEGET								
ADULT	4.76E-07	2.34E-06	6.13E-06	3.82E-07	4.11E-07	7.13E-05	6.49E-09	0.00E+00
TEEN	7.15E-07	2.65E-06	1.02E-05	5.81E-07	6.21E-07	9.57E-05	1.22E-08	0.00E+00
CHILD	1.48E-06	1.91E-06	2.48E-05	9.55E-07	9.94E-07	1.83E-04	1.85E-08	0.00E+00
MEAT								
ADULT	4.44E-08	3.23E-07	6.58E-08	2.76E-08	1.17E-08	1.90E-06	5.29E-10	0.00E+00
TEEN	3.41E-08	1.75E-07	5.54E-08	2.17E-08	9.56E-09	1.38E-06	5.01E-10	0.00E+00
CHILD	5.17E-08	8.91E-08	1.05E-07	2.70E-08	1.21E-08	2.08E-06	5.88E-10	0.00E+00
COW MILK								
ADULT	1.37E-07	1.69E-07	4.25E-07	2.16E-07	3.08E-07	5.41E-05	4.47E-09	0.00E+00
TEEN	2.12E-07	2.17E-07	7.78E-07	3.82E-07	5.50E-07	8.58E-05	9.24E-09	0.00E+00
CHILD	3.78E-07	1.64E-07	1.91E-06	6.64E-07	9.15E-07	1.71E-04	1.42E-08	0.00E+00
INFANT	6.91E-07	1.58E-07	3.70E-06	1.56E-06	1.59E-06	4.15E-04	2.57E-08	0.00E+00
GOATMILK								
ADULT	2.10E-07	1.67E-07	8.09E-07	3.25E-07	3.94E-07	6.50E-05	1.34E-08	0.00E+00
TEEN	2.96E-07	2.27E-07	1.48E-06	5.77E-07	7.02E-07	1.03E-04	2.77E-08	0.00E+00
CHILD	4.87E-07	1.83E-07	3.65E-06	1.00E-06	1.17E-06	2.05E-04	4.26E-08	0.00E+00
INFANT	8.71E-07	1.82E-07	6.94E-06	2.28E-06	2.02E-06	4.97E-04	7.71E-08	0.00E+00
INHAL								
ADULT	3.03E-08	1.79E-07	7.44E-08	6.84E-08	1.03E-07	1.14E-05	1.05E-06	0.00E+00
TEEN	4.03E-08	2.76E-07	1.05E-07	9.41E-08	1.42E-07	1.47E-05	1.59E-06	0.00E+00
CHILD	4.67E-08	8.90E-07	1.44E-07	9.23E-08	1.34E-07	1.78E-05	1.32E-06	0.00E+00
INFANT	3.28E-08	7.46E-07	1.06E-07	8.49E-08	8.82E-08	1.64E-05	9.61E-07	0.00E+00

TABLE 2. DOSES TO MAXIMUM INDIVIDUAL (MREM), APRIL-JUNE 2006 (CONTINUED)

SPECIAL LOCATION NO. 5 A Nearest Garden
AT 2.50 MILES N

ANNUAL BETA AIR DOSE = 2.46E-04 MILLRADS
ANNUAL GAMMA AIR DOSE = 1.63E-04 MILLRADS

PATHWAY	T.BODY	GI-TRACT	BONE	LIVER	KIDNEY	THYROID	LUNG	SKIN
PLUME	1.04E-04	1.04E-04	1.04E-04	1.04E-04	1.04E-04	1.04E-04	1.07E-04	2.44E-04
GROUND	3.26E-05	3.26E-05	3.26E-05	3.26E-05	3.26E-05	3.26E-05	3.26E-05	3.84E-05
VEGET								
ADULT	1.41E-06	7.32E-06	1.61E-05	1.16E-06	1.23E-06	2.14E-04	1.41E-08	0.00E+00
TEEN	2.13E-06	8.21E-06	2.67E-05	1.76E-06	1.85E-06	2.87E-04	2.64E-08	0.00E+00
CHILD	4.40E-06	5.81E-06	6.53E-05	2.87E-06	2.96E-06	5.50E-04	4.02E-08	0.00E+00
MEAT								
ADULT	1.50E-07	1.13E-06	1.72E-07	8.81E-08	3.40E-08	5.69E-06	1.15E-09	0.00E+00
TEEN	1.16E-07	6.12E-07	1.45E-07	6.93E-08	2.77E-08	4.12E-06	1.09E-09	0.00E+00
CHILD	1.78E-07	3.11E-07	2.74E-07	8.54E-08	3.50E-08	6.22E-06	1.28E-09	0.00E+00
COW MILK								
ADULT	3.93E-07	5.32E-07	1.15E-06	6.22E-07	9.25E-07	1.63E-04	9.72E-09	0.00E+00
TEEN	6.21E-07	6.80E-07	2.11E-06	1.10E-06	1.65E-06	2.59E-04	2.01E-08	0.00E+00
CHILD	1.13E-06	5.10E-07	5.18E-06	1.92E-06	2.74E-06	5.15E-04	3.09E-08	0.00E+00
INFANT	2.07E-06	4.87E-07	1.01E-05	4.55E-06	4.76E-06	1.25E-03	5.59E-08	0.00E+00
GOATMILK								
ADULT	5.61E-07	4.77E-07	2.14E-06	8.86E-07	1.16E-06	1.96E-04	2.92E-08	0.00E+00
TEEN	8.21E-07	6.47E-07	3.93E-06	1.57E-06	2.07E-06	3.11E-04	6.03E-08	0.00E+00
CHILD	1.40E-06	5.21E-07	9.68E-06	2.73E-06	3.45E-06	6.18E-04	9.26E-08	0.00E+00
INFANT	2.54E-06	5.21E-07	1.85E-05	6.30E-06	5.96E-06	1.50E-03	1.68E-07	0.00E+00
INHAL								
ADULT	5.48E-08	2.58E-07	1.20E-07	1.35E-07	2.17E-07	2.38E-05	2.31E-06	0.00E+00
TEEN	7.35E-08	4.31E-07	1.69E-07	1.85E-07	3.00E-07	3.09E-05	3.45E-06	0.00E+00
CHILD	8.55E-08	1.80E-06	2.31E-07	1.82E-07	2.82E-07	3.80E-05	2.84E-06	0.00E+00
INFANT	6.01E-08	1.53E-06	1.73E-07	1.68E-07	1.86E-07	3.50E-05	1.97E-06	0.00E+00

TABLE 3. DOSES TO MAXIMUM INDIVIDUAL (MREM), JANUARY-JUNE 2006

SPECIAL LOCATION NO. 1 A Site Boundary
AT .69 MILES NNW

ANNUAL BETA AIR DOSE = 2.41E-03 MILLRADS
ANNUAL GAMMA AIR DOSE = 1.20E-03 MILLRADS

PATHWAY	T.BODY	GI-TRACT	BONE	LIVER	KIDNEY	THYROID	LUNG	SKIN
PLUME	7.46E-04	7.46E-04	7.46E-04	7.46E-04	7.46E-04	7.46E-04	7.70E-04	1.92E-03
GROUND	1.74E-03	1.74E-03	1.74E-03	1.74E-03	1.74E-03	1.74E-03	1.74E-03	2.05E-03
VEGET								
ADULT	4.44E-05	3.19E-04	3.95E-04	2.94E-05	2.15E-05	3.66E-03	1.17E-07	0.00E+00
TEEN	6.95E-05	3.49E-04	6.54E-04	4.47E-05	3.23E-05	4.92E-03	2.11E-07	0.00E+00
CHILD	1.45E-04	2.38E-04	1.60E-03	7.08E-05	5.13E-05	9.42E-03	3.13E-07	0.00E+00
MEAT								
ADULT	7.24E-06	6.57E-05	4.07E-06	3.70E-06	5.78E-07	9.76E-05	4.74E-08	0.00E+00
TEEN	5.73E-06	3.54E-05	3.43E-06	2.89E-06	4.69E-07	7.07E-05	4.26E-08	0.00E+00
CHILD	8.91E-06	1.79E-05	6.47E-06	3.47E-06	5.89E-07	1.07E-04	4.83E-08	0.00E+00
COW MILK								
ADULT	7.20E-06	6.95E-05	2.45E-05	1.00E-05	1.55E-05	2.78E-03	3.77E-08	0.00E+00
TEEN	1.21E-05	8.22E-05	4.50E-05	1.77E-05	2.77E-05	4.41E-03	7.74E-08	0.00E+00
CHILD	2.33E-05	5.52E-05	1.11E-04	3.06E-05	4.60E-05	8.77E-03	1.18E-07	0.00E+00
INFANT	4.25E-05	4.89E-05	2.15E-04	7.35E-05	7.98E-05	2.13E-02	2.18E-07	0.00E+00
GOATMILK								
ADULT	7.73E-06	1.70E-05	4.59E-05	1.16E-05	1.85E-05	3.34E-03	9.90E-08	0.00E+00
TEEN	1.27E-05	2.17E-05	8.43E-05	2.06E-05	3.30E-05	5.29E-03	2.04E-07	0.00E+00
CHILD	2.42E-05	1.62E-05	2.08E-04	3.58E-05	5.49E-05	1.05E-02	3.14E-07	0.00E+00
INFANT	4.54E-05	1.55E-05	4.00E-04	8.62E-05	9.55E-05	2.56E-02	5.69E-07	0.00E+00
INHAL								
ADULT	1.24E-06	9.79E-06	2.12E-06	2.67E-06	3.65E-06	4.11E-04	1.22E-04	0.00E+00
TEEN	1.67E-06	1.82E-05	3.00E-06	3.66E-06	5.04E-06	5.30E-04	1.80E-04	0.00E+00
CHILD	1.95E-06	7.65E-05	4.10E-06	3.55E-06	4.73E-06	6.44E-04	1.47E-04	0.00E+00
INFANT	1.32E-06	6.39E-05	3.05E-06	3.19E-06	3.11E-06	5.92E-04	9.86E-05	0.00E+00

TABLE 3. DOSES TO MAXIMUM INDIVIDUAL (MREM), JANUARY-JUNE 2006 (CONTINUED)

SPECIAL LOCATION NO. 2 A Site Boundary
AT .67 MILES N

ANNUAL BETA AIR DOSE = 3.16E-03 MILLRADS
ANNUAL GAMMA AIR DOSE = 1.62E-03 MILLRADS

PATHWAY	T.BODY	GI-TRACT	BONE	LIVER	KIDNEY	THYROID	LUNG	SKIN
PLUME	1.01E-03	1.01E-03	1.01E-03	1.01E-03	1.01E-03	1.01E-03	1.04E-03	2.57E-03
GROUND	2.47E-03	2.47E-03	2.47E-03	2.47E-03	2.47E-03	2.47E-03	2.47E-03	2.90E-03
VEGET								
ADULT	6.98E-05	4.87E-04	7.72E-04	4.32E-05	3.21E-05	5.49E-03	2.67E-07	0.00E+00
TEEN	1.10E-04	5.38E-04	1.28E-03	6.55E-05	4.83E-05	7.37E-03	4.82E-07	0.00E+00
CHILD	2.32E-04	3.72E-04	3.13E-03	1.04E-04	7.68E-05	1.41E-02	7.17E-07	0.00E+00
MEAT								
ADULT	1.04E-05	9.38E-05	7.93E-06	5.43E-06	8.71E-07	1.46E-04	1.09E-07	0.00E+00
TEEN	8.22E-06	5.06E-05	6.68E-06	4.24E-06	7.07E-07	1.06E-04	9.76E-08	0.00E+00
CHILD	1.28E-05	2.56E-05	1.26E-05	5.10E-06	8.89E-07	1.60E-04	1.11E-07	0.00E+00
COW MILK								
ADULT	1.10E-05	1.00E-04	4.53E-05	1.52E-05	2.33E-05	4.17E-03	8.64E-08	0.00E+00
TEEN	1.84E-05	1.19E-04	8.32E-05	2.68E-05	4.15E-05	6.60E-03	1.77E-07	0.00E+00
CHILD	3.56E-05	8.01E-05	2.05E-04	4.63E-05	6.88E-05	1.31E-02	2.71E-07	0.00E+00
INFANT	6.51E-05	7.13E-05	3.96E-04	1.11E-04	1.20E-04	3.19E-02	4.98E-07	0.00E+00
GOATMILK								
ADULT	1.25E-05	2.77E-05	8.69E-05	1.80E-05	2.79E-05	5.00E-03	2.27E-07	0.00E+00
TEEN	2.03E-05	3.57E-05	1.60E-04	3.19E-05	4.98E-05	7.92E-03	4.68E-07	0.00E+00
CHILD	3.88E-05	2.69E-05	3.94E-04	5.56E-05	8.28E-05	1.57E-02	7.20E-07	0.00E+00
INFANT	7.26E-05	2.60E-05	7.57E-04	1.33E-04	1.44E-04	3.83E-02	1.30E-06	0.00E+00
INHAL								
ADULT	1.66E-06	1.22E-05	2.77E-06	3.55E-06	4.68E-06	5.18E-04	1.51E-04	0.00E+00
TEEN	2.24E-06	2.27E-05	3.92E-06	4.87E-06	6.47E-06	6.68E-04	2.24E-04	0.00E+00
CHILD	2.63E-06	9.52E-05	5.36E-06	4.74E-06	6.06E-06	8.10E-04	1.83E-04	0.00E+00
INFANT	1.80E-06	7.98E-05	3.99E-06	4.28E-06	4.00E-06	7.45E-04	1.22E-04	0.00E+00

TABLE 3. DOSES TO MAXIMUM INDIVIDUAL (MREM), JANUARY-JUNE 2006 (CONTINUED)

SPECIAL LOCATION NO. 3 A Nearest Resident
AT .90 MILES NW

ANNUAL BETA AIR DOSE = 1.23E-03 MILLRADS
ANNUAL GAMMA AIR DOSE = 7.83E-04 MILLRADS

PATHWAY	T.BODY	GI-TRACT	BONE	LIVER	KIDNEY	THYROID	LUNG	SKIN
PLUME	4.98E-04	4.98E-04	4.98E-04	4.98E-04	4.98E-04	4.98E-04	5.11E-04	1.18E-03
GROUND	9.03E-04	9.03E-04	9.03E-04	9.03E-04	9.03E-04	9.03E-04	9.03E-04	1.06E-03
VEGET								
ADULT	3.26E-05	2.14E-04	5.03E-04	1.72E-05	1.34E-05	2.30E-03	2.03E-07	0.00E+00
TEEN	5.14E-05	2.41E-04	8.34E-04	2.62E-05	2.02E-05	3.10E-03	3.67E-07	0.00E+00
CHILD	1.12E-04	1.71E-04	2.04E-03	4.18E-05	3.23E-05	5.93E-03	5.45E-07	0.00E+00
MEAT								
ADULT	3.92E-06	3.49E-05	5.13E-06	2.17E-06	3.71E-07	6.16E-05	8.25E-08	0.00E+00
TEEN	3.10E-06	1.88E-05	4.33E-06	1.70E-06	3.01E-07	4.46E-05	7.43E-08	0.00E+00
CHILD	4.83E-06	9.58E-06	8.17E-06	2.05E-06	3.79E-07	6.73E-05	8.42E-08	0.00E+00
COW MILK								
ADULT	4.89E-06	3.83E-05	2.75E-05	6.51E-06	9.77E-06	1.75E-03	6.57E-08	0.00E+00
TEEN	8.09E-06	4.57E-05	5.05E-05	1.15E-05	1.74E-05	2.77E-03	1.35E-07	0.00E+00
CHILD	1.57E-05	3.11E-05	1.25E-04	1.99E-05	2.89E-05	5.50E-03	2.06E-07	0.00E+00
INFANT	2.87E-05	2.79E-05	2.40E-04	4.74E-05	5.02E-05	1.34E-02	3.79E-07	0.00E+00
GOATMILK								
ADULT	6.18E-06	1.38E-05	5.44E-05	8.19E-06	1.19E-05	2.10E-03	1.72E-07	0.00E+00
TEEN	9.82E-06	1.81E-05	1.00E-04	1.45E-05	2.12E-05	3.32E-03	3.56E-07	0.00E+00
CHILD	1.88E-05	1.39E-05	2.47E-04	2.53E-05	3.52E-05	6.60E-03	5.47E-07	0.00E+00
INFANT	3.49E-05	1.36E-05	4.73E-04	5.95E-05	6.11E-05	1.60E-02	9.91E-07	0.00E+00
INHAL								
ADULT	8.95E-07	3.95E-06	1.26E-06	1.82E-06	1.71E-06	1.52E-04	4.54E-05	0.00E+00
TEEN	1.22E-06	7.24E-06	1.79E-06	2.51E-06	2.36E-06	1.96E-04	6.73E-05	0.00E+00
CHILD	1.50E-06	3.01E-05	2.44E-06	2.48E-06	2.21E-06	2.37E-04	5.51E-05	0.00E+00
INFANT	1.07E-06	2.60E-05	1.81E-06	2.29E-06	1.46E-06	2.18E-04	3.75E-05	0.00E+00

