



ANNUAL RADIOLOGICAL ENVIRONMENTAL OPERATING REPORT

HADDAM NECK STATION

RADIOLOGICAL ENVIRONMENTAL MONITORING PROGRAM

JANUARY 1, 2003 - DECEMBER 31, 2003

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**CONNECTICUT YANKEE ATOMIC POWER COMPANY
Haddam, Connecticut**

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1.0 EXECUTIVE SUMMARY

The radiological environmental monitoring program for the Haddam Neck Station was continued for the period January through December 2003, in compliance with the Technical Specifications and the Radiological Effluent Monitoring and Off-Site Dose Calculation Manual (REMODOCM). This annual report was prepared for the Connecticut Yankee Atomic Power Company (CYAPCO) by Areva, formerly known as Framatome ANP. Sample collection and preparation were performed by Normandeau Associates. Laboratory analyses were performed by Framatome ANP Environmental Laboratory (FANPEL), a subsidiary of Areva.

Thermoluminescent dosimeters (TLDs) were used to measure direct gamma exposure in the vicinity of the station and as far away as 12.5 miles. Radiochemical and radiological counting analyses of samples were performed to detect the presence of any station related radioactivity. In the second quarter of 2003, additional sampling locations associated with the placement onsite of an Independent Spent Fuel Storage Installation (ISFSI) were selected for the purpose of collecting baseline background information prior to the transfer of spent fuel from the main plant to the ISFSI.

Samples included air particulates collected on filters, broad leaf vegetation, fruits/vegetables, well water, river water, ISFSI water, bottom sediment, ISFSI bottom sediment, shellfish, and fish. In evaluating the results of these analyses it is necessary to consider the variability of natural and man-made sources of radioactivity, distribution in the environment and uptake in environmental media. This variability is dependent on many factors including station release rates, past spatial variability of radioactive fallout from nuclear weapons tests and on-going redistribution of fallout, contribution from cosmogenic radioactivity, ground water dynamics, soil characteristics, farming practices, and feed type. Any one of these factors could cause significant variations in measured levels of radioactivity. Therefore, these factors need to be considered in order to properly explain any variations in radiation detected and to distinguish between natural and station related radioactivity.

Haddam Neck was permanently shutdown in 1996. Current activities at the Haddam Neck station are focused on fuel storage, site decontamination and facility decommissioning. Even though the station is no longer generating power, decommissioning activities include the processing and discharge of liquids containing radioactivity. Monitoring continues for any release of airborne radioactivity. The levels of radioactivity released post-operation are significantly lower than released during plant operation. The radiological monitoring of the environment through this program will continue to assure the health and safety of the public and workers are maintained at all times.

The predominant radioactivity detected by the monitoring program was that from outside sources, such as fallout from nuclear weapons tests and naturally occurring radionuclides. Station related Cobalt-60 was observed in one bottom sediment sample. However, the identification occurred in the area of plant discharge, representing a pathway that is not involved with significant exposure to the public.

2.0 INTRODUCTION

2.1 General Plant Site Information

The Connecticut Yankee plant is located in the town of Haddam, Middlesex County, Connecticut, at a point 22 miles south-southeast of Hartford, Connecticut; 25 miles northeast of New Haven, Connecticut; and 16 miles north of Long Island Sound. The site consists of approximately 525 acres and is situated on the east bank of the Connecticut River at an area known as Haddem Neck. The elevation of the site property varies from 10 to 300 feet above sea level, with the area occupied by plant facilities ranging between 10 and 21 feet above sea level. The minimum distance from the reactor containment to the site boundary is approximately 1700 feet.

The plant was designed as a single unit pressurized water reactor which sustained its initial chain reaction in July 1967, with commercial operation beginning in January 1968 and a gross power output of 590 Mw (e). After 28 years of operation, the CY Board of Directors voted in 1996 to permanently close and decommission the power plant. Following two years of planning and preparation, actual decommissioning began in 1998 and was underway during 2003 for which this radiological environmental monitoring report covers.

2.2 Program Design

The Radiological Environmental Monitoring Program for the Haddam Neck Station was designed with specific objectives.

- To provide an early indication of the appearance or accumulation of any radioactive material in the environment caused by Haddam Neck Station activities.
- To provide assurance to regulatory agencies and the public that the environmental impact for Haddam Neck Station is known and within anticipated limits.
- To verify the adequacy and proper functioning of station effluent controls and monitoring systems.

These objectives continue to be in force throughout the decommissioning activities at the Haddam Neck Station site. Due to the shutdown status of the plant and the relatively low quantities of radioactive material now on the site, some of the objectives have shifted in degree of importance from the past.

The radiological environmental monitoring program continued without modification following the plant shutdown in 1996. The program scope was reduced in 2000 and implemented beginning in 2001 primarily to reflect the absence of a source of radionuclide production and to account for the long decay period, since shutdown, for the individual short half-life radionuclides in the various pathways. The onsite radionuclide inventory continues to decrease yearly with the shipments to off-site facilities and radioactive decay.

The program was developed to meet the intent of the NRC Regulatory Guide 4.1, Programs for Monitoring Radioactivity in the Environs of Nuclear Power Plants; NRC Regulatory Guide 4.8, Environmental Technical Specifications for Nuclear Power Plants; the NRC Branch Technical Position of November 1979, An Acceptable Radiological Environmental Monitoring Program; and NRC NUREG-0472, Radiological Effluent Technical Specifications for PWR's.

The environmental TLD program was developed using NRC Regulatory Guide 4.13, Performance, Testing and Procedural Specifications for Thermoluminescence Dosimetry: Environmental Applications. The quality assurance

program was designed using the guidance given in NRC Regulatory Guide 4.15, Quality Assurance for Radiological Monitoring Programs (Normal Operations) - Effluent Streams and the Environment.

The sampling requirements of the REMODCM are given in Table E-1 of the ODCM and Table 2.1 of this report. The identification of the required sampling locations is given in Appendix G of the ODCM and Table 2.2 of this report. The monitoring locations are shown graphically in Figures 2.1 and 2.2.

2.3 Monitoring Zones

The REMP is designed to allow comparison of levels of radioactivity in samples from the area potentially influenced by the plant to levels found in areas not influenced by the plant. The first area monitoring locations are designated as indicators and the second area monitoring locations are designated as controls. The distinction between the two areas, for a particular pathway, is based on relative direction from the plant, river flow, and distance. Analysis of survey data from the two areas is used to differentiate between radiation due to plant activities and other sources such as atmospheric nuclear weapons test fallout or seasonal variations in the natural background.

2.4 Pathways Monitored

Four pathway categories; airborne, waterborne, ingestion, and direct radiation are monitored by the REMP. Each of these categories is monitored by the collection of one or more sample types listed and described below.

Airborne Pathway:	Air Particulate Sampling
Waterborne Pathway:	River Water
	Well Water
	Sediment Sampling
	ISFSI Sediment and Water Sampling
Ingestion Pathway:	Fruits and Vegetable Sampling
	Fish and Shellfish Sampling
	Broadleaf Vegetation
	Milk Sampling (when required and if available)
Direct Radiation:	TLD Monitoring
	ISFSI TLD Monitoring

2.5 Descriptions of Monitoring Pathways

Sample types and frequency of analysis are given in Table 2.1. The sample locations are listed in Table 2.2 and shown in Figures 2.1 and Figure 2.2. The program as described in this report includes both required samples as specified in the REMODCM and any extra samples.

2.5.1 Air Sampling

Continuous air samplers are installed at five locations as required by the REMODCM. The sampling pumps at these locations operate continuously at a flow rate of approximately one cubic foot per minute. Airborne particulates are collected by passing air through a 47-mm glass-fiber filter. A dry gas meter is incorporated into the sampling stream to measure the total volume of air sampled in a given interval. The filters are collected biweekly, and to allow for the decay of radon daughter products, they are held at least 100 hours before being analyzed for gross-beta radioactivity (indicated as GR-B in the data tables). The biweekly filters are combined by location at the FANPEL for a quarterly gamma spectroscopy analysis.

2.5.2 River Water Sampling

River water samples are collected from two sampling locations, an indicator and control station. An automatic composite sampler is located at the indicator sampling station (28-I) collecting an equal volume of water every hour. A grab sample is collected once every two weeks at the control sampling station, 30-C. Approval to relocate station 30-C approximately one mile upriver was granted in April and the station is renamed 30-A-C for samples collected from May 2003 on. All quarterly samples receive a gamma isotopic and tritium analysis

2.5.3 Well Water Sampling

Well water samples are collected quarterly from one onsite well and one off-site well. Gamma isotopic and tritium analyses are performed on each.

2.5.4 Sediment Sampling

Shoreline sediment samples are collected semiannually from three locations, one near the plant discharge, one downstream and one control station, upstream from the plant. A grab sample is taken semiannually from each location; they are dried at the FANPEL and analyzed for gamma-emitting radionuclides.

2.5.5 Milk Sampling

Milk sampling is no longer a requirement of the REMODCM unless indicated by the annual Land Use Census and dose calculations.

2.5.6 Fish Sampling

Fish samples are collected semiannually from three river locations, two indicator stations from the vicinity of the intake and discharge and one control station north of the plant. The species typically collected are bullheads, perch and /or catfish. The edible portions of the fish are analyzed for gamma-emitting radionuclides.

2.5.7 Shellfish Sampling

Shellfish samples are collected semiannually from two river locations. The shellfish is shucked and the muscle portions are analyzed by gamma isotopic analysis.

2.5.8 Food Product Sampling

Food products are collected from two locations near the beginning of the growing season and at the end of the season. The samples are either tuberous vegetables, aboveground vegetables, or fruit. The sampling requirement is that one sample is collected from a location within 10 miles of the plant and the other from a location beyond 10 miles. The samples are analyzed by gamma isotopic analysis.

2.5.9 Broad Leaf Vegetation

Leafy vegetation is collected from three locations, one on-site, one at the site boundary and one at a control location. During 2003, broad leaf vegetation was also collected from an extra sampling location, 41-X, that is not part of the required REMP. These samples are collected monthly during the growing season from April to December.

2.5.10 ISFSI Sediment and Water Sampling

In the second quarter of 2003, seven additional sampling locations (five indicator locations and two extra locations) associated with the placement on-site of an Independent Spent Fuel Storage Installation (ISFSI) were selected for the purpose of collecting baseline background information prior to the transfer of spent fuel from the main plant to the ISFSI. These new locations are specific to the ISFSI and are beyond the standard REMP that has been in operation over the life of the power plant's license. ISFSI sediment samples are collected quarterly from two locations, one at nearby wetland location and one

near the ISFSI pad. A grab sample is taken quarterly from each location; they are dried at the FANPEL and analyzed for gamma-emitting radionuclides. Gamma isotopic and tritium analysis is performed on all water samples.

2.5.11 TLD Monitoring

Direct gamma radiation exposure is continuously monitored with the use of Panasonic UD-801AS1 thermoluminescent dosimeters (TLDs). TLD's are posted at fourteen REMODCM required locations and at nine extra locations. The extra locations are mostly within the site boundary and are not part of the REMP. Their function is to monitor the potential impact of on-site activities such as the movement or storage of decommissioned components on site boundary exposure rates.

2.5.12 ISFSI TLD Monitoring

In the second quarter of 2003, seven additional sampling locations (five indicator locations and two extra locations) associated with the placement on-site of an Independent Spent Fuel Storage Installation (ISFSI) were selected for the purpose of collecting baseline background information prior to the transfer of spent fuel from the main plant to the ISFSI. These new locations are specific to the ISFSI and are beyond the standard REMP that has been in operation over the life of the power plant's license. New quarterly TLD locations were located in the area surrounding the facility at distances that approximated the site boundary to support future determinations that direct and scatter dose from ISFSI operations remain in compliance with offsite dose limits to the public.

**Table 2.1- Required Sampling Frequency & Type of Analysis
(REMODCM Table E-1)**

Exposure Pathway and/or Sample	Number of Locations	Sampling & Collection Frequency	Type of Analysis
1a. Gamma Exposure – Environmental TLD	14	Quarterly	Gamma Dose - Quarterly
1b. Gamma Exposure – ISFSI TLD	5	Quarterly	Gamma Dose - Quarterly
2. Airborne Particulate	5	Continuous sampler – biweekly filter change	Gross Beta - Biweekly Gamma Isotopic - Quarterly on composite (by location), and on individual filter if gross beta is greater than 10 times the mean of the biweekly control station's gross beta results Gamma Isotopic on each sample
3a. Vegetation – Fruits and Vegetables	2	One sample near middle & one near end of growing season	Gamma Isotopic on each sample
3b. Vegetation – Broad Leaf Vegetation	3	Monthly during growing season (April – December)	Gamma Isotopic on each sample
4. Milk	4	Monthly, if required	Gamma Isotopic on each sample - Monthly Sr-89 and Sr-90 - Quarterly
5. Well Water	2	Quarterly	Gamma Isotopic and Tritium on each composite
6. Bottom Sediment	3	Semiannually	Gamma Isotopic
7. ISFSI Sediment	2	Quarterly	Gamma Isotopic
8. River Water	2	Quarterly Sample - Indicator is continuous composite; Background is composite of grab samples collected biweekly	Gamma Isotopic and Tritium - Quarterly
9. ISFSI Water	2	Quarterly	Gamma Isotopic and Tritium
10. Fish (edible portion) – bullheads and, when available, perch or other edible fish	3	Semiannual	Gamma Isotopic - Semiannual

11. Shellfish	2	Semiannual	Gamma Isotopic - Semiannual
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Table 2.2 - Environmental Monitoring Program Sampling Types and Locations

Exposure Pathway (Sample Type Designation)	Location Number¹	Location Name	Distance From Release Point² (miles)	Direction From ReleasePoint²
Airborne				
a. Filter (AP)	5-I	On-site-Injun Hollow Rd.	0.4	NW
	6-I	On-site-Substation	0.5	NE
	7-I	Haddam	1.8	SE
	9-I	Higganum	4.3	WNW
	13-C	North Madison	12.5	SW
b. Vegetation (TV)	6-I	On-site-Substation	0.5	NE
	18-I	Site Boundary	0.4	NW
	13-C	North Madison	12.5	SW
Waterborne				
a. River (WR)	28-I	CT River-E. Haddam Bridge	1.8	SE
	30-C	CT River – Middletown	9.0	NW
b. Well Water (WW)	15-I	On-site Wells	0.5	ESE
	16-C	Well-State Highway Dept. E. Haddam	2.8	SE
c. Bottom Sediment (SE)	28-I	CT River-E. Haddam Bridge	1.8	SE
	29-I	Vicinity of Discharge	Within 0.3 Miles	
	30-C	CT River – Middletown	9.0	NW
ISFSI				
a. Bottom Sediment (IF)	57-IF	Dibble Creek Sediment Sample	0.1	SE
	58-IF	ISFSI Pad Enclosure Soil Sample	0.0	N/A
b. ISFSI Water (WG)	57-IF	Dibble Creek Sediment Sample	0.1	SE
	58-IF	ISFSI Drain Pipe Outflow	0.0	N/A
Ingestion				
a. Fruits & Vegetables (TF)	17-C	Beyond 10 Miles	Beyond 10 miles	SW
	25-I	Within 10 Miles	Within 10 miles	NW
b. Fish (FH)	26-I	CT River-Near Intake	1.0	WNW
	29-I	Vicinity of Discharge	Within 0.3 miles	
	30-C	CT River - Middletown	7.6	NW
c. Shellfish (SF)	27-C	CT River-Higganum Light	4.0	WNW
	31-I	Mouth of Salmon River	0.8	ESE

¹ I=Indicator C=Control IF=ISFSI

² The release points are the stack for terrestrial locations and the end of the discharge canal for aquatic locations

Table 2.2 - Environmental Monitoring Program Sampling Types and Locations
(continued)

Exposure Pathway (Sample Type Designation)	Location Number ¹	Location Name	Distance From Release Point ² (miles)	Direction From Release Point ²
Direct Radiation				
TLD	1-I	On-site - Mouth of Discharge Canal	1.1	ESE
	2-I	Haddam-Park Rd.	0.8	S
	3-I	Haddam-Jail Hill Rd.	0.8	WSW
	4-I	Haddam-Ranger Rd.	1.8	SW
	5-I	On-site-Injun Hollow Rd.	0.4	NW
	6-I	On-site-Substation	0.5	NE
	7-I	Haddam	1.8	SE
	8-I	East Haddam	3.1	ESE
	9-I	Higganum	4.3	WNW
	10-I	Hurd Park Rd.	2.8	NNW
	11-C	Middletown	9.0	NW
	12-C	Deep River	7.1	SSE
	13-C	North Madison	12.5	SW
	14-C	Colchester	10.5	NE
	40-X	Near Intake Structure	0.1	SSW
	41-X	Picnic Area	0.3	WNW
	42-X	Environmental Trail	0.1	NW
	43-X	Moodus - Rts 149 & 151	2.5	ENE
	44-X	Shailerville, Horton Rd.	1.0	SE
	45-X	Old Waste Gas Sphere Fence	0.1	E
	46-X	Discharge Canal Fence	0.2	SE
	47-X	Visitor Info Center	0.1	WNW
	48-X	Onsite Met Tower Shack	0.4	WSW
	52-IF	Schmidt Cemetery Onsite	0.5	NNE
	53-IF	ISFSI Haul Route Onsite	0.2	SSW
	54-IF	Rt. 149 Salmon River	1.0	ESE
	55-IF	HV Tower NW of Pad	0.4	NW
	56-IF	Burrow Pit On-Site	0.2	E

¹ I=Indicator C=Control X=Extra (not part of REMP) IF=ISFSI Indicator

² The release points are the stack for terrestrial locations and the end of the discharge canal for aquatic locations

**Table 2.3 - Environmental Lower Limit of Detection (LLD) Sensitivity Requirements
(REMODOCM Table E-3)**

Analysis	Water (pCi/l)	Airborne Particulate or Gas (pCi/m ³)	Fish (pCi/kg wet)	Milk (pCi/l)	Food Products (pCi/kg/wet)	Sediment (pCi/kg dry)
Gross Beta		0.01				
H-3	2000					
Mn-54	15		130			
Co-60	15		130			150
Zn-65	30		260			
Cs-134	15	0.05	130	15	60	150
Cs-137	18	0.06	150	18	80	180

**Table 2.4 - Reporting Levels for Radioactivity Concentrations in Environmental Samples
(REMODOCM Table E-2)**

Analysis	Water (pCi/l)	Airborne Particulates or Gases (pCi/m ³)	Fish (pCi/kg wet)	Milk (pCi/l)	Vegetables (pCi/kg,wet)	Shellfish (pCi/kg,wet)
H-3	20000					
Mn-54	1000		30000			140000
Co-60	300		10000			50000
Zn-65	300		20000			80000
Cs-134	30	10	1000	60	1000	5000

Cs-137	50	20	2000	70	2000	8000
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Figure 2.1 – Haddam Neck Sampling Locations

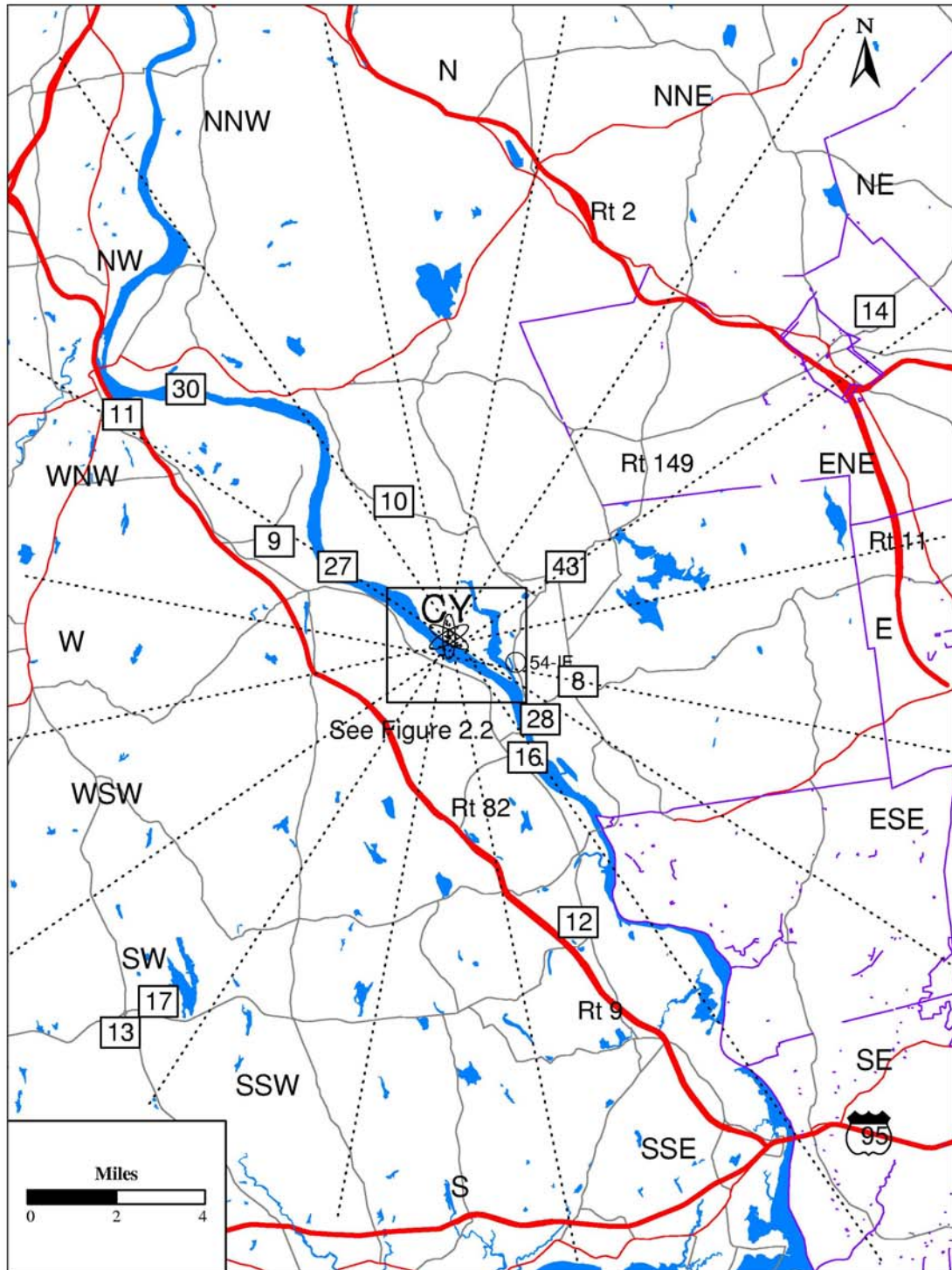
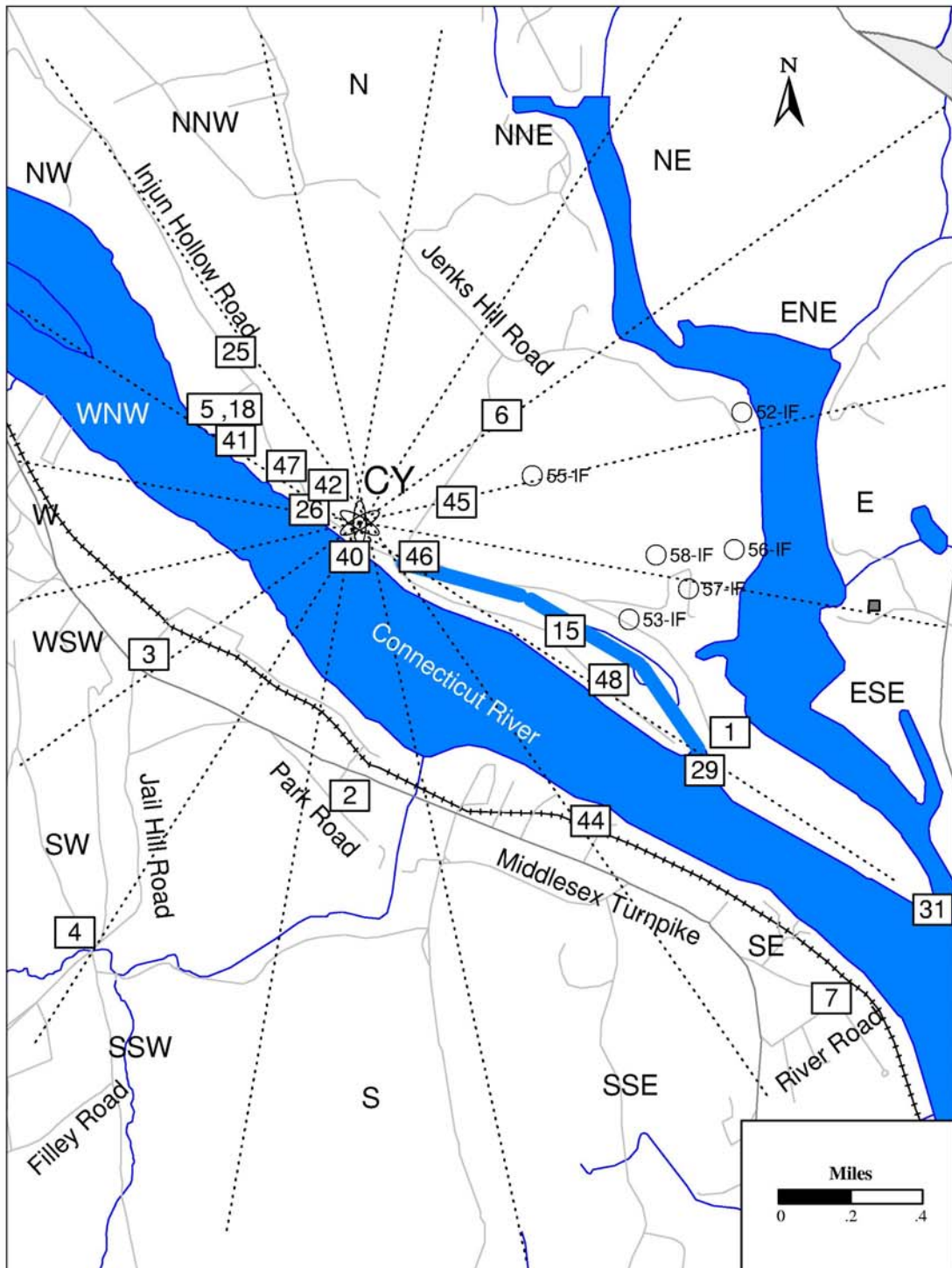


Figure 2.2 – Haddam Neck Sampling Locations



2.6 Samples Collected During 2003

The following table summarizes the number of samples of each type collected during the 2003 reporting period:

Sample Type	Number of Samples Analyzed in 2003	Number of Analyses by Station Type		
		Indicator	Control	Extra
Gamma Exposure environmental TLD	92	40	16	36
ISFSI TLD	21	15		6
Air Particulate	124	99	25	
Fish Bone	2	2		
Fish Flesh	2	2		
Fish	18	12	6	
Bottom Sediment	6	4	2	
Shellfish	6	3	3	
ISFSI Sediment	4	4		
Fruit & Vegetables	4	2	2	
Broad Leaf Vegetation	24	18	6	
ISFSI Water	2	2		
River Water	8	4	4	
Well Water	8	4	4	
Total All Types	321	211	68	42

3.0 RADIOLOGICAL DATA SUMMARY TABLES

This section summarizes the analytical results of the environmental samples that were collected during 2003. These results, shown in Table 3.1, are presented in a format similar to that prescribed in the NRC's Radiological Assessment Branch Technical Position on Environmental Monitoring (Reference 1). The results are ordered by sample media type and then by radionuclide for the pathways described in Section 2.3. The units for each media type are also given. Table 3.2 provides the same information for TLD direct radiation measurements.

The left-most column contains the radionuclide of interest, the total number of analyses for that radionuclide in 2003, and the number of measurements which exceeded the Reporting Levels found in Table 2.5. The latter are classified as "Non-routine" measurements. The second column lists the required Lower Limit of Detection (LLD) for those radionuclides, which have detection capability requirements specified in Table 2.4. The absence of a value in this column indicates that no LLD is specified in the REMODCM for that radionuclide in that media. The target LLD for any analysis performed by the FANPEL is typically 30-40 percent of the most restrictive required LLD.

For each media type and radionuclide, the remaining three columns summarize the data for the following categories of monitoring locations: (1) the Indicator stations, which are within the range of influence of the plant and which could conceivably be affected by plant activities; (2) the station which had the highest mean concentration during 2003, and (3) the Control stations, which are beyond the influence of the plant. Direct radiation monitoring stations (using TLDs) are grouped into Indicator and Control stations.

In each of these columns, for each radionuclide, the following are given:

- The mean value of all concentrations including negative values and values that are not considered "detectable".
- The lowest and highest concentration.
- The number of detectable measurements divided by the total number of measurements.

A sample is considered to yield a "detectable measurement" when the concentration exceeds three times its associated standard deviation. The standard deviation on each measurement represents only the random uncertainty associated with the radioactive decay process (counting statistics), and not the propagation of all possible uncertainties in the analytical procedure.

The radionuclides reported in this section represent those that: 1) had a Reporting Level listed in Table E-2 of the REMODCM or, a LLD requirement in Table E-3 of the REMODCM or 2) had a positive measurement of radioactivity, whether it was naturally-occurring or man-made; or 3) were of specific interest for any other reason. The radionuclides that are routinely analyzed and reported by the FANPEL in a gamma spectroscopy analysis are: Ac/Th-228, Ag-108m, Ag-110m, Ba-140, Be-7, Ce-141, Ce-144, Co-57, Co-58, Co-60, Cr-51, Cs-134, Cs-137, Fe-59, I-131, K-40, La-140, Mn-54, Nb-95, Ru-103, Ru-106, Sb-124, Sb-125, Se-75, Zn-65 and Zr-95. In no instance did a radionuclide that is not shown in Table 3.1 appear as a "detectable measurement" during 2003.

Data from direct radiation measurements made by TLDs are provided in Table 3.2 in a format essentially the same as above. The complete listing of quarterly TLD data is provided in Table 3.3.

Table 3.1
Radiological Environmental Program Summary
Connecticut Yankee Nuclear Power Co., Haddam Neck Station
(January - December 2003)

MEDIUM: Air Particulates (AP) UNITS: pCi/cubic meter

Radionuclides (No. Analyses) Non-Routine*	Required LLD	Indicator Stations		Station With Highest Mean		Control Stations
		Mean Range No. Detected**	Station	Mean Range No. Detected**	Mean Range No. Detected**	
GR-B (124) (0)	0.01	2.0E -2 (8.0 - 31.7)E -3 (99/ 99)	13	2.0E -2 (9.4 - 36.1)E -3 (25/ 25)	2.0E -2 (9.4 - 36.1)E -3 (25/ 25)	2.0E -2 (9.4 - 36.1)E -3 (25/ 25)
Be-7 (20) (0)		8.5E -2 (5.2 - 11.9)E -2 (14/ 16)	06	9.5E -2 (7.4 - 11.9)E -2 (4/ 4)	7.7E -2 (5.8 - 11.7)E -2 (3/ 4)	7.7E -2 (5.8 - 11.7)E -2 (3/ 4)
Co-58 (20) (0)		1.2E -4 (-1.3 - 2.8)E -3 (0/ 16)	06	4.7E -4 (-2.1 - 15.0)E -4 (0/ 4)	-9.5E -5 (-8.8 - 4.8)E -4 (0/ 4)	-9.5E -5 (-8.8 - 4.8)E -4 (0/ 4)
Co-60 (20) (0)		9.1E -5 (-1.7 - 1.5)E -3 (0/ 16)	06	7.2E -4 (-5.7 - 15.1)E -4 (0/ 4)	3.3E -4 (-3.6 - 9.4)E -4 (0/ 4)	3.3E -4 (-3.6 - 9.4)E -4 (0/ 4)
Cs-134 (20) (0)	0.05	-7.6E -5 (-1.5 - 0.8)E -3 (0/ 16)	06	2.9E -4 (-4.0 - 6.1)E -4 (0/ 4)	-2.1E -4 (-1.2 - 0.6)E -3 (0/ 4)	-2.1E -4 (-1.2 - 0.6)E -3 (0/ 4)
Cs-137 (20) (0)	0.06	-1.8E -4 (-2.2 - 0.7)E -3 (0/ 16)	13	3.3E -4 (-3.9 - 7.5)E -4 (0/ 4)	3.3E -4 (-3.9 - 7.5)E -4 (0/ 4)	3.3E -4 (-3.9 - 7.5)E -4 (0/ 4)

* Non-Routine refers to radionuclides that exceeded the Reporting Levels in ODCM Table E-2

** The fraction of sample analyses yielding detectable measurements (i.e. >3 standard deviations) is shown in parentheses.

