

ENVIRONMENTAL

RADIATION

DATA

REPORT 123

July - September 2005

United States Environmental Protection Agency

Office of Radiation and Indoor Air

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Preface

Environmental Radiation Data (ERD) is compiled and published quarterly by the Office of Radiation and Indoor Air's National Air and Radiation Environmental Laboratory (NAREL) in Montgomery, Alabama, and contains data from the RadNet monitoring system (formerly ERAMS). ERD is published in both hard-copy and electronic formats. Electronic reports are available online at www.epa.gov/narel.

The United States Environmental Protection Agency established RadNet in 1973 with an emphasis on identifying trends in the accumulation of long-lived radionuclides in the environment. RadNet is comprised of a nationwide network of sampling stations that provide air particulate, precipitation, drinking water, and milk samples.

Sampling locations are selected to provide population and geographic coverage for the United States. The radiation analyses performed on these samples include gross alpha and gross beta analysis, gamma analyses, and radionuclide-specific analyses for uranium, plutonium, strontium, iodine, radium, and tritium. This monitoring effort also provides ancillary information on natural background levels and on routine and accidental releases into the environment from stationary sources.

The radiochemical procedures used by NAREL to analyze the RadNet samples are contained in the *NAREL Radiochemistry Procedures Manual*. Station operation and sample collection are in accordance with procedures contained in the *ERAMS Manual* (EPA 520/5-84-007, 008, 009).

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Acknowledgments

All sampling for the RadNet monitoring system (formerly ERAMS) is performed by volunteer collectors who are frequently members of health departments or related environmental agencies of their respective states. The National Air and Radiation Environmental Laboratory (NAREL), on behalf of the U.S. Environmental Protection Agency, would like to acknowledge the time and effort of these volunteer collectors, who are so essential to the successful operation of RadNet. The efforts of the sample collectors are especially appreciated during times of emergency operation when sampling frequencies are increased and schedules are sometimes demanding.

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Data Reporting Conventions

Every laboratory measurement involves uncertainty. When there is little or no radioactivity in a sample, one consequence of measurement uncertainty is the possibility of obtaining a measured value that is less than zero. Such a negative result occurs when random effects in the measurement process cause the measured value for the sample to be less than that of the blank or background, which is subtracted from it. From April 1991 to December 1995, negative results were reported as “not detected” or “ND,” and gamma analysis results that were less than their estimated measurement uncertainties were also reported as “ND.” In January 1996, both of these practices were discontinued. Although negative activities are physically impossible, the inclusion of negative results in the report allows better statistical analysis of the data.

Results of gamma analyses are still reported as “ND” when gamma-emitting radionuclides are not detected.

Measurement Uncertainty

Each measured value y is reported with an expanded uncertainty $U = k u_c(y)$, which is determined from the combined standard uncertainty $u_c(y)$ and the coverage factor $k = 2$. The interval from $y - U$ to $y + U$ is estimated to have a level of confidence of approximately 95%.

Significant Figures

Expanded uncertainties are reported to two significant figures. Measurement results are rounded to the corresponding number of decimal places.

Detection Capability

The minimum detectable concentrations (MDCs) for each radionuclide are shown in Table 1. The MDC is defined as the minimum concentration that gives a 95% probability of detection when the detection criteria are chosen to give only a 5% probability of false detection in a blank sample.

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Table 1**Reporting Units and Minimum Detectable Concentrations
for Radionuclide Analyses**

Radionuclide	Media	Reporting Unit	Minimum Detectable Concentration
Gross Alpha	Water	pCi/L	2
Gross Beta	Air	pCi/m ³	0.0015
	Water	pCi/L	2
	Precipitation	pCi/L	2
Tritium	Water	pCi/L	150
	Milk	pCi/L	150
* Plutonium-238,239/240	Air	aCi/m ³	0.75
	Water	pCi/L	0.1
† Uranium-234,235,238	Air	aCi/m ³	0.75
	Water	pCi/L	0.1
Radium-226	Water	pCi/L	0.02
Strontium-90	Milk	pCi/L	2
	Water	pCi/L	1
‡ Iodine-131	Milk (gamma)	pCi/L	4
	Water (gamma)	pCi/L	4
	Water	pCi/L	0.3
Cesium-137	Milk	pCi/L	5
	Water	pCi/L	5
‡ Barium-140	Milk	pCi/L	15
	Water	pCi/L	15
Potassium	Milk	g/L	0.06
	Water	g/L	0.06
Potassium-40	Water	pCi/L	50

* The MDC for air is based on an assumed total sample volume of 120,000 m³. Measurement by alpha spectrometry includes combined activities of ²³⁹Pu and ²⁴⁰Pu, since the relative contributions of these two isotopes cannot be determined.