TABLE 3. DOSES TO MAXIMUM INDIVIDUAL (MREM), JANUARY-JUNE 2006 (CONTINUED)

SPECIAL LOCATION NO. 4 A Nearest Cow
AT 3.50 MILES NNW

ANNUAL BETA AIR DOSE = 3.41E-04 MILLRADS
ANNUAL GAMMA AIR DOSE = 2.87E-04 MILLRADS

PATHWAY	T.BODY	GI-TRACT	BONE	LIVER	KIDNEY	THYROID	LUNG	SKIN
PLUME	1.87E-04	1.87E-04	1.87E-04	1.87E-04	1.87E-04	1.87E-04	1.90E-04	4.09E-04
GROUND	3.55E-05	3.55E-05	3.55E-05	3.55E-05	3.55E-05	3.55E-05	3.55E-05	4.17E-05
VEGET								
ADULT	1.78E-06	1.09E-05	3.53E-05	7.79E-07	6.46E-07	1.12E-04	1.54E-08	0.00E+00
TEEN	2.82E-06	1.25E-05	5.86E-05	1.19E-06	9.77E-07	1.50E-04	2.79E-08	0.00E+00
CHILD	6.28E-06	9.19E-06	1.43E-04	1.91E-06	1.56E-06	2.87E-04	4.14E-08	0.00E+00
MEAT								
ADULT	1.63E-07	1.41E-06	3.59E-07	9.81E-08	1.83E-08	2.99E-06	6.27E-09	0.00E+00
TEEN	1.28E-07	7.64E-07	3.03E-07	7.70E-08	1.48E-08	2.16E-06	5.64E-09	0.00E+00
CHILD	2.00E-07	3.91E-07	5.72E-07	9.36E-08	1.87E-08	3.26E-06	6.39E-09	0.00E+00
COW MILK								
ADULT	2.53E-07	1.62E-06	1.85E-06	3.23E-07	4.73E-07	8.44E-05	4.99E-09	0.00E+00
TEEN	4.13E-07	1.95E-06	3.40E-06	5.72E-07	8.43E-07	1.34E-04	1.02E-08	0.00E+00
CHILD	8.03E-07	1.35E-06	8.40E-06	9.91E-07	1.40E-06	2.65E-04	1.57E-08	0.00E+00
INFANT	1.48E-06	1.23E-06	1.61E-05	2.34E-06	2.43E-06	6.44E-04	2.88E-08	0.00E+00
GOATMILK								
ADULT	3.56E-07	8.00E-07	3.74E-06	4.36E-07	5.85E-07	1.01E-04	1.31E-08	0.00E+00
TEEN	5.55E-07	1.06E-06	6.88E-06	7.72E-07	1.04E-06	1.60E-04	2.70E-08	0.00E+00
CHILD	1.06E-06	8.30E-07	1.70E-05	1.34E-06	1.73E-06	3.18E-04	4.16E-08	0.00E+00
INFANT	1.97E-06	8.20E-07	3.24E-05	3.11E-06	3.00E-06	7.73E-04	7.52E-08	0.00E+00
INHAL								
ADULT	3.50E-07	5.87E-07	4.13E-07	6.82E-07	3.96E-07	1.65E-05	4.58E-06	0.00E+00
TEEN	4.84E-07	1.01E-06	5.85E-07	9.47E-07	5.46E-07	2.12E-05	6.97E-06	0.00E+00
CHILD	6.14E-07	4.03E-06	8.01E-07	9.45E-07	5.13E-07	2.54E-05	5.81E-06	0.00E+00
INFANT	4.53E-07	3.93E-06	5.90E-07	8.97E-07	3.38E-07	2.33E-05	4.28E-06	0.00E+00

TABLE 3. DOSES TO MAXIMUM INDIVIDUAL (MREM), JANUARY-JUNE 2006 (CONTINUED)

SPECIAL LOCATION NO. 5 A Nearest Garden
AT 2.50 MILES N

ANNUAL BETA AIR DOSE = 3.02E-04 MILLRADS
ANNUAL GAMMA AIR DOSE = 1.96E-04 MILLRADS

PATHWAY	T.BODY	GI-TRACT	BONE	LIVER	KIDNEY	THYROID	LUNG	SKIN
PLUME	1.25E-04	1.25E-04	1.25E-04	1.25E-04	1.25E-04	1.25E-04	1.29E-04	2.96E-04
GROUND	1.04E-04	1.04E-04	1.04E-04	1.04E-04	1.04E-04	1.04E-04	1.04E-04	1.22E-04
VEGET								
ADULT	4.04E-06	2.60E-05	6.71E-05	2.04E-06	1.61E-06	2.76E-04	2.78E-08	0.00E+00
TEEN	6.38E-06	2.95E-05	1.11E-04	3.10E-06	2.43E-06	3.72E-04	5.03E-08	0.00E+00
CHILD	1.40E-05	2.11E-05	2.72E-04	4.96E-06	3.87E-06	7.12E-04	7.47E-08	0.00E+00
MEAT								
ADULT	4.55E-07	4.02E-06	6.85E-07	2.57E-07	4.47E-08	7.39E-06	1.13E-08	0.00E+00
TEEN	3.59E-07	2.18E-06	5.77E-07	2.01E-07	3.63E-08	5.35E-06	1.02E-08	0.00E+00
CHILD	5.60E-07	1.11E-06	1.09E-06	2.43E-07	4.57E-08	8.08E-06	1.15E-08	0.00E+00
COW MILK								
ADULT	5.97E-07	4.46E-06	3.62E-06	7.85E-07	1.17E-06	2.09E-04	9.00E-09	0.00E+00
TEEN	9.84E-07	5.34E-06	6.66E-06	1.39E-06	2.09E-06	3.32E-04	1.85E-08	0.00E+00
CHILD	1.91E-06	3.65E-06	1.64E-05	2.40E-06	3.47E-06	6.58E-04	2.82E-08	0.00E+00
INFANT	3.50E-06	3.28E-06	3.15E-05	5.71E-06	6.01E-06	1.60E-03	5.19E-08	0.00E+00
GOATMILK								
ADULT	7.76E-07	1.74E-06	7.21E-06	1.01E-06	1.43E-06	2.51E-04	2.36E-08	0.00E+00
TEEN	1.23E-06	2.28E-06	1.33E-05	1.78E-06	2.55E-06	3.98E-04	4.88E-08	0.00E+00
CHILD	2.35E-06	1.76E-06	3.28E-05	3.11E-06	4.24E-06	7.90E-04	7.50E-08	0.00E+00
INFANT	4.36E-06	1.73E-06	6.26E-05	7.28E-06	7.35E-06	1.92E-03	1.36E-07	0.00E+00
INHAL								
ADULT	2.29E-07	7.92E-07	3.09E-07	4.61E-07	3.94E-07	3.23E-05	9.13E-06	0.00E+00
TEEN	3.14E-07	1.28E-06	4.37E-07	6.37E-07	5.45E-07	4.15E-05	1.35E-05	0.00E+00
CHILD	3.88E-07	4.46E-06	5.98E-07	6.30E-07	5.11E-07	5.02E-05	1.11E-05	0.00E+00
INFANT	2.79E-07	3.93E-06	4.43E-07	5.87E-07	3.37E-07	4.61E-05	7.53E-06	0.00E+00

TABLE 4. DOSES TO MAXIMUM INDIVIDUAL (MREM), JULY-SEPTEMBER 2006

SPECIAL LOCATION NO. 1 A Site Boundary
AT .69 MILES NNW

ANNUAL BETA AIR DOSE = 4.82E-04 MILLRADS
ANNUAL GAMMA AIR DOSE = 4.54E-04 MILLRADS

PATHWAY	T.BODY	GI-TRACT	BONE	LIVER	KIDNEY	THYROID	LUNG	SKIN
PLUME	3.01E-04	3.01E-04	3.01E-04	3.01E-04	3.01E-04	3.01E-04	3.06E-04	7.26E-04
GROUND	1.26E-03	1.26E-03	1.26E-03	1.26E-03	1.26E-03	1.26E-03	1.26E-03	1.48E-03
VEGET								
ADULT	2.44E-05	1.77E-04	8.90E-05	1.42E-05	9.05E-06	1.70E-03	5.63E-09	0.00E+00
TEEN	3.80E-05	1.91E-04	1.47E-04	2.17E-05	1.37E-05	2.29E-03	9.91E-09	0.00E+00
CHILD	7.72E-05	1.27E-04	3.60E-04	3.45E-05	2.21E-05	4.38E-03	1.45E-08	0.00E+00
MEAT								
ADULT	5.20E-06	4.36E-05	9.34E-07	2.46E-06	2.41E-07	4.56E-05	3.51E-09	0.00E+00
TEEN	4.12E-06	2.34E-05	7.87E-07	1.92E-06	1.97E-07	3.31E-05	3.15E-09	0.00E+00
CHILD	6.40E-06	1.19E-05	1.49E-06	2.29E-06	2.49E-07	4.99E-05	3.56E-09	0.00E+00
COW MILK								
ADULT	3.46E-06	1.12E-05	6.73E-06	4.44E-06	6.75E-06	1.27E-03	3.96E-10	0.00E+00
TEEN	5.85E-06	1.35E-05	1.23E-05	7.85E-06	1.20E-05	2.01E-03	7.75E-10	0.00E+00
CHILD	1.13E-05	9.24E-06	3.02E-05	1.35E-05	2.00E-05	3.99E-03	1.15E-09	0.00E+00
INFANT	2.04E-05	8.33E-06	5.98E-05	3.25E-05	3.48E-05	9.68E-03	2.36E-09	0.00E+00
GOATMILK								
ADULT	3.05E-06	3.80E-06	1.16E-05	4.78E-06	8.10E-06	1.53E-03	5.14E-11	0.00E+00
TEEN	5.13E-06	4.95E-06	2.14E-05	8.49E-06	1.44E-05	2.42E-03	1.01E-10	0.00E+00
CHILD	9.80E-06	3.78E-06	5.26E-05	1.48E-05	2.40E-05	4.78E-03	1.49E-10	0.00E+00
INFANT	1.84E-05	3.66E-06	1.03E-04	3.61E-05	4.18E-05	1.16E-02	3.06E-10	0.00E+00
INHAL								
ADULT	6.33E-07	6.70E-06	1.03E-06	9.40E-07	1.19E-06	1.78E-04	1.17E-04	0.00E+00
TEEN	8.41E-07	8.55E-06	1.46E-06	1.28E-06	1.64E-06	2.24E-04	1.72E-04	0.00E+00
CHILD	9.44E-07	2.57E-05	1.99E-06	1.22E-06	1.54E-06	2.59E-04	1.40E-04	0.00E+00
INFANT	5.92E-07	2.14E-05	1.44E-06	1.05E-06	1.01E-06	2.37E-04	9.13E-05	0.00E+00

TABLE 4. DOSES TO MAXIMUM INDIVIDUAL (MREM), JULY-SEPTEMBER 2006 (CONTINUED)

SPECIAL LOCATION NO. 2 A Site Boundary
AT .67 MILES N

ANNUAL BETA AIR DOSE = 5.37E-04 MILLRADS
ANNUAL GAMMA AIR DOSE = 5.07E-04 MILLRADS

PATHWAY	T.BODY	GI-TRACT	BONE	LIVER	KIDNEY	THYROID	LUNG	SKIN
PLUME	3.37E-04	3.37E-04	3.37E-04	3.37E-04	3.37E-04	3.37E-04	3.42E-04	8.11E-04
GROUND	2.16E-03	2.16E-03	2.16E-03	2.16E-03	2.16E-03	2.16E-03	2.16E-03	2.54E-03
VEGET								
ADULT	4.16E-05	3.04E-04	1.50E-04	2.41E-05	1.51E-05	2.83E-03	7.69E-09	0.00E+00
TEEN	6.49E-05	3.27E-04	2.49E-04	3.68E-05	2.29E-05	3.82E-03	1.35E-08	0.00E+00
CHILD	1.32E-04	2.18E-04	6.08E-04	5.85E-05	3.69E-05	7.32E-03	1.98E-08	0.00E+00
MEAT								
ADULT	8.91E-06	7.47E-05	1.57E-06	4.22E-06	4.02E-07	7.62E-05	4.80E-09	0.00E+00
TEEN	7.06E-06	4.02E-05	1.33E-06	3.28E-06	3.28E-07	5.52E-05	4.30E-09	0.00E+00
CHILD	1.10E-05	2.03E-05	2.50E-06	3.92E-06	4.17E-07	8.33E-05	4.86E-09	0.00E+00
COW MILK								
ADULT	5.82E-06	1.92E-05	1.13E-05	7.44E-06	1.13E-05	2.12E-03	5.41E-10	0.00E+00
TEEN	9.86E-06	2.31E-05	2.07E-05	1.32E-05	2.01E-05	3.36E-03	1.06E-09	0.00E+00
CHILD	1.91E-05	1.58E-05	5.09E-05	2.26E-05	3.34E-05	6.65E-03	1.56E-09	0.00E+00
INFANT	3.43E-05	1.42E-05	1.00E-04	5.45E-05	5.81E-05	1.62E-02	3.22E-09	0.00E+00
GOATMILK								
ADULT	5.10E-06	6.42E-06	1.96E-05	7.99E-06	1.35E-05	2.55E-03	7.03E-11	0.00E+00
TEEN	8.59E-06	8.36E-06	3.60E-05	1.42E-05	2.41E-05	4.04E-03	1.38E-10	0.00E+00
CHILD	1.64E-05	6.37E-06	8.87E-05	2.47E-05	4.01E-05	7.99E-03	2.03E-10	0.00E+00
INFANT	3.09E-05	6.18E-06	1.73E-04	6.03E-05	6.97E-05	1.94E-02	4.18E-10	0.00E+00
INHAL								
ADULT	7.10E-07	7.53E-06	1.15E-06	1.05E-06	1.33E-06	1.99E-04	1.31E-04	0.00E+00
TEEN	9.43E-07	9.61E-06	1.63E-06	1.43E-06	1.83E-06	2.50E-04	1.93E-04	0.00E+00
CHILD	1.06E-06	2.89E-05	2.24E-06	1.37E-06	1.72E-06	2.89E-04	1.57E-04	0.00E+00
INFANT	6.64E-07	2.41E-05	1.61E-06	1.18E-06	1.13E-06	2.65E-04	1.03E-04	0.00E+00

TABLE 4. DOSES TO MAXIMUM INDIVIDUAL (MREM), JULY-SEPTEMBER 2006 (CONTINUED)