Table 3.1
Radiological Environmental Program Summary
Connecticut Yankee Nuclear Power Co., Haddam Neck Station
(January - December 2003)

MEDIUM: Fish Bone (FB) UNITS: pCi/kg

Radionuclides (No. Analyses)	Required LLD	Indicator Stations	Station With Highest Mean		Control Stations
		Mean Range No. Detected**	Station	Mean Range No. Detected**	Mean Range No. Detected**
Sr-89	(2)	1.4E 1	WI	1.5E 2	NO DATA
(0)		(-1.2 - 1.5)E 2 (0/ 2)		(0/ 1)	
Sr-90	(2)	-2.5E 1	WI	-2.0E 1	NO DATA
(0)		(-2.9 - -2.0)E 1 (0/ 2)		(0/ 1)	

* Non-Routine refers to radionuclides that exceeded the Reporting Levels in ODCM Table E-2

** The fraction of sample analyses yielding detectable measurements (i.e. >3 standard deviations) is shown in parentheses.

Table 3.1
Radiological Environmental Program Summary
Connecticut Yankee Nuclear Power Co., Haddam Neck Station
(January - December 2003)

MEDIUM: Fish Flesh (FF) UNITS: pCi/kg

Radionuclides (No. Analyses) Non-Routine*	Required LLD	Indicator Stations		Station With Highest Mean		Control Stations
		Mean Range No. Detected**	Station	Mean Range No. Detected**	Mean Range No. Detected**	
K-40 (2) (0)		2.6E 3 (2.5 - 2.8)E 3 (2/ 2)	HA	2.8E 3 (1/ 1)		NO DATA
Mn-54 (2) (0)	130	5.5E -1 (-2.3 - 3.4)E 0 (0/ 2)	HA	3.4E 0 (0/ 1)		NO DATA
Co-58 (2) (0)		-5.0E -2 (-1.3 - 1.2)E 0 (0/ 2)	HA	1.2E 0 (0/ 1)		NO DATA
Fe-59 (2) (0)		-4.0E 0 (-1.7 - 0.9)E 1 (0/ 2)	HA	9.0E 0 (0/ 1)		NO DATA
Co-60 (2) (0)	130	-2.8E 0 (-7.0 - 1.5)E 0 (0/ 2)	WI	1.5E 0 (0/ 1)		NO DATA
Zn-65 (2) (0)	260	5.3E 0 (-1.2 - 2.3)E 1 (0/ 2)	WI	2.3E 1 (0/ 1)		NO DATA
Cs-134 (2) (0)	130	2.5E 0 (1.9 - 3.2)E 0 (0/ 2)	HA	3.2E 0 (0/ 1)		NO DATA
Cs-137 (2) (0)	150	9.3E 0 (4.8 - 13.8)E 0 (1/ 2)	HA	1.4E 1 (1/ 1)		NO DATA

* Non-Routine refers to radionuclides that exceeded the Reporting Levels in ODCM Table E-2

** The fraction of sample analyses yielding detectable measurements (i.e. >3 standard deviations) is shown in parentheses.

Table 3.1
Radiological Environmental Program Summary
Connecticut Yankee Nuclear Power Co., Haddam Neck Station
(January - December 2003)

MEDIUM: Fish (FH) UNITS: pCi/kg

Radionuclides (No. Analyses) Non-Routine*	Required LLD	Indicator Stations	Station With Highest Mean		Control Stations
		Mean Range No. Detected**	Station	Mean Range No. Detected**	Mean Range No. Detected**
K-40 (18) (0)		2.2E 3 (9.2 - 34.3)E 2 (12/ 12)	29	2.4E 3 (1.8 - 3.4)E 3 (6/ 6)	2.3E 3 (1.4 - 3.0)E 3 (6/ 6)
Mn-54 (18) (0)	130	-1.1E 0 (-2.0 - 2.8)E 1 (0/ 12)	26	2.4E 0 (-2.0 - 2.8)E 1 (0/ 6)	-7.0E -1 (-1.0 - 0.6)E 1 (0/ 6)
Co-58 (18) (0)		4.6E 0 (-2.3 - 2.4)E 1 (0/ 12)	26	5.1E 0 (-2.3 - 2.4)E 1 (0/ 6)	-4.1E 0 (-1.4 - 1.0)E 1 (0/ 6)
Fe-59 (18) (0)		1.3E 1 (-3.4 - 6.6)E 1 (0/ 12)	29	1.9E 1 (-3.4 - 6.6)E 1 (0/ 6)	-3.0E 0 (-5.9 - 4.2)E 1 (0/ 6)
Co-60 (18) (0)	130	-5.2E 0 (-3.4 - 0.8)E 1 (0/ 12)	30	-1.7E 0 (-2.1 - 1.0)E 1 (0/ 6)	-1.7E 0 (-2.1 - 1.0)E 1 (0/ 6)
Zn-65 (18) (0)	260	-9.3E 0 (-6.2 - 4.2)E 1 (0/ 12)	29	-5.7E 0 (-6.2 - 4.2)E 1 (0/ 6)	-6.3E 0 (-4.0 - 4.2)E 1 (0/ 6)
Cs-134 (18) (0)	130	4.2E 0 (-1.5 - 2.3)E 1 (0/ 12)	29	7.4E 0 (-1.4 - 2.3)E 1 (0/ 6)	5.4E 0 (-7.0 - 17.0)E 0 (0/ 6)
Cs-137 (18) (0)	150	1.2E 1 (-1.1 - 4.5)E 1 (1/ 12)	29	1.6E 1 (-7.0 - 45.0)E 0 (1/ 6)	5.9E 0 (-1.9 - 2.2)E 1 (0/ 6)

* Non-Routine refers to radionuclides that exceeded the Reporting Levels in ODCM Table E-2

** The fraction of sample analyses yielding detectable measurements (i.e. >3 standard deviations) is shown in parentheses.

Table 3.1
Radiological Environmental Program Summary
Connecticut Yankee Nuclear Power Co., Haddam Neck Station
(January - December 2003)

MEDIUM: Bottom Sediment (SE) UNITS: pCi/kg dry

Radionuclides (No. Analyses) Non-Routine*	Required LLD	Indicator Stations	Station With Highest Mean		Control Stations
		Mean Range No. Detected**	Station	Mean Range No. Detected**	Mean Range No. Detected**
Be-7	(6)	2.0E 2	30	3.6E 2	3.6E 2
(0)		(2.0 - 33.0)E 1 (0/ 4)		(3.4 - 3.7)E 2 (0/ 2)	(3.4 - 3.7)E 2 (0/ 2)
K-40	(6)	9.9E 3	30	1.6E 4	1.6E 4
(0)		(9.4 - 10.7)E 3 (4/ 4)		(1.4 - 1.7)E 4 (2/ 2)	(1.4 - 1.7)E 4 (2/ 2)
Co-58	(6)	-1.2E 1	29	-5.0E -2	-9.5E 0
(0)		(-2.6 - 0.8)E 1 (0/ 4)		(-8.1 - 8.0)E 0 (0/ 2)	(-1.8 - -0.1)E 1 (0/ 2)
Co-60	(6)	8.5E 1	29	1.6E 2	1.1E 1
(0)	150	(8.0 - 302.0)E 0 (1/ 4)		(1.3 - 30.2)E 1 (1/ 2)	(8.0 - 13.0)E 0 (0/ 2)
Cs-134	(6)	-7.5E 0	30	1.5E 0	1.5E 0
(0)	150	(-4.1 - 1.2)E 1 (0/ 4)		(-4.0 - 7.0)E 0 (0/ 2)	(-4.0 - 7.0)E 0 (0/ 2)
Cs-137	(6)	8.9E 1	30	1.6E 2	1.6E 2
(0)	180	(2.9 - 15.5)E 1 (3/ 4)		(1.3 - 1.9)E 2 (2/ 2)	(1.3 - 1.9)E 2 (2/ 2)
Th-232	(6)	6.1E 2	30	1.1E 3	1.1E 3
(0)		(4.0 - 8.3)E 2 (4/ 4)		(9.6 - 11.9)E 2 (2/ 2)	(9.6 - 11.9)E 2 (2/ 2)

* Non-Routine refers to radionuclides that exceeded the Reporting Levels in ODCM Table E-2

** The fraction of sample analyses yielding detectable measurements (i.e. >3 standard deviations) is shown in parentheses.

Table 3.1
Radiological Environmental Program Summary
Connecticut Yankee Nuclear Power Co., Haddam Neck Station
(January - December 2003)

MEDIUM: Shell Fish (SF) UNITS: pCi/kg wet

Radionuclides (No. Analyses) Non-Routine*	Required LLD	Indicator Stations		Station With Highest Mean		Control Stations	
		Mean Range No. Detected**	Station	Mean Range No. Detected**	Station	Mean Range No. Detected**	Station
K-40	(6)	4.7E 2	31	4.7E 2	31	3.8E 2	31
(0)		(-7.2 - 104.0)E 1 (1/ 3)		(-7.2 - 104.0)E 1 (1/ 3)		(2.7 - 4.5)E 2 (1/ 3)	
Mn-54	(6)	130	27	2.6E 0	27	2.6E 0	27
(0)		(-1.0 - 0.2)E 1 (0/ 3)		(1.0 - 3.8)E 0 (0/ 3)		(1.0 - 3.8)E 0 (0/ 3)	
Co-58	(6)		31	8.7E 0	31	4.0E 0	31
(0)		(4.0 - 12.0)E 0 (0/ 3)		(4.0 - 12.0)E 0 (0/ 3)		(0.0 - 7.0)E 0 (0/ 3)	
Fe-59	(6)		31	7.0E 0	31	-1.0E 1	31
(0)		(-2.3 - 4.4)E 1 (0/ 3)		(-2.3 - 4.4)E 1 (0/ 3)		(-2.1 - -0.3)E 1 (0/ 3)	
Co-60	(6)	130	27	1.1E 1	27	1.1E 1	27
(0)		(-1.1 - -0.2)E 1 (0/ 3)		(5.0 - 22.0)E 0 (0/ 3)		(5.0 - 22.0)E 0 (0/ 3)	
Zn-65	(6)	260	31	1.0E 0	31	-1.6E 1	31
(0)		(-7.9 - 11.4)E 1 (0/ 3)		(-7.9 - 11.4)E 1 (0/ 3)		(-5.9 - 0.6)E 1 (0/ 3)	
Cs-134	(6)	130	27	5.2E 0	27	5.2E 0	27
(0)		(-2.2 - 0.2)E 1 (0/ 3)		(-8.3 - 20.0)E 0 (0/ 3)		(-8.3 - 20.0)E 0 (0/ 3)	
Cs-137	(6)	150	31	-6.7E -2	31	-3.4E 0	31
(0)		(-8.0 - 14.8)E 0 (0/ 3)		(-8.0 - 14.8)E 0 (0/ 3)		(-9.0 - 0.9)E 0 (0/ 3)	

* Non-Routine refers to radionuclides that exceeded the Reporting Levels in ODCM Table E-2

** The fraction of sample analyses yielding detectable measurements (i.e. >3 standard deviations) is shown in parentheses.

Table 3.1
Radiological Environmental Program Summary
Connecticut Yankee Nuclear Power Co., Haddam Neck Station
(January - December 2003)

MEDIUM: ISFSI Sediment (SI) UNITS: pCi/kg dry

Radionuclides (No. Analyses) Non-Routine*	Required LLD	Indicator Stations	Station With Highest Mean		Control Stations
		Mean Range No. Detected**	Station	Mean Range No. Detected**	Mean Range No. Detected**
Be-7	(4)	5.8E 2	57	9.3E 2	NO DATA
	(0)	(1.0 - 9.9)E 2 (3/ 4)		(8.6 - 9.9)E 2 (2/ 2)	
K-40	(4)	9.7E 3	58	1.1E 4	NO DATA
	(0)	(8.2 - 10.9)E 3 (4/ 4)		(1.1 - 1.1)E 4 (2/ 2)	
Co-58	(4)	-1.1E 1	57	-9.2E 0	NO DATA
	(0)	(-2.3 - 0.3)E 1 (0/ 4)		(-2.1 - 0.3)E 1 (0/ 2)	
Co-60	(4)	3.1E 0	57	4.8E 0	NO DATA
	(0)	(-6.4 - 16.0)E 0 (0/ 4)		(-6.4 - 16.0)E 0 (0/ 2)	
Cs-134	(4)	-2.0E 1	58	-8.0E 0	NO DATA
	(0)	(-6.9 - 5.3)E 1 (0/ 4)		(-6.9 - 5.3)E 1 (0/ 2)	
Cs-137	(4)	2.7E 2	57	4.2E 2	NO DATA
	(0)	(1.2 - 5.1)E 2 (4/ 4)		(3.3 - 5.1)E 2 (2/ 2)	
Th-232	(4)	7.0E 2	58	9.3E 2	NO DATA
	(0)	(4.6 - 10.0)E 2 (4/ 4)		(8.5 - 10.0)E 2 (2/ 2)	

* Non-Routine refers to radionuclides that exceeded the Reporting Levels in ODCM Table E-2

** The fraction of sample analyses yielding detectable measurements (i.e. >3 standard deviations) is shown in parentheses.

Table 3.1
Radiological Environmental Program Summary
Connecticut Yankee Nuclear Power Co., Haddam Neck Station
(January - December 2003)

MEDIUM: Fruits/Vegetables (TF) UNITS: pCi/kg

Radionuclides (No. Analyses) Non-Routine*	Required LLD	Indicator Stations	Station With Highest Mean		Control Stations
		Mean Range No. Detected**	Station	Mean Range No. Detected**	Mean Range No. Detected**
K-40 (4) (0)		1.7E 3 (1.6 - 1.9)E 3 (2/ 2)	25	1.7E 3 (1.6 - 1.9)E 3 (2/ 2)	1.6E 3 (1.3 - 1.9)E 3 (2/ 2)
Co-58 (4) (0)		-1.2E 1 (-2.0 - -0.4)E 1 (0/ 2)	17	-2.5E 0 (-1.3 - 0.8)E 1 (0/ 2)	-2.5E 0 (-1.3 - 0.8)E 1 (0/ 2)
Co-60 (4) (0)		3.3E 0 (1.0 - 5.6)E 0 (0/ 2)	25	3.3E 0 (1.0 - 5.6)E 0 (0/ 2)	-1.9E 1 (-2.5 - -1.3)E 1 (0/ 2)
I-131 (4) (0)		-1.1E 2 (-2.0 - -0.2)E 2 (0/ 2)	17	1.2E 1 (-2.0 - 4.3)E 1 (0/ 2)	1.2E 1 (-2.0 - 4.3)E 1 (0/ 2)
Cs-134 (4) (0)	60	5.0E -1 (-7.0 - 8.0)E 0 (0/ 2)	17	1.0E 1 (9.0 - 11.0)E 0 (0/ 2)	1.0E 1 (9.0 - 11.0)E 0 (0/ 2)
Cs-137 (4) (0)	80	-3.6E 0 (-1.1 - 0.4)E 1 (0/ 2)	17	1.3E 1 (6.4 - 18.7)E 0 (0/ 2)	1.3E 1 (6.4 - 18.7)E 0 (0/ 2)

* Non-Routine refers to radionuclides that exceeded the Reporting Levels in ODCM Table E-2

** The fraction of sample analyses yielding detectable measurements (i.e. >3 standard deviations) is shown in parentheses.

Table 3.1
Radiological Environmental Program Summary
Connecticut Yankee Nuclear Power Co., Haddam Neck Station
(January - December 2003)

MEDIUM: Broad Leaf Vegetation (TV) UNITS: pCi/kg wet

Radionuclides (No. Analyses) Non-Routine*	Required LLD	Indicator Stations	Station With Highest Mean		Control Stations
		Mean Range No. Detected**	Station	Mean Range No. Detected**	Mean Range No. Detected**
K-40 (24) (0)		2.9E 3 (9.0 - 52.5)E 2 (18/ 18)	06	3.4E 3 (9.6 - 52.5)E 2 (6/ 6)	2.2E 3 (8.7 - 37.7)E 2 (6/ 6)
Co-58 (24) (0)		-5.3E 0 (-3.1 - 1.2)E 1 (0/ 18)	13	4.6E 0 (-2.3 - 3.7)E 1 (0/ 6)	4.6E 0 (-2.3 - 3.7)E 1 (0/ 6)
Co-60 (24) (0)		-4.9E 0 (-2.5 - 2.5)E 1 (0/ 18)	06	1.1E 0 (-8.0 - 25.0)E 0 (0/ 6)	-7.8E -1 (-1.9 - 1.9)E 1 (0/ 6)
I-131 (24) (0)		2.4E 1 (-4.2 - 14.0)E 1 (0/ 18)	06	2.5E 1 (-3.0 - 84.0)E 0 (0/ 6)	1.3E 1 (-1.7 - 4.5)E 1 (0/ 6)
Cs-134 (24) (0)	60	4.4E 0 (-1.0 - 2.5)E 1 (0/ 18)	06	6.8E 0 (-5.0 - 25.0)E 0 (0/ 6)	-1.8E 0 (-1.5 - 0.8)E 1 (0/ 6)
Cs-137 (24) (0)	80	1.8E 1 (-1.3 - 9.9)E 1 (2/ 18)	13	3.7E 1 (9.0 - 85.0)E 0 (2/ 6)	3.7E 1 (9.0 - 85.0)E 0 (2/ 6)

* Non-Routine refers to radionuclides that exceeded the Reporting Levels in ODCM Table E-2

** The fraction of sample analyses yielding detectable measurements (i.e. >3 standard deviations) is shown in parentheses.

Table 3.1
Radiological Environmental Program Summary
Connecticut Yankee Nuclear Power Co., Haddam Neck Station
(January - December 2003)

MEDIUM: ISFSI Water (WG) UNITS: pCi/liter

Radionuclides (No. Analyses) Non-Routine*	Required LLD	Indicator Stations		Station With Highest Mean		Control Stations
		Mean Range No. Detected**	Station	Mean Range No. Detected**	Mean Range No. Detected**	
H-3 (2) (0)	2000	-2.5E 1 (-1.1 - 0.6)E 2 (0/ 2)	57	-2.5E 1 (-1.1 - 0.6)E 2 (0/ 2)	NO DATA	
Mn-54 (2) (0)	15	-6.5E -2 (-7.3 - 6.0)E -1 (0/ 2)	57	-6.5E -2 (-7.3 - 6.0)E -1 (0/ 2)	NO DATA	
Co-58 (2) (0)		7.1E -1 (4.0 - 10.2)E -1 (0/ 2)	57	7.1E -1 (4.0 - 10.2)E -1 (0/ 2)	NO DATA	
Fe-59 (2) (0)		-1.3E 0 (-1.8 - -0.7)E 0 (0/ 2)	57	-1.3E 0 (-1.8 - -0.7)E 0 (0/ 2)	NO DATA	
Co-60 (2) (0)	15	-2.7E -1 (-3.0 - -2.3)E -1 (0/ 2)	57	-2.7E -1 (-3.0 - -2.3)E -1 (0/ 2)	NO DATA	
Zn-65 (2) (0)	30	7.0E -1 (-6.4 - 7.8)E 0 (0/ 2)	57	7.0E -1 (-6.4 - 7.8)E 0 (0/ 2)	NO DATA	
Zr-95 (2) (0)		3.0E -1 (-8.0 - 14.0)E -1 (0/ 2)	57	3.0E -1 (-8.0 - 14.0)E -1 (0/ 2)	NO DATA	
I-131 (2) (0)		-2.5E 0 (-3.6 - -1.4)E 0 (0/ 2)	57	-2.5E 0 (-3.6 - -1.4)E 0 (0/ 2)	NO DATA	
Cs-134 (2) (0)	15	1.5E 0 (1.1 - 1.8)E 0 (0/ 2)	57	1.5E 0 (1.1 - 1.8)E 0 (0/ 2)	NO DATA	
Cs-137 (2) (0)	18	-6.8E -1 (-1.1 - -0.3)E 0 (0/ 2)	57	-6.8E -1 (-1.1 - -0.3)E 0 (0/ 2)	NO DATA	
Ba-140 (2) (0)		1.5E 0 (1.2 - 1.9)E 0 (0/ 2)	57	1.5E 0 (1.2 - 1.9)E 0 (0/ 2)	NO DATA	

* Non-Routine refers to radionuclides that exceeded the Reporting Levels in ODCM Table E-2

** The fraction of sample analyses yielding detectable measurements (i.e. >3 standard deviations) is shown in parentheses.

Table 3.1
Radiological Environmental Program Summary
Connecticut Yankee Nuclear Power Co., Haddam Neck Station
(January - December 2003)

MEDIUM: River Water (WR) UNITS: pCi/liter

Radionuclides (No. Analyses) Non-Routine*	Required LLD	Indicator Stations		Station With Highest Mean		Control Stations
		Mean Range No. Detected**	Station	Mean Range No. Detected**	Mean Range No. Detected**	
H-3 (8) (0)	2000	-1.3E 2 (-7.1 - 4.8)E 2 (0/ 4)	30	-9.0E 1 (-6.0 - 2.3)E 2 (0/ 4)	-9.0E 1 (-6.0 - 2.3)E 2 (0/ 4)	
Mn-54 (8) (0)	15	-4.2E -1 (-1.6 - 0.7)E 0 (0/ 4)	30	1.1E 0 (-1.4 - 21.0)E -1 (0/ 4)	1.1E 0 (-1.4 - 21.0)E -1 (0/ 4)	
Co-58 (8) (0)		-5.3E -1 (-2.5 - 0.5)E 0 (0/ 4)	28	-5.3E -1 (-2.5 - 0.5)E 0 (0/ 4)	-6.5E -1 (-1.5 - 0.4)E 0 (0/ 4)	
Fe-59 (8) (0)		1.1E 0 (-5.1 - 9.0)E 0 (0/ 4)	30	2.4E 0 (-1.1 - 6.9)E 0 (0/ 4)	2.4E 0 (-1.1 - 6.9)E 0 (0/ 4)	
Co-60 (8) (0)	15	-1.3E 0 (-3.1 - 0.0)E 0 (0/ 4)	30	-7.5E -1 (-3.3 - 1.2)E 0 (0/ 4)	-7.5E -1 (-3.3 - 1.2)E 0 (0/ 4)	
Zn-65 (8) (0)	30	-9.7E -1 (-5.0 - 2.4)E 0 (0/ 4)	28	-9.7E -1 (-5.0 - 2.4)E 0 (0/ 4)	-4.1E 0 (-7.6 - 1.6)E 0 (0/ 4)	
Zr-95 (8) (0)		-2.5E -1 (-4.0 - 2.9)E 0 (0/ 4)	30	4.2E -1 (-2.7 - 2.0)E 0 (0/ 4)	4.2E -1 (-2.7 - 2.0)E 0 (0/ 4)	
I-131 (8) (0)		4.3E 1 (-1.2 - 11.4)E 1 (0/ 4)	28	4.3E 1 (-1.2 - 11.4)E 1 (0/ 4)	9.8E 0 (-2.6 - 3.7)E 1 (0/ 4)	
Cs-134 (8) (0)	15	2.1E -1 (-6.0 - 12.0)E -1 (0/ 4)	28	2.1E -1 (-6.0 - 12.0)E -1 (0/ 4)	-2.4E -1 (-1.1 - 1.2)E 0 (0/ 4)	
Cs-137 (8) (0)	18	-9.4E -1 (-3.7 - 1.0)E 0 (0/ 4)	30	2.3E -1 (-2.3 - 1.9)E 0 (0/ 4)	2.3E -1 (-2.3 - 1.9)E 0 (0/ 4)	
Ba-140 (8) (0)		-1.2E 1 (-2.0 - -0.4)E 1 (0/ 4)	30	-4.2E 0 (-1.0 - 0.2)E 1 (0/ 4)	-4.2E 0 (-1.0 - 0.2)E 1 (0/ 4)	

* Non-Routine refers to radionuclides that exceeded the Reporting Levels in ODCM Table E-2

** The fraction of sample analyses yielding detectable measurements (i.e. >3 standard deviations) is shown in parentheses.

Table 3.1
Radiological Environmental Program Summary
Connecticut Yankee Nuclear Power Co., Haddam Neck Station
(January - December 2003)

MEDIUM: Well Water (WW) UNITS: pCi/liter

Radionuclides (No. Analyses) Non-Routine*	Required LLD	Indicator Stations		Station With Highest Mean		Control Stations
		Mean Range No. Detected**	Station	Mean Range No. Detected**	Mean Range No. Detected**	
H-3 (8) (0)	2000	9.0E 1 (-3.8 - 5.0)E 2 (0/ 4)	15	9.0E 1 (-3.8 - 5.0)E 2 (0/ 4)	-7.0E 1 (-2.5 - 1.0)E 2 (0/ 4)	
Mn-54 (8) (0)	15	1.0E -1 (-1.0 - 1.3)E 0 (0/ 4)	15	1.0E -1 (-1.0 - 1.3)E 0 (0/ 4)	-1.1E 0 (-5.9 - 2.1)E 0 (0/ 4)	
Co-58 (8) (0)		-2.1E -1 (-8.0 - 9.0)E -1 (0/ 4)	15	-2.1E -1 (-8.0 - 9.0)E -1 (0/ 4)	-1.2E 0 (-5.0 - 3.0)E 0 (0/ 4)	
Fe-59 (8) (0)		-2.6E 0 (-6.4 - -0.5)E 0 (0/ 4)	16	-8.8E -1 (-4.4 - 4.9)E 0 (0/ 4)	-8.8E -1 (-4.4 - 4.9)E 0 (0/ 4)	
Co-60 (8) (0)	15	3.8E -1 (-3.0 - 13.0)E -1 (0/ 4)	15	3.8E -1 (-3.0 - 13.0)E -1 (0/ 4)	-5.5E -1 (-2.0 - 1.0)E 0 (0/ 4)	
Zn-65 (8) (0)	30	-2.9E 0 (-7.1 - 2.9)E 0 (0/ 4)	16	3.7E 0 (-5.7 - 7.3)E 0 (0/ 4)	3.7E 0 (-5.7 - 7.3)E 0 (0/ 4)	
Zr-95 (8) (0)		-9.3E -1 (-2.0 - 1.0)E 0 (0/ 4)	15	-9.3E -1 (-2.0 - 1.0)E 0 (0/ 4)	-1.5E 0 (-6.3 - 2.5)E 0 (0/ 4)	
I-131 (8) (0)		-3.7E -1 (-1.9 - 1.0)E 0 (0/ 4)	16	2.8E 0 (2.0 - 42.0)E -1 (0/ 4)	2.8E 0 (2.0 - 42.0)E -1 (0/ 4)	
Cs-134 (8) (0)	15	1.5E 0 (1.2 - 1.7)E 0 (0/ 4)	15	1.5E 0 (1.2 - 1.7)E 0 (0/ 4)	5.7E -1 (-2.1 - 2.6)E 0 (0/ 4)	
Cs-137 (8) (0)	18	-1.3E -1 (-1.5 - 0.9)E 0 (0/ 4)	15	-1.3E -1 (-1.5 - 0.9)E 0 (0/ 4)	-1.1E 0 (-3.1 - 2.0)E 0 (0/ 4)	
Ba-140 (8) (0)		1.5E -1 (-1.1 - 2.1)E 0 (0/ 4)	16	7.0E -1 (-3.1 - 4.1)E 0 (0/ 4)	7.0E -1 (-3.1 - 4.1)E 0 (0/ 4)	

* Non-Routine refers to radionuclides that exceeded the Reporting Levels in ODCM Table E-2

** The fraction of sample analyses yielding detectable measurements (i.e. >3 standard deviations) is shown in parentheses.

Table 3.2 Environmental TLD Measurements 2003

ENVIRONMENTAL TLD DATA SUMMARY
 CONNECTICUT YANKEE NUCLEAR POWER STATION
 (JANUARY - DECEMBER 2003)
 (uR/hr)

<u>INDICATOR TLDs</u>	<u>CONTROL TLDs</u>	<u>HIGHEST MEAN (14-C)</u>	<u>EXTRA TLDs</u>	<u>ISFSI TLDs</u>
MEAN RANGE (NO. MEASUREMENTS)*	MEAN RANGE (NO. MEASUREMENTS)*	MEAN RANGE (NO. MEASUREMENTS)*	MEAN RANGE (NO. MEASUREMENTS)*	MEAN RANGE (NO. MEASUREMENTS)*
6.2 ± 0.5 5.2 - 7.2 40	6.1 ± 0.9 5.1 - 8.0 16	7.5 ± 0.4 6.9 - 8.0 4	7.2 ± 1.5 5.6 - 11.2 36	7.0 ± 0.4 6.4 - 7.7 15

* Each "measurement" is based typically on quarterly readings from five TLD elements. Units are micro-R per hour.

Table 3.3

ENVIRONMENTAL TLD MEASUREMENTS
2003
(Micro-R per hour)

Sta. No.	Description	1ST QUARTER		2ND QUARTER		3RD QUARTER		4TH QUARTER		ANNUAL
		EXP.	S.D.	EXP.	S.D.	EXP.	S.D.	EXP.	S.D.	AVE. EXP.
CY-1-I	Onsite Discharge Can	5.34 ±	0.47	5.53 ±	0.38	5.94 ±	0.28	5.82 ±	0.15	5.7
CY-2-I	Haddam Park Road	5.55 ±	0.42	5.63 ±	0.26	6.16 ±	0.27	5.67 ±	0.16	5.8
CY-3-I	Haddam Jail Hill Rd.	6.24 ±	0.43	6.34 ±	0.31	6.87 ±	0.37	6.26 ±	0.21	6.4
CY-4-I	Haddam Ranger Road	5.35 ±	0.47	5.74 ±	0.38	5.32 ±	0.19	5.23 ±	0.14	5.4
CY-5-I	Onsite Injun Hol Rd.	6.43 *	0.49	6.45 ±	0.38	7.00 ±	0.21	6.68 ±	0.34	6.6
CY-6-I	Onsite Substation	7.00 ±	0.49	6.13 ±	0.31	6.51 ±	0.25	6.06 ±	0.20	6.4
CY-7-I	Haddam	6.33 ±	0.46	6.90 ±	0.40	6.73 ±	0.25	7.00 ±	0.65	6.7
CY-8-I	East Haddam	5.75 ±	0.42	6.11 ±	0.29	6.41 ±	0.36	6.45 ±	0.52	6.2
CY-9-I	Higganum	6.05 ±	0.59	6.09 ±	0.33	6.53 ±	0.40	6.18 ±	0.12	6.2
CY-10-I	Hurd Park Road	6.27 ±	0.50	6.52 ±	0.35	6.74 ±	0.30	7.23 ±	0.45	6.7
CY-11-C	Middletown	5.09 ±	0.37	5.43 ±	0.27	5.44 ±	0.24	5.52 ±	0.16	5.4
CY-12-C	Deep River	5.97 ±	0.44	6.25 ±	0.31	6.47 ±	0.22	6.24 ±	0.64	6.2
CY-13-C	North Madison	5.19 ±	0.44	5.23 ±	0.46	5.70 ±	0.19	5.28 ±	0.11	5.4
CY-14-C	Colchester	6.93 ±	0.53	7.66 ±	0.37	7.96 ±	0.43	7.31 ±	0.14	7.5
CY-40-X*	Near Intake Structur	6.05 ±	0.42	6.14 ±	0.30	7.08 ±	0.40	6.79 ±	0.31	6.5
CY-41-X*	Picnic area	5.62 ±	0.43	6.21 ±	0.49	6.19 ±	0.20	6.40 ±	0.94	6.1
CY-42-X*	Environmental Trail	8.16 ±	0.53	8.31 ±	0.38	9.82 ±	0.58	9.15 ±	0.38	8.9
CY-43-X*	Moodus-Rts 149&151	6.53 ±	0.45	7.12 ±	0.38	7.48 ±	0.31	7.19 ±	0.30	7.1
CY-44-X*	Shailerville Horton Rd.	5.84 ±	0.44	5.79 ±	0.33	6.15 ±	0.22	6.09 ±	0.12	6.0
CY-45-X*	Old Waste Gas Sphere	9.56 ±	0.67	10.59 ±	0.51	11.18 ±	0.74	10.28 ±	0.30	10.4
CY-46-X*	Discharge Canal Fen	6.41 ±	0.58	7.25 ±	0.34	7.77 ±	0.27	7.29 ±	0.37	7.2
CY-47-X*	Visitor Info Center	6.97 ±	0.52	6.88 ±	0.32	7.93 ±	0.26	7.55 ±	0.27	7.3
CY-48-X*	Met Shack	5.73 ±	0.41	5.65 ±	0.27	5.75 ±	0.23	6.07 ±	0.21	5.8
CY-52-IF**	Schmidt Cemetery Onsite			6.41 ±	0.45	6.48 ±	0.23	6.51 ±	0.23	6.5
CY-53-IF**	ISFSI Haul Route Onsite			6.62 ±	0.33	7.10 ±	0.23	6.85 ±	0.20	6.9
CY-54-IF**	RT 149 Salmon River			7.29 ±	0.37	7.71 ±	0.34	7.48 ±	0.26	7.5
CY-55-IF**	HV Tower NW of Pad			6.96 ±	0.33	7.21 ±	0.22	6.85 ±	0.27	7.0
CY-56-IF**	Burrow Pit Onsite			6.79 ±	0.35	7.03 ±	0.24	6.97 ±	0.40	6.9

* Extra TLD locations not required by the REMODCM

** ISFSI TLD Locations

4.0 ANALYSIS OF ENVIRONMENTAL RESULTS

4.1 Sampling Program Deviations

The Radiological Effluent Monitoring Manual (REMM) states in Section E.1 that the environmental sampling and analysis program shall be conducted as specified in Table E-1 for locations shown in Appendix G of the ODCM. Deviations are permitted from the required sampling schedule if specimens are unobtainable due to hazardous conditions, seasonal unavailability, malfunction of automatic sampling equipment or other legitimate reasons. If specimens are unobtainable due to sampling equipment malfunction, every effort shall be made to complete corrective action prior to the end of the next sampling period.