† The MDC for air is based on an assumed total sample volume of 120,000 m³.

‡ Activity as of the day of counting.

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1. Air Program

Airborne Particulates and Precipitation

Gross beta radioactivity measurements and certain specific analyses are performed on air particulates and precipitation samples as indicator measurements in assessing the general (national) impact of all contributing sources on environmental levels of radiation. Airborne particulates are collected continuously at field stations representing wide geographic coverage throughout the United States.

Filters (10-cm diameter synthetic fiber) from air samplers are changed twice weekly and field measurements are made with a G-M survey meter 5 hours after collection to allow natural radon isotopes and their progeny to decay. Field estimates are reported to appropriate EPA officials by telephone or mail depending on the activity levels found.

The filters are sent to NAREL for more sensitive analysis in a low background beta counter. Gamma scans are performed on all filters showing gross beta activity greater than 1 pCi/m³. The laboratory obtained values are usually lower than the field estimates because of the decay of naturally occurring radionuclides during the time between the two measurements.

Precipitation samples are collected at most field stations that collect air filters. These samples are also sent to NAREL where they are composited monthly for gamma scans, tritium, and gross beta activity measurements.

A compilation of individual measurements is available from the National Air and Radiation Environmental Laboratory, 540 South Morris Avenue, Montgomery, AL 36115-2601.

Table 2
Gross Beta in Airborne Particulates
July 2005

Location	Number of Samples	5-hour Field Estimate			NAREL Lab Measurement		
		Max	Min	Avg	Max	Min	Avg
		(pCi/m ³)			(pCi/m ³)		
AL: Montgomery/408	8	0.2	0.0	0.1	0.019	0.004	0.009
AR: Little Rock	6	0.0	0.0	0.0	0.025	0.007	0.017
AZ: Phoenix	4	0.4	0.2	0.3	0.024	0.013	0.016
CA: Los Angeles	9	0.5	0.1	0.2	0.014	0.005	0.009
CA: Richmond	4	0.0	0.0	0.0	0.004	0.001	0.002
CO: Denver	7	1.2	0.4	0.8	0.017	0.009	0.014
CT: Hartford	9	0.1	0.0	0.1	0.009	0.004	0.006
DC: Washington	8	0.1	0.0	0.1	0.018	0.008	0.011
DE: Wilmington	7	0.4	0.1	0.2	0.017	0.008	0.012
FL: Jacksonville	8	0.1	0.0	0.1	0.012	0.004	0.007
FL: Miami	2	0.0	0.0	0.0	0.016	0.011	0.013
GA: Atlanta	4	0.0	0.0	0.0	0.012	0.006	0.008
HI: Honolulu	2	0.0	0.0	0.0	0.003	0.002	0.002
IA: Iowa City	8	1.5	0.2	0.5	0.019	0.004	0.011
ID: Idaho Falls	7				0.014	0.008	0.010
IL: Chicago	6	0.4	0.1	0.2	0.015	0.006	0.010
IN: Indianapolis	9	0.6	0.1	0.2	0.013	0.005	0.008
KS: Topeka	3	1.7	0.8	1.1	0.009	0.008	0.009
MA: Boston	8	0.3	0.0	0.1	0.011	0.006	0.009
ME: Augusta	2	0.1	0.1	0.1	0.007	0.005	0.006
MI: Detroit	9	1.5	0.0	0.9	0.020	0.004	0.009
MI: Lansing	8	0.3	0.1	0.2	0.015	0.006	0.010
MN: Minneapolis	3	0.3	0.1	0.1	0.022	0.006	0.014
MS: Jackson	7	0.6	0.0	0.2	0.025	0.006	0.011
NC: Charlotte	9	0.1	0.0	0.0	0.027	0.006	0.011
ND: Bismarck	6	1.0	0.3	0.6	0.014	0.008	0.012
NH: Concord	9	0.3	0.0	0.2	0.010	0.005	0.007
NJ: Trenton	8	0.4	0.1	0.2	0.017	0.005	0.010
NM: Santa Fe	4	1.1	0.0	0.7	0.009	0.004	0.007
NV: Las Vegas/913	3	0.1	0.0	0.0	0.011	0.007	0.009
NY: Albany	4	0.1	0.0	0.0	0.011	0.007	0.009
NY: New York City	8	0.0	0.0	0.0	0.016	0.006	0.009
NY: Yaphank	8	0.1	0.0	0.0	0.010	0.003	0.006
OH: Painesville	8	0.6	0.1	0.3	0.022	0.006	0.012
OH: Ross	9				0.015	0.008	0.012
ON: Ottawa	4	0.1	0.0	0.1	0.006	0.003	0.005
OR: Portland	9	0.1	0.0	0.0	0.005	0.002	0.003
PA: Harrisburg	8	0.6	0.2	0.3	0.016	0.008	0.011

