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Dominion[®]

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DOMINION NUCLEAR CONNECTICUT, INC.
MILLSTONE POWER STATION UNITS 1, 2, AND 3
2007 ANNUAL RADIOLOGICAL ENVIRONMENTAL OPERATING REPORT

This letter transmits the Annual Radiological Environmental Operating Report for the Millstone Power Station, for the period January 2007 through December 2007. This satisfies the provisions of Section 5.7.2 of Millstone Power Station Unit 1 Permanently Defueled Technical Specifications (PDTs), and Sections 6.9.1.6a and 6.9.1.3 of the Millstone Power Station Units 2 and 3 Technical Specifications, respectively.

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Sincerely,


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Attachments: 1

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ATTACHMENT 1

2007 ANNUAL RADIOLOGICAL ENVIRONMENTAL OPERATING REPORT

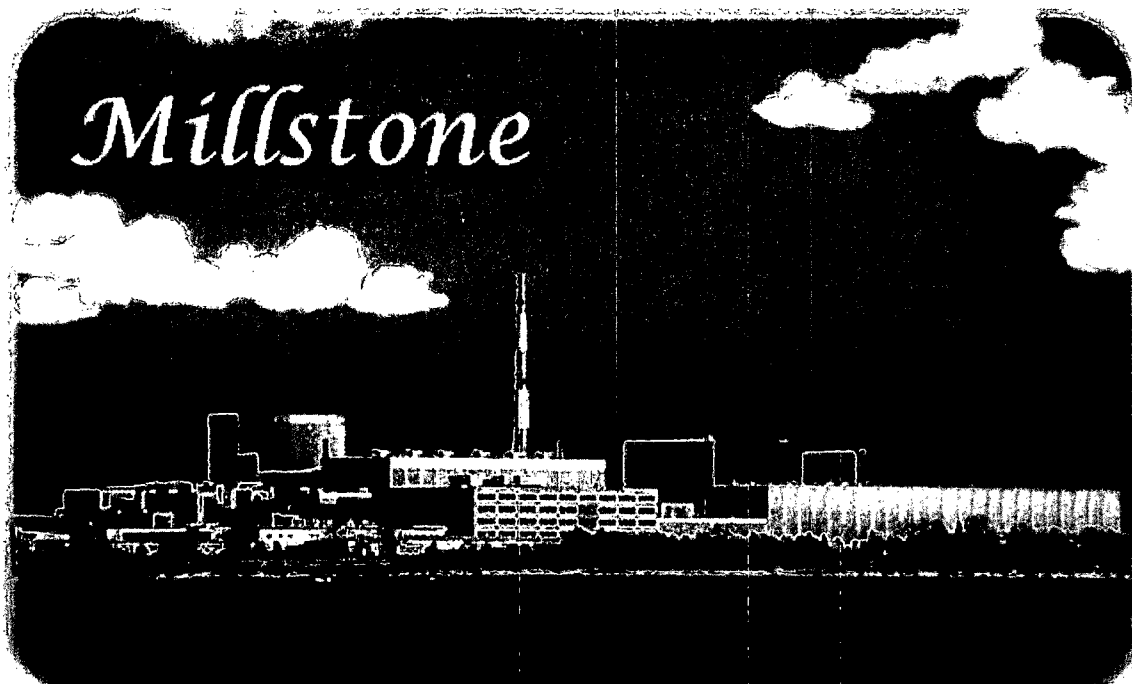
**MILLSTONE POWER STATION UNITS 1, 2, AND 3
DOMINION NUCLEAR CONNECTICUT, INC. (DNC)**

Millstone Power Station

2007

Radiological Environmental Operating Report

January 1, 2007 – December 31, 2007



Dominion Nuclear Connecticut, Inc.

Unit	License	Docket
1	DPR-21	50-245
2	DPR-65	50-336
3	NPF-49	50-423



**ANNUAL
RADIOLOGICAL ENVIRONMENTAL
OPERATING REPORT**

MILLSTONE POWER STATION

RADIOLOGICAL ENVIRONMENTAL MONITORING PROGRAM

2007

**MILLSTONE UNIT 1, DOCKET NO. 50-245
MILLSTONE UNIT 2, DOCKET NO. 50-336
MILLSTONE UNIT 3, DOCKET NO. 50-423**

By the

**Dominion Nuclear Connecticut, Inc.
Waterford, Connecticut**

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EXECUTIVE SUMMARY

INTRODUCTION

This report summarizes the results of the Radiological Environmental Monitoring Program (REMP) conducted in the vicinity of Millstone Power Station (MPS) during the period from January 1 to December 31, 2007. This document has been prepared in accordance with the requirements of Millstone Unit 2 and 3 Technical Specifications.

The REMP has been established to monitor the radiation and radioactivity released to the environment as a result of Millstone Station's operation. This program, initiated in April 1967, includes the collection, analysis, and evaluation of radiological data in order to assess the impact of Millstone Station on the environment and on the general public.

SAMPLING AND ANALYSIS

The environmental sampling media collected in the vicinity of MPS and at distant locations included air particulate filters, charcoal cartridges, soil, goat milk, pasture grass, hay, well water, broadleaf vegetation, fruits, vegetables, seawater, bottom sediment, aquatic flora, fish, mussels, oysters, clams and lobster.

During 2007, there were 1103 samples collected from the atmospheric, aquatic, and terrestrial environments. In addition, 176 exposure measurements were obtained using environmental thermoluminescent dosimeters (TLDs).

A small number of inadvertent issues were encountered in 2007 in the collection of environmental samples in accordance with the Millstone Radiological Effluent Monitoring and Offsite Dose Calculation Manual (REMDCM). Equipment failures and power outages resulted in a small number of instances in which lower than normal sampling volumes were collected at the airborne monitoring stations. In no cases were sampling outages of a duration to not yield a sample. All 416 air particulate and charcoal cartridges were collected and analyzed as required. A full description of all discrepancies encountered with the environmental monitoring program is presented in the Notes for the Data Tables of this report.

There were 1415 analyses performed on the environmental media samples. The AREVA-NP Environmental Laboratory of Westboro, MA, performed these analyses. Samples were analyzed as required by the Millstone REMDCM.

LAND USE CENSUS

The annual land use census in the vicinity of Millstone Station was conducted as required by the Millstone REMDCM between July 15 and December 31, 2007. Although only vegetable gardens having an area of more than 500 square feet need to be identified, due to the difficulty of measuring individual gardens, all gardens identified by a drive-by survey are listed in Appendix A. No new milk or meat animals within 10 miles of the Station were located during the census. Millstone also performs monthly broad leaf sampling that may be used in lieu of the garden census.

RADIOLOGICAL IMPACT TO THE ENVIRONMENT

Most samples collected as part of the Millstone REMP continued to contain detectable amounts of naturally-occurring and man-made radioactive materials. No station effects were detected in terrestrial media. Offsite ambient radiation measurements using environmental TLDs beyond the site boundary ranged between 55 and 90 milliRoentgens per year. The range of ambient radiation levels observed with the TLDs is consistent with natural background radiation levels for Connecticut.

Monitoring of the aquatic environment in the area of the discharge indicated the presence of the following station related radionuclides: Silver-110m, and Tritium. The predominant radioactivity was from non-plant related sources, such as fallout from nuclear weapons tests and naturally occurring radionuclides.

RADIOLOGICAL IMPACT TO THE GENERAL PUBLIC

During 2007, radiation doses to the general public as a result of Millstone Station's operation continued to be well below the federal limits and much less than the dose due to other sources of man-made (e.g., X-rays, medical) and naturally-occurring (e.g., cosmic, radon) radiation.

The calculated total body dose to the maximally exposed member of the general public from radioactive effluents and ambient radiation resulting from MPS operations for 2007 was approximately 0.2 mrem for the year. This conservative estimate is well below the EPA's annual dose limit to any member of the general public and is a fraction of a percent of the typical dose received from natural and other sources of man-made radiation.

CONCLUSIONS

The 2007 Radiological Environmental Monitoring Program for Millstone Station resulted in the collection and analysis of over a thousand environmental samples and measurements. The data obtained were used to determine the impact of Millstone Station's operation on the environment and on the general public.

An evaluation of direct radiation measurements, environmental sample analyses, and dose calculations indicates all applicable federal criteria were met. Furthermore, radiation levels and resulting doses were a small fraction of those attributed to natural and man-made background radiation.

Based on this information, there is no significant radiological impact on the environment or on the general public due to Millstone Station's operation.

1. INTRODUCTION

This section provides an overview of the Millstone Power Station Radiological Environmental Monitoring Program. It also includes background information to allow a reader to have an informed understanding of radiation and nuclear power operation.

1.1 Overview

The Radiological Environmental Monitoring Program for 2007 performed by Dominion Nuclear Company for Millstone Nuclear Power Station (MPS) is discussed in this report. Since the operation of a nuclear power plant results in the release of small amounts of radioactivity and low levels of radiation, the Nuclear Regulatory Commission (NRC) requires a program to be established to monitor radiation and radioactivity in the environment (Reference 1). This report, published annually per Millstone Station's Technical Specifications (section 6.9.1.6 for Unit 2 and Section 6.9.1.3 for Unit 3), summarizes the results of measurements of radiation and radioactivity in the environment in the vicinity of the Millstone Station and at distant locations during the period January 1 to December 31, 2007.

The Radiological Environmental Monitoring Program consists of taking radiation measurements and collecting samples from the environment, analyzing them for radioactivity content, and interpreting the results. With emphasis on the critical radiation exposure pathways to humans, samples from the aquatic, atmospheric, and terrestrial environments are collected. These samples include, but are not limited to: air, soil, goat milk, pasture grass, hay, well water, broadleaf vegetation, fruits, vegetables, seawater, bottom sediment, aquatic flora, fish, mussels, oysters, clams and lobster. Thermoluminescent dosimeters (TLDs) are placed in the environment to measure gamma radiation levels. The TLDs are processed and the environmental samples are analyzed to measure the very low levels of radiation and radioactivity present in the environment as a result of MPS operation and other natural and man-made sources. These results are reviewed by MPS's radiological staff and have been reported semiannually or annually to the Nuclear Regulatory Commission and others for over 30 years.

In order to more fully understand how a nuclear power plant impacts humans and the environment, background information on radiation and radioactivity, natural and man-made sources of radiation, reactor operations, radioactive effluent controls, and radiological impact on humans is provided. It is believed that this information will assist the reader in understanding the radiological impact on the environment and humans from the operation of Millstone Station.

1.2 Radiation and Radioactivity

All matter is made of atoms. An atom is the smallest part into which matter can be broken down and still maintain all its chemical properties. Nuclear radiation is energy, in the form of waves or particles that is given off by unstable, radioactive atoms.

Radioactive material exists naturally and has always been a part of our environment. The earth's crust, for example, contains radioactive uranium, radium, thorium, and potassium. Some radioactivity is a result of nuclear weapons testing. Examples of radioactive fallout that is normally present in environmental samples are cesium-137 and strontium-90. Some examples of radioactive materials released from a nuclear power plant are cesium-137, iodine-131, strontium-90, and cobalt-60.

Radiation is measured in units of millirem, much like temperature is measured in degrees. A millirem (mrem) is a measure of the biological effect of the energy deposited in tissue. The natural and man-made radiation dose received in one year by the average American is 300 to 400 mrem (References 2, 3, 4,5).

Radioactivity is measured in Curies. Levels of radioactivity commonly seen in the environment are typically a small fraction of a Curie. Therefore, radioactivity in the environment is typically measured in picocuries. One picocurie (pCi) is equal to 0.037 disintegrations per second (2.22 disintegrations per minute).

1.3 Sources of Radiation

As mentioned previously, naturally occurring radioactivity has always been a part of our environment. Table 1.3 shows the sources and doses of radiation from natural and man-made sources.

Table 1.3

Radiation Sources and Corresponding Doses

NATURAL		MAN-MADE	
Source	Radiation Dose (millirem/year)	Source	Radiation Dose (millirem/year)
Cosmic/cosmogenic	28	Medical/Dental X-Rays	39
Internal (in the body)	40	Nuclear Medicine	14
Terrestrial *	16	Consumer Products	10
Radon/Thoron	200	Weapons Fallout	1
		Nuclear Power Plants	1
Approximate Total	284	Approximate Total	60

* Atlantic and Gulf Coastal Plain

Cosmic radiation from the sun and outer space penetrates the earth's atmosphere and continuously bombards us with rays and charged particles. Some of this cosmic radiation interacts with gases and particles in the atmosphere, making them radioactive. These radioactive byproducts from cosmic ray bombardment are referred to as cosmogenic radionuclides. Isotopes such as beryllium-7 and carbon-14 are formed in this way. Exposure to cosmic and cosmogenic sources of radioactivity results in about 30 mrem of radiation dose per year.

Additionally, natural radioactivity is in our body and in the food we eat (about 40 millirem/year), the ground we walk on (about 16 millirem/yr) and the air we breathe (about 200 millirem/year). The majority of a person's annual dose results from exposure to radon and thoron in the air we breathe. These gases and their radioactive decay products arise from the decay of naturally occurring uranium, thorium and radium in the soil and building products such as brick, stone, and concrete. Radon and thoron levels vary greatly with location, primarily due to changes in the concentration of uranium and thorium in the soil. Residents at some locations in Colorado, New York, Pennsylvania, New Jersey and even Connecticut have a higher annual dose as a result of higher levels of radon/thoron gases in these areas. In total, these various sources of naturally-occurring radiation and radioactivity contribute to a total dose of about 300 mrem per year.

In addition to natural radiation, we are normally exposed to radiation from a number of man-made sources. The single largest doses from man-made sources result from therapeutic and diagnostic applications of x-rays and radiopharmaceuticals. The annual dose to an individual in the U.S. from medical and dental exposure is about 50 millirem. Consumer products, such as televisions and smoke detectors, contribute about 10 millirem/year. Much smaller doses result from weapons fallout (less than 1 millirem/year) and nuclear power plants (less than 1 mrem/year). Typically, the average person in the United States receives about 60 millirem per year from man-made sources.

1.4 Nuclear Reactor Operations

Millstone Station generates about 2000 megawatts of electricity at full power, which provides approximately one-half of the power consumed in the State of Connecticut. Unit 2 and Unit 3 are pressurized water reactors (Unit 1, which is permanently shutdown, was a boiling water reactor). The nuclear station is located on an approximate 500-acre site about 5 kilometers (three miles) west of New London, CT. Commercial operation of Unit 2 began in December 1975 and Unit 3 in May 1986.

Millstone Station was operational during most of 2007, with the exception of a Unit 3 refueling outage, which was performed between April 6 and May 19. The resulting monthly capacity factors are presented in Table 1.4.

Nuclear-generated electricity is produced by many of the same techniques used for conventional oil and coal-generated electricity. Both systems use heat to boil water to produce steam. The steam turns a turbine, which turns a generator, producing electricity. In both cases, the steam passes through a condenser where it changes back into water and recirculates back through the system. The cooling water source for Millstone Station is the Niantic Bay.

The key difference between nuclear power and conventional power is the source of heat used to boil the water. Conventional plants burn fossil fuels in a boiler, while nuclear plants make use of uranium in a nuclear reactor.

TABLE 1.4

MPS OPERATING CAPACITY FACTOR DURING 2007
(Based on designed electrical rating)

Month	Unit 2 Percent Capacity	Unit 3 Percent Capacity
January	99.7%	88.1%
February	99.7%	99.5%
March	99.5%	99.5%
April	99.6%	18.8% *
May	99.2%	35.7% *
June	99.2%	98.9%
July	99.1%	98.5%
August	98.9%	97.9%
September	99.0%	97.9%
October	99.2%	98.2%
November	99.6%	98.8%
December	98.8%	99.0%
Annual Average	99.3%	85.9%

* shutdown for refueling during these months

Inside the reactor, a nuclear reaction called fission takes place. Particles, called neutrons, strike the nucleus of a uranium-235 atom, causing it to split into fragments called radioactive fission products. The splitting of the atoms releases both heat and more neutrons. The newly-released neutrons then collide with and split other uranium atoms, thus making more heat and releasing even more neutrons, and on and on until the uranium fuel is depleted or spent. This process is called a chain reaction. When this chain reaction is self sustaining, the reactor is called "critical."

The operation of a nuclear reactor results in the release of small amounts of radioactivity and low levels of radiation. The radioactivity originates from two major sources, radioactive fission products and radioactive activation products.

Radioactive fission products, as illustrated in Figure 1.4-1 (Reference 6), originate from the fissioning of the nuclear fuel. These fission products get into the reactor coolant from their release by minute amounts of uranium on the outside surfaces of the fuel cladding, by diffusion through the fuel pellets and cladding and, on occasion, through defects or failures in the fuel cladding. These fission products circulate along with the reactor coolant water and will deposit on the internal surfaces of pipes and equipment. The radioactive fission products on the pipes and equipment emit radiation. Examples of some fission products are krypton-85 (Kr-85), strontium-90 (Sr-90), iodine-131 (I-131), xenon-133 (Xe-133), and cesium-137 (Cs-137).

Nuclear Fission

Fission is the splitting of the uranium-235 atom by a neutron to release heat and more neutrons, creating a chain reaction. Radiation and fission products are by-products of the process.

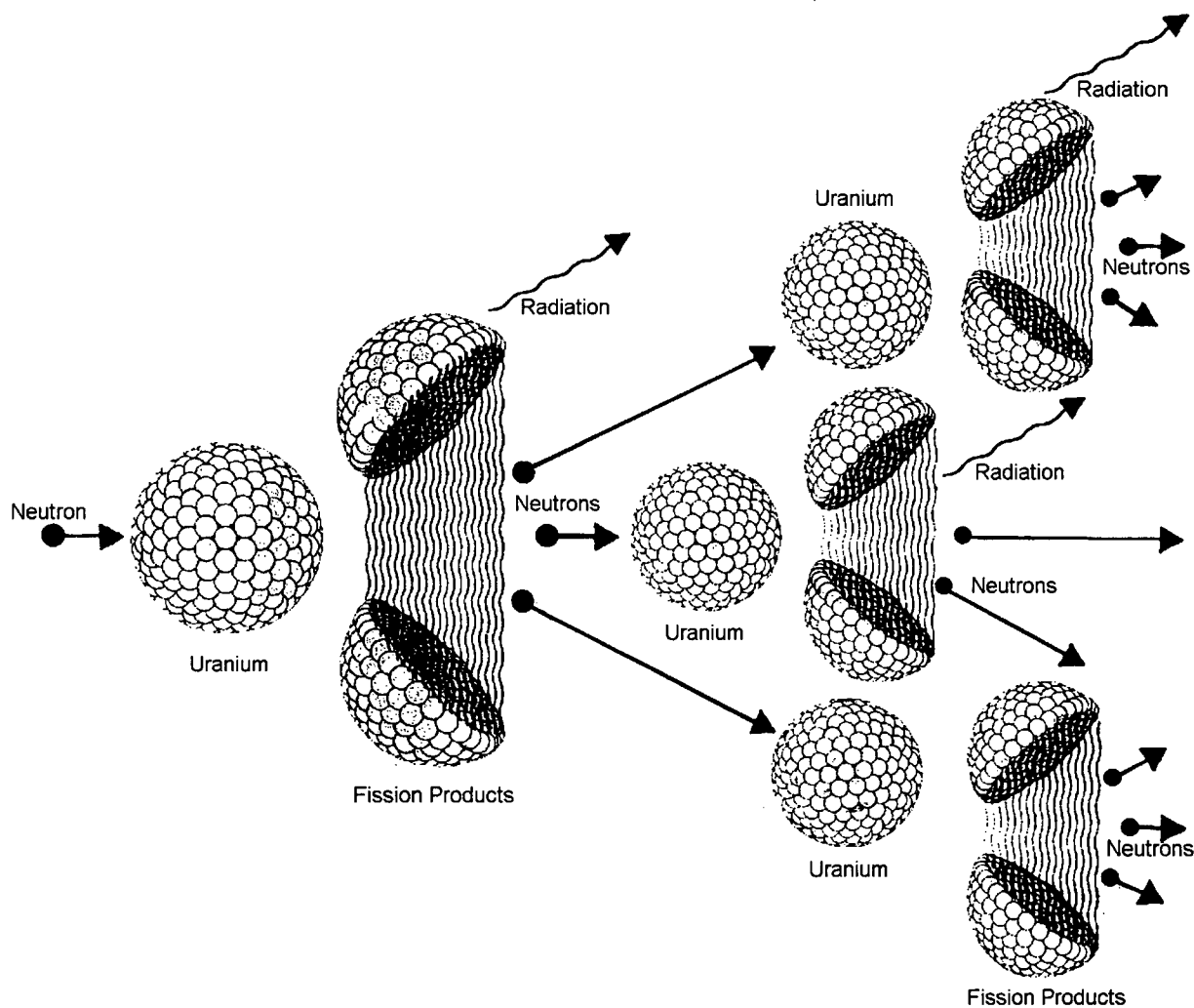


Figure 1.4-1
Radioactive Fission Product Formation

Radioactive activation products (see Figure 1.4-2), on the other hand, originate from two sources. The first is by neutron bombardment of the hydrogen, oxygen and other gas (helium, argon, nitrogen) molecules in the reactor cooling water. The second is a result of the fact that the internals of any piping system or component are subject to minute yet constant corrosion from the reactor cooling water. These minute metallic particles (for example: nickel, iron, cobalt, or magnesium) are transported through the reactor core into the fuel region, where neutrons may react with the nuclei of these particles, producing radioactive products. So, activation products are nothing more than ordinary naturally-occurring atoms that are made unstable or radioactive by neutron bombardment. These activation products circulate along with the reactor coolant water and will deposit on the internal surfaces of pipes and equipment. The radioactive activation products on the pipes and equipment emit radiation. Examples of some activation products are manganese-54 (Mn-54), iron-59 (Fe-59), cobalt-60 (Co-60), and zinc-65 (Zn-65).

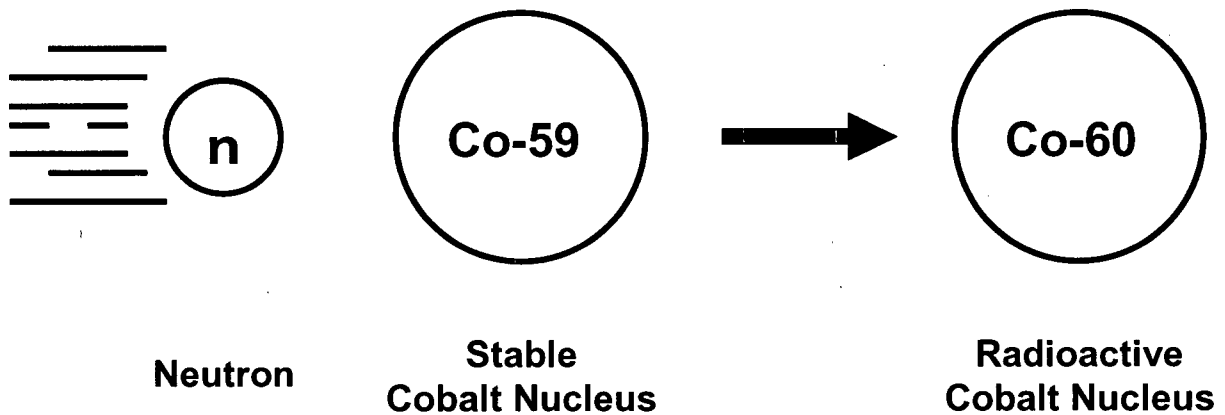


Figure 1.4-2
Radioactive Activation Product Formation

At Millstone Nuclear Power Station there are five independent protective barriers that confine these radioactive materials. These five barriers, which are shown in Figure 1.4-3 (Reference 6), are:

- fuel pellets;
- fuel cladding;
- reactor vessel and piping;
- primary containment and,
- secondary containment (enclosure building).

SIMPLIFIED DIAGRAM OF A PRESSURIZED WATER REACTOR

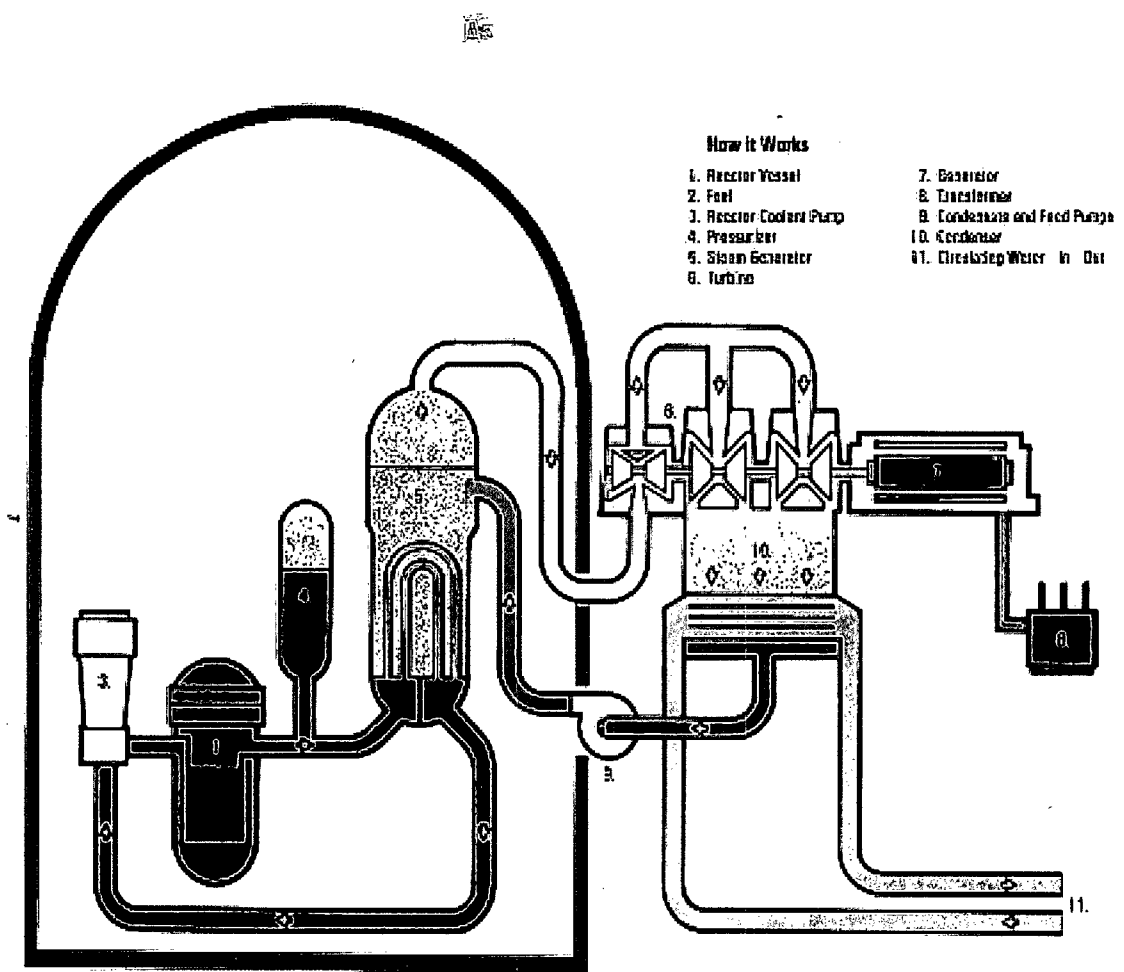


Figure 1.4-3

The ceramic uranium fuel pellets provide the first barrier. Most of the radioactive fission products are either physically trapped or chemically bound between the uranium atoms, where they will remain. However, a few fission products that are volatile or gaseous may diffuse through the fuel pellets into small gaps between the pellets and the fuel cladding.

The second barrier, the fuel cladding, consists of zirconium alloy tubes that confine the fuel pellets. The small gaps between the fuel and the cladding contain the noble gases and volatile iodines that are types of radioactive fission products. This radioactivity can diffuse to a small extent through the fuel cladding into the reactor coolant water.

The third barrier consists of the reactor pressure vessel, steel piping and equipment that confine the reactor cooling water. The reactor pressure vessel, which holds the reactor fuel, is typically a steel tank 40 feet high by 14 feet in diameter with walls about five to nine inches thick. These vessels and associated piping provide containment for radioactivity in the primary coolant and the reactor core. However, during the course of operations and maintenance, small amounts of radioactive fission and activation products can escape through valve leaks or upon breaching of the primary coolant system for maintenance.

The fourth barrier is the primary containment. It is a cylindrical enclosure with approximately five-foot thick steel reinforced concrete walls lined by steel on the inside. Small amounts of radioactivity may be released from primary containment during operation to maintain proper containment pressure and during maintenance and refueling outages.

The fifth barrier is the secondary containment or enclosure building. The enclosure building is a steel building that surrounds the primary containment. This barrier is an additional safety feature at Millstone's reactor units to contain radioactivity that may escape from the primary containment. This enclosure building is equipped with a filtered ventilation system that is used when needed to reduce the radioactivity that escapes from the primary containment.

The five barriers confine most of the radioactive fission and activation products. However, small amounts of radioactivity do escape via mechanical failures and maintenance on valves, piping, and equipment associated with the reactor cooling water system. The small amounts of radioactive liquids and gases that do escape the various containment systems are further controlled by the liquid purification and ventilation filtration systems. Also, prior to a release to the environment, control systems exist to collect and purify the radioactive effluents in order to reduce releases to the environment to as low as is reasonably achievable. The control of radioactive effluents at Millstone Station will be discussed in more detail in the next section.

1.5 Radioactive Effluent Control

The small amounts of radioactive liquids and gases that might escape the first two barriers are purified in the liquid and gaseous waste treatment systems, then monitored for radioactivity, and released only if the radioactivity levels are below the federal release limits.

Radioactivity released from the liquid effluent system to the environment is limited, controlled, and monitored by a variety of systems and procedures which include:

- reactor water cleanup system;
- liquid radwaste treatment system;
- sampling and analysis of the liquid radwaste tanks; and,
- liquid waste effluent discharge radioactivity monitor.

The purpose of the reactor water cleanup system is to continuously purify the reactor cooling water by removing radioactive atoms and non-radioactive impurities that may become activated by neutron bombardment. A portion of the reactor coolant water is diverted from the primary coolant system and is directed through ion exchange resins where radioactive elements, dissolved and suspended in the water, are removed through chemical processes. The net effect is a substantial reduction of the radioactive material that is present in the primary coolant water and consequently the amount of radioactive material that might escape from the system.

Reactor cooling water that might escape the primary cooling system and other radioactive water sources are collected in floor and equipment drains. These drains direct this radioactive liquid waste to large holdup tanks. The liquid waste collected in the tanks is purified again using the liquid radwaste treatment system, which consists of a filter and ion exchange resins.

Processing of liquid radioactive waste results in large reductions of radioactive liquids discharged into Niantic Bay. Wastes processed through liquid radwaste treatment can be purified and when necessary the processed liquid is re-used in plant systems.

Prior to release, the radioactivity in the liquid radwaste tank is sampled and analyzed to determine if the level of radioactivity is below the release limits and to quantify the total amount of radioactive liquid effluent that would be released. If the levels are below the federal release limits, the tank is drained to the liquid effluent discharge header.

This liquid waste effluent discharge line is provided with a shielded radioactivity monitor. This detector is connected to a radiation level meter and a recorder in the Control Room. The radiation alarm is set so that the detector will alarm before radioactivity levels exceed the release limits. The liquid effluent discharge header has an isolation valve. If an alarm is received, the liquid effluent discharge valve will automatically close, thereby terminating the release to the Niantic Bay and preventing any liquid radioactivity from being released that may exceed the release limits. An audible alarm notifies the Control Room operator that this has occurred.

Some liquid waste sources, which have a low potential for containing radioactivity, and/or may contain very low levels of contamination, may be discharged directly to the Long Island Sound. One such source of liquid is the turbine building sump. However, periodic representative samples are collected for analysis of radioactivity content to track the amounts of radioactivity being discharged.

Another means for adjusting liquid effluent concentrations to below federal limits is by mixing plant cooling water from the condenser with the liquid effluents in the discharge canal. This larger volume of cooling water further lowers the radioactivity levels to below the release concentration limits.

The preceding discussion illustrates that many controls exist to reduce the radioactive liquid effluents released to the Niantic Bay to as far below the release limits as is reasonably achievable.

Radioactive releases from the radioactive gaseous effluent system to the environment are limited, controlled, and monitored by a variety of systems and procedures which include:

- containment building ventilation system;
- containment building radioactivity monitors;
- sampling and analysis of containment building vent and purge effluents;
- process gas treatment system;
- auxiliary building (and engineered safeguards and fuel building for Unit 3) ventilation system;
- stack and vent effluent radioactivity monitors;
- sampling and analysis of stack and vent effluents;
- process radiation monitors; and
- steam jet air ejector (SJAE) monitor

The primary sources of gaseous radioactive waste are degassing of the primary coolant, gaseous liquid drains, and gaseous vents. Additional sources of gaseous waste activity include ventilation air released from the auxiliary building and purging and venting of the containment building. The radiation level meter and recorders for the effluent radioactivity monitors are located in the Control Room. The plant process computer aids in tracking the monitor readings. To supplement the information continuously provided by the detector, air samples are taken periodically from the containment, stack and vents. These samples are analyzed to quantify the total amount of tritium and radioactive gaseous and particulate effluents released.

Gases from the primary coolant are held up in waste gas decay tanks for decay at Unit 2. Gaseous waste at Unit 3 is purified through a process gas system, consisting of high-efficiency particulate air filters and charcoal adsorber beds. Gases from periodic venting of the Unit 2 containment are released through a similar process system (Enclosure Building Filtration System) while gases from the Unit 3 containment vacuum pumps are released without treatment. If necessary, Unit 3 containment air can be filtered by an internal particulate and charcoal treatment system. Containment purges (purge is the forced ventilation process while containment vents are pressure releases) for Unit 2 are filtered by high-efficiency particulate filters while at Unit 3 these are not normally filtered. If necessary, particulate and charcoal filters can be used for these purges.

The auxiliary building ventilation system provides for ventilation of the auxiliary building and enclosure building (and service building and contiguous areas, waste disposal building, and fuel building for Unit 3, for Unit 2 these are all part of the auxiliary building). Normally, the air from the ventilation of these areas will exhaust through the ventilation vent (which has a particulate filter for Unit 2). If exhaust from these areas reaches a predetermined level, the ventilation flow can be diverted by operator control to a particulate and charcoal filtration system.

Therefore, for both liquid and gaseous releases, radioactive effluent control systems exist to collect and purify the radioactive effluents in order to reduce releases to the environment to as low as is reasonably achievable. The effluents are always monitored, sampled and analyzed to make sure that radioactivity levels are below the release limits. If the release limits are being approached, isolation valves in some of the waste effluent lines will automatically shut to stop the release, or Control Room operators can implement procedures to ensure that federal regulatory limits are always met.

1.6 Radiological Impact on Humans

The final step in the effluent control process is the determination of the radiological dose impact to humans and comparison with the federal dose limits to the public. This step is performed in three stages. As mentioned previously, the purpose of continuous radiation monitoring and periodic sampling and analysis is to measure the quantities of radioactivity being released to determine compliance with the radioactivity release limits. This is the first stage for assessing releases to the environment.

The second stage is calculations of the dose impact to the general public from Millstone Station's radioactive effluents are performed. The purpose of these calculations is to periodically assess the doses to the general public resulting from radioactive effluents to ensure that these doses are being maintained as far below the federal dose limits as is reasonably achievable. This is the second stage for assessing releases to the environment.

The types and quantities of radioactive liquid and gaseous effluents released from Millstone Station during each given year are reported to the Nuclear Regulatory Commission annually in the Radiological Effluent Release Report (RERR). Similar to this report, the RERR is submitted annually to the Nuclear Regulatory Commission. Section 5 of this report discusses the detailed dose calculations from the RERR and provides a comparison to REMP dose calculations. The liquid and gaseous effluents were well below the federal release limits and were a small percentage of the MPS REMODCM effluent control limits.

The measurements of the physical and chemical nature of the effluents are used to determine how the radionuclides will interact with the environment and how they can result in radiation exposure to humans. The environmental interaction mechanisms depend upon factors such as the hydrological (water) and meteorological (atmospheric) characteristics in the area. Information on the water flow, wind speed, wind direction, and atmospheric mixing characteristics are used to estimate how radioactivity will distribute and disperse in the ocean and the atmosphere.

The most important type of information that is used to evaluate the radiological impact on humans is data on the use of the environment. Information on fish and shellfish consumption, boating usage, beach usage, locations of cows and goats, locations of residences, locations of gardens, drinking water supplies, and other usage information are utilized to estimate the amount of radiation and radioactivity received by the general public.

The radiation exposure pathway to humans is the path radioactivity takes from its release point at Millstone Station to its effect on man. The movement of radioactivity through the environment and its transport to humans is portrayed in Figure 1.6.

EXAMPLES OF MILLSTONE STATION'S RADIATION EXPOSURE PATHWAYS

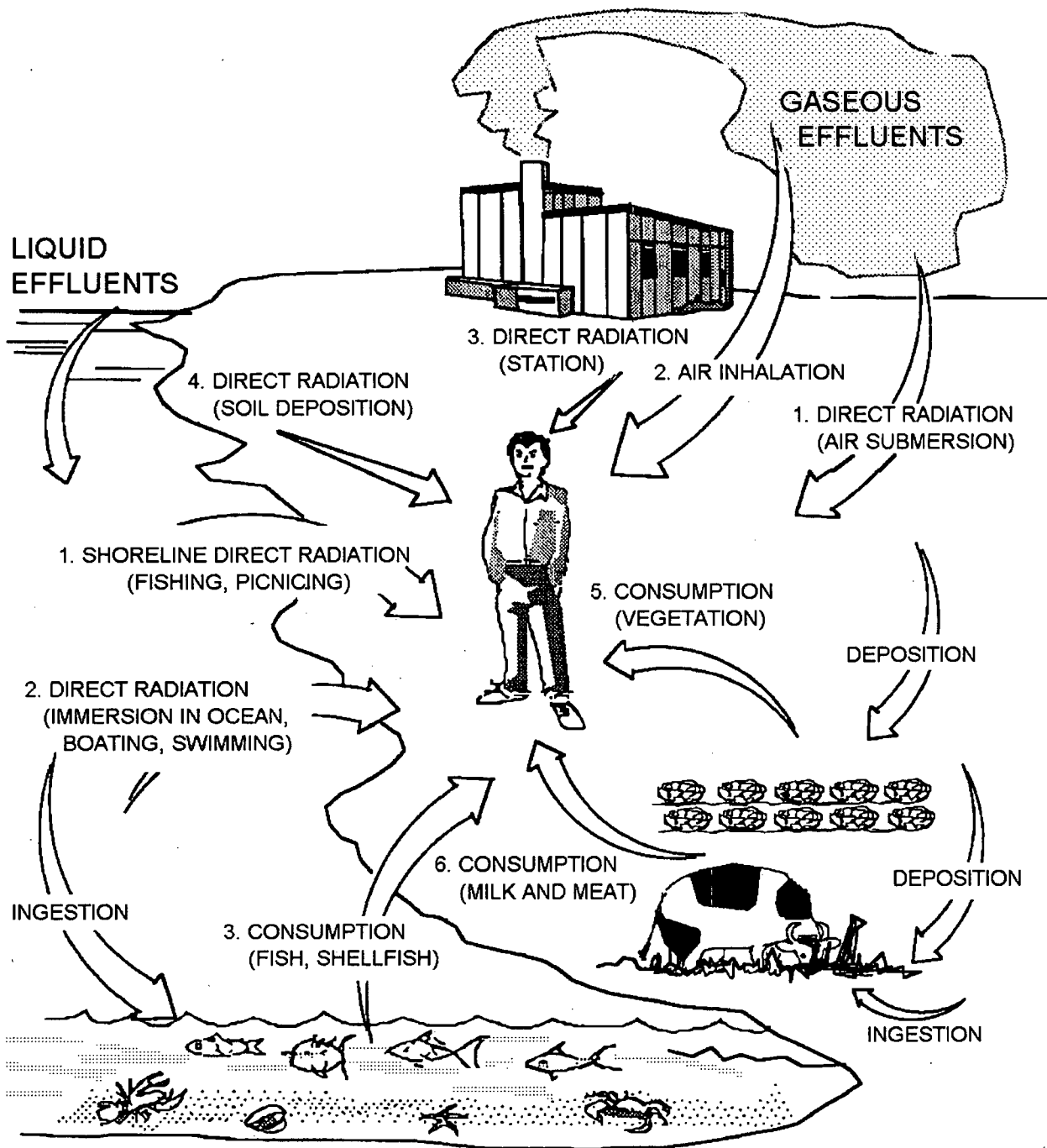


Figure 1.6
Radiation Exposure Pathways

There are three major pathways in which liquid effluents affect humans:

- external radiation from liquid effluents that deposit and accumulate on the shoreline;
- external radiation from immersion in ocean water containing radioactive liquids; and,
- internal radiation from consumption of fish and shellfish containing radioactivity absorbed from the liquid effluents.

There are six major ways in which gaseous effluents affect humans:

- external radiation from an airborne plume of radioactivity;
- internal radiation from inhalation of airborne radioactivity;
- external radiation from deposition of radioactive effluents on soil;
- ambient (direct) radiation from contained sources at the power plant;
- internal radiation from consumption of vegetation containing radioactivity deposited on the vegetation from airborne deposition and absorbed from the soil due to ground deposition of radioactive effluents; and,
- internal radiation from consumption of milk and meat containing radioactivity deposited on forage that is eaten by cattle and other livestock.

In addition, ambient (direct) radiation emitted from contained sources of radioactivity at MPS contributes to radiation exposure in the vicinity of the plant. Small amounts of ambient radiation result from low-level radioactive waste being processed and stored at the site prior to shipping and disposal. Also, the operation of an ISFSI (Independent Spent Fuel Storage Installation, operation began in 2005) results in very small amounts of direct radiation at the site boundary.

The radiological dose impact on humans is based both on effluent analyses and modeling and on direct measurements of radiation and radioactivity in the environment. When MPS-related radioactivity is detected in samples that represent a plausible exposure pathway, the resulting dose from such exposure is assessed (see Sections 4 and 5). However, the operation of Millstone Power Station results in releases of only small amounts of radioactivity, and, as a result of dilution in the atmosphere and ocean, even the most sensitive radioactivity measurement and analysis techniques cannot usually detect these tiny amounts of radioactivity above that which is naturally present in the environment. Therefore, radiation doses are calculated using radioactive effluent release data and computerized dose calculations that are based on conservative NRC-recommended models that tend to result in over-estimates of the resulting dose. These computerized dose calculations are performed by Dominion Nuclear personnel. These computer codes use the guidelines and methodology set forth by the NRC in Regulatory Guide 1.109 (Reference 7). The dose calculations are documented and described in detail in the Millstone Nuclear Power Station's Radiological Effluent Monitoring and Offsite Dose Calculation Manual (Reference 8), which has been reviewed by the NRC.

It should be emphasized that because of the conservative assumptions made in the computer code calculations, the maximum hypothetical dose to an individual is considerably higher than the dose that would actually be received by a real individual.

After dose calculations are performed, the results are compared to the federal dose limits for the public. The two federal agencies that are charged with the responsibility of protecting the public from radiation and radioactivity are the Nuclear Regulatory Commission (NRC) and The Environmental Protection Agency (EPA).

The NRC, in 10CFR 20.1301 (Reference 9) limits the levels of radiation to unrestricted areas resulting from the possession or use of radioactive materials such that they limit any individual to a dose of:

- less than or equal to 100 mrem per year to the total body.

In addition to this dose limit, the NRC has established design objectives for nuclear plant licensees. Conformance to these guidelines ensures that nuclear power reactor effluents are maintained as far below the legal limits as is reasonably achievable.

The NRC, in 10CFR 50 Appendix I (Reference 10) establishes design objectives for the dose to a member of the general public from radioactive material in liquid effluents released to unrestricted areas to be limited to:

- less than or equal to 3 mrem per year, to the total body; and,
- less than or equal to 10 mrem per year to any organ.

The air dose due to release of noble gases in gaseous effluents is restricted to:

- less than or equal to 10 mrad per year for gamma radiation; and,
- less than or equal to 20 mrad per year for beta radiation.

The dose to a member of the general public from iodine-131, tritium, and all particulate radionuclides with half-lives greater than 8 days in gaseous effluents is limited to:

- less than or equal to 15 mrem per year to any organ.

The EPA, in 40CFR190.10 Subpart B (Reference 11), sets forth the environmental standards for the uranium fuel cycle. During normal operation, the annual dose to any member of the public, at or beyond the site boundary, from the entire uranium fuel cycle shall be limited to:

- less than or equal to 25 mrem per year to the total body;
- less than or equal to 75 mrem per year to the thyroid; and,
- less than or equal to 25 mrem per year to any other organ.