All deviations from the sampling schedule shall be documented in the Annual Radiological Environmental Operating Report pursuant to Section F.1 of the REMM. The following deviations are noted for the 2003-sampling program:

- On February 10th, the ISCO sampler for station 28-I went off-line due to the sampling tube popping out of the collection sink. The sampler was repaired by CY and put back on line. On February 24th, Normandeau added a hose clamp to prevent this from occurring in the future.
- In the process of replacing the vacuum gauge at air particulate sampling station 5-I on March 25th, the equipment was inadvertently left off. The station was discovered off between 1000 and 1430 and reported to Normandeau. Normandeau returned to and started the station at 1500.
- Broad leaf vegetation samples were not collected from stations 6-I, 13-C, 18-I and 41-X during April. Due to the cool spring, leaf development was not at a stage where sampling was feasible.
- A partial air particulate filter sample was collected at station 13-C on September 8th because the vacuum pump was found to have failed. A new vacuum pump was purchased and installed on September 9th.
- A composite sample was unable to be collected at river water sampling station 28-I on October 20th due to the technician hitting the program button during collection on October 6th, therefore disabling the sampler. A grab sample was taken in place of the composite sample.
- A composite sample was unable to be collected at river water sampling station 28-I on November 17th because the ISCO sampler is being taken out of service for a few weeks while the sampler shed was replaced. A grab sample was taken in place of the composite sample.
- The air particulate sampler at station 9-I was found to be off on December 15th. Phone notification (message recording) was made to plant staff and EE/NC #12-29-03-1 was completed. The sample was determined to be a valid partial sample. On December 29th, station 9-I was found to be still without power (EE/NC #12-29-03-2 was written). The December 29th sample was determined to be a void sample for the entire collection period. An approved change to the REMP Standard Operating Procedures was made ensure that future notifications of equipment inoperability status are effectively identified to the responsible parties needing to implement corrective actions.

4.2 Comparison of Achieved LLD with Requirements

Table E-3 of the REMODCM (Table 2.3 in this report) lists the required Lower Limits of Detection (LLDs) for routine environmental sample analyses. On occasion, an LLD is not achieved due to situations such as a low sample volume. In such a case, the REMODCM requires the identification and discussion of the contributing factors in the Annual Radiological Environmental Operating Report. At the FANPEL, the target LLD for any analysis is typically 30-40 percent of the most restrictive required LLD. Expressed differently, the typical sensitivities achieved for each analysis are at least 2.5 to 3 times better than that required by the REMODCM.

For each analysis having an LLD requirement the *a posteriori* or after the fact LLD calculated for that analysis was compared with the required LLD. Of the more than 300 analyses performed with a specified LLD requirement, one sample did not meet the requirements of the ODCM in 2003. A gross beta analysis sample for an air particulate taken at Station 13 on September 8, 2003 failed to achieve the LLD due to low volume.

4.3 Results Compared Against Reporting Levels

The REMODCM Section E requires the written notification to the NRC within 30 days whenever a Reporting Level in ODCM Table E-2 is exceeded (Table 2.4 in this report). Reporting Levels are the environmental concentrations that relate to the ALARA design dose objectives of 10 CFR 50, Appendix I. It should be noted that environmental concentrations are averaged over calendar quarters for the purposes of this comparison, and that Reporting Levels apply only to measured levels of radioactivity due to plant effluents. During 2003, no Reporting Levels were exceeded.

4.4 Data Analysis by Media Type

The 2003 REMP data for each media type are discussed below categorized by pathway. Graphical plots of monitoring data are also shown in Figures 4.1 to 4.10. With respect to data plots, all values are plotted, whether they are "detectable" or "non-detectable."

4.4.1 Air Particulate Gross Beta Radioactivity

Air particulates are collected on glass fiber filters bi-weekly at four indicator locations and one control location, and analyzed for gross beta radioactivity. Gamma isotopic analyses are performed on the quarterly composites of each location.

As shown in Figure 4.1, there is no significant difference between the average gross beta concentration at the indicator stations and the control station. Notable in the graph is the distinct annual cycle.

FIGURE 4.1

GROSS BETA MEASUREMENTS ON AIR PARTICULATE FILTERS
(QUARTERLY AVERAGES)

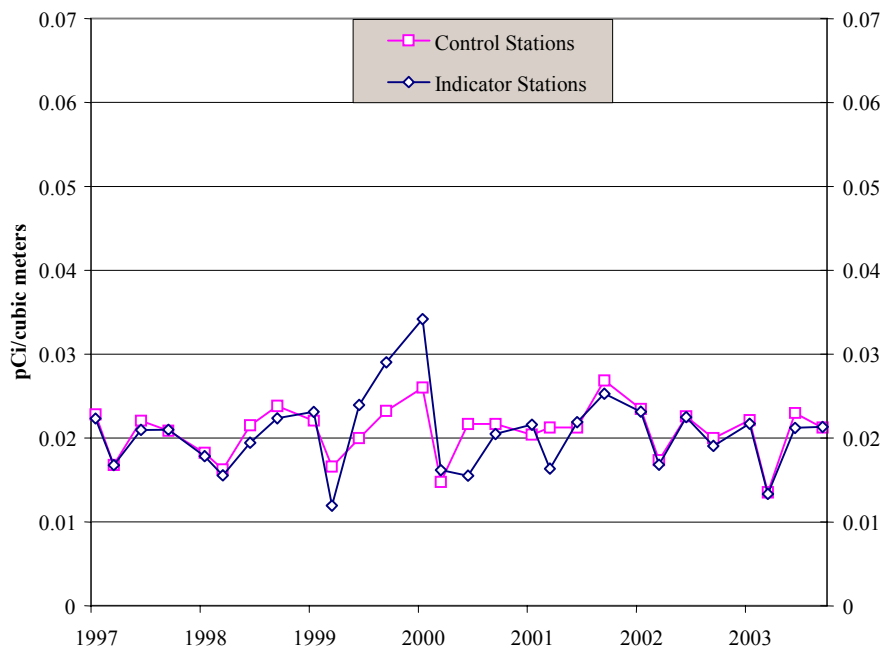
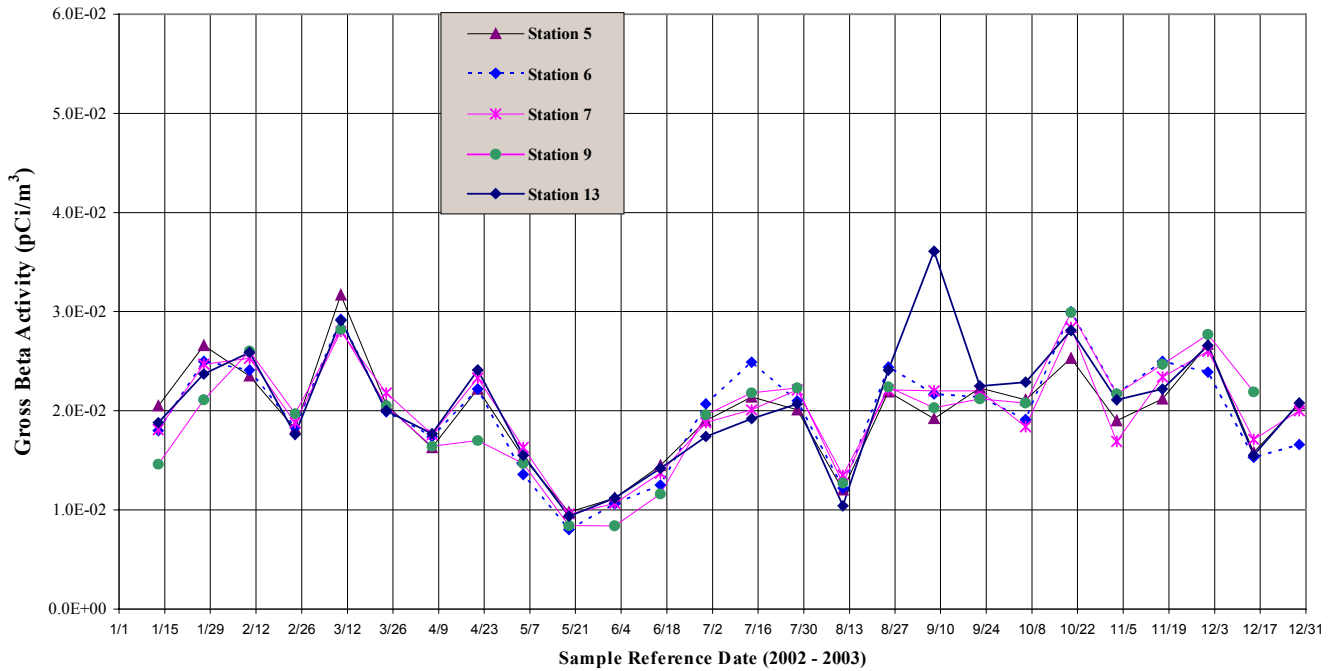


Figure 4.2 shows the biweekly gross beta concentrations at each sampling location required by the ODCM along with the control station in North Madison. The gross beta concentration is seen to fluctuate over the year due to seasonal changes in the naturally occurring airborne radioactivity. The gross beta concentrations at the indicator stations are similar to the control station and fluctuate in the same manner.

Figure 4.2

**Connecticut Yankee
Running 12 Month Bi-Weekly Air Particulate Gross Beta Analysis Results**



The quarterly composites of the bi-weekly air particulate filters are also analyzed for gamma radioactivity. The results, shown in Tables 3.1, indicate the presence of naturally occurring Be-7, which is produced by cosmic processes. No positive results were observed for all the other isotopes.

4.4.2 River Water

River water composite samples were collected quarterly during 2003. The quarterly composites were analyzed for gamma radionuclides and H-3. No gamma emitting radionuclides or H-3 were detected in 2003.

4.4.3 Well Water

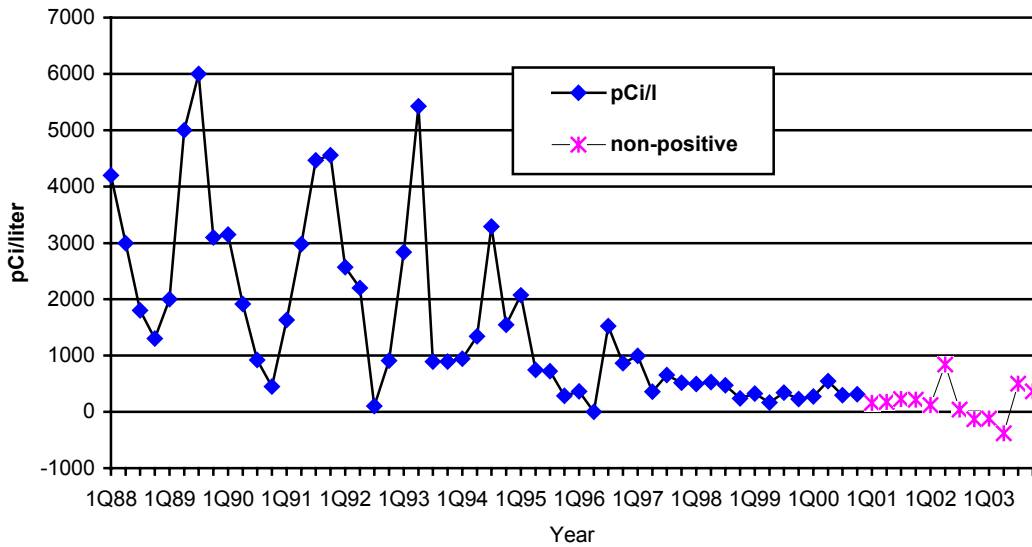
In 2003, samples of water from the onsite wells (location 15) and control station (location 16) were taken quarterly. The onsite wells have in the past indicated the presence of station related H-3. The H-3 is believed to result from the wells proximity to an area influenced by the water in the discharge canal and the ability of H-3 to migrate. In recent years it was discovered that there was a leak in the Reactor Water Storage Tank (RWST) that migrated to the ground water. This tank was subsequently drained and is now abandoned. As a part of the decommissioning process, a series of groundwater monitoring wells were installed. The results of the ground water monitoring evaluation can be found in the “Malcolm Pirnie Ground Water Monitoring Report for Connecticut Yankee Atomic Power Company, Final Report, September 1999.”

A downward trend has been observed in the H-3 concentration from the onsite wells since cycle 17 in 1992 due to the replacement of stainless-steel clad fuel with zircaloy clad fuel. The levels of H-3 observed since permanent shutdown in July 1996 represent residual levels of tritium that remain in station process liquids and/or groundwater from beneath the site that are gradually dropping to natural background levels. For 2003, no H-3 was detected in either the indicator or the control stations.

Figure 4.3 shows the H-3 concentration in CY on-site wells since 1988. The concentrations plotted for 2003 represent statistically non-positive H-3 concentrations.

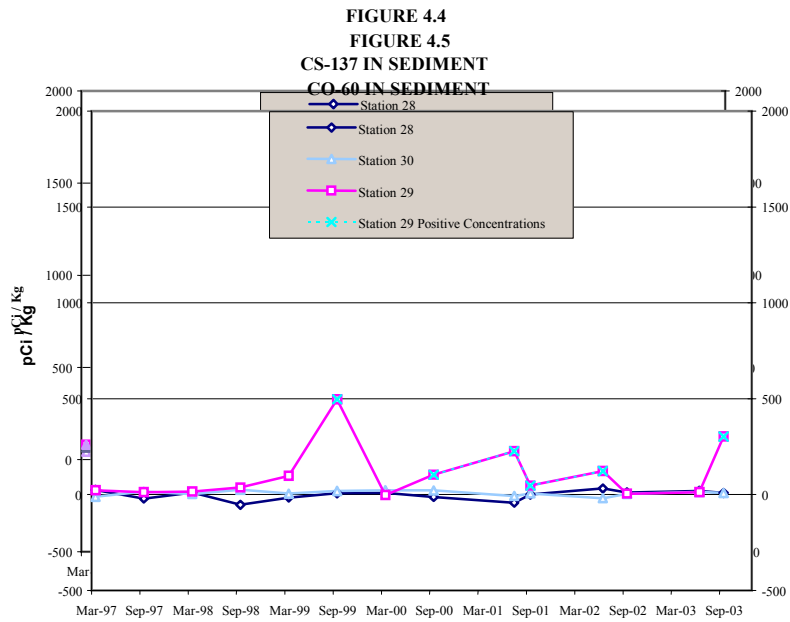
Figure 4.3

H-3 Levels in On-site Wells



4.4.4 Bottom Sediment

Semiannual grab samples of river bottom sediments were collected, dried and analyzed for gamma emitting radionuclides. Cs-137 was detected in five of the six samples. Figure 4.4 shows that historically, Cs-137 has been detected at both the control and indicator locations indicating that the likely source is weapons fallout. One of the samples collected at the indicator station in the vicinity of the discharge also contained Co-60. The level of Co-60 measured in 2003 is bounded by concentrations observed in previous years as shown in Figure 4.5. No other indications of station related radioactivity were observed in this sample media. Naturally occurring K-40 and Th-232 were also detected in all of the samples.



4.4.5 Fruits and Vegetables

Four vegetable samples analyzed for gamma emitting nuclides indicate only the presence of naturally occurring K-40.

4.4.6 Broad Leaf Vegetation

Vegetation was collected from two indicator and one control station. In addition, samples were collected from an extra sampling location, 41-X, that is not part of the required REMP. K-40 was observed in all the samples and Cs-137 was detected in two out of eighteen samples from indicator stations and two out of six samples from the control station. The source of this non-edible vegetation is taken from shrubs/woody plants coincidentally growing at the specific monitoring location. The varying amount of Cs-137 present in the samples is likely due to different Cs-137 soil concentrations and uptake rates from the soil.

4.4.7 Shellfish

Shellfish samples were collected semiannually from two locations. Naturally occurring Th-232 was detected in two control samples. No other gamma emitting radionuclides were detected in the samples.

4.4.8 Fish

Multiple fish samples were collected semiannually at three locations. The species collected in 2003 were perch, bullheads and catfish. Cs-137 was observed in one indicator sample (bottom feeder fish). K-40 was detected in all the samples. Although the presence of Cs-137 in this media is historically attributed to residual weapons fallout, the Cs-137 in fish is conservatively treated as a possible plant related nuclide to assess the dose consequence in Section 5.

Two special fish samples were collected at the Windsor and Haddam stations for additional analysis. Fish bones collected from these two stations mentioned was tested for the presence of Strontium-89 and Strontium-90. Gamma isotopic analyses were performed on the fish flesh samples. These special samples results are included in Table 3.1.

4.4.9 Gamma Exposure Rate

Direct radiation is continuously measured at 14 locations surrounding Haddam Neck Station and at nine extra on-site locations with thermoluminescent dosimeters (TLDs). The extra on-site locations are not part of the REMP but are used to monitor the impact of on-site decommissioning activities on the site boundary doses. All TLDs are collected quarterly for readout at the FANPEL.

Tables 3.2 and 3.3 show the mean exposure rates for the Indicator and Control categories do not vary significantly in 2003. As shown in Figure 4.6, there is a distinct annual cycle at both indicator and control locations. The lowest point of the cycle occurs during the winter months. This is due primarily to the attenuating effect of the snow cover on radon emissions and on direct irradiation by naturally-occurring radionuclides in the soil. Differing amounts of these radionuclides in the underlying soil, rock or nearby building materials result in different radiation levels between one field site and another.

Figure 4.6

Average Exposure Rate at Indicator, Control and Extra TLDs

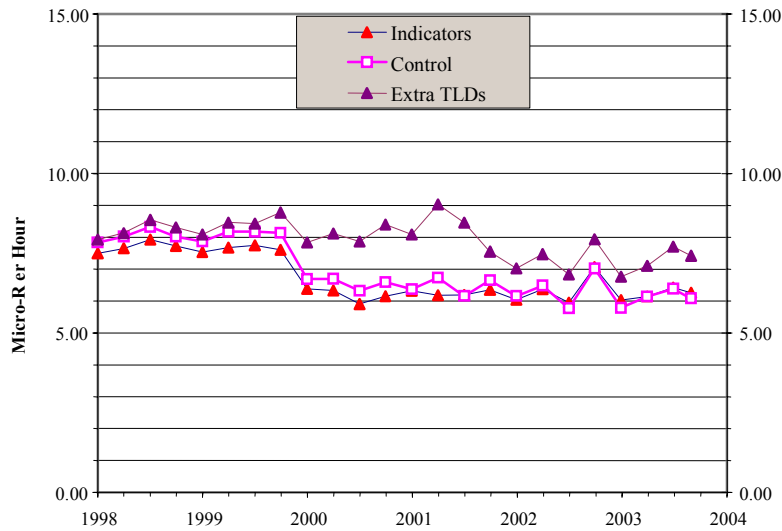


Figure 4.7 shows the exposure rate at all the Indicator TLD locations. In 2000, the TLDs (Victoreen glass bulb CaF₂(Mn)) which had historically been used to measure direct radioactivity around Connecticut Yankee for over 20 years were replaced with Panasonic model UD-804 AS1 TLD. The changeover occurred in February, 2000. The Victoreen glass bulb type TLDs were subject to inherent self-irradiation which was experimentally measured for each dosimeter. This correction for field dosimeters averaged approximately 1 µR/hr. In general, the new Panasonic monthly dosimeters show an average decrease in measured exposure rate by -20% compared to the historical average determined by the Victoreen monthly dosimeters.

Figure 4.7

Exposure Rate at Indicator Locations

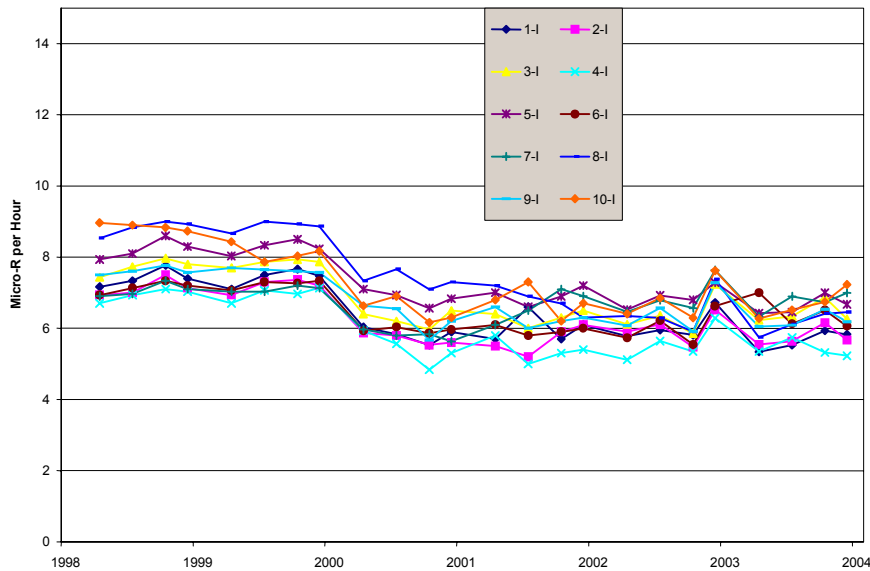
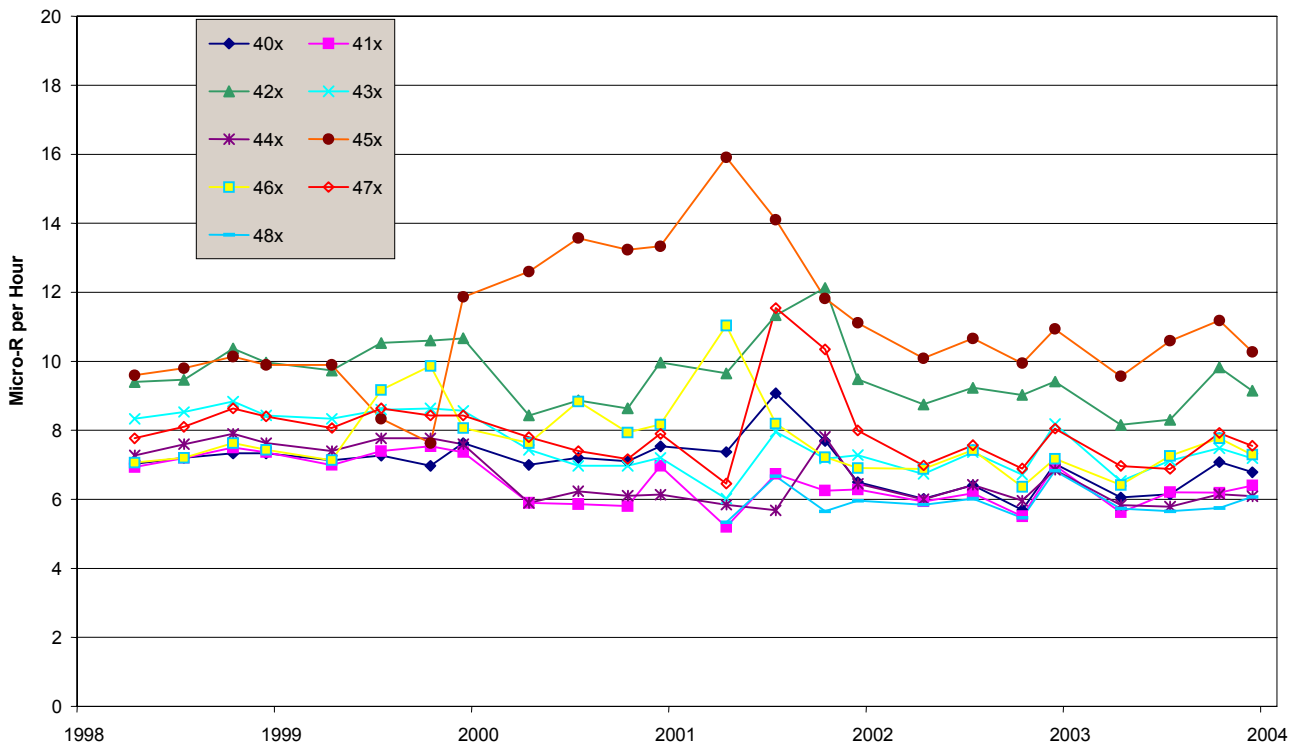


Figure 4.8 shows the exposure rate at the nine Extra TLD locations used to monitor more closely on-site decommissioning activities. An increased exposure rate was observed at on-site location #45-X throughout the 2000 and into 2002. This increase was noted toward the end of 1999, coincident with the removal of the steam generators and pressurizer from containment. These components were temporarily stored in the Southeast corner of the Industrial Area 700 feet from location #45-X. The increase in exposure rate due to these components is a localized effect and does not affect an increase in exposure beyond the owner controlled area. The steam generators, reactor head and pressurizer were shipped off site between the second and fourth quarter of 2002. TLD measurements throughout the year demonstrate the general variations in background radiation between the various on-site and off-site locations and include gamma exposure from all sources of radioactivity.

Figure 4.8
Exposure Rate at Extra TLD Locations



4.4.10 ISFSI Gamma Exposure Rate

In the second quarter of 2003, additional sampling locations associated with the placement on-site of an Independent Spent Fuel Storage Installation (ISFSI) were selected for the purpose of collecting baseline background information prior to the transfer of spent fuel from the main plant to the ISFSI. These new locations are specific to the ISFSI and are beyond the standard REMP that has been in operation over the life of the power plant’s license. New quarterly TLD locations were located in the area surrounding the facility at distances that approximated the site boundary to support future determinations that direct and scatter dose from ISFSI operations remain in compliance with offsite dose limits to the public.

In addition, two locations associated with a hypothetical water pathway were selected for sediment and water sample collections to help confirm that ISFSI operations will have no impact on the wetlands. Figure 4.9 shows the CS-137 levels that exists at both ISFSI sediment locations. Table 3.1 shows that no plant-related nuclides were identified in any of these samples.

Figures 4.10 and 4.11 summarize the 2003 results of the baseline measurements associated with the new ISFSI sampling program.

Figure 4.9

CS-137 in ISFSI Sediment

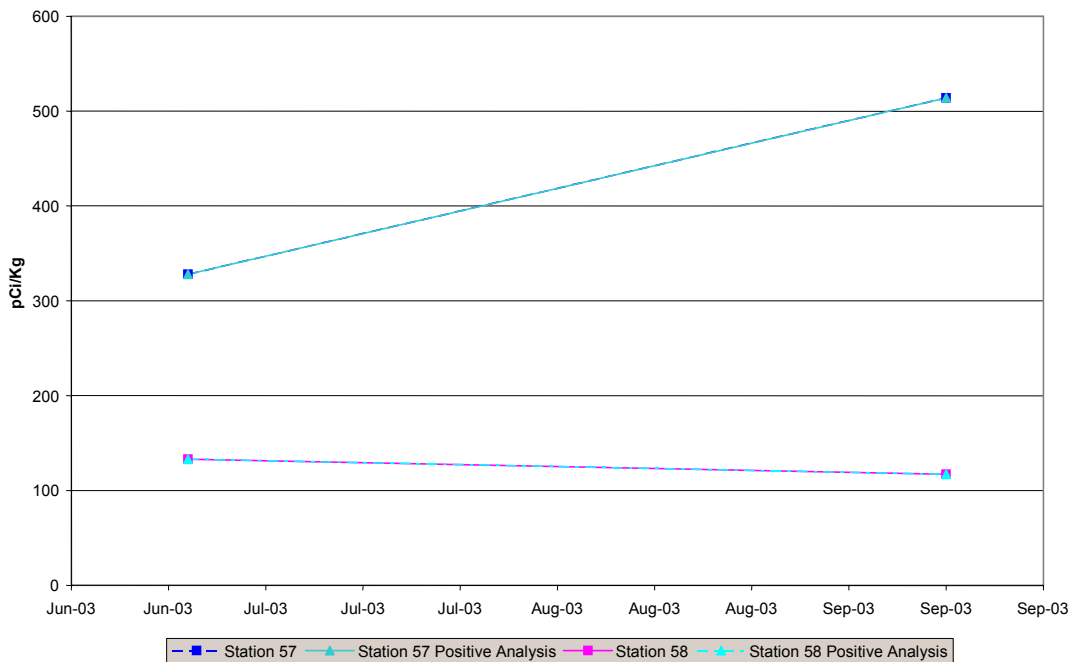


Figure 4.10
Average Exposure Rates at ISFSI TLDs

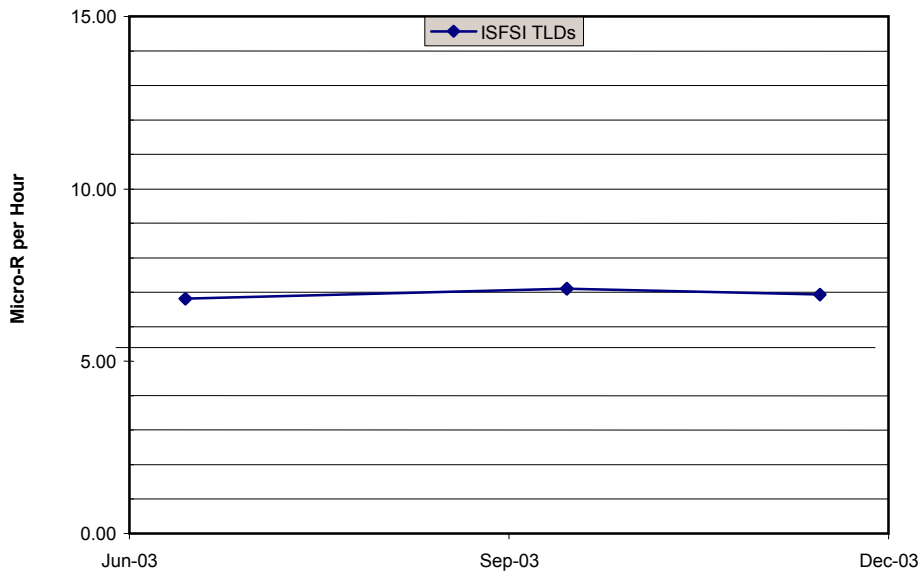
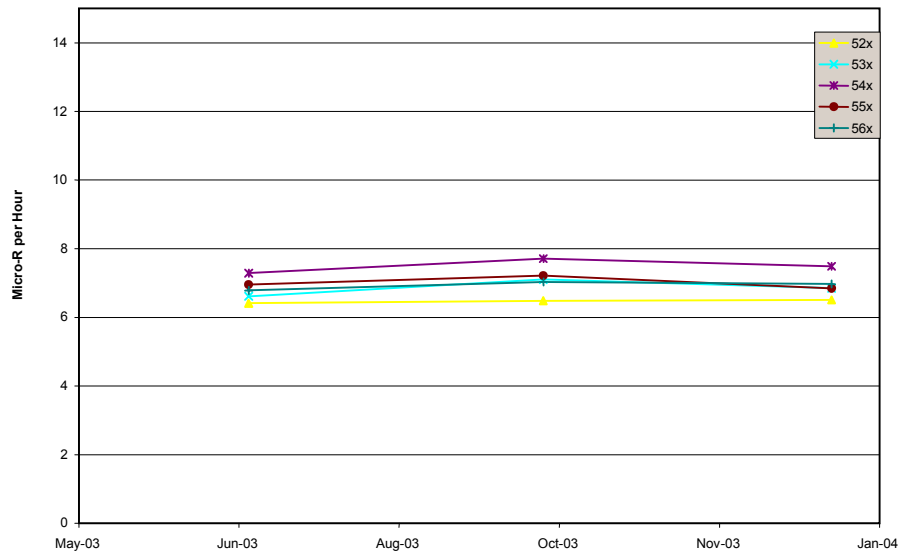


Figure 4.11
Exposure Rate at ISFSI TLD Locations



5.0 OFF-SITE DOSE EQUIVALENT COMMITMENTS

The purpose of this section is to evaluate off-site dose consequences (dose equivalent commitments) associated with the stations' radioactive liquid and airborne effluents. The method utilizes Regulatory Guide 1.109 / REMODCM models and actual measurements of the concentrations of radioactivity in environmental media to compute the dose consequences resulting from the consumption of these foods.