Table 2 (continued)
Gross Beta in Airborne Particulates
July 2005

Location	Number of Samples	5-hour Field Estimate			NAREL Lab Measurement		
		Max	Min	Avg	Max	Min	Avg
		(pCi/m ³)			(pCi/m ³)		
PA: Philadelphia	7	0.0	0.0	0.0	0.010	0.005	0.007
PA: Pittsburgh	8	0.4	0.1	0.2	0.013	0.009	0.011
SC: Barnwell	1	0.0	0.0	0.0	0.008	0.008	0.008
SC: Columbia	5	0.2	0.0	0.1	0.017	0.005	0.009
SD: Pierre	5	0.4	0.1	0.2	0.016	0.009	0.012
TN: Knoxville	7	0.4	0.0	0.1	0.027	0.006	0.013
TN: Nashville	8	0.4	0.1	0.2	0.017	0.006	0.013
TN: Oak Ridge/Bethel	7	0.7	0.2	0.4	0.023	0.007	0.012
TN: Oak Ridge/K25	7	1.1	0.2	0.6	0.027	0.007	0.014
TN: Oak Ridge/Melton	7	1.0	0.2	0.5	0.024	0.005	0.013
TN: Oak Ridge/Y12 E	7	0.9	0.2	0.5	0.022	0.007	0.013
TN: Oak Ridge/Y12 W	7	0.5	0.2	0.3	0.025	0.005	0.014
TX: Austin	7	0.2	0.0	0.1	0.015	0.005	0.009
TX: Dallas	9	0.4	0.0	0.2	0.011	0.006	0.008
TX: El Paso	9	0.7	0.2	0.5	0.016	0.006	0.011
UT: Salt Lake City	7	0.3	0.0	0.2	0.017	0.008	0.012
VA: Lynchburg	5	0.9	0.3	0.6	0.013	0.007	0.010
WA: Olympia	9	0.1	0.0	0.1	0.005	0.001	0.003
WA: Spokane	9	0.5	0.1	0.2	0.012	0.004	0.006