SPECIAL LOCATION NO. 3 A Nearest Resident
AT .90 MILES NW

ANNUAL BETA AIR DOSE = 2.73E-04 MILLRADS
ANNUAL GAMMA AIR DOSE = 3.69E-04 MILLRADS

PATHWAY	T.BODY	GI-TRACT	BONE	LIVER	KIDNEY	THYROID	LUNG	SKIN
PLUME	2.47E-04	2.47E-04	2.47E-04	2.47E-04	2.47E-04	2.47E-04	2.49E-04	5.13E-04
GROUND	7.14E-04	7.14E-04	7.14E-04	7.14E-04	7.14E-04	7.14E-04	7.14E-04	8.40E-04
VEGET								
ADULT	1.41E-05	1.01E-04	5.37E-05	8.40E-06	5.69E-06	1.07E-03	5.87E-09	0.00E+00
TEEN	2.19E-05	1.09E-04	8.89E-05	1.28E-05	8.63E-06	1.44E-03	1.03E-08	0.00E+00
CHILD	4.46E-05	7.30E-05	2.17E-04	2.04E-05	1.39E-05	2.76E-03	1.51E-08	0.00E+00
MEAT								
ADULT	2.95E-06	2.47E-05	5.69E-07	1.41E-06	1.52E-07	2.87E-05	3.66E-09	0.00E+00
TEEN	2.34E-06	1.33E-05	4.79E-07	1.10E-06	1.24E-07	2.08E-05	3.28E-09	0.00E+00
CHILD	3.64E-06	6.73E-06	9.04E-07	1.32E-06	1.57E-07	3.14E-05	3.71E-09	0.00E+00
COW MILK								
ADULT	2.10E-06	6.46E-06	4.13E-06	2.77E-06	4.25E-06	8.01E-04	4.13E-10	0.00E+00
TEEN	3.56E-06	7.79E-06	7.55E-06	4.89E-06	7.58E-06	1.27E-03	8.07E-10	0.00E+00
CHILD	6.86E-06	5.35E-06	1.85E-05	8.44E-06	1.26E-05	2.51E-03	1.19E-09	0.00E+00
INFANT	1.24E-05	4.83E-06	3.67E-05	2.03E-05	2.19E-05	6.10E-03	2.46E-09	0.00E+00
GOATMILK								
ADULT	1.91E-06	2.29E-06	7.10E-06	3.01E-06	5.10E-06	9.62E-04	5.36E-11	0.00E+00
TEEN	3.20E-06	2.98E-06	1.30E-05	5.34E-06	9.10E-06	1.52E-03	1.05E-10	0.00E+00
CHILD	6.11E-06	2.29E-06	3.21E-05	9.30E-06	1.51E-05	3.01E-03	1.55E-10	0.00E+00
INFANT	1.15E-05	2.22E-06	6.27E-05	2.27E-05	2.63E-05	7.32E-03	3.19E-10	0.00E+00
INHAL								
ADULT	1.87E-07	1.80E-06	2.84E-07	2.92E-07	3.40E-07	4.65E-05	2.87E-05	0.00E+00
TEEN	2.50E-07	2.48E-06	4.02E-07	3.98E-07	4.69E-07	5.84E-05	4.23E-05	0.00E+00
CHILD	2.86E-07	8.28E-06	5.51E-07	3.83E-07	4.40E-07	6.75E-05	3.44E-05	0.00E+00
INFANT	1.84E-07	7.00E-06	4.00E-07	3.36E-07	2.90E-07	6.19E-05	2.26E-05	0.00E+00

TABLE 4. DOSES TO MAXIMUM INDIVIDUAL (MREM), JULY-SEPTEMBER 2006 (CONTINUED)

SPECIAL LOCATION NO. 4 A Nearest Cow
AT 3.50 MILES NNW

ANNUAL BETA AIR DOSE = 7.66E-05 MILLRADS
ANNUAL GAMMA AIR DOSE = 1.17E-04 MILLRADS

PATHWAY	T.BODY	GI-TRACT	BONE	LIVER	KIDNEY	THYROID	LUNG	SKIN
PLUME	7.82E-05	7.82E-05	7.82E-05	7.82E-05	7.82E-05	7.82E-05	7.90E-05	1.56E-04
GROUND	2.54E-05	2.54E-05	2.54E-05	2.54E-05	2.54E-05	2.54E-05	2.54E-05	2.99E-05
VEGET								
ADULT	5.16E-07	3.64E-06	2.09E-06	3.17E-07	2.32E-07	4.36E-05	3.57E-10	0.00E+00
TEEN	8.03E-07	3.93E-06	3.45E-06	4.82E-07	3.52E-07	5.87E-05	6.28E-10	0.00E+00
CHILD	1.63E-06	2.63E-06	8.42E-06	7.72E-07	5.66E-07	1.13E-04	9.18E-10	0.00E+00
MEAT								
ADULT	1.06E-07	8.81E-07	2.24E-08	5.10E-08	6.18E-09	1.17E-06	2.23E-10	0.00E+00
TEEN	8.36E-08	4.75E-07	1.88E-08	3.97E-08	5.04E-09	8.49E-07	2.00E-10	0.00E+00
CHILD	1.30E-07	2.40E-07	3.55E-08	4.76E-08	6.40E-09	1.28E-06	2.25E-10	0.00E+00
COW MILK								
ADULT	8.24E-08	2.35E-07	1.63E-07	1.12E-07	1.74E-07	3.27E-05	2.51E-11	0.00E+00
TEEN	1.39E-07	2.84E-07	2.99E-07	1.97E-07	3.10E-07	5.18E-05	4.91E-11	0.00E+00
CHILD	2.68E-07	1.96E-07	7.34E-07	3.41E-07	5.14E-07	1.02E-04	7.26E-11	0.00E+00
INFANT	4.86E-07	1.77E-07	1.45E-06	8.22E-07	8.95E-07	2.49E-04	1.49E-10	0.00E+00
GOATMILK								
ADULT	7.71E-08	8.83E-08	2.79E-07	1.23E-07	2.08E-07	3.92E-05	3.26E-12	0.00E+00
TEEN	1.30E-07	1.16E-07	5.12E-07	2.18E-07	3.71E-07	6.21E-05	6.38E-12	0.00E+00
CHILD	2.47E-07	8.90E-08	1.26E-06	3.79E-07	6.17E-07	1.23E-04	9.43E-12	0.00E+00
INFANT	4.65E-07	8.67E-08	2.46E-06	9.26E-07	1.07E-06	2.99E-04	1.94E-11	0.00E+00
INHAL								
ADULT	3.24E-08	2.65E-07	4.50E-08	5.30E-08	5.70E-08	7.00E-06	3.74E-06	0.00E+00
TEEN	4.35E-08	3.57E-07	6.38E-08	7.26E-08	7.86E-08	8.78E-06	5.50E-06	0.00E+00
CHILD	5.04E-08	1.04E-06	8.72E-08	7.03E-08	7.38E-08	1.02E-05	4.48E-06	0.00E+00
INFANT	3.36E-08	8.76E-07	6.42E-08	6.28E-08	4.86E-08	9.30E-06	2.95E-06	0.00E+00

TABLE 4. DOSES TO MAXIMUM INDIVIDUAL (MREM), JULY-SEPTEMBER 2006 (CONTINUED)

SPECIAL LOCATION NO. 5 A Nearest Garden
AT 2.50 MILES N

ANNUAL BETA AIR DOSE = 5.54E-05 MILLRADS
ANNUAL GAMMA AIR DOSE = 7.64E-05 MILLRADS

PATHWAY	T.BODY	GI-TRACT	BONE	LIVER	KIDNEY	THYROID	LUNG	SKIN
PLUME	5.11E-05	5.11E-05	5.11E-05	5.11E-05	5.11E-05	5.11E-05	5.17E-05	1.05E-04
GROUND	9.04E-05	9.04E-05	9.04E-05	9.04E-05	9.04E-05	9.04E-05	9.04E-05	1.06E-04
VEGET								
ADULT	1.77E-06	1.28E-05	6.63E-06	1.04E-06	6.82E-07	1.28E-04	6.18E-10	0.00E+00
TEEN	2.76E-06	1.38E-05	1.10E-05	1.59E-06	1.04E-06	1.73E-04	1.09E-09	0.00E+00
CHILD	5.60E-06	9.21E-06	2.68E-05	2.53E-06	1.66E-06	3.31E-04	1.59E-09	0.00E+00
MEAT								
ADULT	3.74E-07	3.13E-06	7.00E-08	1.78E-07	1.82E-08	3.45E-06	3.86E-10	0.00E+00
TEEN	2.96E-07	1.69E-06	5.89E-08	1.39E-07	1.48E-08	2.50E-06	3.46E-10	0.00E+00
CHILD	4.60E-07	8.53E-07	1.11E-07	1.66E-07	1.88E-08	3.77E-06	3.91E-10	0.00E+00
COW MILK								
ADULT	2.57E-07	8.12E-07	5.03E-07	3.33E-07	5.08E-07	9.60E-05	4.35E-11	0.00E+00
TEEN	4.34E-07	9.77E-07	9.21E-07	5.89E-07	9.07E-07	1.52E-04	8.51E-11	0.00E+00
CHILD	8.37E-07	6.70E-07	2.26E-06	1.01E-06	1.51E-06	3.00E-04	1.26E-10	0.00E+00
INFANT	1.51E-06	6.04E-07	4.47E-06	2.44E-06	2.62E-06	7.30E-04	2.59E-10	0.00E+00
GOATMILK								
ADULT	2.29E-07	2.81E-07	8.70E-07	3.60E-07	6.10E-07	1.15E-04	5.65E-12	0.00E+00
TEEN	3.86E-07	3.66E-07	1.60E-06	6.39E-07	1.09E-06	1.82E-04	1.11E-11	0.00E+00
CHILD	7.36E-07	2.79E-07	3.93E-06	1.11E-06	1.81E-06	3.61E-04	1.63E-11	0.00E+00
INFANT	1.39E-06	2.71E-07	7.67E-06	2.72E-06	3.14E-06	8.76E-04	3.36E-11	0.00E+00
INHAL								
ADULT	4.71E-08	4.40E-07	7.17E-08	7.16E-08	8.44E-08	1.21E-05	7.43E-06	0.00E+00
TEEN	6.28E-08	4.72E-07	1.02E-07	9.77E-08	1.16E-07	1.52E-05	1.09E-05	0.00E+00
CHILD	7.12E-08	6.80E-07	1.39E-07	9.38E-08	1.09E-07	1.74E-05	8.87E-06	0.00E+00
INFANT	4.57E-08	5.20E-07	1.01E-07	8.18E-08	7.19E-08	1.60E-05	5.76E-06	0.00E+00

TABLE 5. DOSES TO MAXIMUM INDIVIDUAL (MREM), OCTOBER-DECEMBER 2006

SPECIAL LOCATION NO. 1 A Site Boundary
AT .69 MILES NNW

ANNUAL BETA AIR DOSE = 9.88E-04 MILLRADS
ANNUAL GAMMA AIR DOSE = 4.67E-04 MILLRADS

PATHWAY	T.BODY	GI-TRACT	BONE	LIVER	KIDNEY	THYROID	LUNG	SKIN
PLUME	2.89E-04	2.89E-04	2.89E-04	2.89E-04	2.89E-04	2.89E-04	2.99E-04	7.60E-04
GROUND	2.03E-02	2.03E-02	2.03E-02	2.03E-02	2.03E-02	2.03E-02	2.03E-02	2.39E-02
VEGET								
ADULT	3.81E-04	2.89E-03	1.20E-04	3.31E-04	1.34E-04	1.18E-02	3.80E-06	0.00E+00
TEEN	5.91E-04	3.07E-03	1.89E-04	5.05E-04	2.01E-04	1.59E-02	6.77E-06	0.00E+00
CHILD	1.18E-03	2.00E-03	4.40E-04	7.77E-04	3.07E-04	3.04E-02	9.98E-06	0.00E+00
MEAT								
ADULT	1.04E-04	7.66E-04	1.74E-05	8.71E-05	2.95E-05	3.17E-04	1.92E-06	0.00E+00
TEEN	8.21E-05	4.12E-04	1.27E-05	6.74E-05	2.18E-05	2.30E-04	1.72E-06	0.00E+00
CHILD	1.27E-04	2.08E-04	2.02E-05	7.92E-05	2.49E-05	3.47E-04	1.95E-06	0.00E+00
COW MILK								
ADULT	1.08E-04	2.66E-04	7.51E-05	1.99E-04	1.53E-04	8.76E-03	7.84E-07	0.00E+00
TEEN	1.84E-04	3.09E-04	1.22E-04	3.37E-04	2.54E-04	1.39E-02	1.60E-06	0.00E+00
CHILD	3.61E-04	2.02E-04	2.62E-04	5.22E-04	3.92E-04	2.74E-02	2.43E-06	0.00E+00
INFANT	5.14E-04	6.97E-04	4.25E-04	9.72E-04	5.79E-04	6.65E-02	4.54E-06	0.00E+00
GOATMILK								
ADULT	3.92E-05	4.08E-05	4.54E-05	6.73E-05	7.29E-05	1.05E-02	1.74E-06	0.00E+00
TEEN	5.88E-05	4.89E-05	8.09E-05	1.17E-04	1.28E-04	1.66E-02	3.59E-06	0.00E+00
CHILD	1.01E-04	3.35E-05	1.92E-04	1.96E-04	2.08E-04	3.28E-02	5.51E-06	0.00E+00
INFANT	1.65E-04	9.28E-05	3.59E-04	4.22E-04	3.48E-04	7.98E-02	9.99E-06	0.00E+00
INHAL								
ADULT	7.16E-06	8.62E-05	3.20E-06	1.09E-05	7.23E-06	1.01E-03	1.72E-03	0.00E+00
TEEN	9.44E-06	8.10E-05	4.37E-06	1.44E-05	9.71E-06	1.25E-03	2.51E-03	0.00E+00
CHILD	1.05E-05	5.63E-05	5.75E-06	1.29E-05	8.82E-06	1.39E-03	2.03E-03	0.00E+00
INFANT	5.82E-06	3.47E-05	4.16E-06	9.04E-06	5.43E-06	1.27E-03	1.30E-03	0.00E+00

TABLE 5. DOSES TO MAXIMUM INDIVIDUAL (MREM), OCTOBER-DECEMBER 2006 (CONTINUED)

SPECIAL LOCATION NO. 2 A Site Boundary
AT .67 MILES N

ANNUAL BETA AIR DOSE = 1.38E-03 MILLRADS
ANNUAL GAMMA AIR DOSE = 6.43E-04 MILLRADS

PATHWAY	T.BODY	GI-TRACT	BONE	LIVER	KIDNEY	THYROID	LUNG	SKIN
PLUME	3.98E-04	3.98E-04	3.98E-04	3.98E-04	3.98E-04	3.98E-04	4.11E-04	1.05E-03
GROUND	3.77E-02	3.77E-02	3.77E-02	3.77E-02	3.77E-02	3.77E-02	3.77E-02	4.44E-02
VEGET								
ADULT	7.07E-04	5.37E-03	2.21E-04	6.14E-04	2.49E-04	2.18E-02	7.05E-06	0.00E+00
TEEN	1.10E-03	5.70E-03	3.48E-04	9.38E-04	3.72E-04	2.94E-02	1.26E-05	0.00E+00
CHILD	2.19E-03	3.72E-03	8.10E-04	1.44E-03	5.69E-04	5.64E-02	1.85E-05	0.00E+00
MEAT								
ADULT	1.93E-04	1.42E-03	3.23E-05	1.62E-04	5.48E-05	5.89E-04	3.56E-06	0.00E+00
TEEN	1.53E-04	7.65E-04	2.36E-05	1.25E-04	4.05E-05	4.27E-04	3.19E-06	0.00E+00
CHILD	2.36E-04	3.87E-04	3.75E-05	1.47E-04	4.63E-05	6.44E-04	3.61E-06	0.00E+00
COW MILK								
ADULT	2.01E-04	4.95E-04	1.39E-04	3.70E-04	2.85E-04	1.63E-02	1.45E-06	0.00E+00
TEEN	3.41E-04	5.75E-04	2.27E-04	6.26E-04	4.72E-04	2.57E-02	2.96E-06	0.00E+00
CHILD	6.71E-04	3.74E-04	4.86E-04	9.68E-04	7.28E-04	5.08E-02	4.50E-06	0.00E+00
INFANT	9.55E-04	1.29E-03	7.88E-04	1.80E-03	1.07E-03	1.23E-01	8.42E-06	0.00E+00
GOATMILK								
ADULT	7.28E-05	7.58E-05	8.41E-05	1.25E-04	1.35E-04	1.95E-02	3.22E-06	0.00E+00
TEEN	1.09E-04	9.08E-05	1.50E-04	2.18E-04	2.37E-04	3.09E-02	6.64E-06	0.00E+00
CHILD	1.88E-04	6.21E-05	3.56E-04	3.65E-04	3.87E-04	6.09E-02	1.02E-05	0.00E+00
INFANT	3.07E-04	1.72E-04	6.65E-04	7.83E-04	6.46E-04	1.48E-01	1.85E-05	0.00E+00
INHAL								
ADULT	1.04E-05	1.26E-04	4.60E-06	1.58E-05	1.04E-05	1.45E-03	2.51E-03	0.00E+00
TEEN	1.37E-05	1.18E-04	6.28E-06	2.09E-05	1.40E-05	1.78E-03	3.66E-03	0.00E+00
CHILD	1.52E-05	8.22E-05	8.26E-06	1.87E-05	1.27E-05	1.98E-03	2.97E-03	0.00E+00
INFANT	8.45E-06	5.06E-05	5.97E-06	1.31E-05	7.79E-06	1.81E-03	1.90E-03	0.00E+00