The standards for the maximum dose to an individual of the general public, taken from 40CFR190, is 25 mRem to the whole body, 75 mRem to the thyroid and 25 mRem to any other organ. These standards are a fraction of the average USA background radiation of 300 mRem per year given in NCRP94.

During 2003, Co-60 was identified in the bottom sediment in the area of the plant discharge. Although this nuclide is attributable to plant related operations in past years, these samples represent a pathway that is not involved with a significant exposure to the public. Cs-137 was measured in one out of eighteen fish samples and although attributed to weapons fallout a potential annual dose commitment to a maximum exposed individual of 0.035 mRem (Teen Liver) has been estimated using conservative assumptions regarding consumption rate and a constant Cs-137 concentration of 45 pCi/kg in fish. This dose is 0.14% of the standard dose of 25 mRem.

6.0 REFERENCES

1. USNRC Radiological Assessment Branch Technical Position, "An Acceptable Radiological Environmental Monitoring Program," Revision 1, November 1979.
2. NCRP Report No. 94, Exposure of the Population in the United States and Canada from Natural Background Radiation, National Council on Radiation Protection and Measurements, 1987.
3. Ionizing Radiation: Sources and Biological Effects, United Nations Scientific Committee on the Effects of Atomic Radiation (UNSCEAR), 1982 Report to the General Assembly.
4. Kathren, Ronald L., Radioactivity and the Environment - Sources, Distribution, and Surveillance, Harwood Academic Publishers, New York, 1984.
5. NRC Generic Letter 89-01, Subject: Implementation of Programmatic Controls for Radiological Effluent Technical Specifications in the Administrative Controls Section of the Technical Specifications and the Relocation of Procedural Details of RETS to the Offsite Dose Calculation Manual or to the Process Control Program. Dated January 31, 1989.

APPENDIX A

LAND USE CENSUS FOR 2003

2003 Land Use Census Assessment

The results of the 2003 Land Use Census are included in this report in compliance with REMODCM Section E-2. The locations identified during the Census are listed in Table A-1. In 2003, Normandean Associates conducted the Land Use Census and verified the distance and direction for all residence and garden locations with a portable Global Positioning System (GPS).

The CY REMMODCM requires that milk sampling be initiated as part of the REMP if the annual Land Use Census identifies milk animals within 5 km (3 miles) from the site (three indicator locations having the highest dose potential). If no milking animals are located within 5 km (3 miles) then samples of milking animals from three locations between 3 and 5 mile that exceed a dose potential of 1 mrem/year shall be added to the Radiological Environmental Monitoring Program. The 2003 Land Use Census did not find any milk locations within 5 km (3 miles), and did not identify any new milk animal locations between 5-8 km (3-5 miles). However, a dairy farm was identified just outside of 5 miles (5.36 miles) in the NE sector. Also, two goat farms which were identified in the 2002 land use census in the N and SSE sector continue to be in business. However, an analysis of the potential dose impact associated with these locations indicated that none had a potential dose that would be expected to exceed 1 mrem/year (Ref. 2). As a result, milk sampling need not be included as part of the sampling program.

The dose assessment methodology used the milk pathway model from Regulatory Guide 1.109 in conformance with the requirement of the CY ODCM. Both cows and goats were assumed to be on pasture for the entire growing season receiving their entire daily food intake from pasture (i.e., no stored feed). The milk pathway dose analysis also utilized the recorded gaseous effluents from the plant in 2000 as an indicator of reasonable source term. The source term included three particulate species (Co-60 at 85.6% of the particulate total, Cs-137 at 6.6%, and Mn-54 at 7.8%) and tritium. Tritium accounted for over 99.99% of the total radioactivity recorded discharge in gaseous effluents. No iodine is included since these radionuclides (I-131 and I-133) have been removed from the potential source term due to natural decay and the permanent shut of the plant in 1996. Five-year average historical meteorological dispersion conditions were reviewed to find the most limiting dispersion parameters in any sector from 3 mile or further from the plant. The selected bounding dispersion factors were for the 9 month growing season between April and December for the ESE direction at approximately 3 miles (depleted $X/Q = 1.15E-06 \text{ sec/m}^3$ and the $D/Q = 2.52E-09 \text{ 1/m}^2$). Usage factors for animal feed and human uptake were also taken from Regulatory Guide 1.109 as applied to the maximum individual.

The limiting dose to any organ was found to be from goat milk and equaled only $2.64E-03 \text{ mrem/year}$ (infant liver). This dose impact is over a factor of 378 times smaller than the 1-mrem/year criteria used to decide if milk samples need to be included in the REMP. This large margin ensures that any expected deviations in annual radioactivity releases from the plant will not cause the predicted dose impact for the milk pathway to exceed 1 mrem/year.

Broad leaf vegetation samples are collected at the site boundary in two different sectors with high D/Q values as indicated in the REMP collection schedule. This media acts as an indicator for ingestion pathways associated with garden food products located beyond the plant site. In 2003, a garden census was conducted in addition to the ongoing required sampling of vegetation at the two site boundary locations, 6-I and 18-I. As shown in Table A.1, there were several changes from the 2002 garden survey noted during 2003. A comparison of the D/Q values indicates that none of the census locations had a 20% higher potential dose commitment than at either of the two boundary locations.

Pursuant to REMODCM Section E-2, any sampling changes resulting from the Land Use Census must be noted in this report. For 2003, no changes in the REMP need to take place.

TABLE A.1
2003 LAND USE CENSUS LOCATIONS

SECTOR	NEAREST RESIDENCE Km	NEAREST GARDEN Km	NEAREST MILK ANIMAL (Goat) Miles
N	1.18	3.42	4.0
NNE	1.74	2.23	*
NE	1.69	3.43	5.4**
ENE	1.75	2.39	*
E	2.12	2.40	*
ESE	2.75	3.08 [■]	*
SE	1.34	2.07	*
SSE	1.20 [■]	--	3.9
S	1.04	1.28 [■]	*
SSW	0.93	2.73	*
SW	1.03	1.24	*
WSW	1.22	--	*
W	1.40	1.66	*
WNW	0.64	3.01 [■]	*
NW	1.09	2.17	*
NNW	1.55	2.43 [■]	*

■ New location in 2003

-- Garden location eliminated in 2003

* No cow or goat identified in this sector within 5 miles of the plant.

** Holstein cows identified in 2003.

APPENDIX B

Quality Assurance Program

Quality Assurance Program

The quality assurance program at the Framatome ANP Environmental Laboratory (FANPEL) is designed to serve two overall purposes: 1) Establish a measure of confidence in the measurement process to assure the licensee, regulatory agencies and the public that analytical results are accurate and precise; and 2) Identify deficiencies in the sampling and/or measurement process to those responsible for these operations so that corrective action can be taken. Quality assurance is applied to all steps of the measurement process, including the collection, measurement and reporting of data, as well as the record keeping of the final results. Quality control, as part of the quality assurance program, provides a means to control and measure the characteristics of the measurement equipment and processes, relative to established requirements.

The FANPEL employs a comprehensive quality assurance program designed to monitor the quality of analytical processing to ensure reliable environmental monitoring data. The program includes the use of controlled procedures for all work activities, a nonconformance and corrective action tracking system, systematic internal audits, audits by external groups, a laboratory quality control program, and a staff training program. Monitoring programs include the Intralaboratory Quality Control Program administered by the Laboratory QA Officer (used in conjunction with the National Institute of Standards and Technology Measurement Assurance Program, NIST MAP) and a third party cross check program administered by Analytics, Inc. Together these programs are targeted to supply QC/QA sources at 5% of the client sample analysis load. In addition the Laboratory Quality Control Audit Committee administers a blind duplicate program conducted through client environmental monitoring programs.

This summary reports all intralaboratory and third party results received by FANPEL on or before December 31, 2003.

Intralaboratory Quality Control Program

The FANPEL QA Officer administers an extensive intralaboratory quality control program in which process check samples are submitted for analysis. These samples are submitted either in duplicate to evaluate the precision of a measurement process or are "spiked" with a known amount of radioactive material to assess the bias in the measurement. Table B.1 provides the summary of the process check results for January to December 2003. Of the 407 analyses, 98.0% passed the bias criteria and 100% of the 135 results evaluated for precision were acceptable. The FANPEL internal acceptance criteria are summarized at the end of Table B.1.

Third Party Cross Check Program

The FANPEL participates in a third party cross check program managed by Analytics Inc. to satisfy the requirement of the Environmental Technical Specification/ODCM. The FANPEL Analytics program was originally used to augment the EPA Intercomparison Program that it now replaces. The current program is designed to be comparable to the pre-1996 EPA PE Program in terms of the number of samples, matrices and nuclides. The results for the 4th quarter 2002 through the 3rd quarter 2003 are summarized in Table B.2. Each sample is normally analyzed in triplicate and the results are evaluated against the internal acceptance criteria described in the FANPEL Manual 100-Laboratory Quality Assurance Plan. This acceptance protocol is used for all interlaboratory programs with no pre-set acceptance criteria. When results fall outside of the acceptance criteria, an investigation is initiated to determine the cause of the problem and if appropriate, corrective measures are taken. The FANPEL internal acceptance criteria are summarized at the end of Table B.1.

Blind Duplicate Program

Under the Blind Duplicate Quality Assurance Program, samples are split from homogeneous environmental media by the client and sent to the FANPEL for analysis. They are "blind" in that the identification of the matching sample is not identified to the Laboratory.

Participating clients submitted a total of 22 paired samples in 2003. The measurements evaluated include twenty-six gamma emitting radionuclides, H-3, and gross-beta. All measurements are evaluated, whether the results are statistically positive or not, and whether the net concentration is positive or negative.

The samples submitted as part of this program are listed in Table B.3. For the 2003 program, 99.6% (482/484) of the measurements met the FANPEL internal acceptance criteria.

Environmental TLD Quality Assurance Program

Performance documentation of the routine processing of the Panasonic environmental TLDs (thermoluminescent dosimeter) program at the FANPEL is provided by the dosimetry quality assurance testing program. This program includes independent third party performance testing by Battelle Pacific Northwest Labs and internal performance testing conducted by the Laboratory QA Officer. Under these programs, sets of six dosimeters are irradiated to ANSI specified testing criteria and submitted for processing to the Dosimetry Services Section as "unknowns". The bias and precision of TLD processing is measured against this standard and is used to indicate trends and changes in performance. Instrumentation checks, although routinely performed by the Dosimetry Services Group and representing between 5-10% of the TLDs processed, are not presented in this report because they do not represent a true process check sample since the exposures are known to the processor.

Ninety performance tests were conducted in 2003 by FANPEL and the third party tester. These tests were made on 15 separate sets of 6 dosimeters. All of the 15 TLD test sets passed the mean bias criteria of $\pm 20.1\%$. Of the ninety individual measurements, 100% of the dosimeter evaluations met the FANPEL Internal Acceptance Criteria for bias ($\pm 20.1\%$) and precision ($\pm 12.8\%$). Third Party QC results are summarized below.

Percentage of Individual Analyses that passed FANPEL Internal Criteria

Dosimeter Type	Number Tested	% Passed Bias Criteria	% Passed Precision Criteria
Panasonic Environmental	90	100	100

Summary of Third Party Testing

Dosimeter Type	Exposure Period	ANSI Category	% (Bias \pm SD)
Panasonic Environmental	Q4/2002	II, high energy	4.2 \pm 1.2
"	Q1/2003	II, high energy	6.1 \pm 8.6
"	Q2/2003	II, high energy	1.8 \pm 1.4
"	Q3/2003	II, high energy	3.2 \pm 0.9

* American National Standards Institute (ANSI) Performance Statistic as referenced in the Dosimetry Services Semi-Annual QA Status Report.

Note: Results are expressed as the delivered exposure for environmental TLD. ANSI HPS N13.29-1995 (Draft) Category II, High energy photons (Cs-137 or Co-60).

TABLE B.1

**FANPEL RESULTS IN THE INTRALABORATORY PROCESS CONTROL PROGRAM
January - December 2003**

Media Analysis	Bias Criteria (1)				Precision Criteria (2)			
	1	2	3	4	1	2	3	4
I. Air Charcoal Gamma	22	2	0	0	0	0	0	0
II. Air Filter Alpha Beta Gamma	206	10	0	1	0	0	0	0
III. Milk Gamma Iodine-LL Strontium-89 Strontium-90	9 0 0	1 4 2	0 1 3	0 0 0	10 3 1	0 1 4	0 1 0	0 0 0
IV. Water Gross Alpha Gross Beta Gamma Iodine-LL Sr-90 Tritium	7 34 14 5 2 21	12 12 0 0 2 5	14 2 0 0 1 1	4 0 0 0 0 0	2 8 0 5 0 26	0 2 2 0 0 6	8 4 22 0 6 12	0 0 0 0 0 0
V. Sediment/Soil Gamma Pu-238 Pu-239 Am-241	2 1 0 2	0 0 1 0	0 0 1 0	0 0 1 2	0 4 4 0	0 0 0 4	0 0 0 0	0 0 0 1
Total Number in Range	325	51	23	8	63	19	53	0
Percentage of Total Processed	79.9	12.5	5.7	2.0	46.7	14.1	39.3	0.0
Sum of Analyses	407				135			

(1) Percent Bias Criteria by Bias Category

Bias Category = 1 > 0% and ≤ 5%
 Bias Category = 2 > 5% and ≤ 10%
 Bias Category = 3 > 10% and ≤ 15%, or
 within 2 sigma of known
 Gross alpha/beta water, Sr 89/90 > 10% and ≤ 25%
 Transuranics > 10% and ≤ 20%
 Bias Category = 4 Outside Criteria

(2) Percent Precision Criteria by Precision Category

Precision Category = 1 > 0% and ≤ 5%
 Precision Category = 2 > 5% and ≤ 10%
 Precision Category = 3 > 10% and ≤ 15%, or
 within 2 sigma of mean
 Precision Category = 4 Outside Criteria

TABLE B.2
FANPEL RESULTS IN THE ANALYTICS INC. CROSS CHECK PROGRAM
Quarter 4, 2002 - Quarter 3, 2003

Sample Number	Quarter/ Year	Sample Media	Nuclide	Reported Value*	Known Value*	Ratio E-LAB/ Analytics	Evaluation
E3461-162	4th/2002	Water	H-3	5450	5987	0.91	Agreement
E3462-162	4th/2002	Water	Sr-89	72	79	0.91	Agreement
	4th/2002		Sr-90	16	16	1.00	Agreement
E3463-162	4th/2002	Filter	Gross Alpha	52	59	0.88	Agreement
	4th/2002		Gross Beta	147	150	0.98	Agreement
E3464-162	4th/2002	Filter	Ce-141	59	59	1.00	Agreement
	4th/2002		Cr-51	184	184	1.00	Agreement
	4th/2002		Cs-134	51	53	0.96	Agreement
	4th/2002		Cs-137	125	117	1.07	Agreement
	4th/2002		Co-58	75	74	1.01	Agreement
	4th/2002		Mn-54	83	75	1.11	Agreement
	4th/2002		Fe-59	43	38	1.13	Agreement
	4th/2002		Zn-65	103	95	1.08	Agreement
E3465-162	4th/2002	Filter	Sr-89	68	75	0.91	Agreement
	4th/2002		Sr-90	61	60	1.02	Agreement
E3466-162	4th/2002	Milk	I-131LL	89.2	86	1.04	Agreement
	4th/2002		I-131	81	86	0.94	Agreement
	4th/2002		Ce-141	103	111	0.91	Agreement
	4th/2002		Cr-51	334	346	0.97	Agreement
	4th/2002		Cs-134	98	99	0.90	Agreement
	4th/2002		Cs-137	220	220	1.00	Agreement
	4th/2002		Co-58	134	139	0.96	Agreement
	4th/2002		Mn-54	142	142	1.00	Agreement
	4th/2002		Fe-59	74	72	1.03	Agreement
	4th/2002		Zn-65	177	178	0.99	Agreement
	4th/2002		Co-60	162	164	0.99	Agreement
E3597-162	1st/2003	Water	Gross Alpha	55	61	0.90	Agreement
	1st/2003		Gross Beta	146	186	0.78	Agreement
E3598-162	1st/2003	Water	I-131LL	67.7	70	0.97	Agreement
	1st/2003		I-131	68	70	0.97	Agreement
	1st/2003		Ce-141	163	168	0.97	Agreement
	1st/2003		Cr-51	243	238	1.02	Agreement
	1st/2003		Cs-134	83	88	0.94	Agreement
	1st/2003		Cs-137	188	195	0.96	Agreement
	1st/2003		Co-58	44	42	1.05	Agreement
	1st/2003		Mn-54	61	63	0.97	Agreement

* pCi/Liter (Filters in pCi)

TABLE B.2 (cont'd)

FANPEL RESULTS IN THE ANALYTICS INC. CROSS CHECK PROGRAM
Quarter 4, 2002 - Quarter 3, 2003

Sample Number	Quarter/Year	Sample Media	Nuclide	Reported Value*	Known Value*	Ratio E-LAB/Analytics	Evaluation
E3598-162	1st/2003	Water	Fe-59	48	46	1.04	Agreement
	1st/2003		Zn-65	88	90	0.98	Agreement
	1st/2003		Co-60	156	157	0.99	Agreement
E3599-162	1st/2003	Filter	Gross Alpha	52	49	1.06	Agreement
	1st/2003		Gross Beta	157	148	1.06	Agreement
E3600-162	1st/2003	Milk	I-131LL	72.5	74	0.98	Agreement
	1st/2003		I-131	73	74	0.99	Agreement
	1st/2003		Ce-141	170	173	0.98	Agreement
	1st/2003		Cr-51	244	246	0.99	Agreement
	1st/2003		Cs-134	86	90	0.96	Agreement
	1st/2003		Cs-137	196	200	0.98	Agreement
	1st/2003		Co-58	44	47	0.94	Agreement
	1st/2003		Mn-54	61	64	0.95	Agreement
	1st/2003		Fe-59	47	47	1.00	Agreement
	1st/2003		Zn-65	96	93	1.03	Agreement
	1st/2003		Co-60	162	162	1.00	Agreement
	E3601-162		1st/2003	Milk	Sr-89	121	133
1st/2003		Sr-90	13		12	1.08	Agreement
E3608-162	1st/2003	Water	Sr-89	104	114	0.91	Agreement
	1st/2003		Sr-90	11	10	1.10	Agreement
E3704-162	2nd/2003	Water	H-3	10643	11953	0.89	Agreement
E3705-162	2nd/2003	Filter	Gross Alpha	20	21	0.95	Agreement
	2nd/2003		Gross Beta	116	115	1.01	Agreement
E3706-162	2nd/2003	Filter	Ce-141	149	154	0.97	Agreement
	2nd/2003		Cr-51	134	130	1.03	Agreement
	2nd/2003		Cs-134	54	56	0.96	Agreement
	2nd/2003		Cs-137	135	125	1.08	Agreement
	2nd/2003		Co-58	53	50	1.06	Agreement
	2nd/2003		Mn-54	110	101	1.09	Agreement
	2nd/2003		Fe-59	60	54	1.11	Agreement
	2nd/2003		Zn-65	110	99	1.11	Agreement
	2nd/2003		Co-60	71	72	0.99	Agreement
E3707-162	2nd/2003	Filter	Sr-89	78	87	0.90	Agreement
	2nd/2003		Sr-90	24	24	1.00	Agreement
E3708-162	2nd/2003	Milk	I-131	109	103	1.06	Agreement
	2nd/2003		I-131LL	104	103	1.01	Agreement
	2nd/2003		Ce-141	283	283	1.00	Agreement
	2nd/2003		Cr-51	239	239	1.00	Agreement

* pCi/Liter (Filters in pCi)

TABLE B.2 (cont'd)

FANPEL RESULTS IN THE ANALYTICS INC. CROSS CHECK PROGRAM
Quarter 4, 2002 - Quarter 3, 2003

Sample Number	Quarter/Year	Sample Media	Nuclide	Reported Value*	Known Value*	Ratio E-LAB/Analytics	Evaluation
E3708-162	2nd/2003	Milk	Cs-134	98	103	0.95	Agreement
	2nd/2003		Cs-137	232	230	1.01	Agreement
	2nd/2003		Co-58	92	93	0.99	Agreement
	2nd/2003		Mn-54	186	186	1.00	Agreement
	2nd/2003		Fe-59	100	99	1.01	Agreement
	2nd/2003		Zn-65	181	181	1.00	Agreement
	2nd/2003		Co-60	134	132	1.02	Agreement
E3866-162	3rd/2003	Water	Gross Alpha	37	36	1.03	Agreement
	3rd/2003		Gross Beta	242	246	0.98	Agreement
E3867-162	3rd/2003	Water	I-131	69	76	0.91	Agreement
	3rd/2003		I-131LL	78	76	1.03	Agreement
	3rd/2003		Ce-141	78	81	0.96	Agreement
	3rd/2003		Cr-51	198	221	0.90	Agreement
	3rd/2003		Cs-134	108	113	0.96	Agreement
	3rd/2003		Cs-137	85	84	1.01	Agreement
	3rd/2003		Co-58	92	94	0.98	Agreement
	3rd/2003		Mn-54	93	88	1.06	Agreement
	3rd/2003		Fe-59	74	75	0.99	Agreement
	3rd/2003		Zn-65	170	166	1.02	Agreement
	3rd/2003		Co-60	118	117	1.01	Agreement
	E3868-162		3rd/2003	Filter	Gross Alpha	30	28
3rd/2003		Gross Beta	197		189	1.04	Agreement
E3869-162	3rd/2003	Milk	I-131	66	74	0.89	Agreement
	3rd/2003		I-131LL	74	74	1.00	Agreement
	3rd/2003		Ce-141	90	86	1.03	Agreement
	3rd/2003		Cr-51	228	233	0.98	Agreement
	3rd/2003		Cs-134	123	119	1.03	Agreement
	3rd/2003		Cs-137	94	88	1.07	Agreement
	3rd/2003		Co-58	99	99	1.00	Agreement
	3rd/2003		Mn-54	101	93	1.09	Agreement
	3rd/2003		Fe-59	84	79	1.06	Agreement
	3rd/2003		Zn-65	178	176	1.01	Agreement
	3rd/2003		Co-60	129	123	1.05	Agreement
	E3870-162		3rd/2003	Milk	Sr-89	80	100
3rd/2003		Sr-90	11		14	0.79	Agreement

* pCi/Liter (Filters in pCi)

Bias and Precision Acceptance Criteria as described above.

TABLE B.3**SUMMARY OF BLIND DUPLICATE SAMPLES
January - December 2003**

TYPE OF SAMPLE	NUMBER OF PAIRED SAMPLES SUBMITTED
Ground Water	2
Surface Water	12
Algae	2
Mussels	2
TOTAL	18

APPENDIX C

Data Summary

AIR PARTICULATE

AP	5	L4665-01	1/13/2003	GROSS BETA	2.05E-02	1.40E-03	3.50E-03	*
AP	5	L4750-01	1/27/2003	GROSS BETA	2.66E-02	1.30E-03	2.40E-03	*
AP	5	L4853-01	2/10/2003	GROSS BETA	2.35E-02	1.30E-03	2.70E-03	*
AP	5	L4936-01	2/24/2003	GROSS BETA	1.82E-02	1.40E-03	3.60E-03	*
AP	5	L5068-01	3/10/2003	GROSS BETA	3.17E-02	1.50E-03	3.10E-03	*
AP	5	L5133-01	3/24/2003	GROSS BETA	2.06E-02	1.40E-03	3.50E-03	*
AP	5	L5233-01	4/7/2003	GROSS BETA	1.63E-02	1.30E-03	3.30E-03	*
AP	5	L5324-01	4/21/2003	GROSS BETA	2.22E-02	1.30E-03	2.50E-03	*
AP	5	L5416-01	5/5/2003	GROSS BETA	1.53E-02	1.20E-03	2.60E-03	*
AP	5	L5479-01	5/19/2003	GROSS BETA	9.78E-03	8.50E-04	2.10E-03	*
AP	5	L5565-01	6/2/2003	GROSS BETA	1.12E-02	1.00E-03	2.80E-03	*
AP	5	L5656-01	6/16/2003	GROSS BETA	1.45E-02	1.30E-03	3.20E-03	*
AP	5	L5737-01	6/30/2003	GROSS BETA	1.90E-02	1.40E-03	3.30E-03	*
AP	5	L5793-01	7/14/2003	GROSS BETA	2.14E-02	1.40E-03	3.30E-03	*
AP	5	L5870-01	7/28/2003	GROSS BETA	2.01E-02	1.40E-03	3.40E-03	*
AP	5	L5958-01	8/11/2003	GROSS BETA	1.20E-02	1.20E-03	3.20E-03	*
AP	5	L6027-01	8/25/2003	GROSS BETA	2.19E-02	1.40E-03	3.20E-03	*
AP	5	L6121-01	9/8/2003	GROSS BETA	1.92E-02	1.00E-03	2.20E-03	*
AP	5	L6188-01	9/22/2003	GROSS BETA	2.23E-02	1.40E-03	3.30E-03	*
AP	5	L6277-01	10/6/2003	GROSS BETA	2.11E-02	1.30E-03	2.70E-03	*
AP	5	L6358-01	10/20/2003	GROSS BETA	2.53E-02	1.40E-03	2.60E-03	*
AP	5	L6450-01	11/3/2003	GROSS BETA	1.90E-02	1.40E-03	3.40E-03	*
AP	5	L6524-01	11/17/2003	GROSS BETA	2.12E-02	1.40E-03	3.20E-03	*
AP	5	L6654-01	12/15/2003	GROSS BETA	1.58E-02	1.10E-03	2.50E-03	*
AP	5	L6724-01	12/29/2003	GROSS BETA	2.07E-02	1.70E-03	4.30E-03	*
AP	5	L5295-01	3/24/2003	Be-7	9.00E-02	2.20E-02	5.50E-02	*
AP	5	L5295-01	3/24/2003	Co-58	5.00E-04	9.60E-04	3.90E-03	
AP	5	L5295-01	3/24/2003	Co-60	1.90E-04	6.00E-04	2.50E-03	
AP	5	L5295-01	3/24/2003	Cs-134	-2.50E-04	5.90E-04	2.60E-03	
AP	5	L5295-01	3/24/2003	Cs-137	5.90E-04	6.60E-04	2.30E-03	
AP	5	L5904-01	6/30/2003	Be-7	5.20E-02	2.10E-02	6.50E-02	
AP	5	L5904-01	6/30/2003	Co-58	-1.00E-03	1.10E-03	5.10E-03	
AP	5	L5904-01	6/30/2003	Co-60	-5.60E-04	6.00E-04	2.90E-03	
AP	5	L5904-01	6/30/2003	Cs-134	-3.80E-04	5.50E-04	2.50E-03	
AP	5	L5904-01	6/30/2003	Cs-137	-1.20E-04	4.90E-04	2.00E-03	
AP	5	L6321-01	10/6/2003	Be-7	7.10E-02	1.70E-02	4.70E-02	*
AP	5	L6321-01	10/6/2003	Co-58	9.90E-04	9.80E-04	3.40E-03	
AP	5	L6321-01	10/6/2003	Co-60	-1.08E-03	7.10E-04	3.50E-03	
AP	5	L6321-01	10/6/2003	Cs-134	-2.40E-04	4.70E-04	2.20E-03	
AP	5	L6321-01	10/6/2003	Cs-137	-1.20E-04	5.00E-04	2.10E-03	
AP	5	L6810-01	12/29/2003	Be-7	7.30E-02	2.10E-02	5.90E-02	*
AP	5	L6810-01	12/29/2003	Co-58	3.00E-04	1.10E-03	4.60E-03	
AP	5	L6810-01	12/29/2003	Co-60	2.00E-04	6.20E-04	2.60E-03	
AP	5	L6810-01	12/29/2003	Cs-134	-2.60E-04	6.00E-04	2.70E-03	
AP	5	L6810-01	12/29/2003	Cs-137	1.90E-04	6.10E-04	2.40E-03	