Table 3
Gross Beta in Airborne Particulates
August 2005

Location	Number of Samples	5-hour Field Estimate			NAREL Lab Measurement		
		Max	Min	Avg	Max	Min	Avg
		(pCi/m ³)			(pCi/m ³)		
AL: Montgomery/408	9				0.013	0.005	0.009
AR: Little Rock	8	0.1	0.0	0.0	0.029	0.007	0.015
AZ: Phoenix	5	0.8	0.2	0.4	0.013	0.006	0.011
CA: Los Angeles	6	0.3	0.1	0.2	0.013	0.008	0.011
CA: Richmond	5	0.1	0.0	0.0	0.006	0.003	0.004
CA: San Francisco	1	0.0	0.0	0.0	0.002	0.002	0.002
CO: Denver	8	0.9	0.1	0.5	0.017	0.008	0.011
CT: Hartford	9	0.2	0.1	0.1	0.015	0.003	0.009
DC: Washington	9	0.2	0.0	0.1	0.022	0.006	0.014
DE: Wilmington	9	0.4	0.1	0.3	0.022	0.006	0.013
FL: Jacksonville	8	0.8	0.1	0.2	0.015	0.004	0.009
FL: Miami	5	0.0	0.0	0.0	0.014	0.005	0.009
GA: Atlanta	5	0.0	0.0	0.0	0.016	0.007	0.012
IA: Iowa City	9	0.6	0.1	0.4	0.025	0.005	0.012
ID: Idaho Falls	9				0.014	0.007	0.010
IL: Chicago	9	0.5	0.0	0.2	0.020	0.005	0.010
IN: Indianapolis	8	0.5	0.2	0.3	0.017	0.005	0.010
KS: Topeka	6	3.4	0.2	1.0	0.025	0.009	0.013
MA: Boston	10	0.6	0.0	0.2	0.019	0.004	0.009
ME: Augusta	5	0.1	0.1	0.1	0.009	0.006	0.007
MI: Detroit	8	1.7	0.2	0.8	0.013	0.003	0.007
MI: Lansing	9	0.5	0.2	0.3	0.024	0.004	0.012
MN: Minneapolis	5	0.4	0.1	0.2	0.022	0.007	0.012
MS: Jackson	8	0.5	0.0	0.1	0.018	0.007	0.011
NC: Charlotte	9	0.9	0.0	0.2	0.021	0.008	0.015
NC: Wilmington	4				0.011	0.005	0.009
ND: Bismarck	5	1.3	0.4	0.8	0.016	0.008	0.011
NH: Concord	9	0.5	0.1	0.3	0.013	0.004	0.008
NJ: Trenton	8	0.3	0.1	0.2	0.021	0.005	0.010
NM: Santa Fe	2	2.1	1.5	1.8	0.008	0.007	0.007
NV: Las Vegas/913	7	0.1	0.0	0.1	0.006	0.004	0.005
NY: Albany	5	0.1	0.0	0.1	0.015	0.007	0.011
NY: New York City	7	0.0	0.0	0.0	0.019	0.006	0.013
NY: Yaphank	9	0.2	0.0	0.1	0.011	0.003	0.007
OH: Painesville	9	0.5	0.1	0.4	0.020	0.006	0.012
OH: Ross	9				0.025	0.008	0.015
ON: Ottawa	5	0.1	0.0	0.0	0.006	0.003	0.004
OR: Portland	8	0.1	0.0	0.1	0.006	0.003	0.004

Table 3 (continued)
Gross Beta in Airborne Particulates
August 2005

Location	Number of Samples	5-hour Field Estimate			NAREL Lab Measurement		
		Max	Min	Avg	Max	Min	Avg
		(pCi/m ³)			(pCi/m ³)		
PA: Harrisburg	9	0.7	0.2	0.5	0.029	0.005	0.015
PA: Philadelphia	7	3634.0	0.0	519.2	0.013	0.003	0.009
PA: Pittsburgh	9	0.5	0.1	0.2	0.024	0.003	0.013
SC: Columbia	6	0.2	0.1	0.1	0.016	0.008	0.012
SD: Pierre	8	0.4	0.0	0.3	0.014	0.008	0.012
TN: Knoxville	5	1.3	0.0	0.3	0.029	0.019	0.023
TN: Nashville	8	0.4	0.0	0.2	0.020	0.009	0.015
TN: Oak Ridge/Bethel	9	1.1	0.4	0.8	0.021	0.012	0.016
TN: Oak Ridge/K25	9	1.9	0.5	1.1	0.023	0.012	0.017
TN: Oak Ridge/Melton	9	1.8	0.6	1.1	0.026	0.010	0.016
TN: Oak Ridge/Y12 E	9	1.8	0.5	0.9	0.028	0.013	0.020
TN: Oak Ridge/Y12 W	9	0.8	0.4	0.5	0.025	0.012	0.018
TX: Austin	9	0.2	0.1	0.1	0.013	0.005	0.010
TX: Dallas	8	0.5	0.0	0.2	0.011	0.004	0.009
TX: El Paso	8	0.6	0.2	0.4	0.015	0.006	0.009
UT: Salt Lake City	9	0.3	0.0	0.2	0.012	0.007	0.010
VA: Lynchburg	9	1.5	0.0	0.9	0.021	0.009	0.014
WA: Olympia	9	0.2	0.0	0.1	0.006	0.002	0.003
WA: Spokane	9	0.7	0.0	0.4	0.013	0.006	0.009