The summary of the 2007 radiological impact for Millstone Station and comparison with the EPA dose limits and Appendix I guidelines is presented in Section 5 of this report.

The third stage of assessing releases to the environment is the Radiological Environmental Monitoring Program (REMP). The description and results of the REMF at Millstone Power Station during 2007 is discussed in Sections 2 through 4 of this report.

2. PROGRAM DESCRIPTION

2.1 Sampling Schedule and Locations

The sample locations and the sample types and frequency of analysis are given in Tables 2-1 and 2-2 and Figures 2.1 and 2.2. The program as described on Table 2-2 only lists the required samples as specified in the Radiological Effluent Monitoring and Offsite Dose Calculation Manual. However, in order to identify the locations of the extra samples, all locations (both required and extra) are listed in Table 2-1 and shown on the figures.

Table 2-1 Environmental Monitoring Program Sampling Types and Locations

Location Number*	Location Name	Direction & Distance From Release Point**	Sample Types
1-I	On-site - Old Millstone Rd.	0.6 Mi, NNW	TLD, Air Particulate, Iodine, Vegetation
2-I	On-site - Weather Shack	0.3 Mi, S	TLD, Air Particulate, Iodine
3-I	On-site - Bird Sanctuary	0.3 Mi, NE	TLD, Air Particulate, Iodine, Soil
4-I	On-site - Albacore Drive	1.0 Mi, N	TLD, Air Particulate, Iodine, Soil
5-I	MP3 Discharge	0.1 Mi, SSE	TLD
6-I	Quarry Discharge	0.3 Mi, SSE	TLD
7-I	Environmental Lab Dock	0.3 Mi, SE	TLD
8-I	Environmental Lab	0.3 Mi, SE	TLD
9-I	Bay Point Beach	0.4 Mi, W	TLD
10-I	Pleasure Beach	1.2 Mi, E	TLD, Air Particulate, Iodine, Vegetation
11-I	New London Country Club	1.6 Mi, ENE	TLD, Air Particulate, Iodine
12-C	Fisher's Island, NY	8.0 Mi, ESE	TLD
13-C	Mystic, CT	11.5 Mi, ENE	TLD
14-C	Ledyard, CT	12.0 Mi, NE	TLD, Soil
15-C	Norwich, CT	14.0 Mi, N	TLD, Air Particulate, Iodine
16-C	Old Lyme, CT	8.8 Mi, W	TLD
17-I	Site Boundary	0.5 Mi, NE	Vegetation
21-I	Goat Location #1	2.0 Mi, N	Milk
22-I	Goat Location #2	2.7 Mi, NE	Milk
24-C	Goat Location #4	29.0 Mi, NNW	Milk
25-I	Within 10 Miles	Within 10 Miles	Fruits & Vegetables
26-C	Beyond 10 Miles	Beyond 10 Miles	Fruits & Vegetables
27-I	Niantic	1.7 Mi, WNW	TLD, Air Particulate, Iodine
28-I	Two Tree Island	0.8 Mi, SSE	Mussels
29-I	West Jordan Cove	0.4 Mi, NNE	Clams
30-I	Niantic Shoals	1.5 Mi, NNW	Mussels
31-I	Niantic Shoals	1.8 Mi, NW	Bottom Sediment, Oysters
31-X	Niantic Shoals	1.8 Mi, NW	Scallops
32-I	Vicinity of Discharge	< 0.1 Mi	Bottom Sediment, Oysters, Lobster, Fish, Seawater
32-X	Vicinity of Discharge	< 0.1 Mi	Fucus
33-I	Seaside Point	1.8 Mi, ESE	Bottom Sediment
33-X	Seaside Point	1.8 Mi, ESE	Fucus
34-I	Thames River Yacht Club	4.0 Mi, ENE	Bottom Sediment
34-X	Thames River Yacht club	4.0 Mi, ENE	Oysters
35-I	Niantic Bay	0.3 Mi, WNW	Lobster, Fish
35-X	Niantic Bay	0.3 Mi, WNW	Bottom Sediment, Clams, Fucus
36-I	Black Point	3.0 Mi, WSW	Oysters
36-X	Black Point	3.0 Mi, WSW	Bottom Sediment, Fucus
37-C	Giant's Neck	3.5 Mi, WSW	Bottom Sediment, Oysters, Seawater
37-X	Giant's Neck	3.5 Mi, WSW	Lobster

*Key: I - Indicator C - Control X - Extra - sample not required by REMODCM

**The release points are the MP1 stack for terrestrial locations and the quarry cut for aquatic locations.

Location Number*	Location Name	Direction & Distance From Release Point**	Sample Types
38-I	Waterford Shellfish Bed #1	1.0 Mi, NW	Clams
39-X	Jordon Cove Bar	0.8 Mi, NE	Bottom Sediment, Clams, Fucus
40-X	Quarry	-----	Fish, Oysters
41-I	Myrock Avenue	3.2 Mi, ENE	TLD
42-I	Billow Road	2.4 Mi, WSW	TLD
43-I	Black Point	2.6 Mi, SW	TLD
44-I	Onsite - Schoolhouse	0.1 Mi, NNE	TLD
45-I	Onsite Access Road	0.5 Mi, NNW	TLD
46-I	Old Lyme - Hillcrest Ave.	4.6 Mi, WSW	TLD
47-I	East Lyme - W. Main St.	4.5 Mi, W	TLD
48-I	East Lyme - Corey Rd.	3.4 Mi, WNW	TLD
49-I	East Lyme - Society Rd.	3.6 Mi, NW	TLD
50-I	East Lyme - Manwaring Rd.	2.1 Mi, W	TLD
51-I	East Lyme - Smith Ave.	1.5 Mi, NW	TLD
52-I	Waterford - River Rd.	1.1 Mi, NNW	TLD
53-I	Waterford - Gardiners Wood Rd.	1.4 Mi, NNE	TLD
55-I	Waterford - Magonk Point	1.8 Mi, ESE	TLD
56-I	New London - Mott Ave.	3.7 Mi, E	TLD
57-I	New London - Ocean Ave.	3.6 Mi, ENE	TLD
59-I	Waterford - Miner Ave.	3.4 Mi, NNE	TLD
60-I	Waterford - Parkway South	4.0 Mi, N	TLD
61-I	Waterford - Boston Post Rd.	4.3 Mi, NNW	TLD
62-I	East Lyme - Columbus Ave.	1.9 Mi, WNW	TLD
63-I	Waterford - Jordon Cove Rd.	0.8 Mi, NE	TLD
64-I	Waterford - Shore Rd.	1.1 Mi, ENE	TLD
65-I	Waterford - Bank St.	3.2 Mi, NE	TLD
66-X	NAP Parking Lot - Fitness Center	0.4 Mi, NW	TLD
67-X	Golden Spur	4.7 Mi, NNW	Bottom Sediment
69-X	Pleasure Beach	0.8 Mi, E	Bottom Sediment
71-I	Onsite Well	Onsite	Well Water
72-I	Onsite Well	Onsite	Well Water
73-X	Site Switchyard Fence	0.3 Mi, N	TLD
74-X	Ball Field Foul Pole	0.6 Mi, N	TLD
75-X	Waterford - Windward Way & Shotgun	0.5 Mi, NE	TLD
76-X	Onsite Well - ISFSI Control	Up-gradient of ISFSI	Well Water
77-X	Onsite Well - ISFSI Indicator	Down-gradient of ISFSI	Well Water
78-X	Onsite Well - ISFSI Indicator	Down-gradient of ISFSI	Well Water
79-X	Onsite Well	Onsite	Well Water
80-X	Onsite Well	Onsite	Well Water
81-X	Onsite Well	Onsite	Well Water
82-X	Onsite Well	Onsite	Well Water
83-X	Onsite Well	Onsite	Well Water
84-X	Onsite Well	Onsite	Well Water
85-X	Onsite Well	Onsite	Well Water
86-X	Onsite Well	Onsite	Well Water
90-C	Thames River	4 Mi, E	Fucus

*Key: I - Indicator C - Control X - Extra - sample not required by the REMODCM

**The release points are the MP1 stack for terrestrial locations and the quarry cut for aquatic locations.

Table 2-2 Required Sampling Frequency & Type of Analysis

	Exposure Pathway and/or Sample	No. of Locations	Sampling & Collection Frequency	Type of Analysis
1.	Gamma Dose - Environmental TLD	40 ^a	Quarterly	Gamma Dose - Quarterly
2.	Airborne Particulate	8	Continuous sampler - weekly filter change	Gross Beta - Weekly Gamma Spectrum - Quarterly on composite (by location), and on individual sample if gross beta is greater than 10 times the mean of the weekly control station's gross beta results
3.	Airborne Iodine	8	Continuous sampler - weekly canister change	I-131 - Weekly
4.	Vegetation	5	One sample near middle and one near end of growing season	Gamma Isotopic on each sample
5.	Milk	3	Semimonthly when animals are on pasture; monthly at other times.	Gamma Isotopic and I-131 on each sample; Sr-89 and Sr-90 on quarterly composite
5a.	Pasture Grass	3	Sample as necessary to substitute for unavailable milk	Gamma Isotopic and I-131 on each sample
6.	Sea Water	2	Continuous sampler with a monthly collection at indicator location. Quarterly at control location - Composite of 6 weekly grab samples.	Gamma Isotopic and Tritium on each sample.
6a.	Well Water	2	Semiannual	Gamma Isotopic and Tritium on each sample
7.	Bottom Sediment	5	Semiannual	Gamma Isotopic on each sample
7a.	Soil	3	Annually	Gamma Isotopic on each sample
8.	Fin Fish-Flounder and one other type of edible fin fish	2	Quarterly	Gamma Isotopic on each sample
9.	Mussels (edible portion)	2	Quarterly	Gamma Isotopic on each sample
10.	Oysters (edible portion)	4	Quarterly	Gamma Isotopic on each sample
11.	Clams (edible portion)	2	Quarterly	Gamma Isotopic on each sample
12.	Lobster (edible portion)	2	Quarterly	Gamma Isotopic on each sample

(a) Two or more TLDs or TLD with two or more elements per location.

Figure 2.1 Millstone Sampling Locations

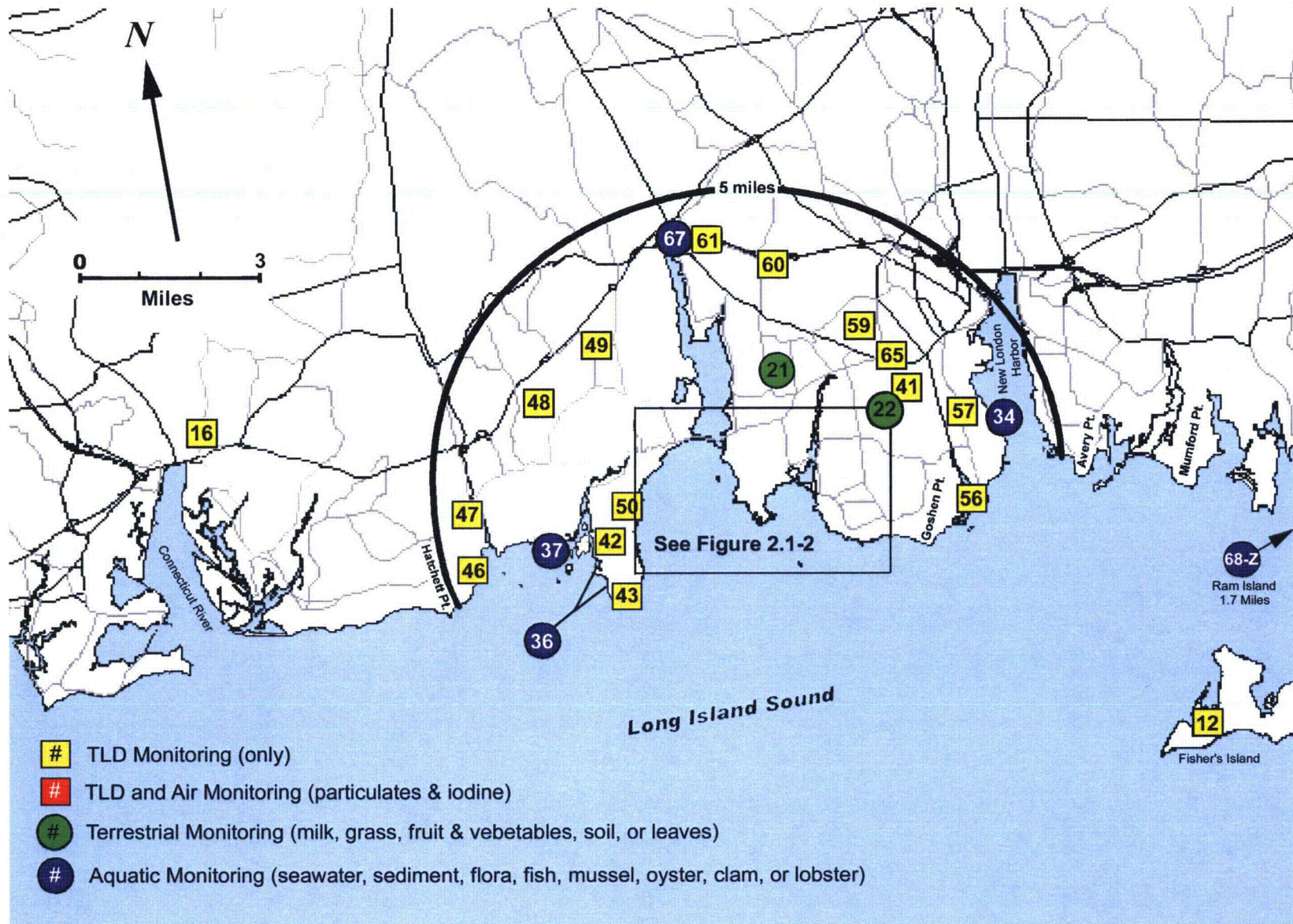
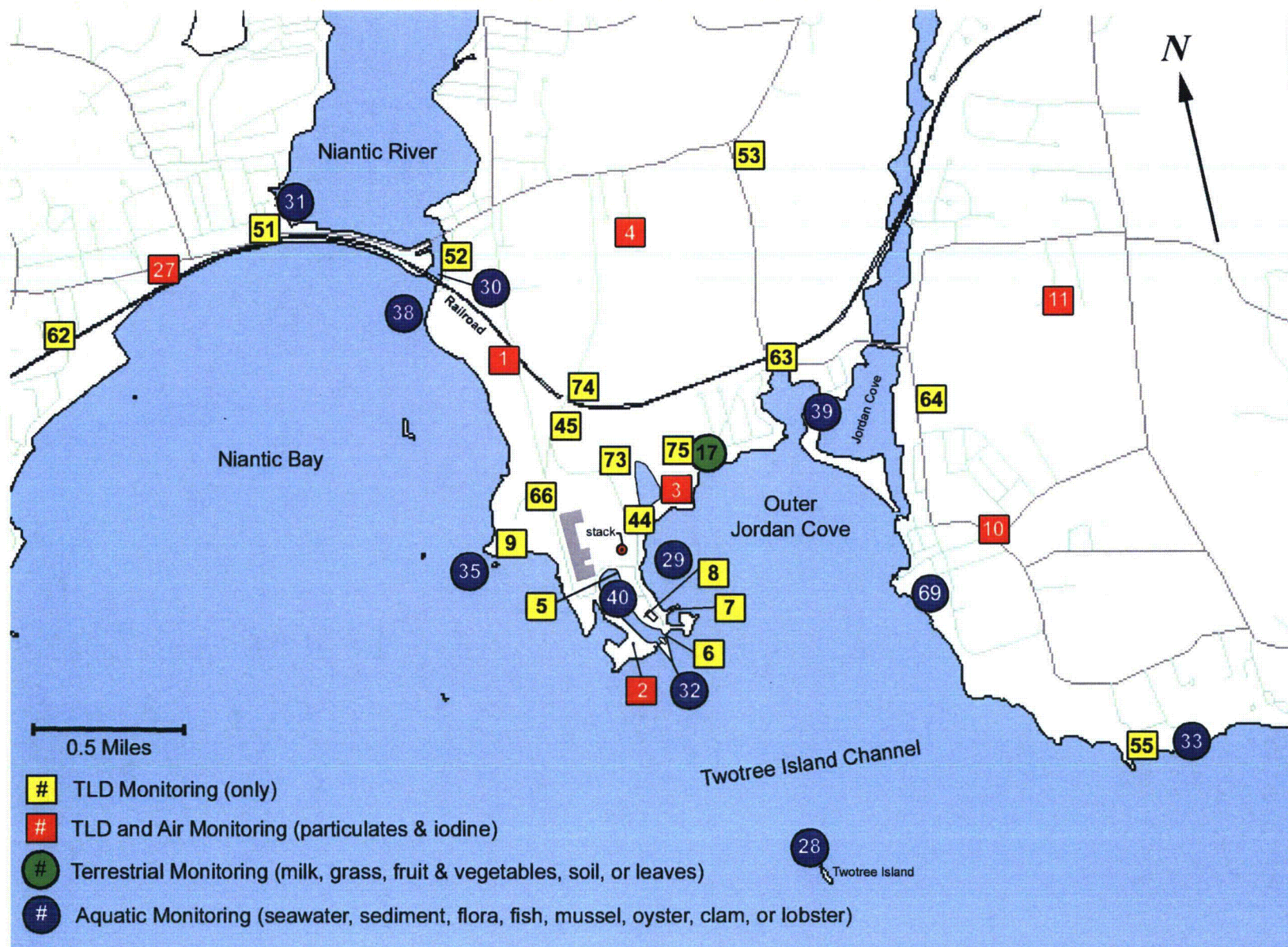


Figure 2.2 Millstone Sampling Locations (Within 2 miles)



2.2 Samples Collected During Report Period

The following table summarizes the number of samples of each type collected and analyzed during 2007:

<u>Sample Type</u>	<u>Number of Technical Specification Required Samples</u>	<u>Number of Technical Specification Required Samples Analyzed</u>	<u>Number of Extra Samples Analyzed</u>
Gamma Exposure (Environmental TLD)	160	160	16
Air Particulates	416	416	0
Air Iodine	416	416	0
Soil	3	3	0
Goat Milk	54	8 ¹	0
Pasture Grass	Variable ²	46	5
Fruit and Vegetables	8	8	1
Broad Leaf Vegetation	6	6	12
Sea Water	16	16	0
Well Water	4	4	40
Bottom Sediment	10	10	10
Aquatic Flora	0	0	24
Fish	16	14 ³	4
Mussels	8	8	0
Oysters	16	16	5
Clams	8	8	11
Lobster	8	8	4
Total All Types	1,149	1,147	132

¹ Pasture grass sampled as necessary to substitute for unavailable milk. Hay or grain was substituted when grass was not available.

² Depends upon availability of goat milk samples

³ Due to sample unavailability, not all required fish samples could be obtained

3. RADIOCHEMICAL RESULTS

3.1 Summary Table

In accordance with the Radiological Effluent Monitoring and Offsite Dose Calculation Manual (REMDCM), Section I.F.1, a summary table of the radiochemical results has been prepared and is presented on the following pages.

The mean and range recorded are based only upon detectable measurements. The parentheses indicate the fraction of the measurements that are considered above the detection limit for each individual analysis.

A more detailed analysis of the data is given in Section 4.0 where a discussion of the variations in the data explains many aspects that are not evident in the Summary Table because of the basic limitation of data summaries. The data summaries include the extra 'X' samples collected throughout the year. These samples are taken to enhance the monitoring program, or are the results of special studies.

RADIOLOGICAL ENVIRONMENTAL MONITORING PROGRAM SUMMARY

DOCKETS 50-245, 50-336 & 50-339

Medium or Pathway Sampled (Units)	Analysis		* LLD	Indicator Locations	Location with Highest Mean			Control Locations	Non-Routine Reported Measurements
	Type	Total No		Mean Range	Name	Distance Direction	Mean Range	Mean Range	
TLD (uR/hr)	Gamma Dose	176	-	7.94 (156/156) (4.5-12.7)	08	0.3 mi SE	11.5 (4/4) (10.8-12.7)	8.21 (20/20) (5.81-11.3)	
AP Gross Beta (1e-3 pCi/m3)	Gross Beta	416	10	19.2 (363/364) (5.6-37.5)	15-C	14.0 mi N	20.1 (52/52) (6.8-35.7)	20.1 (52/52) (6.8-35.7)	
Air Iodine (1e-3 pCi/m3)	I-131	416	70	(0/364)	-	-	< LLD	(0/52)	
AP Gamma (1e-3 pCi/m3)	Ba-140	32	-	(0/28)	-	-	< LLD	(0/4)	
	Be-7	32	-	117 (20/28) (66-178)	01	0.6 mi NNW	136 (3/4) (90-178)	109 (4/4) (83-134)	
	Ce-141	32	-	(0/28)	-	-	< LLD	(0/4)	
	Ce-144	32	-	(0/28)	-	-	< LLD	(0/4)	
	Co-58	32	-	(0/28)	-	-	< LLD	(0/4)	
	Co-60	32	-	(0/28)	-	-	< LLD	(0/4)	
	Cr-51	32	-	(0/28)	-	-	< LLD	(0/4)	
	Cs-134	32	50	(0/28)	-	-	< LLD	(0/4)	
	Cs-137	32	60	(0/28)	-	-	< LLD	(0/4)	
	Mn-54	32	-	(0/28)	-	-	< LLD	(0/4)	
	Nb-95	32	-	(0/28)	-	-	< LLD	(0/4)	
	Ru-103	32	-	(0/28)	-	-	< LLD	(0/4)	
	Ru-106	32	-	(0/28)	-	-	< LLD	(0/4)	
	Zr-95	32	-	(0/28)	-	-	< LLD	(0/4)	

RADIOLOGICAL ENVIRONMENTAL MONITORING PROGRAM SUMMARY

DOCKETS 50-245, 50-336 & 50-339

Medium or Pathway Sampled (Units)	Analysis		* LLD	Indicator Locations	Location with Highest Mean			Control Locations	Non-Routine Reported Measurements
	Type	Total No		Mean Range	Name	Distance Direction	Mean Range	Mean Range	
Soil (pCi/g dry)	Be-7	3	-	(0/2)	-	-	< LLD	(0/1)	
	Ce-141	3	-	(0/2)	-	-	< LLD	(0/1)	
	Ce-144	3	-	(0/2)	-	-	< LLD	(0/1)	
	Co-58	3	-	(0/2)	-	-	< LLD	(0/1)	
	Co-60	3	-	(0/2)	-	-	< LLD	(0/1)	
	Cr-51	3	-	(0/2)	-	-	< LLD	(0/1)	
	Cs-134	3	0.15	(0/2)	-	-	< LLD	(0/1)	
	Cs-137	3	0.18	0.609 (2/2) (0.568-0.65)	14-C	12.0 mi NE	1.21 (1/1) (1.21-1.21)	1.21 (1/1) (1.21-1.21)	
	Fe-59	3	-	(0/2)	-	-	< LLD	(0/1)	
	K-40	3	-	10.6 (2/2) (10.2-11)	14-C	12.0 mi NE	12 (1/1) (12-12)	12 (1/1) (12-12)	
	Mn-54	3	-	(0/2)	-	-	< LLD	(0/1)	
	Nb-95	3	-	(0/2)	-	-	< LLD	(0/1)	
	Ru-103	3	-	(0/2)	-	-	< LLD	(0/1)	
	Ru-106	3	-	(0/2)	-	-	< LLD	(0/1)	
	Sb-125	3	-	(0/2)	-	-	< LLD	(0/1)	
	Th-228	3	-	0.94 (2/2) (0.8-1.08)	14-C	12.0 mi NE	1.17 (1/1) (1.17-1.17)	1.17 (1/1) (1.17-1.17)	
	Zn-65	3	-	(0/2)	-	-	< LLD	(0/1)	
	Zr-95	3	-	(0/2)	-	-	< LLD	(0/1)	

RADIOLOGICAL ENVIRONMENTAL MONITORING PROGRAM SUMMARY

DOCKETS 50-245, 50-336 & 50-339

Medium or Pathway Sampled (Units)	Analysis		* LLD	Indicator Locations	Location with Highest Mean			Control Locations	Non-Routine Reported Measurements
	Type	Total No		Mean Range	Name	Distance Direction	Mean Range	Mean Range	
Goat Milk (pCi/L)	Ba-140	8	70	(0/5)	-	-	< LLD	(0/3)	
	Cs-134	8	15	(0/5)	-	-	< LLD	(0/3)	
	Cs-137	8	18	(0/5)	24-C	29.0 mi NNW	7.7 (1/3) (7.7-7.7)	7.7 (1/3) (7.7-7.7)	
	I-131	8	1	(0/5)	-	-	< LLD	(0/3)	
	K-40	8	-	1143 (5/5) (760-1650)	24-C	29.0 mi NNW	1330 (3/3) (910-1590)	1330 (3/3) (910-1590)	
	La-140	8	25	(0/5)	-	-	< LLD	(0/3)	
	Sr-89	2	-	(0/1)	-	-	< LLD	(0/1)	
	Sr-90	2	-	(0/1)	-	-	< LLD	(0/1)	
Pasture Grass (Hay) (pCi/g wet)	Ba-140	51	-	(0/36)	-	-	< LLD	(0/15)	
	Be-7	51	-	1.35 (18/36) (0.44-3.74)	22	2.7 mi NE	1.81 (10/18) (0.5-3.74)	1.32 (11/15) (0.37-6.6)	
	Ce-141	51	-	(0/36)	-	-	< LLD	(0/15)	
	Ce-144	51	-	(0/36)	-	-	< LLD	(0/15)	
	Co-58	51	-	(0/36)	-	-	< LLD	(0/15)	
	Co-60	51	-	(0/36)	-	-	< LLD	(0/15)	
	Cr-51	51	-	(0/36)	-	-	< LLD	(0/15)	
	Cs-134	51	0.06	(0/36)	-	-	< LLD	(0/15)	
	Cs-137	51	0.08	0.074 (1/36) (0.074-0.074)	22	2.7 mi NE	0.074 (1/18) (0.074-0.074)	(0/15)	
	Fe-59	51	-	(0/36)	-	-	< LLD	(0/15)	

RADIOLOGICAL ENVIRONMENTAL MONITORING PROGRAM SUMMARY

DOCKETS 50-245, 50-336 & 50-339

Medium or Pathway Sampled (Units)	Analysis		* LLD	Indicator Locations	Location with Highest Mean			Control Locations	Non-Routine Reported Measurements
	Type	Total No		Mean Range	Name	Distance Direction	Mean Range	Mean Range	
Pasture Grass (Hay) (pCi/g wet)	I-131	51	0.06	(0/36)	-	-	< LLD	(0/15)	
	K-40	51	-	7.75 (36/36) (3.64-22.9)	21	2.0 mi N	8.77 (18/18) (3.64-22.9)	7.78 (15/15) (4.17-15)	
	La-140	51	-	(0/36)	-	-	< LLD	(0/15)	
	Mn-54	51	-	(0/36)	-	-	< LLD	(0/15)	
	Nb-95	51	-	(0/36)	-	-	< LLD	(0/15)	
	Ru-103	51	-	(0/36)	-	-	< LLD	(0/15)	
	Ru-106	51	-	(0/36)	-	-	< LLD	(0/15)	
	Sb-125	51	-	(0/36)	-	-	< LLD	(0/15)	
	Th-228	51	-	0.2 (2/36) (0.18-0.22)	22	2.7 mi NE	0.2 (2/18) (0.18-0.22)	(0/15)	
	Zn-65	51	-	(0/36)	-	-	< LLD	(0/15)	
	Zr-95	51	-	(0/36)	-	-	< LLD	(0/15)	
Well Water (pCi/L)	Ba-140	44	60	(0/44)	-	-	< LLD	(0/0)	
	Be-7	44	-	(0/44)	-	-	< LLD	(0/0)	
	Co-58	44	15	(0/44)	-	-	< LLD	(0/0)	
	Co-60	44	15	(0/44)	-	-	< LLD	(0/0)	
	Cr-51	44	-	(0/44)	-	-	< LLD	(0/0)	
	Cs-134	44	15	(0/44)	-	-	< LLD	(0/0)	
	Cs-137	44	18	(0/44)	-	-	< LLD	(0/0)	

RADIOLOGICAL ENVIRONMENTAL MONITORING PROGRAM SUMMARY

DOCKETS 50-245, 50-336 & 50-339

Medium or Pathway Sampled (Units)	Analysis		* LLD	Indicator Locations	Location with Highest Mean			Control Locations	Non-Routine Reported Measurements
	Type	Total No.		Mean Range	Name	Distance Direction	Mean Range	Mean Range	
Well Water (pCi/L)	Fe-59	44	30	(0/44)	-	-	< LLD	(0/0)	
	H-3	44	2000	(0/44)	-	-	< LLD	(0/0)	
	I-131	44	15	(0/44)	-	-	< LLD	(0/0)	
	K-40	44	-	92 (1/44) (92-92)	79		92 (1/5) (92-92)	(0/0)	
	La-140	44	15	(0/44)	-	-	< LLD	(0/0)	
	Mn-54	44	15	(0/44)	-	-	< LLD	(0/0)	
	Nb-95	44	15	(0/44)	-	-	< LLD	(0/0)	
	Ru-103	44	-	(0/44)	-	-	< LLD	(0/0)	
	Ru-106	44	-	(0/44)	-	-	< LLD	(0/0)	
	Sb-125	44	-	(0/44)	-	-	< LLD	(0/0)	
	Th-228	44	-	15 (1/44) (15-15)	84		15 (1/3) (15-15)	(0/0)	
	Zn-65	44	30	(0/44)	-	-	< LLD	(0/0)	
	Zr-95	44	30	(0/44)	-	-	< LLD	(0/0)	
Fruits & Vegetables (pCi/g wet)	Ba-140	9	-	(0/5)	-	-	< LLD	(0/4)	
	Be-7	9	-	0.151 (1/5) (0.151-0.151)	25	10- mi	0.151 (1/5) (0.151-0.151)	(0/4)	
	Ce-141	9	-	(0/5)	-	-	< LLD	(0/4)	
	Ce-144	9	-	(0/5)	-	-	< LLD	(0/4)	
	Co-58	9	-	(0/5)	-	-	< LLD	(0/4)	

RADIOLOGICAL ENVIRONMENTAL MONITORING PROGRAM SUMMARY

DOCKETS 50-245, 50-336 & 50-339

Medium or Pathway Sampled (Units)	Analysis		* LLD	Indicator Locations	Location with Highest Mean			Control Locations	Non-Routine Reported Measurements
	Type	Total No		Mean Range	Name	Distance Direction	Mean Range	Mean Range	
Fruits & Vegetables (pCi/g wet)	Co-60	9	-	(0/5)	-	-	< LLD	(0/4)	
	Cr-51	9	-	(0/5)	-	-	< LLD	(0/4)	
	Cs-134	9	0.06	(0/5)	-	-	< LLD	(0/4)	
	Cs-137	9	0.08	(0/5)	-	-	< LLD	(0/4)	
	Fe-59	9	-	(0/5)	-	-	< LLD	(0/4)	
	I-131	9	0.06	(0/5)	-	-	< LLD	(0/4)	
	K-40	9	-	2.57 (5/5) (1.17-4.6)	25	10- mi	2.57 (5/5) (1.17-4.6)	2.1 (4/4) (1.14-3.06)	
	La-140	9	-	(0/5)	-	-	< LLD	(0/4)	
	Mn-54	9	-	(0/5)	-	-	< LLD	(0/4)	
	Nb-95	9	-	(0/5)	-	-	< LLD	(0/4)	
	Ru-103	9	-	(0/5)	-	-	< LLD	(0/4)	
	Ru-106	9	-	(0/5)	-	-	< LLD	(0/4)	
	Sb-125	9	-	(0/5)	-	-	< LLD	(0/4)	
	Th-228	9	-	(0/5)	-	-	< LLD	(0/4)	
	Zn-65	9	-	(0/5)	-	-	< LLD	(0/4)	
	Zr-95	9	-	(0/5)	-	-	< LLD	(0/4)	

RADIOLOGICAL ENVIRONMENTAL MONITORING PROGRAM SUMMARY

DOCKETS 50-245, 50-336 & 50-339

Medium or Pathway Sampled (Units)	Analysis		* LLD	Indicator Locations	Location with Highest Mean			Control Locations	Non-Routine Reported Measurements
	Type	Total No		Mean Range	Name	Distance Direction	Mean Range	Mean Range	
Broadleaf Vegetation (pCi/g wet)	Ba-140	18	-	(0/18)	-	-	< LLD	(0/0)	
	Be-7	18	-	1.1 (10/18) (0.52-3.55)	01	0.6 mi NNW	1.47 (4/6) (0.63-3.55)	(0/0)	
	Ce-141	18	-	(0/18)	-	-	< LLD	(0/0)	
	Ce-144	18	-	(0/18)	-	-	< LLD	(0/0)	
	Co-58	18	-	(0/18)	-	-	< LLD	(0/0)	
	Co-60	18	-	(0/18)	-	-	< LLD	(0/0)	
	Cr-51	18	-	(0/18)	-	-	< LLD	(0/0)	
	Cs-134	18	0.06	(0/18)	-	-	< LLD	(0/0)	
	Cs-137	18	0.08	(0/18)	-	-	< LLD	(0/0)	
	Fe-59	18	-	(0/18)	-	-	< LLD	(0/0)	
	I-131	18	0.06	(0/18)	-	-	< LLD	(0/0)	
	K-40	18	-	3.23 (18/18) (2.26-4.42)	10	1.2 mi E	3.78 (6/6) (3.39-4.42)	(0/0)	
	La-140	18	-	(0/18)	-	-	< LLD	(0/0)	
	Mn-54	18	-	(0/18)	-	-	< LLD	(0/0)	
	Nb-95	18	-	(0/18)	-	-	< LLD	(0/0)	
	Ru-103	18	-	(0/18)	-	-	< LLD	(0/0)	
Ru-106	18	-	(0/18)	-	-	< LLD	(0/0)		
Sb-125	18	-	(0/18)	-	-	< LLD	(0/0)		

RADIOLOGICAL ENVIRONMENTAL MONITORING PROGRAM SUMMARY

DOCKETS 50-245, 50-336 & 50-339

Medium or Pathway Sampled (Units)	Analysis		* LLD	Indicator Locations	Location with Highest Mean			Control Locations	Non-Routine Reported Measurements
	Type	Total No		Mean Range	Name	Distance Direction	Mean Range	Mean Range	
Broadleaf Vegetation (pCi/g wet)	Th-228	18	-	0.165 (1/18) (0.165-0.165)	17	0.5 mi NE	0.165 (1/6) (0.165-0.165)	(0/0)	
	Zn-65	18	-	(0/18)	-	-	< LLD	(0/0)	
	Zr-95	18	-	(0/18)	-	-	< LLD	(0/0)	
Sea Water (pCi/L)	Ba-140	16	60	(0/12)	-	-	< LLD	(0/4)	
	Be-7	16	-	(0/12)	-	-	< LLD	(0/4)	
	Co-58	16	15	(0/12)	-	-	< LLD	(0/4)	
	Co-60	16	15	(0/12)	-	-	< LLD	(0/4)	
	Cr-51	16	-	(0/12)	-	-	< LLD	(0/4)	
	Cs-134	16	15	(0/12)	-	-	< LLD	(0/4)	
	Cs-137	16	18	(0/12)	-	-	< LLD	(0/4)	
	Fe-59	16	30	(0/12)	-	-	< LLD	(0/4)	
	H-3	16	2000	910 (5/12) (340-1940)	32		910 (5/12) (340-1940)	300 (1/4) (300-300)	
	I-131	16	15	(0/12)	-	-	< LLD	(0/4)	
	K-40	16	-	290 (12/12) (175-410)	32		290 (12/12) (175-410)	263 (4/4) (205-315)	
	La-140	16	15	(0/12)	-	-	< LLD	(0/4)	
	Mn-54	16	15	(0/12)	-	-	< LLD	(0/4)	
Nb-95	16	15	(0/12)	-	-	< LLD	(0/4)		
Ru-103	16	-	(0/12)	-	-	< LLD	(0/4)		

RADIOLOGICAL ENVIRONMENTAL MONITORING PROGRAM SUMMARY

DOCKETS 50-245, 50-336 & 50-339

Medium or Pathway Sampled (Units)	Analysis		* LLD	Indicator Locations	Location with Highest Mean			Control Locations	Non-Routine Reported Measurements
	Type	Total No		Mean Range	Name	Distance Direction	Mean Range	Mean Range	
Sea Water (pCi/L)	Ru-106	16	-	(0/12)	-	-	< LLD	(0/4)	
	Sb-125	16	-	(0/12)	-	-	< LLD	(0/4)	
	Th-228	16	-	14.7 (1/12) (14.7-14.7)	32	-	14.7 (1/12) (14.7-14.7)	(0/4)	
	Zn-65	16	30	(0/12)	-	-	< LLD	(0/4)	
	Zr-95	16	30	(0/12)	-	-	< LLD	(0/4)	
Bottom Sediment (pCi/g dry)	Ag-110m	20	-	(0/18)	-	-	< LLD	(0/2)	
	Be-7	20	-	(0/18)	-	-	< LLD	(0/2)	
	Co-58	20	-	(0/18)	-	-	< LLD	(0/2)	
	Co-60	20	-	(0/18)	-	-	< LLD	(0/2)	
	Cr-51	20	-	(0/18)	-	-	< LLD	(0/2)	
	Cs-134	20	0.15	(0/18)	-	-	< LLD	(0/2)	
	Cs-137	20	0.18	0.165 (1/18) (0.165-0.165)	67-X	4.7 mi NNW	0.165 (1/2) (0.165-0.165)	(0/2)	
	Fe-59	20	-	(0/18)	-	-	< LLD	(0/2)	
	I-131	20	-	(0/18)	-	-	< LLD	(0/2)	
	K-40	20	-	15.4 (18/18) (12.1-20.3)	39-X	0.8 mi NE	18.1 (2/2) (15.8-20.3)	14.9 (2/2) (14.5-15.2)	
	Mn-54	20	-	(0/18)	-	-	< LLD	(0/2)	
	Nb-95	20	-	(0/18)	-	-	< LLD	(0/2)	
	Ru-103	20	-	(0/18)	-	-	< LLD	(0/2)	
	Ru-106	20	-	(0/18)	-	-	< LLD	(0/2)	

RADIOLOGICAL ENVIRONMENTAL MONITORING PROGRAM SUMMARY

DOCKETS 50-245, 50-336 & 50-339

Medium or Pathway Sampled (Units)	Analysis		* LLD	Indicator Locations	Location with Highest Mean			Control Locations	Non-Routine Reported Measurements
	Type	Total No			Mean Range	Name	Distance Direction		
Bottom Sediment (pCi/g dry)	Sb-125	20	-	(0/18)	-	-	< LLD	(0/2)	
	Th-228	20	-	0.859 (13/18) (0.4-1.56)	29	0.4 mi NNE	1.05 (2/2) (0.9-1.2)	0.27 (1/2) (0.27-0.27)	
	Zn-65	20	-	(0/18)	-	-	< LLD	(0/2)	
	Zr-95	20	-	(0/18)	-	-	< LLD	(0/2)	
Aquatic Flora (pCi/g wet)	Ag-110m	24	-	(0/20)	-	-	< LLD	(0/4)	
	Be-7	24	-	0.213 (3/20) (0.18-0.24)	90-C	4.2 mi ENE	0.36 (1/4) (0.36-0.36)	0.36 (1/4) (0.36-0.36)	
	Co-58	24	-	(0/20)	-	-	< LLD	(0/4)	
	Co-60	24	-	(0/20)	-	-	< LLD	(0/4)	
	Cr-51	24	-	(0/20)	-	-	< LLD	(0/4)	
	Cs-134	24	-	(0/20)	-	-	< LLD	(0/4)	
	Cs-137	24	-	(0/20)	-	-	< LLD	(0/4)	
	Fe-59	24	-	(0/20)	-	-	< LLD	(0/4)	
	I-131	24	-	(0/20)	90-C	4.2 mi ENE	0.046 (1/4) (0.046-0.046)	0.046 (1/4) (0.046-0.046)	
	K-40	24	-	5.41 (20/20) (3.77-7.43)	32-X		5.99 (4/4) (4.97-7.43)	4.95 (4/4) (4.22-6.65)	
	Mn-54	24	-	(0/20)	-	-	< LLD	(0/4)	
	Nb-95	24	-	(0/20)	-	-	< LLD	(0/4)	
	Ru-103	24	-	(0/20)	-	-	< LLD	(0/4)	
	Ru-106	24	-	(0/20)	-	-	< LLD	(0/4)	
	Sb-125	24	-	(0/20)	-	-	< LLD	(0/4)	

RADIOLOGICAL ENVIRONMENTAL MONITORING PROGRAM SUMMARY

DOCKETS 50-245, 50-336 & 50-339

Medium or Pathway Sampled (Units)	Analysis		* LLD	Indicator Locations	Location with Highest Mean			Control Locations	Non-Routine Reported Measurements
	Type	Total No		Mean Range	Name	Distance Direction	Mean Range	Mean Range	
Aquatic Flora (pCi/g wet)	Th-228	24	-	0.067 (4/20) (0.056-0.074)	35-X	0.3 mi WNW	0.074 (1/4) (0.074-0.074)	(0/4)	
	Zn-65	24	-	(0/20)	-	-	< LLD	(0/4)	
	Zr-95	24	-	(0/20)	-	-	< LLD	(0/4)	
Fish-Flounder (pCi/g wet)	Ag-110m	8	-	(0/8)	-	-	< LLD	(0/0)	
	Be-7	8	-	(0/8)	-	-	< LLD	(0/0)	
	Co-58	8	0.13	(0/8)	-	-	< LLD	(0/0)	
	Co-60	8	0.13	(0/8)	-	-	< LLD	(0/0)	
	Cr-51	8	-	(0/8)	-	-	< LLD	(0/0)	
	Cs-134	8	0.13	(0/8)	-	-	< LLD	(0/0)	
	Cs-137	8	0.15	(0/8)	-	-	< LLD	(0/0)	
	Fe-59	8	0.26	(0/8)	-	-	< LLD	(0/0)	
	I-131	8	-	(0/8)	-	-	< LLD	(0/0)	
	K-40	8	-	3.63 (8/8) (3.26-4.25)	32	-	3.72 (4/4) (3.26-4.25)	(0/0)	
	Mn-54	8	0.13	(0/8)	-	-	< LLD	(0/0)	
	Nb-95	8	-	(0/8)	-	-	< LLD	(0/0)	
	Ru-103	8	-	(0/8)	-	-	< LLD	(0/0)	
	Ru-106	8	-	(0/8)	-	-	< LLD	(0/0)	
Sb-125	8	-	(0/8)	-	-	< LLD	(0/0)		
Th-228	8	-	(0/8)	-	-	< LLD	(0/0)		

RADIOLOGICAL ENVIRONMENTAL MONITORING PROGRAM SUMMARY

DOCKETS 50-245, 50-336 & 50-339

Medium or Pathway Sampled (Units)	Analysis		* LLD	Indicator Locations	Location with Highest Mean			Control Locations	Non-Routine Reported Measurements
	Type	Total No		Mean Range	Name	Distance Direction	Mean Range	Mean Range	
Fish-Flounder (pCi/g wet)	Zn-65	8	0.26	(0/8)	-	-	< LLD	(0/0)	
	Zr-95	8	-	(0/8)	-	-	< LLD	(0/0)	
Fish-Other (pCi/g wet)	Ag-110m	10	-	(0/10)	-	-	< LLD	(0/0)	
	Be-7	10	-	(0/10)	-	-	< LLD	(0/0)	
	Co-58	10	0.13	(0/10)	-	-	< LLD	(0/0)	
	Co-60	10	0.13	(0/10)	-	-	< LLD	(0/0)	
	Cr-51	10	-	(0/10)	-	-	< LLD	(0/0)	
	Cs-134	10	0.13	(0/10)	-	-	< LLD	(0/0)	
	Cs-137	10	0.15	(0/10)	-	-	< LLD	(0/0)	
	Fe-59	10	0.26	(0/10)	-	-	< LLD	(0/0)	
	I-131	10	-	(0/10)	-	-	< LLD	(0/0)	
	K-40	10	-	3.64 (10/10) (2.7-4.5)	40-X		3.73 (3/3) (3.3-4.3)	(0/0)	
	Mn-54	10	0.13	(0/10)	-	-	< LLD	(0/0)	
	Nb-95	10	-	(0/10)	-	-	< LLD	(0/0)	
	Ru-103	10	-	(0/10)	-	-	< LLD	(0/0)	
	Ru-106	10	-	(0/10)	-	-	< LLD	(0/0)	
Sb-125	10	-	(0/10)	-	-	< LLD	(0/0)		
Th-228	10	-	(0/10)	-	-	< LLD	(0/0)		
Zn-65	10	0.26	(0/10)	-	-	< LLD	(0/0)		