Connecticut Yankee

Radiological Environmental Monitoring Program

Summary of 2003 Data

SAMPLE TYPE	STATION	LSN	END DATE	NUCLIDE	CONC (pCi/m3)	STD.DEV. (pCi/m3)	MDC (pCi/m3)	
AIR PARTICULATE								
AP	6	L4665-02	1/13/2003	GROSS BETA	1.80E-02	1.40E-03	3.40E-03	*
AP	6	L4750-02	1/27/2003	GROSS BETA	2.50E-02	1.30E-03	2.40E-03	*
AP	6	L4853-02	2/10/2003	GROSS BETA	2.41E-02	1.30E-03	2.60E-03	*
AP	6	L4936-02	2/24/2003	GROSS BETA	1.83E-02	1.40E-03	3.50E-03	*
AP	6	L5068-02	3/10/2003	GROSS BETA	2.92E-02	1.50E-03	3.00E-03	*
AP	6	L5133-02	3/25/2003	GROSS BETA	1.99E-02	1.30E-03	3.20E-03	*
AP	6	L5233-02	4/7/2003	GROSS BETA	1.74E-02	1.40E-03	3.50E-03	*
AP	6	L5324-02	4/21/2003	GROSS BETA	2.22E-02	1.30E-03	2.60E-03	*
AP	6	L5416-02	5/5/2003	GROSS BETA	1.36E-02	1.10E-03	2.60E-03	*
AP	6	L5479-02	5/19/2003	GROSS BETA	8.04E-03	8.10E-04	2.10E-03	*
AP	6	L5565-02	6/2/2003	GROSS BETA	1.06E-02	9.40E-04	2.50E-03	*
AP	6	L5656-02	6/16/2003	GROSS BETA	1.25E-02	1.20E-03	3.20E-03	*
AP	6	L5737-02	6/30/2003	GROSS BETA	2.07E-02	1.40E-03	3.30E-03	*
AP	6	L5793-02	7/14/2003	GROSS BETA	2.49E-02	1.50E-03	3.30E-03	*
AP	6	L5870-02	7/28/2003	GROSS BETA	2.10E-02	1.40E-03	3.30E-03	*
AP	6	L5958-02	8/11/2003	GROSS BETA	1.22E-02	1.20E-03	3.10E-03	*
AP	6	L6027-02	8/25/2003	GROSS BETA	2.44E-02	1.40E-03	3.10E-03	*
AP	6	L6121-02	9/8/2003	GROSS BETA	2.17E-02	1.10E-03	2.20E-03	*
AP	6	L6188-02	9/22/2003	GROSS BETA	2.14E-02	1.40E-03	3.20E-03	*
AP	6	L6277-02	10/6/2003	GROSS BETA	1.91E-02	1.20E-03	2.70E-03	*
AP	6	L6358-02	10/20/2003	GROSS BETA	3.00E-02	1.40E-03	2.60E-03	*
AP	6	L6450-02	11/3/2003	GROSS BETA	2.17E-02	1.40E-03	3.30E-03	*
AP	6	L6524-02	11/17/2003	GROSS BETA	2.50E-02	1.40E-03	3.20E-03	*
AP	6	L6654-02	12/15/2003	GROSS BETA	1.53E-02	1.10E-03	2.50E-03	*
AP	6	L6724-02	12/29/2003	GROSS BETA	1.66E-02	1.40E-03	3.70E-03	*
AP	6	L5295-02	3/25/2003	Be-7	7.70E-02	2.10E-02	5.60E-02	*
AP	6	L5295-02	3/25/2003	Co-58	-2.10E-04	9.10E-04	4.10E-03	
AP	6	L5295-02	3/25/2003	Co-60	1.41E-03	8.00E-04	2.40E-03	
AP	6	L5295-02	3/25/2003	Cs-134	3.40E-04	6.60E-04	2.50E-03	
AP	6	L5295-02	3/25/2003	Cs-137	5.70E-04	6.30E-04	2.30E-03	
AP	6	L5904-02	6/30/2003	Be-7	7.40E-02	2.10E-02	5.80E-02	*
AP	6	L5904-02	6/30/2003	Co-58	1.50E-03	1.10E-03	3.50E-03	
AP	6	L5904-02	6/30/2003	Co-60	-5.70E-04	6.00E-04	2.90E-03	
AP	6	L5904-02	6/30/2003	Cs-134	6.10E-04	5.20E-04	1.80E-03	
AP	6	L5904-02	6/30/2003	Cs-137	-1.40E-04	5.30E-04	2.20E-03	
AP	6	L6321-02	10/6/2003	Be-7	1.09E-01	1.70E-02	3.60E-02	*
AP	6	L6321-02	10/6/2003	Co-58	3.90E-04	7.30E-04	2.90E-03	
AP	6	L6321-02	10/6/2003	Co-60	1.51E-03	7.60E-04	2.20E-03	
AP	6	L6321-02	10/6/2003	Cs-134	6.10E-04	5.50E-04	1.90E-03	
AP	6	L6321-02	10/6/2003	Cs-137	-1.09E-03	5.90E-04	2.70E-03	
AP	6	L6810-02	12/29/2003	Be-7	1.19E-01	2.10E-02	4.40E-02	*
AP	6	L6810-02	12/29/2003	Co-58	2.00E-04	1.00E-03	4.20E-03	
AP	6	L6810-02	12/29/2003	Co-60	5.10E-04	3.60E-04	6.90E-04	
AP	6	L6810-02	12/29/2003	Cs-134	-4.00E-04	6.70E-04	2.90E-03	
AP	6	L6810-02	12/29/2003	Cs-137	7.00E-04	6.10E-04	2.10E-03	

* Radioactivity detected in sample (i.e., concentration > 3 X standard deviation)
 + Minimum Detectable Concentration > Lower Limit of Detection Requirement

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Summary of 2003 Data

SAMPLE TYPE	STATION	LSN	END DATE	NUCLIDE	CONC (pCi/m3)	STD.DEV. (pCi/m3)	MDC (pCi/m3)	
AIR PARTICULATE								
AP	7	L4665-03	1/13/2003	GROSS BETA	1.81E-02	1.30E-03	3.30E-03	*
AP	7	L4750-03	1/27/2003	GROSS BETA	2.47E-02	1.30E-03	2.30E-03	*
AP	7	L4853-03	2/10/2003	GROSS BETA	2.53E-02	1.30E-03	2.50E-03	*
AP	7	L4936-03	2/24/2003	GROSS BETA	1.88E-02	1.30E-03	3.40E-03	*
AP	7	L5068-03	3/10/2003	GROSS BETA	2.80E-02	1.40E-03	2.90E-03	*
AP	7	L5133-03	3/24/2003	GROSS BETA	2.18E-02	1.40E-03	3.30E-03	*
AP	7	L5233-03	4/7/2003	GROSS BETA	1.76E-02	1.30E-03	3.10E-03	*
AP	7	L5324-03	4/21/2003	GROSS BETA	2.33E-02	1.20E-03	2.30E-03	*
AP	7	L5416-03	5/5/2003	GROSS BETA	1.63E-02	1.10E-03	2.50E-03	*
AP	7	L5479-03	5/19/2003	GROSS BETA	9.60E-03	8.00E-04	2.00E-03	*
AP	7	L5565-03	6/2/2003	GROSS BETA	1.07E-02	9.20E-04	2.40E-03	*
AP	7	L5656-03	6/16/2003	GROSS BETA	1.37E-02	1.20E-03	3.00E-03	*
AP	7	L5737-03	6/30/2003	GROSS BETA	1.88E-02	1.30E-03	3.20E-03	*
AP	7	L5793-03	7/14/2003	GROSS BETA	2.01E-02	1.30E-03	3.10E-03	*
AP	7	L5870-03	7/28/2003	GROSS BETA	2.21E-02	1.40E-03	3.20E-03	*
AP	7	L5958-03	8/11/2003	GROSS BETA	1.35E-02	1.20E-03	3.00E-03	*
AP	7	L6027-03	8/25/2003	GROSS BETA	2.21E-02	1.30E-03	2.90E-03	*
AP	7	L6121-03	9/8/2003	GROSS BETA	2.20E-02	1.10E-03	2.10E-03	*
AP	7	L6188-03	9/22/2003	GROSS BETA	2.20E-02	1.40E-03	3.10E-03	*
AP	7	L6277-03	10/6/2003	GROSS BETA	1.84E-02	1.20E-03	2.60E-03	*
AP	7	L6358-03	10/20/2003	GROSS BETA	2.84E-02	1.40E-03	2.40E-03	*
AP	7	L6450-03	11/3/2003	GROSS BETA	1.69E-02	1.30E-03	3.10E-03	*
AP	7	L6524-03	11/17/2003	GROSS BETA	2.34E-02	1.40E-03	3.00E-03	*
AP	7	L6654-03	12/15/2003	GROSS BETA	1.71E-02	1.10E-03	2.40E-03	*
AP	7	L6724-03	12/29/2003	GROSS BETA	2.00E-02	1.40E-03	3.50E-03	*
AP	7	L5295-03	3/24/2003	Be-7	1.14E-01	2.30E-02	5.20E-02	*
AP	7	L5295-03	3/24/2003	Co-58	-1.10E-03	1.20E-03	5.50E-03	
AP	7	L5295-03	3/24/2003	Co-60	-9.00E-05	6.20E-04	2.70E-03	
AP	7	L5295-03	3/24/2003	Cs-134	-4.20E-04	5.20E-04	2.40E-03	
AP	7	L5295-03	3/24/2003	Cs-137	-1.70E-04	4.60E-04	2.00E-03	
AP	7	L5904-03	6/30/2003	Be-7	7.80E-02	1.90E-02	4.80E-02	*
AP	7	L5904-03	6/30/2003	Co-58	8.20E-04	9.80E-04	3.60E-03	
AP	7	L5904-03	6/30/2003	Co-60	4.20E-04	3.00E-04	5.70E-04	
AP	7	L5904-03	6/30/2003	Cs-134	-4.00E-05	5.20E-04	2.20E-03	
AP	7	L5904-03	6/30/2003	Cs-137	0.00E+00	5.20E-04	2.10E-03	
AP	7	L6321-03	10/6/2003	Be-7	1.03E-01	1.70E-02	3.70E-02	*
AP	7	L6321-03	10/6/2003	Co-58	-2.50E-04	8.70E-04	3.60E-03	
AP	7	L6321-03	10/6/2003	Co-60	-9.90E-04	5.80E-04	3.00E-03	
AP	7	L6321-03	10/6/2003	Cs-134	-4.00E-05	5.20E-04	2.20E-03	
AP	7	L6321-03	10/6/2003	Cs-137	-9.30E-04	6.20E-04	2.70E-03	
AP	7	L6810-03	12/29/2003	Be-7	7.60E-02	1.90E-02	4.90E-02	*
AP	7	L6810-03	12/29/2003	Co-58	-1.30E-03	1.10E-03	5.00E-03	
AP	7	L6810-03	12/29/2003	Co-60	-1.66E-03	7.60E-04	3.90E-03	
AP	7	L6810-03	12/29/2003	Cs-134	8.30E-04	5.80E-04	1.90E-03	
AP	7	L6810-03	12/29/2003	Cs-137	3.00E-05	5.40E-04	2.20E-03	

* Radioactivity detected in sample (i.e., concentration > 3 X standard deviation)
 + Minimum Detectable Concentration > Lower Limit of Detection Requirement

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Summary of 2003 Data

SAMPLE TYPE	STATION	LSN	END DATE	NUCLIDE	CONC (pCi/m3)	STD.DEV. (pCi/m3)	MDC (pCi/m3)	
AIR PARTICULATE								
AP	9	L4665-04	1/13/2003	GROSS BETA	1.46E-02	1.30E-03	3.50E-03	*
AP	9	L4750-04	1/27/2003	GROSS BETA	2.11E-02	1.20E-03	2.40E-03	*
AP	9	L4853-04	2/10/2003	GROSS BETA	2.60E-02	1.40E-03	2.70E-03	*
AP	9	L4936-04	2/24/2003	GROSS BETA	1.97E-02	1.40E-03	3.60E-03	*
AP	9	L5068-04	3/10/2003	GROSS BETA	2.82E-02	1.60E-03	3.40E-03	*
AP	9	L5133-04	3/24/2003	GROSS BETA	2.05E-02	1.50E-03	3.70E-03	*
AP	9	L5233-04	4/7/2003	GROSS BETA	1.64E-02	1.40E-03	3.40E-03	*
AP	9	L5324-04	4/21/2003	GROSS BETA	1.70E-02	1.10E-03	2.30E-03	*
AP	9	L5416-04	5/5/2003	GROSS BETA	1.47E-02	1.30E-03	3.20E-03	*
AP	9	L5479-04	5/19/2003	GROSS BETA	8.41E-03	8.50E-04	2.20E-03	*
AP	9	L5565-04	6/2/2003	GROSS BETA	8.40E-03	9.40E-04	2.60E-03	*
AP	9	L5656-04	6/16/2003	GROSS BETA	1.16E-02	1.30E-03	3.40E-03	*
AP	9	L5737-04	6/30/2003	GROSS BETA	1.96E-02	1.50E-03	3.50E-03	*
AP	9	L5793-04	7/14/2003	GROSS BETA	2.18E-02	1.50E-03	3.50E-03	*
AP	9	L5870-04	7/28/2003	GROSS BETA	2.23E-02	1.50E-03	3.50E-03	*
AP	9	L5958-04	8/11/2003	GROSS BETA	1.27E-02	1.30E-03	3.30E-03	*
AP	9	L6027-04	8/25/2003	GROSS BETA	2.24E-02	1.50E-03	3.30E-03	*
AP	9	L6121-04	9/8/2003	GROSS BETA	2.03E-02	1.10E-03	2.40E-03	*
AP	9	L6188-04	9/22/2003	GROSS BETA	2.12E-02	1.50E-03	3.40E-03	*
AP	9	L6277-04	10/6/2003	GROSS BETA	2.08E-02	1.40E-03	2.90E-03	*
AP	9	L6358-04	10/20/2003	GROSS BETA	2.99E-02	1.60E-03	3.10E-03	*
AP	9	L6450-04	11/3/2003	GROSS BETA	2.17E-02	1.60E-03	4.10E-03	*
AP	9	L6524-04	11/17/2003	GROSS BETA	2.47E-02	1.70E-03	3.90E-03	*
AP	9	L6654-04	12/15/2003	GROSS BETA	2.19E-02	2.10E-03	5.00E-03	
AP	9	L5295-04	3/24/2003	Be-7	8.90E-02	2.50E-02	6.80E-02	*
AP	9	L5295-04	3/24/2003	Co-58	-6.10E-04	8.80E-04	4.40E-03	
AP	9	L5295-04	3/24/2003	Co-60	4.20E-04	7.70E-04	3.00E-03	
AP	9	L5295-04	3/24/2003	Cs-134	-1.00E-04	5.00E-04	2.30E-03	
AP	9	L5295-04	3/24/2003	Cs-137	-4.30E-04	6.40E-04	2.70E-03	
AP	9	L5904-04	6/30/2003	Be-7	7.10E-02	2.20E-02	6.40E-02	*
AP	9	L5904-04	6/30/2003	Co-58	-5.00E-04	9.50E-04	4.40E-03	
AP	9	L5904-04	6/30/2003	Co-60	-3.00E-05	3.60E-04	1.80E-03	
AP	9	L5904-04	6/30/2003	Cs-134	-6.10E-04	4.80E-04	2.40E-03	
AP	9	L5904-04	6/30/2003	Cs-137	4.40E-04	6.30E-04	2.30E-03	
AP	9	L6321-04	10/6/2003	Be-7	9.60E-02	2.10E-02	4.80E-02	*
AP	9	L6321-04	10/6/2003	Co-58	-6.90E-04	4.90E-04	3.40E-03	
AP	9	L6321-04	10/6/2003	Co-60	1.36E-03	6.80E-04	9.20E-04	
AP	9	L6321-04	10/6/2003	Cs-134	6.30E-04	7.20E-04	2.70E-03	
AP	9	L6321-04	10/6/2003	Cs-137	-1.40E-04	6.60E-04	2.80E-03	
AP	9	L6810-04	12/15/2003	Be-7	7.00E-02	3.10E-02	9.40E-02	
AP	9	L6810-04	12/15/2003	Co-58	2.80E-03	2.30E-03	7.70E-03	
AP	9	L6810-04	12/15/2003	Co-60	4.10E-04	4.10E-04	1.10E-03	
AP	9	L6810-04	12/15/2003	Cs-134	-1.50E-03	1.10E-03	5.20E-03	
AP	9	L6810-04	12/15/2003	Cs-137	-2.19E-03	9.70E-04	4.70E-03	

* Radioactivity detected in sample (i.e., concentration > 3 X standard deviation)
 + Minimum Detectable Concentration > Lower Limit of Detection Requirement

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Summary of 2003 Data

SAMPLE TYPE	STATION	LSN	END DATE	NUCLIDE	CONC (pCi/m3)	STD.DEV. (pCi/m3)	MDC (pCi/m3)	
AIR PARTICULATE								
AP	13	L4665-05	1/13/2003	GROSS BETA	1.88E-02	1.30E-03	3.20E-03	*
AP	13	L4750-05	1/27/2003	GROSS BETA	2.37E-02	1.20E-03	2.20E-03	*
AP	13	L4853-05	2/10/2003	GROSS BETA	2.59E-02	1.30E-03	2.40E-03	*
AP	13	L4936-05	2/24/2003	GROSS BETA	1.76E-02	1.30E-03	3.30E-03	*
AP	13	L5068-05	3/10/2003	GROSS BETA	2.91E-02	1.40E-03	2.90E-03	*
AP	13	L5133-05	3/24/2003	GROSS BETA	2.00E-02	1.30E-03	3.00E-03	*
AP	13	L5233-05	4/7/2003	GROSS BETA	1.77E-02	1.30E-03	3.20E-03	*
AP	13	L5324-05	4/21/2003	GROSS BETA	2.41E-02	1.20E-03	2.20E-03	*
AP	13	L5416-05	5/5/2003	GROSS BETA	1.55E-02	1.10E-03	2.40E-03	*
AP	13	L5479-05	5/19/2003	GROSS BETA	9.36E-03	7.80E-04	1.90E-03	*
AP	13	L5565-05	6/2/2003	GROSS BETA	1.12E-02	1.00E-03	2.70E-03	*
AP	13	L5656-05	6/16/2003	GROSS BETA	1.42E-02	1.20E-03	2.90E-03	*
AP	13	L5737-05	6/30/2003	GROSS BETA	1.74E-02	1.30E-03	3.10E-03	*
AP	13	L5793-05	7/14/2003	GROSS BETA	1.92E-02	1.30E-03	3.00E-03	*
AP	13	L5870-05	7/28/2003	GROSS BETA	2.07E-02	1.30E-03	3.00E-03	*
AP	13	L5958-05	8/11/2003	GROSS BETA	1.04E-02	1.10E-03	2.90E-03	*
AP	13	L6027-05	8/25/2003	GROSS BETA	2.41E-02	1.30E-03	2.90E-03	*
AP	13	L6121-05	9/8/2003	GROSS BETA	3.61E-02	7.00E-03	2.10E-02	* +
AP	13	L6188-05	9/22/2003	GROSS BETA	2.25E-02	1.60E-03	3.70E-03	*
AP	13	L6277-05	10/6/2003	GROSS BETA	2.29E-02	1.40E-03	2.80E-03	*
AP	13	L6358-05	10/20/2003	GROSS BETA	2.81E-02	1.40E-03	2.60E-03	*
AP	13	L6450-05	11/3/2003	GROSS BETA	2.11E-02	1.50E-03	3.50E-03	*
AP	13	L6524-05	11/17/2003	GROSS BETA	2.22E-02	1.40E-03	3.30E-03	*
AP	13	L6654-05	12/15/2003	GROSS BETA	1.55E-02	1.10E-03	2.50E-03	*
AP	13	L6724-05	12/29/2003	GROSS BETA	2.08E-02	1.50E-03	3.80E-03	*
AP	13	L5295-05	3/24/2003	Be-7	7.00E-02	2.10E-02	6.10E-02	*
AP	13	L5295-05	3/24/2003	Co-58	-2.80E-04	5.60E-04	3.00E-03	
AP	13	L5295-05	3/24/2003	Co-60	-9.00E-05	6.00E-04	2.60E-03	
AP	13	L5295-05	3/24/2003	Cs-134	6.40E-04	5.80E-04	2.00E-03	
AP	13	L5295-05	3/24/2003	Cs-137	2.50E-04	5.60E-04	2.10E-03	
AP	13	L5904-05	6/30/2003	Be-7	6.20E-02	2.10E-02	6.00E-02	
AP	13	L5904-05	6/30/2003	Co-58	4.80E-04	9.10E-04	3.60E-03	
AP	13	L5904-05	6/30/2003	Co-60	8.30E-04	4.20E-04	5.60E-04	
AP	13	L5904-05	6/30/2003	Cs-134	-1.00E-04	3.40E-04	1.70E-03	
AP	13	L5904-05	6/30/2003	Cs-137	-3.90E-04	4.50E-04	2.00E-03	
AP	13	L6321-05	10/6/2003	Be-7	1.17E-01	2.00E-02	4.40E-02	*
AP	13	L6321-05	10/6/2003	Co-58	-8.80E-04	9.30E-04	4.30E-03	
AP	13	L6321-05	10/6/2003	Co-60	9.40E-04	7.30E-04	2.50E-03	
AP	13	L6321-05	10/6/2003	Cs-134	-2.20E-04	6.30E-04	2.70E-03	
AP	13	L6321-05	10/6/2003	Cs-137	7.10E-04	5.50E-04	1.90E-03	
AP	13	L6810-05	12/29/2003	Be-7	5.80E-02	1.80E-02	5.20E-02	*
AP	13	L6810-05	12/29/2003	Co-58	3.00E-04	1.20E-03	4.90E-03	
AP	13	L6810-05	12/29/2003	Co-60	-3.60E-04	6.30E-04	3.00E-03	
AP	13	L6810-05	12/29/2003	Cs-134	-1.17E-03	7.30E-04	3.50E-03	
AP	13	L6810-05	12/29/2003	Cs-137	7.50E-04	5.80E-04	2.00E-03	

* Radioactivity detected in sample (i.e., concentration > 3 X standard deviation)

+ Minimum Detectable Concentration > Lower Limit of Detection Requirement

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Summary of 2003 Data

SAMPLE TYPE	STATION	LSN	END DATE	NUCLIDE	CONC (pCi/kg)	STD.DEV. (pCi/kg)	MDC (pCi/kg)
FISH BONE							
FB	HA	L6445-02	10/28/2003	Sr-89	-1.23E+02	7.50E+01	2.70E+02
FB	HA	L6445-02	10/28/2003	Sr-90	-2.90E+01	7.70E+01	2.60E+02
FB	WI	L6445-01	10/21/2003	Sr-89	1.50E+02	1.30E+02	4.50E+02
FB	WI	L6445-01	10/21/2003	Sr-90	-2.00E+01	1.20E+02	3.90E+02

* Radioactivity detected in sample (i.e., concentration > 3 X standard deviation)
 + Minimum Detectable Concentration > Lower Limit of Detection Requirement

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Summary of 2003 Data

SAMPLE TYPE	STATION	LSN	END DATE	NUCLIDE	CONC (pCi/kg)	STD.DEV. (pCi/kg)	MDC (pCi/kg)
FISH FLESH							
FF	HA	L6445-02	10/28/2003	GROSS ALPHA	8.90E+01	6.50E+01	2.00E+02
FF	HA	L6445-02	10/28/2003	GROSS BETA	3.71E+03	8.60E+01	7.00E+01 *
FF	HA	L6445-02	10/28/2003	AcTh-228	-2.00E+00	1.10E+01	4.20E+01
FF	HA	L6445-02	10/28/2003	Ag-110m	1.70E+00	5.10E+00	1.90E+01
FF	HA	L6445-02	10/28/2003	Ba-140	8.70E+00	4.60E+00	1.30E+01
FF	HA	L6445-02	10/28/2003	Be-7	3.30E+01	3.10E+01	1.00E+02
FF	HA	L6445-02	10/28/2003	Ce-141	3.40E+00	5.80E+00	2.00E+01
FF	HA	L6445-02	10/28/2003	Ce-144	0.00E+00	1.70E+01	6.10E+01
FF	HA	L6445-02	10/28/2003	Co-57	-1.20E+00	2.20E+00	7.90E+00
FF	HA	L6445-02	10/28/2003	Co-58	1.20E+00	3.70E+00	1.40E+01
FF	HA	L6445-02	10/28/2003	Co-60	-7.00E+00	4.10E+00	1.80E+01
FF	HA	L6445-02	10/28/2003	Cs-134	3.20E+00	2.60E+00	8.90E+00
FF	HA	L6445-02	10/28/2003	Cs-137	1.38E+01	3.50E+00	8.50E+00 *
FF	HA	L6445-02	10/28/2003	Fe-59	9.00E+00	1.10E+01	3.70E+01
FF	HA	L6445-02	10/28/2003	H-3	1.00E+02	6.20E+02	1.80E+03
FF	HA	L6445-02	10/28/2003	I-131	1.00E+01	1.00E+01	3.40E+01
FF	HA	L6445-02	10/28/2003	K-40	2.75E+03	1.60E+02	1.90E+02 *
FF	HA	L6445-02	10/28/2003	La-140	1.00E+01	5.30E+00	1.50E+01
FF	HA	L6445-02	10/28/2003	Mn-54	3.40E+00	3.60E+00	1.20E+01
FF	HA	L6445-02	10/28/2003	Nb-95	-3.40E+00	3.70E+00	1.50E+01
FF	HA	L6445-02	10/28/2003	Ru-103	-1.60E+00	3.50E+00	1.30E+01
FF	HA	L6445-02	10/28/2003	Ru-106	-3.80E+01	2.90E+01	1.20E+02
FF	HA	L6445-02	10/28/2003	Sb-124	2.30E+00	5.00E+00	2.10E+01
FF	HA	L6445-02	10/28/2003	Zn-65	-1.23E+01	9.30E+00	3.70E+01
FF	HA	L6445-02	10/28/2003	Zr-95	-1.29E+01	6.50E+00	2.70E+01
FF	WI	L6445-01	10/21/2003	GROSS ALPHA	-7.30E+01	3.40E+01	1.40E+02
FF	WI	L6445-01	10/21/2003	GROSS BETA	2.97E+03	6.50E+01	5.30E+01 *
FF	WI	L6445-01	10/21/2003	AcTh-228	-7.00E+00	1.50E+01	5.70E+01
FF	WI	L6445-01	10/21/2003	Ag-110m	4.20E+00	4.80E+00	1.70E+01
FF	WI	L6445-01	10/21/2003	Ba-140	-2.50E+00	8.30E+00	3.50E+01
FF	WI	L6445-01	10/21/2003	Be-7	-3.50E+01	3.10E+01	1.20E+02
FF	WI	L6445-01	10/21/2003	Ce-141	6.20E+00	7.30E+00	2.50E+01
FF	WI	L6445-01	10/21/2003	Ce-144	-8.00E+00	1.90E+01	6.90E+01
FF	WI	L6445-01	10/21/2003	Co-57	-1.00E-01	2.40E+00	8.60E+00
FF	WI	L6445-01	10/21/2003	Co-58	-1.30E+00	3.50E+00	1.40E+01
FF	WI	L6445-01	10/21/2003	Co-60	1.50E+00	3.20E+00	1.20E+01
FF	WI	L6445-01	10/21/2003	Cs-134	1.90E+00	3.50E+00	1.30E+01
FF	WI	L6445-01	10/21/2003	Cs-137	4.80E+00	3.70E+00	1.30E+01
FF	WI	L6445-01	10/21/2003	Fe-59	-1.70E+01	1.20E+01	5.10E+01
FF	WI	L6445-01	10/21/2003	H-3	-2.50E+02	6.30E+02	1.90E+03
FF	WI	L6445-01	10/21/2003	I-131	4.00E+00	1.70E+01	6.10E+01
FF	WI	L6445-01	10/21/2003	K-40	2.53E+03	1.50E+02	1.60E+02 *
FF	WI	L6445-01	10/21/2003	La-140	-2.90E+00	9.50E+00	4.00E+01
FF	WI	L6445-01	10/21/2003	Mn-54	-2.30E+00	3.20E+00	1.30E+01
FF	WI	L6445-01	10/21/2003	Nb-95	-4.60E+00	4.50E+00	1.80E+01
FF	WI	L6445-01	10/21/2003	Ru-103	2.60E+00	4.00E+00	1.40E+01
FF	WI	L6445-01	10/21/2003	Ru-106	-2.00E+00	2.70E+01	1.00E+02
FF	WI	L6445-01	10/21/2003	Sb-124	2.40E+00	8.00E+00	3.20E+01
FF	WI	L6445-01	10/21/2003	Zn-65	2.30E+01	1.70E+01	5.70E+01
FF	0	L6445-01	10/21/2003	Zr-95	1.10E+00	6.00E+00	2.20E+01

* Radioactivity detected in sample (i.e., concentration > 3 X standard deviation)
 + Minimum Detectable Concentration > Lower Limit of Detection Requirement

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Summary of 2003 Data

SAMPLE TYPE	STATION	LSN	END DATE	NUCLIDE	CONC (pCi/kg)	STD.DEV. (pCi/kg)	MDC (pCi/kg)
FISH							
FH	26	L5640-04	6/9/2003	Ag-110m	-7.00E+00	1.50E+01	6.10E+01
FH	26	L5640-04	6/9/2003	Ba-140	-1.60E+01	2.80E+01	1.20E+02
FH	26	L5640-04	6/9/2003	Be-7	-3.30E+01	8.40E+01	3.30E+02
FH	26	L5640-04	6/9/2003	Ce-141	-1.30E+01	1.50E+01	5.60E+01
FH	26	L5640-04	6/9/2003	Ce-144	-6.10E+01	4.70E+01	1.80E+02
FH	26	L5640-04	6/9/2003	Co-57	1.42E+01	6.50E+00	2.10E+01
FH	26	L5640-04	6/9/2003	Co-58	6.00E+00	1.10E+01	4.00E+01
FH	26	L5640-04	6/9/2003	Co-60	-2.00E+00	1.10E+01	4.60E+01
FH	26	L5640-04	6/9/2003	Cs-134	1.00E+00	1.20E+01	4.60E+01
FH	26	L5640-04	6/9/2003	Cs-137	-1.10E+01	1.10E+01	4.70E+01
FH	26	L5640-04	6/9/2003	Fe-59	0.00E+00	2.60E+01	1.00E+02
FH	26	L5640-04	6/9/2003	I-131	-4.20E+01	2.90E+01	1.20E+02
FH	26	L5640-04	6/9/2003	K-40	3.43E+03	3.70E+02	5.10E+02 *
FH	26	L5640-04	6/9/2003	Mn-54	2.10E+00	8.50E+00	3.30E+01
FH	26	L5640-04	6/9/2003	Ru-103	-1.90E+01	1.00E+01	4.50E+01
FH	26	L5640-04	6/9/2003	Ru-106	-9.10E+01	9.00E+01	3.80E+02
FH	26	L5640-04	6/9/2003	Sb-124	-5.20E+01	2.30E+01	1.40E+02
FH	26	L5640-04	6/9/2003	Zn-65	1.20E+01	2.60E+01	9.80E+01
FH	26	L5640-04	6/9/2003	Zr-95	1.00E+00	1.80E+01	7.20E+01
FH	26	L5640-01	6/11/2003	Ag-110m	1.10E+01	1.10E+01	3.90E+01
FH	26	L5640-01	6/11/2003	Ba-140	2.00E+01	1.20E+01	3.80E+01
FH	26	L5640-01	6/11/2003	Be-7	3.30E+01	7.90E+01	2.80E+02
FH	26	L5640-01	6/11/2003	Ce-141	-1.10E+01	1.40E+01	5.00E+01
FH	26	L5640-01	6/11/2003	Ce-144	7.20E+01	4.70E+01	1.50E+02
FH	26	L5640-01	6/11/2003	Co-57	6.90E+00	6.10E+00	2.00E+01
FH	26	L5640-01	6/11/2003	Co-58	-6.50E+00	9.10E+00	3.60E+01
FH	26	L5640-01	6/11/2003	Co-60	2.10E+00	6.90E+00	2.70E+01
FH	26	L5640-01	6/11/2003	Cs-134	2.01E+01	9.20E+00	2.80E+01
FH	26	L5640-01	6/11/2003	Cs-137	7.40E+00	9.80E+00	3.40E+01
FH	26	L5640-01	6/11/2003	Fe-59	2.50E+01	2.20E+01	7.40E+01
FH	26	L5640-01	6/11/2003	I-131	3.50E+01	2.00E+01	6.50E+01
FH	26	L5640-01	6/11/2003	K-40	2.02E+03	2.30E+02	4.00E+02 *
FH	26	L5640-01	6/11/2003	Mn-54	1.50E+00	8.40E+00	3.10E+01
FH	26	L5640-01	6/11/2003	Ru-103	-4.00E+00	1.00E+01	3.80E+01
FH	26	L5640-01	6/11/2003	Ru-106	-8.00E+00	9.10E+01	3.30E+02
FH	26	L5640-01	6/11/2003	Sb-124	6.00E+00	2.10E+01	8.10E+01
FH	26	L5640-01	6/11/2003	Zn-65	3.50E+01	2.30E+01	7.80E+01
FH	26	L5640-01	6/11/2003	Zr-95	0.00E+00	1.60E+01	6.00E+01

* Radioactivity detected in sample (i.e., concentration > 3 X standard deviation)
+ Minimum Detectable Concentration > Lower Limit of Detection Requirement