Table 4
Gross Beta in Airborne Particulates
September 2005

Location	Number of Samples	5-hour Field Estimate			NAREL Lab Measurement		
		Max	Min (pCi/m ³)	Avg	Max	Min (pCi/m ³)	Avg
AL: Montgomery/408	8	0.1	0.1	0.1	0.028	0.006	0.014
AZ: Phoenix	4	0.4	0.4	0.4	0.014	0.011	0.013
CA: Los Angeles	9	0.5	0.2	0.3	0.021	0.008	0.014
CA: Richmond	4	0.1	0.0	0.0	0.008	0.003	0.005
CA: San Francisco	5				0.005	0.002	0.004
CO: Denver	9	1.3	0.5	0.8	0.017	0.008	0.011
CT: Hartford	9	0.1	0.0	0.1	0.017	0.005	0.007
DC: Washington	9	0.2	0.0	0.1	0.021	0.005	0.012
DE: Wilmington	8	0.2	0.1	0.2	0.019	0.007	0.010
FL: Jacksonville	9	0.1	0.0	0.1	0.023	0.004	0.010
GA: Atlanta	4	0.0	0.0	0.0	0.021	0.012	0.016
IA: Iowa City	9	1.6	0.2	0.6	0.031	0.008	0.015
ID: Idaho Falls	8				0.011	0.006	0.008
IL: Chicago	7	0.6	0.1	0.2	0.026	0.007	0.013
IN: Indianapolis	9	0.7	0.2	0.4	0.026	0.005	0.013
KS: Topeka	4	1.1	0.5	0.9	0.029	0.011	0.018
MA: Boston	10	0.7	0.0	0.2	0.015	0.003	0.008
ME: Augusta	4	0.3	0.1	0.2	0.009	0.007	0.008
MI: Detroit	8	1.7	0.2	0.8	0.021	0.004	0.010
MI: Lansing	9	0.9	0.1	0.4	0.024	0.007	0.013
MN: Minneapolis	4	0.2	0.1	0.1	0.020	0.010	0.013
MS: Jackson	6	0.0	0.0	0.0	0.016	0.009	0.012
NC: Charlotte	6	0.2	0.0	0.1	0.021	0.010	0.016
NC: Wilmington	3				0.013	0.009	0.011
ND: Bismarck	7	2.7	0.2	1.2	0.018	0.010	0.014
NH: Concord	9	0.5	0.1	0.3	0.015	0.004	0.007
NJ: Trenton	8	0.7	0.1	0.3	0.014	0.006	0.009
NM: Santa Fe	5	1.6	1.2	1.4	0.008	0.006	0.007
NV: Las Vegas/913	6	0.1	0.0	0.0	0.009	0.004	0.006
NY: Albany	4	0.1	0.0	0.1	0.018	0.008	0.011
NY: New York City	9	0.0	0.0	0.0	0.037	0.005	0.012
NY: Yaphank	9	0.1	0.0	0.1	0.015	0.003	0.006
OH: Painesville	7	0.4	0.1	0.2	0.020	0.006	0.013
OH: Ross	9				0.095	0.007	0.025
ON: Ottawa	4	0.1	0.0	0.1	0.007	0.005	0.006
OR: Portland	4	0.2	0.1	0.1	0.019	0.003	0.008
PA: Harrisburg	9	0.9	0.1	0.5	0.018	0.009	0.013
PA: Philadelphia	5	0.1	0.0	0.0	0.008	0.003	0.006