RADIOLOGICAL ENVIRONMENTAL MONITORING PROGRAM SUMMARY

DOCKETS 50-245, 50-336 & 50-339

Medium or Pathway Sampled (Units)	Analysis		* LLD	Indicator Locations	Location with Highest Mean			Control Locations	Non-Routine Reported Measurements
	Type	Total No		Mean Range	Name	Distance Direction	Mean Range	Mean Range	
Fish-Other (pCi/g wet)	Zr-95	10	-	(0/10)	-	-	< LLD	(0/0)	
Mussels (pCi/g wet)	Ag-110m	8	-	(0/8)	-	-	< LLD	(0/0)	
	Be-7	8	-	(0/8)	-	-	< LLD	(0/0)	
	Co-58	8	0.13	(0/8)	-	-	< LLD	(0/0)	
	Co-60	8	0.13	(0/8)	-	-	< LLD	(0/0)	
	Cr-51	8	-	(0/8)	-	-	< LLD	(0/0)	
	Cs-134	8	0.13	(0/8)	-	-	< LLD	(0/0)	
	Cs-137	8	0.15	(0/8)	-	-	< LLD	(0/0)	
	Fe-59	8	0.26	(0/8)	-	-	< LLD	(0/0)	
	I-131	8	-	(0/8)	-	-	< LLD	(0/0)	
	K-40	8	-	1.93 (7/8) (1.27-2.35)	30	1.5 mi NNW	1.97 (4/4) (1.83-2.29)	(0/0)	
	Mn-54	8	0.13	(0/8)	-	-	< LLD	(0/0)	
	Nb-95	8	-	(0/8)	-	-	< LLD	(0/0)	
	Ru-103	8	-	(0/8)	-	-	< LLD	(0/0)	
	Ru-106	8	-	(0/8)	-	-	< LLD	(0/0)	
	Sb-125	8	-	(0/8)	-	-	< LLD	(0/0)	
	Th-228	8	-	(0/8)	-	-	< LLD	(0/0)	
Zn-65	8	0.26	(0/8)	-	-	< LLD	(0/0)		
Zr-95	8	-	(0/8)	-	-	< LLD	(0/0)		

RADIOLOGICAL ENVIRONMENTAL MONITORING PROGRAM SUMMARY

DOCKETS 50-245, 50-336 & 50-339

Medium or Pathway Sampled (Units)	Analysis		* LLD	Indicator Locations	Location with Highest Mean			Control Locations	Non-Routine Reported Measurements
	Type	Total No		Mean Range	Name	Distance Direction	Mean Range	Mean Range	
Oysters (pCi/g wet)	Ag-110m	21	-	0.064 (2/17) (0.058-0.069)	40-X		0.064 (2/2) (0.058-0.069)	(0/4)	
	Be-7	21	-	(0/17)	-	-	< LLD	(0/4)	
	Co-58	21	0.13	(0/17)	-	-	< LLD	(0/4)	
	Co-60	21	0.13	(0/17)	-	-	< LLD	(0/4)	
	Cr-51	21	-	(0/17)	-	-	< LLD	(0/4)	
	Cs-134	21	0.13	(0/17)	-	-	< LLD	(0/4)	
	Cs-137	21	0.15	(0/17)	-	-	< LLD	(0/4)	
	Fe-59	21	0.26	(0/17)	-	-	< LLD	(0/4)	
	I-131	21	-	(0/17)	-	-	< LLD	(0/4)	
	K-40	21	-	1.85 (17/17) (1.36-2.55)	37-C	3.5 mi WSW	2.21 (4/4) (1.86-2.53)	2.21 (4/4) (1.86-2.53)	
	Mn-54	21	0.13	(0/17)	-	-	< LLD	(0/4)	
	Nb-95	21	-	(0/17)	-	-	< LLD	(0/4)	
	Ru-103	21	-	(0/17)	-	-	< LLD	(0/4)	
	Ru-106	21	-	(0/17)	-	-	< LLD	(0/4)	
	Sb-125	21	-	(0/17)	-	-	< LLD	(0/4)	
	Th-228	21	-	(0/17)	-	-	< LLD	(0/4)	
	Zn-65	21	0.26	(0/17)	-	-	< LLD	(0/4)	
	Zr-95	21	-	(0/17)	-	-	< LLD	(0/4)	

RADIOLOGICAL ENVIRONMENTAL MONITORING PROGRAM SUMMARY

DOCKETS 50-245, 50-336 & 50-339

Medium or Pathway Sampled (Units)	Analysis		* LLD	Indicator Locations	Location with Highest Mean			Control Locations	Non-Routine Reported Measurements
	Type	Total No		Mean Range	Name	Distance Direction	Mean Range	Mean Range	
Clams (pCi/g wet)	Ag-110m	19	-	(0/19)	-	-	< LLD	(0/0)	
	Be-7	19	-	(0/19)	-	-	< LLD	(0/0)	
	Co-58	19	0.13	(0/19)	-	-	< LLD	(0/0)	
	Co-60	19	0.13	(0/19)	-	-	< LLD	(0/0)	
	Cr-51	19	-	(0/19)	-	-	< LLD	(0/0)	
	Cs-134	19	0.13	(0/19)	-	-	< LLD	(0/0)	
	Cs-137	19	0.15	(0/19)	-	-	< LLD	(0/0)	
	Fe-59	19	0.26	(0/19)	-	-	< LLD	(0/0)	
	I-131	19	-	(0/19)	-	-	< LLD	(0/0)	
	K-40	19	-	2.06 (19/19) (1.42-2.98)	38	1.0 mi NW	2.23 (4/4) (1.98-2.63)	(0/0)	
	Mn-54	19	0.13	(0/19)	-	-	< LLD	(0/0)	
	Nb-95	19	-	(0/19)	-	-	< LLD	(0/0)	
	Ru-103	19	-	(0/19)	-	-	< LLD	(0/0)	
	Ru-106	19	-	(0/19)	-	-	< LLD	(0/0)	
	Sb-125	19	-	(0/19)	-	-	< LLD	(0/0)	
	Th-228	19	-	(0/19)	-	-	< LLD	(0/0)	
	Zn-65	19	0.26	(0/19)	-	-	< LLD	(0/0)	
Zr-95	19	-	(0/19)	-	-	< LLD	(0/0)		

RADIOLOGICAL ENVIRONMENTAL MONITORING PROGRAM SUMMARY

DOCKETS 50-245, 50-336 & 50-339

Medium or Pathway Sampled (Units)	Analysis		* LLD	Indicator Locations	Location with Highest Mean			Control Locations	Non-Routine Reported Measurements
	Type	Total No		Mean Range	Name	Distance Direction	Mean Range	Mean Range	
Lobsters (Crabs) (pCi/g wet)	Ag-110m	12	-	(0/12)	-	-	< LLD	(0/0)	
	Be-7	12	-	(0/12)	-	-	< LLD	(0/0)	
	Co-58	12	0.13	(0/12)	-	-	< LLD	(0/0)	
	Co-60	12	0.13	(0/12)	-	-	< LLD	(0/0)	
	Cr-51	12	-	(0/12)	-	-	< LLD	(0/0)	
	Cs-134	12	0.13	(0/12)	-	-	< LLD	(0/0)	
	Cs-137	12	0.15	(0/12)	-	-	< LLD	(0/0)	
	Fe-59	12	0.26	(0/12)	-	-	< LLD	(0/0)	
	I-131	12	-	(0/12)	-	-	< LLD	(0/0)	
	K-40	12	-	2.39 (12/12) (1.66-3.2)	32	-	2.54 (4/4) (2.15-2.93)	(0/0)	
	Mn-54	12	0.13	(0/12)	-	-	< LLD	(0/0)	
	Nb-95	12	-	(0/12)	-	-	< LLD	(0/0)	
	Ru-103	12	-	(0/12)	-	-	< LLD	(0/0)	
	Ru-106	12	-	(0/12)	-	-	< LLD	(0/0)	
	Sb-125	12	-	(0/12)	-	-	< LLD	(0/0)	
	Th-228	12	-	(0/12)	-	-	< LLD	(0/0)	
	Zn-65	12	0.26	(0/12)	-	-	< LLD	(0/0)	
	Zr-95	12	-	(0/12)	-	-	< LLD	(0/0)	

NOTES FOR SUMMARY TABLE

- * For gamma measurements the Minimum Detectable Level (MDL) \approx the Lower Limit of Detection (LLD) / 2.33. For all others, MDL = 2 x (the standard deviation of the background). These MDLs are based on the absence of large amounts of interfering activity (excluding naturally occurring radionuclides). Deviations by factors of 3 to 4 can occur.

The LLD at a confidence level of 95% is the smallest concentration of radioactive material in a sample that will be detected with a 5% probability of falsely concluding that a blank observation represents a "real" signal.

For a particular measurement system (which may include radiochemical separation):

$$LLD = \frac{4.66 S_b}{E * V * 2.22 * Y * \exp(-\lambda \Delta t)}$$

where,

- LLD is the lower limit of detection as defined above (as pCi per unit mass or volume)
- S_b is the standard deviation of the background counting rate or of the counting rate of a blank sample as appropriate (as counts per minute)
- E is the counting efficiency (as counts per transformation)
- V is the sample size (in units of mass or volume)
- 2.22 is the number of transformation per minute per picoCurie
- Y is the fractional radiochemical yield (when applicable)
- Δ is the radioactive decay constant for the particular radionuclide
- λt is the elapsed time between sample collection (or end of the sample collection period) and time of counting

The LLD is defined as a priori (before the fact) limit representing the capability of a measurement system and not an a posteriori (after the fact) limit for a particular measurement.

Analyses shall be performed in such a manner that the stated LLDs will be achieved under routine conditions. Occasionally background fluctuations, unavoidably small sample sizes, the presence of interfering nuclides, or other uncontrollable circumstances may render these a priori LLDs unachievable. In such cases, the contributing factors will be identified and described in the Annual Radiological Environmental Operating Report. As shown in the equation above, for composite samples taken over a period of time, the LLD is decayed to the end of the sample period.

The listed I-131 LLD for all the vegetation samples is for leafy vegetables. The I-131, Ba-140 and La-140 LLDs for the water samples are from end of sample period.

3.2 Data Tables

The data reported in this section are strictly counting statistics. The reported error is two times the standard deviation (2σ) of the net activity. Unless otherwise noted, the overall error (counting, sample size, chemistry, errors, etc.) is estimated to be 2 to 5 times that listed. Results are considered positive when the measured value exceeds 1.5 times the listed 2σ error (i.e., the measured value exceeds 3σ). Any errors listed as zero are the artifact that there were no background counts in the area of the peak for these nuclides.

Because of counting statistics, negative values, zeros and numbers below the Minimum Detectable Level (MDL) are statistically valid pieces of data. For the purposes of this report, in order to indicate any background biases, all the valid data are presented. This practice was recommended by Health and Safety Laboratory (HASL) ("Reporting of Analytical Results from HASL," letter by Leo B. Higginbotham), NUREG 0475 and NUREG/CR-4007 (Sept. 1984). In instances where zeros are listed after significant digits, this is an artifact of the computer data-handling program.

Data are given according to sample type as indicated below.

1. Gamma Exposure Rate
2. Air Particulates, Gross Beta Radioactivity
3. Air Particulates, Weekly I-131
4. Air Particulates, Quantitative Gamma Spectra
5. Air Particulates, Quarterly Strontium*
6. Soil
7. Milk - Dairy Farms*
8. Milk - Goat Farms
9. Pasture Grass
10. Well Water
11. Reservoir Water*
12. Fruits & Vegetables
13. Broad Leaf Vegetation
14. Seawater
15. Bottom Sediment
16. Aquatic Flora
17. Fin Fish
18. Mussels
19. Oysters
20. Clams
21. Scallops*
22. Lobster (and Crabs)

* This type of sampling or analysis was not performed; therefore there is no table for these.

Table 1, Quarterly TLD Gamma Exposure Rate (uR/hr)

Location Number	First Quarter	Second Quarter	Third Quarter	Fourth Quarter	Average ± 2 s.d.
01	7.81 ± 0.26	7.70 ± 0.27	8.80 ± 0.31	9.36 ± 0.51	8.42 ± 1.39
02	9.45 ± 0.31	9.45 ± 0.21	10.25 ± 0.39	11.05 ± 0.44	10.05 ± 1.33
03	6.06 ± 0.25	6.66 ± 0.25	6.31 ± 0.38	7.69 ± 0.37	6.68 ± 1.24
04	7.87 ± 0.25	7.83 ± 0.31	8.59 ± 0.27	9.29 ± 0.68	8.40 ± 1.20
05	8.82 ± 0.29	8.76 ± 0.25	9.48 ± 0.35	10.68 ± 0.64	9.44 ± 1.54
06	8.11 ± 0.30	7.45 ± 0.31	7.72 ± 0.46	9.16 ± 0.56	8.11 ± 1.30
07	5.69 ± 0.17	4.50 ± 0.24	4.99 ± 0.41	5.93 ± 0.32	5.28 ± 1.13
08	10.95 ± 0.40	10.83 ± 0.23	11.46 ± 0.90	12.66 ± 0.56	11.48 ± 1.45
09	8.47 ± 0.20	8.79 ± 0.31	9.06 ± 0.66	10.22 ± 0.45	9.14 ± 1.32
10	9.55 ± 0.32	8.95 ± 0.24	9.84 ± 0.39	10.80 ± 0.41	9.79 ± 1.34
11	6.38 ± 0.22	6.34 ± 0.21	7.03 ± 0.31	8.15 ± 0.32	6.98 ± 1.46
12-C	6.87 ± 0.25	6.90 ± 0.24	7.48 ± 0.22	8.16 ± 0.32	7.35 ± 1.05
13-C	10.04 ± 0.29	9.61 ± 0.40	10.34 ± 0.77	11.25 ± 0.48	10.31 ± 1.20
14-C	8.95 ± 0.24	9.02 ± 0.35	9.19 ± 1.06	10.16 ± 0.39	9.33 ± 0.97
15-C	7.38 ± 0.28	7.01 ± 0.21	8.43 ± 0.54	8.27 ± 0.69	7.77 ± 1.19
16-C	6.05 ± 0.39	5.81 ± 0.16	6.30 ± 0.45	7.04 ± 0.29	6.30 ± 0.92
27	8.41 ± 0.27	8.30 ± 0.16	8.44 ± 0.45	9.15 ± 0.38	8.58 ± 0.67
41	6.65 ± 0.20	6.31 ± 0.19	6.81 ± 0.33	7.33 ± 0.32	6.78 ± 0.74
42	7.65 ± 0.23	7.61 ± 0.20	7.68 ± 0.38	8.88 ± 0.39	7.96 ± 1.07
43	6.36 ± 0.31	6.61 ± 0.24	6.65 ± 0.51	7.70 ± 0.35	6.83 ± 1.03
44	7.83 ± 0.26	8.86 ± 0.30	8.18 ± 0.56	8.62 ± 0.45	8.37 ± 0.79
45	6.83 ± 0.41	6.73 ± 0.28	7.41 ± 0.24	8.23 ± 0.34	7.30 ± 1.19
46	7.97 ± 0.32	7.31 ± 0.22	7.84 ± 0.37	8.66 ± 0.43	7.95 ± 0.96
47	7.21 ± 0.22	7.40 ± 0.39	7.81 ± 0.27	8.77 ± 0.33	7.80 ± 1.20
48	9.05 ± 0.50	9.32 ± 0.31	9.37 ± 0.51	10.68 ± 0.65	9.61 ± 1.26
49	6.81 ± 0.22	6.80 ± 0.20	6.70 ± 0.29	7.86 ± 0.31	7.04 ± 0.95
50	7.83 ± 0.35	7.79 ± 0.28	7.63 ± 0.50	8.47 ± 0.34	7.93 ± 0.64
51	6.24 ± 0.23	6.24 ± 0.13	6.40 ± 0.47	7.03 ± 0.34	6.48 ± 0.65
52	6.94 ± 0.23	7.05 ± 0.18	7.32 ± 0.22	8.01 ± 0.32	7.33 ± 0.83
53	6.97 ± 0.22	6.91 ± 0.25	7.66 ± 0.25	8.32 ± 0.34	7.47 ± 1.15
55	7.35 ± 0.30	6.93 ± 0.35	7.81 ± 0.38	8.35 ± 0.36	7.61 ± 1.06
56	6.44 ± 0.19	6.11 ± 0.19	7.11 ± 0.40	7.70 ± 0.30	6.84 ± 1.23
57	7.17 ± 0.30	6.97 ± 0.15	8.06 ± 0.46	8.00 ± 0.41	7.55 ± 0.97
59	7.39 ± 0.31	7.42 ± 0.15	8.57 ± 0.54	8.90 ± 0.47	8.07 ± 1.35
60	6.88 ± 0.44	6.65 ± 0.38	6.89 ± 0.58	7.55 ± 0.34	6.99 ± 0.67
61	7.30 ± 0.33	7.16 ± 0.20	7.24 ± 0.35	7.97 ± 0.45	7.42 ± 0.65
62	8.06 ± 0.22	7.80 ± 0.44	8.14 ± 0.44	8.70 ± 0.59	8.18 ± 0.66
63	8.23 ± 0.33	8.44 ± 0.17	9.67 ± 0.49	9.51 ± 0.37	8.96 ± 1.27
64	7.07 ± 0.37	7.00 ± 0.28	7.48 ± 0.26	8.08 ± 0.37	7.41 ± 0.86
65	7.88 ± 0.33	7.34 ± 0.34	8.14 ± 0.35	8.94 ± 0.42	8.08 ± 1.15
66-X	6.58 ± 0.33	7.13 ± 0.32	6.97 ± 0.39	7.81 ± 0.37	7.12 ± 0.89
73-X	8.97 ± 0.20	9.62 ± 0.21	9.15 ± 0.32	9.78 ± 0.50	9.38 ± 0.66

Table 1, Quarterly TLD Gamma Exposure Rate (uR/hr)

Location Number	First Quarter	Second Quarter	Third Quarter	Fourth Quarter	Average ± 2 s.d.
74-X	7.19 ± 0.22	7.77 ± 0.22	7.89 ± 0.23	8.40 ± 0.36	7.81 ± 0.86
75-X	6.68 ± 0.25	6.96 ± 0.16	7.17 ± 0.33	8.08 ± 0.31	7.22 ± 1.05

Table 2, Air Particulate Gross Beta Radioactivity (1e-3 pCi/m3)

Collection Date	Locations					
<u>JANUARY</u>						
	01	02	03	04	10	11
01/01 - 01/07	10.9 ± 3.6 #	12.0 ± 3.2	10.8 ± 3.6	10.2 ± 4.2	9.9 ± 3.4	12.2 ± 3.8
01/08 - 01/14	16.7 ± 3.9	15.0 ± 3.2	16.0 ± 3.8	19.3 ± 4.5	16.7 ± 3.7	15.0 ± 3.9
01/15 - 01/21	23.3 ± 4.1	20.3 ± 3.3	22.5 ± 4.0	29.2 ± 4.9	23.4 ± 3.9	22.6 ± 4.2
01/22 - 01/28	24.7 ± 4.1	22.0 ± 3.4	26.5 ± 4.1	23.2 ± 4.7	26.5 ± 4.0	27.8 ± 4.4
<u>FEBRUARY</u>						
	01	02	03	04	10	11
01/29 - 02/04	28.9 ± 4.4	29.8 ± 3.7	27.5 ± 4.3	28.2 ± 5.0	29.1 ± 4.3	29.6 ± 4.7
02/05 - 02/11	22.8 ± 5.9	23.4 ± 4.9	15.3 ± 5.4	21.7 ± 5.6	18.3 ± 5.4	18.6 ± 6.0
02/12 - 02/18	19.2 ± 4.2	21.0 ± 3.5	22.4 ± 4.2	20.3 ± 4.0	21.2 ± 4.0	21.5 ± 4.5
02/19 - 02/25	14.5 ± 5.4	13.1 ± 4.8	14.1 ± 5.3	15.0 ± 5.2	14.5 ± 5.1	21.9 ± 6.2
<u>MARCH</u>						
	01	02	03	04	10	11
02/26 - 03/04	13.7 ± 5.2	12.5 ± 4.7	14.9 ± 5.2	17.4 ± 5.3	13.8 ± 5.0	18.8 ± 5.9
03/05 - 03/11	26.1 ± 4.1	25.0 ± 3.7	23.2 ± 3.9	29.0 ± 4.1	27.5 ± 4.0	28.4 ± 4.4
03/12 - 03/18	21.8 ± 4.2	15.7 ± 3.6	17.9 ± 3.9	16.8 ± 3.8	18.1 ± 3.8	17.0 ± 4.2
03/19 - 03/25	18.8 ± 4.4	16.0 ± 3.9	19.1 ± 4.3	21.7 ± 4.4	24.3 ± 4.3	18.6 ± 4.7
Qtr Avg ± 2 sd	20.1 ± 10.4	18.8 ± 10.8	19.2 ± 10.0	21.0 ± 11.2	20.3 ± 11.5	21.0 ± 10.4
<u>JANUARY</u>						
	15-C	27				
01/01 - 01/07	14.3 ± 4.3	13.4 ± 3.7				
01/08 - 01/14	15.5 ± 4.2	14.4 ± 3.7				
01/15 - 01/21	22.9 ± 4.5	24.4 ± 4.1				
01/22 - 01/28	25.5 ± 3.8	25.9 ± 4.1				
<u>FEBRUARY</u>						
	15-C	27				
01/29 - 02/04	33.3 ± 4.3	28.6 ± 4.3				
02/05 - 02/11	11.3 ± 4.7	21.9 ± 5.8				
02/12 - 02/18	19.9 ± 3.8	18.3 ± 4.1				
02/19 - 02/25	13.9 ± 5.0	19.9 ± 5.7				
<u>MARCH</u>						
	15-C	27				
02/26 - 03/04	13.4 ± 4.8	16.3 ± 5.4				
03/05 - 03/11	27.7 ± 3.9	27.1 ± 4.2				
03/12 - 03/18	20.1 ± 3.8	17.4 ± 4.0				
03/19 - 03/25	20.7 ± 4.1	17.6 ± 4.4				
Qtr Avg ± 2 sd	19.9 ± 12.7	20.4 ± 9.7				

Table 2, Air Particulate Gross Beta Radioactivity (1e-3 pCi/m3)

Collection Date	Locations					
<u>APRIL</u>						
	01	02	03	04	10	11
03/26 - 04/01	12.5 ± 3.6	10.3 ± 3.1	15.2 ± 3.6	14.0 ± 3.6	15.8 ± 3.5	16.8 ± 3.9
04/02 - 04/08	9.1 ± 3.6	6.6 ± 3.0	8.4 ± 3.5	5.6 ± 3.3	5.9 ± 3.1	6.8 ± 3.6
04/09 - 04/15	8.5 ± 3.4	6.9 ± 2.8	9.4 ± 3.4	11.3 ± 3.5	6.8 ± 3.1	5.8 ± 3.5
04/16 - 04/22	17.1 ± 4.2	10.4 ± 3.1	14.8 ± 4.0	15.5 ± 4.0	13.8 ± 3.8	13.2 ± 4.1
04/23 - 04/29	8.7 ± 3.4	11.5 ± 2.9	10.1 ± 3.5	14.8 ± 3.8	12.5 ± 3.4	13.7 ± 3.8
<u>MAY</u>						
	01	02	03	04	10	11
04/30 - 05/06	14.7 ± 3.9	10.8 ± 3.3	12.1 ± 3.7	11.8 ± 3.8	13.2 ± 3.6	13.2 ± 4.0
05/07 - 05/13	8.6 ± 3.4	9.4 ± 3.1	7.3 ± 3.4	9.8 ± 3.5	8.7 ± 3.2	8.7 ± 3.6
05/14 - 05/20	7.1 ± 3.9	7.2 ± 3.2	8.7 ± 4.0	5.0 ± 3.8	5.8 ± 3.6	6.8 ± 4.0
05/21 - 05/27	23.8 ± 4.3	25.1 ± 3.9	23.9 ± 4.3	23.4 ± 4.3	25.6 ± 4.1	27.2 ± 4.5
<u>JUNE</u>						
	01	02	03	04	10	11
05/28 - 06/03	20.5 ± 4.0	17.7 ± 3.5	22.2 ± 4.1	18.0 ± 3.8	20.2 ± 3.7	21.6 ± 4.2
06/04 - 06/10	16.0 ± 3.9	12.5 ± 3.3	14.8 ± 3.8	14.8 ± 3.8	15.8 ± 3.6	14.4 ± 3.9
06/11 - 06/17	14.5 ± 3.7	15.6 ± 3.2	15.1 ± 3.6	14.2 ± 3.6	12.8 ± 3.3	17.6 ± 3.9
06/18 - 06/24	11.3 ± 3.8	14.6 ± 3.4	15.4 ± 3.9	14.5 ± 3.9	13.6 ± 3.5	12.2 ± 3.9
Qtr Avg ± 2 sd	13.3 ± 9.8	12.2 ± 9.9	13.6 ± 9.8	14.0 ± 8.3	13.1 ± 10.9	13.7 ± 11.8
<u>APRIL</u>						
	15-C	27				
03/26 - 04/01	17.3 ± 3.4	14.3 ± 3.7				
04/02 - 04/08	6.8 ± 3.0	7.9 ± 3.5				
04/09 - 04/15	10.8 ± 3.3	7.4 ± 3.4				
04/16 - 04/22	16.7 ± 3.8	15.2 ± 4.1				
04/23 - 04/29	7.6 ± 3.1	11.7 ± 3.7				
<u>MAY</u>						
	15-C	27				
04/30 - 05/06	13.0 ± 3.5	13.1 ± 3.5				
05/07 - 05/13	8.1 ± 3.1	9.9 ± 3.2				
05/14 - 05/20	7.1 ± 3.5	7.7 ± 3.6				
05/21 - 05/27	24.2 ± 4.0	23.3 ± 3.9				
<u>JUNE</u>						
	15-C	27				
05/28 - 06/03	22.7 ± 3.7	22.5 ± 3.8				
06/04 - 06/10	18.5 ± 3.6	15.7 ± 3.5				
06/11 - 06/17	15.3 ± 4.8	15.3 ± 3.3				
06/18 - 06/24	15.0 ± 3.5	14.7 ± 3.6				
Qtr Avg ± 2 sd	14.1 ± 11.2	13.7 ± 9.7				

Table 2, Air Particulate Gross Beta Radioactivity (1e-3 pCi/m3)

Collection Date	Locations					
<u>JULY</u>						
	01	02	03	04	10	11
06/25 - 07/01	21.2 ± 4.3	18.2 ± 3.6	19.8 ± 4.1	22.5 ± 4.3	18.4 ± 3.8	19.9 ± 4.3
07/02 - 07/08	23.8 ± 4.4	16.5 ± 3.5	23.2 ± 4.4	22.6 ± 4.3	22.9 ± 4.0	21.6 ± 4.4
07/09 - 07/15	24.2 ± 4.5	17.5 ± 3.5	20.2 ± 4.3	20.7 ± 4.2	20.8 ± 4.0	20.0 ± 4.4
07/16 - 07/22	17.9 ± 4.3	16.5 ± 3.5	21.3 ± 4.3	19.6 ± 4.2	19.6 ± 4.0	16.6 ± 4.3
07/23 - 07/29	19.1 ± 4.3	15.2 ± 3.4	21.7 ± 4.4	19.8 ± 4.3	24.8 ± 4.2	19.9 ± 4.5
<u>AUGUST</u>						
	01	02	03	04	10	11
07/30 - 08/05	35.5 ± 5.0	25.8 ± 3.9	30.7 ± 4.7	32.4 ± 4.8	31.1 ± 4.4	32.8 ± 4.5
08/06 - 08/12	25.9 ± 4.6	15.8 ± 3.4	25.9 ± 4.5	24.8 ± 4.3	24.4 ± 4.1	25.7 ± 4.1
08/13 - 08/19	17.0 ± 4.2	21.6 ± 3.6	17.0 ± 4.1	21.8 ± 4.3	17.2 ± 3.7	17.6 ± 3.6
08/20 - 08/26	17.2 ± 3.6	12.9 ± 3.1	16.4 ± 3.5	17.8 ± 3.9	20.6 ± 3.8	16.6 ± 3.5
<u>SEPTEMBER</u>						
	01	02	03	04	10	11
08/27 - 09/02	23.0 ± 4.2	24.2 ± 3.9	24.1 ± 4.1	27.5 ± 4.8	28.6 ± 4.5	26.6 ± 4.2
09/03 - 09/09	23.7 ± 4.1	14.8 ± 3.4	22.7 ± 4.0	18.1 ± 4.2	25.6 ± 4.2	22.3 ± 4.0
09/10 - 09/16	20.3 ± 5.4	17.0 ± 4.6	15.2 ± 4.8	16.6 ± 5.5	14.0 ± 5.0	17.1 ± 5.0
09/17 - 09/23	21.0 ± 4.0	13.9 ± 5.0	25.1 ± 4.0	19.8 ± 4.2	19.1 ± 3.6	21.3 ± 3.9
09/24 - 09/30	27.8 ± 4.4	22.6 ± 4.9	23.9 ± 4.1	20.5 ± 4.4	23.0 ± 4.1	23.7 ± 4.1
Qtr Avg ± 2 sd	22.7 ± 9.5	18.0 ± 7.7	21.9 ± 8.0	21.8 ± 8.1	22.2 ± 8.8	21.6 ± 8.7
<u>JULY</u>						
	15-C	27				
06/25 - 07/01	18.9 ± 3.7	18.7 ± 3.8				
07/02 - 07/08	24.2 ± 4.0	19.9 ± 3.8				
07/09 - 07/15	22.0 ± 4.0	19.8 ± 3.9				
07/16 - 07/22	16.2 ± 3.8	17.8 ± 3.8				
07/23 - 07/29	22.9 ± 4.2	15.4 ± 3.7				
<u>AUGUST</u>						
	15-C	27				
07/30 - 08/05	32.0 ± 4.4	30.0 ± 4.3				
08/06 - 08/12	26.4 ± 4.2	20.4 ± 3.8				
08/13 - 08/19	20.6 ± 3.9	20.2 ± 3.8				
08/20 - 08/26	16.6 ± 3.6	15.4 ± 3.5				
<u>SEPTEMBER</u>						
	15-C	27				
08/27 - 09/02	28.9 ± 4.5	27.6 ± 4.3				
09/03 - 09/09	24.7 ± 4.2	19.6 ± 3.9				
09/10 - 09/16	14.6 ± 5.0	15.3 ± 4.9				
09/17 - 09/23	25.1 ± 4.0	18.0 ± 3.8				
09/24 - 09/30	34.3 ± 6.6	19.3 ± 3.9				
Qtr Avg ± 2 sd	23.4 ± 11.3	19.8 ± 8.2				

Table 2, Air Particulate Gross Beta Radioactivity (1e-3 pCi/m3)

Collection Date	Locations					
<u>OCTOBER</u>						
	01	02	03	04	10	11
10/01 - 10/07	14.1 ± 4.1	16.9 ± 3.6	16.7 ± 4.0	16.4 ± 4.4	18.3 ± 4.1	13.3 ± 3.9
10/08 - 10/14	12.7 ± 4.8	11.7 ± 4.8	11.8 ± 4.9	11.1 ± 5.0	10.5 ± 5.1	11.8 ± 5.2
10/15 - 10/21	33.3 ± 4.7	29.4 ± 4.7	32.0 ± 4.7	32.8 ± 5.0	37.5 ± 5.1	36.0 ± 5.2
10/22 - 10/28	19.1 ± 5.4	18.4 ± 5.2	19.0 ± 5.4	17.6 ± 5.5	18.4 ± 5.7	22.0 ± 6.0
<u>NOVEMBER</u>						
	01	02	03	04	10	11
10/29 - 11/04	30.4 ± 3.8	25.7 ± 3.7	27.7 ± 3.7	26.2 ± 3.9	30.3 ± 4.0	28.0 ± 4.0
11/05 - 11/11	20.1 ± 3.5	19.9 ± 3.6	17.0 ± 3.4	21.5 ± 3.7	20.0 ± 3.7	23.3 ± 3.9
11/12 - 11/18	22.5 ± 3.4	23.0 ± 3.5	23.0 ± 3.5	24.1 ± 3.7	20.2 ± 3.6	20.9 ± 3.7
11/19 - 11/25	22.9 ± 4.1	18.8 ± 4.0	21.2 ± 4.0	19.1 ± 4.1	24.4 ± 4.4	22.8 ± 4.4
<u>DECEMBER</u>						
	01	02	03	04	10	11
11/26 - 12/02	24.5 ± 4.1	17.0 ± 3.9	20.2 ± 3.9	20.3 ± 4.2	23.3 ± 4.3	18.5 ± 4.2
12/03 - 12/09	18.7 ± 3.9	19.3 ± 4.0	18.8 ± 3.9	19.7 ± 4.1	16.7 ± 4.0	19.3 ± 4.2
12/10 - 12/16	25.3 ± 3.7	23.2 ± 3.8	24.7 ± 3.7	25.5 ± 3.9	24.0 ± 3.9	25.8 ± 4.0
12/17 - 12/23	24.7 ± 4.8	22.8 ± 4.9	29.9 ± 5.2	28.9 ± 5.4	27.4 ± 5.2	23.9 ± 5.2
12/24 - 12/30	21.7 ± 3.9	20.3 ± 3.9	19.3 ± 3.7	23.9 ± 4.1	22.3 ± 4.0	27.0 ± 4.3
Qtr Avg ± 2 sd	22.3 ± 11.0	20.5 ± 8.5	21.6 ± 10.9	22.1 ± 10.9	22.6 ± 12.9	22.5 ± 12.1
Ann Avg ± 2 sd	19.6 ± 12.7	17.4 ± 11.1	19.2 ± 11.8	19.8 ± 11.7	19.6 ± 13.5	19.7 ± 12.9
<u>OCTOBER</u>						
	15-C	27				
10/01 - 10/07	15.2 ± 4.9	15.8 ± 4.0				
10/08 - 10/14	12.3 ± 4.9	11.7 ± 5.0				
10/15 - 10/21	35.7 ± 4.6	28.3 ± 4.8				
10/22 - 10/28	19.6 ± 5.1	15.8 ± 5.4				
<u>NOVEMBER</u>						
	15-C	27				
10/29 - 11/04	32.1 ± 3.8	28.7 ± 4.0				
11/05 - 11/11	19.6 ± 3.3	20.1 ± 3.6				
11/12 - 11/18	25.0 ± 3.4	24.9 ± 3.7				
11/19 - 11/25	17.5 ± 3.7	22.6 ± 4.2				
<u>DECEMBER</u>						
	15-C	27				
11/26 - 12/02	21.7 ± 3.9	22.7 ± 4.2				
12/03 - 12/09	20.6 ± 3.8	20.1 ± 4.1				
12/10 - 12/16	28.4 ± 4.0	23.2 ± 3.8				
12/17 - 12/23	29.7 ± 5.4	22.7 ± 4.9				
12/24 - 12/30	18.9 ± 3.8	22.3 ± 4.0				
Qtr Avg ± 2 sd	22.8 ± 13.3	21.5 ± 9.3				
Ann Avg ± 2 sd	20.1 ± 14.2	18.9 ± 11.0				

Table 3, Airborne Iodine I-131 (1e-3 pCi/m3)

Collection Date	Locations					
<u>JANUARY</u>						
	01	02	03	04	10	11
01/01 - 01/07	3 ± 27 #	-19 ± 25	3 ± 20	-20 ± 30	32 ± 29	-9 ± 28
01/08 - 01/14	-5 ± 15	3 ± 12	-2 ± 16	-4 ± 21	-3 ± 17	2 ± 20
01/15 - 01/21	3 ± 16	0 ± 14	7 ± 17	-6 ± 21	11 ± 15	5 ± 16
01/22 - 01/28	-5 ± 17	10 ± 15	11 ± 15	-2 ± 18	15 ± 15	-12 ± 18
<u>FEBRUARY</u>						
	01	02	03	04	10	11
01/29 - 02/04	-7 ± 16	-1 ± 12	0 ± 11	-4 ± 24	-7 ± 13	-2 ± 19
02/05 - 02/11	5 ± 15	-4 ± 14	-7 ± 12	5 ± 17	6 ± 14	11 ± 19
02/12 - 02/18	-5 ± 27	12 ± 20	21 ± 24	5 ± 22	12 ± 27	-8 ± 32
02/19 - 02/25	20 ± 27	10 ± 18	4 ± 17	-11 ± 22	-13 ± 24	-7 ± 25
<u>MARCH</u>						
	01	02	03	04	10	11
02/26 - 03/04	6 ± 20	1 ± 14	-2 ± 12	-5 ± 12	-11 ± 17	2 ± 18
03/05 - 03/11	5 ± 21	13 ± 15	10 ± 17	19 ± 18	6 ± 16	2 ± 16
03/12 - 03/18	8 ± 23	2 ± 16	2 ± 18	-6 ± 20	8 ± 16	2 ± 22
03/19 - 03/25	-16 ± 21	9 ± 17	2 ± 18	8 ± 18	-16 ± 17	0 ± 18
<u>JANUARY</u>						
	15-C	27				
01/01 - 01/07	13 ± 31	17 ± 27				
01/08 - 01/14	0 ± 19	-5 ± 17				
01/15 - 01/21	6 ± 20	-2 ± 15				
01/22 - 01/28	-10 ± 14	-9 ± 13				
<u>FEBRUARY</u>						
	15-C	27				
01/29 - 02/04	-2 ± 18	-2 ± 19				
02/05 - 02/11	-11 ± 15	2 ± 16				
02/12 - 02/18	2 ± 21	16 ± 23				
02/19 - 02/25	10 ± 19	-20 ± 22				
<u>MARCH</u>						
	15-C	27				
02/26 - 03/04	-9 ± 14	-3 ± 17				
03/05 - 03/11	-11 ± 17	-2 ± 17				
03/12 - 03/18	2 ± 15	15 ± 23				
03/19 - 03/25	3 ± 14	-14 ± 18				

Table 3, Airborne Iodine I-131 (1e-3 pCi/m3)

Collection Date	Locations					
<u>APRIL</u>						
	01	02	03	04	10	11
03/26 - 04/01	-2 ± 17	7 ± 13	13 ± 14	5 ± 17	0 ± 14	-6 ± 15
04/02 - 04/08	-7 ± 25	24 ± 21	25 ± 27	-9 ± 23	4 ± 21	-2 ± 25
04/09 - 04/15	-7 ± 22	-4 ± 21	-5 ± 23	-12 ± 25	2 ± 23	-36 ± 26
04/16 - 04/22	20 ± 23	14 ± 20	-7 ± 25	5 ± 23	-7 ± 21	-19 ± 28
04/23 - 04/29	-3 ± 26	18 ± 15	8 ± 29	0 ± 27	-14 ± 18	29 ± 27
<u>MAY</u>						
	01	02	03	04	10	11
04/30 - 05/06	-2 ± 23	10 ± 18	-9 ± 18	12 ± 23	2 ± 19	-20 ± 23
05/07 - 05/13	4 ± 23	-2 ± 18	-5 ± 23	2 ± 19	0 ± 26	22 ± 30
05/14 - 05/20	7 ± 16	-9 ± 13	-7 ± 15	4 ± 17	-3 ± 15	-11 ± 14
05/21 - 05/27	-5 ± 22	2 ± 19	-11 ± 25	-5 ± 28	-17 ± 18	-5 ± 25
<u>JUNE</u>						
	01	02	03	04	10	11
05/28 - 06/03	10 ± 19	-2 ± 15	-13 ± 20	-2 ± 19	2 ± 17	-16 ± 15
06/04 - 06/10	5 ± 17	11 ± 17	13 ± 17	0 ± 16	-3 ± 15	2 ± 19
06/11 - 06/17	6 ± 12	-6 ± 13	-2 ± 17	-4 ± 17	6 ± 17	2 ± 13
06/18 - 06/24	-6 ± 22	16 ± 24	5 ± 30	-3 ± 28	-12 ± 28	-3 ± 28
<u>APRIL</u>						
	15-C	27				
03/26 - 04/01	-8 ± 15	0 ± 17				
04/02 - 04/08	-10 ± 20	-2 ± 18				
04/09 - 04/15	4 ± 21	-5 ± 27				
04/16 - 04/22	-7 ± 22	-3 ± 25				
04/23 - 04/29	-7 ± 24	-14 ± 28				
<u>MAY</u>						
	15-C	27				
04/30 - 05/06	-24 ± 24	7 ± 21				
05/07 - 05/13	5 ± 29	9 ± 27				
05/14 - 05/20	-3 ± 15	7 ± 15				
05/21 - 05/27	21 ± 18	-13 ± 19				
<u>JUNE</u>						
	15-C	27				
05/28 - 06/03	-5 ± 16	-10 ± 21				
06/04 - 06/10	-5 ± 18	-12 ± 16				
06/11 - 06/17	13 ± 22 A	12 ± 14				
06/18 - 06/24	-14 ± 25	17 ± 30				

Table 3, Airborne Iodine I-131 (1e-3 pCi/m3)

Collection Date	Locations					
<u>JULY</u>						
	01	02	03	04	10	11
06/25 - 07/01	13 ± 27	-11 ± 16	3 ± 26	-10 ± 26	14 ± 24	-19 ± 28
07/02 - 07/08	29 ± 29	-34 ± 25	-9 ± 27	31 ± 33	-20 ± 28	3 ± 28
07/09 - 07/15	-10 ± 20	14 ± 20	0 ± 20	-22 ± 19	11 ± 23	26 ± 25
07/16 - 07/22	-8 ± 13	-3 ± 12	-1 ± 14	-1 ± 17	3 ± 13	4 ± 14
07/23 - 07/29	3 ± 33	9 ± 20	-6 ± 32	15 ± 26	0 ± 28	-16 ± 35
<u>AUGUST</u>						
	01	02	03	04	10	11
07/30 - 08/05	-10 ± 24	14 ± 22	13 ± 25	-3 ± 22	-7 ± 24	-7 ± 25
08/06 - 08/12	8 ± 27	8 ± 21	-28 ± 25	-8 ± 24	-5 ± 25	-7 ± 24
08/13 - 08/19	9 ± 14	1 ± 12	-11 ± 17	-5 ± 21	3 ± 15	-6 ± 17
08/20 - 08/26	-2 ± 10	-8 ± 13	2 ± 18	11 ± 16	9 ± 19	3 ± 15
<u>SEPTEMBER</u>						
	01	02	03	04	10	11
08/27 - 09/02	5 ± 14	-9 ± 15	-12 ± 16	6 ± 19	12 ± 15	-20 ± 16
09/03 - 09/09	0 ± 16	-3 ± 17	0 ± 13	-10 ± 20	10 ± 16	0 ± 14
09/10 - 09/16	9 ± 19	0 ± 14	-11 ± 16	8 ± 20	-9 ± 18	9 ± 15
09/17 - 09/23	15 ± 17	-7 ± 34 B	-17 ± 17	5 ± 19	-6 ± 18	-17 ± 22
09/24 - 09/30	-7 ± 24	8 ± 28 C	5 ± 19	13 ± 22	-12 ± 24	-23 ± 21
<u>JULY</u>						
	15-C	27				
06/25 - 07/01	2 ± 21	7 ± 20				
07/02 - 07/08	24 ± 26	22 ± 26				
07/09 - 07/15	-20 ± 20	-17 ± 19				
07/16 - 07/22	-3 ± 14	-6 ± 13				
07/23 - 07/29	-11 ± 28	-8 ± 26				
<u>AUGUST</u>						
	15-C	27				
07/30 - 08/05	5 ± 22	11 ± 17				
08/06 - 08/12	7 ± 23	-12 ± 24				
08/13 - 08/19	-12 ± 15	2 ± 15				
08/20 - 08/26	-14 ± 17	-7 ± 16				
<u>SEPTEMBER</u>						
	15-C	27				
08/27 - 09/02	-18 ± 19	4 ± 22				
09/03 - 09/09	16 ± 19	-10 ± 17				
09/10 - 09/16	-5 ± 16	-11 ± 21				
09/17 - 09/23	-8 ± 20	-11 ± 20				
09/24 - 09/30	-2 ± 21 D	12 ± 21				

Table 3, Airborne Iodine I-131 (1e-3 pCi/m3)