Connecticut Yankee

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Summary of 2003 Data

SAMPLE TYPE	STATION	LSN	END DATE	NUCLIDE	CONC (pCi/kg)	STD.DEV. (pCi/kg)	MDC (pCi/kg)
FISH							
FH	26	L6182-03	9/16/2003	Ag-110m	-7.00E+00	1.40E+01	5.90E+01
FH	26	L6182-03	9/16/2003	Ba-140	-3.50E+01	3.50E+01	1.90E+02
FH	26	L6182-03	9/16/2003	Be-7	-6.00E+01	1.00E+02	4.00E+02
FH	26	L6182-03	9/16/2003	Ce-141	-1.60E+01	2.00E+01	7.30E+01
FH	26	L6182-03	9/16/2003	Ce-144	2.70E+01	5.10E+01	1.80E+02
FH	26	L6182-03	9/16/2003	Co-57	-1.70E+00	6.40E+00	2.30E+01
FH	26	L6182-03	9/16/2003	Co-58	-2.30E+01	1.40E+01	6.00E+01
FH	26	L6182-03	9/16/2003	Co-60	-3.00E+00	1.30E+01	5.20E+01
FH	26	L6182-03	9/16/2003	Cs-134	-1.50E+01	1.20E+01	5.20E+01
FH	26	L6182-03	9/16/2003	Cs-137	9.00E+00	1.20E+01	4.10E+01
FH	26	L6182-03	9/16/2003	Fe-59	3.90E+01	5.00E+01	1.80E+02
FH	26	L6182-03	9/16/2003	I-131	-7.00E+01	1.20E+02	4.50E+02
FH	26	L6182-03	9/16/2003	K-40	2.22E+03	3.10E+02	5.20E+02 *
FH	26	L6182-03	9/16/2003	Mn-54	3.00E+00	1.10E+01	4.00E+01
FH	26	L6182-03	9/16/2003	Ru-103	2.10E+01	1.50E+01	5.00E+01
FH	26	L6182-03	9/16/2003	Ru-106	-1.80E+02	1.10E+02	4.60E+02
FH	26	L6182-03	9/16/2003	Sb-124	3.60E+01	3.60E+01	1.30E+02
FH	26	L6182-03	9/16/2003	Zn-65	-6.20E+01	3.20E+01	1.40E+02
FH	26	L6182-03	9/16/2003	Zr-95	-1.20E+01	2.20E+01	8.90E+01
FH	26	L6182-06	9/16/2003	Ag-110m	-4.50E+01	2.50E+01	1.10E+02
FH	26	L6182-06	9/16/2003	Ba-140	4.70E+01	5.80E+01	2.20E+02
FH	26	L6182-06	9/16/2003	Be-7	-2.60E+02	1.60E+02	6.70E+02
FH	26	L6182-06	9/16/2003	Ce-141	2.00E+00	2.60E+01	9.50E+01
FH	26	L6182-06	9/16/2003	Ce-144	-9.00E+00	6.90E+01	2.50E+02
FH	26	L6182-06	9/16/2003	Co-57	3.00E-01	8.60E+00	3.10E+01
FH	26	L6182-06	9/16/2003	Co-58	2.10E+01	1.80E+01	6.10E+01
FH	26	L6182-06	9/16/2003	Co-60	-6.00E+00	1.10E+01	5.40E+01
FH	26	L6182-06	9/16/2003	Cs-134	1.10E+01	1.50E+01	5.40E+01
FH	26	L6182-06	9/16/2003	Cs-137	3.10E+01	1.60E+01	4.80E+01
FH	26	L6182-06	9/16/2003	Fe-59	-1.40E+01	6.50E+01	2.70E+02
FH	26	L6182-06	9/16/2003	I-131	1.00E+02	1.50E+02	5.30E+02
FH	26	L6182-06	9/16/2003	K-40	2.18E+03	3.70E+02	7.50E+02 *
FH	26	L6182-06	9/16/2003	Mn-54	0.00E+00	1.50E+01	5.90E+01
FH	26	L6182-06	9/16/2003	Ru-103	0.00E+00	1.90E+01	7.40E+01
FH	26	L6182-06	9/16/2003	Ru-106	-4.00E+01	1.30E+02	5.20E+02
FH	26	L6182-06	9/16/2003	Sb-124	-1.60E+01	2.80E+01	1.50E+02
FH	26	L6182-06	9/16/2003	Zn-65	0.00E+00	3.00E+01	1.20E+02
FH	26	L6182-06	9/16/2003	Zr-95	1.30E+01	2.50E+01	9.50E+01

* Radioactivity detected in sample (i.e., concentration > 3 X standard deviation)
+ Minimum Detectable Concentration > Lower Limit of Detection Requirement

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Summary of 2003 Data

SAMPLE TYPE	STATION	LSN	END DATE	NUCLIDE	CONC (pCi/kg)	STD.DEV. (pCi/kg)	MDC (pCi/kg)
FISH							
FH	26	L6183-03	9/16/2003	Ag-110m	0.00E+00	1.80E+01	7.20E+01
FH	26	L6183-03	9/16/2003	Ba-140	-2.40E+01	7.30E+01	3.20E+02
FH	26	L6183-03	9/16/2003	Be-7	-3.20E+02	1.50E+02	6.60E+02
FH	26	L6183-03	9/16/2003	Ce-141	-5.50E+01	2.60E+01	1.10E+02
FH	26	L6183-03	9/16/2003	Ce-144	-7.20E+01	6.20E+01	2.40E+02
FH	26	L6183-03	9/16/2003	Co-57	1.59E+01	9.10E+00	3.00E+01
FH	26	L6183-03	9/16/2003	Co-58	2.40E+01	1.60E+01	5.20E+01
FH	26	L6183-03	9/16/2003	Co-60	-3.40E+01	1.70E+01	8.30E+01
FH	26	L6183-03	9/16/2003	Cs-134	-1.10E+01	1.30E+01	5.80E+01
FH	26	L6183-03	9/16/2003	Cs-137	2.40E+01	1.20E+01	3.80E+01
FH	26	L6183-03	9/16/2003	Fe-59	-8.00E+00	5.10E+01	2.20E+02
FH	26	L6183-03	9/16/2003	I-131	2.00E+02	1.30E+02	4.30E+02
FH	26	L6183-03	9/16/2003	K-40	1.26E+03	3.00E+02	6.70E+02 *
FH	26	L6183-03	9/16/2003	Mn-54	2.80E+01	1.40E+01	4.20E+01
FH	26	L6183-03	9/16/2003	Ru-103	4.00E+00	1.90E+01	7.10E+01
FH	26	L6183-03	9/16/2003	Ru-106	1.00E+02	1.40E+02	5.10E+02
FH	26	L6183-03	9/16/2003	Sb-124	-1.70E+01	4.40E+01	2.00E+02
FH	26	L6183-03	9/16/2003	Zn-65	-1.80E+01	4.00E+01	1.60E+02
FH	26	L6183-03	9/16/2003	Zr-95	-1.40E+01	2.70E+01	1.20E+02
FH	26	L6183-06	9/16/2003	Ag-110m	7.00E+00	1.50E+01	5.40E+01
FH	26	L6183-06	9/16/2003	Ba-140	0.00E+00	3.90E+01	1.60E+02
FH	26	L6183-06	9/16/2003	Be-7	1.40E+01	8.50E+01	3.10E+02
FH	26	L6183-06	9/16/2003	Ce-141	-7.00E+00	1.70E+01	6.00E+01
FH	26	L6183-06	9/16/2003	Ce-144	1.50E+01	4.00E+01	1.40E+02
FH	26	L6183-06	9/16/2003	Co-57	-3.30E+00	5.30E+00	1.90E+01
FH	26	L6183-06	9/16/2003	Co-58	9.00E+00	1.20E+01	4.10E+01
FH	26	L6183-06	9/16/2003	Co-60	8.20E+00	9.50E+00	3.40E+01
FH	26	L6183-06	9/16/2003	Cs-134	0.00E+00	9.40E+00	3.60E+01
FH	26	L6183-06	9/16/2003	Cs-137	-8.00E+00	1.00E+01	4.00E+01
FH	26	L6183-06	9/16/2003	Fe-59	7.00E+00	4.00E+01	1.50E+02
FH	26	L6183-06	9/16/2003	I-131	7.00E+01	9.20E+01	3.20E+02
FH	26	L6183-06	9/16/2003	K-40	9.20E+02	2.00E+02	4.90E+02 *
FH	26	L6183-06	9/16/2003	Mn-54	-2.03E+01	8.80E+00	3.90E+01
FH	26	L6183-06	9/16/2003	Ru-103	6.00E+00	1.10E+01	4.10E+01
FH	26	L6183-06	9/16/2003	Ru-106	9.00E+00	7.30E+01	2.70E+02
FH	26	L6183-06	9/16/2003	Sb-124	-3.40E+01	2.70E+01	1.30E+02
FH	26	L6183-06	9/16/2003	Zn-65	-4.40E+01	2.10E+01	9.60E+01
FH	26	L6183-06	9/16/2003	Zr-95	2.40E+01	1.90E+01	6.30E+01

* Radioactivity detected in sample (i.e., concentration > 3 X standard deviation)
 + Minimum Detectable Concentration > Lower Limit of Detection Requirement

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Summary of 2003 Data

SAMPLE TYPE	STATION	LSN	END DATE	NUCLIDE	CONC (pCi/kg)	STD.DEV. (pCi/kg)	MDC (pCi/kg)
FISH							
FH	29	L5640-02	6/11/2003	Ag-110m	-1.70E+01	1.20E+01	4.90E+01
FH	29	L5640-02	6/11/2003	Ba-140	2.60E+01	1.60E+01	5.00E+01
FH	29	L5640-02	6/11/2003	Be-7	-1.04E+02	8.40E+01	3.30E+02
FH	29	L5640-02	6/11/2003	Ce-141	9.00E+00	1.40E+01	4.80E+01
FH	29	L5640-02	6/11/2003	Ce-144	7.70E+01	4.00E+01	1.30E+02
FH	29	L5640-02	6/11/2003	Co-57	-4.30E+00	6.10E+00	2.20E+01
FH	29	L5640-02	6/11/2003	Co-58	-4.70E+00	7.50E+00	3.00E+01
FH	29	L5640-02	6/11/2003	Co-60	-8.00E+00	9.00E+00	3.80E+01
FH	29	L5640-02	6/11/2003	Cs-134	0.00E+00	9.10E+00	3.40E+01
FH	29	L5640-02	6/11/2003	Cs-137	3.80E+01	1.30E+01	4.10E+01
FH	29	L5640-02	6/11/2003	Fe-59	-1.70E+01	1.90E+01	7.70E+01
FH	29	L5640-02	6/11/2003	I-131	-1.30E+01	2.40E+01	8.80E+01
FH	29	L5640-02	6/11/2003	K-40	3.40E+03	2.80E+02	3.70E+02 *
FH	29	L5640-02	6/11/2003	Mn-54	1.16E+01	9.10E+00	3.10E+01
FH	29	L5640-02	6/11/2003	Ru-103	-2.00E-01	9.40E+00	3.50E+01
FH	29	L5640-02	6/11/2003	Ru-106	8.30E+01	6.30E+01	2.10E+02
FH	29	L5640-02	6/11/2003	Sb-124	-8.00E+00	1.60E+01	7.10E+01
FH	29	L5640-02	6/11/2003	Zn-65	-1.50E+01	2.20E+01	8.60E+01
FH	29	L5640-02	6/11/2003	Zr-95	-1.90E+01	1.60E+01	6.60E+01
FH	29	L5640-05	6/11/2003	Ag-110m	-1.60E+01	1.30E+01	5.30E+01
FH	29	L5640-05	6/11/2003	Ba-140	-4.00E+00	1.50E+01	6.30E+01
FH	29	L5640-05	6/11/2003	Be-7	7.80E+01	7.80E+01	2.70E+02
FH	29	L5640-05	6/11/2003	Ce-141	-4.10E+01	1.60E+01	6.30E+01
FH	29	L5640-05	6/11/2003	Ce-144	7.00E+00	5.30E+01	1.90E+02
FH	29	L5640-05	6/11/2003	Co-57	4.10E+00	6.10E+00	2.10E+01
FH	29	L5640-05	6/11/2003	Co-58	0.00E+00	1.10E+01	3.90E+01
FH	29	L5640-05	6/11/2003	Co-60	-9.00E+00	1.30E+01	5.10E+01
FH	29	L5640-05	6/11/2003	Cs-134	-1.40E+01	1.10E+01	4.50E+01
FH	29	L5640-05	6/11/2003	Cs-137	4.00E+00	1.10E+01	3.90E+01
FH	29	L5640-05	6/11/2003	Fe-59	4.30E+01	2.20E+01	6.70E+01
FH	29	L5640-05	6/11/2003	I-131	-6.00E+00	2.50E+01	9.10E+01
FH	29	L5640-05	6/11/2003	K-40	2.88E+03	2.70E+02	4.00E+02 *
FH	29	L5640-05	6/11/2003	Mn-54	-1.39E+01	9.10E+00	3.80E+01
FH	29	L5640-05	6/11/2003	Ru-103	-9.00E+00	1.10E+01	4.20E+01
FH	29	L5640-05	6/11/2003	Ru-106	-1.20E+02	8.40E+01	3.40E+02
FH	29	L5640-05	6/11/2003	Sb-124	3.00E+01	2.40E+01	8.40E+01
FH	29	L5640-05	6/11/2003	Zn-65	4.20E+01	4.10E+01	1.40E+02
FH	29	L5640-05	6/11/2003	Zr-95	-9.00E+00	1.60E+01	6.30E+01

* Radioactivity detected in sample (i.e., concentration > 3 X standard deviation)

+ Minimum Detectable Concentration > Lower Limit of Detection Requirement

Connecticut Yankee

Radiological Environmental Monitoring Program

Summary of 2003 Data

SAMPLE TYPE	STATION	LSN	END DATE	NUCLIDE	CONC (pCi/kg)	STD.DEV. (pCi/kg)	MDC (pCi/kg)
FISH							
FH	29	L6182-02	9/16/2003	Ag-110m	-3.00E+00	1.40E+01	5.50E+01
FH	29	L6182-02	9/16/2003	Ba-140	-3.50E+01	5.50E+01	2.40E+02
FH	29	L6182-02	9/16/2003	Be-7	-6.00E+01	1.10E+02	4.20E+02
FH	29	L6182-02	9/16/2003	Ce-141	2.00E+00	1.80E+01	6.40E+01
FH	29	L6182-02	9/16/2003	Ce-144	-6.50E+01	3.90E+01	1.60E+02
FH	29	L6182-02	9/16/2003	Co-57	-6.10E+00	4.40E+00	1.80E+01
FH	29	L6182-02	9/16/2003	Co-58	2.40E+01	1.20E+01	3.70E+01
FH	29	L6182-02	9/16/2003	Co-60	2.00E+00	1.10E+01	4.30E+01
FH	29	L6182-02	9/16/2003	Cs-134	8.00E+00	1.10E+01	3.90E+01
FH	29	L6182-02	9/16/2003	Cs-137	2.30E+01	1.20E+01	3.90E+01
FH	29	L6182-02	9/16/2003	Fe-59	6.60E+01	4.20E+01	1.40E+02
FH	29	L6182-02	9/16/2003	I-131	2.40E+01	9.20E+01	3.40E+02
FH	29	L6182-02	9/16/2003	K-40	1.77E+03	3.00E+02	6.40E+02 *
FH	29	L6182-02	9/16/2003	Mn-54	-3.00E+00	1.10E+01	4.30E+01
FH	29	L6182-02	9/16/2003	Ru-103	-5.00E+00	1.40E+01	5.50E+01
FH	29	L6182-02	9/16/2003	Ru-106	0.00E+00	8.10E+01	3.10E+02
FH	29	L6182-02	9/16/2003	Sb-124	2.40E+01	1.70E+01	3.20E+01
FH	29	L6182-02	9/16/2003	Zn-65	3.00E+01	2.80E+01	9.60E+01
FH	29	L6182-02	9/16/2003	Zr-95	-2.60E+01	2.60E+01	1.10E+02
FH	29	L6182-05	9/16/2003	Ag-110m	-8.00E+00	1.20E+01	4.70E+01
FH	29	L6182-05	9/16/2003	Ba-140	-3.70E+01	3.80E+01	1.70E+02
FH	29	L6182-05	9/16/2003	Be-7	-1.90E+02	1.10E+02	4.20E+02
FH	29	L6182-05	9/16/2003	Ce-141	3.00E+00	1.90E+01	6.70E+01
FH	29	L6182-05	9/16/2003	Ce-144	5.60E+01	4.70E+01	1.60E+02
FH	29	L6182-05	9/16/2003	Co-57	1.60E+00	5.60E+00	2.00E+01
FH	29	L6182-05	9/16/2003	Co-58	4.00E+00	1.00E+01	3.80E+01
FH	29	L6182-05	9/16/2003	Co-60	-5.90E+00	7.60E+00	3.30E+01
FH	29	L6182-05	9/16/2003	Cs-134	2.21E+01	8.10E+00	2.20E+01
FH	29	L6182-05	9/16/2003	Cs-137	4.50E+01	1.20E+01	3.50E+01 *
FH	29	L6182-05	9/16/2003	Fe-59	-3.40E+01	3.00E+01	1.30E+02
FH	29	L6182-05	9/16/2003	I-131	-3.00E+01	1.10E+02	4.00E+02
FH	29	L6182-05	9/16/2003	K-40	2.23E+03	2.40E+02	4.70E+02 *
FH	29	L6182-05	9/16/2003	Mn-54	-1.02E+01	9.80E+00	3.80E+01
FH	29	L6182-05	9/16/2003	Ru-103	3.00E+00	1.10E+01	4.00E+01
FH	29	L6182-05	9/16/2003	Ru-106	2.48E+02	9.20E+01	2.80E+02
FH	29	L6182-05	9/16/2003	Sb-124	3.10E+01	2.20E+01	7.50E+01
FH	29	L6182-05	9/16/2003	Zn-65	-3.60E+01	2.40E+01	9.80E+01
FH	29	L6182-05	9/16/2003	Zr-95	1.90E+01	1.80E+01	6.10E+01

* Radioactivity detected in sample (i.e., concentration > 3 X standard deviation)
 + Minimum Detectable Concentration > Lower Limit of Detection Requirement

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Summary of 2003 Data

SAMPLE TYPE	STATION	LSN	END DATE	NUCLIDE	CONC (pCi/kg)	STD.DEV. (pCi/kg)	MDC (pCi/kg)
FISH							
FH	29	L6183-02	9/16/2003	Ag-110m	1.50E+01	1.50E+01	5.30E+01
FH	29	L6183-02	9/16/2003	Ba-140	3.20E+01	4.40E+01	1.70E+02
FH	29	L6183-02	9/16/2003	Be-7	-2.00E+01	1.20E+02	4.70E+02
FH	29	L6183-02	9/16/2003	Ce-141	-2.60E+01	2.80E+01	1.10E+02
FH	29	L6183-02	9/16/2003	Ce-144	-1.50E+01	6.70E+01	2.40E+02
FH	29	L6183-02	9/16/2003	Co-57	-7.30E+00	8.40E+00	3.20E+01
FH	29	L6183-02	9/16/2003	Co-58	6.00E+00	1.40E+01	5.30E+01
FH	29	L6183-02	9/16/2003	Co-60	-7.00E+00	1.10E+01	4.90E+01
FH	29	L6183-02	9/16/2003	Cs-134	2.30E+01	1.20E+01	3.70E+01
FH	29	L6183-02	9/16/2003	Cs-137	-7.00E+00	1.50E+01	5.60E+01
FH	29	L6183-02	9/16/2003	Fe-59	4.90E+01	4.90E+01	1.70E+02
FH	29	L6183-02	9/16/2003	I-131	-6.00E+01	1.50E+02	5.70E+02
FH	29	L6183-02	9/16/2003	K-40	2.33E+03	3.40E+02	6.90E+02 *
FH	29	L6183-02	9/16/2003	Mn-54	-8.00E+00	1.10E+01	4.70E+01
FH	29	L6183-02	9/16/2003	Ru-103	-1.00E+00	1.50E+01	5.70E+01
FH	29	L6183-02	9/16/2003	Ru-106	-1.30E+02	1.10E+02	4.60E+02
FH	29	L6183-02	9/16/2003	Sb-124	-4.30E+01	4.10E+01	1.90E+02
FH	29	L6183-02	9/16/2003	Zn-65	-6.20E+01	3.00E+01	1.40E+02
FH	29	L6183-02	9/16/2003	Zr-95	-1.10E+01	2.60E+01	1.10E+02
FH	29	L6183-05	9/16/2003	Ag-110m	2.10E+01	1.20E+01	3.90E+01
FH	29	L6183-05	9/16/2003	Ba-140	1.00E+01	3.90E+01	1.50E+02
FH	29	L6183-05	9/16/2003	Be-7	1.20E+01	9.00E+01	3.30E+02
FH	29	L6183-05	9/16/2003	Ce-141	-5.00E+00	1.70E+01	6.20E+01
FH	29	L6183-05	9/16/2003	Ce-144	-6.00E+01	4.40E+01	1.60E+02
FH	29	L6183-05	9/16/2003	Co-57	6.10E+00	5.50E+00	1.80E+01
FH	29	L6183-05	9/16/2003	Co-58	-5.00E+00	1.10E+01	4.10E+01
FH	29	L6183-05	9/16/2003	Co-60	0.00E+00	8.60E+00	3.40E+01
FH	29	L6183-05	9/16/2003	Cs-134	5.00E+00	6.80E+00	2.50E+01
FH	29	L6183-05	9/16/2003	Cs-137	-6.70E+00	9.90E+00	3.80E+01
FH	29	L6183-05	9/16/2003	Fe-59	5.00E+00	3.40E+01	1.30E+02
FH	29	L6183-05	9/16/2003	I-131	-5.30E+01	9.40E+01	3.50E+02
FH	29	L6183-05	9/16/2003	K-40	1.79E+03	2.20E+02	4.10E+02 *
FH	29	L6183-05	9/16/2003	Mn-54	-4.30E+00	8.40E+00	3.30E+01
FH	29	L6183-05	9/16/2003	Ru-103	-1.80E+01	1.20E+01	4.70E+01
FH	29	L6183-05	9/16/2003	Ru-106	-1.50E+01	9.10E+01	3.30E+02
FH	29	L6183-05	9/16/2003	Sb-124	2.70E+01	2.30E+01	8.10E+01
FH	29	L6183-05	9/16/2003	Zn-65	7.00E+00	2.00E+01	7.30E+01
FH	29	L6183-05	9/16/2003	Zr-95	-2.30E+01	1.60E+01	6.70E+01

* Radioactivity detected in sample (i.e., concentration > 3 X standard deviation)
 + Minimum Detectable Concentration > Lower Limit of Detection Requirement

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Summary of 2003 Data

SAMPLE TYPE	STATION	LSN	END DATE	NUCLIDE	CONC (pCi/kg)	STD.DEV. (pCi/kg)	MDC (pCi/kg)
FISH							
FH	30	L5640-06	6/10/2003	Ag-110m	-1.01E+01	9.70E+00	4.10E+01
FH	30	L5640-06	6/10/2003	Ba-140	-1.50E+01	1.40E+01	6.50E+01
FH	30	L5640-06	6/10/2003	Be-7	-8.20E+01	7.40E+01	2.90E+02
FH	30	L5640-06	6/10/2003	Ce-141	0.00E+00	1.30E+01	4.60E+01
FH	30	L5640-06	6/10/2003	Ce-144	-8.00E+00	4.40E+01	1.60E+02
FH	30	L5640-06	6/10/2003	Co-57	-3.70E+00	5.80E+00	2.10E+01
FH	30	L5640-06	6/10/2003	Co-58	-1.21E+01	8.30E+00	3.50E+01
FH	30	L5640-06	6/10/2003	Co-60	-2.10E+01	1.00E+01	4.40E+01
FH	30	L5640-06	6/10/2003	Cs-134	3.10E+00	7.90E+00	2.90E+01
FH	30	L5640-06	6/10/2003	Cs-137	1.15E+01	8.40E+00	2.80E+01
FH	30	L5640-06	6/10/2003	Fe-59	9.00E+00	2.00E+01	7.30E+01
FH	30	L5640-06	6/10/2003	I-131	-3.30E+01	2.20E+01	8.70E+01
FH	30	L5640-06	6/10/2003	K-40	2.79E+03	2.60E+02	4.30E+02 *
FH	30	L5640-06	6/10/2003	Mn-54	5.60E+00	7.10E+00	2.50E+01
FH	30	L5640-06	6/10/2003	Ru-103	-6.00E+00	9.50E+00	3.60E+01
FH	30	L5640-06	6/10/2003	Ru-106	4.60E+01	7.60E+01	2.70E+02
FH	30	L5640-06	6/10/2003	Sb-124	2.50E+01	2.00E+01	6.90E+01
FH	30	L5640-06	6/10/2003	Zn-65	-2.10E+01	2.00E+01	8.10E+01
FH	30	L5640-06	6/10/2003	Zr-95	-3.00E+00	1.40E+01	5.30E+01
FH	30	L5640-03	6/11/2003	Ag-110m	-1.20E+01	1.70E+01	6.60E+01
FH	30	L5640-03	6/11/2003	Ba-140	-1.80E+01	2.00E+01	9.10E+01
FH	30	L5640-03	6/11/2003	Be-7	-7.30E+01	8.10E+01	3.30E+02
FH	30	L5640-03	6/11/2003	Ce-141	-8.00E+00	1.50E+01	5.60E+01
FH	30	L5640-03	6/11/2003	Ce-144	-1.60E+01	5.30E+01	1.90E+02
FH	30	L5640-03	6/11/2003	Co-57	-2.00E+00	6.30E+00	2.30E+01
FH	30	L5640-03	6/11/2003	Co-58	9.50E+00	9.90E+00	3.50E+01
FH	30	L5640-03	6/11/2003	Co-60	7.00E+00	1.10E+01	4.20E+01
FH	30	L5640-03	6/11/2003	Cs-134	1.10E+01	1.20E+01	4.00E+01
FH	30	L5640-03	6/11/2003	Cs-137	-5.00E+00	1.40E+01	5.30E+01
FH	30	L5640-03	6/11/2003	Fe-59	-1.60E+01	2.50E+01	1.00E+02
FH	30	L5640-03	6/11/2003	I-131	-1.10E+01	2.60E+01	9.80E+01
FH	30	L5640-03	6/11/2003	K-40	3.03E+03	3.30E+02	5.40E+02 *
FH	30	L5640-03	6/11/2003	Mn-54	0.00E+00	1.20E+01	4.40E+01
FH	30	L5640-03	6/11/2003	Ru-103	2.00E+01	1.10E+01	3.50E+01
FH	30	L5640-03	6/11/2003	Ru-106	1.36E+02	7.60E+01	2.40E+02
FH	30	L5640-03	6/11/2003	Sb-124	-3.40E+01	2.40E+01	1.20E+02
FH	30	L5640-03	6/11/2003	Zn-65	-5.00E+00	2.30E+01	9.10E+01
FH	30	L5640-03	6/11/2003	Zr-95	3.50E+01	1.90E+01	5.90E+01

* Radioactivity detected in sample (i.e., concentration > 3 X standard deviation)
+ Minimum Detectable Concentration > Lower Limit of Detection Requirement

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Summary of 2003 Data

SAMPLE TYPE	STATION	LSN	END DATE	NUCLIDE	CONC (pCi/kg)	STD.DEV. (pCi/kg)	MDC (pCi/kg)
FISH							
FH	30	L6182-01	9/17/2003	Ag-110m	-6.00E+00	1.50E+01	5.90E+01
FH	30	L6182-01	9/17/2003	Ba-140	2.70E+01	3.90E+01	1.50E+02
FH	30	L6182-01	9/17/2003	Be-7	7.00E+01	1.10E+02	3.80E+02
FH	30	L6182-01	9/17/2003	Ce-141	-8.00E+00	2.20E+01	7.80E+01
FH	30	L6182-01	9/17/2003	Ce-144	1.70E+01	5.20E+01	1.80E+02
FH	30	L6182-01	9/17/2003	Co-57	8.00E-01	6.50E+00	2.30E+01
FH	30	L6182-01	9/17/2003	Co-58	4.00E+00	1.20E+01	4.30E+01
FH	30	L6182-01	9/17/2003	Co-60	1.00E+01	1.00E+01	3.70E+01
FH	30	L6182-01	9/17/2003	Cs-134	-7.00E+00	1.10E+01	4.40E+01
FH	30	L6182-01	9/17/2003	Cs-137	2.20E+01	1.30E+01	4.20E+01
FH	30	L6182-01	9/17/2003	Fe-59	3.20E+01	4.20E+01	1.50E+02
FH	30	L6182-01	9/17/2003	I-131	-4.00E+01	1.00E+02	3.80E+02
FH	30	L6182-01	9/17/2003	K-40	2.67E+03	3.20E+02	6.20E+02 *
FH	30	L6182-01	9/17/2003	Mn-54	4.00E+00	1.20E+01	4.30E+01
FH	30	L6182-01	9/17/2003	Ru-103	-7.00E+00	1.50E+01	5.80E+01
FH	30	L6182-01	9/17/2003	Ru-106	3.00E+00	8.70E+01	3.30E+02
FH	30	L6182-01	9/17/2003	Sb-124	0.00E+00	3.40E+01	1.40E+02
FH	30	L6182-01	9/17/2003	Zn-65	-5.00E+00	2.30E+01	9.10E+01
FH	30	L6182-01	9/17/2003	Zr-95	-8.00E+00	2.20E+01	8.80E+01
FISH							
FH	30	L6182-04	9/17/2003	Ag-110m	-4.00E+00	1.40E+01	5.20E+01
FH	30	L6182-04	9/17/2003	Ba-140	1.80E+01	3.20E+01	1.20E+02
FH	30	L6182-04	9/17/2003	Be-7	-2.30E+01	9.00E+01	3.30E+02
FH	30	L6182-04	9/17/2003	Ce-141	-1.40E+01	2.00E+01	7.20E+01
FH	30	L6182-04	9/17/2003	Ce-144	7.90E+01	4.80E+01	1.60E+02
FH	30	L6182-04	9/17/2003	Co-57	-3.90E+00	5.60E+00	2.10E+01
FH	30	L6182-04	9/17/2003	Co-58	-1.40E+01	1.10E+01	4.40E+01
FH	30	L6182-04	9/17/2003	Co-60	-5.90E+00	8.10E+00	3.40E+01
FH	30	L6182-04	9/17/2003	Cs-134	8.00E+00	8.90E+00	3.10E+01
FH	30	L6182-04	9/17/2003	Cs-137	1.97E+01	8.00E+00	2.40E+01
FH	30	L6182-04	9/17/2003	Fe-59	-2.60E+01	2.60E+01	1.10E+02
FH	30	L6182-04	9/17/2003	I-131	-9.20E+01	7.90E+01	3.10E+02
FH	30	L6182-04	9/17/2003	K-40	2.14E+03	2.50E+02	5.30E+02 *
FH	30	L6182-04	9/17/2003	Mn-54	-8.80E+00	9.20E+00	3.70E+01
FH	30	L6182-04	9/17/2003	Ru-103	-1.50E+01	1.40E+01	5.30E+01
FH	30	L6182-04	9/17/2003	Ru-106	-1.68E+02	8.30E+01	3.40E+02
FH	30	L6182-04	9/17/2003	Sb-124	1.30E+01	2.60E+01	9.70E+01
FH	30	L6182-04	9/17/2003	Zn-65	-9.00E+00	2.40E+01	9.00E+01
FH	30	L6182-04	9/17/2003	Zr-95	3.00E+00	1.60E+01	5.90E+01

* Radioactivity detected in sample (i.e., concentration > 3 X standard deviation)