Table 4 (continued)
Gross Beta in Airborne Particulates
September 2005

Location	Number of Samples	5-hour Field Estimate			NAREL Lab Measurement		
		Max	Min	Avg	Max	Min	Avg
		(pCi/m ³)			(pCi/m ³)		
PA: Pittsburgh	9	0.6	0.1	0.3	0.029	0.008	0.014
SC: Columbia	5	0.1	0.0	0.1	0.020	0.009	0.015
SD: Pierre	9	0.8	0.2	0.4	0.017	0.006	0.010
TN: Knoxville	4	0.1	0.0	0.0	0.026	0.017	0.023
TN: Nashville	9	0.9	0.1	0.3	0.041	0.010	0.018
TN: Oak Ridge/Bethel	8	1.9	0.4	1.0	0.034	0.010	0.018
TN: Oak Ridge/K25	8	2.4	0.6	1.4	0.031	0.010	0.018
TN: Oak Ridge/Melton	8	2.3	0.5	1.3	0.034	0.010	0.018
TN: Oak Ridge/Y12 E	8	2.3	0.5	1.1	0.042	0.011	0.021
TN: Oak Ridge/Y12 W	8	1.0	0.2	0.5	0.040	0.011	0.021
TX: Austin	9	0.2	0.1	0.2	0.020	0.006	0.014
TX: Dallas	6	0.3	0.1	0.2	0.014	0.004	0.010
TX: El Paso	8	1.4	0.2	0.7	0.018	0.010	0.015
UT: Salt Lake City	7	0.4	0.0	0.2	0.010	0.006	0.009
VA: Lynchburg	7	1.3	0.0	0.7	0.017	0.007	0.012
WA: Olympia	7	0.2	0.0	0.1	0.004	0.002	0.004
WA: Spokane	9	1.0	0.3	0.5	0.011	0.006	0.008

Plutonium and Uranium in Airborne Particulates

Environmental radiation levels of plutonium and uranium are determined by the analysis of annually composited samples (air filters) collected from the continuously operating airborne particulate samplers.

Concentrations of plutonium-238, combined plutonium-239 and 240, and uranium-234, 235, and 238 are determined by alpha spectrometry following chemical separation. The volume of air represented by the annual composite typically ranges from 120,000 to 500,000 cubic meters.

Plutonium and uranium results are published when they become available.

Beta Activity in Precipitation

All stations routinely submit precipitation samples as rainfall, snow, or sleet occurs. The precipitation samples are composited at the NAREL into single monthly samples for each station. Each month that precipitation occurs, an aliquant of the composited sample is analyzed for gross beta, tritium, and gamma-emitting nuclides.

2. Drinking Water Program

The RadNet drinking water program provides data on radionuclide concentrations in the nation's drinking water supplies. Samples are taken at 78 sites which are either major population centers or selected nuclear facility environs.

Drinking water data are used to assess trends and anomalies in concentrations, and to compare with standards set forth in the EPA "National Interim Primary Drinking Water Regulations." These regulations provide for approval of supplies when the combined radium-226 and radium-228 levels do not exceed 5 pCi/L, when the gross alpha (excluding radon and uranium) levels do not exceed 15 pCi/L, when tritium levels do not exceed 20,000 pCi/L, when the strontium-90 levels do not exceed 8 pCi/L, and when the gross beta levels do not exceed 50 pCi/L.

The analyses include (a) tritium on a quarterly basis; (b) gross alpha, gross beta, strontium-90, and gamma on annual composites; (c) radium-226 if the gross alpha exceeds 2 pCi/L and radium-228 if the radium-226 falls between 3 and 5 pCi/L; (d) iodine-131 on one quarterly sample per year for each station; and (e) an annual composite for plutonium-238, combined plutonium-239 and 240, and uranium-234, 235, and 238 for stations that demonstrate gross alpha levels greater than 2 pCi/L.

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3. Milk Program

Pasteurized Milk

Milk is a reliable indicator of the general population's intake of certain radionuclides since it is consumed fresh by a large segment of the population and can contain several of the biologically significant radionuclides that result from environmental releases from nuclear activities. A primary function of this program is to obtain reliable monitoring data relative to current radionuclide concentrations and determine any long-term trends.

Quarterly samples are collected at approximately 55 sampling sites. The samples are composited, according to production, from the major milk suppliers representing more than 80 percent of the milk consumed in a given population center.

The samples are analyzed for gamma-emitting nuclides, including iodine-131, barium-140, cesium-137, and potassium-40. Total potassium concentrations in g/L are determined from potassium-40 activities assuming natural isotopic abundances. During the third quarter collection, one-fourth of the samples are also analyzed for strontium-90 on a four year rotating schedule.