TABLE 5. DOSES TO MAXIMUM INDIVIDUAL (MREM), OCTOBER-DECEMBER 2006 (CONTINUED)

SPECIAL LOCATION NO. 3 A Nearest Resident
AT .90 MILES NW

ANNUAL BETA AIR DOSE = 4.70E-04 MILLRADS
ANNUAL GAMMA AIR DOSE = 4.44E-04 MILLRADS

PATHWAY	T.BODY	GI-TRACT	BONE	LIVER	KIDNEY	THYROID	LUNG	SKIN
PLUME	2.91E-04	2.91E-04	2.91E-04	2.91E-04	2.91E-04	2.91E-04	2.96E-04	6.26E-04
GROUND	7.77E-03	7.77E-03	7.77E-03	7.77E-03	7.77E-03	7.77E-03	7.77E-03	9.14E-03
VEGET								
ADULT	1.48E-04	1.11E-03	8.73E-05	1.29E-04	5.34E-05	4.82E-03	1.56E-06	0.00E+00
TEEN	2.29E-04	1.18E-03	1.41E-04	1.96E-04	8.00E-05	6.51E-03	2.79E-06	0.00E+00
CHILD	4.57E-04	7.72E-04	3.36E-04	3.02E-04	1.22E-04	1.25E-02	4.12E-06	0.00E+00
MEAT								
ADULT	3.98E-05	2.93E-04	7.14E-06	3.34E-05	1.14E-05	1.30E-04	7.39E-07	0.00E+00
TEEN	3.14E-05	1.58E-04	5.28E-06	2.59E-05	8.43E-06	9.44E-05	6.64E-07	0.00E+00
CHILD	4.87E-05	7.96E-05	8.51E-06	3.04E-05	9.64E-06	1.42E-04	7.52E-07	0.00E+00
COW MILK								
ADULT	4.24E-05	1.03E-04	3.17E-05	7.78E-05	6.03E-05	3.60E-03	3.77E-07	0.00E+00
TEEN	7.16E-05	1.19E-04	5.22E-05	1.32E-04	1.00E-04	5.69E-03	7.69E-07	0.00E+00
CHILD	1.40E-04	7.77E-05	1.13E-04	2.04E-04	1.55E-04	1.12E-02	1.17E-06	0.00E+00
INFANT	2.00E-04	2.68E-04	1.87E-04	3.82E-04	2.30E-04	2.73E-02	2.18E-06	0.00E+00
GOATMILK								
ADULT	1.70E-05	1.65E-05	2.34E-05	2.87E-05	3.01E-05	4.32E-03	8.96E-07	0.00E+00
TEEN	2.48E-05	2.00E-05	4.20E-05	5.02E-05	5.28E-05	6.83E-03	1.85E-06	0.00E+00
CHILD	4.19E-05	1.38E-05	1.01E-04	8.43E-05	8.64E-05	1.35E-02	2.84E-06	0.00E+00
INFANT	6.81E-05	3.66E-05	1.87E-04	1.81E-04	1.45E-04	3.28E-02	5.15E-06	0.00E+00
INHAL								
ADULT	2.08E-06	2.48E-05	1.00E-06	3.19E-06	2.12E-06	2.88E-04	4.90E-04	0.00E+00
TEEN	2.75E-06	2.37E-05	1.37E-06	4.22E-06	2.86E-06	3.54E-04	7.15E-04	0.00E+00
CHILD	3.06E-06	1.90E-05	1.81E-06	3.78E-06	2.60E-06	3.94E-04	5.79E-04	0.00E+00
INFANT	1.71E-06	1.24E-05	1.31E-06	2.68E-06	1.60E-06	3.60E-04	3.71E-04	0.00E+00

TABLE 5. DOSES TO MAXIMUM INDIVIDUAL (MREM), OCTOBER-DECEMBER 2006 (CONTINUED)

SPECIAL LOCATION NO. 4 A Nearest Cow
AT 3.50 MILES NNW

ANNUAL BETA AIR DOSE = 2.45E-04 MILLRADS
ANNUAL GAMMA AIR DOSE = 3.48E-04 MILLRADS

PATHWAY	T.BODY	GI-TRACT	BONE	LIVER	KIDNEY	THYROID	LUNG	SKIN
PLUME	2.33E-04	2.33E-04	2.33E-04	2.33E-04	2.33E-04	2.33E-04	2.36E-04	4.66E-04
GROUND	4.00E-04	4.00E-04	4.00E-04	4.00E-04	4.00E-04	4.00E-04	4.00E-04	4.70E-04
VEGET								
ADULT	7.77E-06	5.78E-05	7.22E-06	6.75E-06	2.89E-06	2.69E-04	8.73E-08	0.00E+00
TEEN	1.20E-05	6.15E-05	1.18E-05	1.03E-05	4.32E-06	3.63E-04	1.57E-07	0.00E+00
CHILD	2.39E-05	4.02E-05	2.83E-05	1.59E-05	6.64E-06	6.95E-04	2.32E-07	0.00E+00
MEAT								
ADULT	2.05E-06	1.51E-05	4.00E-07	1.73E-06	5.94E-07	7.26E-06	3.85E-08	0.00E+00
TEEN	1.62E-06	8.11E-06	2.99E-07	1.34E-06	4.40E-07	5.26E-06	3.46E-08	0.00E+00
CHILD	2.51E-06	4.10E-06	4.89E-07	1.58E-06	5.03E-07	7.94E-06	3.92E-08	0.00E+00
COW MILK								
ADULT	2.25E-06	5.32E-06	1.82E-06	4.11E-06	3.21E-06	2.01E-04	2.44E-08	0.00E+00
TEEN	3.78E-06	6.19E-06	3.04E-06	6.97E-06	5.35E-06	3.17E-04	5.00E-08	0.00E+00
CHILD	7.37E-06	4.05E-06	6.70E-06	1.08E-05	8.28E-06	6.26E-04	7.64E-08	0.00E+00
INFANT	1.05E-05	1.39E-05	1.13E-05	2.04E-05	1.23E-05	1.52E-03	1.41E-07	0.00E+00
GOATMILK								
ADULT	1.00E-06	9.12E-07	1.60E-06	1.67E-06	1.70E-06	2.41E-04	6.13E-08	0.00E+00
TEEN	1.43E-06	1.11E-06	2.88E-06	2.92E-06	2.98E-06	3.81E-04	1.27E-07	0.00E+00
CHILD	2.35E-06	7.76E-07	6.94E-06	4.93E-06	4.87E-06	7.52E-04	1.94E-07	0.00E+00
INFANT	3.82E-06	1.95E-06	1.29E-05	1.05E-05	8.16E-06	1.83E-03	3.52E-07	0.00E+00
INHAL								
ADULT	2.91E-07	3.04E-06	2.15E-07	4.63E-07	3.43E-07	3.96E-05	5.53E-05	0.00E+00
TEEN	3.85E-07	3.16E-06	3.00E-07	6.19E-07	4.65E-07	4.88E-05	8.08E-05	0.00E+00
CHILD	4.33E-07	4.41E-06	4.02E-07	5.67E-07	4.27E-07	5.45E-05	6.55E-05	0.00E+00
INFANT	2.56E-07	3.42E-06	2.94E-07	4.33E-07	2.69E-07	4.98E-05	4.22E-05	0.00E+00

TABLE 5. DOSES TO MAXIMUM INDIVIDUAL (MREM), OCTOBER-DECEMBER 2006 (CONTINUED)

SPECIAL LOCATION NO. 5 A Nearest Garden
AT 2.50 MILES N

ANNUAL BETA AIR DOSE = 1.98E-04 MILLRADS
ANNUAL GAMMA AIR DOSE = 2.19E-04 MILLRADS

PATHWAY	T.BODY	GI-TRACT	BONE	LIVER	KIDNEY	THYROID	LUNG	SKIN
PLUME	1.45E-04	1.45E-04	1.45E-04	1.45E-04	1.45E-04	1.45E-04	1.47E-04	3.00E-04
GROUND	1.60E-03	1.60E-03	1.60E-03	1.60E-03	1.60E-03	1.60E-03	1.60E-03	1.89E-03
VEGET								
ADULT	3.05E-05	2.30E-04	1.88E-05	2.65E-05	1.10E-05	9.83E-04	3.23E-07	0.00E+00
TEEN	4.73E-05	2.44E-04	3.03E-05	4.05E-05	1.64E-05	1.33E-03	5.78E-07	0.00E+00
CHILD	9.43E-05	1.59E-04	7.24E-05	6.23E-05	2.51E-05	2.54E-03	8.54E-07	0.00E+00
MEAT								
ADULT	8.21E-06	6.04E-05	1.48E-06	6.90E-06	2.35E-06	2.65E-05	1.52E-07	0.00E+00
TEEN	6.49E-06	3.25E-05	1.09E-06	5.34E-06	1.74E-06	1.92E-05	1.37E-07	0.00E+00
CHILD	1.00E-05	1.64E-05	1.77E-06	6.28E-06	1.99E-06	2.90E-05	1.55E-07	0.00E+00
COW MILK								
ADULT	8.74E-06	2.11E-05	6.56E-06	1.60E-05	1.24E-05	7.33E-04	7.91E-08	0.00E+00
TEEN	1.48E-05	2.46E-05	1.08E-05	2.72E-05	2.06E-05	1.16E-03	1.62E-07	0.00E+00
CHILD	2.89E-05	1.60E-05	2.35E-05	4.21E-05	3.18E-05	2.29E-03	2.46E-07	0.00E+00
INFANT	4.12E-05	5.53E-05	3.88E-05	7.87E-05	4.71E-05	5.56E-03	4.58E-07	0.00E+00
GOATMILK								
ADULT	3.51E-06	3.42E-06	4.90E-06	5.93E-06	6.17E-06	8.79E-04	1.89E-07	0.00E+00
TEEN	5.12E-06	4.12E-06	8.80E-06	1.04E-05	1.08E-05	1.39E-03	3.91E-07	0.00E+00
CHILD	8.60E-06	2.85E-06	2.11E-05	1.74E-05	1.77E-05	2.75E-03	6.00E-07	0.00E+00
INFANT	1.40E-05	7.55E-06	3.93E-05	3.72E-05	2.96E-05	6.68E-03	1.09E-06	0.00E+00
INHAL								
ADULT	6.54E-07	7.58E-06	3.39E-07	1.01E-06	6.89E-07	9.23E-05	1.49E-04	0.00E+00
TEEN	8.63E-07	7.09E-06	4.66E-07	1.33E-06	9.28E-07	1.14E-04	2.17E-04	0.00E+00
CHILD	9.60E-07	4.32E-06	6.17E-07	1.20E-06	8.45E-07	1.26E-04	1.76E-04	0.00E+00
INFANT	5.43E-07	2.51E-06	4.49E-07	8.61E-07	5.24E-07	1.15E-04	1.13E-04	0.00E+00

TABLE 6. DOSES TO MAXIMUM INDIVIDUAL (MREM), JULY-DECEMBER 2006

SPECIAL LOCATION NO. 1 A Site Boundary
AT .69 MILES NNW

ANNUAL BETA AIR DOSE = 1.57E-03 MILLRADS
ANNUAL GAMMA AIR DOSE = 1.03E-03 MILLRADS

PATHWAY	T.BODY	GI-TRACT	BONE	LIVER	KIDNEY	THYROID	LUNG	SKIN
PLUME	6.64E-04	6.64E-04	6.64E-04	6.64E-04	6.64E-04	6.64E-04	6.80E-04	1.63E-03
GROUND	2.25E-02	2.25E-02	2.25E-02	2.25E-02	2.25E-02	2.25E-02	2.25E-02	2.65E-02
VEGET								
ADULT	4.26E-04	3.21E-03	2.59E-04	3.63E-04	1.52E-04	1.43E-02	4.12E-06	0.00E+00
TEEN	6.60E-04	3.42E-03	4.19E-04	5.54E-04	2.27E-04	1.93E-02	7.36E-06	0.00E+00
CHILD	1.32E-03	2.23E-03	1.00E-03	8.54E-04	3.48E-04	3.69E-02	1.09E-05	0.00E+00
MEAT								
ADULT	1.14E-04	8.45E-04	1.97E-05	9.39E-05	3.13E-05	3.86E-04	2.02E-06	0.00E+00
TEEN	9.02E-05	4.55E-04	1.46E-05	7.27E-05	2.32E-05	2.79E-04	1.81E-06	0.00E+00
CHILD	1.40E-04	2.30E-04	2.35E-05	8.55E-05	2.65E-05	4.22E-04	2.05E-06	0.00E+00
COW MILK								
ADULT	1.18E-04	2.91E-04	8.86E-05	2.15E-04	1.69E-04	1.07E-02	9.17E-07	0.00E+00
TEEN	2.00E-04	3.39E-04	1.46E-04	3.64E-04	2.81E-04	1.68E-02	1.87E-06	0.00E+00
CHILD	3.92E-04	2.21E-04	3.19E-04	5.66E-04	4.36E-04	3.33E-02	2.85E-06	0.00E+00
INFANT	5.63E-04	7.41E-04	5.31E-04	1.06E-03	6.49E-04	8.09E-02	5.31E-06	0.00E+00
GOATMILK								
ADULT	4.64E-05	4.75E-05	6.58E-05	7.87E-05	8.66E-05	1.28E-02	2.11E-06	0.00E+00
TEEN	6.93E-05	5.75E-05	1.18E-04	1.37E-04	1.52E-04	2.02E-02	4.35E-06	0.00E+00
CHILD	1.19E-04	3.99E-05	2.83E-04	2.31E-04	2.49E-04	3.99E-02	6.68E-06	0.00E+00
INFANT	1.96E-04	1.02E-04	5.33E-04	4.99E-04	4.17E-04	9.70E-02	1.21E-05	0.00E+00
INHAL								
ADULT	8.78E-06	1.06E-04	4.59E-06	1.33E-05	9.22E-06	1.29E-03	2.09E-03	0.00E+00
TEEN	1.16E-05	1.02E-04	6.32E-06	1.76E-05	1.24E-05	1.59E-03	3.05E-03	0.00E+00
CHILD	1.29E-05	9.02E-05	8.39E-06	1.58E-05	1.13E-05	1.77E-03	2.47E-03	0.00E+00
INFANT	7.21E-06	6.11E-05	6.05E-06	1.13E-05	7.02E-06	1.62E-03	1.58E-03	0.00E+00

TABLE 6. DOSES TO MAXIMUM INDIVIDUAL (MREM), JULY-DECEMBER 2006 (CONTINUED)