Collection Date	Locations					
<u>OCTOBER</u>						
	01	02	03	04	10	11
10/01 - 10/07	-5 ± 22	11 ± 19	-9 ± 19	2 ± 23	-16 ± 24	0 ± 21
10/08 - 10/14	11 ± 14	2 ± 20 E	-4 ± 12	6 ± 13	-2 ± 16	6 ± 14
10/15 - 10/21	8 ± 16	3 ± 14	-5 ± 13	3 ± 14	-3 ± 16	0 ± 14
10/22 - 10/28	11 ± 22	28 ± 28	0 ± 28	21 ± 25	0 ± 25	-5 ± 26
<u>NOVEMBER</u>						
	01	02	03	04	10	11
10/29 - 11/04	-8 ± 18	4 ± 20	0 ± 20	2 ± 26	14 ± 25	5 ± 25
11/05 - 11/11	-4 ± 24	18 ± 25	11 ± 20	-7 ± 23	7 ± 24	9 ± 24
11/12 - 11/18	2 ± 21	0 ± 20	-9 ± 23	7 ± 21	7 ± 18	18 ± 22
11/19 - 11/25	-2 ± 22	2 ± 22	5 ± 24	-5 ± 24	2 ± 28	0 ± 26
<u>DECEMBER</u>						
	01	02	03	04	10	11
11/26 - 12/02	16 ± 34	16 ± 30	-8 ± 35	-15 ± 27	3 ± 32	9 ± 31
12/03 - 12/09	-14 ± 21	11 ± 25	-2 ± 19	-2 ± 23	-4 ± 20	0 ± 27
12/10 - 12/16	-5 ± 19	-21 ± 24	7 ± 24	12 ± 24	-12 ± 18	-5 ± 18
12/17 - 12/23	16 ± 25	8 ± 21	26 ± 23	4 ± 24	2 ± 18	29 ± 24
12/24 - 12/30	-6 ± 18	-5 ± 18	14 ± 17	0 ± 17	-8 ± 15	-3 ± 21
<u>OCTOBER</u>						
	15-C	27				
10/01 - 10/07	-11 ± 30	-15 ± 21				
10/08 - 10/14	-7 ± 14	-2 ± 17				
10/15 - 10/21	-7 ± 16	-3 ± 17				
10/22 - 10/28	19 ± 23	-10 ± 27				
<u>NOVEMBER</u>						
	15-C	27				
10/29 - 11/04	-10 ± 23	-9 ± 22				
11/05 - 11/11	20 ± 30	-2 ± 22				
11/12 - 11/18	-11 ± 21	2 ± 26				
11/19 - 11/25	-12 ± 26	-13 ± 29				
<u>DECEMBER</u>						
	15-C	27				
11/26 - 12/02	-3 ± 36	-3 ± 35				
12/03 - 12/09	0 ± 23	6 ± 22				
12/10 - 12/16	0 ± 25	-5 ± 25				
12/17 - 12/23	-13 ± 26	11 ± 34				
12/24 - 12/30	-21 ± 19	10 ± 20				

Table 4-A, Air Particulates Gamma Spectra - Quarter 1 (1e-3 pCi/m3)

Location	Isotope						
	Ba-140	Be-7	Ce-141	Ce-144	Co-58	Co-60	Cr-51
01	-14.0 ± 28.0	90.0 ± 32.0	-2.3 ± 2.5	-3.3 ± 2.7	0.1 ± 1.0	-0.5 ± 0.7	17.0 ± 25.0
02	-4.0 ± 19.0	107.0 ± 24.0	-0.4 ± 2.2	-0.8 ± 2.2	0.3 ± 0.8	-0.1 ± 0.6	-13.0 ± 22.0
03	-6.0 ± 25.0	79.0 ± 33.0	1.3 ± 3.2	-2.9 ± 3.2	0.5 ± 1.5	1.1 ± 1.2	11.0 ± 27.0
04	0.0 ± 19.0	80.0 ± 31.0	-2.4 ± 2.6	-1.9 ± 3.2	0.9 ± 1.7	0.2 ± 0.4	0.0 ± 27.0
10	0.0 ± 26.0	65.0 ± 25.0	-1.7 ± 2.5	0.0 ± 2.5	0.1 ± 1.5	0.0 ± 0.6	9.0 ± 22.0
11	-23.0 ± 26.0	93.0 ± 31.0	-0.9 ± 2.5	-1.9 ± 2.7	0.9 ± 1.7	-0.2 ± 0.5	9.0 ± 25.0
15-C	8.0 ± 17.0	83.0 ± 27.0	0.2 ± 2.5	-1.3 ± 2.5	0.0 ± 1.2	-0.1 ± 0.6	0.0 ± 19.0
27	2.0 ± 31.0	112.0 ± 32.0	0.1 ± 2.9	2.5 ± 3.0	0.2 ± 1.1	0.2 ± 0.8	7.0 ± 22.0
	Cs-134	Cs-137	Mn-54	Nb-95	Ru-103	Ru-106	Zr-95
01	-0.1 ± 0.7	-0.4 ± 0.7	0.6 ± 0.7	-0.2 ± 2.4	-1.5 ± 1.8	-3.1 ± 6.7	0.2 ± 2.1
02	-0.3 ± 0.4	-0.2 ± 0.5	-0.1 ± 0.4	0.2 ± 2.5	0.2 ± 1.6	-2.1 ± 5.2	-2.1 ± 2.2
03	-0.1 ± 0.7	0.4 ± 0.4	0.6 ± 0.8	3.2 ± 2.6	0.0 ± 1.3	-1.2 ± 6.4	0.4 ± 1.9
04	0.6 ± 0.9	0.4 ± 1.0	-0.6 ± 1.0	1.9 ± 2.7	-1.8 ± 2.5	-2.9 ± 6.5	-0.6 ± 2.3
10	-0.1 ± 0.6	0.0 ± 0.5	-0.1 ± 0.7	0.7 ± 2.7	-1.1 ± 1.8	-1.0 ± 5.9	-0.2 ± 2.3
11	0.3 ± 1.0	0.6 ± 0.8	0.2 ± 0.7	-0.6 ± 3.0	1.0 ± 1.7	2.1 ± 4.8	-0.1 ± 3.0
15-C	-0.1 ± 0.6	-0.1 ± 0.6	0.0 ± 0.8	-2.6 ± 2.2	0.5 ± 2.1	4.2 ± 7.0	1.8 ± 2.6
27	0.1 ± 0.8	-0.1 ± 0.6	-0.1 ± 0.7	1.0 ± 2.3	-0.7 ± 1.9	1.2 ± 8.8	1.5 ± 2.4

Table 4-B, Air Particulates Gamma Spectra - Quarter 2 (1e-3 pCi/m3)

Location	Isotope						
	Ba-140	Be-7	Ce-141	Ce-144	Co-58	Co-60	Cr-51
01	38.0 ± 76.0	108.0 ± 83.0	-4.2 ± 9.5	2.6 ± 8.4	0.2 ± 2.8	0.9 ± 1.3	40.0 ± 110.0
02	0.0 ± 160.0	92.0 ± 66.0	0.1 ± 7.6	0.7 ± 7.1	1.5 ± 3.4	0.0 ± 0.0	-10.0 ± 69.0
03	38.0 ± 75.0	168.0 ± 67.0	-2.0 ± 10.0	-3.5 ± 9.8	1.1 ± 4.2	0.4 ± 1.7	61.0 ± 89.0
04	-38.0 ± 76.0	85.0 ± 65.0	-8.0 ± 11.0	2.6 ± 7.2	0.4 ± 3.9	-0.6 ± 1.7	25.0 ± 92.0
10	40.0 ± 120.0	91.0 ± 68.0	-1.0 ± 11.0	-1.6 ± 7.9	-1.0 ± 3.1	0.9 ± 1.2	-23.0 ± 72.0
11	-80.0 ± 200.0	84.0 ± 71.0	0.1 ± 9.9	-2.8 ± 8.8	-2.6 ± 3.4	-0.1 ± 2.1	-39.0 ± 94.0
15-C	0.0 ± 98.0	127.0 ± 68.0	-7.0 ± 11.0	-6.4 ± 9.1	2.0 ± 2.3	-1.0 ± 1.4	23.0 ± 72.0
27	-60.0 ± 130.0	141.0 ± 60.0	-5.0 ± 14.0	-5.9 ± 8.1	0.9 ± 2.6	-0.6 ± 1.7	30.0 ± 110.0
	Cs-134	Cs-137	Mn-54	Nb-95	Ru-103	Ru-106	Zr-95
01	0.1 ± 1.4	0.8 ± 1.4	0.0 ± 1.0	-1.4 ± 5.4	-2.2 ± 6.8	-2.0 ± 18.0	-2.1 ± 6.2
02	-0.5 ± 1.1	-0.4 ± 1.2	1.1 ± 2.0	0.6 ± 7.5	0.0 ± 6.3	2.0 ± 12.0	-1.9 ± 4.2
03	-0.6 ± 1.3	0.1 ± 1.7	-1.0 ± 1.1	4.0 ± 10.0	8.5 ± 6.0	8.0 ± 16.0	-0.9 ± 5.6
04	1.2 ± 1.9	-0.4 ± 1.1	0.4 ± 1.2	1.7 ± 5.6	5.3 ± 5.7	5.0 ± 12.0	0.2 ± 3.6
10	0.8 ± 1.8	0.2 ± 1.3	-0.2 ± 1.7	-2.0 ± 9.0	-2.0 ± 6.3	7.9 ± 9.2	-3.3 ± 3.8
11	0.2 ± 2.1	0.2 ± 1.5	0.5 ± 1.7	4.0 ± 9.5	0.0 ± 5.5	-10.0 ± 23.0	0.4 ± 5.4
15-C	1.0 ± 1.2	0.4 ± 1.4	0.8 ± 1.6	-1.1 ± 6.4	-1.0 ± 4.4	2.2 ± 9.6	-0.8 ± 5.2
27	0.0 ± 0.9	0.8 ± 1.3	-0.6 ± 1.3	6.0 ± 10.0	-7.3 ± 7.7	2.0 ± 13.0	-1.1 ± 4.6

Table 4-C, Air Particulates Gamma Spectra - Quarter 3 (1e-3 pCi/m3)

Location	Isotope						
	Ba-140	Be-7	Ce-141	Ce-144	Co-58	Co-60	Cr-51
01	0.0 ± 43.0	141.0 ± 61.0	-2.5 ± 6.6	3.1 ± 7.7	-1.3 ± 2.7	-0.5 ± 1.0	-21.0 ± 63.0
02	10.0 ± 34.0	127.0 ± 52.0	-1.1 ± 6.8	1.4 ± 8.5	-0.4 ± 1.6	-0.9 ± 1.3	-75.0 ± 61.0
03	-21.0 ± 30.0	104.0 ± 55.0	-0.6 ± 7.2	1.5 ± 7.7	1.8 ± 2.8	1.3 ± 1.5	-20.0 ± 48.0
04	0.0 ± 45.0	63.0 ± 55.0	0.7 ± 7.2	-1.6 ± 6.8	-0.5 ± 1.0	-0.1 ± 1.3	43.0 ± 53.0
10	-10.0 ± 45.0	126.0 ± 41.0	0.4 ± 2.1	-1.1 ± 2.5	0.4 ± 1.6	1.2 ± 1.3	18.0 ± 33.0
11	0.0 ± 42.0	127.0 ± 56.0	4.4 ± 6.0	0.0 ± 7.4	-0.3 ± 2.3	-0.1 ± 1.3	-7.0 ± 54.0
15-C	0.0 ± 42.0	134.0 ± 54.0	6.3 ± 6.4	-9.8 ± 8.4	-0.1 ± 3.4	1.2 ± 1.9	-53.0 ± 56.0
27	0.0 ± 49.0	96.0 ± 51.0	-1.7 ± 7.0	0.7 ± 8.5	1.2 ± 2.4	0.3 ± 1.4	-13.0 ± 56.0
	Cs-134	Cs-137	Mn-54	Nb-95	Ru-103	Ru-106	Zr-95
01	0.5 ± 1.7	-0.1 ± 1.5	1.0 ± 1.8	-0.2 ± 3.5	2.1 ± 2.4	-22.0 ± 18.0	2.4 ± 5.6
02	-0.7 ± 1.5	1.0 ± 1.0	0.0 ± 1.7	-7.6 ± 5.9	2.5 ± 4.8	16.0 ± 16.0	-1.2 ± 5.5
03	2.0 ± 1.6	-0.2 ± 1.8	-0.3 ± 1.7	3.7 ± 4.6	-1.4 ± 2.7	-0.4 ± 7.7	-0.6 ± 4.2
04	-0.8 ± 1.7	-2.1 ± 2.0	1.0 ± 1.8	-0.7 ± 6.4	-6.5 ± 4.3	21.0 ± 15.0	1.5 ± 5.3
10	0.4 ± 0.5	-0.1 ± 0.6	0.1 ± 0.8	0.4 ± 3.6	-1.5 ± 1.8	4.5 ± 8.7	-0.8 ± 3.0
11	0.7 ± 1.3	0.4 ± 1.6	-1.3 ± 1.6	-1.0 ± 3.8	-0.7 ± 4.9	6.0 ± 16.0	-1.4 ± 5.2
15-C	0.4 ± 1.1	-0.1 ± 1.4	-1.0 ± 1.9	-5.3 ± 6.1	0.7 ± 2.3	4.0 ± 15.0	2.2 ± 4.7
27	-1.3 ± 1.7	0.2 ± 1.2	0.9 ± 1.1	-1.8 ± 4.0	-2.6 ± 3.6	2.0 ± 11.0	-0.8 ± 1.7

Table 4-D, Air Particulates Gamma Spectra - Quarter 4 (1e-3 pCi/m3)

Location	Isotope						
	Ba-140	Be-7	Ce-141	Ce-144	Co-58	Co-60	Cr-51
01	-32.0 ± 64.0	178.0 ± 83.0	3.0 ± 6.1	-1.6 ± 7.4	0.0 ± 0.0	0.0 ± 0.0	-8.0 ± 38.0
02	28.0 ± 39.0	124.0 ± 46.0	-0.3 ± 7.1	-2.0 ± 8.4	0.2 ± 2.6	-0.5 ± 2.0	-7.0 ± 65.0
03	-13.0 ± 58.0	108.0 ± 48.0	-0.3 ± 5.8	-4.3 ± 7.4	0.2 ± 2.1	0.6 ± 1.4	-13.0 ± 62.0
04	0.0 ± 0.0	156.0 ± 75.0	1.5 ± 8.7	5.0 ± 11.0	0.0 ± 0.0	-0.1 ± 2.2	13.0 ± 59.0
10	-14.0 ± 28.0	73.0 ± 54.0	0.3 ± 7.9	0.0 ± 7.2	-0.2 ± 2.8	1.7 ± 1.9	0.0 ± 58.0
11	0.0 ± 0.0	97.0 ± 87.0	2.8 ± 9.9	-8.0 ± 9.3	0.1 ± 2.7	0.7 ± 1.5	-41.0 ± 90.0
15-C	-39.0 ± 45.0	93.0 ± 48.0	1.4 ± 6.5	3.0 ± 6.8	-1.0 ± 2.6	-0.5 ± 1.6	0.0 ± 44.0
27	-26.0 ± 52.0	122.0 ± 71.0	3.9 ± 7.9	0.0 ± 9.7	0.1 ± 2.6	-0.1 ± 2.1	52.0 ± 90.0
	Cs-134	Cs-137	Mn-54	Nb-95	Ru-103	Ru-106	Zr-95
01	1.3 ± 1.8	-1.5 ± 2.2	-0.7 ± 1.5	-0.3 ± 6.4	-1.3 ± 2.6	0.0 ± 0.0	-0.3 ± 6.0
02	0.3 ± 0.6	-0.6 ± 1.4	0.6 ± 1.4	-3.6 ± 2.6	2.0 ± 3.9	-5.0 ± 17.0	2.1 ± 4.3
03	0.2 ± 1.7	-0.1 ± 1.1	-0.5 ± 1.0	-2.9 ± 5.5	2.4 ± 3.9	-6.0 ± 13.0	1.2 ± 4.3
04	-0.4 ± 2.3	-0.7 ± 2.2	0.6 ± 1.9	-5.2 ± 4.8	-2.6 ± 5.1	-1.0 ± 19.0	-1.4 ± 5.8
10	0.0 ± 0.8	0.3 ± 1.4	-0.3 ± 1.3	-1.4 ± 5.3	1.3 ± 3.7	1.0 ± 12.0	3.1 ± 5.3
11	-0.9 ± 2.1	0.8 ± 1.9	-0.6 ± 2.6	-3.3 ± 6.3	-2.6 ± 6.4	-2.0 ± 23.0	1.9 ± 3.7
15-C	0.4 ± 1.3	0.6 ± 1.2	0.5 ± 1.6	0.6 ± 5.6	2.4 ± 3.8	5.7 ± 9.3	-1.4 ± 3.1
27	1.1 ± 1.6	1.3 ± 1.5	0.6 ± 1.9	-1.6 ± 5.1	-2.5 ± 6.2	-1.0 ± 19.0	0.0 ± 0.0

Table 6, Soil (pCi/g)

Location	Collection Date	Isotope					
03		Be-7	Ce-141	Ce-144	Co-58	Co-60	Cr-51
	06/14/07	-0.29 ± 0.41	-0.03 ± 0.09	-0.30 ± 0.29	-0.02 ± 0.04	-0.01 ± 0.05	0.28 ± 0.47
		Cs-134	Cs-137	Fe-59	K-40	Mn-54	Nb-95
	06/14/07	-0.04 ± 0.05	0.65 ± 0.12	-0.02 ± 0.10	10.20 ± 1.50	0.07 ± 0.05	-0.01 ± 0.06
		Ru-103	Ru-106	Sb-125	Th-228	Zn-65	Zr-95
	06/14/07	0.08 ± 0.06	0.07 ± 0.39	0.03 ± 0.11	0.80 ± 0.23	-0.25 ± 0.13	-0.01 ± 0.07
04		Be-7	Ce-141	Ce-144	Co-58	Co-60	Cr-51
	06/14/07	0.02 ± 0.30	0.07 ± 0.07	0.06 ± 0.17	-0.01 ± 0.03	0.00 ± 0.02	-0.12 ± 0.44
		Cs-134	Cs-137	Fe-59	K-40	Mn-54	Nb-95
	06/14/07	0.02 ± 0.02	0.57 ± 0.06	0.00 ± 0.07	10.97 ± 0.80	0.00 ± 0.03	-0.01 ± 0.05
		Ru-103	Ru-106	Sb-125	Th-228	Zn-65	Zr-95
	06/14/07	0.00 ± 0.04	0.00 ± 0.23	0.02 ± 0.07	1.08 ± 0.10	0.00 ± 0.12	0.02 ± 0.06
14-C		Be-7	Ce-141	Ce-144	Co-58	Co-60	Cr-51
	06/14/07	0.50 ± 0.47	0.00 ± 0.09	0.13 ± 0.29	0.02 ± 0.05	0.00 ± 0.04	-0.08 ± 0.51
		Cs-134	Cs-137	Fe-59	K-40	Mn-54	Nb-95
	06/14/07	0.04 ± 0.05	1.21 ± 0.13	-0.03 ± 0.10	12.00 ± 1.30	-0.02 ± 0.05	-0.02 ± 0.06
		Ru-103	Ru-106	Sb-125	Th-228	Zn-65	Zr-95
	06/14/07	0.02 ± 0.05	0.22 ± 0.38	-0.12 ± 0.11	1.17 ± 0.21	-0.09 ± 0.19	-0.01 ± 0.08

Table 8, Goat Milk (pCi/L)

Location	Collection Date	Isotope					
21		Ba-140	Cs-134	Cs-137	I-131	K-40	La-140
	04/11/07	0.30 ± 4.40	0.50 ± 3.50	2.30 ± 3.10	-0.08 ± 0.24	1060.00 ± 100.00	0.40 ± 5.10
	04/18/07	5.50 ± 6.30	4.70 ± 4.10	-1.40 ± 4.30	0.02 ± 0.35	1370.00 ± 150.00	6.30 ± 7.20
	04/25/07	-0.50 ± 5.60	1.80 ± 3.80	2.80 ± 4.10	-0.15 ± 0.05	1650.00 ± 150.00	-0.50 ± 6.40
	05/03/07	-1.70 ± 4.40	3.20 ± 3.30	2.90 ± 3.10	0.21 ± 0.40	875.00 ± 96.00	-1.90 ± 5.00
	05/10/07	1.60 ± 5.80	0.70 ± 3.80	1.60 ± 4.10	-0.10 ± 0.03	760.00 ± 110.00	1.90 ± 6.70
	06/30/07	F					
			Sr-89	Sr-90			
	05/10/07	2.90 ± 5.50	0.86 ± 0.95				
	24-C		Ba-140	Cs-134	Cs-137	I-131	K-40
04/11/07		1.30 ± 6.00	-0.20 ± 5.50	3.50 ± 4.70	-0.08 ± 0.24	1490.00 ± 160.00	1.50 ± 6.80
04/25/07		-5.40 ± 5.50	0.00 ± 3.60	4.00 ± 3.40	-0.20 ± 0.06	910.00 ± 110.00	-6.30 ± 6.30
05/08/07		-0.30 ± 4.20	3.30 ± 3.50	7.70 ± 4.40	0.06 ± 0.37	1590.00 ± 120.00	-0.40 ± 4.80
06/30/07		G					
			Sr-89	Sr-90			
05/08/07		7.70 ± 5.70	1.10 ± 1.00				

Table 9, Pasture Grass (pCi/g)

Location	Collection Date	Isotope						
21		Ba-140	Be-7	Ce-141	Ce-144	Co-58	Co-60	
	01/17/07	-0.017 ± 0.032 H	0.070 ± 0.170	-0.017 ± 0.031	-0.020 ± 0.100	0.004 ± 0.021	-0.003 ± 0.027	
	02/13/07	0.000 ± 0.047 H	0.030 ± 0.220	-0.022 ± 0.040	-0.020 ± 0.120	-0.003 ± 0.028	-0.014 ± 0.033	
	03/21/07	-0.011 ± 0.046 H	0.120 ± 0.200	-0.025 ± 0.029	0.028 ± 0.079	0.001 ± 0.026	0.010 ± 0.028	
	04/11/07	-0.007 ± 0.042 H	0.440 ± 0.280	0.015 ± 0.045	-0.020 ± 0.120	0.005 ± 0.028	-0.028 ± 0.032	
	04/25/07	-0.033 ± 0.049 H	0.000 ± 0.140	0.018 ± 0.026	-0.020 ± 0.063	-0.012 ± 0.022	0.009 ± 0.020	
	05/10/07	-0.040 ± 0.110 H	-0.030 ± 0.310	-0.003 ± 0.057	-0.030 ± 0.160	-0.016 ± 0.043	-0.004 ± 0.041	
	05/23/07	-0.018 ± 0.044	0.410 ± 0.350	-0.023 ± 0.039	-0.060 ± 0.110	-0.012 ± 0.031	0.019 ± 0.025	
	06/14/07	0.026 ± 0.073	0.470 ± 0.300	-0.062 ± 0.039	-0.047 ± 0.097	0.004 ± 0.026	0.003 ± 0.023	
	06/27/07	0.005 ± 0.064	0.280 ± 0.280	0.007 ± 0.037	0.022 ± 0.095	0.009 ± 0.022	0.006 ± 0.024	
	07/17/07	-0.014 ± 0.044	0.510 ± 0.290	0.011 ± 0.024	0.065 ± 0.078	-0.001 ± 0.028	-0.006 ± 0.027	
	08/08/07	0.036 ± 0.045	0.400 ± 0.290	-0.004 ± 0.026	0.005 ± 0.093	-0.001 ± 0.020	-0.003 ± 0.027	
	08/22/07	0.011 ± 0.072	0.690 ± 0.350	-0.004 ± 0.036	0.010 ± 0.110	0.013 ± 0.025	-0.003 ± 0.030	
	09/05/07	-0.004 ± 0.032	0.470 ± 0.300	0.014 ± 0.030	-0.040 ± 0.100	-0.026 ± 0.031	0.000 ± 0.031	
	09/19/07	-0.009 ± 0.025	0.990 ± 0.200	0.012 ± 0.017	0.028 ± 0.059	0.002 ± 0.014	-0.001 ± 0.018	
	10/17/07	0.062 ± 0.074	0.840 ± 0.360	-0.008 ± 0.035	0.070 ± 0.098	0.005 ± 0.033	0.031 ± 0.032	
	10/31/07	-0.025 ± 0.049	1.800 ± 0.450	0.001 ± 0.039	-0.010 ± 0.120	0.022 ± 0.028	0.000 ± 0.026	
	11/19/07	-0.070 ± 0.120 H	0.480 ± 0.340	0.003 ± 0.039	0.065 ± 0.093	0.002 ± 0.035	-0.012 ± 0.037	
	12/12/07	-0.063 ± 0.098 H	-0.030 ± 0.220	-0.005 ± 0.039	0.042 ± 0.097	-0.002 ± 0.031	-0.005 ± 0.034	
			Cr-51	Cs-134	Cs-137	Fe-59	I-131	K-40
	01/17/07	-0.070 ± 0.190	0.007 ± 0.024	-0.003 ± 0.024	-0.056 ± 0.057	-0.003 ± 0.055	11.300 ± 1.000	
	02/13/07	-0.170 ± 0.270	0.023 ± 0.029	0.004 ± 0.024	0.016 ± 0.067	-0.014 ± 0.080	9.700 ± 1.100	
	03/21/07	-0.050 ± 0.180	0.012 ± 0.027	0.013 ± 0.024	-0.014 ± 0.060	0.031 ± 0.047	14.990 ± 0.980	
	04/11/07	0.010 ± 0.230	0.000 ± 0.034	0.027 ± 0.028	0.024 ± 0.066	-0.015 ± 0.051	18.700 ± 1.100	
	04/25/07	-0.030 ± 0.160	0.012 ± 0.020	0.013 ± 0.017	-0.027 ± 0.049	0.092 ± 0.093	9.170 ± 0.760	
	05/10/07	-0.410 ± 0.390	0.007 ± 0.027	-0.002 ± 0.038	-0.020 ± 0.100	0.040 ± 0.160	8.400 ± 1.500	
	05/23/07	-0.160 ± 0.290	0.024 ± 0.035	0.012 ± 0.026	0.016 ± 0.058	-0.005 ± 0.002	5.060 ± 0.950	
	06/14/07	-0.210 ± 0.260	0.006 ± 0.024	0.013 ± 0.025	-0.001 ± 0.072	-0.002 ± 0.001	5.970 ± 0.850	
	06/27/07	-0.010 ± 0.290	-0.007 ± 0.023	0.025 ± 0.026	-0.015 ± 0.061	0.014 ± 0.014	5.580 ± 0.850	
	07/17/07	-0.120 ± 0.160	0.008 ± 0.024	-0.012 ± 0.020	0.000 ± 0.052	0.002 ± 0.010	6.800 ± 1.000	
	08/08/07	-0.140 ± 0.220	-0.002 ± 0.026	0.003 ± 0.021	0.000 ± 0.052	-0.004 ± 0.001	4.980 ± 0.900	
	08/22/07	0.060 ± 0.270	0.011 ± 0.029	-0.021 ± 0.030	0.009 ± 0.065	-0.001 ± 0.011	3.640 ± 0.960	
	09/05/07	-0.040 ± 0.190	0.011 ± 0.031	0.009 ± 0.026	0.000 ± 0.062	0.004 ± 0.016	6.700 ± 1.100	
	09/19/07	0.120 ± 0.120	-0.002 ± 0.015	0.020 ± 0.016	-0.028 ± 0.030	0.000 ± 0.008	3.760 ± 0.470	
	10/17/07	0.020 ± 0.210	0.006 ± 0.030	0.033 ± 0.031	0.042 ± 0.081	0.010 ± 0.026	5.200 ± 1.100	
	10/31/07	0.030 ± 0.290	0.008 ± 0.028	0.003 ± 0.029	0.008 ± 0.071	-0.008 ± 0.002	5.180 ± 0.890	
	11/19/07	-0.110 ± 0.320	0.042 ± 0.032	-0.005 ± 0.028	-0.021 ± 0.086	0.011 ± 0.023	22.900 ± 1.200	
	12/12/07	-0.100 ± 0.260	0.002 ± 0.033	0.018 ± 0.023	0.033 ± 0.077	-0.090 ± 0.120	9.900 ± 1.200	
			La-140	Mn-54	Nb-95	Ru-103	Ru-106	Sb-125
	01/17/07	-0.020 ± 0.037	-0.002 ± 0.023	-0.006 ± 0.025	0.006 ± 0.024	-0.080 ± 0.210	0.003 ± 0.051	
	02/13/07	0.000 ± 0.054	-0.004 ± 0.027	-0.011 ± 0.029	0.003 ± 0.030	0.050 ± 0.240	-0.011 ± 0.061	
	03/21/07	-0.013 ± 0.053	0.015 ± 0.025	-0.007 ± 0.029	-0.001 ± 0.023	0.090 ± 0.210	-0.048 ± 0.058	
	04/11/07	-0.008 ± 0.049	0.001 ± 0.028	-0.003 ± 0.034	-0.030 ± 0.030	0.040 ± 0.270	-0.004 ± 0.062	
	04/25/07	-0.038 ± 0.056	0.003 ± 0.017	0.009 ± 0.025	0.006 ± 0.020	0.010 ± 0.140	-0.023 ± 0.036	
	05/10/07	-0.040 ± 0.130	0.034 ± 0.027	-0.004 ± 0.051	-0.026 ± 0.036	-0.020 ± 0.330	0.020 ± 0.100	
	05/23/07	-0.021 ± 0.050	0.005 ± 0.027	-0.021 ± 0.039	-0.037 ± 0.033	0.150 ± 0.210	-0.011 ± 0.063	
	06/14/07	0.030 ± 0.083	-0.004 ± 0.022	0.027 ± 0.037	0.000 ± 0.030	-0.090 ± 0.190	0.030 ± 0.051	
06/27/07	0.005 ± 0.074	-0.010 ± 0.022	-0.019 ± 0.035	-0.022 ± 0.025	-0.160 ± 0.190	0.031 ± 0.053		
07/17/07	-0.016 ± 0.051	-0.025 ± 0.024	0.011 ± 0.024	-0.014 ± 0.021	-0.130 ± 0.180	-0.019 ± 0.048		
08/08/07	0.041 ± 0.051	-0.007 ± 0.021	0.009 ± 0.026	0.000 ± 0.019	0.040 ± 0.190	0.010 ± 0.056		
08/22/07	0.012 ± 0.083	-0.010 ± 0.023	0.010 ± 0.038	0.006 ± 0.024	-0.010 ± 0.310	0.012 ± 0.072		
09/05/07	-0.004 ± 0.037	0.004 ± 0.030	-0.008 ± 0.035	0.014 ± 0.027	-0.020 ± 0.220	-0.018 ± 0.065		
09/19/07	-0.010 ± 0.028	-0.005 ± 0.015	0.015 ± 0.017	0.004 ± 0.013	-0.110 ± 0.130	0.002 ± 0.036		
10/17/07	0.062 ± 0.074	0.016 ± 0.034	-0.002 ± 0.034	-0.005 ± 0.031	0.050 ± 0.210	-0.016 ± 0.058		

Table 9, Pasture Grass (pCi/g)

Location	Collection Date	Isotope						
21		La-140	Mn-54	Nb-95	Ru-103	Ru-106	Sb-125	
	10/31/07	-0.025 ± 0.049	-0.014 ± 0.026	0.011 ± 0.032	-0.004 ± 0.032	-0.130 ± 0.270	-0.036 ± 0.067	
	11/19/07	-0.070 ± 0.120	0.001 ± 0.028	-0.024 ± 0.066	0.004 ± 0.032	0.100 ± 0.230	-0.029 ± 0.066	
	12/12/07	-0.063 ± 0.098	-0.001 ± 0.026	-0.048 ± 0.042	-0.006 ± 0.035	-0.080 ± 0.200	0.043 ± 0.058	
		Th-228	Zn-65	Zr-95				
	01/17/07	-0.065 ± 0.080	-0.039 ± 0.055	-0.039 ± 0.041				
	02/13/07	-0.040 ± 0.100	0.015 ± 0.072	-0.006 ± 0.048				
	03/21/07	0.069 ± 0.091	-0.002 ± 0.065	-0.030 ± 0.047				
	04/11/07	0.070 ± 0.140	0.018 ± 0.074	-0.004 ± 0.048				
	04/25/07	0.009 ± 0.062	-0.022 ± 0.046	0.024 ± 0.038				
	05/10/07	0.030 ± 0.160	-0.050 ± 0.110	0.004 ± 0.076				
	05/23/07	0.030 ± 0.100	-0.024 ± 0.070	0.010 ± 0.054				
	06/14/07	-0.002 ± 0.098	0.004 ± 0.064	-0.050 ± 0.046				
	06/27/07	0.010 ± 0.088	0.024 ± 0.057	-0.004 ± 0.050				
	07/17/07	0.020 ± 0.100	-0.028 ± 0.064	0.009 ± 0.041				
	08/08/07	-0.030 ± 0.110	0.017 ± 0.065	0.016 ± 0.045				
	08/22/07	-0.010 ± 0.140	-0.060 ± 0.075	-0.022 ± 0.047				
	09/05/07	0.038 ± 0.099	-0.057 ± 0.064	-0.005 ± 0.049				
	09/19/07	0.018 ± 0.066	-0.032 ± 0.031	-0.017 ± 0.023				
	10/17/07	-0.010 ± 0.110	0.020 ± 0.160	-0.009 ± 0.055				
	10/31/07	-0.060 ± 0.110	-0.052 ± 0.080	-0.030 ± 0.049				
	11/19/07	0.110 ± 0.150	-0.111 ± 0.081	0.003 ± 0.058				
	12/12/07	0.050 ± 0.100	0.022 ± 0.072	-0.047 ± 0.049				
	22		Ba-140	Be-7	Ce-141	Ce-144	Co-58	Co-60
		01/17/07	-0.022 ± 0.052 H	0.030 ± 0.240	0.008 ± 0.029	-0.010 ± 0.130	-0.004 ± 0.027	-0.008 ± 0.028
		02/13/07	0.073 ± 0.088 H	3.740 ± 0.430	-0.033 ± 0.059	0.020 ± 0.130	0.020 ± 0.031	0.000 ± 0.030
		03/21/07	0.029 ± 0.061 H	0.280 ± 0.340	-0.006 ± 0.045	0.110 ± 0.140	0.013 ± 0.032	-0.015 ± 0.031
04/11/07		-0.027 ± 0.046 H	1.790 ± 0.400	0.056 ± 0.039	0.000 ± 0.140	-0.003 ± 0.029	0.000 ± 0.032	
04/25/07		-0.060 ± 0.140 H	0.290 ± 0.250	-0.037 ± 0.073	-0.110 ± 0.170	-0.027 ± 0.045	-0.006 ± 0.043	
05/09/07		-0.028 ± 0.066 H	2.370 ± 0.400	0.004 ± 0.046	-0.060 ± 0.120	-0.042 ± 0.029	0.003 ± 0.028	
05/23/07		0.017 ± 0.060	0.570 ± 0.390	-0.047 ± 0.041	-0.070 ± 0.120	-0.022 ± 0.028	-0.023 ± 0.031	
06/14/07		0.016 ± 0.093	0.520 ± 0.450	-0.026 ± 0.054	0.010 ± 0.140	0.036 ± 0.037	0.031 ± 0.032	
06/27/07		-0.060 ± 0.100	0.460 ± 0.440	0.055 ± 0.096	0.010 ± 0.140	-0.008 ± 0.038	-0.009 ± 0.041	
07/17/07		-0.008 ± 0.071	1.700 ± 0.480	-0.018 ± 0.043	-0.070 ± 0.130	-0.010 ± 0.033	0.010 ± 0.026	
08/08/07		-0.018 ± 0.031	0.200 ± 0.160	0.008 ± 0.019	-0.063 ± 0.069	0.004 ± 0.015	-0.008 ± 0.022	
08/22/07		0.035 ± 0.046	1.220 ± 0.370	0.010 ± 0.032	-0.080 ± 0.110	-0.002 ± 0.029	-0.031 ± 0.036	
09/05/07		-0.008 ± 0.036	0.800 ± 0.260	-0.019 ± 0.025	-0.047 ± 0.071	-0.004 ± 0.022	-0.009 ± 0.027	
09/19/07		0.005 ± 0.038	0.920 ± 0.340	-0.003 ± 0.032	-0.020 ± 0.100	0.015 ± 0.026	0.003 ± 0.020	
10/17/07		-0.007 ± 0.061	1.490 ± 0.380	-0.019 ± 0.031	-0.008 ± 0.083	-0.025 ± 0.030	0.009 ± 0.035	
10/31/07		0.086 ± 0.095	3.610 ± 0.570	0.018 ± 0.046	0.050 ± 0.150	-0.010 ± 0.037	0.022 ± 0.032	
11/19/07		0.140 ± 0.130 H	0.060 ± 0.270	0.003 ± 0.045	0.060 ± 0.130	0.002 ± 0.036	0.035 ± 0.037	
12/12/07		0.020 ± 0.120 H	0.500 ± 0.320	0.023 ± 0.053	0.030 ± 0.150	0.003 ± 0.038	0.000 ± 0.032	
		Cr-51	Cs-134	Cs-137	Fe-59	I-131	K-40	
01/17/07		-0.070 ± 0.250	-0.016 ± 0.028	0.074 ± 0.037	-0.029 ± 0.064	-0.025 ± 0.080	7.180 ± 0.690	
02/13/07		-0.030 ± 0.340	0.002 ± 0.031	0.033 ± 0.033	0.040 ± 0.074	0.050 ± 0.160	3.670 ± 0.600	
03/21/07		-0.290 ± 0.290	0.036 ± 0.035	0.032 ± 0.031	0.013 ± 0.079	0.036 ± 0.082	15.800 ± 1.100	
04/11/07		0.140 ± 0.270	0.000 ± 0.030	0.036 ± 0.031	-0.003 ± 0.067	-0.058 ± 0.058	7.860 ± 0.880	
04/25/07		0.560 ± 0.470	-0.027 ± 0.041	-0.031 ± 0.038	0.000 ± 0.100	0.060 ± 0.250	9.090 ± 0.970	
05/09/07		0.330 ± 0.300	0.012 ± 0.032	0.014 ± 0.026	0.029 ± 0.066	0.070 ± 0.130	5.060 ± 0.630	
05/23/07		0.180 ± 0.320	0.021 ± 0.031	0.013 ± 0.031	0.008 ± 0.068	0.001 ± 0.013	4.880 ± 0.950	

Table 9, Pasture Grass (pCi/g)

Location	Collection Date	Isotope					
22		Cr-51	Cs-134	Cs-137	Fe-59	I-131	K-40
	06/14/07	0.390 ± 0.430	0.024 ± 0.032	0.010 ± 0.036	0.050 ± 0.140	-0.003 ± 0.001	4.500 ± 1.100
	06/27/07	-0.260 ± 0.370	0.025 ± 0.035	0.027 ± 0.030	0.058 ± 0.095	0.004 ± 0.011	4.820 ± 0.890
	07/17/07	-0.180 ± 0.270	0.010 ± 0.031	0.002 ± 0.031	-0.026 ± 0.075	-0.005 ± 0.002	4.290 ± 0.820
	08/08/07	-0.140 ± 0.140	-0.009 ± 0.019	0.013 ± 0.019	0.009 ± 0.051	0.002 ± 0.014	5.490 ± 0.790
	08/22/07	-0.010 ± 0.200	-0.016 ± 0.030	-0.002 ± 0.027	0.000 ± 0.067	-0.008 ± 0.010	4.520 ± 0.870
	09/05/07	-0.080 ± 0.150	0.017 ± 0.026	0.007 ± 0.023	0.000 ± 0.053	0.001 ± 0.015	7.030 ± 0.860
	09/19/07	0.070 ± 0.180	0.009 ± 0.023	-0.003 ± 0.025	0.052 ± 0.064	0.006 ± 0.016	3.830 ± 0.780
	10/17/07	0.050 ± 0.210	0.031 ± 0.034	0.013 ± 0.026	-0.030 ± 0.069	-0.003 ± 0.018	5.700 ± 0.900
	10/31/07	0.190 ± 0.340	0.015 ± 0.033	-0.039 ± 0.034	-0.065 ± 0.079	0.008 ± 0.018	5.940 ± 0.970
	11/19/07	-0.020 ± 0.370	0.024 ± 0.032	0.020 ± 0.033	-0.014 ± 0.080	0.012 ± 0.026	9.350 ± 0.940
	12/12/07	0.050 ± 0.420	-0.013 ± 0.033	0.006 ± 0.033	-0.114 ± 0.088	0.050 ± 0.230	12.090 ± 0.990
			La-140	Mn-54	Nb-95	Ru-103	Ru-106
01/17/07	-0.025 ± 0.059	-0.011 ± 0.026	0.015 ± 0.032	-0.006 ± 0.031	-0.270 ± 0.250	-0.001 ± 0.062	
02/13/07	0.080 ± 0.100	0.010 ± 0.029	0.029 ± 0.065	-0.004 ± 0.039	0.280 ± 0.270	0.032 ± 0.070	
03/21/07	0.033 ± 0.071	0.006 ± 0.031	-0.011 ± 0.043	-0.006 ± 0.035	0.170 ± 0.300	0.010 ± 0.081	
04/11/07	-0.031 ± 0.053	-0.004 ± 0.029	0.001 ± 0.033	-0.012 ± 0.026	-0.230 ± 0.280	0.066 ± 0.072	
04/25/07	-0.070 ± 0.160	-0.007 ± 0.038	-0.033 ± 0.065	-0.008 ± 0.055	-0.270 ± 0.370	-0.016 ± 0.091	
05/09/07	-0.032 ± 0.075	-0.026 ± 0.027	0.006 ± 0.045	0.005 ± 0.034	-0.100 ± 0.260	0.020 ± 0.067	
05/23/07	0.020 ± 0.069	0.003 ± 0.030	-0.010 ± 0.038	0.002 ± 0.027	-0.290 ± 0.300	-0.030 ± 0.075	
06/14/07	0.020 ± 0.110	0.022 ± 0.048	-0.048 ± 0.050	0.006 ± 0.040	0.070 ± 0.410	0.076 ± 0.089	
06/27/07	-0.070 ± 0.120	-0.027 ± 0.030	0.022 ± 0.048	0.011 ± 0.040	0.020 ± 0.280	0.044 ± 0.072	
07/17/07	-0.009 ± 0.082	-0.025 ± 0.031	-0.028 ± 0.039	0.010 ± 0.033	-0.260 ± 0.290	0.018 ± 0.067	
08/08/07	-0.021 ± 0.036	-0.012 ± 0.018	-0.009 ± 0.018	-0.003 ± 0.014	-0.010 ± 0.170	-0.004 ± 0.041	
08/22/07	0.041 ± 0.053	0.005 ± 0.025	0.003 ± 0.036	-0.017 ± 0.028	-0.050 ± 0.220	-0.007 ± 0.063	
09/05/07	-0.009 ± 0.041	0.007 ± 0.022	0.006 ± 0.024	-0.009 ± 0.022	-0.020 ± 0.190	-0.018 ± 0.053	
09/19/07	0.005 ± 0.044	0.000 ± 0.026	0.007 ± 0.026	-0.016 ± 0.026	0.070 ± 0.210	0.016 ± 0.058	
10/17/07	-0.007 ± 0.061	-0.027 ± 0.031	0.017 ± 0.033	0.008 ± 0.026	0.000 ± 0.210	-0.013 ± 0.057	
10/31/07	0.086 ± 0.095	0.036 ± 0.032	-0.017 ± 0.037	0.001 ± 0.033	0.090 ± 0.300	0.058 ± 0.084	
11/19/07	0.140 ± 0.130	-0.001 ± 0.033	-0.010 ± 0.044	0.000 ± 0.038	0.160 ± 0.300	-0.008 ± 0.074	
12/12/07	0.020 ± 0.120	-0.011 ± 0.029	-0.019 ± 0.046	0.016 ± 0.038	-0.080 ± 0.290	0.035 ± 0.081	
		Th-228	Zn-65	Zr-95			
01/17/07	0.090 ± 0.130	-0.086 ± 0.065	-0.038 ± 0.050				
02/13/07	0.030 ± 0.140	0.030 ± 0.140	-0.050 ± 0.057				
03/21/07	0.200 ± 0.160	-0.090 ± 0.120	0.018 ± 0.057				
04/11/07	-0.030 ± 0.110	-0.008 ± 0.071	-0.002 ± 0.054				
04/25/07	0.000 ± 0.180	-0.020 ± 0.160	0.022 ± 0.076				
05/09/07	0.030 ± 0.130	0.012 ± 0.062	0.003 ± 0.052				
05/23/07	0.030 ± 0.100	0.007 ± 0.085	0.037 ± 0.063				
06/14/07	0.010 ± 0.110	-0.068 ± 0.087	0.018 ± 0.079				
06/27/07	0.000 ± 0.130	-0.044 ± 0.074	0.000 ± 0.061				
07/17/07	0.040 ± 0.120	-0.104 ± 0.077	0.004 ± 0.057				
08/08/07	0.059 ± 0.080	0.018 ± 0.045	-0.008 ± 0.031				
08/22/07	0.100 ± 0.120	-0.005 ± 0.068	-0.001 ± 0.052				
09/05/07	0.080 ± 0.100	0.050 ± 0.060	0.010 ± 0.047				
09/19/07	-0.050 ± 0.110	-0.013 ± 0.053	0.021 ± 0.045				
10/17/07	0.180 ± 0.120	0.014 ± 0.068	0.011 ± 0.053				
10/31/07	0.220 ± 0.130	-0.023 ± 0.084	-0.009 ± 0.059				
11/19/07	-0.010 ± 0.170	-0.041 ± 0.083	0.061 ± 0.065				
12/12/07	0.090 ± 0.160	-0.025 ± 0.075	-0.035 ± 0.065				