Table 5
Radionuclides in Pasteurized Milk
July - September 2005

Location	Date Collected	K g/L $\pm 2u$		¹³⁷ Cs pCi/L $\pm 2u$	¹⁴⁰ Ba pCi/L $\pm 2u$	¹³¹ I pCi/L $\pm 2u$
AL: Montgomery	07/12/05	1.63	0.11	ND	ND	ND
AR: Little Rock	08/02/05	1.62	0.13	ND	ND	ND
AZ: Phoenix	09/30/05	1.66	0.12	ND	ND	ND
CA: Los Angeles	07/07/05	1.62	0.12	ND	ND	ND
CA: Sacramento	08/18/05	1.72	0.13	ND	ND	ND
CA: San Francisco	07/05/05	1.64	0.12	ND	ND	ND
DE: Wilmington	07/27/05	1.67	0.13	ND	ND	ND
FL: Tampa	07/06/05	1.54	0.12	ND	ND	ND
GA: Atlanta	07/13/05	1.73	0.13	ND	ND	ND
HI: Honolulu	07/07/05	1.53	0.12	ND	ND	ND
IA: Des Moines	07/11/05	1.63	0.13	ND	ND	ND
IN: Indianapolis	07/27/05	1.66	0.13	ND	ND	ND
KS: Wichita	07/13/05	1.69	0.13	ND	ND	ND
KY: Louisville	07/11/05	1.60	0.12	ND	ND	ND
MA: Boston	09/22/05	1.54	0.17	ND	ND	ND
MD: Baltimore	07/01/05	1.60	0.13	ND	ND	ND
ME: Portland	07/13/05	1.62	0.12	ND	ND	ND
MO: Jefferson City	07/06/05	1.62	0.17	ND	ND	ND
NJ: Trenton	08/11/05	1.63	0.13	ND	ND	ND
NM: Albuquerque	07/11/05	1.47	0.13	ND	ND	ND
NV: Las Vegas	07/19/05	1.39	0.13	ND	ND	ND
NY: Buffalo	07/07/05	1.51	0.17	ND	ND	ND
NY: Syracuse	07/07/05	1.67	0.12	ND	ND	ND
OH: Cincinnati	09/06/05	1.58	0.12	ND	ND	ND
OH: Cleveland	08/01/05	1.56	0.13	ND	ND	ND
OR: Portland	08/01/05	1.70	0.13	ND	ND	ND
PA: Philadelphia	07/06/05	1.44	0.11	ND	ND	ND
PA: Pittsburgh	07/05/05	1.61	0.12	ND	ND	ND
TN: Chattanooga	08/18/05	1.68	0.13	ND	ND	ND
TN: Knoxville	08/15/05	1.74	0.13	ND	ND	ND
TN: Memphis	07/18/05	1.60	0.13	ND	ND	ND
TX: San Antonio	07/18/05	1.44	0.11	ND	ND	ND
VT: Montpelier	09/01/05	1.61	0.11	ND	ND	ND
WA: Spokane	07/22/05	1.54	0.12	ND	ND	ND
WA: Tacoma	09/28/05	1.57	0.12	ND	ND	ND
WV: Charleston	07/07/05	1.58	0.12	ND	ND	ND

Note: ND = Not Detected

Table 6
Strontium-90 in Pasteurized Milk
July - September 2005

Location	Date Collected	⁹⁰ Sr pCi/L $\pm 2u$	
CA: San Francisco	07/05/05	0.32	0.69
CA: San Francisco	07/05/05	0.9	1.4
GA: Atlanta	07/13/05	0.05	0.66
IA: Des Moines	07/11/05	0.46	0.62
IA: Des Moines	07/11/05	1.9	1.5
ME: Portland	07/13/05	1.36	0.55
NM: Albuquerque	07/11/05	0.48	0.52
NY: Buffalo	07/07/05	0.85	0.66
OH: Cleveland	08/01/05	1.07	0.56
OR: Portland	08/01/05	0.35	0.51
PA: Pittsburgh	07/05/05	0.97	0.68

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For More Information

Environmental Radiation Data (ERD) is published quarterly by the U.S. Environmental Protection Agency's Office of Radiation and Indoor Air.

Requests for information concerning the operation of RadNet and the data that are generated should be directed as follows:

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