SPECIAL LOCATION NO. 2 A Site Boundary
AT .67 MILES N

ANNUAL BETA AIR DOSE = 2.02E-03 MILLRADS
ANNUAL GAMMA AIR DOSE = 1.29E-03 MILLRADS

PATHWAY	T.BODY	GI-TRACT	BONE	LIVER	KIDNEY	THYROID	LUNG	SKIN
PLUME	8.29E-04	8.29E-04	8.29E-04	8.29E-04	8.29E-04	8.29E-04	8.49E-04	2.06E-03
GROUND	4.04E-02	4.04E-02	4.04E-02	4.04E-02	4.04E-02	4.04E-02	4.04E-02	4.75E-02
VEGET								
ADULT	7.62E-04	5.76E-03	4.35E-04	6.50E-04	2.70E-04	2.54E-02	7.32E-06	0.00E+00
TEEN	1.18E-03	6.12E-03	7.03E-04	9.92E-04	4.05E-04	3.42E-02	1.31E-05	0.00E+00
CHILD	2.36E-03	4.00E-03	1.68E-03	1.53E-03	6.21E-04	6.56E-02	1.93E-05	0.00E+00
MEAT								
ADULT	2.05E-04	1.52E-03	3.50E-05	1.68E-04	5.61E-05	6.85E-04	3.62E-06	0.00E+00
TEEN	1.62E-04	8.16E-04	2.59E-05	1.30E-04	4.15E-05	4.96E-04	3.25E-06	0.00E+00
CHILD	2.51E-04	4.12E-04	4.17E-05	1.53E-04	4.75E-05	7.48E-04	3.68E-06	0.00E+00
COW MILK								
ADULT	2.11E-04	5.22E-04	1.57E-04	3.85E-04	3.02E-04	1.89E-02	1.59E-06	0.00E+00
TEEN	3.58E-04	6.07E-04	2.59E-04	6.52E-04	5.03E-04	2.99E-02	3.25E-06	0.00E+00
CHILD	7.03E-04	3.96E-04	5.63E-04	1.01E-03	7.78E-04	5.91E-02	4.94E-06	0.00E+00
INFANT	1.01E-03	1.33E-03	9.35E-04	1.90E-03	1.16E-03	1.44E-01	9.23E-06	0.00E+00
GOATMILK								
ADULT	8.18E-05	8.46E-05	1.14E-04	1.39E-04	1.54E-04	2.27E-02	3.62E-06	0.00E+00
TEEN	1.23E-04	1.02E-04	2.04E-04	2.43E-04	2.70E-04	3.59E-02	7.48E-06	0.00E+00
CHILD	2.12E-04	7.08E-05	4.89E-04	4.08E-04	4.41E-04	7.09E-02	1.15E-05	0.00E+00
INFANT	3.49E-04	1.82E-04	9.20E-04	8.82E-04	7.40E-04	1.72E-01	2.08E-05	0.00E+00
INHAL								
ADULT	1.12E-05	1.34E-04	5.86E-06	1.70E-05	1.18E-05	1.66E-03	2.65E-03	0.00E+00
TEEN	1.48E-05	1.29E-04	8.07E-06	2.25E-05	1.59E-05	2.05E-03	3.87E-03	0.00E+00
CHILD	1.64E-05	1.14E-04	1.07E-05	2.02E-05	1.45E-05	2.29E-03	3.13E-03	0.00E+00
INFANT	9.18E-06	7.70E-05	7.74E-06	1.44E-05	9.02E-06	2.09E-03	2.01E-03	0.00E+00

TABLE 6. DOSES TO MAXIMUM INDIVIDUAL (MREM), JULY-DECEMBER 2006 (CONTINUED)

SPECIAL LOCATION NO. 3 A Nearest Resident
AT .90 MILES NW

ANNUAL BETA AIR DOSE = 8.60E-04 MILLRADS
ANNUAL GAMMA AIR DOSE = 9.79E-04 MILLRADS

PATHWAY	T.BODY	GI-TRACT	BONE	LIVER	KIDNEY	THYROID	LUNG	SKIN
PLUME	6.50E-04	6.50E-04	6.50E-04	6.50E-04	6.50E-04	6.50E-04	6.58E-04	1.36E-03
GROUND	1.08E-02	1.08E-02	1.08E-02	1.08E-02	1.08E-02	1.08E-02	1.08E-02	1.27E-02
VEGET								
ADULT	2.07E-04	1.55E-03	1.84E-04	1.77E-04	7.61E-05	7.39E-03	2.12E-06	0.00E+00
TEEN	3.21E-04	1.65E-03	3.00E-04	2.70E-04	1.14E-04	9.97E-03	3.81E-06	0.00E+00
CHILD	6.40E-04	1.08E-03	7.21E-04	4.17E-04	1.75E-04	1.91E-02	5.63E-06	0.00E+00
MEAT								
ADULT	5.47E-05	4.05E-04	1.02E-05	4.52E-05	1.52E-05	1.99E-04	9.79E-07	0.00E+00
TEEN	4.33E-05	2.18E-04	7.58E-06	3.50E-05	1.12E-05	1.44E-04	8.79E-07	0.00E+00
CHILD	6.70E-05	1.10E-04	1.24E-05	4.12E-05	1.29E-05	2.18E-04	9.96E-07	0.00E+00
COW MILK								
ADULT	5.81E-05	1.40E-04	4.68E-05	1.06E-04	8.37E-05	5.51E-03	5.45E-07	0.00E+00
TEEN	9.79E-05	1.63E-04	7.81E-05	1.79E-04	1.40E-04	8.72E-03	1.11E-06	0.00E+00
CHILD	1.91E-04	1.07E-04	1.72E-04	2.79E-04	2.17E-04	1.72E-02	1.70E-06	0.00E+00
INFANT	2.75E-04	3.57E-04	2.91E-04	5.26E-04	3.24E-04	4.19E-02	3.15E-06	0.00E+00
GOATMILK								
ADULT	2.51E-05	2.42E-05	4.02E-05	4.20E-05	4.51E-05	6.62E-03	1.32E-06	0.00E+00
TEEN	3.67E-05	2.94E-05	7.25E-05	7.35E-05	7.92E-05	1.05E-02	2.74E-06	0.00E+00
CHILD	6.18E-05	2.06E-05	1.75E-04	1.24E-04	1.30E-04	2.07E-02	4.20E-06	0.00E+00
INFANT	1.02E-04	5.05E-05	3.28E-04	2.68E-04	2.18E-04	5.02E-02	7.62E-06	0.00E+00
INHAL								
ADULT	2.36E-06	2.74E-05	1.38E-06	3.63E-06	2.59E-06	3.47E-04	5.31E-04	0.00E+00
TEEN	3.12E-06	2.71E-05	1.91E-06	4.82E-06	3.50E-06	4.28E-04	7.76E-04	0.00E+00
CHILD	3.48E-06	2.91E-05	2.55E-06	4.35E-06	3.20E-06	4.79E-04	6.29E-04	0.00E+00
INFANT	1.98E-06	2.10E-05	1.85E-06	3.17E-06	2.00E-06	4.38E-04	4.03E-04	0.00E+00

TABLE 6. DOSES TO MAXIMUM INDIVIDUAL (MREM), JULY-DECEMBER 2006 (CONTINUED)

SPECIAL LOCATION NO. 4 A Nearest Cow
AT 3.50 MILES NNW

ANNUAL BETA AIR DOSE = 3.04E-04 MILLRADS
ANNUAL GAMMA AIR DOSE = 4.37E-04 MILLRADS

PATHWAY	T.BODY	GI-TRACT	BONE	LIVER	KIDNEY	THYROID	LUNG	SKIN
PLUME	2.92E-04	2.92E-04	2.92E-04	2.92E-04	2.92E-04	2.92E-04	2.96E-04	5.84E-04
GROUND	4.49E-04	4.49E-04	4.49E-04	4.49E-04	4.49E-04	4.49E-04	4.49E-04	5.28E-04
VEGET								
ADULT	8.81E-06	6.51E-05	1.07E-05	7.52E-06	3.33E-06	3.33E-04	9.60E-08	0.00E+00
TEEN	1.36E-05	6.93E-05	1.76E-05	1.15E-05	4.99E-06	4.50E-04	1.73E-07	0.00E+00
CHILD	2.71E-05	4.54E-05	4.25E-05	1.78E-05	7.70E-06	8.62E-04	2.56E-07	0.00E+00
MEAT								
ADULT	2.28E-06	1.68E-05	4.60E-07	1.89E-06	6.40E-07	8.99E-06	4.12E-08	0.00E+00
TEEN	1.80E-06	9.07E-06	3.46E-07	1.46E-06	4.74E-07	6.51E-06	3.71E-08	0.00E+00
CHILD	2.79E-06	4.58E-06	5.74E-07	1.72E-06	5.44E-07	9.83E-06	4.20E-08	0.00E+00
COW MILK								
ADULT	2.49E-06	5.89E-06	2.17E-06	4.52E-06	3.61E-06	2.49E-04	2.81E-08	0.00E+00
TEEN	4.18E-06	6.87E-06	3.65E-06	7.67E-06	6.04E-06	3.93E-04	5.76E-08	0.00E+00
CHILD	8.14E-06	4.50E-06	8.15E-06	1.20E-05	9.39E-06	7.77E-04	8.80E-08	0.00E+00
INFANT	1.17E-05	1.50E-05	1.40E-05	2.27E-05	1.41E-05	1.89E-03	1.62E-07	0.00E+00
GOATMILK								
ADULT	1.19E-06	1.08E-06	2.12E-06	1.97E-06	2.05E-06	2.99E-04	7.15E-08	0.00E+00
TEEN	1.70E-06	1.32E-06	3.83E-06	3.45E-06	3.60E-06	4.72E-04	1.48E-07	0.00E+00
CHILD	2.80E-06	9.33E-07	9.27E-06	5.83E-06	5.91E-06	9.33E-04	2.27E-07	0.00E+00
INFANT	4.61E-06	2.19E-06	1.73E-05	1.26E-05	9.94E-06	2.27E-03	4.11E-07	0.00E+00
INHAL								
ADULT	3.40E-07	3.54E-06	2.59E-07	5.41E-07	4.12E-07	4.87E-05	6.42E-05	0.00E+00
TEEN	4.51E-07	3.69E-06	3.61E-07	7.24E-07	5.59E-07	6.02E-05	9.38E-05	0.00E+00
CHILD	5.08E-07	5.15E-06	4.86E-07	6.65E-07	5.14E-07	6.75E-05	7.61E-05	0.00E+00
INFANT	3.02E-07	3.98E-06	3.55E-07	5.12E-07	3.25E-07	6.17E-05	4.90E-05	0.00E+00

TABLE 6. DOSES TO MAXIMUM INDIVIDUAL (MREM), JULY-DECEMBER 2006 (CONTINUED)

SPECIAL LOCATION NO. 5 A Nearest Garden
AT 2.50 MILES N

ANNUAL BETA AIR DOSE = 2.66E-04 MILLRADS
ANNUAL GAMMA AIR DOSE = 3.05E-04 MILLRADS

PATHWAY	T.BODY	GI-TRACT	BONE	LIVER	KIDNEY	THYROID	LUNG	SKIN
PLUME	2.03E-04	2.03E-04	2.03E-04	2.03E-04	2.03E-04	2.03E-04	2.05E-04	4.24E-04
GROUND	1.69E-03	1.69E-03	1.69E-03	1.69E-03	1.69E-03	1.69E-03	1.69E-03	1.99E-03
VEGET								
ADULT	3.25E-05	2.43E-04	2.69E-05	2.77E-05	1.18E-05	1.14E-03	3.28E-07	0.00E+00
TEEN	5.03E-05	2.59E-04	4.38E-05	4.23E-05	1.77E-05	1.54E-03	5.88E-07	0.00E+00
CHILD	1.00E-04	1.69E-04	1.05E-04	6.53E-05	2.72E-05	2.95E-03	8.70E-07	0.00E+00
MEAT								
ADULT	8.59E-06	6.36E-05	1.57E-06	7.09E-06	2.38E-06	3.08E-05	1.53E-07	0.00E+00
TEEN	6.79E-06	3.42E-05	1.17E-06	5.49E-06	1.76E-06	2.23E-05	1.38E-07	0.00E+00
CHILD	1.05E-05	1.73E-05	1.91E-06	6.46E-06	2.02E-06	3.37E-05	1.56E-07	0.00E+00
COW MILK								
ADULT	9.07E-06	2.20E-05	7.20E-06	1.65E-05	1.30E-05	8.52E-04	8.20E-08	0.00E+00
TEEN	1.53E-05	2.56E-05	1.20E-05	2.80E-05	2.18E-05	1.35E-03	1.68E-07	0.00E+00
CHILD	2.99E-05	1.68E-05	2.64E-05	4.35E-05	3.37E-05	2.66E-03	2.56E-07	0.00E+00
INFANT	4.31E-05	5.60E-05	4.45E-05	8.20E-05	5.05E-05	6.47E-03	4.74E-07	0.00E+00
GOATMILK								
ADULT	3.84E-06	3.75E-06	6.02E-06	6.46E-06	6.96E-06	1.02E-03	1.98E-07	0.00E+00
TEEN	5.64E-06	4.56E-06	1.09E-05	1.13E-05	1.22E-05	1.62E-03	4.08E-07	0.00E+00
CHILD	9.55E-06	3.18E-06	2.62E-05	1.90E-05	2.00E-05	3.19E-03	6.27E-07	0.00E+00
INFANT	1.57E-05	7.88E-06	4.90E-05	4.11E-05	3.36E-05	7.76E-03	1.14E-06	0.00E+00
INHAL								
ADULT	6.90E-07	7.95E-06	4.08E-07	1.06E-06	7.66E-07	1.03E-04	1.54E-04	0.00E+00
TEEN	9.12E-07	7.85E-06	5.65E-07	1.41E-06	1.04E-06	1.27E-04	2.25E-04	0.00E+00
CHILD	1.02E-06	8.54E-06	7.54E-07	1.28E-06	9.46E-07	1.42E-04	1.82E-04	0.00E+00
INFANT	5.80E-07	6.18E-06	5.48E-07	9.32E-07	5.91E-07	1.30E-04	1.17E-04	0.00E+00

TABLE 7. DOSES TO MAXIMUM INDIVIDUAL (MREM), JANUARY-DECEMBER 2006

SPECIAL LOCATION NO. 1 A Site Boundary
AT .69 MILES NNW

ANNUAL BETA AIR DOSE = 3.91E-03 MILLRADS
ANNUAL GAMMA AIR DOSE = 1.95E-03 MILLRADS

PATHWAY	T.BODY	GI-TRACT	BONE	LIVER	KIDNEY	THYROID	LUNG	SKIN
PLUME	1.22E-03	1.22E-03	1.22E-03	1.22E-03	1.22E-03	1.22E-03	1.26E-03	3.14E-03
GROUND	2.33E-02	2.33E-02	2.33E-02	2.33E-02	2.33E-02	2.33E-02	2.33E-02	2.74E-02
VEGET								
ADULT	4.52E-04	3.40E-03	6.84E-04	3.75E-04	1.65E-04	1.70E-02	4.04E-06	0.00E+00
TEEN	7.02E-04	3.62E-03	1.12E-03	5.73E-04	2.47E-04	2.29E-02	7.22E-06	0.00E+00
CHILD	1.41E-03	2.38E-03	2.72E-03	8.84E-04	3.80E-04	4.40E-02	1.06E-05	0.00E+00
MEAT								
ADULT	1.16E-04	8.74E-04	2.33E-05	9.33E-05	3.04E-05	4.59E-04	1.98E-06	0.00E+00
TEEN	9.19E-05	4.70E-04	1.77E-05	7.22E-05	2.25E-05	3.32E-04	1.77E-06	0.00E+00
CHILD	1.42E-04	2.38E-04	2.95E-05	8.51E-05	2.58E-05	5.01E-04	2.01E-06	0.00E+00
COW MILK								
ADULT	1.19E-04	3.49E-04	1.10E-04	2.14E-04	1.76E-04	1.27E-02	9.06E-07	0.00E+00
TEEN	2.02E-04	4.07E-04	1.87E-04	3.64E-04	2.94E-04	2.02E-02	1.85E-06	0.00E+00
CHILD	3.97E-04	2.67E-04	4.21E-04	5.68E-04	4.58E-04	3.99E-02	2.81E-06	0.00E+00
INFANT	5.78E-04	7.57E-04	7.34E-04	1.08E-03	6.93E-04	9.69E-02	5.24E-06	0.00E+00
GOATMILK								
ADULT	5.15E-05	6.29E-05	1.12E-04	8.56E-05	9.96E-05	1.53E-02	2.09E-06	0.00E+00
TEEN	7.81E-05	7.73E-05	2.03E-04	1.50E-04	1.75E-04	2.42E-02	4.31E-06	0.00E+00
CHILD	1.37E-04	5.48E-05	4.94E-04	2.53E-04	2.88E-04	4.78E-02	6.62E-06	0.00E+00
INFANT	2.31E-04	1.13E-04	9.39E-04	5.55E-04	4.86E-04	1.16E-01	1.20E-05	0.00E+00
INHAL								
ADULT	8.68E-06	9.54E-05	6.26E-06	1.40E-05	1.16E-05	1.53E-03	1.85E-03	0.00E+00
TEEN	1.15E-05	8.90E-05	8.72E-06	1.87E-05	1.58E-05	1.91E-03	2.71E-03	0.00E+00
CHILD	1.29E-05	4.47E-05	1.17E-05	1.71E-05	1.46E-05	2.19E-03	2.19E-03	0.00E+00
INFANT	7.48E-06	2.21E-05	8.55E-06	1.29E-05	9.23E-06	2.01E-03	1.41E-03	0.00E+00