+ Minimum Detectable Concentration > Lower Limit of Detection Requirement

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Summary of 2003 Data

SAMPLE TYPE	STATION	LSN	END DATE	NUCLIDE	CONC (pCi/kg)	STD.DEV. (pCi/kg)	MDC (pCi/kg)
FISH							
FH	30	L6183-01	9/17/2003	Ag-110m	1.90E+01	1.40E+01	4.60E+01
FH	30	L6183-01	9/17/2003	Ba-140	4.90E+01	4.90E+01	1.80E+02
FH	30	L6183-01	9/17/2003	Be-7	7.00E+01	1.20E+02	4.30E+02
FH	30	L6183-01	9/17/2003	Ce-141	3.60E+01	2.50E+01	8.40E+01
FH	30	L6183-01	9/17/2003	Ce-144	6.20E+01	6.20E+01	2.10E+02
FH	30	L6183-01	9/17/2003	Co-57	6.60E+00	7.60E+00	2.60E+01
FH	30	L6183-01	9/17/2003	Co-58	-6.00E+00	1.20E+01	5.00E+01
FH	30	L6183-01	9/17/2003	Co-60	-1.00E+01	1.40E+01	5.80E+01
FH	30	L6183-01	9/17/2003	Cs-134	0.00E+00	1.30E+01	4.90E+01
FH	30	L6183-01	9/17/2003	Cs-137	-1.90E+01	1.10E+01	5.00E+01
FH	30	L6183-01	9/17/2003	Fe-59	4.20E+01	4.20E+01	1.50E+02
FH	30	L6183-01	9/17/2003	I-131	9.00E+01	1.00E+02	3.60E+02
FH	30	L6183-01	9/17/2003	K-40	1.78E+03	3.10E+02	7.30E+02 *
FH	30	L6183-01	9/17/2003	Mn-54	-1.00E+01	1.20E+01	5.10E+01
FH	30	L6183-01	9/17/2003	Ru-103	4.00E+01	1.70E+01	5.10E+01
FH	30	L6183-01	9/17/2003	Ru-106	-1.70E+02	1.30E+02	5.10E+02
FH	30	L6183-01	9/17/2003	Sb-124	-3.50E+01	3.10E+01	1.50E+02
FH	30	L6183-01	9/17/2003	Zn-65	-4.00E+01	2.50E+01	1.20E+02
FH	30	L6183-01	9/17/2003	Zr-95	2.80E+01	2.60E+01	8.80E+01
FH	30	L6183-04	9/17/2003	Ag-110m	1.50E+01	1.50E+01	5.30E+01
FH	30	L6183-04	9/17/2003	Ba-140	3.30E+01	3.30E+01	1.20E+02
FH	30	L6183-04	9/17/2003	Be-7	-2.30E+02	1.20E+02	5.20E+02
FH	30	L6183-04	9/17/2003	Ce-141	-5.20E+01	2.60E+01	1.00E+02
FH	30	L6183-04	9/17/2003	Ce-144	7.20E+01	6.80E+01	2.30E+02
FH	30	L6183-04	9/17/2003	Co-57	7.90E+00	7.80E+00	2.70E+01
FH	30	L6183-04	9/17/2003	Co-58	-6.00E+00	1.50E+01	5.90E+01
FH	30	L6183-04	9/17/2003	Co-60	1.00E+01	1.00E+01	3.70E+01
FH	30	L6183-04	9/17/2003	Cs-134	1.70E+01	1.20E+01	4.00E+01
FH	30	L6183-04	9/17/2003	Cs-137	6.00E+00	1.20E+01	4.30E+01
FH	30	L6183-04	9/17/2003	Fe-59	-5.90E+01	4.50E+01	2.00E+02
FH	30	L6183-04	9/17/2003	I-131	0.00E+00	1.20E+02	4.50E+02
FH	30	L6183-04	9/17/2003	K-40	1.43E+03	2.90E+02	7.00E+02 *
FH	30	L6183-04	9/17/2003	Mn-54	5.00E+00	1.30E+01	4.70E+01
FH	30	L6183-04	9/17/2003	Ru-103	-1.10E+01	1.80E+01	7.10E+01
FH	30	L6183-04	9/17/2003	Ru-106	-4.00E+01	1.00E+02	4.10E+02
FH	30	L6183-04	9/17/2003	Sb-124	4.60E+01	3.70E+01	1.20E+02
FH	30	L6183-04	9/17/2003	Zn-65	4.20E+01	2.60E+01	8.30E+01
FH	30	L6183-04	9/17/2003	Zr-95	1.10E+01	2.70E+01	1.00E+02

* Radioactivity detected in sample (i.e., concentration > 3 X standard deviation)
 + Minimum Detectable Concentration > Lower Limit of Detection Requirement

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Summary of 2003 Data

SAMPLE TYPE	STATION	LSN	END DATE	NUCLIDE	CONC (pCi/kg)	STD.DEV. (pCi/kg)	MDC (pCi/kg)	
SEDIMENT								
SE	28	L5626-01	6/9/2003	AcTh-228	8.27E+02	4.80E+01	1.90E+02	*
SE	28	L5626-01	6/9/2003	Be-7	1.70E+02	1.00E+02	3.40E+02	
SE	28	L5626-01	6/9/2003	Co-58	-2.00E+01	1.10E+01	4.20E+01	
SE	28	L5626-01	6/9/2003	Co-60	1.80E+01	1.20E+01	4.10E+01	
SE	28	L5626-01	6/9/2003	Cs-134	1.00E+01	2.30E+01	7.70E+01	
SE	28	L5626-01	6/9/2003	Cs-137	2.90E+01	1.60E+01	5.20E+01	
SE	28	L5626-01	6/9/2003	K-40	9.41E+03	4.00E+02	3.80E+02	*
SE	28	L6181-01	9/17/2003	AcTh-228	6.02E+02	4.80E+01	1.70E+02	*
SE	28	L6181-01	9/17/2003	Be-7	2.70E+02	2.00E+02	6.70E+02	
SE	28	L6181-01	9/17/2003	Co-58	-2.60E+01	1.10E+01	4.20E+01	
SE	28	L6181-01	9/17/2003	Co-60	8.00E+00	1.10E+01	3.80E+01	
SE	28	L6181-01	9/17/2003	Cs-134	-4.10E+01	4.30E+01	6.10E+01	
SE	28	L6181-01	9/17/2003	Cs-137	1.09E+02	1.80E+01	5.20E+01	*
SE	28	L6181-01	9/17/2003	K-40	1.07E+04	4.00E+02	3.90E+02	*
SE	29	L5626-02	6/9/2003	AcTh-228	6.05E+02	3.50E+01	1.30E+02	*
SE	29	L5626-02	6/9/2003	Be-7	3.30E+02	1.90E+02	6.20E+02	
SE	29	L5626-02	6/9/2003	Co-58	-8.10E+00	8.50E+00	3.10E+01	
SE	29	L5626-02	6/9/2003	Co-60	1.25E+01	7.10E+00	2.30E+01	
SE	29	L5626-02	6/9/2003	Cs-134	-1.10E+01	3.20E+01	5.80E+01	
SE	29	L5626-02	6/9/2003	Cs-137	6.10E+01	1.20E+01	3.60E+01	*
SE	29	L5626-02	6/9/2003	K-40	9.57E+03	3.10E+02	3.50E+02	*
SE	29	L6181-02	9/16/2003	AcTh-228	4.04E+02	4.40E+01	1.50E+02	*
SE	29	L6181-02	9/16/2003	Be-7	2.00E+01	9.70E+01	3.40E+02	
SE	29	L6181-02	9/16/2003	Co-58	8.00E+00	1.00E+01	3.50E+01	
SE	29	L6181-02	9/16/2003	Co-60	3.02E+02	1.60E+01	4.40E+01	*
SE	29	L6181-02	9/16/2003	Cs-134	1.20E+01	3.90E+01	1.30E+02	
SE	29	L6181-02	9/16/2003	Cs-137	1.55E+02	1.90E+01	5.00E+01	*
SE	29	L6181-02	9/16/2003	K-40	9.76E+03	3.60E+02	3.00E+02	*
SE	30	L5626-03	6/10/2003	AcTh-228	1.19E+03	5.50E+01	1.90E+02	*
SE	30	L5626-03	6/10/2003	Be-7	3.70E+02	2.40E+02	7.80E+02	
SE	30	L5626-03	6/10/2003	Co-58	-1.80E+01	1.30E+01	4.80E+01	
SE	30	L5626-03	6/10/2003	Co-60	1.30E+01	1.20E+01	4.00E+01	
SE	30	L5626-03	6/10/2003	Cs-134	-4.00E+00	5.00E+01	7.30E+01	
SE	30	L5626-03	6/10/2003	Cs-137	1.86E+02	2.10E+01	5.30E+01	*
SE	30	L5626-03	6/10/2003	K-40	1.70E+04	5.00E+02	4.20E+02	*
SE	30	L6181-03	9/16/2003	AcTh-228	9.55E+02	4.90E+01	1.90E+02	*
SE	30	L6181-03	9/16/2003	Be-7	3.40E+02	2.40E+02	8.10E+02	
SE	30	L6181-03	9/16/2003	Co-58	-1.00E+00	1.10E+01	4.00E+01	
SE	30	L6181-03	9/16/2003	Co-60	8.00E+00	1.20E+01	4.20E+01	
SE	30	L6181-03	9/16/2003	Cs-134	7.00E+00	4.70E+01	7.30E+01	
SE	30	L6181-03	9/16/2003	Cs-137	1.29E+02	1.90E+01	5.50E+01	*
SE	30	L6181-03	9/16/2003	K-40	1.41E+04	4.40E+02	4.20E+02	*

* Radioactivity detected in sample (i.e., concentration > 3 X standard deviation)

+ Minimum Detectable Concentration > Lower Limit of Detection Requirement

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Summary of 2003 Data

SAMPLE TYPE	STATION	LSN	END DATE	NUCLIDE	CONC (pCi/kg)	STD.DEV. (pCi/kg)	MDC (pCi/kg)	
ISFSI SEDIMENT								
SE	57	L5748-01	6/30/2003	AcTh-228	4.90E+02	4.00E+01	1.40E+02	*
SE	57	L5748-01	6/30/2003	Be-7	8.60E+02	1.20E+02	3.50E+02	*
SE	57	L5748-01	6/30/2003	Co-58	2.60E+00	8.90E+00	3.10E+01	
SE	57	L5748-01	6/30/2003	Co-60	-6.40E+00	9.20E+00	3.50E+01	
SE	57	L5748-01	6/30/2003	Cs-134	-5.30E+01	3.90E+01	1.30E+02	
SE	57	L5748-01	6/30/2003	Cs-137	3.28E+02	2.10E+01	4.20E+01	*
SE	57	L5748-01	6/30/2003	K-40	9.10E+03	3.50E+02	4.30E+02	*
SE	57	L6181-04	9/16/2003	AcTh-228	4.59E+02	4.50E+01	1.50E+02	*
SE	57	L6181-04	9/16/2003	Be-7	9.90E+02	1.70E+02	5.10E+02	*
SE	57	L6181-04	9/16/2003	Co-58	-2.10E+01	1.10E+01	4.10E+01	
SE	57	L6181-04	9/16/2003	Co-60	1.60E+01	1.00E+01	3.40E+01	
SE	57	L6181-04	9/16/2003	Cs-134	-1.00E+01	1.00E+01	3.70E+01	
SE	57	L6181-04	9/16/2003	Cs-137	5.14E+02	2.50E+01	4.30E+01	*
SE	57	L6181-04	9/16/2003	K-40	8.15E+03	3.50E+02	4.40E+02	*
SE	58	L5748-02	6/30/2003	AcTh-228	1.00E+03	3.70E+01	1.30E+02	*
SE	58	L5748-02	6/30/2003	Be-7	3.50E+02	1.00E+02	3.30E+02	*
SE	58	L5748-02	6/30/2003	Co-58	-2.26E+01	9.00E+00	3.40E+01	
SE	58	L5748-02	6/30/2003	Co-60	2.70E+00	8.60E+00	3.00E+01	
SE	58	L5748-02	6/30/2003	Cs-134	5.30E+01	3.50E+01	1.20E+02	
SE	58	L5748-02	6/30/2003	Cs-137	1.33E+02	1.40E+01	3.90E+01	*
SE	58	L5748-02	6/30/2003	K-40	1.09E+04	3.20E+02	3.30E+02	*
SE	58	L6181-05	9/17/2003	AcTh-228	8.52E+02	3.50E+01	1.10E+02	*
SE	58	L6181-05	9/17/2003	Be-7	1.03E+02	7.70E+01	2.60E+02	
SE	58	L6181-05	9/17/2003	Co-58	-2.00E+00	1.30E+01	4.40E+01	
SE	58	L6181-05	9/17/2003	Co-60	0.00E+00	7.60E+00	2.70E+01	
SE	58	L6181-05	9/17/2003	Cs-134	-6.90E+01	3.20E+01	1.10E+02	
SE	58	L6181-05	9/17/2003	Cs-137	1.17E+02	1.30E+01	3.50E+01	*
SE	58	L6181-05	9/17/2003	K-40	1.06E+04	2.90E+02	3.00E+02	*

* Radioactivity detected in sample (i.e., concentration > 3 X standard deviation)
+ Minimum Detectable Concentration > Lower Limit of Detection Requirement

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Summary of 2003 Data

SAMPLE TYPE	STATION	LSN	END DATE	NUCLIDE	CONC (pCi/kg)	STD.DEV. (pCi/kg)	MDC (pCi/kg)
SHELLFISH							
SF	27	L5640-08	6/10/2003	AcTh-228	1.61E+02	5.90E+01	1.70E+02
SF	27	L5640-08	6/10/2003	Co-58	7.00E+00	1.20E+01	4.60E+01
SF	27	L5640-08	6/10/2003	Co-60	2.20E+01	1.10E+01	2.90E+01
SF	27	L5640-08	6/10/2003	Cs-134	2.00E+01	1.60E+01	5.50E+01
SF	27	L5640-08	6/10/2003	Cs-137	-9.00E+00	1.20E+01	4.90E+01
SF	27	L5640-08	6/10/2003	Fe-59	-7.00E+00	2.30E+01	9.60E+01
SF	27	L5640-08	6/10/2003	K-40	2.70E+02	1.60E+02	5.10E+02
SF	27	L5640-08	6/10/2003	Mn-54	3.00E+00	1.00E+01	3.90E+01
SF	27	L5640-08	6/10/2003	Zn-65	-5.90E+01	3.10E+01	1.40E+02
SF	27	L6182-07	9/17/2003	Co-58	5.00E+00	1.20E+01	4.50E+01
SF	27	L6182-07	9/17/2003	Co-60	5.00E+00	1.10E+01	4.20E+01
SF	27	L6182-07	9/17/2003	Cs-134	4.00E+00	1.10E+01	4.30E+01
SF	27	L6182-07	9/17/2003	Cs-137	-2.00E+00	9.70E+00	3.80E+01
SF	27	L6182-07	9/17/2003	Fe-59	-2.10E+01	4.30E+01	1.80E+02
SF	27	L6182-07	9/17/2003	K-40	4.50E+02	1.70E+02	4.90E+02
SF	27	L6182-07	9/17/2003	Mn-54	1.00E+00	1.10E+01	4.10E+01
SF	27	L6182-07	9/17/2003	Zn-65	6.00E+00	2.60E+01	9.80E+01
SF	27	L6183-07	9/17/2003	Co-58	0.00E+00	1.10E+01	4.30E+01
SF	27	L6183-07	9/17/2003	Co-60	6.10E+00	8.10E+00	3.00E+01
SF	27	L6183-07	9/17/2003	Cs-134	-8.30E+00	8.80E+00	3.70E+01
SF	27	L6183-07	9/17/2003	Cs-137	9.00E-01	8.00E+00	3.10E+01
SF	27	L6183-07	9/17/2003	Fe-59	-3.00E+00	2.70E+01	1.10E+02
SF	27	L6183-07	9/17/2003	K-40	4.20E+02	1.30E+02	3.30E+02 *
SF	27	L6183-07	9/17/2003	Mn-54	3.80E+00	9.60E+00	3.60E+01
SF	27	L6183-07	9/17/2003	Zn-65	6.00E+00	3.50E+01	1.30E+02
SF	31	L5640-07	6/11/2003	AcTh-228	1.20E+02	5.10E+01	1.60E+02
SF	31	L5640-07	6/11/2003	Co-58	1.20E+01	1.10E+01	3.90E+01
SF	31	L5640-07	6/11/2003	Co-60	-6.00E+00	1.10E+01	4.80E+01
SF	31	L5640-07	6/11/2003	Cs-134	2.00E+00	1.10E+01	4.10E+01
SF	31	L5640-07	6/11/2003	Cs-137	-7.00E+00	1.10E+01	4.50E+01
SF	31	L5640-07	6/11/2003	Fe-59	0.00E+00	2.40E+01	9.30E+01
SF	31	L5640-07	6/11/2003	K-40	4.30E+02	1.80E+02	5.30E+02
SF	31	L5640-07	6/11/2003	Mn-54	-1.00E+01	1.20E+01	4.90E+01
SF	31	L5640-07	6/11/2003	Zn-65	1.14E+02	4.50E+01	1.40E+02
SF	31	L6182-08	9/17/2003	Co-58	1.00E+01	1.30E+01	4.80E+01
SF	31	L6182-08	9/17/2003	Co-60	-1.10E+01	1.40E+01	6.10E+01
SF	31	L6182-08	9/17/2003	Cs-134	-2.20E+01	1.30E+01	5.50E+01
SF	31	L6182-08	9/17/2003	Cs-137	-8.00E+00	1.30E+01	5.00E+01
SF	31	L6182-08	9/17/2003	Fe-59	4.40E+01	3.40E+01	1.20E+02
SF	31	L6182-08	9/17/2003	K-40	1.04E+03	2.30E+02	5.10E+02 *
SF	31	L6182-08	9/17/2003	Mn-54	2.00E+00	1.20E+01	4.50E+01
SF	31	L6182-08	9/17/2003	Zn-65	-7.90E+01	2.70E+01	1.30E+02

* Radioactivity detected in sample (i.e., concentration > 3 X standard deviation)

+ Minimum Detectable Concentration > Lower Limit of Detection Requirement

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Summary of 2003 Data

SAMPLE TYPE	STATION	LSN	END DATE	NUCLIDE	CONC (pCi/kg)	STD.DEV. (pCi/kg)	MDC (pCi/kg)
SHELLFISH							
SF	31	L6183-08	9/17/2003	Co-58	4.00E+00	1.00E+01	3.80E+01
SF	31	L6183-08	9/17/2003	Co-60	-2.20E+00	6.70E+00	2.90E+01
SF	31	L6183-08	9/17/2003	Cs-134	0.00E+00	9.70E+00	3.70E+01
SF	31	L6183-08	9/17/2003	Cs-137	1.48E+01	8.90E+00	2.90E+01
SF	31	L6183-08	9/17/2003	Fe-59	-2.30E+01	2.80E+01	1.20E+02
SF	31	L6183-08	9/17/2003	K-40	-7.20E+01	9.20E+01	3.90E+02
SF	31	L6183-08	9/17/2003	Mn-54	-1.70E+00	9.30E+00	3.60E+01
SF	31	L6183-08	9/17/2003	Zn-65	-3.20E+01	2.00E+01	8.90E+01

* Radioactivity detected in sample (i.e., concentration > 3 X standard deviation)
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SAMPLE TYPE	STATION	LSN	END DATE	NUCLIDE	CONC (pCi/kg)	STD.DEV. (pCi/kg)	MDC (pCi/kg)
FOOD CROP							
TF	17	L5801-01	7/14/2003	Co-58	8.00E+00	1.10E+01	3.90E+01
TF	17	L5801-01	7/14/2003	Co-60	-1.30E+01	9.10E+00	4.30E+01
TF	17	L5801-01	7/14/2003	Cs-134	9.00E+00	1.00E+01	3.50E+01
TF	17	L5801-01	7/14/2003	Cs-137	6.40E+00	8.60E+00	3.10E+01
TF	17	L5801-01	7/14/2003	I-131	-2.00E+01	1.60E+02	6.00E+02
TF	17	L5801-01	7/14/2003	K-40	1.93E+03	2.60E+02	5.10E+02 *
TF	17	L6110-01	9/8/2003	Co-58	-1.30E+01	1.50E+01	6.50E+01
TF	17	L6110-01	9/8/2003	Co-60	-2.50E+01	1.70E+01	8.10E+01
TF	17	L6110-01	9/8/2003	Cs-134	1.10E+01	1.60E+01	5.80E+01
TF	17	L6110-01	9/8/2003	Cs-137	1.87E+01	9.90E+00	2.90E+01
TF	17	L6110-01	9/8/2003	I-131	4.30E+01	9.70E+01	3.60E+02
TF	17	L6110-01	9/8/2003	K-40	1.25E+03	3.20E+02	7.70E+02 *
TF	25	L5873-01	7/28/2003	Co-58	-3.60E+00	7.30E+00	2.80E+01
TF	25	L5873-01	7/28/2003	Co-60	5.60E+00	6.60E+00	2.30E+01
TF	25	L5873-01	7/28/2003	Cs-134	8.00E+00	6.90E+00	2.40E+01
TF	25	L5873-01	7/28/2003	Cs-137	3.80E+00	6.30E+00	2.30E+01
TF	25	L5873-01	7/28/2003	I-131	-2.00E+01	3.60E+01	1.30E+02
TF	25	L5873-01	7/28/2003	K-40	1.89E+03	1.90E+02	3.40E+02 *
TF	25	L6110-02	9/8/2003	Co-58	-2.00E+01	1.60E+01	6.70E+01
TF	25	L6110-02	9/8/2003	Co-60	1.00E+00	1.30E+01	5.30E+01
TF	25	L6110-02	9/8/2003	Cs-134	-7.00E+00	1.30E+01	5.30E+01
TF	25	L6110-02	9/8/2003	Cs-137	-1.10E+01	1.10E+01	4.60E+01
TF	25	L6110-02	9/8/2003	I-131	-2.00E+02	1.20E+02	4.80E+02
TF	25	L6110-02	9/8/2003	K-40	1.60E+03	2.90E+02	6.30E+02 *

* Radioactivity detected in sample (i.e., concentration > 3 X standard deviation)
 + Minimum Detectable Concentration > Lower Limit of Detection Requirement

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Summary of 2003 Data

SAMPLE TYPE	STATION	LSN	END DATE	NUCLIDE	CONC (pCi/kg)	STD.DEV. (pCi/kg)	MDC (pCi/kg)
BROAD LEAF VEGETATION							
TV	6	L5659-01	6/16/2003	Co-58	-1.40E+01	1.20E+01	4.70E+01
TV	6	L5659-01	6/16/2003	Co-60	-2.00E+00	1.10E+01	4.20E+01
TV	6	L5659-01	6/16/2003	Cs-134	2.00E+00	1.10E+01	4.10E+01
TV	6	L5659-01	6/16/2003	Cs-137	8.90E+01	1.70E+01	4.60E+01 *
TV	6	L5659-01	6/16/2003	I-131	-2.00E+00	2.50E+01	8.80E+01
TV	6	L5659-01	6/16/2003	K-40	2.55E+03	2.80E+02	5.10E+02 *
TV	6	L5800-01	7/14/2003	Co-58	-3.10E+01	1.30E+01	5.50E+01
TV	6	L5800-01	7/14/2003	Co-60	-7.00E+00	1.10E+01	4.50E+01
TV	6	L5800-01	7/14/2003	Cs-134	-5.00E+00	1.30E+01	4.80E+01
TV	6	L5800-01	7/14/2003	Cs-137	-1.00E+00	1.20E+01	4.40E+01
TV	6	L5800-01	7/14/2003	I-131	6.50E+01	3.10E+01	9.70E+01
TV	6	L5800-01	7/14/2003	K-40	5.25E+03	3.80E+02	5.70E+02 *
TV	6	L5966-01	8/11/2003	Co-58	3.00E+00	1.20E+01	4.40E+01
TV	6	L5966-01	8/11/2003	Co-60	-8.00E+00	1.20E+01	4.50E+01
TV	6	L5966-01	8/11/2003	Cs-134	3.00E+00	1.20E+01	4.30E+01
TV	6	L5966-01	8/11/2003	Cs-137	2.10E+01	1.00E+01	3.30E+01
TV	6	L5966-01	8/11/2003	I-131	8.40E+01	9.10E+01	3.10E+02
TV	6	L5966-01	8/11/2003	K-40	4.95E+03	3.40E+02	5.10E+02 *
TV	6	L6280-01	10/6/2003	Co-58	-1.10E+01	1.10E+01	4.20E+01
TV	6	L6280-01	10/6/2003	Co-60	2.00E+00	1.00E+01	3.90E+01
TV	6	L6280-01	10/6/2003	Cs-134	5.00E+00	1.00E+01	3.70E+01
TV	6	L6280-01	10/6/2003	Cs-137	1.40E+01	1.10E+01	3.70E+01
TV	6	L6280-01	10/6/2003	I-131	-3.00E+00	2.90E+01	1.10E+02
TV	6	L6280-01	10/6/2003	K-40	2.83E+03	2.70E+02	4.80E+02 *
TV	6	L6111-02	9/8/2003	Co-58	-2.00E+00	1.30E+01	4.90E+01
TV	6	L6111-02	9/8/2003	Co-60	2.50E+01	1.40E+01	4.30E+01
TV	6	L6111-02	9/8/2003	Cs-134	2.50E+01	1.40E+01	4.40E+01
TV	6	L6111-02	9/8/2003	Cs-137	6.00E+00	1.20E+01	4.20E+01
TV	6	L6111-02	9/8/2003	I-131	3.00E+00	2.80E+01	1.00E+02
TV	6	L6111-02	9/8/2003	K-40	3.63E+03	3.80E+02	5.80E+02 *
TV	6	L5483-01	5/19/2003	Co-58	-5.00E+00	4.60E+00	2.00E+01
TV	6	L5483-01	5/19/2003	Co-60	-3.20E+00	6.70E+00	2.80E+01
TV	6	L5483-01	5/19/2003	Cs-134	1.08E+01	5.10E+00	1.50E+01
TV	6	L5483-01	5/19/2003	Cs-137	6.80E+00	4.80E+00	1.60E+01
TV	6	L5483-01	5/19/2003	I-131	1.30E+00	9.50E+00	3.60E+01
TV	6	L5483-01	5/19/2003	K-40	9.60E+02	1.50E+02	2.80E+02 *

* Radioactivity detected in sample (i.e., concentration > 3 X standard deviation)
 + Minimum Detectable Concentration > Lower Limit of Detection Requirement

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Summary of 2003 Data

SAMPLE TYPE	STATION	LSN	END DATE	NUCLIDE	CONC (pCi/kg)	STD.DEV. (pCi/kg)	MDC (pCi/kg)
BROAD LEAF VEGETATION							
TV	13	L5483-02	5/19/2003	Co-58	2.40E+00	3.50E+00	1.20E+01
TV	13	L5483-02	5/19/2003	Co-60	5.40E+00	3.80E+00	1.30E+01
TV	13	L5483-02	5/19/2003	Cs-134	-3.00E+00	3.10E+00	1.30E+01
TV	13	L5483-02	5/19/2003	Cs-137	1.69E+01	5.10E+00	1.50E+01 *
TV	13	L5483-02	5/19/2003	I-131	-1.71E+01	7.10E+00	3.10E+01
TV	13	L5483-02	5/19/2003	K-40	8.74E+02	9.00E+01	1.50E+02 *
TV	13	L5659-02	6/16/2003	Co-58	-7.00E+00	1.10E+01	3.90E+01
TV	13	L5659-02	6/16/2003	Co-60	-4.00E+00	1.10E+01	4.00E+01
TV	13	L5659-02	6/16/2003	Cs-134	8.00E+00	1.20E+01	4.30E+01
TV	13	L5659-02	6/16/2003	Cs-137	4.90E+01	1.70E+01	5.30E+01
TV	13	L5659-02	6/16/2003	I-131	1.20E+01	2.20E+01	7.50E+01
TV	13	L5659-02	6/16/2003	K-40	2.45E+03	2.60E+02	6.50E+02 *
TV	13	L5800-02	7/14/2003	Co-58	-2.30E+01	1.40E+01	6.20E+01
TV	13	L5800-02	7/14/2003	Co-60	-1.90E+01	1.20E+01	6.10E+01
TV	13	L5800-02	7/14/2003	Cs-134	-2.00E+00	1.40E+01	5.50E+01
TV	13	L5800-02	7/14/2003	Cs-137	3.30E+01	1.60E+01	5.00E+01
TV	13	L5800-02	7/14/2003	I-131	-1.50E+01	2.40E+01	9.70E+01
TV	13	L5800-02	7/14/2003	K-40	2.23E+03	3.60E+02	7.80E+02 *
TV	13	L5966-02	8/11/2003	Co-58	5.10E+00	8.20E+00	2.80E+01
TV	13	L5966-02	8/11/2003	Co-60	8.90E+00	7.10E+00	2.40E+01
TV	13	L5966-02	8/11/2003	Cs-134	5.00E-01	7.20E+00	2.50E+01
TV	13	L5966-02	8/11/2003	Cs-137	8.50E+01	1.00E+01	2.90E+01 *
TV	13	L5966-02	8/11/2003	I-131	3.30E+01	6.80E+01	2.30E+02
TV	13	L5966-02	8/11/2003	K-40	2.22E+03	1.50E+02	3.40E+02 *
TV	13	L6111-03	9/8/2003	Co-58	3.70E+01	1.30E+01	3.00E+01
TV	13	L6111-03	9/8/2003	Co-60	-1.50E+01	2.10E+01	8.80E+01
TV	13	L6111-03	9/8/2003	Cs-134	1.00E+00	1.30E+01	5.30E+01
TV	13	L6111-03	9/8/2003	Cs-137	9.00E+00	1.30E+01	4.60E+01
TV	13	L6111-03	9/8/2003	I-131	4.50E+01	4.30E+01	1.50E+02
TV	13	L6111-03	9/8/2003	K-40	3.77E+03	5.10E+02	9.90E+02 *
TV	13	L6280-02	10/6/2003	Co-58	1.30E+01	1.10E+01	4.00E+01
TV	13	L6280-02	10/6/2003	Co-60	1.90E+01	1.40E+01	4.80E+01
TV	13	L6280-02	10/6/2003	Cs-134	-1.50E+01	1.50E+01	5.90E+01
TV	13	L6280-02	10/6/2003	Cs-137	2.70E+01	1.50E+01	4.70E+01
TV	13	L6280-02	10/6/2003	I-131	2.10E+01	3.90E+01	1.40E+02
TV	13	L6280-02	10/6/2003	K-40	1.75E+03	2.80E+02	6.00E+02 *

* Radioactivity detected in sample (i.e., concentration > 3 X standard deviation)

+ Minimum Detectable Concentration > Lower Limit of Detection Requirement

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Summary of 2003 Data

SAMPLE TYPE	STATION	LSN	END DATE	NUCLIDE	CONC (pCi/kg)	STD.DEV. (pCi/kg)	MDC (pCi/kg)
BROAD LEAF VEGETATION							
TV	18	L5483-03	5/19/2003	Co-58	0.00E+00	7.20E+00	2.80E+01
TV	18	L5483-03	5/19/2003	Co-60	-5.60E+00	6.20E+00	2.80E+01
TV	18	L5483-03	5/19/2003	Cs-134	1.50E+00	7.10E+00	2.70E+01
TV	18	L5483-03	5/19/2003	Cs-137	3.00E+00	5.70E+00	2.10E+01
TV	18	L5483-03	5/19/2003	I-131	-1.90E+01	1.80E+01	7.20E+01
TV	18	L5483-03	5/19/2003	K-40	1.66E+03	2.10E+02	4.10E+02 *
TV	18	L5659-03	6/16/2003	Co-58	1.20E+01	9.40E+00	3.20E+01
TV	18	L5659-03	6/16/2003	Co-60	1.30E+01	1.10E+01	3.60E+01
TV	18	L5659-03	6/16/2003	Cs-134	-1.00E+01	1.00E+01	3.90E+01
TV	18	L5659-03	6/16/2003	Cs-137	1.90E+01	1.00E+01	3.30E+01
TV	18	L5659-03	6/16/2003	I-131	2.70E+01	1.60E+01	5.20E+01
TV	18	L5659-03	6/16/2003	K-40	2.67E+03	2.60E+02	4.90E+02 *
TV	18	L5800-03	7/14/2003	Co-58	-1.80E+01	1.00E+01	4.10E+01
TV	18	L5800-03	7/14/2003	Co-60	1.50E+01	1.00E+01	3.50E+01
TV	18	L5800-03	7/14/2003	Cs-134	8.00E+00	1.10E+01	3.70E+01
TV	18	L5800-03	7/14/2003	Cs-137	1.43E+01	8.80E+00	2.90E+01
TV	18	L5800-03	7/14/2003	I-131	7.00E+00	2.20E+01	7.80E+01
TV	18	L5800-03	7/14/2003	K-40	2.69E+03	2.60E+02	5.10E+02 *
TV	18	L5966-03	8/11/2003	Co-58	-1.70E+01	1.40E+01	5.50E+01
TV	18	L5966-03	8/11/2003	Co-60	-2.50E+01	1.40E+01	5.70E+01
TV	18	L5966-03	8/11/2003	Cs-134	7.00E+00	1.20E+01	4.30E+01
TV	18	L5966-03	8/11/2003	Cs-137	9.90E+01	1.70E+01	4.50E+01 *
TV	18	L5966-03	8/11/2003	I-131	1.40E+02	1.00E+02	3.40E+02
TV	18	L5966-03	8/11/2003	K-40	3.34E+03	3.10E+02	5.70E+02 *
TV	18	L6111-01	9/8/2003	Co-58	1.10E+01	1.00E+01	3.50E+01
TV	18	L6111-01	9/8/2003	Co-60	-1.90E+01	1.10E+01	4.80E+01
TV	18	L6111-01	9/8/2003	Cs-134	9.00E+00	1.30E+01	4.40E+01
TV	18	L6111-01	9/8/2003	Cs-137	2.80E+01	1.30E+01	4.00E+01
TV	18	L6111-01	9/8/2003	I-131	-4.20E+01	3.60E+01	1.40E+02
TV	18	L6111-01	9/8/2003	K-40	3.19E+03	3.20E+02	5.80E+02 *
TV	18	L6280-03	10/6/2003	Co-58	-9.00E-01	6.90E+00	2.40E+01
TV	18	L6280-03	10/6/2003	Co-60	-1.39E+01	7.20E+00	2.70E+01
TV	18	L6280-03	10/6/2003	Cs-134	5.00E-01	7.40E+00	2.50E+01
TV	18	L6280-03	10/6/2003	Cs-137	1.44E+01	7.20E+00	2.40E+01
TV	18	L6280-03	10/6/2003	I-131	1.70E+01	2.10E+01	6.90E+01
TV	18	L6280-03	10/6/2003	K-40	3.20E+03	1.80E+02	4.10E+02 *