Table 9, Pasture Grass (pCi/g)

Location	Collection Date	Isotope					
24-C		Ba-140	Be-7	Ce-141	Ce-144	Co-58	Co-60
	01/17/07	-0.047 ± 0.063 H	0.940 ± 0.430	0.035 ± 0.047	0.090 ± 0.150	-0.009 ± 0.034	0.035 ± 0.034
	02/13/07	-0.058 ± 0.071 H	0.180 ± 0.260	0.015 ± 0.040	-0.020 ± 0.120	0.004 ± 0.029	0.016 ± 0.036
	03/21/07	0.027 ± 0.060 H	0.230 ± 0.280	0.017 ± 0.045	-0.010 ± 0.150	0.002 ± 0.033	-0.008 ± 0.036
	05/23/07	-0.009 ± 0.039	0.260 ± 0.240	-0.003 ± 0.027	0.042 ± 0.087	0.002 ± 0.019	0.006 ± 0.021
	06/14/07	-0.004 ± 0.065	0.430 ± 0.320	-0.009 ± 0.041	-0.090 ± 0.110	0.025 ± 0.031	-0.011 ± 0.025
	06/27/07	0.038 ± 0.061	0.440 ± 0.260	-0.011 ± 0.037	-0.020 ± 0.100	0.011 ± 0.025	0.000 ± 0.022
	07/17/07	0.003 ± 0.035	0.730 ± 0.340	0.001 ± 0.028	-0.017 ± 0.089	-0.014 ± 0.028	0.021 ± 0.032
	08/08/07	-0.013 ± 0.042	0.680 ± 0.360	-0.027 ± 0.029	-0.050 ± 0.100	-0.024 ± 0.029	0.004 ± 0.032
	08/22/07	0.039 ± 0.041	0.480 ± 0.260	0.003 ± 0.024	0.012 ± 0.065	-0.001 ± 0.022	-0.037 ± 0.028
	09/05/07	-0.031 ± 0.029	0.570 ± 0.230	-0.013 ± 0.026	0.008 ± 0.092	0.005 ± 0.018	-0.003 ± 0.019
	09/19/07	-0.031 ± 0.053	0.370 ± 0.230	0.002 ± 0.036	0.010 ± 0.130	-0.017 ± 0.027	0.000 ± 0.033
10/17/07	0.000 ± 0.063	0.540 ± 0.310	0.003 ± 0.033	0.050 ± 0.100	0.008 ± 0.034	-0.018 ± 0.030	
10/31/07	0.034 ± 0.076	2.650 ± 0.530	0.020 ± 0.041	0.010 ± 0.110	-0.003 ± 0.021	-0.002 ± 0.028	
11/19/07	0.023 ± 0.094	6.600 ± 0.520	0.010 ± 0.045	-0.120 ± 0.120	0.006 ± 0.030	0.008 ± 0.026	
12/12/07	0.030 ± 0.100 H	0.500 ± 0.330	0.019 ± 0.045	0.060 ± 0.120	0.004 ± 0.030	-0.013 ± 0.029	
		Cr-51	Cs-134	Cs-137	Fe-59	I-131	K-40
01/17/07	-0.390 ± 0.320	0.024 ± 0.035	0.040 ± 0.036	0.012 ± 0.083	0.002 ± 0.097	12.100 ± 1.000	
02/13/07	-0.200 ± 0.300	-0.017 ± 0.030	0.047 ± 0.041	-0.011 ± 0.077	0.027 ± 0.099	13.700 ± 1.000	
03/21/07	-0.120 ± 0.320	0.004 ± 0.034	0.046 ± 0.035	-0.021 ± 0.080	0.014 ± 0.094	15.000 ± 1.100	
05/23/07	-0.110 ± 0.180	0.020 ± 0.022	-0.007 ± 0.023	-0.034 ± 0.058	-0.006 ± 0.002	4.680 ± 0.890	
06/14/07	-0.020 ± 0.290	0.024 ± 0.028	0.019 ± 0.022	-0.026 ± 0.073	-0.002 ± 0.001	6.700 ± 1.000	
06/27/07	0.060 ± 0.240	0.003 ± 0.024	-0.025 ± 0.023	-0.037 ± 0.066	0.008 ± 0.020	6.550 ± 0.780	
07/17/07	0.100 ± 0.180	0.010 ± 0.028	-0.007 ± 0.023	0.011 ± 0.066	0.003 ± 0.015	6.100 ± 0.960	
08/08/07	-0.200 ± 0.220	0.009 ± 0.032	-0.027 ± 0.024	-0.013 ± 0.066	0.023 ± 0.024	7.000 ± 1.100	
08/22/07	0.030 ± 0.140	-0.007 ± 0.025	-0.011 ± 0.018	-0.013 ± 0.054	0.001 ± 0.016	5.140 ± 0.930	
09/05/07	0.010 ± 0.170	0.003 ± 0.024	0.010 ± 0.018	0.023 ± 0.043	0.020 ± 0.030	6.430 ± 0.760	
09/19/07	-0.090 ± 0.280	0.007 ± 0.031	0.012 ± 0.026	-0.075 ± 0.060	-0.004 ± 0.001	5.700 ± 1.100	
10/17/07	0.090 ± 0.230	-0.016 ± 0.027	0.004 ± 0.026	0.032 ± 0.061	-0.015 ± 0.014	7.000 ± 1.100	
10/31/07	-0.060 ± 0.280	0.000 ± 0.028	-0.014 ± 0.021	-0.046 ± 0.081	-0.001 ± 0.013	4.170 ± 0.910	
11/19/07	-0.290 ± 0.330	0.014 ± 0.030	-0.002 ± 0.025	-0.018 ± 0.069	-0.003 ± 0.013	7.130 ± 0.670	
12/12/07	0.200 ± 0.350	0.001 ± 0.029	0.037 ± 0.035	0.009 ± 0.077	0.070 ± 0.160	9.320 ± 0.800	
		La-140	Mn-54	Nb-95	Ru-103	Ru-106	Sb-125
01/17/07	-0.054 ± 0.073	0.002 ± 0.033	-0.035 ± 0.048	-0.014 ± 0.037	-0.440 ± 0.310	-0.025 ± 0.078	
02/13/07	-0.066 ± 0.082	0.001 ± 0.036	0.004 ± 0.038	0.000 ± 0.032	-0.120 ± 0.280	0.020 ± 0.072	
03/21/07	0.030 ± 0.069	-0.015 ± 0.036	0.050 ± 0.038	0.023 ± 0.032	-0.070 ± 0.290	-0.019 ± 0.082	
05/23/07	-0.010 ± 0.045	-0.018 ± 0.018	0.006 ± 0.024	-0.017 ± 0.022	0.040 ± 0.150	0.000 ± 0.049	
06/14/07	-0.004 ± 0.074	0.019 ± 0.025	-0.019 ± 0.035	-0.012 ± 0.025	-0.040 ± 0.200	-0.089 ± 0.065	
06/27/07	0.043 ± 0.071	-0.011 ± 0.022	-0.018 ± 0.029	0.006 ± 0.024	0.050 ± 0.220	0.004 ± 0.052	
07/17/07	0.003 ± 0.040	0.028 ± 0.021	-0.016 ± 0.033	0.000 ± 0.019	-0.020 ± 0.200	-0.021 ± 0.054	
08/08/07	-0.015 ± 0.049	-0.001 ± 0.023	-0.003 ± 0.027	-0.008 ± 0.025	0.110 ± 0.240	0.026 ± 0.068	
08/22/07	0.044 ± 0.047	-0.007 ± 0.023	0.004 ± 0.026	-0.002 ± 0.022	-0.040 ± 0.160	0.029 ± 0.054	
09/05/07	-0.036 ± 0.033	-0.015 ± 0.021	0.002 ± 0.022	0.002 ± 0.016	0.010 ± 0.170	0.049 ± 0.047	
09/19/07	-0.035 ± 0.061	-0.013 ± 0.028	0.012 ± 0.039	-0.018 ± 0.032	-0.130 ± 0.250	-0.031 ± 0.062	
10/17/07	0.000 ± 0.063	0.007 ± 0.029	-0.006 ± 0.032	-0.028 ± 0.024	0.030 ± 0.220	0.033 ± 0.057	
10/31/07	0.034 ± 0.076	0.013 ± 0.030	0.008 ± 0.032	-0.006 ± 0.033	0.070 ± 0.310	0.044 ± 0.072	
11/19/07	0.023 ± 0.094	0.005 ± 0.026	-0.032 ± 0.045	-0.016 ± 0.035	-0.040 ± 0.240	-0.011 ± 0.063	
12/12/07	0.030 ± 0.100	-0.017 ± 0.026	-0.015 ± 0.043	0.008 ± 0.033	0.060 ± 0.250	0.035 ± 0.068	

Table 9, Pasture Grass (pCi/g)

Location	Collection Date	Isotope		
24-C		Th-228	Zn-65	Zr-95
	01/17/07	0.170 ± 0.170	0.050 ± 0.150	-0.021 ± 0.063
	02/13/07	0.110 ± 0.160	-0.070 ± 0.100	0.031 ± 0.056
	03/21/07	0.120 ± 0.110	0.020 ± 0.120	0.006 ± 0.060
	05/23/07	0.080 ± 0.100	0.037 ± 0.061	-0.028 ± 0.039
	06/14/07	0.029 ± 0.089	-0.033 ± 0.074	-0.039 ± 0.045
	06/27/07	0.057 ± 0.077	-0.057 ± 0.058	0.000 ± 0.043
	07/17/07	0.090 ± 0.110	0.010 ± 0.067	-0.009 ± 0.044
	08/08/07	0.020 ± 0.120	-0.052 ± 0.069	0.034 ± 0.047
	08/22/07	0.033 ± 0.095	-0.054 ± 0.053	0.018 ± 0.046
	09/05/07	0.105 ± 0.084	-0.066 ± 0.055	0.008 ± 0.030
	09/19/07	-0.024 ± 0.093	0.026 ± 0.061	-0.028 ± 0.050
	10/17/07	0.080 ± 0.100	-0.066 ± 0.087	0.007 ± 0.041
	10/31/07	-0.020 ± 0.100	-0.031 ± 0.061	0.024 ± 0.041
	11/19/07	-0.010 ± 0.130	0.140 ± 0.110	-0.043 ± 0.056
	12/12/07	0.080 ± 0.120	-0.047 ± 0.093	0.019 ± 0.052

Table 10, Well Water (pCi/L)

Location	Collection Date	Isotope						
71		Ba-140	Be-7	Co-58	Co-60	Cr-51	Cs-134	
	03/20/07	-1.2 ± 6.4	18.0 ± 22.0	-1.0 ± 2.6	0.0 ± 3.5	-13.0 ± 23.0	-1.4 ± 2.9	
	06/29/07	2.4 ± 6.8	-1.0 ± 21.0	-0.9 ± 2.8	-2.6 ± 3.0	5.0 ± 22.0	-0.1 ± 3.0	
	09/24/07	-2.6 ± 5.6	-10.0 ± 24.0	-2.8 ± 3.2	-1.2 ± 3.5	11.0 ± 25.0	-0.6 ± 3.6	
	12/19/07	0.6 ± 6.0	-10.0 ± 22.0	-2.3 ± 2.9	1.6 ± 2.6	-7.0 ± 27.0	-0.6 ± 2.7	
		Cs-137	Fe-59	H-3	I-131	K-40	La-140	
	03/20/07	-0.1 ± 2.4	-2.3 ± 5.9	-450.0 ± 880.0	-0.2 ± 6.9	14.0 ± 48.0	-1.4 ± 7.4	
	06/29/07	1.1 ± 2.1	-3.1 ± 6.5	340.0 ± 820.0	-0.1 ± 7.8	4.0 ± 48.0	2.8 ± 7.8	
	09/24/07	0.8 ± 3.0	0.0 ± 5.8	350.0 ± 900.0	1.6 ± 5.8	34.0 ± 54.0	-3.0 ± 6.4	
	12/19/07	-0.2 ± 3.2	0.5 ± 5.3	50.0 ± 890.0	5.2 ± 6.5	11.0 ± 40.0	0.6 ± 6.0	
		Mn-54	Nb-95	Ru-103	Ru-106	Sb-125	Th-228	
	03/20/07	-0.7 ± 2.7	-0.5 ± 3.6	-0.4 ± 2.8	2.0 ± 22.0	1.5 ± 6.2	-4.0 ± 11.0	
	06/29/07	-1.7 ± 2.4	2.9 ± 3.4	-0.6 ± 2.9	13.0 ± 22.0	-2.0 ± 5.5	-5.0 ± 12.0	
	09/24/07	-0.9 ± 3.3	-3.1 ± 4.0	0.1 ± 3.1	3.0 ± 25.0	4.2 ± 7.0	16.0 ± 16.0	
	12/19/07	0.5 ± 2.5	-0.9 ± 3.0	-2.4 ± 2.8	8.0 ± 25.0	1.7 ± 7.2	6.0 ± 10.0	
		Zn-65	Zr-95					
	03/20/07	3.7 ± 5.7	2.5 ± 5.1					
	06/29/07	-0.3 ± 5.6	4.3 ± 4.8					
	09/24/07	-6.9 ± 7.2	0.3 ± 5.8					
	12/19/07	6.0 ± 11.0	6.1 ± 4.8					
	72		Ba-140	Be-7	Co-58	Co-60	Cr-51	Cs-134
		03/15/07	6.7 ± 6.3	-22.0 ± 35.0	-0.7 ± 3.7	-0.3 ± 3.5	0.0 ± 34.0	-0.7 ± 3.4
		06/29/07	0.7 ± 5.8	28.0 ± 20.0	-0.3 ± 2.1	0.0 ± 2.2	-23.0 ± 24.0	-1.0 ± 2.0
		09/18/07	-1.8 ± 5.9	5.0 ± 29.0	-0.2 ± 3.7	2.1 ± 3.2	-11.0 ± 34.0	-0.7 ± 3.6
			Cs-137	Fe-59	H-3	I-131	K-40	La-140
		03/15/07	-1.0 ± 3.3	-3.0 ± 7.2	-110.0 ± 870.0	3.8 ± 8.1	5.0 ± 45.0	7.7 ± 7.3
		06/29/07	0.5 ± 2.2	2.4 ± 4.9	720.0 ± 840.0	12.4 ± 8.3	9.0 ± 34.0	0.8 ± 6.6
		09/18/07	3.9 ± 3.7	0.5 ± 6.7	250.0 ± 880.0	-6.5 ± 7.5	-34.0 ± 44.0	-2.1 ± 6.8
		Mn-54	Nb-95	Ru-103	Ru-106	Sb-125	Th-228	
03/15/07		0.2 ± 3.1	-2.2 ± 4.6	0.9 ± 4.3	7.0 ± 31.0	6.3 ± 8.8	5.0 ± 14.0	
06/29/07		2.1 ± 1.9	1.0 ± 2.4	-2.8 ± 2.3	10.0 ± 20.0	-3.8 ± 5.6	-1.1 ± 9.3	
09/18/07		4.0 ± 3.7	0.9 ± 4.1	-2.9 ± 3.5	-12.0 ± 30.0	-0.9 ± 9.3	2.0 ± 15.0	
		Zn-65	Zr-95					
03/15/07		11.0 ± 13.0	0.4 ± 6.1					
06/29/07		-5.0 ± 5.0	-0.5 ± 3.6					
09/18/07		11.0 ± 14.0	-0.4 ± 5.9					

Table 10, Well Water (pCi/L)

Location	Collection Date	Isotope						
76-X		Ba-140	Be-7	Co-58	Co-60	Cr-51	Cs-134	
	03/14/07	2.3 ± 6.4	5.0 ± 40.0	0.7 ± 4.1	0.9 ± 3.8	9.0 ± 39.0	0.3 ± 4.4	
	06/28/07	1.7 ± 3.7	-5.0 ± 13.0	-0.6 ± 1.4	1.4 ± 1.4	-6.0 ± 16.0	1.2 ± 1.5	
	09/12/07	1.2 ± 6.2	-9.0 ± 31.0	2.1 ± 3.7	-0.2 ± 3.8	5.0 ± 32.0	-0.8 ± 3.8	
	12/12/07	-1.4 ± 6.7	20.0 ± 30.0	3.0 ± 3.7	-1.8 ± 4.2	-26.0 ± 32.0	1.8 ± 3.6	
		Cs-137	Fe-59	H-3	I-131	K-40	La-140	
	03/14/07	-5.5 ± 4.2	1.2 ± 9.7	480.0 ± 860.0	1.0 ± 7.9	23.0 ± 60.0	2.7 ± 7.4	
	06/28/07	0.2 ± 1.4	1.0 ± 3.3	-20.0 ± 810.0	-2.1 ± 5.9	0.0 ± 28.0	2.0 ± 4.3	
	09/12/07	-2.6 ± 3.9	-3.0 ± 7.8	630.0 ± 880.0	2.8 ± 6.4	16.0 ± 53.0	1.3 ± 7.1	
	12/12/07	0.1 ± 3.5	-3.4 ± 7.9	430.0 ± 900.0	0.7 ± 7.3	6.0 ± 57.0	-1.4 ± 6.7	
		Mn-54	Nb-95	Ru-103	Ru-106	Sb-125	Th-228	
	03/14/07	-2.1 ± 3.9	-2.3 ± 5.3	-0.9 ± 5.2	9.0 ± 41.0	-2.0 ± 12.0	1.0 ± 15.0	
	06/28/07	0.7 ± 1.4	-0.1 ± 1.8	-1.8 ± 1.6	10.0 ± 13.0	-2.9 ± 3.7	3.3 ± 5.4	
	09/12/07	-2.6 ± 3.4	-4.6 ± 4.2	1.9 ± 3.7	-14.0 ± 33.0	-4.4 ± 8.9	5.0 ± 17.0	
	12/12/07	-0.8 ± 3.7	-1.3 ± 5.1	-2.6 ± 4.2	6.0 ± 34.0	-0.5 ± 9.7	2.0 ± 17.0	
		Zn-65	Zr-95					
	03/14/07	-16.0 ± 13.0	-12.2 ± 8.2					
	06/28/07	-1.4 ± 3.0	0.5 ± 2.7					
	09/12/07	-7.9 ± 8.5	-5.2 ± 7.1					
	12/12/07	-2.5 ± 9.3	0.0 ± 6.3					
	77-X		Ba-140	Be-7	Co-58	Co-60	Cr-51	Cs-134
		01/31/07	I					
		11/01/07	1.1 ± 6.9	3.0 ± 29.0	-4.0 ± 4.1	1.7 ± 3.9	-19.0 ± 35.0	2.3 ± 4.2
		12/12/07	2.5 ± 7.3	-20.0 ± 33.0	0.0 ± 3.9	-2.9 ± 4.6	4.0 ± 32.0	-0.2 ± 4.5
		Cs-137	Fe-59	H-3	I-131	K-40	La-140	
11/01/07		-1.7 ± 3.3	-4.3 ± 7.8	-480.0 ± 900.0	2.4 ± 7.0	17.0 ± 51.0	1.1 ± 6.9	
12/12/07		-2.6 ± 4.0	-6.3 ± 8.1	-40.0 ± 890.0	-2.1 ± 7.0	-18.0 ± 74.0	2.5 ± 7.3	
		Mn-54	Nb-95	Ru-103	Ru-106	Sb-125	Th-228	
11/01/07		-0.4 ± 3.6	0.4 ± 7.0	-1.6 ± 4.0	-5.0 ± 33.0	2.1 ± 9.2	1.0 ± 15.0	
12/12/07		-1.8 ± 4.4	-1.7 ± 5.4	0.0 ± 4.1	-15.0 ± 34.0	-2.0 ± 11.0	-6.0 ± 17.0	
		Zn-65	Zr-95					
11/01/07		11.0 ± 17.0	1.5 ± 6.7					
12/12/07	-1.4 ± 8.0	-3.9 ± 7.2						
78-X		Ba-140	Be-7	Co-58	Co-60	Cr-51	Cs-134	
	03/14/07	5.7 ± 5.5	12.0 ± 27.0	-0.3 ± 3.3	-1.7 ± 4.0	-19.0 ± 31.0	1.4 ± 3.6	
	06/27/07	-3.1 ± 4.6	3.0 ± 16.0	1.3 ± 2.1	1.1 ± 1.8	0.0 ± 21.0	0.1 ± 2.1	
	09/12/07	-0.6 ± 4.8	-19.0 ± 32.0	-0.3 ± 3.8	1.2 ± 4.2	-2.0 ± 34.0	-0.3 ± 3.4	
	12/12/07	-2.4 ± 6.6	-2.0 ± 34.0	3.7 ± 3.8	-1.6 ± 4.4	13.0 ± 38.0	2.9 ± 3.9	

Table 10, Well Water (pCi/L)

Location	Collection Date	Isotope						
78-X		Cs-137	Fe-59	H-3	I-131	K-40	La-140	
	03/14/07	-2.4 ± 3.6	-0.6 ± 7.4	280.0 ± 840.0	3.3 ± 6.9	-38.0 ± 44.0	6.5 ± 6.4	
	06/27/07	-0.2 ± 1.8	-2.3 ± 4.6	360.0 ± 820.0	-0.4 ± 7.8	-5.0 ± 35.0	-3.6 ± 5.3	
	09/12/07	0.2 ± 3.7	-1.0 ± 10.0	270.0 ± 860.0	-2.9 ± 6.9	28.0 ± 51.0	-0.7 ± 5.6	
	12/12/07	3.2 ± 3.7	0.1 ± 8.7	590.0 ± 910.0	2.5 ± 7.8	-31.0 ± 53.0	-2.4 ± 6.6	
		Mn-54	Nb-95	Ru-103	Ru-106	Sb-125	Th-228	
	03/14/07	-0.2 ± 3.6	1.2 ± 3.7	-2.4 ± 3.7	-7.0 ± 34.0	-2.6 ± 8.9	-3.0 ± 15.0	
	06/27/07	-0.9 ± 1.8	1.6 ± 2.5	0.2 ± 2.4	-17.0 ± 18.0	-2.0 ± 4.6	2.0 ± 11.0	
	09/12/07	-2.5 ± 3.9	1.7 ± 4.7	-1.2 ± 4.0	-13.0 ± 37.0	-4.5 ± 9.6	3.0 ± 16.0	
	12/12/07	2.3 ± 4.2	-1.3 ± 4.7	2.0 ± 4.7	-13.0 ± 38.0	-2.4 ± 9.4	-6.0 ± 16.0	
		Zn-65	Zr-95					
	03/14/07	-8.0 ± 7.7	-2.9 ± 5.2					
	06/27/07	-1.0 ± 4.4	-0.9 ± 3.5					
	09/12/07	19.0 ± 14.0	3.5 ± 7.1					
	12/12/07	-0.3 ± 9.7	1.6 ± 6.8					
	79		Ba-140	Be-7	Co-58	Co-60	Cr-51	Cs-134
		03/15/07	-1.0 ± 6.6	-23.0 ± 28.0	-0.8 ± 3.5	-0.5 ± 3.4	14.0 ± 33.0	0.6 ± 3.0
		06/29/07	-2.6 ± 6.3	13.0 ± 24.0	0.4 ± 2.4	1.2 ± 2.4	-9.0 ± 26.0	-0.4 ± 2.3
		09/24/07	0.5 ± 6.9	7.0 ± 26.0	-1.9 ± 3.1	-0.6 ± 3.4	2.0 ± 29.0	3.5 ± 3.3
		11/28/07	10.3 ± 7.2	-16.0 ± 33.0	-2.4 ± 3.5	0.7 ± 4.7	1.0 ± 38.0	0.7 ± 3.2
12/19/07		-1.4 ± 5.9	2.0 ± 28.0	-1.2 ± 2.7	0.7 ± 2.8	9.0 ± 29.0	2.4 ± 3.1	
		Cs-137	Fe-59	H-3	I-131	K-40	La-140	
03/15/07		-0.4 ± 3.4	1.5 ± 7.5	-220.0 ± 890.0	-6.2 ± 7.9	-9.0 ± 44.0	-1.1 ± 7.6	
06/29/07		1.1 ± 2.0	-6.0 ± 5.7	480.0 ± 840.0	-1.6 ± 8.5	10.0 ± 38.0	-3.0 ± 7.2	
09/24/07		-0.6 ± 3.5	0.9 ± 7.1	90.0 ± 900.0	0.3 ± 6.7	16.0 ± 54.0	0.6 ± 7.9	
11/28/07		1.7 ± 3.9	1.3 ± 8.6	570.0 ± 900.0	-0.8 ± 8.4	92.0 ± 60.0	10.3 ± 7.2	
12/19/07		-3.1 ± 2.7	0.0 ± 6.3	830.0 ± 910.0	3.0 ± 7.4	-30.0 ± 47.0	-1.4 ± 5.9	
		Mn-54	Nb-95	Ru-103	Ru-106	Sb-125	Th-228	
03/15/07		-1.1 ± 3.2	-3.6 ± 4.4	-2.4 ± 3.0	2.0 ± 28.0	-2.1 ± 9.6	13.0 ± 12.0	
06/29/07		-0.5 ± 2.2	1.6 ± 2.8	-1.1 ± 3.1	-14.0 ± 21.0	3.3 ± 6.1	7.0 ± 8.5	
09/24/07		0.2 ± 3.0	0.5 ± 3.8	0.3 ± 3.4	27.0 ± 30.0	-1.7 ± 7.1	-8.0 ± 14.0	
11/28/07		-1.6 ± 3.1	0.1 ± 4.7	-0.4 ± 3.9	17.0 ± 31.0	-7.2 ± 8.7	10.0 ± 18.0	
12/19/07		-0.6 ± 2.9	1.3 ± 3.4	-2.2 ± 3.7	-16.0 ± 28.0	-4.2 ± 7.8	0.0 ± 12.0	
		Zn-65	Zr-95					
03/15/07		4.0 ± 13.0	0.7 ± 5.9					
06/29/07	-7.5 ± 5.2	1.1 ± 4.4						
09/24/07	3.0 ± 14.0	2.6 ± 5.6						
11/28/07	-0.6 ± 9.1	7.8 ± 6.7						
12/19/07	11.0 ± 11.0	-3.2 ± 4.9						

Table 10, Well Water (pCi/L)

Location	Collection Date	Isotope						
80		Ba-140	Be-7	Co-58	Co-60	Cr-51	Cs-134	
	03/19/07	-3.4 ± 6.5	30.0 ± 27.0	0.8 ± 3.4	-1.0 ± 2.9	0.0 ± 31.0	3.5 ± 3.2	
	06/29/07	-2.2 ± 5.6	-8.0 ± 18.0	1.0 ± 2.1	-1.3 ± 2.6	13.0 ± 23.0	1.4 ± 2.4	
	09/20/07	0.0 ± 4.7	-20.0 ± 20.0	-0.9 ± 2.7	2.2 ± 2.5	-7.0 ± 28.0	-1.2 ± 2.3	
	12/19/07	-5.7 ± 6.4	-14.0 ± 24.0	-0.3 ± 2.9	-1.2 ± 2.5	2.0 ± 29.0	-2.4 ± 2.9	
		Cs-137	Fe-59	H-3	I-131	K-40	La-140	
	03/19/07	1.8 ± 3.1	-5.6 ± 6.5	-260.0 ± 890.0	-2.1 ± 7.2	-19.0 ± 45.0	-3.9 ± 7.5	
	06/29/07	0.6 ± 2.2	-0.3 ± 5.2	250.0 ± 820.0	-2.1 ± 8.3	16.0 ± 43.0	-2.5 ± 6.5	
	09/20/07	-0.9 ± 2.0	-1.5 ± 5.6	-20.0 ± 920.0	0.8 ± 7.2	8.0 ± 31.0	0.0 ± 5.5	
	12/19/07	-1.3 ± 3.1	-0.9 ± 5.6	-40.0 ± 890.0	-4.2 ± 8.0	15.0 ± 41.0	-5.7 ± 6.4	
		Mn-54	Nb-95	Ru-103	Ru-106	Sb-125	Th-228	
	03/19/07	0.4 ± 3.3	1.0 ± 3.9	-0.9 ± 3.9	-11.0 ± 29.0	-1.1 ± 7.6	9.0 ± 13.0	
	06/29/07	0.3 ± 2.0	2.5 ± 2.7	0.2 ± 2.6	3.0 ± 20.0	1.5 ± 5.6	6.4 ± 8.3	
	09/20/07	0.5 ± 2.0	0.8 ± 2.9	-1.8 ± 3.0	-10.0 ± 21.0	-1.0 ± 6.4	-4.7 ± 8.1	
	12/19/07	-2.2 ± 2.5	1.8 ± 3.2	-1.8 ± 2.9	13.0 ± 27.0	-5.9 ± 6.7	1.0 ± 11.0	
		Zn-65	Zr-95					
	03/19/07	-3.0 ± 13.0	-2.4 ± 6.2					
	06/29/07	1.4 ± 5.1	5.2 ± 4.0					
	09/20/07	-6.2 ± 5.8	-0.3 ± 3.7					
	12/19/07	2.0 ± 11.0	-3.1 ± 4.4					
	81		Ba-140	Be-7	Co-58	Co-60	Cr-51	Cs-134
		03/20/07	2.5 ± 6.5	-1.0 ± 26.0	0.2 ± 2.9	-0.2 ± 2.8	29.0 ± 33.0	0.0 ± 3.3
		06/28/07	2.0 ± 3.7	-7.0 ± 12.0	-1.5 ± 1.5	0.5 ± 1.4	0.0 ± 16.0	-0.5 ± 1.4
		09/19/07	-4.5 ± 5.6	-12.0 ± 25.0	-0.8 ± 3.6	-0.6 ± 3.2	-27.0 ± 29.0	-0.2 ± 3.6
		12/26/07	-2.3 ± 7.6	1.0 ± 27.0	0.2 ± 3.2	0.0 ± 3.3	-5.0 ± 34.0	-2.0 ± 3.6
			Cs-137	Fe-59	H-3	I-131	K-40	La-140
		03/20/07	-0.1 ± 2.9	-6.4 ± 7.0	-490.0 ± 870.0	-1.5 ± 8.0	-13.0 ± 37.0	2.8 ± 7.4
		06/28/07	1.5 ± 1.4	1.9 ± 3.4	510.0 ± 830.0	7.7 ± 6.0	14.0 ± 27.0	2.3 ± 4.3
09/19/07		-1.9 ± 3.3	2.6 ± 7.2	930.0 ± 900.0	2.3 ± 5.9	-13.0 ± 48.0	-5.2 ± 6.4	
12/26/07		-2.2 ± 3.3	3.8 ± 7.4	520.0 ± 910.0	-0.9 ± 7.4	22.0 ± 56.0	-2.3 ± 7.6	
		Mn-54	Nb-95	Ru-103	Ru-106	Sb-125	Th-228	
03/20/07		-1.2 ± 2.9	1.4 ± 3.3	-2.0 ± 2.9	-4.0 ± 27.0	0.0 ± 6.8	0.0 ± 10.0	
06/28/07		0.8 ± 1.3	1.1 ± 1.8	-0.4 ± 1.6	4.0 ± 13.0	1.5 ± 3.7	0.1 ± 7.1	
09/19/07		-0.2 ± 3.0	-2.1 ± 4.3	0.4 ± 3.7	-24.0 ± 33.0	-2.4 ± 8.4	-1.0 ± 14.0	
12/26/07		1.8 ± 3.3	-3.7 ± 7.0	-2.4 ± 3.8	-21.0 ± 32.0	-4.5 ± 8.9	0.0 ± 14.0	
		Zn-65	Zr-95					
03/20/07		-8.6 ± 6.9	2.0 ± 5.0					
06/28/07		-1.5 ± 3.0	-2.9 ± 2.6					
09/19/07		-1.2 ± 6.4	-3.6 ± 6.0					
12/26/07		-9.0 ± 15.0	-5.1 ± 6.5					

Table 10, Well Water (pCi/L)

Location	Collection Date	Isotope					
82		Ba-140	Be-7	Co-58	Co-60	Cr-51	Cs-134
	03/22/07	-3.2 ± 5.5	-4.0 ± 33.0	-2.5 ± 3.7	0.6 ± 3.5	-7.0 ± 36.0	-2.1 ± 4.0
	06/29/07	3.2 ± 3.6	5.0 ± 13.0	-1.0 ± 1.5	0.0 ± 1.5	9.0 ± 16.0	0.4 ± 1.6
	09/20/07	0.7 ± 4.3	2.0 ± 23.0	-2.2 ± 2.4	1.6 ± 1.9	6.0 ± 28.0	0.6 ± 2.3
	12/07/07	1.4 ± 6.2	-2.0 ± 20.0	-2.6 ± 2.5	0.6 ± 3.1	-4.0 ± 20.0	1.1 ± 2.7
		Cs-137	Fe-59	H-3	I-131	K-40	La-140
	03/22/07	-0.8 ± 3.5	7.2 ± 7.9	120.0 ± 890.0	6.1 ± 8.9	29.0 ± 44.0	-3.7 ± 6.3
	06/29/07	1.0 ± 1.4	2.8 ± 3.5	710.0 ± 850.0	-0.8 ± 5.4	7.0 ± 29.0	3.7 ± 4.2
	09/20/07	1.8 ± 2.4	-3.3 ± 5.5	490.0 ± 910.0	-4.5 ± 7.9	-11.0 ± 27.0	0.8 ± 4.9
	12/07/07	1.1 ± 2.2	0.7 ± 5.8	1170.0 ± 930.0	-1.9 ± 6.2	31.0 ± 31.0	1.4 ± 6.2
		Mn-54	Nb-95	Ru-103	Ru-106	Sb-125	Th-228
	03/22/07	-0.8 ± 3.7	-1.7 ± 4.5	-2.9 ± 4.0	-6.0 ± 33.0	-3.5 ± 8.9	-10.0 ± 12.0
	06/29/07	0.3 ± 1.4	1.1 ± 2.0	-0.9 ± 1.9	3.0 ± 14.0	1.0 ± 3.6	-3.2 ± 9.0
	09/20/07	-0.8 ± 2.4	-1.5 ± 2.9	-1.3 ± 2.8	-10.0 ± 20.0	0.9 ± 7.0	-0.8 ± 7.1
	12/07/07	0.0 ± 2.6	0.5 ± 3.2	-1.3 ± 2.5	7.0 ± 21.0	4.2 ± 6.1	13.0 ± 10.0
		Zn-65	Zr-95				
	03/22/07	1.0 ± 15.0	7.4 ± 5.9				
	06/29/07	-2.5 ± 3.4	-0.3 ± 2.8				
	09/20/07	13.3 ± 9.7	1.0 ± 4.0				
	12/07/07	-5.0 ± 11.0	-1.7 ± 4.7				
83		Ba-140	Be-7	Co-58	Co-60	Cr-51	Cs-134
	06/29/07	2.3 ± 5.6	-10.0 ± 17.0	-0.9 ± 2.1	-0.6 ± 2.2	-8.0 ± 19.0	0.2 ± 2.2
	09/19/07	-0.4 ± 5.8	-47.0 ± 35.0	-3.4 ± 4.0	-1.9 ± 3.5	24.0 ± 37.0	-2.3 ± 4.0
	11/28/07	-1.6 ± 6.7	-17.0 ± 32.0	-2.6 ± 3.3	-0.5 ± 3.2	3.0 ± 31.0	4.0 ± 3.2
		Cs-137	Fe-59	H-3	I-131	K-40	La-140
	06/29/07	0.5 ± 1.7	2.3 ± 4.7	-80.0 ± 800.0	-0.9 ± 6.6	-7.0 ± 41.0	2.7 ± 6.5
	09/19/07	0.0 ± 4.2	0.9 ± 7.3	20.0 ± 860.0	-6.7 ± 7.5	19.0 ± 59.0	-0.5 ± 6.7
	11/28/07	-0.4 ± 3.0	1.3 ± 6.9	130.0 ± 890.0	-4.2 ± 8.1	5.0 ± 50.0	-1.6 ± 6.7
		Mn-54	Nb-95	Ru-103	Ru-106	Sb-125	Th-228
	06/29/07	-0.5 ± 2.1	-1.7 ± 2.8	-2.7 ± 2.2	10.0 ± 16.0	-3.9 ± 4.8	5.4 ± 6.6
	09/19/07	-1.9 ± 3.4	2.5 ± 6.8	-0.2 ± 3.9	-43.0 ± 34.0	-1.0 ± 10.0	-2.0 ± 15.0
	11/28/07	-0.5 ± 3.0	-2.2 ± 3.7	-2.5 ± 4.0	-17.0 ± 30.0	1.8 ± 8.2	8.0 ± 12.0
		Zn-65	Zr-95				
	06/29/07	3.9 ± 4.4	-1.8 ± 3.6				
	09/19/07	8.0 ± 18.0	-1.7 ± 6.5				
11/28/07	5.0 ± 14.0	-1.3 ± 5.5					

Table 10, Well Water (pCi/L)

Location	Collection Date	Isotope					
84		Ba-140	Be-7	Co-58	Co-60	Cr-51	Cs-134
	12/08/07	3.7 ± 7.0	-18.0 ± 20.0	1.0 ± 2.3	1.2 ± 2.4	-22.0 ± 23.0	0.6 ± 3.2
		Cs-137	Fe-59	H-3	I-131	K-40	La-140
	12/08/07	-2.1 ± 2.1	-2.3 ± 5.5	-390.0 ± 870.0	-0.4 ± 6.3	14.0 ± 56.0	3.7 ± 7.0
		Mn-54	Nb-95	Ru-103	Ru-106	Sb-125	Th-228
	12/08/07	0.1 ± 2.5	-1.1 ± 2.7	-0.3 ± 2.2	-11.0 ± 20.0	1.0 ± 5.7	15.0 ± 10.0
	Zn-65	Zr-95					
12/08/07	-1.8 ± 9.4	5.1 ± 5.1					
85		Ba-140	Be-7	Co-58	Co-60	Cr-51	Cs-134
	11/28/07	-3.8 ± 7.3	32.0 ± 28.0	-1.0 ± 3.2	0.3 ± 3.2	-4.0 ± 31.0	-0.9 ± 3.6
		Cs-137	Fe-59	H-3	I-131	K-40	La-140
	11/28/07	-1.4 ± 3.1	0.0 ± 6.9	700.0 ± 900.0	3.2 ± 8.2	-47.0 ± 52.0	-4.8 ± 7.0
		Mn-54	Nb-95	Ru-103	Ru-106	Sb-125	Th-228
	11/28/07	-0.8 ± 3.4	2.4 ± 4.8	-0.8 ± 3.2	-7.0 ± 30.0	-3.9 ± 8.4	-18.0 ± 15.0
	Zn-65	Zr-95					
11/28/07	-5.9 ± 7.3	4.7 ± 6.5					
86		Ba-140	Be-7	Co-58	Co-60	Cr-51	Cs-134
	12/07/07	0.0 ± 6.2	3.0 ± 19.0	-1.7 ± 2.5	0.1 ± 2.3	-14.0 ± 24.0	-2.9 ± 2.6
		Cs-137	Fe-59	H-3	I-131	K-40	La-140
	12/07/07	-2.0 ± 2.4	-3.4 ± 5.7	130.0 ± 890.0	3.0 ± 7.8	-2.0 ± 41.0	0.0 ± 6.2
		Mn-54	Nb-95	Ru-103	Ru-106	Sb-125	Th-228
	12/07/07	1.0 ± 2.6	0.9 ± 2.9	-3.7 ± 3.1	9.0 ± 24.0	-6.8 ± 6.1	1.0 ± 10.0
	Zn-65	Zr-95					
12/07/07	1.8 ± 9.3	4.8 ± 4.6					

Table 12, Fruits & Vegetables (pCi/g)

Location	Collection Date	Sample Type	Isotope				
25			Ba-140	Be-7	Ce-141	Ce-144	Co-58
	06/19/07	LETTUCE	-0.003 ± 0.015	0.151 ± 0.088	-0.005 ± 0.012	0.004 ± 0.034	-0.001 ± 0.007
	06/19/07	STRAWBERRIES	-0.002 ± 0.018	0.025 ± 0.056	-0.036 ± 0.017	-0.012 ± 0.031	0.005 ± 0.007
	08/22/07	PEACHES	0.016 ± 0.026	0.020 ± 0.120	-0.007 ± 0.018	0.000 ± 0.061	0.012 ± 0.011
	08/23/07	KALE	0.014 ± 0.029	0.150 ± 0.170	0.011 ± 0.028	-0.030 ± 0.100	0.009 ± 0.023
	09/05/07	SWISS CHARD	-0.011 ± 0.026	0.000 ± 0.160	0.004 ± 0.023	0.018 ± 0.077	-0.005 ± 0.019
			Co-60	Cr-51	Cs-134	Cs-137	Fe-59
	06/19/07	LETTUCE	-0.002 ± 0.006	-0.016 ± 0.081	0.005 ± 0.007	0.002 ± 0.007	0.004 ± 0.018
	06/19/07	STRAWBERRIES	0.002 ± 0.006	0.013 ± 0.072	0.001 ± 0.006	-0.003 ± 0.006	-0.016 ± 0.015
	08/22/07	PEACHES	-0.004 ± 0.015	0.000 ± 0.120	0.001 ± 0.019	-0.002 ± 0.015	-0.026 ± 0.032
	08/23/07	KALE	0.005 ± 0.023	0.010 ± 0.160	0.010 ± 0.022	0.013 ± 0.021	0.002 ± 0.048
	09/05/07	SWISS CHARD	-0.018 ± 0.022	-0.010 ± 0.140	0.021 ± 0.020	-0.006 ± 0.019	0.000 ± 0.044
			I-131	K-40	La-140	Mn-54	Nb-95
	06/19/07	LETTUCE	0.002 ± 0.033	1.790 ± 0.170	-0.003 ± 0.017	0.000 ± 0.006	-0.005 ± 0.009
	06/19/07	STRAWBERRIES	-0.001 ± 0.031	1.170 ± 0.140	-0.003 ± 0.021	0.004 ± 0.006	-0.004 ± 0.009
	08/22/07	PEACHES	-0.003 ± 0.019	1.240 ± 0.420	0.019 ± 0.030	-0.003 ± 0.017	-0.008 ± 0.022
	08/23/07	KALE	0.012 ± 0.034	4.050 ± 0.600	0.016 ± 0.033	0.017 ± 0.021	-0.012 ± 0.024
	09/05/07	SWISS CHARD	-0.012 ± 0.026	4.600 ± 0.800	-0.012 ± 0.030	0.001 ± 0.020	-0.001 ± 0.021
			Ru-103	Ru-106	Sb-125	Th-228	Zn-65
	06/19/07	LETTUCE	0.008 ± 0.008	-0.011 ± 0.065	-0.001 ± 0.017	-0.011 ± 0.026	-0.001 ± 0.015
06/19/07	STRAWBERRIES	0.000 ± 0.008	-0.011 ± 0.057	-0.003 ± 0.015	0.028 ± 0.021	-0.010 ± 0.013	
08/22/07	PEACHES	0.004 ± 0.016	-0.013 ± 0.097	-0.003 ± 0.043	0.028 ± 0.060	0.013 ± 0.034	
08/23/07	KALE	0.010 ± 0.022	0.020 ± 0.180	-0.011 ± 0.050	0.046 ± 0.092	-0.025 ± 0.052	
09/05/07	SWISS CHARD	0.003 ± 0.022	0.050 ± 0.170	-0.008 ± 0.044	0.000 ± 0.077	-0.037 ± 0.050	
		Zr-95					
06/19/07	LETTUCE	0.002 ± 0.013					
06/19/07	STRAWBERRIES	-0.001 ± 0.011					
08/22/07	PEACHES	0.005 ± 0.030					
08/23/07	KALE	-0.008 ± 0.035					
09/05/07	SWISS CHARD	-0.024 ± 0.041					
26-C			Ba-140	Be-7	Ce-141	Ce-144	Co-58
	06/19/07	LETTUCE	0.001 ± 0.017	0.023 ± 0.058	-0.005 ± 0.011	-0.030 ± 0.030	-0.003 ± 0.006
	06/19/07	STRAWBERRIES	-0.004 ± 0.026	0.095 ± 0.070	-0.012 ± 0.012	-0.006 ± 0.029	0.002 ± 0.008
	08/22/07	LETTUCE	-0.034 ± 0.034	0.130 ± 0.170	0.002 ± 0.024	0.073 ± 0.089	-0.010 ± 0.019
	08/22/07	PEACHES	0.009 ± 0.021	-0.030 ± 0.150	0.000 ± 0.022	0.005 ± 0.087	0.003 ± 0.014
			Co-60	Cr-51	Cs-134	Cs-137	Fe-59
	06/19/07	LETTUCE	0.001 ± 0.006	-0.041 ± 0.077	0.002 ± 0.006	0.004 ± 0.006	0.002 ± 0.015
	06/19/07	STRAWBERRIES	-0.005 ± 0.009	0.052 ± 0.077	0.001 ± 0.009	0.005 ± 0.008	-0.009 ± 0.019
	08/22/07	LETTUCE	0.009 ± 0.022	0.080 ± 0.150	0.015 ± 0.022	-0.002 ± 0.026	0.027 ± 0.044
	08/22/07	PEACHES	0.007 ± 0.014	0.040 ± 0.160	0.016 ± 0.017	-0.003 ± 0.019	0.022 ± 0.037
			I-131	K-40	La-140	Mn-54	Nb-95
	06/19/07	LETTUCE	-0.007 ± 0.033	3.060 ± 0.190	0.002 ± 0.019	0.000 ± 0.006	-0.004 ± 0.009
	06/19/07	STRAWBERRIES	0.014 ± 0.035	1.140 ± 0.190	-0.004 ± 0.030	0.000 ± 0.007	0.001 ± 0.011
	08/22/07	LETTUCE	-0.002 ± 0.031	2.780 ± 0.620	-0.039 ± 0.039	-0.007 ± 0.018	0.003 ± 0.023
	08/22/07	PEACHES	-0.020 ± 0.028	1.410 ± 0.420	0.010 ± 0.024	0.000 ± 0.012	0.022 ± 0.018
			Ru-103	Ru-106	Sb-125	Th-228	Zn-65
	06/19/07	LETTUCE	-0.006 ± 0.007	0.018 ± 0.057	-0.003 ± 0.015	0.033 ± 0.030	0.003 ± 0.014
	06/19/07	STRAWBERRIES	0.001 ± 0.010	-0.032 ± 0.063	-0.001 ± 0.019	0.007 ± 0.038	-0.019 ± 0.018