TABLE 7. DOSES TO MAXIMUM INDIVIDUAL (MREM), JANUARY-DECEMBER 2006 (CONTINUED)

SPECIAL LOCATION NO. 2 A Site Boundary
AT .67 MILES N

ANNUAL BETA AIR DOSE = 5.46E-03 MILLRADS
ANNUAL GAMMA AIR DOSE = 3.03E-03 MILLRADS

PATHWAY	T.BODY	GI-TRACT	BONE	LIVER	KIDNEY	THYROID	LUNG	SKIN
PLUME	1.91E-03	1.91E-03	1.91E-03	1.91E-03	1.91E-03	1.91E-03	1.96E-03	4.80E-03
GROUND	3.83E-02	3.83E-02	3.83E-02	3.83E-02	3.83E-02	3.83E-02	3.83E-02	4.50E-02
VEGET								
ADULT	7.46E-04	5.60E-03	1.19E-03	6.20E-04	2.75E-04	2.87E-02	6.71E-06	0.00E+00
TEEN	1.16E-03	5.97E-03	1.95E-03	9.45E-04	4.12E-04	3.87E-02	1.20E-05	0.00E+00
CHILD	2.32E-03	3.92E-03	4.73E-03	1.46E-03	6.35E-04	7.42E-02	1.77E-05	0.00E+00
MEAT								
ADULT	1.91E-04	1.44E-03	3.89E-05	1.54E-04	5.01E-05	7.73E-04	3.27E-06	0.00E+00
TEEN	1.51E-04	7.73E-04	2.96E-05	1.19E-04	3.72E-05	5.60E-04	2.94E-06	0.00E+00
CHILD	2.34E-04	3.91E-04	4.97E-05	1.40E-04	4.26E-05	8.45E-04	3.33E-06	0.00E+00
COW MILK								
ADULT	1.98E-04	5.74E-04	1.86E-04	3.55E-04	2.92E-04	2.15E-02	1.52E-06	0.00E+00
TEEN	3.34E-04	6.71E-04	3.16E-04	6.02E-04	4.89E-04	3.40E-02	3.10E-06	0.00E+00
CHILD	6.56E-04	4.41E-04	7.12E-04	9.40E-04	7.63E-04	6.73E-02	4.72E-06	0.00E+00
INFANT	9.57E-04	1.25E-03	1.25E-03	1.79E-03	1.16E-03	1.64E-01	8.79E-06	0.00E+00
GOATMILK								
ADULT	8.65E-05	1.05E-04	1.92E-04	1.44E-04	1.68E-04	2.58E-02	3.51E-06	0.00E+00
TEEN	1.31E-04	1.29E-04	3.49E-04	2.52E-04	2.95E-04	4.08E-02	7.25E-06	0.00E+00
CHILD	2.30E-04	9.20E-05	8.49E-04	4.25E-04	4.85E-04	8.08E-02	1.11E-05	0.00E+00
INFANT	3.89E-04	1.88E-04	1.61E-03	9.34E-04	8.19E-04	1.96E-01	2.02E-05	0.00E+00
INHAL								
ADULT	1.14E-05	1.29E-04	8.37E-06	1.86E-05	1.57E-05	2.03E-03	2.43E-03	0.00E+00
TEEN	1.51E-05	1.39E-04	1.17E-05	2.48E-05	2.14E-05	2.53E-03	3.55E-03	0.00E+00
CHILD	1.70E-05	2.23E-04	1.57E-05	2.27E-05	1.97E-05	2.91E-03	2.88E-03	0.00E+00
INFANT	9.89E-06	1.71E-04	1.15E-05	1.73E-05	1.25E-05	2.67E-03	1.85E-03	0.00E+00

TABLE 7. DOSES TO MAXIMUM INDIVIDUAL (MREM), JANUARY-DECEMBER 2006 (CONTINUED)

SPECIAL LOCATION NO. 3 A Nearest Resident
AT .90 MILES NW

ANNUAL BETA AIR DOSE = 2.15E-03 MILLRADS
ANNUAL GAMMA AIR DOSE = 1.77E-03 MILLRADS

PATHWAY	T.BODY	GI-TRACT	BONE	LIVER	KIDNEY	THYROID	LUNG	SKIN
PLUME	1.15E-03	1.15E-03	1.15E-03	1.15E-03	1.15E-03	1.15E-03	1.17E-03	2.57E-03
GROUND	1.17E-02	1.17E-02	1.17E-02	1.17E-02	1.17E-02	1.17E-02	1.17E-02	1.38E-02
VEGET								
ADULT	2.40E-04	1.76E-03	6.83E-04	1.94E-04	8.97E-05	9.72E-03	2.33E-06	0.00E+00
TEEN	3.73E-04	1.89E-03	1.13E-03	2.97E-04	1.35E-04	1.31E-02	4.19E-06	0.00E+00
CHILD	7.52E-04	1.25E-03	2.74E-03	4.60E-04	2.08E-04	2.51E-02	6.19E-06	0.00E+00
MEAT								
ADULT	5.87E-05	4.40E-04	1.53E-05	4.74E-05	1.56E-05	2.62E-04	1.06E-06	0.00E+00
TEEN	4.64E-05	2.37E-04	1.19E-05	3.67E-05	1.16E-05	1.90E-04	9.53E-07	0.00E+00
CHILD	7.18E-05	1.20E-04	2.05E-05	4.32E-05	1.33E-05	2.86E-04	1.08E-06	0.00E+00
COW MILK								
ADULT	6.31E-05	1.79E-04	7.42E-05	1.12E-04	9.36E-05	7.28E-03	6.16E-07	0.00E+00
TEEN	1.06E-04	2.09E-04	1.28E-04	1.91E-04	1.57E-04	1.15E-02	1.26E-06	0.00E+00
CHILD	2.07E-04	1.38E-04	2.96E-04	2.99E-04	2.46E-04	2.28E-02	1.92E-06	0.00E+00
INFANT	3.04E-04	3.85E-04	5.30E-04	5.74E-04	3.75E-04	5.54E-02	3.56E-06	0.00E+00
GOATMILK								
ADULT	3.14E-05	3.79E-05	9.44E-05	5.05E-05	5.71E-05	8.74E-03	1.52E-06	0.00E+00
TEEN	4.66E-05	4.74E-05	1.72E-04	8.85E-05	1.01E-04	1.38E-02	3.13E-06	0.00E+00
CHILD	8.07E-05	3.44E-05	4.21E-04	1.50E-04	1.65E-04	2.73E-02	4.81E-06	0.00E+00
INFANT	1.37E-04	6.41E-05	7.98E-04	3.29E-04	2.80E-04	6.64E-02	8.71E-06	0.00E+00
INHAL								
ADULT	3.30E-06	3.09E-05	2.73E-06	5.55E-06	4.35E-06	4.95E-04	5.66E-04	0.00E+00
TEEN	4.40E-06	3.40E-05	3.82E-06	7.48E-06	5.93E-06	6.19E-04	8.27E-04	0.00E+00
CHILD	5.06E-06	6.01E-05	5.16E-06	6.99E-06	5.48E-06	7.11E-04	6.71E-04	0.00E+00
INFANT	3.13E-06	4.79E-05	3.78E-06	5.64E-06	3.50E-06	6.52E-04	4.32E-04	0.00E+00

TABLE 7. DOSES TO MAXIMUM INDIVIDUAL (MREM), JANUARY-DECEMBER 2006 (CONTINUED)

SPECIAL LOCATION NO. 4 A Nearest Cow
AT 3.50 MILES NNW

ANNUAL BETA AIR DOSE = 6.81E-04 MILLRADS
ANNUAL GAMMA AIR DOSE = 7.49E-04 MILLRADS

PATHWAY	T.BODY	GI-TRACT	BONE	LIVER	KIDNEY	THYROID	LUNG	SKIN
PLUME	4.95E-04	4.95E-04	4.95E-04	4.95E-04	4.95E-04	4.95E-04	5.02E-04	1.03E-03
GROUND	4.71E-04	4.71E-04	4.71E-04	4.71E-04	4.71E-04	4.71E-04	4.71E-04	5.54E-04
VEGET								
ADULT	1.03E-05	7.39E-05	4.49E-05	8.09E-06	3.91E-06	4.40E-04	1.09E-07	0.00E+00
TEEN	1.60E-05	7.96E-05	7.42E-05	1.24E-05	5.87E-06	5.93E-04	1.97E-07	0.00E+00
CHILD	3.25E-05	5.31E-05	1.81E-04	1.92E-05	9.10E-06	1.14E-03	2.92E-07	0.00E+00
MEAT								
ADULT	2.38E-06	1.77E-05	7.96E-07	1.93E-06	6.38E-07	1.19E-05	4.59E-08	0.00E+00
TEEN	1.88E-06	9.55E-06	6.32E-07	1.50E-06	4.75E-07	8.59E-06	4.13E-08	0.00E+00
CHILD	2.91E-06	4.83E-06	1.11E-06	1.76E-06	5.46E-07	1.30E-05	4.68E-08	0.00E+00
COW MILK								
ADULT	2.68E-06	7.36E-06	3.92E-06	4.71E-06	3.99E-06	3.30E-04	3.30E-08	0.00E+00
TEEN	4.47E-06	8.65E-06	6.89E-06	8.03E-06	6.73E-06	5.22E-04	6.77E-08	0.00E+00
CHILD	8.70E-06	5.74E-06	1.62E-05	1.26E-05	1.06E-05	1.03E-03	1.04E-07	0.00E+00
INFANT	1.29E-05	1.57E-05	2.94E-05	2.44E-05	1.62E-05	2.51E-03	1.91E-07	0.00E+00
GOATMILK								
ADULT	1.53E-06	1.84E-06	5.73E-06	2.38E-06	2.60E-06	3.96E-04	8.50E-08	0.00E+00
TEEN	2.23E-06	2.33E-06	1.05E-05	4.18E-06	4.59E-06	6.26E-04	1.76E-07	0.00E+00
CHILD	3.80E-06	1.73E-06	2.57E-05	7.11E-06	7.56E-06	1.24E-03	2.70E-07	0.00E+00
INFANT	6.47E-06	2.93E-06	4.86E-05	1.55E-05	1.28E-05	3.01E-03	4.88E-07	0.00E+00
INHAL								
ADULT	6.81E-07	3.62E-06	6.97E-07	1.23E-06	8.08E-07	6.10E-05	5.84E-05	0.00E+00
TEEN	9.25E-07	4.18E-06	9.82E-07	1.68E-06	1.11E-06	7.63E-05	8.56E-05	0.00E+00
CHILD	1.12E-06	8.43E-06	1.34E-06	1.63E-06	1.03E-06	8.76E-05	6.96E-05	0.00E+00
INFANT	7.66E-07	7.39E-06	9.83E-07	1.45E-06	6.68E-07	8.02E-05	4.54E-05	0.00E+00

TABLE 7. DOSES TO MAXIMUM INDIVIDUAL (MREM), JANUARY-DECEMBER 2006 (CONTINUED)

SPECIAL LOCATION NO. 5 A Nearest Garden
AT 2.50 MILES N

ANNUAL BETA AIR DOSE = 6.06E-04 MILLRADS
ANNUAL GAMMA AIR DOSE = 5.13E-04 MILLRADS

PATHWAY	T.BODY	GI-TRACT	BONE	LIVER	KIDNEY	THYROID	LUNG	SKIN
PLUME	3.35E-04	3.35E-04	3.35E-04	3.35E-04	3.35E-04	3.35E-04	3.41E-04	7.39E-04
GROUND	1.61E-03	1.61E-03	1.61E-03	1.61E-03	1.61E-03	1.61E-03	1.61E-03	1.90E-03
VEGET								
ADULT	3.31E-05	2.43E-04	9.31E-05	2.68E-05	1.24E-05	1.34E-03	3.21E-07	0.00E+00
TEEN	5.14E-05	2.61E-04	1.54E-04	4.10E-05	1.85E-05	1.80E-03	5.76E-07	0.00E+00
CHILD	1.04E-04	1.72E-04	3.74E-04	6.34E-05	2.87E-05	3.46E-03	8.52E-07	0.00E+00
MEAT								
ADULT	8.10E-06	6.07E-05	2.09E-06	6.54E-06	2.15E-06	3.60E-05	1.46E-07	0.00E+00
TEEN	6.40E-06	3.27E-05	1.63E-06	5.07E-06	1.59E-06	2.61E-05	1.31E-07	0.00E+00
CHILD	9.92E-06	1.65E-05	2.81E-06	5.97E-06	1.83E-06	3.94E-05	1.49E-07	0.00E+00
COW MILK								
ADULT	8.70E-06	2.47E-05	1.02E-05	1.55E-05	1.29E-05	1.00E-03	8.45E-08	0.00E+00
TEEN	1.46E-05	2.89E-05	1.76E-05	2.63E-05	2.17E-05	1.59E-03	1.73E-07	0.00E+00
CHILD	2.86E-05	1.91E-05	4.06E-05	4.12E-05	3.39E-05	3.14E-03	2.64E-07	0.00E+00
INFANT	4.20E-05	5.32E-05	7.26E-05	7.92E-05	5.17E-05	7.63E-03	4.88E-07	0.00E+00
GOATMILK								
ADULT	4.32E-06	5.21E-06	1.29E-05	6.95E-06	7.87E-06	1.20E-03	2.08E-07	0.00E+00
TEEN	6.42E-06	6.52E-06	2.35E-05	1.22E-05	1.39E-05	1.90E-03	4.29E-07	0.00E+00
CHILD	1.11E-05	4.73E-06	5.75E-05	2.06E-05	2.28E-05	3.77E-03	6.59E-07	0.00E+00
INFANT	1.88E-05	8.82E-06	1.09E-04	4.52E-05	3.85E-05	9.15E-03	1.19E-06	0.00E+00
INHAL								
ADULT	8.35E-07	7.42E-06	7.13E-07	1.42E-06	1.12E-06	1.26E-04	1.35E-04	0.00E+00
TEEN	1.12E-06	8.21E-06	9.98E-07	1.92E-06	1.53E-06	1.58E-04	1.97E-04	0.00E+00
CHILD	1.29E-06	1.48E-05	1.35E-06	1.80E-06	1.42E-06	1.82E-04	1.60E-04	0.00E+00
INFANT	8.06E-07	1.19E-05	9.92E-07	1.47E-06	9.08E-07	1.66E-04	1.03E-04	0.00E+00

TABLE 8. DOSES TO POPULATION WITHIN 50 MILES, JANUARY-MARCH 2006

ALARA ANNUAL INTEGRATED POPULATION DOSE SUMMARY (PERSON-REM)