* Radioactivity detected in sample (i.e., concentration > 3 X standard deviation)
 + Minimum Detectable Concentration > Lower Limit of Detection Requirement

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Summary of 2003 Data

SAMPLE TYPE	STATION	LSN	END DATE	NUCLIDE	CONC (pCi/kg)	STD.DEV. (pCi/kg)	MDC (pCi/kg)
BROAD LEAF VEGETATION							
TV	41	L6111-04	9/8/2003	Co-58	-2.30E+01	1.30E+01	5.70E+01
TV	41	L6111-04	9/8/2003	Co-60	-2.40E+01	1.30E+01	5.70E+01
TV	41	L6111-04	9/8/2003	Cs-134	9.00E+00	1.30E+01	4.50E+01
TV	41	L6111-04	9/8/2003	Cs-137	-1.30E+01	1.20E+01	4.80E+01
TV	41	L6111-04	9/8/2003	I-131	1.40E+01	3.70E+01	1.30E+02
TV	41	L6111-04	9/8/2003	K-40	2.64E+03	3.30E+02	6.70E+02 *
TV	41	L5659-04	6/16/2003	Co-58	2.00E+00	1.10E+01	3.90E+01
TV	41	L5659-04	6/16/2003	Co-60	-2.00E+01	1.20E+01	5.00E+01
TV	41	L5659-04	6/16/2003	Cs-134	3.00E+00	1.20E+01	4.10E+01
TV	41	L5659-04	6/16/2003	Cs-137	-9.50E+00	9.30E+00	3.50E+01
TV	41	L5659-04	6/16/2003	I-131	2.60E+01	1.70E+01	5.50E+01
TV	41	L5659-04	6/16/2003	K-40	2.46E+03	2.70E+02	6.20E+02 *
TV	41	L5800-04	7/14/2003	Co-58	5.00E+00	1.40E+01	5.20E+01
TV	41	L5800-04	7/14/2003	Co-60	-7.00E+00	1.60E+01	6.20E+01
TV	41	L5800-04	7/14/2003	Cs-134	-8.00E+00	1.40E+01	5.40E+01
TV	41	L5800-04	7/14/2003	Cs-137	2.00E+01	1.50E+01	5.10E+01
TV	41	L5800-04	7/14/2003	I-131	1.50E+01	3.70E+01	1.30E+02
TV	41	L5800-04	7/14/2003	K-40	2.75E+03	3.80E+02	8.40E+02 *
TV	41	L5966-04	8/11/2003	Co-58	7.00E+00	1.30E+01	4.80E+01
TV	41	L5966-04	8/11/2003	Co-60	2.00E+00	1.40E+01	5.70E+01
TV	41	L5966-04	8/11/2003	Cs-134	6.00E+00	1.10E+01	4.30E+01
TV	41	L5966-04	8/11/2003	Cs-137	0.00E+00	1.20E+01	4.60E+01
TV	41	L5966-04	8/11/2003	I-131	1.00E+02	1.00E+02	3.40E+02
TV	41	L5966-04	8/11/2003	K-40	3.60E+03	4.40E+02	7.80E+02 *
TV	41	L6280-04	10/6/2003	Co-58	-1.46E+01	9.70E+00	4.00E+01
TV	41	L6280-04	10/6/2003	Co-60	-6.00E+00	1.20E+01	4.90E+01
TV	41	L6280-04	10/6/2003	Cs-134	1.30E+01	1.10E+01	3.70E+01
TV	41	L6280-04	10/6/2003	Cs-137	1.10E+01	9.50E+00	3.20E+01
TV	41	L6280-04	10/6/2003	I-131	-2.00E+01	2.40E+01	9.20E+01
TV	41	L6280-04	10/6/2003	K-40	2.92E+03	3.00E+02	5.20E+02 *
TV	41	L5483-04	5/19/2003	Co-58	5.00E-01	4.80E+00	2.00E+01
TV	41	L5483-04	5/19/2003	Co-60	-5.20E+00	5.60E+00	2.70E+01
TV	41	L5483-04	5/19/2003	Cs-134	-1.30E+00	5.20E+00	2.20E+01
TV	41	L5483-04	5/19/2003	Cs-137	2.50E+00	3.10E+00	1.20E+01
TV	41	L5483-04	5/19/2003	I-131	1.30E+01	1.00E+01	3.50E+01
TV	41	L5483-04	5/19/2003	K-40	9.00E+02	1.60E+02	3.10E+02 *

* Radioactivity detected in sample (i.e., concentration > 3 X standard deviation)

+ Minimum Detectable Concentration > Lower Limit of Detection Requirement

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Summary of 2003 Data

SAMPLE TYPE	STATION	LSN	END DATE	NUCLIDE	CONC (pCi/l)	STD.DEV. (pCi/l)	MDC (pCi/l)
ISFSI WATER							
WG	57	L5740-01	6/30/2003	AcTh-228	5.40E+00	3.70E+00	1.20E+01
WG	57	L5740-01	6/30/2003	Ag-110m	-2.40E+00	1.20E+00	4.80E+00
WG	57	L5740-01	6/30/2003	Ba-140	1.90E+00	1.50E+00	5.20E+00
WG	57	L5740-01	6/30/2003	Be-7	-4.90E+00	6.10E+00	2.20E+01
WG	57	L5740-01	6/30/2003	Ce-141	1.30E+00	1.40E+00	4.80E+00
WG	57	L5740-01	6/30/2003	Ce-144	-3.10E+00	5.40E+00	1.90E+01
WG	57	L5740-01	6/30/2003	Co-57	3.00E-02	7.00E-01	2.40E+00
WG	57	L5740-01	6/30/2003	Co-58	1.02E+00	7.40E-01	2.50E+00
WG	57	L5740-01	6/30/2003	Co-60	-2.30E-01	9.20E-01	3.40E+00
WG	57	L5740-01	6/30/2003	Cs-134	1.12E+00	9.00E-01	3.00E+00
WG	57	L5740-01	6/30/2003	Cs-137	-2.60E-01	8.20E-01	3.00E+00
WG	57	L5740-01	6/30/2003	Fe-59	-1.80E+00	1.80E+00	6.80E+00
WG	57	L5740-01	6/30/2003	H-3	6.00E+01	4.00E+02	1.20E+03
WG	57	L5740-01	6/30/2003	I-131	-3.60E+00	1.50E+00	5.80E+00
WG	57	L5740-01	6/30/2003	K-40	4.00E+00	1.30E+01	4.40E+01
WG	57	L5740-01	6/30/2003	La-140	2.20E+00	1.80E+00	5.90E+00
WG	57	L5740-01	6/30/2003	Mn-54	-7.30E-01	8.30E-01	3.10E+00
WG	57	L5740-01	6/30/2003	Nb-95	8.60E-01	9.00E-01	3.10E+00
WG	57	L5740-01	6/30/2003	Ru-103	-3.90E-01	8.20E-01	3.00E+00
WG	57	L5740-01	6/30/2003	Ru-106	4.40E+00	7.30E+00	2.50E+01
WG	57	L5740-01	6/30/2003	Sb-124	-3.10E+00	2.20E+00	8.90E+00
WG	57	L5740-01	6/30/2003	Zn-65	7.80E+00	2.90E+00	9.10E+00
WG	57	L5740-01	6/30/2003	Zr-95	1.40E+00	1.40E+00	4.70E+00
WG	57	L6282-01	10/6/2003	AcTh-228	8.10E+00	4.70E+00	1.50E+01
WG	57	L6282-01	10/6/2003	Ag-110m	9.00E-01	1.70E+00	6.10E+00
WG	57	L6282-01	10/6/2003	Ba-140	1.20E+00	2.60E+00	9.70E+00
WG	57	L6282-01	10/6/2003	Be-7	6.00E+00	1.10E+01	3.90E+01
WG	57	L6282-01	10/6/2003	Ce-141	3.30E+00	2.60E+00	8.70E+00
WG	57	L6282-01	10/6/2003	Ce-144	-3.80E+00	8.90E+00	3.20E+01
WG	57	L6282-01	10/6/2003	Co-57	5.00E-01	1.10E+00	3.80E+00
WG	57	L6282-01	10/6/2003	Co-58	4.00E-01	1.20E+00	4.40E+00
WG	57	L6282-01	10/6/2003	Co-60	-3.00E-01	1.20E+00	4.80E+00
WG	57	L6282-01	10/6/2003	Cs-134	1.80E+00	1.20E+00	4.20E+00
WG	57	L6282-01	10/6/2003	Cs-137	-1.10E+00	1.10E+00	4.60E+00
WG	57	L6282-01	10/6/2003	Fe-59	-7.00E-01	3.20E+00	1.30E+01
WG	57	L6282-01	10/6/2003	H-3	-1.10E+02	4.20E+02	1.30E+03
WG	57	L6282-01	10/6/2003	I-131	-1.40E+00	4.30E+00	1.60E+01
WG	57	L6282-01	10/6/2003	K-40	-3.00E+00	1.50E+01	5.70E+01
WG	57	L6282-01	10/6/2003	La-140	1.30E+00	3.00E+00	1.10E+01
WG	57	L6282-01	10/6/2003	Mn-54	6.00E-01	1.10E+00	4.00E+00
WG	57	L6282-01	10/6/2003	Nb-95	-1.80E+00	1.80E+00	6.80E+00
WG	57	L6282-01	10/6/2003	Ru-103	5.00E-01	1.80E+00	6.40E+00
WG	57	L6282-01	10/6/2003	Ru-106	-2.00E+00	1.20E+01	4.30E+01
WG	57	L6282-01	10/6/2003	Sb-124	-7.00E-01	3.30E+00	1.30E+01
WG	57	L6282-01	10/6/2003	Zn-65	-6.40E+00	5.90E+00	2.20E+01
WG	57	L6282-01	10/6/2003	Zr-95	-8.00E-01	1.90E+00	7.60E+00

* Radioactivity detected in sample (i.e., concentration > 3 X standard deviation)
 + Minimum Detectable Concentration > Lower Limit of Detection Requirement

Connecticut Yankee

Radiological Environmental Monitoring Program

Summary of 2003 Data

SAMPLE TYPE	STATION	LSN	END DATE	NUCLIDE	CONC (pCi/l)	STD.DEV. (pCi/l)	MDC (pCi/l)
RIVER WATER							
WR	28	L5294-01	3/24/2003	Ba-140	-4.10E+00	5.00E+00	2.00E+01
WR	28	L5294-01	3/24/2003	Co-58	0.00E+00	1.10E+00	3.90E+00
WR	28	L5294-01	3/24/2003	Co-60	-4.00E-02	8.00E-01	3.10E+00
WR	28	L5294-01	3/24/2003	Cs-134	1.00E-01	1.00E+00	3.70E+00
WR	28	L5294-01	3/24/2003	Cs-137	-2.70E-01	9.00E-01	3.30E+00
WR	28	L5294-01	3/24/2003	Fe-59	-5.10E+00	2.90E+00	1.10E+01
WR	28	L5294-01	3/24/2003	H-3	-6.80E+02	4.40E+02	1.40E+03
WR	28	L5294-01	3/24/2003	I-131	-1.20E+01	1.20E+01	4.50E+01
WR	28	L5294-01	3/24/2003	Mn-54	6.90E-01	9.20E-01	3.20E+00
WR	28	L5294-01	3/24/2003	Zn-65	2.40E+00	4.00E+00	1.40E+01
WR	28	L5294-01	3/24/2003	Zr-95	1.00E+00	1.80E+00	6.30E+00
WR	28	L5938-01	6/30/2003	Ba-140	-1.30E+01	1.80E+01	7.60E+01
WR	28	L5938-01	6/30/2003	Co-58	-1.00E-01	2.00E+00	7.50E+00
WR	28	L5938-01	6/30/2003	Co-60	-6.00E-01	1.20E+00	4.80E+00
WR	28	L5938-01	6/30/2003	Cs-134	1.20E+00	1.30E+00	4.50E+00
WR	28	L5938-01	6/30/2003	Cs-137	1.00E+00	1.30E+00	4.40E+00
WR	28	L5938-01	6/30/2003	Fe-59	1.70E+00	4.60E+00	1.70E+01
WR	28	L5938-01	6/30/2003	H-3	-7.10E+02	3.80E+02	1.20E+03
WR	28	L5938-01	6/30/2003	I-131	1.14E+02	6.70E+01	2.20E+02
WR	28	L5938-01	6/30/2003	Mn-54	-5.00E-01	1.10E+00	4.50E+00
WR	28	L5938-01	6/30/2003	Zn-65	1.00E+00	2.90E+00	1.10E+01
WR	28	L5938-01	6/30/2003	Zr-95	-4.00E+00	3.60E+00	1.40E+01
WR	28	L6419-01	9/22/2003	Ba-140	-2.00E+01	1.50E+01	7.20E+01
WR	28	L6419-01	9/22/2003	Co-58	5.00E-01	2.10E+00	7.90E+00
WR	28	L6419-01	9/22/2003	Co-60	-3.10E+00	2.00E+00	8.80E+00
WR	28	L6419-01	9/22/2003	Cs-134	-6.00E-01	1.60E+00	6.30E+00
WR	28	L6419-01	9/22/2003	Cs-137	-3.70E+00	1.40E+00	6.30E+00
WR	28	L6419-01	9/22/2003	Fe-59	9.00E+00	7.00E+00	2.40E+01
WR	28	L6419-01	9/22/2003	H-3	4.10E+02	4.20E+02	1.20E+03
WR	28	L6419-01	9/22/2003	I-131	4.90E+01	5.30E+01	1.80E+02
WR	28	L6419-01	9/22/2003	Mn-54	-1.60E+00	1.60E+00	6.60E+00
WR	28	L6419-01	9/22/2003	Zn-65	-2.30E+00	3.30E+00	1.40E+01
WR	28	L6419-01	9/22/2003	Zr-95	2.90E+00	3.20E+00	1.10E+01
WR	28	L6792-01	12/29/2003	Ba-140	-1.14E+01	5.80E+00	2.60E+01
WR	28	L6792-01	12/29/2003	Co-58	-2.50E+00	1.00E+00	4.60E+00
WR	28	L6792-01	12/29/2003	Co-60	-1.30E+00	1.10E+00	4.50E+00
WR	28	L6792-01	12/29/2003	Cs-134	1.50E-01	9.30E-01	3.40E+00
WR	28	L6792-01	12/29/2003	Cs-137	-7.70E-01	9.60E-01	3.70E+00
WR	28	L6792-01	12/29/2003	Fe-59	-1.40E+00	2.90E+00	1.20E+01
WR	28	L6792-01	12/29/2003	H-3	4.80E+02	3.00E+02	9.50E+02
WR	28	L6792-01	12/29/2003	I-131	2.20E+01	1.90E+01	6.60E+01
WR	28	L6792-01	12/29/2003	Mn-54	-2.80E-01	9.70E-01	3.60E+00
WR	28	L6792-01	12/29/2003	Zn-65	-5.00E+00	2.60E+00	1.00E+01
WR	28	L6792-01	12/29/2003	Zr-95	-9.00E-01	2.30E+00	8.70E+00

* Radioactivity detected in sample (i.e., concentration > 3 X standard deviation)
 + Minimum Detectable Concentration > Lower Limit of Detection Requirement

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Summary of 2003 Data

SAMPLE TYPE	STATION	LSN	END DATE	NUCLIDE	CONC (pCi/l)	STD.DEV. (pCi/l)	MDC (pCi/l)
RIVER WATER							
WR	30	L5294-02	3/24/2003	Ba-140	1.60E+00	8.00E+00	3.00E+01
WR	30	L5294-02	3/24/2003	Co-58	-1.50E+00	1.50E+00	6.00E+00
WR	30	L5294-02	3/24/2003	Co-60	1.20E+00	1.10E+00	4.00E+00
WR	30	L5294-02	3/24/2003	Cs-134	-2.00E-01	1.20E+00	4.60E+00
WR	30	L5294-02	3/24/2003	Cs-137	-4.00E-01	1.20E+00	4.60E+00
WR	30	L5294-02	3/24/2003	Fe-59	6.90E+00	4.10E+00	1.30E+01
WR	30	L5294-02	3/24/2003	H-3	-6.00E+02	4.20E+02	1.30E+03
WR	30	L5294-02	3/24/2003	I-131	-2.60E+01	1.50E+01	5.90E+01
WR	30	L5294-02	3/24/2003	Mn-54	2.10E+00	1.20E+00	4.00E+00
WR	30	L5294-02	3/24/2003	Zn-65	1.60E+00	2.90E+00	1.10E+01
WR	30	L5294-02	3/24/2003	Zr-95	2.00E+00	2.70E+00	9.40E+00
WR	30	L5938-02	6/30/2003	Ba-140	-8.00E+00	2.00E+01	8.10E+01
WR	30	L5938-02	6/30/2003	Co-58	-1.50E+00	1.50E+00	6.30E+00
WR	30	L5938-02	6/30/2003	Co-60	5.00E-01	1.20E+00	4.50E+00
WR	30	L5938-02	6/30/2003	Cs-134	-9.00E-01	1.20E+00	4.80E+00
WR	30	L5938-02	6/30/2003	Cs-137	1.70E+00	1.20E+00	3.80E+00
WR	30	L5938-02	6/30/2003	Fe-59	4.30E+00	4.40E+00	1.60E+01
WR	30	L5938-02	6/30/2003	H-3	-2.10E+02	4.00E+02	1.20E+03
WR	30	L5938-02	6/30/2003	I-131	3.40E+01	7.60E+01	2.60E+02
WR	30	L5938-02	6/30/2003	Mn-54	1.80E+00	1.20E+00	4.00E+00
WR	30	L5938-02	6/30/2003	Zn-65	-7.60E+00	3.60E+00	1.50E+01
WR	30	L5938-02	6/30/2003	Zr-95	-2.70E+00	2.70E+00	1.10E+01
WR	30	L6419-02	9/22/2003	Ba-140	-1.00E+01	1.80E+01	7.80E+01
WR	30	L6419-02	9/22/2003	Co-58	4.00E-01	2.20E+00	8.10E+00
WR	30	L6419-02	9/22/2003	Co-60	-3.30E+00	1.80E+00	8.00E+00
WR	30	L6419-02	9/22/2003	Cs-134	1.20E+00	1.20E+00	4.10E+00
WR	30	L6419-02	9/22/2003	Cs-137	-2.30E+00	1.50E+00	6.20E+00
WR	30	L6419-02	9/22/2003	Fe-59	-1.10E+00	6.00E+00	2.50E+01
WR	30	L6419-02	9/22/2003	H-3	2.20E+02	4.10E+02	1.20E+03
WR	30	L6419-02	9/22/2003	I-131	3.70E+01	6.40E+01	2.30E+02
WR	30	L6419-02	9/22/2003	Mn-54	6.00E-01	1.50E+00	5.60E+00
WR	30	L6419-02	9/22/2003	Zn-65	-5.30E+00	4.10E+00	1.70E+01
WR	30	L6419-02	9/22/2003	Zr-95	5.00E-01	3.50E+00	1.30E+01
WR	30	L6792-02	12/29/2003	Ba-140	-5.00E-01	7.00E+00	2.70E+01
WR	30	L6792-02	12/29/2003	Co-58	0.00E+00	1.30E+00	4.90E+00
WR	30	L6792-02	12/29/2003	Co-60	-1.40E+00	1.00E+00	4.20E+00
WR	30	L6792-02	12/29/2003	Cs-134	-1.05E+00	8.60E-01	3.50E+00
WR	30	L6792-02	12/29/2003	Cs-137	1.90E+00	1.10E+00	3.40E+00
WR	30	L6792-02	12/29/2003	Fe-59	-7.00E-01	4.00E+00	1.50E+01
WR	30	L6792-02	12/29/2003	H-3	2.30E+02	2.90E+02	9.40E+02
WR	30	L6792-02	12/29/2003	I-131	-6.00E+00	2.00E+01	7.30E+01
WR	30	L6792-02	12/29/2003	Mn-54	-1.40E-01	8.60E-01	3.20E+00
WR	30	L6792-02	12/29/2003	Zn-65	-5.10E+00	2.60E+00	1.10E+01
WR	30	L6792-02	12/29/2003	Zr-95	1.90E+00	2.00E+00	6.90E+00

* Radioactivity detected in sample (i.e., concentration > 3 X standard deviation)
 + Minimum Detectable Concentration > Lower Limit of Detection Requirement

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Summary of 2003 Data

SAMPLE TYPE	STATION	LSN	END DATE	NUCLIDE	CONC (pCi/l)	STD.DEV. (pCi/l)	MDC (pCi/l)
WELL WATER							
WW	15	L4614-03	12/30/2002	Ba-140	-1.10E+00	1.50E+00	6.40E+00
WW	15	L4614-03	12/30/2002	Co-58	-6.40E-01	9.30E-01	3.70E+00
WW	15	L4614-03	12/30/2002	Co-60	-3.00E-01	1.20E+00	4.60E+00
WW	15	L4614-03	12/30/2002	Cs-134	1.70E+00	1.10E+00	3.50E+00
WW	15	L4614-03	12/30/2002	Cs-137	-1.00E-01	1.30E+00	4.60E+00
WW	15	L4614-03	12/30/2002	Fe-59	-2.40E+00	2.10E+00	8.70E+00
WW	15	L4614-03	12/30/2002	I-131	-7.00E-01	2.50E+00	8.90E+00
WW	15	L4614-03	12/30/2002	Mn-54	-1.00E+00	1.00E+00	4.10E+00
WW	15	L4614-03	12/30/2002	Zn-65	2.90E+00	2.30E+00	7.90E+00
WW	15	L4614-03	12/30/2002	Zr-95	-7.00E-01	1.70E+00	6.80E+00
WW	15	L5235-01	4/7/2003	Ba-140	0.00E+00	1.50E+00	6.10E+00
WW	15	L5235-01	4/7/2003	Co-58	-8.00E-01	1.10E+00	4.50E+00
WW	15	L5235-01	4/7/2003	Co-60	1.30E+00	1.30E+00	4.60E+00
WW	15	L5235-01	4/7/2003	Cs-134	1.20E+00	1.10E+00	3.90E+00
WW	15	L5235-01	4/7/2003	Cs-137	2.00E-01	1.20E+00	4.30E+00
WW	15	L5235-01	4/7/2003	Fe-59	-9.00E-01	2.40E+00	9.60E+00
WW	15	L5235-01	4/7/2003	H-3	-3.80E+02	4.00E+02	1.30E+03
WW	15	L5235-01	4/7/2003	I-131	1.00E+00	2.00E+00	7.20E+00
WW	15	L5235-01	4/7/2003	Mn-54	2.00E-01	1.10E+00	4.00E+00
WW	15	L5235-01	4/7/2003	Zn-65	-1.40E+00	2.60E+00	1.00E+01
WW	15	L5235-01	4/7/2003	Zr-95	-2.00E+00	2.00E+00	8.10E+00
WW	15	L5745-01	6/30/2003	Ba-140	-4.00E-01	2.30E+00	8.80E+00
WW	15	L5745-01	6/30/2003	Co-58	-3.00E-01	1.10E+00	4.20E+00
WW	15	L5745-01	6/30/2003	Co-60	-2.00E-01	1.10E+00	4.30E+00
WW	15	L5745-01	6/30/2003	Cs-134	1.50E+00	1.20E+00	4.10E+00
WW	15	L5745-01	6/30/2003	Cs-137	9.00E-01	1.30E+00	4.40E+00
WW	15	L5745-01	6/30/2003	Fe-59	-5.00E-01	2.20E+00	8.70E+00
WW	15	L5745-01	6/30/2003	H-3	5.00E+02	4.40E+02	1.30E+03
WW	15	L5745-01	6/30/2003	I-131	-1.90E+00	2.30E+00	8.50E+00
WW	15	L5745-01	6/30/2003	Mn-54	1.30E+00	1.20E+00	4.30E+00
WW	15	L5745-01	6/30/2003	Zn-65	-6.10E+00	2.70E+00	1.20E+01
WW	15	L5745-01	6/30/2003	Zr-95	-2.00E+00	2.00E+00	7.90E+00
WW	15	L6283-01	10/6/2003	Ba-140	2.10E+00	4.50E+00	1.70E+01
WW	15	L6283-01	10/6/2003	Co-58	9.00E-01	1.80E+00	6.80E+00
WW	15	L6283-01	10/6/2003	Co-60	7.00E-01	2.30E+00	8.70E+00
WW	15	L6283-01	10/6/2003	Cs-134	1.60E+00	2.30E+00	8.10E+00
WW	15	L6283-01	10/6/2003	Cs-137	-1.50E+00	1.90E+00	7.80E+00
WW	15	L6283-01	10/6/2003	Fe-59	-6.40E+00	4.50E+00	2.30E+01
WW	15	L6283-01	10/6/2003	H-3	3.60E+02	4.20E+02	1.30E+03
WW	15	L6283-01	10/6/2003	I-131	1.00E-01	5.00E+00	1.90E+01
WW	15	L6283-01	10/6/2003	Mn-54	-1.00E-01	1.70E+00	6.60E+00
WW	15	L6283-01	10/6/2003	Zn-65	-7.10E+00	4.60E+00	2.00E+01
WW	15	L6283-01	10/6/2003	Zr-95	1.00E+00	2.50E+00	9.90E+00

* Radioactivity detected in sample (i.e., concentration > 3 X standard deviation)
 + Minimum Detectable Concentration > Lower Limit of Detection Requirement

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Summary of 2003 Data

SAMPLE TYPE	STATION	LSN	END DATE	NUCLIDE	CONC (pCi/l)	STD.DEV. (pCi/l)	MDC (pCi/l)
WELL WATER							
WW	16	L5235-02	4/7/2003	Ba-140	1.80E+00	3.50E+00	1.30E+01
WW	16	L5235-02	4/7/2003	Co-58	-5.00E+00	2.40E+00	9.60E+00
WW	16	L5235-02	4/7/2003	Co-60	-2.00E+00	2.30E+00	9.10E+00
WW	16	L5235-02	4/7/2003	Cs-134	2.60E+00	2.30E+00	7.70E+00
WW	16	L5235-02	4/7/2003	Cs-137	-1.20E+00	2.10E+00	7.80E+00
WW	16	L5235-02	4/7/2003	Fe-59	-4.40E+00	3.90E+00	1.60E+01
WW	16	L5235-02	4/7/2003	H-3	-8.00E+01	4.40E+02	1.30E+03
WW	16	L5235-02	4/7/2003	I-131	4.00E+00	3.50E+00	1.20E+01
WW	16	L5235-02	4/7/2003	Mn-54	1.60E+00	1.70E+00	5.80E+00
WW	16	L5235-02	4/7/2003	Zn-65	-5.70E+00	4.40E+00	1.70E+01
WW	16	L5235-02	4/7/2003	Zr-95	-6.30E+00	3.50E+00	1.40E+01
WW	16	L5745-02	6/30/2003	Ba-140	4.10E+00	2.00E+00	6.50E+00
WW	16	L5745-02	6/30/2003	Co-58	-1.40E+00	1.30E+00	4.70E+00
WW	16	L5745-02	6/30/2003	Co-60	1.00E+00	1.30E+00	4.40E+00
WW	16	L5745-02	6/30/2003	Cs-134	1.00E-01	1.40E+00	4.90E+00
WW	16	L5745-02	6/30/2003	Cs-137	-3.10E+00	1.30E+00	4.90E+00
WW	16	L5745-02	6/30/2003	Fe-59	-3.60E+00	2.80E+00	1.90E+01
WW	16	L5745-02	6/30/2003	H-3	1.00E+02	4.00E+02	1.20E+03
WW	16	L5745-02	6/30/2003	I-131	2.60E+00	2.10E+00	7.10E+00
WW	16	L5745-02	6/30/2003	Mn-54	2.10E+00	1.20E+00	4.00E+00
WW	16	L5745-02	6/30/2003	Zn-65	7.30E+00	6.70E+00	2.20E+01
WW	16	L5745-02	6/30/2003	Zr-95	2.50E+00	2.30E+00	7.80E+00
WW	16	L6283-02	10/6/2003	Ba-140	-3.10E+00	2.50E+00	1.00E+01
WW	16	L6283-02	10/6/2003	Co-58	3.00E+00	2.00E+00	6.70E+00
WW	16	L6283-02	10/6/2003	Co-60	-1.60E+00	1.10E+00	4.60E+00
WW	16	L6283-02	10/6/2003	Cs-134	-2.10E+00	1.30E+00	5.20E+00
WW	16	L6283-02	10/6/2003	Cs-137	-2.30E+00	1.20E+00	4.60E+00
WW	16	L6283-02	10/6/2003	Fe-59	-4.00E-01	3.30E+00	1.20E+01
WW	16	L6283-02	10/6/2003	H-3	-2.50E+02	4.10E+02	1.30E+03
WW	16	L6283-02	10/6/2003	I-131	4.20E+00	4.50E+00	1.50E+01
WW	16	L6283-02	10/6/2003	Mn-54	-2.10E+00	1.20E+00	4.60E+00
WW	16	L6283-02	10/6/2003	Zn-65	6.20E+00	6.20E+00	2.10E+01
WW	16	L6283-02	10/6/2003	Zr-95	3.00E-01	2.20E+00	7.80E+00
WW	16	L4614-04	12/30/2002	Ba-140	0.00E+00	2.50E+00	9.30E+00
WW	16	L4614-04	12/30/2002	Co-58	-1.50E+00	1.40E+00	5.40E+00
WW	16	L4614-04	12/30/2002	Co-60	4.00E-01	1.70E+00	6.10E+00
WW	16	L4614-04	12/30/2002	Cs-134	1.70E+00	1.50E+00	5.00E+00
WW	16	L4614-04	12/30/2002	Cs-137	2.00E+00	1.50E+00	5.10E+00
WW	16	L4614-04	12/30/2002	Fe-59	4.90E+00	3.20E+00	1.10E+01
WW	16	L4614-04	12/30/2002	I-131	2.00E-01	3.00E+00	1.00E+01
WW	16	L4614-04	12/30/2002	Mn-54	-5.90E+00	1.60E+00	6.60E+00
WW	16	L4614-04	12/30/2002	Zn-65	6.80E+00	8.40E+00	2.80E+01
WW	16	L4614-04	12/30/2002	Zr-95	-2.40E+00	2.60E+00	9.50E+00

* Radioactivity detected in sample (i.e., concentration > 3 X standard deviation)
 + Minimum Detectable Concentration > Lower Limit of Detection Requirement