Table 12, Fruits & Vegetables (pCi/g)

Location	Collection Date	Sample Type	Isotope				
26-C			Ru-103	Ru-106	Sb-125	Th-228	Zn-65
	08/22/07	LETTUCE	0.004 ± 0.017	-0.010 ± 0.170	-0.054 ± 0.048	-0.013 ± 0.087	0.009 ± 0.049
	08/22/07	PEACHES	0.001 ± 0.016	0.080 ± 0.140	-0.036 ± 0.046	-0.031 ± 0.055	-0.024 ± 0.032
			Zr-95				
	06/19/07	LETTUCE	0.001 ± 0.011				
	06/19/07	STRAWBERRIES	0.000 ± 0.015				
	08/22/07	LETTUCE	0.001 ± 0.035				
	08/22/07	PEACHES	-0.017 ± 0.025				

Table 13, Broadleaf Vegetation (pCi/g)

Location	Collection Date	Isotope						
01		Ba-140	Be-7	Ce-141	Ce-144	Co-58	Co-60	
	05/23/07	0.062 ± 0.074	0.350 ± 0.270	-0.020 ± 0.033	0.022 ± 0.088	-0.009 ± 0.042	0.011 ± 0.044	
	06/20/07	0.012 ± 0.063	0.400 ± 0.280	0.006 ± 0.032	-0.074 ± 0.081	-0.004 ± 0.021	0.013 ± 0.019	
	07/25/07	0.004 ± 0.037	0.630 ± 0.250	-0.018 ± 0.029	-0.001 ± 0.082	-0.020 ± 0.021	0.005 ± 0.019	
	08/15/07	-0.007 ± 0.047	0.890 ± 0.380	-0.012 ± 0.036	-0.080 ± 0.130	0.010 ± 0.030	0.005 ± 0.033	
	09/19/07	0.014 ± 0.058	0.810 ± 0.390	-0.019 ± 0.037	-0.040 ± 0.150	-0.003 ± 0.031	0.000 ± 0.028	
	10/29/07	-0.020 ± 0.110	3.550 ± 0.720	-0.011 ± 0.041	0.040 ± 0.110	-0.003 ± 0.041	-0.004 ± 0.042	
			Cr-51	Cs-134	Cs-137	Fe-59	I-131	K-40
	05/23/07	-0.110 ± 0.230	0.011 ± 0.031	-0.003 ± 0.024	0.000 ± 0.053	0.004 ± 0.078	3.900 ± 1.000	
	06/20/07	0.200 ± 0.240	0.003 ± 0.023	-0.010 ± 0.015	-0.012 ± 0.046	0.150 ± 0.120	2.820 ± 0.490	
	07/25/07	-0.020 ± 0.200	-0.004 ± 0.021	0.024 ± 0.021	0.046 ± 0.042	0.005 ± 0.046	2.260 ± 0.490	
	08/15/07	-0.130 ± 0.230	0.021 ± 0.034	-0.020 ± 0.031	0.041 ± 0.068	-0.026 ± 0.045	3.500 ± 1.000	
	09/19/07	0.070 ± 0.270	0.006 ± 0.031	0.016 ± 0.029	-0.035 ± 0.069	0.038 ± 0.051	3.480 ± 0.820	
	10/29/07	-0.120 ± 0.300	0.051 ± 0.036	-0.010 ± 0.028	-0.042 ± 0.085	-0.032 ± 0.078	2.550 ± 0.890	
			La-140	Mn-54	Nb-95	Ru-103	Ru-106	Sb-125
	05/23/07	0.071 ± 0.085	0.028 ± 0.027	-0.003 ± 0.025	-0.003 ± 0.029	-0.030 ± 0.210	-0.030 ± 0.070	
	06/20/07	0.014 ± 0.072	-0.022 ± 0.021	-0.001 ± 0.029	-0.015 ± 0.024	0.100 ± 0.170	0.009 ± 0.044	
	07/25/07	0.004 ± 0.042	0.019 ± 0.021	-0.015 ± 0.021	-0.004 ± 0.024	-0.070 ± 0.170	0.016 ± 0.046	
	08/15/07	-0.008 ± 0.054	-0.013 ± 0.031	0.007 ± 0.033	-0.009 ± 0.030	-0.100 ± 0.270	0.000 ± 0.068	
	09/19/07	0.016 ± 0.066	-0.028 ± 0.035	0.021 ± 0.037	-0.022 ± 0.030	-0.230 ± 0.320	0.067 ± 0.071	
	10/29/07	-0.020 ± 0.110	0.024 ± 0.030	-0.014 ± 0.049	0.003 ± 0.030	-0.170 ± 0.290	-0.059 ± 0.073	
			Th-228	Zn-65	Zr-95			
	05/23/07	-0.020 ± 0.110	0.061 ± 0.091	-0.018 ± 0.063				
	06/20/07	0.009 ± 0.075	0.000 ± 0.045	0.028 ± 0.037				
	07/25/07	0.045 ± 0.085	-0.018 ± 0.052	0.005 ± 0.033				
	08/15/07	0.140 ± 0.130	0.031 ± 0.080	-0.011 ± 0.051				
	09/19/07	-0.020 ± 0.110	-0.019 ± 0.078	0.025 ± 0.060				
	10/29/07	0.160 ± 0.120	-0.058 ± 0.095	-0.029 ± 0.052				
	10		Ba-140	Be-7	Ce-141	Ce-144	Co-58	Co-60
		05/23/07	0.023 ± 0.087	0.220 ± 0.300	-0.040 ± 0.038	-0.090 ± 0.110	-0.022 ± 0.029	-0.025 ± 0.039
06/20/07		-0.010 ± 0.100	0.230 ± 0.260	-0.007 ± 0.033	-0.061 ± 0.095	0.018 ± 0.025	-0.018 ± 0.027	
07/25/07		-0.005 ± 0.037	0.230 ± 0.250	-0.019 ± 0.034	0.000 ± 0.120	0.025 ± 0.026	-0.034 ± 0.029	
08/15/07		0.036 ± 0.037	0.310 ± 0.310	0.004 ± 0.028	-0.045 ± 0.094	0.019 ± 0.025	0.007 ± 0.030	
09/19/07		0.016 ± 0.050	0.280 ± 0.290	-0.012 ± 0.030	0.050 ± 0.100	0.007 ± 0.027	0.015 ± 0.035	
10/29/07		-0.019 ± 0.076	0.940 ± 0.400	0.008 ± 0.037	0.000 ± 0.100	-0.010 ± 0.028	-0.010 ± 0.028	
			Cr-51	Cs-134	Cs-137	Fe-59	I-131	K-40
05/23/07		-0.190 ± 0.250	0.015 ± 0.031	0.005 ± 0.035	-0.018 ± 0.088	-0.019 ± 0.081	3.750 ± 0.970	
06/20/07		0.090 ± 0.230	0.012 ± 0.024	0.005 ± 0.023	-0.035 ± 0.055	-0.180 ± 0.110	3.500 ± 0.730	
07/25/07		0.220 ± 0.220	0.013 ± 0.029	0.020 ± 0.029	0.007 ± 0.054	0.024 ± 0.048	3.390 ± 0.730	
08/15/07		0.010 ± 0.180	0.007 ± 0.025	0.014 ± 0.030	0.030 ± 0.052	0.012 ± 0.029	4.420 ± 0.960	
09/19/07		0.020 ± 0.210	0.021 ± 0.031	0.007 ± 0.026	-0.023 ± 0.051	0.026 ± 0.042	3.480 ± 0.830	
10/29/07		-0.100 ± 0.250	0.005 ± 0.030	-0.004 ± 0.027	0.043 ± 0.063	0.019 ± 0.086	4.120 ± 0.820	

Table 13, Broadleaf Vegetation (pCi/g)

Location	Collection Date	Isotope						
10		La-140	Mn-54	Nb-95	Ru-103	Ru-106	Sb-125	
	05/23/07	0.030 ± 0.100	-0.002 ± 0.027	0.004 ± 0.029	0.008 ± 0.032	-0.140 ± 0.340	0.023 ± 0.071	
	06/20/07	-0.010 ± 0.120	0.007 ± 0.024	0.007 ± 0.031	-0.004 ± 0.028	0.000 ± 0.210	0.019 ± 0.060	
	07/25/07	-0.006 ± 0.043	0.018 ± 0.026	-0.023 ± 0.032	0.013 ± 0.030	-0.140 ± 0.290	0.035 ± 0.053	
	08/15/07	0.042 ± 0.043	-0.003 ± 0.024	-0.008 ± 0.030	0.000 ± 0.022	0.120 ± 0.210	0.032 ± 0.059	
	09/19/07	0.018 ± 0.058	0.004 ± 0.025	0.010 ± 0.029	-0.009 ± 0.023	0.150 ± 0.260	0.022 ± 0.065	
	10/29/07	-0.019 ± 0.076	-0.005 ± 0.024	-0.015 ± 0.033	-0.008 ± 0.027	0.030 ± 0.240	-0.019 ± 0.058	
			Th-228	Zn-65	Zr-95			
	05/23/07	0.030 ± 0.140	0.067 ± 0.082	0.019 ± 0.051				
	06/20/07	0.075 ± 0.092	-0.005 ± 0.055	-0.013 ± 0.043				
	07/25/07	0.070 ± 0.130	0.042 ± 0.060	0.004 ± 0.051				
	08/15/07	0.100 ± 0.120	-0.031 ± 0.069	-0.010 ± 0.038				
	09/19/07	0.150 ± 0.130	-0.054 ± 0.060	0.043 ± 0.051				
	10/29/07	0.040 ± 0.130	0.006 ± 0.056	-0.015 ± 0.050				
	17		Ba-140	Be-7	Ce-141	Ce-144	Co-58	Co-60
		05/23/07	0.011 ± 0.039	0.520 ± 0.320	-0.005 ± 0.032	-0.026 ± 0.078	0.007 ± 0.028	0.006 ± 0.037
		06/20/07	-0.021 ± 0.086	0.320 ± 0.300	0.019 ± 0.047	0.020 ± 0.110	-0.015 ± 0.029	-0.008 ± 0.021
		07/25/07	0.016 ± 0.049	0.590 ± 0.370	0.004 ± 0.030	0.020 ± 0.100	0.001 ± 0.025	-0.007 ± 0.029
		08/15/07	-0.023 ± 0.032	0.870 ± 0.290	0.007 ± 0.025	0.015 ± 0.094	0.016 ± 0.018	-0.014 ± 0.024
		09/19/07	-0.008 ± 0.030	0.700 ± 0.360	-0.024 ± 0.037	0.090 ± 0.120	0.012 ± 0.024	0.020 ± 0.029
10/29/07		-0.035 ± 0.070	1.460 ± 0.400	0.018 ± 0.039	0.060 ± 0.110	-0.028 ± 0.025	0.004 ± 0.025	
			Cr-51	Cs-134	Cs-137	Fe-59	I-131	K-40
05/23/07		0.110 ± 0.220	-0.001 ± 0.030	0.014 ± 0.030	-0.017 ± 0.060	0.012 ± 0.066	3.690 ± 0.890	
06/20/07		-0.170 ± 0.350	0.004 ± 0.027	0.010 ± 0.026	-0.009 ± 0.061	0.040 ± 0.210	2.270 ± 0.570	
07/25/07		-0.090 ± 0.220	-0.008 ± 0.029	0.024 ± 0.028	0.015 ± 0.057	-0.009 ± 0.045	2.310 ± 0.760	
08/15/07		-0.030 ± 0.180	0.009 ± 0.026	0.004 ± 0.022	-0.017 ± 0.039	-0.012 ± 0.033	2.930 ± 0.550	
09/19/07		-0.050 ± 0.290	0.003 ± 0.030	0.022 ± 0.036	-0.021 ± 0.059	0.014 ± 0.049	2.900 ± 0.750	
10/29/07		0.170 ± 0.280	-0.015 ± 0.026	-0.002 ± 0.026	0.000 ± 0.057	-0.050 ± 0.096	2.850 ± 0.620	
			La-140	Mn-54	Nb-95	Ru-103	Ru-106	Sb-125
05/23/07		0.013 ± 0.045	-0.007 ± 0.026	0.012 ± 0.029	0.003 ± 0.023	0.050 ± 0.200	0.005 ± 0.061	
06/20/07		-0.025 ± 0.099	-0.015 ± 0.027	0.006 ± 0.041	-0.002 ± 0.031	-0.060 ± 0.220	0.000 ± 0.064	
07/25/07		0.018 ± 0.057	-0.017 ± 0.030	0.013 ± 0.027	-0.002 ± 0.024	0.160 ± 0.200	-0.006 ± 0.064	
08/15/07		-0.027 ± 0.037	0.003 ± 0.021	0.013 ± 0.024	-0.017 ± 0.020	0.110 ± 0.180	-0.024 ± 0.054	
09/19/07		-0.009 ± 0.035	0.023 ± 0.027	0.000 ± 0.026	0.023 ± 0.028	-0.170 ± 0.270	-0.044 ± 0.071	
10/29/07	-0.035 ± 0.070	-0.003 ± 0.022	0.019 ± 0.027	-0.006 ± 0.030	0.060 ± 0.260	-0.047 ± 0.060		
		Th-228	Zn-65	Zr-95				
05/23/07	0.047 ± 0.099	-0.057 ± 0.058	0.023 ± 0.051					
06/20/07	0.070 ± 0.120	-0.003 ± 0.066	-0.011 ± 0.060					
07/25/07	0.000 ± 0.110	-0.046 ± 0.062	0.038 ± 0.051					
08/15/07	0.165 ± 0.099	-0.006 ± 0.049	0.015 ± 0.036					
09/19/07	0.070 ± 0.120	-0.010 ± 0.065	0.042 ± 0.041					
10/29/07	0.036 ± 0.094	-0.015 ± 0.057	0.029 ± 0.042					

Table 14, Sea Water (pCi/L)

Location	Collection Date	Isotope					
32		Ba-140	Be-7	Co-58	Co-60	Cr-51	Cs-134
	01/30/07	-1.1 ± 5.0	-15.0 ± 22.0	-3.2 ± 2.3	0.6 ± 2.3	-13.0 ± 24.0	3.9 ± 2.8
	02/27/07	0.9 ± 5.7	-20.0 ± 32.0	-4.5 ± 3.5	0.6 ± 2.9	-4.0 ± 35.0	1.0 ± 3.4
	03/27/07	-1.9 ± 6.3	0.0 ± 34.0	-0.3 ± 3.9	0.6 ± 4.2	12.0 ± 35.0	0.5 ± 4.6
	04/24/07	-1.8 ± 4.6	-16.0 ± 24.0	2.2 ± 3.0	-1.5 ± 3.5	14.0 ± 29.0	-3.6 ± 3.0
	05/29/07	3.2 ± 6.0	-16.0 ± 25.0	-1.3 ± 3.2	-2.5 ± 4.3	-23.0 ± 24.0	1.5 ± 3.7
	06/26/07	0.0 ± 6.9	17.0 ± 25.0	-1.4 ± 2.9	0.0 ± 3.2	8.0 ± 28.0	-2.2 ± 3.1
	07/31/07	5.0 ± 7.5	11.0 ± 36.0	-2.1 ± 4.4	1.2 ± 6.2	-18.0 ± 34.0	4.9 ± 4.2
	08/28/07	-0.7 ± 6.5	7.0 ± 32.0	-2.5 ± 4.0	0.9 ± 4.5	17.0 ± 38.0	-1.4 ± 3.7
	09/25/07	-1.1 ± 6.3	-13.0 ± 34.0	-0.7 ± 3.5	0.1 ± 3.8	4.0 ± 35.0	-1.0 ± 3.7
	10/30/07	1.8 ± 7.3	-37.0 ± 31.0	-0.4 ± 4.0	1.8 ± 5.1	12.0 ± 40.0	3.6 ± 4.4
	11/27/07	3.6 ± 7.0	-10.0 ± 35.0	-1.6 ± 4.1	2.2 ± 5.2	-2.0 ± 41.0	0.0 ± 4.0
12/26/07	3.7 ± 3.7	-2.0 ± 17.0	1.7 ± 1.9	1.5 ± 2.0	11.0 ± 20.0	1.1 ± 2.0	
		Cs-137	Fe-59	H-3	I-131	K-40	La-140
01/30/07	-0.2 ± 2.2	3.7 ± 6.0	580.0 ± 170.0	-4.0 ± 7.9	299.0 ± 49.0	-1.3 ± 5.7	
02/27/07	2.4 ± 3.7	5.6 ± 7.5	1940.0 ± 190.0	-2.2 ± 6.9	175.0 ± 70.0	1.1 ± 6.5	
03/27/07	-0.9 ± 3.7	3.4 ± 9.0	560.0 ± 180.0	-5.8 ± 6.8	277.0 ± 90.0	-2.2 ± 7.2	
04/24/07	0.2 ± 3.0	3.2 ± 7.0	1130.0 ± 180.0	-1.8 ± 5.2	303.0 ± 74.0	-2.1 ± 5.2	
05/29/07	0.2 ± 3.0	-5.9 ± 7.9	230.0 ± 160.0	-0.9 ± 5.1	244.0 ± 82.0	3.6 ± 6.9	
06/26/07	2.7 ± 3.0	-5.6 ± 6.9	-30.0 ± 150.0	-3.6 ± 7.9	308.0 ± 77.0	0.0 ± 8.0	
07/31/07	0.6 ± 4.5	4.3 ± 9.0	30.0 ± 160.0	-3.7 ± 6.8	250.0 ± 100.0	5.7 ± 8.7	
08/28/07	-2.1 ± 4.1	0.9 ± 8.7	70.0 ± 180.0	0.8 ± 8.2	286.0 ± 89.0	-0.8 ± 7.5	
09/25/07	2.0 ± 3.5	2.3 ± 7.1	50.0 ± 180.0	-3.3 ± 7.5	310.0 ± 83.0	-1.3 ± 7.3	
10/30/07	1.6 ± 4.7	-2.4 ± 8.7	130.0 ± 180.0	1.5 ± 7.0	410.0 ± 100.0	1.8 ± 7.3	
11/27/07	-2.8 ± 4.5	5.8 ± 8.8	240.0 ± 180.0	-0.3 ± 8.2	296.0 ± 95.0	3.6 ± 7.0	
12/26/07	-0.7 ± 2.5	-0.6 ± 4.3	340.0 ± 180.0	-0.7 ± 4.2	318.0 ± 49.0	3.7 ± 3.7	
		Mn-54	Nb-95	Ru-103	Ru-106	Sb-125	Th-228
01/30/07	0.3 ± 2.4	1.3 ± 2.9	-1.8 ± 3.1	-3.0 ± 22.0	-0.7 ± 5.8	8.8 ± 8.6	
02/27/07	-0.9 ± 3.7	-0.2 ± 4.3	4.5 ± 3.6	-7.0 ± 32.0	2.2 ± 9.9	9.0 ± 14.0	
03/27/07	1.1 ± 4.0	-3.7 ± 4.3	-2.1 ± 4.6	-19.0 ± 35.0	3.0 ± 10.0	11.0 ± 16.0	
04/24/07	0.2 ± 3.2	-0.4 ± 3.5	-0.9 ± 3.4	-9.0 ± 31.0	1.1 ± 8.3	-1.0 ± 13.0	
05/29/07	0.8 ± 3.5	3.9 ± 3.9	-0.7 ± 3.3	0.0 ± 28.0	0.0 ± 8.0	3.0 ± 15.0	
06/26/07	-0.3 ± 2.8	2.4 ± 3.6	0.4 ± 3.4	-10.0 ± 29.0	-2.8 ± 7.7	-2.0 ± 14.0	
07/31/07	-2.5 ± 4.4	2.3 ± 4.2	-3.3 ± 4.4	14.0 ± 41.0	-1.0 ± 12.0	-21.0 ± 16.0	
08/28/07	-0.3 ± 3.7	-1.0 ± 4.4	-1.2 ± 4.3	10.0 ± 36.0	7.0 ± 10.0	4.0 ± 15.0	
09/25/07	0.2 ± 3.3	-0.8 ± 3.9	1.0 ± 3.8	0.0 ± 29.0	1.9 ± 9.4	7.0 ± 16.0	
10/30/07	0.8 ± 3.9	1.2 ± 4.9	-3.3 ± 4.3	10.0 ± 40.0	3.0 ± 12.0	-13.0 ± 18.0	
11/27/07	-0.6 ± 4.0	0.0 ± 4.5	-2.9 ± 4.4	10.0 ± 38.0	-3.0 ± 12.0	8.0 ± 14.0	
12/26/07	-0.8 ± 1.8	0.8 ± 2.3	-0.9 ± 2.1	-2.0 ± 19.0	-3.1 ± 5.3	14.7 ± 7.0	
		Zn-65	Zr-95				
01/30/07	-4.1 ± 5.4	0.7 ± 4.5					
02/27/07	6.0 ± 14.0	-3.3 ± 6.7					
03/27/07	3.0 ± 8.6	-4.6 ± 6.6					
04/24/07	-1.9 ± 6.8	-0.7 ± 5.2					
05/29/07	-2.7 ± 6.4	4.2 ± 6.1					
06/26/07	-2.6 ± 7.3	-4.6 ± 5.4					
07/31/07	4.4 ± 9.8	4.8 ± 7.8					
08/28/07	-4.4 ± 8.2	-0.5 ± 6.8					
09/25/07	-1.9 ± 8.7	-2.5 ± 5.6					
10/30/07	-4.0 ± 11.0	6.2 ± 7.5					
11/27/07	-9.0 ± 10.0	1.1 ± 6.9					
12/26/07	3.6 ± 4.0	-0.6 ± 3.5					

Table 14, Sea Water (pCi/L)

Location	Collection Date	Isotope					
37-C		Ba-140	Be-7	Co-58	Co-60	Cr-51	Cs-134
	03/13/07	2.5 ± 6.1	31.0 ± 29.0	-1.7 ± 3.5	-1.5 ± 4.3	-19.0 ± 33.0	-2.0 ± 3.5
	06/05/07	5.2 ± 6.9	10.0 ± 30.0	-1.5 ± 4.1	-0.4 ± 4.8	2.0 ± 35.0	-0.6 ± 4.2
	09/04/07	0.0 ± 5.3	-7.0 ± 24.0	-3.6 ± 3.6	-0.9 ± 3.5	-7.0 ± 23.0	-0.3 ± 3.3
	12/11/07	-5.3 ± 7.0	-27.0 ± 32.0	-0.5 ± 3.8	0.0 ± 3.7	-2.0 ± 37.0	0.0 ± 3.4
		Cs-137	Fe-59	H-3	I-131	K-40	La-140
	03/13/07	-1.1 ± 3.9	-0.6 ± 7.7	150.0 ± 850.0	0.6 ± 6.2	205.0 ± 83.0	2.9 ± 7.1
	06/05/07	-0.7 ± 3.6	-1.1 ± 7.6	-410.0 ± 850.0	0.0 ± 6.9	253.0 ± 84.0	6.0 ± 8.0
	09/04/07	-0.5 ± 3.1	-1.8 ± 7.2	300.0 ± 170.0	3.5 ± 4.6	315.0 ± 78.0	0.0 ± 6.1
	12/11/07	1.0 ± 3.7	-3.2 ± 7.6	100.0 ± 180.0	-3.8 ± 7.0	278.0 ± 81.0	-5.3 ± 7.0
		Mn-54	Nb-95	Ru-103	Ru-106	Sb-125	Th-228
	03/13/07	0.3 ± 3.4	0.1 ± 4.2	-1.7 ± 3.7	18.0 ± 36.0	3.5 ± 8.9	1.0 ± 15.0
	06/05/07	-2.3 ± 3.7	4.1 ± 4.1	2.8 ± 4.1	-9.0 ± 40.0	-2.0 ± 11.0	-11.0 ± 14.0
	09/04/07	0.5 ± 3.1	0.9 ± 3.4	-1.1 ± 3.2	-7.0 ± 26.0	-0.3 ± 7.8	0.0 ± 14.0
	12/11/07	1.2 ± 3.1	-1.1 ± 3.7	3.1 ± 4.3	15.0 ± 34.0	4.9 ± 9.3	5.0 ± 13.0
		Zn-65	Zr-95				
	03/13/07	-7.3 ± 8.7	-1.7 ± 5.9				
	06/05/07	1.1 ± 7.8	8.8 ± 6.8				
	09/04/07	3.6 ± 7.3	2.5 ± 5.8				
	12/11/07	-10.5 ± 9.0	5.2 ± 6.2				

Table 15, Bottom Sediment (pCi/g)

Location	Collection Date	Isotope						
29		Ag-110m	Be-7	Co-58	Co-60	Cr-51	Cs-134	
	04/30/07	0.009 ± 0.030	0.170 ± 0.320	-0.023 ± 0.031	0.009 ± 0.024	0.270 ± 0.550	-0.024 ± 0.082	
	10/30/07	0.009 ± 0.046	0.070 ± 0.440	-0.005 ± 0.059	-0.046 ± 0.052	-0.370 ± 0.440	0.055 ± 0.051	
		Cs-137	Fe-59	I-131	K-40	Mn-54	Nb-95	
	04/30/07	0.030 ± 0.031	-0.003 ± 0.081	0.120 ± 0.860	16.360 ± 0.880	0.013 ± 0.025	-0.010 ± 0.073	
	10/30/07	0.015 ± 0.055	-0.040 ± 0.140	-0.042 ± 0.093	15.400 ± 2.300	0.024 ± 0.056	0.001 ± 0.078	
		Ru-103	Ru-106	Sb-125	Th-228	Zn-65	Zr-95	
	04/30/07	0.012 ± 0.041	-0.010 ± 0.210	-0.010 ± 0.067	1.200 ± 0.100	-0.010 ± 0.100	0.067 ± 0.058	
	10/30/07	0.005 ± 0.057	-0.260 ± 0.490	0.030 ± 0.130	0.900 ± 0.260	0.120 ± 0.110	-0.019 ± 0.082	
	31		Ag-110m	Be-7	Co-58	Co-60	Cr-51	Cs-134
		04/30/07	-0.005 ± 0.033	0.140 ± 0.240	0.023 ± 0.029	-0.002 ± 0.028	-0.010 ± 0.330	0.011 ± 0.034
		10/26/07	0.009 ± 0.032	0.040 ± 0.380	0.051 ± 0.056	-0.061 ± 0.055	0.080 ± 0.470	0.044 ± 0.043
		Cs-137	Fe-59	I-131	K-40	Mn-54	Nb-95	
04/30/07		-0.016 ± 0.030	0.043 ± 0.066	-0.016 ± 0.098	15.300 ± 1.200	0.022 ± 0.024	-0.003 ± 0.033	
10/26/07		-0.010 ± 0.034	0.040 ± 0.130	0.020 ± 0.120	14.300 ± 2.100	-0.001 ± 0.044	-0.011 ± 0.062	
		Ru-103	Ru-106	Sb-125	Th-228	Zn-65	Zr-95	
04/30/07		-0.010 ± 0.027	0.040 ± 0.230	0.024 ± 0.075	0.550 ± 0.130	-0.047 ± 0.074	-0.003 ± 0.047	
10/26/07		0.028 ± 0.049	-0.120 ± 0.400	0.010 ± 0.120	0.960 ± 0.260	-0.050 ± 0.120	-0.044 ± 0.098	
32			Ag-110m	Be-7	Co-58	Co-60	Cr-51	Cs-134
		04/30/07	0.004 ± 0.057	0.180 ± 0.460	-0.028 ± 0.048	0.005 ± 0.022	0.200 ± 0.500	-0.019 ± 0.042
		11/05/07	-0.031 ± 0.051	0.270 ± 0.350	0.039 ± 0.040	-0.017 ± 0.039	0.050 ± 0.380	0.010 ± 0.046
		Cs-137	Fe-59	I-131	K-40	Mn-54	Nb-95	
	04/30/07	0.024 ± 0.050	-0.060 ± 0.140	0.080 ± 0.120	14.300 ± 2.000	-0.003 ± 0.044	-0.009 ± 0.075	
	11/05/07	0.075 ± 0.052	-0.010 ± 0.110	-0.067 ± 0.097	13.300 ± 1.900	0.012 ± 0.052	0.003 ± 0.058	
		Ru-103	Ru-106	Sb-125	Th-228	Zn-65	Zr-95	
	04/30/07	-0.019 ± 0.054	0.170 ± 0.390	0.140 ± 0.130	1.010 ± 0.230	0.030 ± 0.130	0.000 ± 0.084	
	11/05/07	0.034 ± 0.047	-0.170 ± 0.420	0.010 ± 0.100	0.580 ± 0.170	-0.120 ± 0.120	0.092 ± 0.091	
	33		Ag-110m	Be-7	Co-58	Co-60	Cr-51	Cs-134
		04/30/07	-0.007 ± 0.033	-0.060 ± 0.250	-0.007 ± 0.023	-0.017 ± 0.027	-0.210 ± 0.290	0.031 ± 0.029
		10/25/07	0.000 ± 0.046	0.330 ± 0.370	-0.021 ± 0.052	-0.013 ± 0.047	-0.230 ± 0.400	0.031 ± 0.043
		Cs-137	Fe-59	I-131	K-40	Mn-54	Nb-95	
04/30/07		0.015 ± 0.029	0.004 ± 0.065	0.050 ± 0.088	12.100 ± 1.000	0.008 ± 0.024	0.021 ± 0.033	
10/25/07		0.005 ± 0.050	-0.060 ± 0.140	-0.012 ± 0.098	15.600 ± 2.300	0.029 ± 0.052	-0.026 ± 0.065	

Table 15, Bottom Sediment (pCi/g)

Location	Collection Date	Isotope					
33		Ru-103	Ru-106	Sb-125	Th-228	Zn-65	Zr-95
	04/30/07	0.016 ± 0.025	0.090 ± 0.230	0.004 ± 0.066	0.480 ± 0.110	-0.030 ± 0.110	0.003 ± 0.051
	10/25/07	-0.037 ± 0.049	0.050 ± 0.380	0.080 ± 0.110	0.260 ± 0.220	-0.130 ± 0.150	-0.010 ± 0.061
34		Ag-110m	Be-7	Co-58	Co-60	Cr-51	Cs-134
	04/30/07	-0.016 ± 0.035	0.170 ± 0.270	-0.021 ± 0.030	0.000 ± 0.035	-0.070 ± 0.250	0.020 ± 0.034
	10/25/07	-0.007 ± 0.030	-0.230 ± 0.240	0.010 ± 0.031	0.018 ± 0.051	0.030 ± 0.280	-0.009 ± 0.031
		Cs-137	Fe-59	I-131	K-40	Mn-54	Nb-95
	04/30/07	0.005 ± 0.030	0.000 ± 0.080	0.020 ± 0.080	15.600 ± 1.600	0.029 ± 0.028	0.052 ± 0.037
	10/25/07	0.023 ± 0.030	-0.032 ± 0.083	-0.001 ± 0.083	17.500 ± 2.100	-0.042 ± 0.042	-0.051 ± 0.052
		Ru-103	Ru-106	Sb-125	Th-228	Zn-65	Zr-95
	04/30/07	0.000 ± 0.031	0.060 ± 0.220	0.005 ± 0.068	0.160 ± 0.130	-0.074 ± 0.082	-0.021 ± 0.047
	10/25/07	0.000 ± 0.031	0.190 ± 0.310	-0.030 ± 0.110	0.150 ± 0.160	-0.040 ± 0.110	0.010 ± 0.053
35-X		Ag-110m	Be-7	Co-58	Co-60	Cr-51	Cs-134
	04/30/07	0.048 ± 0.033	0.190 ± 0.350	-0.040 ± 0.036	0.022 ± 0.023	-0.140 ± 0.580	0.003 ± 0.065
	11/05/07	-0.010 ± 0.055	0.370 ± 0.420	0.014 ± 0.062	-0.008 ± 0.068	-0.210 ± 0.470	-0.026 ± 0.044
		Cs-137	Fe-59	I-131	K-40	Mn-54	Nb-95
	04/30/07	0.028 ± 0.035	-0.082 ± 0.091	-0.100 ± 0.700	15.400 ± 1.000	0.000 ± 0.025	0.003 ± 0.056
	11/05/07	0.063 ± 0.071	-0.010 ± 0.120	-0.120 ± 0.110	12.800 ± 2.100	-0.003 ± 0.052	-0.033 ± 0.083
		Ru-103	Ru-106	Sb-125	Th-228	Zn-65	Zr-95
	04/30/07	0.008 ± 0.045	-0.010 ± 0.250	-0.057 ± 0.077	0.910 ± 0.120	-0.060 ± 0.110	0.012 ± 0.069
	11/05/07	0.024 ± 0.061	0.400 ± 0.470	-0.070 ± 0.140	1.100 ± 0.280	-0.180 ± 0.170	-0.069 ± 0.099
37-C		Ag-110m	Be-7	Co-58	Co-60	Cr-51	Cs-134
	04/30/07	-0.008 ± 0.040	-0.240 ± 0.260	-0.025 ± 0.038	0.004 ± 0.036	0.070 ± 0.300	-0.002 ± 0.037
	10/25/07	-0.025 ± 0.034	0.070 ± 0.290	-0.013 ± 0.047	-0.002 ± 0.029	-0.270 ± 0.290	-0.007 ± 0.033
		Cs-137	Fe-59	I-131	K-40	Mn-54	Nb-95
	04/30/07	-0.005 ± 0.025	-0.008 ± 0.082	-0.036 ± 0.096	14.500 ± 1.500	-0.014 ± 0.035	-0.017 ± 0.043
	10/25/07	0.022 ± 0.037	0.030 ± 0.100	0.040 ± 0.100	15.200 ± 2.100	0.026 ± 0.051	-0.004 ± 0.058
		Ru-103	Ru-106	Sb-125	Th-228	Zn-65	Zr-95
	04/30/07	0.010 ± 0.032	0.090 ± 0.250	0.005 ± 0.073	0.270 ± 0.140	-0.007 ± 0.085	-0.042 ± 0.051
	10/25/07	-0.022 ± 0.034	-0.230 ± 0.260	0.018 ± 0.097	0.120 ± 0.170	0.010 ± 0.120	0.050 ± 0.067
39-X							

Table 15, Bottom Sediment (pCi/g)

Location	Collection Date	Isotope						
39-X		Ag-110m	Be-7	Co-58	Co-60	Cr-51	Cs-134	
	04/30/07	-0.057 ± 0.050	0.110 ± 0.360	0.006 ± 0.044	0.038 ± 0.042	-0.370 ± 0.480	0.019 ± 0.052	
	11/07/07	-0.063 ± 0.047	0.310 ± 0.480	0.010 ± 0.051	0.077 ± 0.055	0.150 ± 0.510	-0.044 ± 0.056	
		Cs-137	Fe-59	I-131	K-40	Mn-54	Nb-95	
	04/30/07	0.073 ± 0.061	-0.010 ± 0.092	0.020 ± 0.140	15.800 ± 1.500	0.024 ± 0.038	0.025 ± 0.060	
	11/07/07	0.081 ± 0.064	-0.030 ± 0.120	0.027 ± 0.092	20.300 ± 2.300	0.024 ± 0.056	-0.026 ± 0.057	
		Ru-103	Ru-106	Sb-125	Th-228	Zn-65	Zr-95	
	04/30/07	-0.028 ± 0.048	0.130 ± 0.360	0.020 ± 0.110	0.760 ± 0.190	-0.090 ± 0.100	-0.052 ± 0.063	
	11/07/07	-0.005 ± 0.048	0.270 ± 0.410	-0.020 ± 0.130	0.760 ± 0.280	-0.230 ± 0.160	-0.058 ± 0.078	
	67-X		Ag-110m	Be-7	Co-58	Co-60	Cr-51	Cs-134
		04/30/07	0.005 ± 0.048	0.200 ± 0.380	0.008 ± 0.036	-0.007 ± 0.028	-0.010 ± 0.320	0.014 ± 0.047
		10/25/07	0.030 ± 0.100	0.150 ± 0.560	0.015 ± 0.053	0.001 ± 0.048	-0.950 ± 0.610	0.009 ± 0.082
		Cs-137	Fe-59	I-131	K-40	Mn-54	Nb-95	
04/30/07		0.165 ± 0.061	-0.008 ± 0.097	-0.015 ± 0.086	16.700 ± 1.800	0.003 ± 0.035	-0.008 ± 0.050	
10/25/07		0.084 ± 0.099	0.060 ± 0.120	0.100 ± 0.180	17.000 ± 2.100	0.026 ± 0.051	0.023 ± 0.073	
		Ru-103	Ru-106	Sb-125	Th-228	Zn-65	Zr-95	
04/30/07		0.006 ± 0.033	0.070 ± 0.310	0.030 ± 0.088	0.400 ± 0.150	-0.010 ± 0.100	0.022 ± 0.055	
10/25/07		-0.012 ± 0.058	0.010 ± 0.510	0.030 ± 0.130	1.560 ± 0.260	-0.070 ± 0.130	0.060 ± 0.100	
69-X			Ag-110m	Be-7	Co-58	Co-60	Cr-51	Cs-134
		04/30/07	0.007 ± 0.039	-0.070 ± 0.270	-0.002 ± 0.029	-0.023 ± 0.032	-0.130 ± 0.270	0.006 ± 0.027
		10/25/07	0.007 ± 0.049	0.370 ± 0.340	-0.001 ± 0.042	-0.013 ± 0.051	0.260 ± 0.470	0.036 ± 0.040
		Cs-137	Fe-59	I-131	K-40	Mn-54	Nb-95	
	04/30/07	0.002 ± 0.028	-0.035 ± 0.080	-0.018 ± 0.094	15.900 ± 1.500	0.006 ± 0.026	-0.008 ± 0.038	
	10/25/07	-0.035 ± 0.062	0.060 ± 0.120	-0.040 ± 0.130	13.200 ± 2.100	0.009 ± 0.035	-0.005 ± 0.054	
		Ru-103	Ru-106	Sb-125	Th-228	Zn-65	Zr-95	
	04/30/07	-0.012 ± 0.030	0.000 ± 0.220	-0.052 ± 0.062	0.180 ± 0.140	-0.038 ± 0.080	0.024 ± 0.049	
	10/25/07	0.042 ± 0.049	0.140 ± 0.390	0.080 ± 0.130	-0.070 ± 0.190	-0.060 ± 0.120	-0.035 ± 0.059	

Table 16, Aquatic Flora - Fucus (pCi/g)

Location	Collection Date	Isotope						
29		Ag-110m	Be-7	Co-58	Co-60	Cr-51	Cs-134	
	02/22/07	0.005 ± 0.009	0.085 ± 0.063	-0.002 ± 0.007	-0.003 ± 0.008	0.025 ± 0.062	0.002 ± 0.007	
	05/09/07	0.006 ± 0.015	0.080 ± 0.110	-0.008 ± 0.014	0.005 ± 0.012	0.000 ± 0.097	0.003 ± 0.011	
	08/01/07	-0.004 ± 0.012	0.112 ± 0.081	0.004 ± 0.008	0.000 ± 0.009	-0.026 ± 0.079	0.007 ± 0.009	
	11/05/07	-0.007 ± 0.011	0.082 ± 0.081	-0.008 ± 0.010	-0.004 ± 0.010	0.041 ± 0.090	0.012 ± 0.011	
			Cs-137	Fe-59	I-131	K-40	Mn-54	Nb-95
	02/22/07	0.002 ± 0.007	-0.010 ± 0.016	0.005 ± 0.016	5.440 ± 0.360	0.002 ± 0.007	0.001 ± 0.007	
	05/09/07	0.003 ± 0.010	0.004 ± 0.033	0.009 ± 0.048	3.770 ± 0.530	0.005 ± 0.011	0.011 ± 0.015	
	08/01/07	-0.005 ± 0.008	0.022 ± 0.025	-0.002 ± 0.021	5.360 ± 0.450	-0.001 ± 0.008	0.004 ± 0.011	
	11/05/07	-0.001 ± 0.009	0.010 ± 0.026	-0.002 ± 0.021	6.340 ± 0.540	0.006 ± 0.011	-0.004 ± 0.010	
			Ru-103	Ru-106	Sb-125	Th-228	Zn-65	Zr-95
	02/22/07	0.002 ± 0.006	0.027 ± 0.061	-0.011 ± 0.016	0.056 ± 0.025	0.025 ± 0.032	0.005 ± 0.013	
	05/09/07	-0.008 ± 0.011	0.040 ± 0.100	-0.005 ± 0.026	0.056 ± 0.044	0.010 ± 0.029	-0.010 ± 0.016	
	08/01/07	-0.003 ± 0.008	-0.031 ± 0.070	0.005 ± 0.020	0.043 ± 0.041	-0.042 ± 0.028	0.000 ± 0.014	
	11/05/07	0.003 ± 0.008	-0.007 ± 0.075	-0.011 ± 0.023	0.072 ± 0.032	0.003 ± 0.026	-0.006 ± 0.017	
	32-X		Ag-110m	Be-7	Co-58	Co-60	Cr-51	Cs-134
02/22/07		-0.009 ± 0.012	0.029 ± 0.073	0.009 ± 0.009	0.004 ± 0.007	0.007 ± 0.072	0.002 ± 0.009	
05/09/07		0.007 ± 0.026	0.240 ± 0.160	-0.008 ± 0.016	-0.009 ± 0.021	0.200 ± 0.180	0.006 ± 0.022	
08/01/07		0.006 ± 0.015	0.060 ± 0.071	0.004 ± 0.009	-0.004 ± 0.011	-0.012 ± 0.080	0.007 ± 0.009	
11/05/07		-0.007 ± 0.019	0.100 ± 0.120	0.011 ± 0.017	-0.011 ± 0.018	0.100 ± 0.130	0.004 ± 0.015	
			Cs-137	Fe-59	I-131	K-40	Mn-54	Nb-95
02/22/07		-0.001 ± 0.009	-0.011 ± 0.021	0.002 ± 0.019	5.270 ± 0.440	-0.001 ± 0.008	0.010 ± 0.010	
05/09/07		0.009 ± 0.018	0.007 ± 0.042	0.000 ± 0.080	6.270 ± 0.950	0.004 ± 0.016	-0.003 ± 0.022	
08/01/07		0.002 ± 0.009	0.016 ± 0.029	0.016 ± 0.023	4.970 ± 0.530	-0.011 ± 0.009	0.003 ± 0.011	
11/05/07		-0.002 ± 0.017	-0.025 ± 0.039	0.005 ± 0.028	7.430 ± 0.720	0.009 ± 0.016	0.018 ± 0.017	
			Ru-103	Ru-106	Sb-125	Th-228	Zn-65	Zr-95
02/22/07		0.003 ± 0.008	-0.024 ± 0.061	0.013 ± 0.019	0.048 ± 0.041	-0.005 ± 0.021	-0.002 ± 0.014	
05/09/07		-0.002 ± 0.018	0.000 ± 0.150	0.030 ± 0.042	-0.023 ± 0.095	-0.049 ± 0.057	0.009 ± 0.036	
08/01/07		-0.002 ± 0.008	-0.091 ± 0.086	0.002 ± 0.020	0.019 ± 0.044	-0.001 ± 0.033	0.007 ± 0.017	
11/05/07		-0.010 ± 0.017	0.020 ± 0.130	-0.031 ± 0.039	0.007 ± 0.068	-0.003 ± 0.043	0.010 ± 0.027	
33-X			Ag-110m	Be-7	Co-58	Co-60	Cr-51	Cs-134
	02/27/07	0.008 ± 0.013	0.078 ± 0.086	0.001 ± 0.010	-0.006 ± 0.013	0.012 ± 0.084	-0.002 ± 0.011	
	05/09/07	0.004 ± 0.015	0.150 ± 0.110	-0.001 ± 0.012	-0.008 ± 0.014	0.070 ± 0.120	0.008 ± 0.014	
	08/02/07	0.005 ± 0.014	0.093 ± 0.094	0.000 ± 0.010	0.001 ± 0.012	0.000 ± 0.094	0.002 ± 0.012	
	10/25/07	-0.004 ± 0.015	0.150 ± 0.110	0.001 ± 0.012	-0.014 ± 0.013	0.128 ± 0.091	0.007 ± 0.014	
			Cs-137	Fe-59	I-131	K-40	Mn-54	Nb-95
	02/27/07	-0.001 ± 0.011	-0.005 ± 0.031	0.006 ± 0.015	5.350 ± 0.590	-0.002 ± 0.010	0.011 ± 0.013	
	05/09/07	0.000 ± 0.010	0.036 ± 0.033	0.029 ± 0.053	3.970 ± 0.580	0.007 ± 0.012	-0.009 ± 0.012	
	08/02/07	0.001 ± 0.009	-0.006 ± 0.026	-0.002 ± 0.019	4.220 ± 0.540	-0.003 ± 0.011	-0.007 ± 0.013	
	10/25/07	0.003 ± 0.010	-0.014 ± 0.037	-0.016 ± 0.034	6.100 ± 0.670	-0.005 ± 0.013	0.010 ± 0.014	