PATHWAY	T.BODY	GI-TRACT	BONE	LIVER	KIDNEY	THYROID	LUNG	SKIN
PLUME	1.04E-04	1.04E-04	1.04E-04	1.04E-04	1.04E-04	1.04E-04	1.09E-04	3.28E-04
	52.93%	43.92%	29.81%	54.41%	54.79%	17.31%	51.41%	77.06%
GROUND	8.32E-05	8.32E-05	8.32E-05	8.32E-05	8.32E-05	8.32E-05	8.32E-05	9.78E-05
	42.36%	35.14%	23.86%	43.54%	43.84%	13.85%	39.26%	22.94%
INHAL	3.23E-07	2.32E-06	1.29E-06	5.15E-07	3.72E-07	2.80E-05	1.97E-05	0.00E+00
	.16%	.98%	.37%	.27%	.20%	4.66%	9.28%	.00%
VEGET	6.40E-06	2.88E-05	1.34E-04	1.52E-06	1.56E-07	4.71E-06	3.56E-08	0.00E+00
	3.26%	12.16%	38.41%	.80%	.08%	.78%	.02%	.00%
COW MILK	1.69E-06	1.25E-05	2.40E-05	1.40E-06	2.02E-06	3.73E-04	1.38E-08	0.00E+00
	.86%	5.27%	6.90%	.73%	1.07%	62.10%	.01%	.00%
MEAT	8.26E-07	6.00E-06	2.30E-06	4.71E-07	4.75E-08	7.81E-06	4.06E-08	0.00E+00
	.42%	2.53%	.66%	.25%	.03%	1.30%	.02%	.00%
TOTAL	1.96E-04	2.37E-04	3.49E-04	1.91E-04	1.90E-04	6.00E-04	2.12E-04	4.26E-04

TABLE 9. DOSES TO POPULATION WITHIN 50 MILES, APRIL-JUNE 2006

ALARA ANNUAL INTEGRATED POPULATION DOSE SUMMARY (PERSON-REM)

PATHWAY	T.BODY	GI-TRACT	BONE	LIVER	KIDNEY	THYROID	LUNG	SKIN
PLUME	3.95E-04	3.95E-04	3.95E-04	3.95E-04	3.95E-04	3.95E-04	4.09E-04	1.13E-03
	91.82%	90.12%	86.21%	91.77%	91.72%	35.43%	91.54%	96.83%
GROUND	3.14E-05	3.14E-05	3.14E-05	3.14E-05	3.14E-05	3.14E-05	3.14E-05	3.70E-05
	7.31%	7.18%	6.87%	7.31%	7.30%	2.82%	7.04%	3.17%
INHAL	1.70E-07	1.12E-06	4.91E-07	3.77E-07	6.02E-07	7.57E-05	6.28E-06	0.00E+00
	.04%	.25%	.11%	.09%	.14%	6.80%	1.41%	.00%
VEGET	1.79E-06	7.65E-06	2.44E-05	9.83E-07	2.32E-07	7.36E-06	4.45E-08	0.00E+00
	.42%	1.75%	5.33%	.23%	.05%	.66%	.01%	.00%
COW MILK	1.47E-06	1.33E-06	6.32E-06	2.41E-06	3.28E-06	5.93E-04	5.95E-08	0.00E+00
	.34%	.30%	1.38%	.56%	.76%	53.19%	.01%	.00%
MEAT	2.99E-07	1.77E-06	4.72E-07	1.79E-07	7.60E-08	1.23E-05	3.51E-09	0.00E+00
	.07%	.40%	.10%	.04%	.02%	1.11%	.00%	.00%
TOTAL	4.30E-04	4.38E-04	4.58E-04	4.30E-04	4.30E-04	1.11E-03	4.47E-04	1.17E-03

TABLE 10. DOSES TO POPULATION WITHIN 50 MILES, JANUARY-JUNE 2006

ALARA ANNUAL INTEGRATED POPULATION DOSE SUMMARY (PERSON-REM)

PATHWAY	T.BODY	GI-TRACT	BONE	LIVER	KIDNEY	THYROID	LUNG	SKIN
PLUME	4.88E-04	4.88E-04	4.88E-04	4.88E-04	4.88E-04	4.88E-04	5.07E-04	1.43E-03
	79.23%	73.44%	61.19%	79.90%	80.04%	28.65%	78.21%	91.36%
GROUND	1.15E-04	1.15E-04	1.15E-04	1.15E-04	1.15E-04	1.15E-04	1.15E-04	1.35E-04
	18.66%	17.30%	14.41%	18.82%	18.85%	6.75%	17.73%	8.64%
INHAL	4.84E-07	3.48E-06	1.87E-06	8.73E-07	9.70E-07	1.04E-04	2.61E-05	0.00E+00
	.08%	.52%	.23%	.14%	.16%	6.12%	4.03%	.00%
VEGET	8.22E-06	3.65E-05	1.59E-04	2.50E-06	3.86E-07	1.21E-05	8.00E-08	0.00E+00
	1.33%	5.49%	19.98%	.41%	.06%	.71%	.01%	.00%
COW MILK	3.16E-06	1.38E-05	3.06E-05	3.80E-06	5.30E-06	9.65E-04	7.28E-08	0.00E+00
	.51%	2.08%	3.83%	.62%	.87%	56.60%	.01%	.00%
MEAT	1.13E-06	7.77E-06	2.80E-06	6.51E-07	1.23E-07	2.01E-05	4.47E-08	0.00E+00
	.18%	1.17%	.35%	.11%	.02%	1.18%	.01%	.00%
TOTAL	6.16E-04	6.65E-04	7.98E-04	6.11E-04	6.10E-04	1.70E-03	6.49E-04	1.57E-03

TABLE 11. DOSES TO POPULATION WITHIN 50 MILES, JULY-SEPTEMBER 2006

ALARA ANNUAL INTEGRATED POPULATION DOSE SUMMARY (PERSON-REM)

PATHWAY	T.BODY	GI-TRACT	BONE	LIVER	KIDNEY	THYROID	LUNG	SKIN
PLUME	1.15E-04	1.15E-04	1.15E-04	1.15E-04	1.15E-04	1.15E-04	1.17E-04	2.70E-04
	57.93%	53.58%	56.30%	58.37%	58.52%	19.64%	54.78%	74.35%
GROUND	7.92E-05	7.92E-05	7.92E-05	7.92E-05	7.92E-05	7.92E-05	7.92E-05	9.32E-05
	40.00%	37.01%	38.88%	40.31%	40.41%	13.56%	37.25%	25.65%
INHAL	1.25E-07	1.40E-06	2.26E-07	1.95E-07	2.64E-07	4.06E-05	1.69E-05	0.00E+00
	.06%	.65%	.11%	.10%	.13%	6.94%	7.97%	.00%
VEGET	2.41E-06	1.27E-05	7.19E-06	9.46E-07	3.44E-08	4.19E-06	1.14E-09	0.00E+00
	1.22%	5.95%	3.53%	.48%	.02%	.72%	.00%	.00%
COW MILK	9.25E-07	1.76E-06	2.25E-06	1.17E-06	1.77E-06	3.38E-04	3.13E-10	0.00E+00
	.47%	.82%	1.11%	.59%	.90%	57.93%	.00%	.00%
MEAT	6.40E-07	4.26E-06	1.49E-07	2.93E-07	3.73E-08	7.09E-06	1.48E-09	0.00E+00
	.32%	1.99%	.07%	.15%	.02%	1.21%	.00%	.00%
TOTAL	1.98E-04	2.14E-04	2.04E-04	1.97E-04	1.96E-04	5.84E-04	2.13E-04	3.63E-04

TABLE 12. DOSES TO POPULATION WITHIN 50 MILES, OCTOBER-DECEMBER 2006

ALARA ANNUAL INTEGRATED POPULATION DOSE SUMMARY (PERSON-REM)

PATHWAY	T.BODY	GI-TRACT	BONE	LIVER	KIDNEY	THYROID	LUNG	SKIN
PLUME	4.06E-04	4.06E-04	4.06E-04	4.06E-04	4.06E-04	4.06E-04	4.13E-04	9.36E-04
	22.32%	19.35%	22.59%	22.25%	22.82%	9.07%	20.53%	37.62%
GROUND	1.32E-03	1.32E-03	1.32E-03	1.32E-03	1.32E-03	1.32E-03	1.32E-03	1.55E-03
	72.58%	62.91%	73.45%	72.37%	74.22%	29.48%	65.65%	62.38%
INHAL	1.37E-06	1.34E-05	1.15E-06	2.05E-06	1.62E-06	2.37E-04	2.77E-04	0.00E+00
	.08%	.64%	.06%	.11%	.09%	5.29%	13.77%	.00%
VEGET	4.59E-05	2.32E-04	3.91E-05	3.25E-05	7.79E-06	2.98E-05	4.14E-07	0.00E+00
	2.53%	11.07%	2.18%	1.78%	.44%	.67%	.02%	.00%
COW MILK	3.15E-05	4.48E-05	2.80E-05	5.24E-05	3.93E-05	2.43E-03	3.97E-07	0.00E+00
	1.73%	2.14%	1.56%	2.87%	2.21%	54.37%	.02%	.00%
MEAT	1.40E-05	8.17E-05	2.92E-06	1.11E-05	3.78E-06	5.07E-05	2.57E-07	0.00E+00
	.77%	3.90%	.16%	.61%	.21%	1.13%	.01%	.00%
TOTAL	1.82E-03	2.10E-03	1.80E-03	1.82E-03	1.78E-03	4.47E-03	2.01E-03	2.49E-03

TABLE 13. DOSES TO POPULATION WITHIN 50 MILES, JULY-DECEMBER 2006

ALARA ANNUAL INTEGRATED POPULATION DOSE SUMMARY (PERSON-REM)

PATHWAY	T.BODY	GI-TRACT	BONE	LIVER	KIDNEY	THYROID	LUNG	SKIN
PLUME	5.13E-04	5.13E-04	5.13E-04	5.13E-04	5.13E-04	5.13E-04	5.22E-04	1.19E-03
	25.05%	21.89%	25.23%	25.00%	25.58%	10.03%	23.01%	41.32%
GROUND	1.44E-03	1.44E-03	1.44E-03	1.44E-03	1.44E-03	1.44E-03	1.44E-03	1.69E-03
	70.21%	61.35%	70.72%	70.08%	71.69%	28.11%	63.42%	58.68%
INHAL	1.55E-06	1.53E-05	1.42E-06	2.33E-06	1.95E-06	2.87E-04	3.07E-04	0.00E+00
	.08%	.65%	.07%	.11%	.10%	5.61%	13.52%	.00%
VEGET	4.84E-05	2.45E-04	4.73E-05	3.35E-05	7.85E-06	3.41E-05	4.20E-07	0.00E+00
	2.36%	10.45%	2.33%	1.63%	.39%	.67%	.02%	.00%
COW MILK	3.25E-05	4.66E-05	3.06E-05	5.37E-05	4.12E-05	2.79E-03	4.06E-07	0.00E+00
	1.59%	1.99%	1.50%	2.62%	2.05%	54.46%	.02%	.00%
MEAT	1.46E-05	8.60E-05	3.09E-06	1.14E-05	3.82E-06	5.81E-05	2.59E-07	0.00E+00
	.71%	3.67%	.15%	.56%	.19%	1.14%	.01%	.00%
TOTAL	2.05E-03	2.34E-03	2.03E-03	2.05E-03	2.01E-03	5.12E-03	2.27E-03	2.88E-03

TABLE 14. DOSES TO POPULATION WITHIN 50 MILES, JANUARY-DECEMBER 2006

ALARA ANNUAL INTEGRATED POPULATION DOSE SUMMARY (PERSON-REM)

PATHWAY	T.BODY	GI-TRACT	BONE	LIVER	KIDNEY	THYROID	LUNG	SKIN
PLUME	1.01E-03	1.01E-03	1.01E-03	1.01E-03	1.01E-03	1.01E-03	1.03E-03	2.67E-03
	38.00%	33.63%	35.76%	38.02%	38.71%	14.81%	36.10%	59.68%
GROUND	1.53E-03	1.53E-03	1.53E-03	1.53E-03	1.53E-03	1.53E-03	1.53E-03	1.80E-03
	57.85%	51.21%	54.44%	57.88%	58.93%	22.54%	53.42%	40.32%
INHAL	1.89E-06	1.74E-05	3.35E-06	2.99E-06	2.80E-06	3.73E-04	2.99E-04	0.00E+00
	.07%	.58%	.12%	.11%	.11%	5.50%	10.44%	.00%
VEGET	5.66E-05	2.81E-04	2.06E-04	3.60E-05	8.24E-06	4.62E-05	5.01E-07	0.00E+00
	2.14%	9.42%	7.31%	1.36%	.32%	.68%	.02%	.00%
COW MILK	3.57E-05	6.05E-05	6.09E-05	5.75E-05	4.65E-05	3.76E-03	4.81E-07	0.00E+00
	1.35%	2.02%	2.17%	2.18%	1.79%	55.32%	.02%	.00%
MEAT	1.58E-05	9.38E-05	5.89E-06	1.21E-05	3.94E-06	7.83E-05	3.03E-07	0.00E+00
	.60%	3.14%	.21%	.46%	.15%	1.15%	.01%	.00%
TOTAL	2.65E-03	2.99E-03	2.81E-03	2.64E-03	2.60E-03	6.79E-03	2.87E-03	4.47E-03

DOSE CALCULATION MODELS

To evaluate the radiological consequences of the routine release of liquid and gaseous effluents from the Cooper Nuclear Station, two computer codes were used: LADTAP II for liquid doses and GASPAR for gaseous doses. Both of these computer codes implement the dose calculational methodologies of U.S. NRC Regulatory Guide 1.109, Revision 1.

Source terms for each quarter are combined with station-specific demographic data and either hydrological dilution factors, for liquid dose calculations, or atmospheric diffusion estimates, for gaseous dose calculations.

For liquid dose calculations, the hydrological dilution factors used for input to LADTAP II, as well as other input parameters, are listed in Table 12. Other inputs not specifically listed in this table are taken from Regulatory Guide 1.109, Revision 1. Semiannual doses are obtained by summing the contributions from the appropriate quarters.

For gaseous dose calculations, atmospheric diffusion estimates are obtained from the reduction and processing of onsite meteorological data, as described in Appendix B. Source terms for the semiannual period are obtained by summing source terms for the appropriate quarters. Additional input to GASPAR includes the following station-supplied data:

- 0 to 50 mile population distribution
- 0 to 50 mile meat, milk, and vegetable distributions
- Absolute humidity at Cooper Nuclear Station (14.61 g/m^3)
- The fraction of the year that the vegetables are grown (0.5)
- The fraction of the daily feed intake derived from pasture for milk and meat animals (0.5)

Other values used for input to GASPAR are default values from Regulatory Guide 1.109, Rev. 1.

TABLE 15. Values of Parameters Used to Make Dose Estimates Resulting From Liquid Discharges at Cooper Nuclear Station January-December 2006

Parameter	Values Assigned	
	Individual	Population
Cooling flow rate (cfs) * (Average daily value)	Q1 NR	NR
	Q2 NR	NR
	Q3 1450.22	1450.22
	Q4 NR	NR
Dilution factor*	Q1 NR	NR
	Q2 NR	NR
	Q3 1	23.78
	Q4 NR	NR
Holding time:		
Fish	24 hr ***	168 hr ***
Drinking water	12 hr ***	22.4 hr **
Shoreline exposure	0 hr ***	22.4 hr **
Swimming	0 hr ***	22.4 hr **
Boating	0 hr ***	22.4 hr **

* Q1, Q2, Q3, and Q4 represent first, second, third and fourth quarter station data for 2006, respectively.

** Based on an average Missouri River water flow of 5.5 ft/sec, 84 miles down the river.

*** Values from Regulatory Guide 1.109, Revision 1.

NR- No release

REFERENCES

U.S. Nuclear Regulatory Commission, Regulatory Guide 1.21, "Measuring, Evaluating, and Reporting Radioactivity in Solid Wastes and Releases of Radioactive Materials in Liquid and Gaseous Effluents from Light-Water-Cooled Nuclear Power Plants", Revision 1, 1974.

U.S. Nuclear Regulatory Commission, Regulatory Guide 1.23 (Safety Guide 23), "Onsite Meteorological Programs", Revision 0, 1972.