Table 16, Aquatic Flora - Fucus (pCi/g)

Location	Collection Date	Isotope					
33-X		Ru-103	Ru-106	Sb-125	Th-228	Zn-65	Zr-95
	02/27/07	-0.005 ± 0.009	0.009 ± 0.096	0.011 ± 0.026	0.037 ± 0.045	-0.032 ± 0.025	0.011 ± 0.021
	05/09/07	-0.008 ± 0.014	0.044 ± 0.097	0.005 ± 0.021	0.044 ± 0.047	0.000 ± 0.026	0.016 ± 0.023
	08/02/07	-0.002 ± 0.012	-0.051 ± 0.077	-0.009 ± 0.023	0.041 ± 0.049	-0.018 ± 0.034	0.006 ± 0.015
	10/25/07	0.006 ± 0.011	-0.074 ± 0.087	-0.015 ± 0.024	0.050 ± 0.034	-0.006 ± 0.035	-0.003 ± 0.026
35-X		Ag-110m	Be-7	Co-58	Co-60	Cr-51	Cs-134
	02/27/07	-0.008 ± 0.012	0.220 ± 0.110	0.004 ± 0.010	-0.011 ± 0.015	0.017 ± 0.074	0.004 ± 0.011
	05/09/07	-0.002 ± 0.023	0.140 ± 0.140	0.006 ± 0.015	-0.002 ± 0.020	0.050 ± 0.110	-0.005 ± 0.020
	08/01/07	-0.007 ± 0.018	0.090 ± 0.120	0.002 ± 0.016	0.012 ± 0.022	-0.050 ± 0.140	0.011 ± 0.016
	11/05/07	-0.009 ± 0.010	0.021 ± 0.059	-0.002 ± 0.008	0.003 ± 0.008	-0.023 ± 0.065	0.006 ± 0.008
		Cs-137	Fe-59	I-131	K-40	Mn-54	Nb-95
	02/27/07	0.007 ± 0.011	0.003 ± 0.033	0.017 ± 0.016	4.830 ± 0.600	-0.004 ± 0.013	0.015 ± 0.013
	05/09/07	0.002 ± 0.014	-0.030 ± 0.053	0.032 ± 0.051	6.410 ± 0.910	0.019 ± 0.017	0.007 ± 0.024
	08/01/07	0.007 ± 0.014	-0.018 ± 0.047	0.020 ± 0.038	4.740 ± 0.830	0.007 ± 0.019	-0.006 ± 0.012
	11/05/07	0.001 ± 0.008	-0.011 ± 0.022	0.015 ± 0.014	7.310 ± 0.420	0.001 ± 0.008	0.005 ± 0.009
		Ru-103	Ru-106	Sb-125	Th-228	Zn-65	Zr-95
	02/27/07	0.002 ± 0.009	-0.009 ± 0.096	0.002 ± 0.025	0.014 ± 0.050	-0.027 ± 0.035	-0.001 ± 0.020
	05/09/07	-0.006 ± 0.018	0.020 ± 0.110	-0.011 ± 0.034	0.041 ± 0.071	-0.058 ± 0.041	0.016 ± 0.032
	08/01/07	-0.006 ± 0.016	0.170 ± 0.120	-0.006 ± 0.027	0.009 ± 0.070	0.006 ± 0.042	0.008 ± 0.032
11/05/07	0.000 ± 0.007	-0.035 ± 0.057	-0.004 ± 0.018	0.074 ± 0.033	-0.027 ± 0.023	-0.005 ± 0.013	
36-X		Ag-110m	Be-7	Co-58	Co-60	Cr-51	Cs-134
	02/22/07	0.000 ± 0.010	0.073 ± 0.064	-0.005 ± 0.008	-0.003 ± 0.009	0.009 ± 0.053	0.000 ± 0.009
	05/09/07	-0.001 ± 0.014	0.180 ± 0.110	0.001 ± 0.011	0.000 ± 0.012	0.060 ± 0.110	0.006 ± 0.010
	08/01/07	0.001 ± 0.016	0.083 ± 0.080	-0.002 ± 0.011	-0.005 ± 0.012	0.057 ± 0.078	-0.002 ± 0.010
	11/19/07	0.005 ± 0.024	0.090 ± 0.110	0.019 ± 0.023	-0.011 ± 0.024	0.000 ± 0.180	-0.006 ± 0.026
		Cs-137	Fe-59	I-131	K-40	Mn-54	Nb-95
	02/22/07	0.000 ± 0.007	0.029 ± 0.026	0.010 ± 0.015	4.520 ± 0.430	-0.001 ± 0.008	-0.003 ± 0.009
	05/09/07	0.003 ± 0.010	0.001 ± 0.028	0.049 ± 0.045	4.990 ± 0.490	-0.001 ± 0.009	-0.009 ± 0.011
	08/01/07	0.008 ± 0.010	-0.003 ± 0.029	0.015 ± 0.022	5.040 ± 0.590	0.003 ± 0.010	0.002 ± 0.012
	11/19/07	-0.006 ± 0.022	-0.019 ± 0.071	-0.010 ± 0.100	5.800 ± 1.000	-0.001 ± 0.019	-0.002 ± 0.024
		Ru-103	Ru-106	Sb-125	Th-228	Zn-65	Zr-95
	02/22/07	0.003 ± 0.008	-0.005 ± 0.061	-0.006 ± 0.018	0.065 ± 0.032	-0.007 ± 0.018	0.007 ± 0.014
	05/09/07	0.001 ± 0.008	0.021 ± 0.092	0.003 ± 0.023	0.032 ± 0.039	-0.015 ± 0.027	-0.019 ± 0.018
	08/01/07	0.001 ± 0.007	-0.024 ± 0.071	-0.002 ± 0.022	0.024 ± 0.044	0.022 ± 0.033	0.026 ± 0.019
11/19/07	0.006 ± 0.018	-0.080 ± 0.210	-0.028 ± 0.034	0.092 ± 0.094	0.008 ± 0.057	0.041 ± 0.043	
90-C		Ag-110m	Be-7	Co-58	Co-60	Cr-51	Cs-134
	02/22/07	0.008 ± 0.011	0.096 ± 0.072	-0.001 ± 0.009	0.003 ± 0.010	0.020 ± 0.590	0.002 ± 0.008
	05/09/07	-0.006 ± 0.013	0.360 ± 0.150	-0.003 ± 0.010	0.005 ± 0.011	-0.060 ± 0.120	-0.004 ± 0.011
	08/02/07	-0.001 ± 0.011	0.068 ± 0.065	-0.007 ± 0.007	0.005 ± 0.009	0.014 ± 0.070	0.007 ± 0.007
	10/25/07	-0.002 ± 0.018	0.100 ± 0.110	-0.004 ± 0.012	-0.008 ± 0.016	0.030 ± 0.110	0.010 ± 0.016

Table 16, Aquatic Flora - Fucus (pCi/g)

Location	Collection Date	Isotope					
90-C		Cs-137	Fe-59	I-131	K-40	Mn-54	Nb-95
	02/22/07	0.000 ± 0.009	0.019 ± 0.022	0.046 ± 0.026	4.410 ± 0.430	-0.006 ± 0.007	0.004 ± 0.009
	05/09/07	0.001 ± 0.009	-0.007 ± 0.030	0.027 ± 0.048	4.220 ± 0.490	-0.003 ± 0.009	-0.004 ± 0.013
	08/02/07	0.010 ± 0.009	-0.006 ± 0.022	-0.007 ± 0.019	4.520 ± 0.400	0.006 ± 0.008	0.003 ± 0.009
	10/25/07	0.002 ± 0.012	0.004 ± 0.046	0.000 ± 0.056	6.650 ± 0.730	0.002 ± 0.013	-0.007 ± 0.016
		Ru-103	Ru-106	Sb-125	Th-228	Zn-65	Zr-95
	02/22/07	0.003 ± 0.008	-0.013 ± 0.083	0.002 ± 0.019	0.058 ± 0.049	-0.030 ± 0.026	0.002 ± 0.015
	05/09/07	0.002 ± 0.011	-0.056 ± 0.073	0.003 ± 0.024	0.039 ± 0.043	0.005 ± 0.026	0.004 ± 0.020
	08/02/07	-0.001 ± 0.007	0.034 ± 0.062	-0.018 ± 0.017	0.014 ± 0.031	-0.006 ± 0.023	0.007 ± 0.013
	10/25/07	-0.009 ± 0.014	-0.090 ± 0.110	0.017 ± 0.021	0.071 ± 0.061	0.010 ± 0.032	0.015 ± 0.024

Table 17-A, Fish - Flounder (pCi/g)

Location	Collection Date	Isotope						
32		Ag-110m	Be-7	Co-58	Co-60	Cr-51	Cs-134	
	01/30/07	J						
	04/30/07	-0.013 ± 0.044	-0.070 ± 0.210	-0.010 ± 0.037	-0.007 ± 0.026	0.060 ± 0.190	-0.013 ± 0.033	
	07/24/07	0.004 ± 0.036	-0.020 ± 0.170	0.010 ± 0.026	0.020 ± 0.033	-0.020 ± 0.260	0.026 ± 0.024	
	10/02/07	0.005 ± 0.026	0.080 ± 0.150	0.007 ± 0.021	0.014 ± 0.028	0.070 ± 0.310	-0.019 ± 0.020	
	11/13/07	-0.015 ± 0.048	0.000 ± 0.330	0.002 ± 0.034	-0.023 ± 0.037	-0.090 ± 0.330	-0.017 ± 0.036	
		Cs-137	Fe-59	I-131	K-40	Mn-54	Nb-95	
	04/30/07	0.003 ± 0.022	0.010 ± 0.050	-0.004 ± 0.049	3.810 ± 0.970	-0.011 ± 0.025	-0.017 ± 0.030	
	07/24/07	0.025 ± 0.025	-0.025 ± 0.069	-0.007 ± 0.067	3.260 ± 0.790	0.023 ± 0.024	0.017 ± 0.032	
	10/02/07	-0.019 ± 0.020	-0.046 ± 0.062	0.074 ± 0.076	3.560 ± 0.860	-0.003 ± 0.030	-0.012 ± 0.035	
	11/13/07	-0.008 ± 0.037	-0.028 ± 0.080	-0.023 ± 0.091	4.250 ± 0.810	-0.004 ± 0.035	0.007 ± 0.042	
		Ru-103	Ru-106	Sb-125	Th-228	Zn-65	Zr-95	
	04/30/07	-0.003 ± 0.032	-0.090 ± 0.190	-0.007 ± 0.052	0.070 ± 0.100	-0.028 ± 0.056	0.008 ± 0.049	
	07/24/07	0.033 ± 0.029	-0.160 ± 0.200	-0.024 ± 0.055	0.003 ± 0.078	-0.007 ± 0.060	0.039 ± 0.048	
	10/02/07	0.037 ± 0.030	0.080 ± 0.250	-0.049 ± 0.064	-0.020 ± 0.110	-0.008 ± 0.072	-0.006 ± 0.039	
	11/13/07	-0.004 ± 0.034	0.020 ± 0.340	0.040 ± 0.085	-0.050 ± 0.120	-0.025 ± 0.073	-0.012 ± 0.063	
	35		Ag-110m	Be-7	Co-58	Co-60	Cr-51	Cs-134
		02/05/07	0.001 ± 0.019	0.112 ± 0.096	0.004 ± 0.013	-0.006 ± 0.014	0.020 ± 0.120	-0.006 ± 0.014
		04/30/07	0.000 ± 0.042	-0.050 ± 0.180	0.011 ± 0.029	0.028 ± 0.030	-0.040 ± 0.240	-0.009 ± 0.026
		07/24/07	0.006 ± 0.023	0.040 ± 0.140	0.011 ± 0.019	0.000 ± 0.018	0.010 ± 0.180	-0.001 ± 0.019
11/13/07		0.017 ± 0.032	0.080 ± 0.200	0.010 ± 0.025	0.012 ± 0.023	0.050 ± 0.230	-0.020 ± 0.025	
		Cs-137	Fe-59	I-131	K-40	Mn-54	Nb-95	
02/05/07		0.007 ± 0.012	-0.004 ± 0.028	-0.012 ± 0.029	3.490 ± 0.410	-0.011 ± 0.012	-0.002 ± 0.016	
04/30/07		-0.005 ± 0.033	-0.100 ± 0.075	-0.012 ± 0.059	3.510 ± 0.980	-0.021 ± 0.027	-0.027 ± 0.033	
07/24/07		-0.003 ± 0.017	0.037 ± 0.038	0.000 ± 0.051	3.670 ± 0.560	-0.003 ± 0.018	0.003 ± 0.021	
11/13/07		0.000 ± 0.022	0.000 ± 0.055	-0.024 ± 0.077	3.480 ± 0.820	-0.013 ± 0.022	0.024 ± 0.031	
		Ru-103	Ru-106	Sb-125	Th-228	Zn-65	Zr-95	
02/05/07		0.003 ± 0.014	0.070 ± 0.120	-0.010 ± 0.029	0.016 ± 0.047	-0.048 ± 0.035	0.022 ± 0.023	
04/30/07		-0.019 ± 0.024	0.070 ± 0.190	0.050 ± 0.079	-0.140 ± 0.130	-0.010 ± 0.071	-0.037 ± 0.059	
07/24/07		0.013 ± 0.019	-0.020 ± 0.170	0.018 ± 0.039	-0.008 ± 0.057	0.045 ± 0.050	-0.005 ± 0.032	
11/13/07		0.021 ± 0.026	0.130 ± 0.220	0.005 ± 0.058	0.001 ± 0.077	-0.081 ± 0.074	0.010 ± 0.040	

Table 17-B, Fish - Other (pCi/g)

Location	Collection Date	Sample Type	Isotope					
32			Ag-110m	Be-7	Co-58	Co-60	Cr-51	
	01/30/07	FISH-OTHER						
			J					
	05/02/07	STRIPED BASS	-0.006 ± 0.048	-0.030 ± 0.260	-0.002 ± 0.024	0.021 ± 0.038	-0.210 ± 0.270	
	09/07/07	BLUEFISH	0.012 ± 0.025	-0.060 ± 0.170	-0.012 ± 0.019	-0.014 ± 0.018	0.060 ± 0.170	
	10/09/07	TAUTOG	-0.004 ± 0.038	0.080 ± 0.200	0.000 ± 0.027	0.000 ± 0.021	-0.150 ± 0.190	
			Cs-134	Cs-137	Fe-59	I-131	K-40	
	05/02/07	STRIPED BASS	0.026 ± 0.035	-0.016 ± 0.028	0.000 ± 0.069	-0.011 ± 0.054	2.780 ± 0.930	
	09/07/07	BLUEFISH	0.018 ± 0.021	-0.012 ± 0.020	-0.019 ± 0.044	0.019 ± 0.040	3.210 ± 0.600	
	10/09/07	TAUTOG	0.000 ± 0.026	0.007 ± 0.027	0.030 ± 0.059	0.019 ± 0.043	4.440 ± 0.950	
			Mn-54	Nb-95	Ru-103	Ru-106	Sb-125	
	05/02/07	STRIPED BASS	0.016 ± 0.028	0.008 ± 0.034	0.003 ± 0.033	-0.100 ± 0.250	0.008 ± 0.076	
	09/07/07	BLUEFISH	-0.007 ± 0.018	-0.007 ± 0.019	0.011 ± 0.018	0.000 ± 0.190	0.027 ± 0.048	
	10/09/07	TAUTOG	0.018 ± 0.030	0.009 ± 0.026	0.000 ± 0.020	-0.080 ± 0.190	0.000 ± 0.054	
			Th-228	Zn-65	Zr-95			
	05/02/07	STRIPED BASS	-0.080 ± 0.120	-0.030 ± 0.060	0.000 ± 0.053			
	09/07/07	BLUEFISH	0.016 ± 0.073	0.022 ± 0.047	-0.009 ± 0.035			
	10/09/07	TAUTOG	-0.092 ± 0.093	-0.008 ± 0.068	0.000 ± 0.041			
	35			Ag-110m	Be-7	Co-58	Co-60	Cr-51
		01/23/07	MACKEREL	0.004 ± 0.017	0.010 ± 0.120	-0.003 ± 0.015	0.001 ± 0.012	-0.030 ± 0.150
06/08/07		TAUTOG	-0.015 ± 0.042	-0.100 ± 0.210	0.024 ± 0.032	-0.002 ± 0.030	-0.010 ± 0.210	
08/06/07		TAUTOG	-0.006 ± 0.020	-0.020 ± 0.120	-0.005 ± 0.014	-0.016 ± 0.015	-0.180 ± 0.140	
10/02/07		TAUTOG	0.000 ± 0.048	-0.080 ± 0.250	0.021 ± 0.033	0.034 ± 0.034	0.110 ± 0.340	
			Cs-134	Cs-137	Fe-59	I-131	K-40	
01/23/07		MACKEREL	-0.005 ± 0.015	0.000 ± 0.014	-0.023 ± 0.036	-0.019 ± 0.042	4.110 ± 0.490	
06/08/07		TAUTOG	-0.038 ± 0.038	0.004 ± 0.032	0.013 ± 0.085	-0.004 ± 0.061	4.500 ± 1.200	
08/06/07		TAUTOG	0.000 ± 0.015	-0.002 ± 0.012	0.000 ± 0.032	-0.018 ± 0.025	3.420 ± 0.490	
10/02/07		TAUTOG	0.003 ± 0.034	-0.001 ± 0.045	0.048 ± 0.095	0.057 ± 0.095	2.700 ± 1.100	
			Mn-54	Nb-95	Ru-103	Ru-106	Sb-125	
01/23/07		MACKEREL	0.008 ± 0.014	-0.006 ± 0.017	-0.010 ± 0.014	-0.050 ± 0.140	0.005 ± 0.035	
06/08/07		TAUTOG	0.032 ± 0.029	0.020 ± 0.033	0.004 ± 0.032	-0.190 ± 0.270	0.000 ± 0.074	
08/06/07		TAUTOG	-0.002 ± 0.014	-0.002 ± 0.014	0.002 ± 0.016	0.000 ± 0.130	0.022 ± 0.035	
10/02/07		TAUTOG	-0.003 ± 0.029	-0.046 ± 0.047	-0.021 ± 0.033	0.380 ± 0.390	-0.054 ± 0.072	
			Th-228	Zn-65	Zr-95			
01/23/07		MACKEREL	-0.037 ± 0.053	-0.046 ± 0.034	0.007 ± 0.028			
06/08/07		TAUTOG	0.070 ± 0.110	-0.037 ± 0.065	0.019 ± 0.068			
08/06/07		TAUTOG	0.011 ± 0.052	-0.028 ± 0.033	0.022 ± 0.023			
10/02/07		TAUTOG	-0.050 ± 0.150	-0.015 ± 0.090	-0.042 ± 0.072			
40-X			Ag-110m	Be-7	Co-58	Co-60	Cr-51	
	02/28/07	STRIPED BASS	-0.011 ± 0.019	0.023 ± 0.099	-0.002 ± 0.012	0.000 ± 0.015	0.050 ± 0.120	
	06/13/07	STRIPED BASS	-0.022 ± 0.048	0.160 ± 0.250	0.012 ± 0.028	-0.020 ± 0.050	0.050 ± 0.320	
			K					
	07/01/07	FISH-OTHER						
	12/12/07	STRIPED BASS	0.006 ± 0.055	-0.160 ± 0.260	-0.003 ± 0.035	-0.012 ± 0.036	-0.110 ± 0.250	
			Cs-134	Cs-137	Fe-59	I-131	K-40	
	02/28/07	STRIPED BASS	0.006 ± 0.015	0.003 ± 0.014	0.002 ± 0.028	0.008 ± 0.023	3.590 ± 0.430	
	06/13/07	STRIPED BASS	-0.012 ± 0.034	-0.003 ± 0.029	-0.012 ± 0.066	-0.012 ± 0.044	4.300 ± 1.300	

Table 17-B, Fish - Other (pCi/g)

Location	Collection Date	Sample Type	Isotope				
40-X	12/12/07	STRIPED BASS	Cs-134	Cs-137	Fe-59	I-131	K-40
			-0.026 ± 0.036	0.000 ± 0.041	-0.016 ± 0.073	-0.021 ± 0.050	3.300 ± 1.200
			Mn-54	Nb-95	Ru-103	Ru-106	Sb-125
	02/28/07	STRIPED BASS	-0.002 ± 0.011	-0.015 ± 0.014	0.006 ± 0.012	0.010 ± 0.120	0.010 ± 0.032
	06/13/07	STRIPED BASS	0.002 ± 0.023	-0.001 ± 0.033	0.008 ± 0.030	-0.070 ± 0.260	-0.103 ± 0.077
	12/12/07	STRIPED BASS	-0.011 ± 0.037	0.025 ± 0.041	-0.021 ± 0.021	0.100 ± 0.240	0.012 ± 0.070
	02/28/07	STRIPED BASS	Th-228	Zn-65	Zr-95		
			-0.005 ± 0.050	-0.019 ± 0.032	0.003 ± 0.022		
			06/13/07	STRIPED BASS	-0.080 ± 0.110	-0.040 ± 0.100	-0.012 ± 0.046
	12/12/07	STRIPED BASS	0.030 ± 0.130	-0.070 ± 0.100	-0.006 ± 0.061		

Table 18, Mussels (pCi/g)

Location	Collection Date	Isotope						
28		Ag-110m	Be-7	Co-58	Co-60	Cr-51	Cs-134	
	03/12/07	0.001 ± 0.020	0.050 ± 0.110	0.001 ± 0.015	0.004 ± 0.013	-0.040 ± 0.130	0.005 ± 0.016	
	06/05/07	0.040 ± 0.060	-0.160 ± 0.400	0.038 ± 0.053	-0.006 ± 0.047	-0.200 ± 0.410	0.013 ± 0.038	
	09/26/07	0.025 ± 0.034	-0.050 ± 0.210	0.008 ± 0.024	0.005 ± 0.032	0.020 ± 0.250	-0.004 ± 0.028	
	11/28/07	0.022 ± 0.050	0.040 ± 0.290	-0.002 ± 0.029	-0.001 ± 0.028	0.020 ± 0.260	-0.019 ± 0.038	
		Cs-137	Fe-59	I-131	K-40	Mn-54	Nb-95	
	03/12/07	0.001 ± 0.013	-0.010 ± 0.030	0.010 ± 0.027	1.270 ± 0.340	0.006 ± 0.013	0.002 ± 0.016	
	06/05/07	-0.005 ± 0.039	-0.024 ± 0.099	0.087 ± 0.095	2.350 ± 0.980	-0.004 ± 0.041	0.016 ± 0.057	
	09/26/07	-0.004 ± 0.020	0.023 ± 0.051	0.069 ± 0.077	2.040 ± 0.710	0.018 ± 0.027	-0.021 ± 0.032	
	11/28/07	-0.018 ± 0.026	-0.048 ± 0.095	-0.001 ± 0.040	1.030 ± 0.740	-0.001 ± 0.019	-0.019 ± 0.042	
		Ru-103	Ru-106	Sb-125	Th-228	Zn-65	Zr-95	
	03/12/07	-0.009 ± 0.014	-0.080 ± 0.130	-0.017 ± 0.036	0.008 ± 0.063	0.007 ± 0.055	-0.006 ± 0.027	
	06/05/07	-0.034 ± 0.045	0.030 ± 0.380	-0.050 ± 0.110	-0.250 ± 0.180	-0.030 ± 0.120	0.029 ± 0.077	
	09/26/07	-0.015 ± 0.029	0.170 ± 0.260	0.043 ± 0.067	-0.071 ± 0.091	-0.023 ± 0.053	0.007 ± 0.052	
	11/28/07	0.000 ± 0.029	0.000 ± 0.200	-0.023 ± 0.074	-0.120 ± 0.150	-0.016 ± 0.086	-0.017 ± 0.055	
	30		Ag-110m	Be-7	Co-58	Co-60	Cr-51	Cs-134
		03/05/07	0.000 ± 0.017	0.230 ± 0.170	-0.009 ± 0.013	0.003 ± 0.017	-0.190 ± 0.140	-0.008 ± 0.015
		05/30/07	0.000 ± 0.052	0.160 ± 0.260	-0.008 ± 0.019	-0.018 ± 0.043	-0.080 ± 0.270	-0.007 ± 0.027
		09/12/07	0.017 ± 0.028	-0.050 ± 0.140	0.002 ± 0.018	0.007 ± 0.019	0.070 ± 0.150	0.000 ± 0.018
		11/28/07	-0.010 ± 0.057	0.300 ± 0.350	-0.004 ± 0.028	-0.011 ± 0.022	-0.180 ± 0.250	0.005 ± 0.043
			Cs-137	Fe-59	I-131	K-40	Mn-54	Nb-95
03/05/07		0.015 ± 0.016	-0.015 ± 0.037	0.014 ± 0.026	1.860 ± 0.400	-0.020 ± 0.017	0.003 ± 0.020	
05/30/07		-0.024 ± 0.037	-0.013 ± 0.076	0.009 ± 0.061	2.290 ± 0.910	-0.017 ± 0.038	0.003 ± 0.029	
09/12/07		0.012 ± 0.020	0.034 ± 0.031	0.002 ± 0.028	1.890 ± 0.490	0.002 ± 0.016	0.003 ± 0.014	
11/28/07		0.003 ± 0.035	0.017 ± 0.074	0.047 ± 0.077	1.830 ± 0.960	-0.008 ± 0.039	-0.023 ± 0.036	
		Ru-103	Ru-106	Sb-125	Th-228	Zn-65	Zr-95	
03/05/07		0.008 ± 0.016	0.170 ± 0.130	0.009 ± 0.037	0.069 ± 0.069	-0.020 ± 0.035	-0.004 ± 0.026	
05/30/07		0.008 ± 0.031	-0.110 ± 0.260	-0.009 ± 0.068	-0.090 ± 0.110	0.012 ± 0.064	-0.010 ± 0.057	
09/12/07		-0.005 ± 0.015	0.070 ± 0.160	0.033 ± 0.053	-0.027 ± 0.060	-0.001 ± 0.039	0.003 ± 0.029	
11/28/07		0.016 ± 0.024	-0.160 ± 0.390	-0.012 ± 0.074	-0.020 ± 0.130	-0.034 ± 0.067	-0.008 ± 0.072	

Table 19, Oysters (pCi/g)

Location	Collection Date	Isotope						
31		Ag-110m	Be-7	Co-58	Co-60	Cr-51	Cs-134	
	03/20/07	-0.007 ± 0.023	-0.080 ± 0.150	0.000 ± 0.017	-0.007 ± 0.016	-0.020 ± 0.180	-0.011 ± 0.018	
	06/20/07	0.004 ± 0.029	0.120 ± 0.220	-0.003 ± 0.022	0.000 ± 0.027	-0.080 ± 0.210	0.015 ± 0.019	
	09/18/07	-0.034 ± 0.039	0.000 ± 0.240	0.009 ± 0.036	0.011 ± 0.031	0.090 ± 0.220	0.021 ± 0.028	
	12/19/07	0.014 ± 0.045	0.160 ± 0.270	-0.012 ± 0.029	0.006 ± 0.026	-0.290 ± 0.180	0.017 ± 0.024	
		Cs-137	Fe-59	I-131	K-40	Mn-54	Nb-95	
	03/20/07	0.008 ± 0.016	-0.033 ± 0.044	0.019 ± 0.048	1.540 ± 0.460	0.000 ± 0.018	0.008 ± 0.024	
	06/20/07	-0.006 ± 0.022	0.023 ± 0.054	-0.006 ± 0.075	1.620 ± 0.620	0.000 ± 0.025	0.002 ± 0.032	
	09/18/07	-0.004 ± 0.025	-0.011 ± 0.063	0.022 ± 0.040	2.030 ± 0.830	-0.016 ± 0.024	-0.013 ± 0.028	
	12/19/07	-0.017 ± 0.023	0.039 ± 0.069	0.000 ± 0.055	1.450 ± 0.800	0.017 ± 0.028	0.003 ± 0.030	
		Ru-103	Ru-106	Sb-125	Th-228	Zn-65	Zr-95	
	03/20/07	-0.001 ± 0.020	0.050 ± 0.180	-0.017 ± 0.042	-0.011 ± 0.067	-0.032 ± 0.044	0.021 ± 0.032	
	06/20/07	-0.024 ± 0.026	-0.070 ± 0.230	0.021 ± 0.059	-0.034 ± 0.084	0.021 ± 0.054	-0.005 ± 0.056	
	09/18/07	0.020 ± 0.031	0.000 ± 0.250	0.053 ± 0.066	-0.031 ± 0.093	0.010 ± 0.047	-0.007 ± 0.055	
	12/19/07	0.004 ± 0.033	0.170 ± 0.270	0.018 ± 0.064	-0.020 ± 0.150	-0.088 ± 0.076	0.020 ± 0.042	
	32		Ag-110m	Be-7	Co-58	Co-60	Cr-51	Cs-134
		03/16/07	0.046 ± 0.032	0.000 ± 0.190	-0.004 ± 0.023	0.012 ± 0.022	0.240 ± 0.270	-0.002 ± 0.021
		06/20/07	0.009 ± 0.052	0.080 ± 0.220	0.006 ± 0.024	0.003 ± 0.015	0.150 ± 0.250	-0.003 ± 0.023
		09/19/07	0.027 ± 0.062	0.260 ± 0.390	-0.039 ± 0.045	0.016 ± 0.057	-0.090 ± 0.370	-0.004 ± 0.044
		12/18/07	-0.009 ± 0.035	-0.160 ± 0.210	-0.020 ± 0.023	0.004 ± 0.028	-0.190 ± 0.220	0.000 ± 0.023
			Cs-137	Fe-59	I-131	K-40	Mn-54	Nb-95
03/16/07		-0.037 ± 0.027	0.027 ± 0.042	-0.019 ± 0.095	2.200 ± 0.620	0.007 ± 0.026	0.014 ± 0.032	
06/20/07		-0.019 ± 0.021	-0.013 ± 0.055	0.046 ± 0.082	2.510 ± 0.620	0.015 ± 0.022	0.009 ± 0.031	
09/19/07		0.046 ± 0.055	-0.050 ± 0.100	-0.026 ± 0.085	1.610 ± 0.890	-0.033 ± 0.045	0.048 ± 0.048	
12/18/07		0.006 ± 0.024	0.004 ± 0.050	0.036 ± 0.074	1.670 ± 0.670	-0.009 ± 0.022	-0.022 ± 0.035	
		Ru-103	Ru-106	Sb-125	Th-228	Zn-65	Zr-95	
03/16/07		-0.009 ± 0.025	0.090 ± 0.240	0.005 ± 0.054	0.041 ± 0.098	-0.043 ± 0.053	0.008 ± 0.032	
06/20/07		-0.005 ± 0.023	0.120 ± 0.140	0.011 ± 0.056	0.061 ± 0.086	-0.052 ± 0.053	0.005 ± 0.048	
09/19/07		0.003 ± 0.042	-0.380 ± 0.420	-0.020 ± 0.110	0.030 ± 0.170	0.075 ± 0.093	0.000 ± 0.082	
12/18/07		-0.004 ± 0.026	0.100 ± 0.220	-0.006 ± 0.067	-0.077 ± 0.094	0.007 ± 0.067	0.006 ± 0.044	
34-X			Ag-110m	Be-7	Co-58	Co-60	Cr-51	Cs-134
		03/20/07	-0.015 ± 0.028	-0.040 ± 0.180	-0.003 ± 0.022	-0.020 ± 0.032	-0.030 ± 0.180	0.000 ± 0.025
		04/01/07	L					
		09/18/07	-0.013 ± 0.044	-0.030 ± 0.260	0.029 ± 0.028	-0.017 ± 0.039	-0.050 ± 0.240	0.007 ± 0.024
		12/19/07	0.023 ± 0.037	0.200 ± 0.180	-0.014 ± 0.029	0.006 ± 0.027	0.040 ± 0.230	-0.009 ± 0.032
			Cs-137	Fe-59	I-131	K-40	Mn-54	Nb-95
	03/20/07	-0.002 ± 0.020	0.014 ± 0.041	0.010 ± 0.052	1.650 ± 0.570	0.013 ± 0.024	-0.026 ± 0.032	
	09/18/07	-0.004 ± 0.031	0.045 ± 0.063	0.048 ± 0.061	2.550 ± 0.900	-0.001 ± 0.027	-0.006 ± 0.028	
	12/19/07	-0.023 ± 0.030	-0.026 ± 0.064	-0.003 ± 0.061	1.900 ± 0.880	-0.003 ± 0.030	-0.011 ± 0.041	

Table 19, Oysters (pCi/g)

Location	Collection Date	Isotope					
34-X		Ru-103	Ru-106	Sb-125	Th-228	Zn-65	Zr-95
	03/20/07	-0.005 ± 0.024	0.170 ± 0.220	0.028 ± 0.052	0.013 ± 0.076	-0.062 ± 0.053	0.032 ± 0.037
	09/18/07	0.007 ± 0.025	0.180 ± 0.270	-0.016 ± 0.076	0.010 ± 0.110	0.000 ± 0.054	0.020 ± 0.047
	12/19/07	0.004 ± 0.025	0.000 ± 0.220	-0.036 ± 0.051	-0.030 ± 0.013	-0.025 ± 0.062	-0.042 ± 0.042
36		Ag-110m	Be-7	Co-58	Co-60	Cr-51	Cs-134
	03/14/07	-0.005 ± 0.023	-0.110 ± 0.130	-0.010 ± 0.016	0.003 ± 0.023	-0.030 ± 0.140	0.002 ± 0.014
	06/19/07	0.011 ± 0.036	0.000 ± 0.220	0.008 ± 0.018	-0.014 ± 0.019	0.090 ± 0.240	-0.003 ± 0.024
	09/18/07	0.024 ± 0.029	0.020 ± 0.180	0.012 ± 0.024	0.008 ± 0.028	-0.090 ± 0.200	0.021 ± 0.025
	12/19/07	0.008 ± 0.030	0.200 ± 0.180	0.006 ± 0.028	0.003 ± 0.025	-0.110 ± 0.220	-0.009 ± 0.031
		Cs-137	Fe-59	I-131	K-40	Mn-54	Nb-95
	03/14/07	0.004 ± 0.017	-0.038 ± 0.032	-0.011 ± 0.025	1.850 ± 0.480	-0.004 ± 0.018	0.003 ± 0.018
	06/19/07	0.011 ± 0.023	0.000 ± 0.058	-0.007 ± 0.090	2.110 ± 0.600	-0.017 ± 0.024	-0.020 ± 0.029
	09/18/07	0.009 ± 0.024	0.041 ± 0.058	0.008 ± 0.049	1.930 ± 0.650	-0.003 ± 0.027	-0.007 ± 0.024
	12/19/07	-0.006 ± 0.026	-0.032 ± 0.050	-0.025 ± 0.044	1.360 ± 0.580	-0.006 ± 0.024	-0.004 ± 0.028
		Ru-103	Ru-106	Sb-125	Th-228	Zn-65	Zr-95
	03/14/07	0.000 ± 0.016	-0.040 ± 0.160	0.019 ± 0.044	0.028 ± 0.074	-0.026 ± 0.042	0.019 ± 0.030
06/19/07	0.007 ± 0.023	-0.010 ± 0.200	-0.041 ± 0.045	-0.034 ± 0.083	0.001 ± 0.050	0.000 ± 0.033	
09/18/07	0.004 ± 0.023	-0.180 ± 0.220	-0.045 ± 0.061	-0.014 ± 0.085	-0.022 ± 0.061	-0.005 ± 0.039	
12/19/07	-0.025 ± 0.025	0.120 ± 0.190	-0.011 ± 0.049	-0.010 ± 0.110	-0.031 ± 0.044	0.041 ± 0.043	
37-C		Ag-110m	Be-7	Co-58	Co-60	Cr-51	Cs-134
	03/14/07	-0.030 ± 0.026	0.000 ± 0.130	-0.002 ± 0.014	-0.004 ± 0.015	0.020 ± 0.140	0.010 ± 0.020
	06/19/07	0.003 ± 0.035	-0.010 ± 0.210	0.008 ± 0.021	0.000 ± 0.019	-0.070 ± 0.260	-0.008 ± 0.024
	09/18/07	-0.016 ± 0.039	0.060 ± 0.180	-0.004 ± 0.035	0.007 ± 0.014	0.100 ± 0.240	0.004 ± 0.025
	12/19/07	0.008 ± 0.022	-0.150 ± 0.170	-0.002 ± 0.019	0.000 ± 0.016	-0.110 ± 0.210	0.008 ± 0.019
		Cs-137	Fe-59	I-131	K-40	Mn-54	Nb-95
	03/14/07	0.003 ± 0.019	-0.007 ± 0.038	0.025 ± 0.026	2.030 ± 0.490	-0.007 ± 0.015	-0.019 ± 0.018
	06/19/07	-0.004 ± 0.025	-0.086 ± 0.073	-0.020 ± 0.068	2.530 ± 0.640	0.014 ± 0.019	-0.001 ± 0.020
	09/18/07	-0.009 ± 0.038	0.025 ± 0.050	0.019 ± 0.058	1.860 ± 0.810	-0.009 ± 0.032	-0.003 ± 0.028
	12/19/07	0.002 ± 0.020	0.009 ± 0.046	0.050 ± 0.055	2.420 ± 0.560	-0.004 ± 0.020	0.001 ± 0.022
		Ru-103	Ru-106	Sb-125	Th-228	Zn-65	Zr-95
	03/14/07	0.007 ± 0.016	-0.050 ± 0.160	0.043 ± 0.043	-0.046 ± 0.071	-0.004 ± 0.041	-0.003 ± 0.026
06/19/07	0.003 ± 0.019	-0.020 ± 0.190	-0.014 ± 0.063	0.030 ± 0.084	-0.043 ± 0.048	-0.005 ± 0.042	
09/18/07	0.012 ± 0.029	0.380 ± 0.280	-0.009 ± 0.059	-0.035 ± 0.086	-0.025 ± 0.070	0.003 ± 0.056	
12/19/07	-0.003 ± 0.019	-0.090 ± 0.180	0.006 ± 0.048	0.031 ± 0.068	-0.036 ± 0.047	0.024 ± 0.033	
40-X		Ag-110m	Be-7	Co-58	Co-60	Cr-51	Cs-134
	03/22/07	0.069 ± 0.034	0.050 ± 0.240	-0.026 ± 0.024	-0.006 ± 0.019	-0.090 ± 0.250	-0.009 ± 0.019
	06/26/07	0.058 ± 0.036	-0.250 ± 0.320	-0.024 ± 0.038	0.014 ± 0.039	-0.070 ± 0.410	-0.021 ± 0.047
	09/01/07	M					
	12/01/07	N					

Table 19, Oysters (pCi/g)

Location	Collection Date	Isotope					
40-X		Cs-137	Fe-59	I-131	K-40	Mn-54	Nb-95
	03/22/07	-0.016 ± 0.060	-0.009 ± 0.032	0.012 ± 0.073	1.950 ± 0.740	0.014 ± 0.032	-0.006 ± 0.035
	06/26/07	-0.040 ± 0.043	0.004 ± 0.090	0.040 ± 0.100	1.540 ± 0.780	0.038 ± 0.043	0.001 ± 0.052
		Ru-103	Ru-106	Sb-125	Th-228	Zn-65	Zr-95
	03/22/07	0.031 ± 0.031	-0.020 ± 0.280	0.049 ± 0.067	0.000 ± 0.110	-0.027 ± 0.064	-0.055 ± 0.047
	06/26/07	0.003 ± 0.036	0.230 ± 0.390	0.000 ± 0.100	0.010 ± 0.120	-0.020 ± 0.110	-0.029 ± 0.077

Table 20, Clams (pCi/g)