U.S. Nuclear Regulatory Commission, Regulatory Guide 1.111, "Methods for Estimating Atmospheric Transport and Dispersion of Gaseous Effluents in Routine Releases from Light-Water-Cooled Reactors", Revision 1, 1977.

U.S. Nuclear Regulatory Commission, NUREG/CR-2919, "XOQDOQ: Computer Program for the Meteorological Evaluation of Routine Effluent Releases at Nuclear Power Stations", 1982.

U.S. Nuclear Regulatory Commission, Regulatory Guide 1.111, "Methods for Estimating Atmospheric Transport and Dispersion of Gaseous Effluents in Routine Releases from Light-Water-Cooled Reactors", Revision 0, 1976.

U.S. Nuclear Regulatory Commission, NUREG-0597, "User's Guide to GASPAR Code", December 1980.

U.S. Nuclear Regulatory Commission, NUREG/CR-1276, "User's Manual for LADTAP II: A Computer Code for Calculating Radiation Exposure to Man From Routine Release of Nuclear Reactor Liquid Effluents", 1980.

U.S. Nuclear Regulatory Commission, Regulatory Guide 1.109, "Calculation of Annual Doses to Man from Routine Releases of Reactor Effluents for the Purpose of Evaluating Compliance with 10 CFR 50, Appendix I", Revision 1, 1977.

APPENDIX G
REMP SAMPLE STATION DESCRIPTIONS

REMP SAMPLE STATION DESCRIPTIONS

The following pages contain descriptions of the CNS REMP Sample Stations that were active or were used for part or all of 2006.

REMP SAMPLE STATION DESCRIPTIONS
SAMPLE TYPES AND SAMPLE LOCATIONS

Sample Station (a)	Sample Description – Type and Location
No. 1	Type: (1) Air Particulate and Charcoal Filters (2) Environmental Thermoluminescent Dosimetry Location: Outside the northwest edge of fence, east of the gate to the LLRW storage pad on the CNS site, NW ¼, S32, T5N, R16E, Nemaha County, Nebraska. Lon. 095.38.634 W – Lat. 40.21.523 N
No. 2	Type: (1) Air Particulate and Charcoal Filters (2) Environmental Thermoluminescent Dosimetry Location: North side of county road to the south portion of CNS site, SW ¼, S32, T5N, R16E, Nemaha County, Nebraska. Lon. 095.38.954 W – Lat. 40.21.126 N
No. 3	Type (1) Air Particulate and Charcoal Filters (2) Environmental Thermoluminescent Dosimetry Location: Located on the north side of the Brownsville State Recreation Park access road near water gauging station, SE ¼, S18, T5N, R16E, Nemaha County, Nebraska. Lon. 095.39.108 W – Lat. 40.23.777 N
No. 4	Type (1) Air Particulate and Charcoal Filters (2) Environmental Thermoluminescent Dosimetry Location: Located ½ mile south of Phelps City, Missouri, on west side of highway "U", NE ¼, S2, T64N, R42W, Atchison County, Missouri. Lon. 095.35.792 W – Lat. 40.23.797 N
No. 5	Type (1) Air Particulate and Charcoal Filters (2) Environmental Thermoluminescent Dosimetry Location: Located ¼ mile south and ¼ mile east of Langdon, Missouri, on north side of road, west of railroad tracks, SW ¼, T64N, R41W, Atchison County, Missouri. Lon. 095.34.434 W – Lat. 40.21.151 N

NOTES:
(a) Sample station numbers missing from the sequence are for inactive or discontinued sampling locations.

Sample Station (a)	Sample Description – Type and Location
No. 6	Type (1) Air Particulate and Charcoal Filters (2) Environmental Thermoluminescent Dosimetry Location: One mile west of the end of Missouri State Highway "U", SW corner of the intersection, NW ¼, S34, T64N, R42W, Atchison County, Missouri. Lon. 095.37.620 W – Lat. 40.19.459 N
No 7	Type (1) Air Particulate and Charcoal Filters (2) Environmental Thermoluminescent Dosimetry Location: 300 yards east of Highway 67 on north side of road, SW ¼, S6, T4N, R16E, Nemaha, Nebraska. Lon. 095.40.207 W – Lat. 40.20.287 N
No. 8	Type (1) Air Particulate and Charcoal Filters (2) Environmental Thermoluminescent Dosimetry Location: ½ mile north, ¾ mile west and ¾ mile north of Nemaha, on west side of road adjacent to transmission line, NE ¼, S35, T5N, R15E, Nemaha County, Nebraska. Lon. 095.41.220 W – Lat. 40.21.570 N
No. 9	Type (1) Air Particulate and Charcoal Filters (2) Environmental Thermoluminescent Dosimetry Location: Four miles north of Highway 136, on Highway 67. Then 1 mile east of Highway 67 and ½ mile north on west side of road, SW ¼, S26, T6N, R15E, Nemaha County, Nebraska. Lon. 095.41.810 W – Lat. 40.27.259 N
No. 10	Type (1) Air Particulate and Charcoal Filters (2) Environmental Thermoluminescent Dosimetry Location: One mile north of Barada, Nebraska, in SW corner of intersection, NE ¼, S14, T3N, R16E, Richardson County, Nebraska. Lon. 095.34.723 W – Lat. 40.13.970 N

NOTES:

(a) Sample station numbers missing from the sequence are for inactive or discontinued sampling locations.

Sample Station (a)	Sample Description – Type and Location
No. 11	Type: (1) Water – Ground
	Location: Plant well water supply header at well pits, NW ¼, S32, T5N, R16E, Nemaha County, Nebraska. Lon. 095.53.866 W – Lat. 40.18.970 N
No. 12	Type: (1) Water – River
	Location: Sample (1) taken from the Missouri River immediately upstream form the Plant Intake Structure (River Mile 532.5). During periods when unsafe conditions warrant, Station 35 may be used as an alternate upstream collection site. Lon. 095.53.866 W – Lat. 40.18.970 N
No.20	Type: (1) Environmental Thermoluminescent Dosimetry
	Location: On NNW boundary of NPPD property, east side of county road, SE, S30, T5N, R16E, Nemaha County, Nebraska. Lon. 095.39.226 W – Lat. 40.22.260 N
No.28	Type (1) Water – River, (2) Fish (3) Sediment from Shoreline (4) Food Products – Broadleaf Vegetation
	Location: Samples (1), (3), and (4) are taken from the Missouri River or its shore downstream near River Mile 530, Sample (2) is taken from the Missouri River ½ to 3 miles downstream of the plant site. Lon. 095.37.301 W – Lat. 40.20.336 N

NOTES:

(a) Sample station numbers missing from the sequence are for inactive or discontinued sampling locations.

Sample Station (a)	Sample Description – Type and Location
No. 35	Type (1) Fish (2) Water – River (Alternate Site) (3) Food Products – Broadleaf Vegetation Location: Sample (1) will be taken from the Missouri River about 1 to 3 miles above the CNS intake structure. During periods when unsafe conditions warrant, Station 35 may be used as an alternate to Station 12 (upstream collection site) for sample type (2). Sample (3) is taken about ¼ mile south of the Brownville State Recreation Area in Sector A. Lon. 095.39.046 W – Lat. 40.23.737 N
No. 44	Type: (1) Environmental Thermoluminescent Dosimetry Location: ¼ mile south of Auburn Country Club on Highway 75, then ½ mile east of Highway 75 at fence line north of county road, SE1/4, S27, T5N, R14E, Nemaha County, Nebraska. Lon. 095.49.759 W – Lat. 40.21.840 N
No. 47	Type: (1) Water – Ground Location: At Falls City Municipal water supply well. Lon. 095.25.537 W – Lat. 40.01.939 N
No. 56	Type: (1) Environmental Thermoluminescent Dosimetry Location: 1 ¼ miles SW of Langdon, Missouri, on Highway "U", on the right side of the highway, NW ¼, S23, T64N, R42W, Atchison County, Missouri. Lon. 095.36.383 W – Lat. 40.21.157 N
No. 58	Type: (1) Environmental Thermoluminescent Dosimetry Location: Three miles south of Brownville, Nebraska, on county road, at the SE corner of the intersection with the farm road leading to Sample Station No. 2, SE1/4, S31, T5N, R16E, Nemaha County, Nebraska. Lon. 095.39.338 W – Lat. 40.21.126 N

NOTES:

(a) Sample station numbers missing from the sequence are for inactive or discontinued sampling locations.

Sample Station (a)	Sample Description – Type and Location
No. 59	Type: (1) Environmental Thermoluminescent Dosimetry
	Location: One mile SSE of the CNS Elevated Release Point, in the vicinity of the levee at the south boundary of NPPD property, SE ¼, S32, T5N, R16E, Nemaha County, Nebraska. Lon. 095.38.223 W – Lat. 40.20.986 N
No. 66	Type: (1) Environmental Thermoluminescent Dosimetry
	Location: Two miles south of Nemaha, Nebraska, on Highway 67 east side of road, NW1/4, S19, T4N, R16E, Nemaha County, Nebraska. Lon. 095.40.307 W – Lat. 40.18.277 N
No. 67	Type: (1) Environmental Thermoluminescent Dosimetry
	Location: 2 miles west of Brownville, Nebraska, on Highway 136, then north 1 ½ miles on county road and east ½ mile, on north side of road, NE1/4, S11, T5N, R15E, Nemaha County, Nebraska. Lon. 095.41.520 W – Lat. 40.24.898 N
No. 71	Type: (1) Environmental Thermoluminescent Dosimetry
	Location: Two miles east of Phelps City, Missouri, on Highway 36, then south 1 ½ miles on county road and west ¼ mile, SE1/4, S6, T64N, R41W, Atchison County, Missouri. Lon. 095.34.727 W – Lat. 40.21.664 N
No. 79	Type: (1) Environmental Thermoluminescent Dosimetry
	Location: 1 7/8 miles south of Brownville, NE, on east side of paved road, NPPD property, SE1/4, S30, T5N, R16E, Nemaha County, Nebraska. Lon. 095.39.238 W – Lat. 40.22.006 N

NOTES:

(a) Sample station numbers missing from the sequence are for inactive or discontinued sampling locations.

Sample Station (a)	Sample Description – Type and Location
No. 80	Type: (1) Environmental Thermoluminescent Dosimetry Location: 2 1/8 miles south of Brownville, on east side of paved road, NPPD property, NE1/4, S31, T5N, R16E, Nemaha County, Nebraska. Lon. 095.39.259 W – Lat. 40.21.834 N
No. 81	Type: (1) Environmental Thermoluminescent Dosimetry Location: 2 3/8 miles south of Brownville, Nebraska, in the NE corner of the intersection of the paved county road and CNS access road, NPPD property, NE1/4, S31, T5N, R16E, Nemaha County, Nebraska. Lon. 095.39.291 W – Lat. 40.21.582 N
No. 82	Type: (1) Environmental Thermoluminescent Dosimetry Location: 7/8 mile south of CNS in a field, on NPPD property, SW1/4, S32, T5N, R16E, Nemaha County, Nebraska. Lon. 095.38.395 W – Lat. 40.20.961 N
No. 83	Type: (1) Environmental Thermoluminescent Dosimetry Location: 2 ¼ miles south of Nemaha, Nebraska, on Highway 67, then east 1 mile to the junction of the driveway and county road (east side of drive), NE1/4, S19, T4N, R16E, Nemaha County, Nebraska. Lon. 095.39.411 W – Lat. 40.18.119 N
No. 84	Type: (1) Environmental Thermoluminescent Dosimetry Location: 2 ½ miles west of Brownville, NE, south side of Highway 136 west of Locust Grove School, NW1/4, S22, T5N, R15E, Nemaha County, Nebraska. Lon. 095.42.993 W – Lat. 40.23.564 N

NOTES:

(a) Sample station numbers missing from the sequence are for inactive or discontinued sampling locations.

Sample Station (a)	Sample Description – Type and Location
No. 85	Type: (1) Environmental Thermoluminescent Dosimetry Location: One mile east of Brownville, Nebraska, on Highway 136, then north ¼ mile on the east side of the county road, NE1/4, S33, T65N, R42W, Atchison County, Missouri. Lon. 095.38.309 W – Lat. 40.24.508 N
No. 86	Type: (1) Environmental Thermoluminescent Dosimetry Location: One mile west of Phelps City, Missouri, on Highway 136, then north 1 ½ miles on Highway "D" on west side, SE1/4, S22, T65N, R42W, Atchison County, Missouri. Lon. 095.36.938 W – Lat. 40.25.563 N
No. 87	Type: (1) Environmental Thermoluminescent Dosimetry Location: One mile west of Phelps City, Missouri, on Highway 136, then south ½ mile on county road and ¾ mile west on county road to the end of the road, NW1/4, S3, T64N, R42W, Atchison County, Missouri. Lon. 095.37.806 W – Lat. 40.23.818 N
No. 88	Type: (1) Environmental Thermoluminescent Dosimetry Location: One mile west of Phelps City, Missouri, on Highway 136, then south 2 miles at the end of the county road, NW1/4, S11, T64N, R42W, Atchison County, Missouri. Lon. 095.37.771 W – Lat. 40.24.762 N
No. 89	Type: (1) Environmental Thermoluminescent Dosimetry Location: 2 ½ miles south of Phelps City, Missouri, on Highway "U", then ½ mile west in the SE corner of the county road intersection, NE1/4, S14, T64N, R42W, Atchison County, Missouri. Lon. 095.36.361 W – Lat. 40.21.962 N

NOTES:

(a) Sample station numbers missing from the sequence are for inactive or discontinued sampling locations.

Sample Station (a)	Sample Description – Type and Location
No. 90	Type: (1) Environmental Thermoluminescent Dosimetry Location: 1 ½ miles west and ¾ mile south of Langdon, Missouri, on Highway "U", then ¼ mile west, SW1/4, S23, T64N, R42W, Atchison County, Missouri. Lon. 095.35.808 W – Lat. 40.19.472 N
No. 91	Type: (1) Environmental Thermoluminescent Dosimetry Location: ½ mile west of Rockport, Missouri, on the south side of the intersection of U.S. Highway 136 and U.S. Highway 275, at the south side of the water tower, NW1/4, S28, T65N, R41W, Atchison County, Missouri. Lon. 095.32.217 W – Lat. 40.25.181 N
No. 94	Type: (1) Environmental Thermoluminescent Dosimetry Location: ¼ mile of Langdon, Missouri, on the west side of the road, NE1/4, S24, T64N, R42W, Atchison County, Missouri. Lon. 095.34.673 W – Lat. 40.20.931 N
No. 96	Type: (1) Food products – Broadleaf Vegetation Location: Approximately 1 mile south of Brownville, Nebraska, along the paved road, in the road ditch in Sector R, SW1/4, S19, T5N, R16E, Nemaha County, Nebraska. Lon. 095.39.318 W – Lat. 40.23.144 N
No. 99	Type: (1) Milk (Nearest and Other Producer) Location: 1 ¼ mile south of Shubert, Nebraska, on the west side of Highway 67, NE1/4, S24, T3N, R15E, Richardson County, Nebraska. Lon. 095.40.368 W – Lat. 40.12.850 N

NOTES:

(a) Sample station numbers missing from the sequence are for inactive or discontinued sampling locations.

Sample Station (a)	Sample Description – Type and Location
No. 101	Type: (1) Food Products – Broadleaf Vegetation
	Location: 5 ½ miles east and ½ mile north of Rock Port, Missouri, near the junction of Highway 136 and Highway 59, in Sector D, encompasses portions of several sections, Athison County, Missouri. Lon. 095.23.822 W – Lat. 40.25.222 N
No. 102	Type: (1) Milk (Other Producer)
	Location: Two miles south and 3 miles east of Shubert, Nebraska, NW ¼, S28, T3N, R15E, Richardson County, Nebraska. Lon. 095.38.081 W – Lat. 40.11.943 N
No. 103	Type: (1) Milk (Other Producer)
	Location: Four miles south and 3 miles west of Auburn, Nebraska, NE ¼, S13, T4N, R13E, Nemaha County, Nebraska. Lon. 095.53.865 W – Lat. 40.18.971 N

NOTES:

(a) Sample station numbers missing from the sequence are for inactive or discontinued sampling locations.