Location	Collection Date	Isotope						
29		Ag-110m	Be-7	Co-58	Co-60	Cr-51	Cs-134	
	01/03/07	0.008 ± 0.025	-0.110 ± 0.160	0.009 ± 0.014	0.003 ± 0.023	0.040 ± 0.160	0.009 ± 0.024	
	06/14/07	-0.011 ± 0.030	0.030 ± 0.160	-0.002 ± 0.020	-0.021 ± 0.031	0.000 ± 0.160	0.004 ± 0.023	
	09/05/07	-0.012 ± 0.025	-0.030 ± 0.140	0.003 ± 0.019	0.003 ± 0.011	0.080 ± 0.170	0.005 ± 0.019	
	11/05/07	0.016 ± 0.035	-0.060 ± 0.200	0.012 ± 0.026	-0.003 ± 0.041	-0.010 ± 0.170	-0.009 ± 0.033	
		Cs-137	Fe-59	I-131	K-40	Mn-54	Nb-95	
	01/03/07	0.004 ± 0.019	0.000 ± 0.029	-0.031 ± 0.029	2.080 ± 0.570	0.004 ± 0.018	0.005 ± 0.020	
	06/14/07	0.000 ± 0.018	0.014 ± 0.051	-0.002 ± 0.025	1.540 ± 0.610	-0.019 ± 0.025	-0.009 ± 0.022	
	09/05/07	-0.026 ± 0.024	0.016 ± 0.049	0.013 ± 0.038	2.020 ± 0.580	-0.003 ± 0.019	0.011 ± 0.024	
	11/05/07	0.008 ± 0.029	0.000 ± 0.064	0.040 ± 0.040	2.680 ± 0.950	0.006 ± 0.030	-0.023 ± 0.027	
		Ru-103	Ru-106	Sb-125	Th-228	Zn-65	Zr-95	
	01/03/07	0.008 ± 0.019	0.050 ± 0.180	-0.026 ± 0.045	0.012 ± 0.080	-0.029 ± 0.051	0.019 ± 0.029	
	06/14/07	0.004 ± 0.020	0.000 ± 0.180	-0.041 ± 0.058	-0.037 ± 0.092	0.007 ± 0.047	-0.023 ± 0.044	
	09/05/07	0.005 ± 0.020	-0.040 ± 0.200	0.032 ± 0.044	-0.007 ± 0.077	0.033 ± 0.046	0.006 ± 0.035	
	11/05/07	0.011 ± 0.024	-0.140 ± 0.260	0.008 ± 0.072	-0.110 ± 0.130	0.046 ± 0.086	-0.005 ± 0.049	
	35-X		Ag-110m	Be-7	Co-58	Co-60	Cr-51	Cs-134
		01/03/07	0.017 ± 0.024	0.090 ± 0.140	-0.003 ± 0.020	-0.005 ± 0.020	-0.040 ± 0.130	0.007 ± 0.018
		06/14/07	-0.008 ± 0.020	-0.070 ± 0.190	-0.022 ± 0.022	-0.001 ± 0.018	-0.070 ± 0.210	0.002 ± 0.019
		09/05/07	-0.007 ± 0.021	0.000 ± 0.140	-0.002 ± 0.020	0.001 ± 0.018	0.010 ± 0.140	-0.001 ± 0.021
		11/05/07	-0.029 ± 0.037	0.080 ± 0.210	-0.009 ± 0.026	0.020 ± 0.029	-0.040 ± 0.230	0.019 ± 0.030
		Cs-137	Fe-59	I-131	K-40	Mn-54	Nb-95	
01/03/07		-0.008 ± 0.018	0.010 ± 0.036	-0.004 ± 0.022	1.890 ± 0.570	-0.007 ± 0.018	-0.004 ± 0.021	
06/14/07		-0.009 ± 0.021	0.042 ± 0.049	-0.002 ± 0.031	1.600 ± 0.610	-0.002 ± 0.023	0.015 ± 0.024	
09/05/07		-0.002 ± 0.019	0.010 ± 0.038	-0.004 ± 0.025	1.970 ± 0.530	0.018 ± 0.015	0.007 ± 0.021	
11/05/07		0.011 ± 0.023	-0.012 ± 0.050	0.015 ± 0.039	2.980 ± 0.780	0.009 ± 0.019	0.001 ± 0.028	
		Ru-103	Ru-106	Sb-125	Th-228	Zn-65	Zr-95	
01/03/07		-0.002 ± 0.011	0.000 ± 0.160	-0.012 ± 0.041	0.078 ± 0.076	-0.032 ± 0.043	-0.002 ± 0.029	
06/14/07		-0.007 ± 0.019	-0.050 ± 0.190	0.043 ± 0.052	-0.001 ± 0.077	0.029 ± 0.051	0.064 ± 0.048	
09/05/07		-0.003 ± 0.015	-0.040 ± 0.150	-0.045 ± 0.042	-0.025 ± 0.063	-0.048 ± 0.053	-0.008 ± 0.030	
11/05/07		-0.015 ± 0.031	-0.050 ± 0.250	0.024 ± 0.063	0.040 ± 0.100	-0.045 ± 0.064	-0.010 ± 0.044	
38			Ag-110m	Be-7	Co-58	Co-60	Cr-51	Cs-134
		01/03/07	0.007 ± 0.031	-0.060 ± 0.160	-0.012 ± 0.020	-0.002 ± 0.023	0.050 ± 0.170	0.001 ± 0.022
		06/14/07	-0.005 ± 0.026	0.050 ± 0.150	-0.011 ± 0.018	0.020 ± 0.021	0.010 ± 0.170	0.000 ± 0.018
		09/05/07	0.020 ± 0.031	-0.030 ± 0.150	0.002 ± 0.016	0.014 ± 0.018	-0.070 ± 0.160	0.005 ± 0.018
		11/05/07	-0.031 ± 0.033	-0.070 ± 0.220	0.009 ± 0.022	0.008 ± 0.024	0.000 ± 0.220	0.015 ± 0.028
		Cs-137	Fe-59	I-131	K-40	Mn-54	Nb-95	
	01/03/07	-0.004 ± 0.022	0.006 ± 0.046	0.000 ± 0.027	2.630 ± 0.660	0.003 ± 0.018	-0.003 ± 0.022	
	06/14/07	0.015 ± 0.019	0.016 ± 0.042	0.011 ± 0.031	2.300 ± 0.590	0.007 ± 0.015	-0.006 ± 0.024	
	09/05/07	0.000 ± 0.022	0.025 ± 0.047	-0.003 ± 0.035	1.980 ± 0.570	-0.019 ± 0.019	-0.011 ± 0.020	
	11/05/07	-0.012 ± 0.026	0.014 ± 0.057	-0.020 ± 0.049	2.000 ± 0.730	-0.033 ± 0.028	0.000 ± 0.024	

Table 20, Clams (pCi/g)

Location	Collection Date	Isotope					
38		Ru-103	Ru-106	Sb-125	Th-228	Zn-65	Zr-95
	01/03/07	0.002 ± 0.016	-0.080 ± 0.210	-0.034 ± 0.057	-0.026 ± 0.087	0.057 ± 0.054	-0.038 ± 0.052
	06/14/07	0.021 ± 0.021	0.030 ± 0.160	0.025 ± 0.051	-0.027 ± 0.079	0.003 ± 0.043	0.019 ± 0.034
	09/05/07	0.008 ± 0.019	0.020 ± 0.160	0.008 ± 0.044	-0.046 ± 0.084	0.015 ± 0.042	-0.017 ± 0.036
	11/05/07	-0.011 ± 0.024	0.070 ± 0.200	0.009 ± 0.068	-0.035 ± 0.093	0.013 ± 0.065	0.010 ± 0.044
39-X		Ag-110m	Be-7	Co-58	Co-60	Cr-51	Cs-134
	03/23/07	-0.004 ± 0.029	0.130 ± 0.180	-0.028 ± 0.028	-0.007 ± 0.025	-0.010 ± 0.230	0.017 ± 0.029
	06/18/07	-0.007 ± 0.032	-0.190 ± 0.230	-0.008 ± 0.019	-0.003 ± 0.025	-0.060 ± 0.230	-0.006 ± 0.017
	09/25/07	-0.006 ± 0.025	0.090 ± 0.200	0.006 ± 0.015	-0.010 ± 0.018	0.040 ± 0.190	0.004 ± 0.021
	11/29/07	-0.023 ± 0.036	-0.110 ± 0.250	-0.008 ± 0.035	-0.028 ± 0.037	-0.020 ± 0.270	0.009 ± 0.033
		Cs-137	Fe-59	I-131	K-40	Mn-54	Nb-95
	03/23/07	0.027 ± 0.025	0.036 ± 0.055	0.029 ± 0.068	2.610 ± 0.670	-0.017 ± 0.025	-0.015 ± 0.029
	06/18/07	0.010 ± 0.026	-0.027 ± 0.049	0.008 ± 0.083	2.350 ± 0.670	-0.012 ± 0.026	0.005 ± 0.030
	09/25/07	0.005 ± 0.019	0.010 ± 0.046	0.001 ± 0.053	1.420 ± 0.500	0.002 ± 0.018	0.011 ± 0.023
	11/29/07	0.009 ± 0.021	0.048 ± 0.043	0.005 ± 0.045	1.680 ± 0.700	-0.012 ± 0.026	-0.021 ± 0.034
		Ru-103	Ru-106	Sb-125	Th-228	Zn-65	Zr-95
	03/23/07	-0.006 ± 0.021	-0.040 ± 0.220	0.024 ± 0.055	-0.010 ± 0.110	-0.032 ± 0.051	0.034 ± 0.042
06/18/07	0.035 ± 0.027	0.160 ± 0.220	-0.010 ± 0.054	-0.043 ± 0.081	0.008 ± 0.049	0.064 ± 0.053	
09/25/07	-0.021 ± 0.022	-0.050 ± 0.180	-0.047 ± 0.046	0.015 ± 0.073	-0.019 ± 0.036	-0.004 ± 0.035	
11/29/07	0.010 ± 0.029	-0.160 ± 0.310	0.033 ± 0.074	-0.010 ± 0.096	-0.049 ± 0.073	0.014 ± 0.053	
40-X		Ag-110m	Be-7	Co-58	Co-60	Cr-51	Cs-134
	03/22/07	0.007 ± 0.030	-0.080 ± 0.200	-0.011 ± 0.025	0.003 ± 0.027	0.100 ± 0.210	-0.022 ± 0.023
	06/26/07	0.000 ± 0.036	-0.020 ± 0.200	0.013 ± 0.024	0.016 ± 0.028	-0.040 ± 0.240	-0.010 ± 0.024
	09/27/07	0.017 ± 0.031	0.180 ± 0.220	0.013 ± 0.045	-0.009 ± 0.018	0.050 ± 0.250	0.011 ± 0.025
	12/01/07	0					
		Cs-137	Fe-59	I-131	K-40	Mn-54	Nb-95
	03/22/07	-0.015 ± 0.031	-0.018 ± 0.047	0.010 ± 0.057	2.280 ± 0.600	0.008 ± 0.022	0.003 ± 0.025
	06/26/07	-0.033 ± 0.027	-0.007 ± 0.063	-0.037 ± 0.047	1.500 ± 0.580	0.003 ± 0.024	0.012 ± 0.031
	09/27/07	0.015 ± 0.027	0.000 ± 0.058	-0.017 ± 0.054	1.650 ± 0.780	-0.023 ± 0.040	0.010 ± 0.033
		Ru-103	Ru-106	Sb-125	Th-228	Zn-65	Zr-95
	03/22/07	0.005 ± 0.020	0.080 ± 0.220	-0.016 ± 0.055	0.033 ± 0.075	-0.024 ± 0.048	-0.005 ± 0.044
	06/26/07	0.006 ± 0.020	0.110 ± 0.240	0.024 ± 0.057	-0.023 ± 0.087	-0.031 ± 0.064	0.011 ± 0.049
09/27/07	0.000 ± 0.023	0.090 ± 0.320	0.040 ± 0.064	-0.060 ± 0.130	-0.056 ± 0.080	-0.015 ± 0.050	

Table 22, Lobsters (pCi/g)

Location	Collection Date	Isotope						
32		Ag-110m	Be-7	Co-58	Co-60	Cr-51	Cs-134	
	01/31/07	0.009 ± 0.026	0.040 ± 0.140	-0.005 ± 0.015	0.009 ± 0.023	0.020 ± 0.150	-0.018 ± 0.022	
	05/07/07	0.033 ± 0.032	-0.070 ± 0.210	0.008 ± 0.021	0.021 ± 0.021	-0.010 ± 0.200	0.004 ± 0.026	
	08/29/07	0.000 ± 0.028	-0.030 ± 0.220	-0.033 ± 0.033	-0.010 ± 0.034	0.090 ± 0.250	-0.016 ± 0.031	
	11/13/07	-0.003 ± 0.027	-0.030 ± 0.180	-0.010 ± 0.021	-0.017 ± 0.019	-0.040 ± 0.230	-0.010 ± 0.019	
		Cs-137	Fe-59	I-131	K-40	Mn-54	Nb-95	
	01/31/07	-0.007 ± 0.020	0.002 ± 0.038	0.002 ± 0.026	2.150 ± 0.440	0.006 ± 0.019	-0.008 ± 0.019	
	05/07/07	0.025 ± 0.020	-0.006 ± 0.042	0.007 ± 0.044	2.250 ± 0.660	-0.010 ± 0.021	0.022 ± 0.030	
	08/29/07	-0.003 ± 0.027	0.012 ± 0.053	0.006 ± 0.044	2.840 ± 0.990	-0.003 ± 0.020	-0.006 ± 0.030	
	11/13/07	0.001 ± 0.021	0.030 ± 0.037	0.017 ± 0.055	2.930 ± 0.570	-0.005 ± 0.018	0.004 ± 0.027	
		Ru-103	Ru-106	Sb-125	Th-228	Zn-65	Zr-95	
	01/31/07	-0.005 ± 0.020	-0.150 ± 0.190	0.020 ± 0.041	0.076 ± 0.067	-0.061 ± 0.048	-0.014 ± 0.031	
	05/07/07	-0.013 ± 0.024	-0.200 ± 0.220	-0.010 ± 0.059	-0.041 ± 0.089	-0.025 ± 0.054	0.034 ± 0.048	
	08/29/07	-0.008 ± 0.031	-0.060 ± 0.180	-0.036 ± 0.084	0.050 ± 0.120	-0.012 ± 0.081	0.023 ± 0.060	
	11/13/07	-0.020 ± 0.024	0.060 ± 0.190	-0.022 ± 0.044	-0.008 ± 0.072	-0.010 ± 0.040	0.003 ± 0.029	
	35		Ag-110m	Be-7	Co-58	Co-60	Cr-51	Cs-134
		02/07/07	-0.012 ± 0.020	-0.020 ± 0.120	0.005 ± 0.016	-0.004 ± 0.018	0.040 ± 0.120	0.002 ± 0.015
		05/07/07	-0.003 ± 0.026	-0.010 ± 0.160	-0.008 ± 0.018	0.008 ± 0.020	-0.010 ± 0.170	-0.002 ± 0.022
		08/29/07	-0.022 ± 0.044	-0.060 ± 0.220	-0.003 ± 0.022	0.006 ± 0.027	-0.010 ± 0.210	-0.017 ± 0.032
		11/19/07	0.000 ± 0.021	0.030 ± 0.140	-0.011 ± 0.018	-0.008 ± 0.017	-0.040 ± 0.180	0.006 ± 0.018
		Cs-137	Fe-59	I-131	K-40	Mn-54	Nb-95	
02/07/07		-0.011 ± 0.018	0.003 ± 0.037	0.007 ± 0.028	2.220 ± 0.450	-0.016 ± 0.015	-0.007 ± 0.016	
05/07/07		0.007 ± 0.020	0.004 ± 0.040	0.016 ± 0.036	2.240 ± 0.540	-0.002 ± 0.023	0.003 ± 0.021	
08/29/07		-0.008 ± 0.027	0.000 ± 0.050	-0.012 ± 0.053	3.200 ± 1.000	0.021 ± 0.024	0.002 ± 0.025	
11/19/07		-0.017 ± 0.019	-0.009 ± 0.038	0.014 ± 0.028	2.290 ± 0.470	0.004 ± 0.017	0.000 ± 0.016	
		Ru-103	Ru-106	Sb-125	Th-228	Zn-65	Zr-95	
02/07/07		-0.019 ± 0.016	-0.030 ± 0.140	0.024 ± 0.037	0.000 ± 0.064	-0.032 ± 0.036	-0.020 ± 0.028	
05/07/07		0.001 ± 0.019	0.010 ± 0.170	0.038 ± 0.049	-0.001 ± 0.078	-0.051 ± 0.054	-0.013 ± 0.034	
08/29/07		0.016 ± 0.032	0.010 ± 0.280	-0.075 ± 0.070	0.020 ± 0.100	-0.026 ± 0.051	0.030 ± 0.051	
11/19/07		0.009 ± 0.018	-0.110 ± 0.150	-0.015 ± 0.045	0.024 ± 0.067	0.009 ± 0.038	0.011 ± 0.030	
37-X			Ag-110m	Be-7	Co-58	Co-60	Cr-51	Cs-134
	02/13/07	0.001 ± 0.013	-0.022 ± 0.067	0.004 ± 0.008	-0.006 ± 0.009	-0.051 ± 0.088	-0.003 ± 0.008	
	05/16/07	0.008 ± 0.021	0.030 ± 0.150	-0.003 ± 0.016	0.002 ± 0.014	-0.100 ± 0.180	0.017 ± 0.021	
	08/29/07	0.006 ± 0.034	-0.110 ± 0.240	-0.001 ± 0.028	0.011 ± 0.039	-0.150 ± 0.220	0.004 ± 0.034	
	11/19/07	-0.003 ± 0.024	0.090 ± 0.130	-0.006 ± 0.021	0.001 ± 0.023	-0.010 ± 0.150	0.000 ± 0.018	
		Cs-137	Fe-59	I-131	K-40	Mn-54	Nb-95	
	02/13/07	-0.002 ± 0.009	0.004 ± 0.020	0.006 ± 0.027	1.660 ± 0.240	-0.004 ± 0.009	0.004 ± 0.010	
	05/16/07	0.006 ± 0.017	-0.002 ± 0.039	-0.020 ± 0.054	2.460 ± 0.490	0.006 ± 0.017	0.001 ± 0.020	
	08/29/07	-0.017 ± 0.031	-0.033 ± 0.059	0.026 ± 0.052	1.760 ± 0.780	-0.013 ± 0.028	-0.009 ± 0.031	
	11/19/07	0.000 ± 0.021	0.023 ± 0.053	0.005 ± 0.033	2.720 ± 0.690	0.019 ± 0.017	-0.003 ± 0.021	

Table 22, Lobsters (pCi/g)

Location	Collection Date	Isotope					
37-X		Ru-103	Ru-106	Sb-125	Th-228	Zn-65	Zr-95
	02/13/07	-0.004 ± 0.008	0.005 ± 0.080	-0.009 ± 0.021	-0.004 ± 0.041	-0.004 ± 0.020	0.010 ± 0.017
	05/16/07	-0.006 ± 0.021	0.050 ± 0.160	-0.014 ± 0.038	0.009 ± 0.056	-0.023 ± 0.037	0.003 ± 0.032
	08/29/07	0.007 ± 0.023	-0.080 ± 0.270	-0.025 ± 0.079	0.010 ± 0.150	-0.023 ± 0.071	0.049 ± 0.048
	11/19/07	0.013 ± 0.021	0.030 ± 0.150	0.029 ± 0.043	0.067 ± 0.079	0.000 ± 0.051	0.002 ± 0.038

NOTES FOR DATA TABLES

#	Collection Dates for Air Particulates and Iodines are listed as Monday – Sunday, however the typical change-out days are on Tuesdays
A	Low volume (9010 cubic feet, 113 hrs, 9 min) during week of 6/12-6/19 for location 15C, caused by blown pump fuse and broken fuse holder (see CR-07-07823)
B	Low volume (3922 cubic feet, 44 hrs, 18 min) during week of 9/18-9/25 for location 02, caused by GFI trip (see CR-07-00990)
C	Low volume (10882 cubic feet, 117 hrs, 48 min) during week of 9/25-10/2 for location 02, caused by GFI trip (see CR-07-09900)
D	Low volume (6535 cubic feet, 86 hrs, 44 min) during week of 9/25-10/2 for location 15C, caused by switch failure of air sample pump (see CR-07-10019)
E	Low volume (4412 cubic feet, 52 hrs, 46 min) during week of 10/9-10/16 for location 02, caused by GFI trip (see CR-07-10474)
F	Goats at location 21 dried up early this year
G	Goats at location 24C were only milked to feed the baby goats after mid-May
H	Non-pasture grass samples (e.g., hay, grain, etc.)
I	Unable to obtain water from location 77X prior to new well installation
J	First Quarter flounder & fish-other samples (location 32) were not available (typically scarce during this time of year)
K	Third Quarter fish-other sample (location 40X) was not available
L	Second Quarter oyster sample at location 34 not available since dock was replaced and tray was lost
M	Third Quarter oyster sample at location 40X was not available
N	Fourth Quarter oyster sample not obtained at location 40X since diving operations in the quarry have been suspended for safety reasons
O	Fourth Quarter clam sample not obtained at 40X since diving operations in the quarry have been suspended for safety reasons

4. DISCUSSION OF RESULTS

This section summarizes the results of the analyses on the REMP (Radiological Environmental Monitoring Program) samples. DNC has carefully examined the data throughout the year and has presented in this section all cases where station related radioactivity could be detected. The results are compared with previous environmental surveillance data. Few impacts of the station operation on the environment were observed. Sub-sections contain a description of each particular media or potential exposure pathway.

Naturally occurring nuclides such as Be-7, K-40, and Th-228 were detected in numerous samples. Be-7, which is produced by cosmic processes, was observed predominantly in airborne and vegetation samples. Th-228 results were variable and are generally at levels higher than plant related radionuclides.

Cs-137 and Sr-90 were observed at levels similar to those of past years. The levels of Cs-137 and Sr-90 detected were the result of atmospheric nuclear weapons testing in the 1960's.

4.1 Gamma Exposure Rate (Table 1)

Gamma exposure rate is determined from the integrated exposure measured over a calendar quarter using $\text{CaSO}_4(\text{Tm})$ Panasonic model UD-804 ASx thermoluminescent dosimeters (TLDs). In 2000, the TLDs (Victoreen glass bulb $\text{CaF}_2(\text{Mn})$), which historically were used to measure radioactivity around Millstone for over 20 years, were replaced with the Panasonic TLDs.

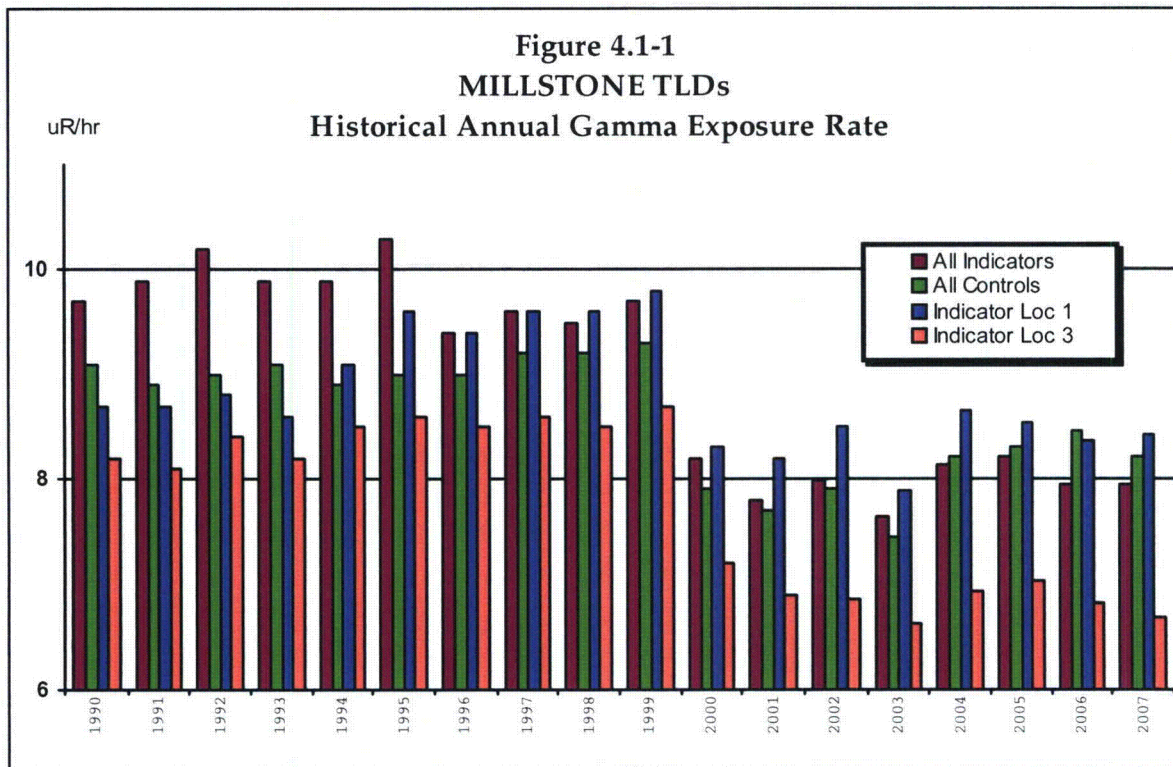
The dosimeters are strategically placed at a number of on-site locations, as well as at inner and outer off-site locations. Starting in 2001, the collection of TLDs was changed from monthly to quarterly and additional measurement locations were incorporated into the REMP requirements listed in the REMODCM (Radiological Effluent Monitoring and Offsite Dose Calculation Manual). Three more locations were added in mid-2003 to prepare for monitoring the potential effect of ISFSI (Independent Spent Fuel Storage Installation – Dry Cask Storage). Two Dry Cask Containers were loaded in the first quarter 2005. Three containers were loaded in mid 2006 and three more in October 2007. The exposure rate measurements at these three additional locations remains basically unchanged from the background measurements performed prior to any cask loading (9.7 uR/hour at location 73X, 7.7 uR/hour at location 74X and 7.1 uR/hour at location 75X).

Table 1 lists the exposure rate measurements for all 44 monitored locations. Trends similar to those of past years are apparent. These measurements 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. For example, the Weather Shack (location 02), MP3 Discharge (location 05), Environmental Laboratory (location 08), Bay Point Beach (location 09), Pleasure Beach (location 10), Corey Road (location 48), and Site Switchyard Fence (location 73) experience higher exposure rates due to their proximity to granite beds and stonewalls. In addition, the Mystic (location 13C) and Ledyard (location 14C) control locations experience relatively higher background exposure rate than the other control locations at Norwich and Old Lyme (locations 15C and 16C). The only appreciable effect seen in the recent TLD data is that attributable to the variation in the background radiation that is consistent with previous years.

Figure 4.1-1 shows a historical trend of TLD exposure rate measurements, comparing an annual average of all indicator TLDs, an annual average of all control TLDs, and the annual average of the two most critical indicator locations which are used to represent the two closest site boundary residences in the North-northwest and Northeast directions. Examination of the average measurements since 1990, shows interesting site changes and site characteristics. For example, the average of all indicator locations for the period when Unit 1 was still in operation (through 1995) display the effects of N-16 BWR turbine building sky-shine to immediate areas onsite. As discussed in previous annual reports, the effects of sky-shine at onsite monitoring stations were increases as high as 6 uR/hr at certain onsite locations. Sky-shine decreased rapidly with distance and was indistinguishable from normal background measurements at even the nearest offsite monitoring stations. Also apparent in Figure 4.1-1 is the replacement of the historical Victoreen TLD monitoring system with the Panasonic system in year 2000. The difference in response between the two systems is very apparent, with the new Panasonic TLDs reading 15% to 20% lower. This lower response is consistent for all locations, including both indicator and control locations.

The figure also relates the difference in critical indicator locations 1 and 3 and the annual average of all indicator TLDs to the annual average of the control TLDs collected and measured during coincident periods throughout the year. As discussed earlier, the exposure measurements of many indicator locations onsite (and two of the control locations) are influenced by natural background exposure differences caused by the many granite out-croppings typical of the local area. Figure 4.1-1 shows the annual average at indicator location 1 is slightly higher in gamma exposure rate than the average control gamma exposure rate. An opposite trend is shown for location 3. These differences are the result of the nearby granite at several of the locations.

In 2005 and 2006, there was a small increase noted at locations 5 and 8 caused by storage of the Unit 2 replaced reactor head. As expected, this increase exhibited a decreasing trend because of radioactive decay. The head was shipped offsite for disposal in the fourth quarter 2006; the measured levels at these two locations have returned to the background levels measured prior to the head being placed in the storage area. Although not measurable, any resulting site boundary doses are bounded by dose rates from radwaste storage areas and are discussed in Section 5.

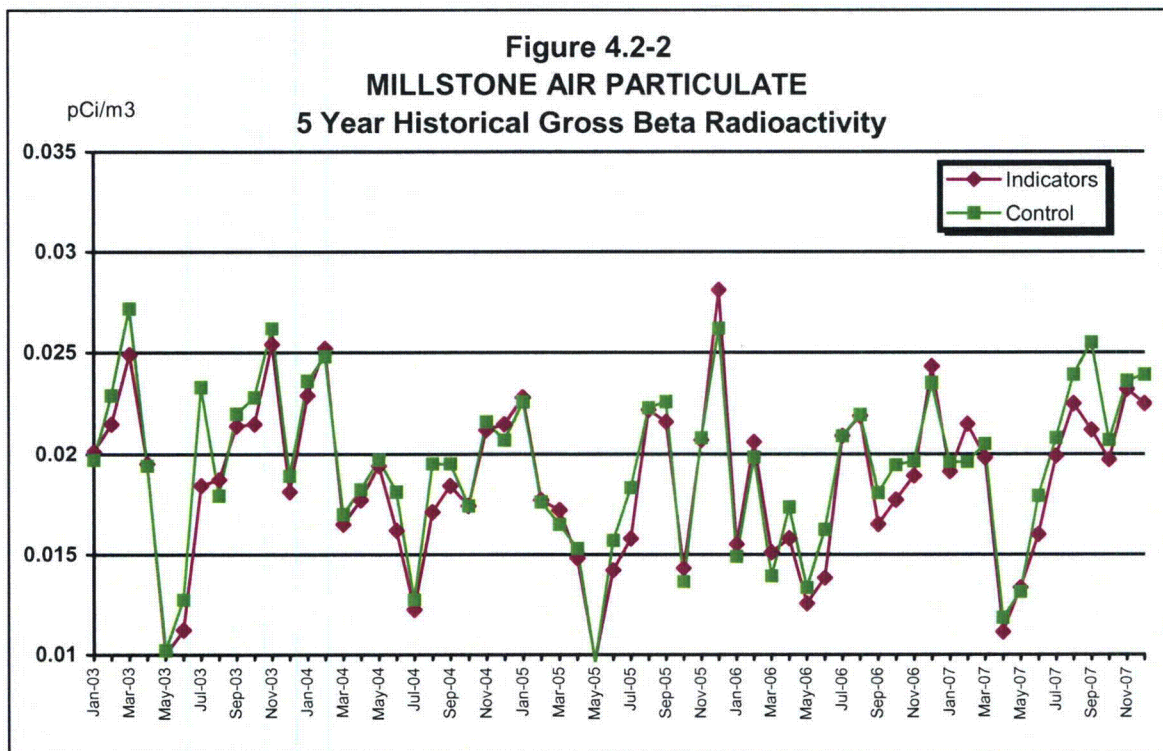
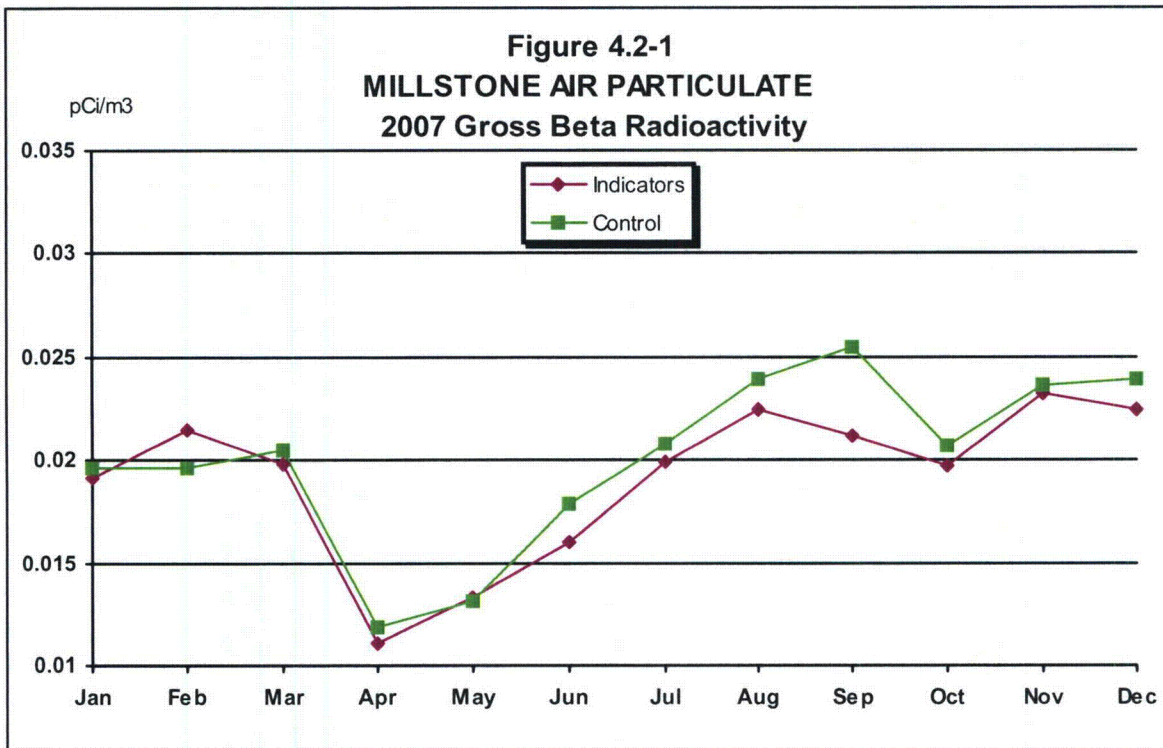


4.2 Air Particulate Gross Beta Radioactivity (Table 2)

Air is continuously sampled at seven inner ring (0 to 2 miles) locations and one control location (14 miles) by passing it through glass fiber particulate filters. These samples are collected weekly and analyzed for gross beta radioactivity. Results are shown on Figure 4.2-1 and Table 2. Gross beta activity remained at levels similar to that seen over the last decade. Inner and control monitoring locations continue to show no significant variation in measured activities (see Figure 4.2-2). This indicates that any station contribution is not measurable.

4.3 Airborne Iodine (Table 3)

Charcoal cartridges are included at all of the air particulate monitoring stations for the collection of atmospheric iodine. These cartridges are analyzed on a weekly basis for I-131. No detectable levels of I-131 were seen in the 2007 charcoal samples.



4.4 Air Particulate Gamma (Table 4A-D)

The air particulate samples that are utilized for the weekly gross beta analyses are composited quarterly and analyzed for gamma emitting isotopes. The results, as shown in Tables 4A - 4D, indicate the presence of naturally occurring Be-7, which is produced by cosmic radiation. No other positive results are seen. These analyses indicate the lack of station effects.

4.5 Air Particulate Strontium (Table 5)

Prior to 1989 Table 5 was used for listing the data for measurements of Sr-89 and Sr-90 in quarterly composite air particulate filters. The historical data indicated the lack of any detectable station related activity. Since these analyses are not listed in NUREG 1301, these measurements were discontinued. In the event of widespread station related contamination or other unusual events (such as the 1986 Chernobyl incident), these measurements could be made. Historically, when world events created conditions that caused detectable measurements of these nuclides, there was no difference noted between indicator and control locations. This further confirms that any of the detectable levels for these nuclides were not plant related.

4.6 Soil (Table 6)

Millstone resumed collection of soil as a required media type in 2001. Prior to 2001, it had not been sampled for over fifteen years. These samples were discontinued due to the fact that, previous sample results never indicated any station related detectable activity. Similarly, since 2001, no station detectable activity has been seen in these samples. The results of these samples, allows for the determination of baseline activity levels in soil. This is particularly important for Cs-137, since significant levels from past weapons testing fallout remain in the soil. Baseline levels should be useful in the future, when site characterization and decommissioning of the station become the focus during preparations for License termination. This media is collected annually from one control and two indicator locations.

4.7 Cow Milk (Table 7)

Typically, the most sensitive indicator of fission product existence in the terrestrial environment is radiological analysis of milk samples. Since milk is a widely consumed food, it is usually one of the most critical exposure pathways. Since 1996 all dairy (cow) farms close enough to Millstone to be considered an indicator location (i.e. conservatively within 10 miles since reference 15 specifies 5 miles) have ceased operation. Therefore, the sampling of cow milk has been discontinued until such time dairy activities in the nearby area resume. Each year the Land Use Census is used to identify locations of milk animals that should be included in the monitoring program. It is performed annually and is maintained by observations, door-to-door surveys and consulting with local agriculture authorities. The 2007 census can be seen in Appendix A. If a new dairy farm is identified close enough to Millstone to be considered an indicator location, the collection of cow milk will resume.

4.8 Goat Milk (Table 8)

When available, these samples are collected twice per month during grazing season and once per month during the rest of the year. Each sample is analyzed for I-131 and gamma emitting nuclides. Although not required by the REMODCM, samples from each location are composited quarterly and analyzed for Strontium.

Goat milk samples are typically a more sensitive indicator of fission products in the terrestrial environment than cow milk samples. It should be noted that the uptake of radionuclides in milk is dependent on a number of parameters. These include: metabolism of these animals, feeding habits, farming practices and feed type. Similar to previous years, Cs-137 and Sr-90 are observed in goat milk. During past weapons testing periods, samples taken at certain milk locations indicated higher uptake of fallout than others. This was especially apparent in past samples collected in the immediate area around Millstone (see previous Annual Operating Reports). One of these sites, located at 5.2 Mi. NNE of Millstone (previous location 22, sampled from 1994 through 2004), exhibited a trend of showing higher Sr-90 and Cs-137 concentrations than at some of the other locations (including ones located closer to Millstone). The station and regulatory authorities have carefully reviewed past and present data. The presence of the Sr-90 and Cs-137 is the result of residual radioactivity deposited into the environment from the fallout of past nuclear weapons testing. The facts that lead to this conclusion are presented in Section 6.0. These facts include: effluent release totals for these isotopes show insufficient quantities to account for such measurements; Sr-89 and Cs-134 which are chemically similar and generally released in comparable quantities were not detected, and a trend since the early 1960's that shows a consistent declining presence of Cs-137 and Sr-90 in milk from Connecticut.

The 2007 results indicate no detectable I-131 in this media. In the 1970's and 1980's low levels of plant related I-131 were seen in some of these samples. However, for over 18 years, no plant related detectable levels of I-131 have been seen in goat milk samples. The only other occasions where I-131 was detected were fallout episodes from the Chinese Weapons Tests of the mid to late 1970's and Chernobyl.

Goat milk was unavailable at all locations both early and late in the year. Per requirements, pasture grass or feed is collected as a substitute when milk is not available (see 4.9. Pasture Grass and Feed).

4.9 Pasture Grass and Feed (Table 9)

When the routine milk samples are unavailable, samples of pasture grass are required as a replacement. These samples may also be taken to further investigate the levels of radioactivity in milk. During the winter months and early spring, insufficient growth often prohibits sampling of pasture grass. Feed (e.g., hay) is typically sampled whenever pasture grass is not available.

No station effects are noted in these samples. Cosmic produced Be-7 was observed in the majority of the pasture grass samples and many of the hay samples. Due to its relatively short half-life (52 days), it was not detected in the several of the "older" hay samples. Naturally occurring K-40 was typically approximately two times higher in hay (compared to pasture grass). Similar to goat milk, the Cs-137 values at the indicator and control locations are comparable. This provides an indication that the levels observed are the result of residual weapons testing fallout

4.10 Well Water (Table 10)

These samples were discontinued in 1985, because no detectable station activity was ever observed in these samples. However, based upon lessons learned at other nuclear plants, including several undergoing decommissioning, sampling was resumed at several locations starting in the fourth quarter 2003. Three additional locations were added in 2005 to monitor potential leakage from the ISFSI. Due to the heightened sensitivity on this potential pathway, three more locations were added in 2006 and five more in 2007. Consistent with the past data, there still has not been any station activity detected in any of these samples.

4.11 Reservoir Water (Table 11)

Reservoir water samples are special samples not required by the REMP. Previous data has shown the lack of detectable station activity in this media. This fact and the extremely unlikely possibility of observing routine station effluents in this media have resulted in discontinuing these samples. In the event of widespread station related contamination, these samples may be collected.

4.12 Fruits and Vegetables (Table 12)

Consistent with past years, this media did not show any station effects. Naturally occurring K-40 was detected in all samples.

4.13 Broad Leaf Vegetation (Table 13)

Consistent with past years, this media did not show any station effects. Most samples had detectable levels of cosmic produced Be-7, at levels consistent with previous years.

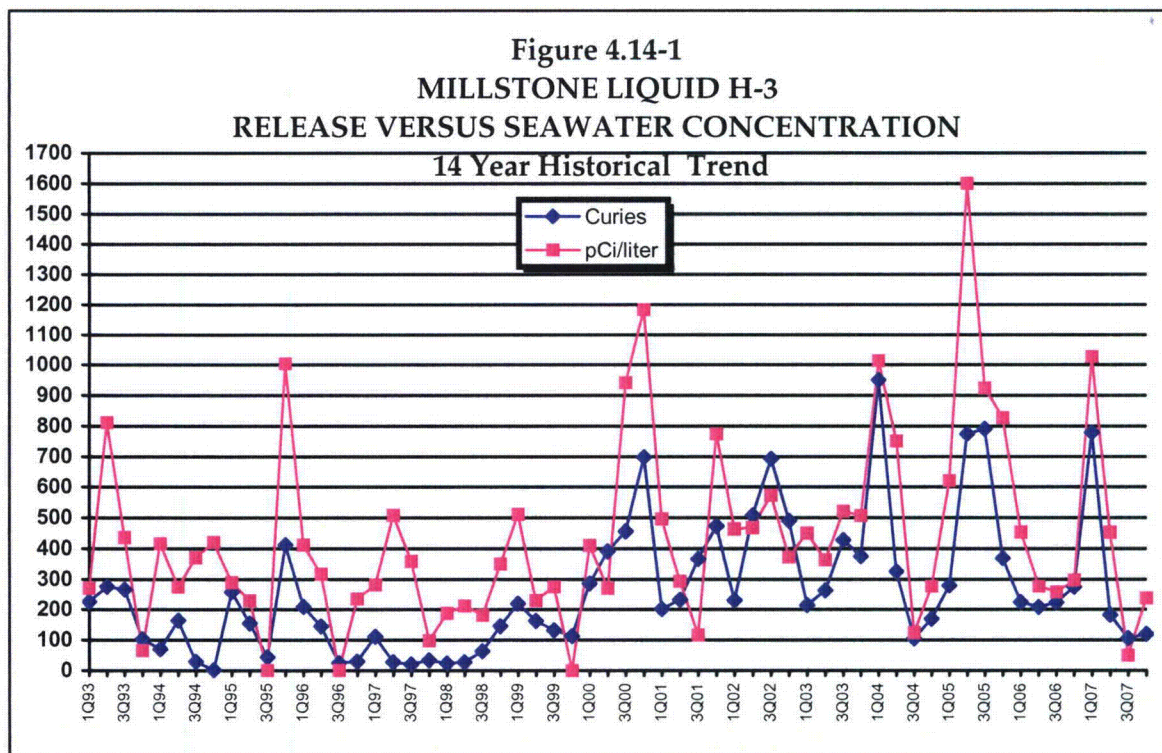
This media can be an early and sensitive indicator of releases from the station for both unplanned releases and normal operations. Therefore, to enhance program-monitoring effectiveness, samples of broadleaf vegetation are collected monthly during the growing season, May - October, even though requirements are to collect this media twice a year.

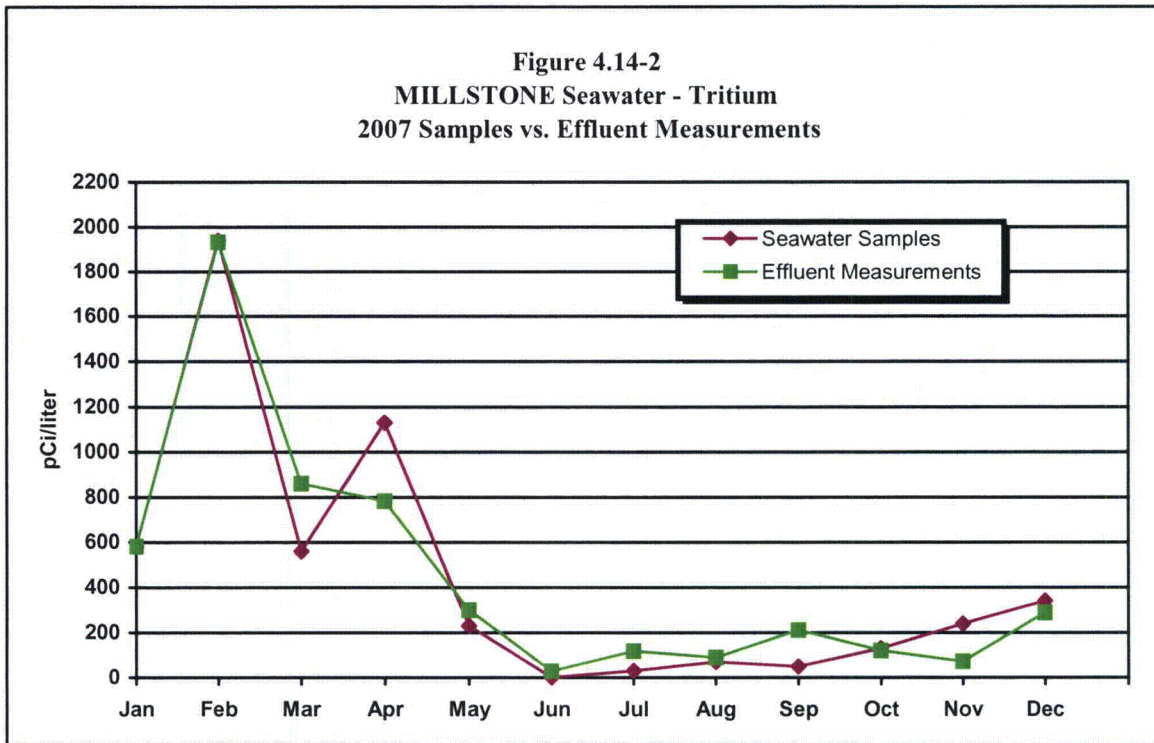
4.14 Seawater (Table 14)

In the vicinity of discharge (location 32), seawater is normally sampled by using a continuous sampler. A technician collects an aliquot from this sampler on a weekly frequency and composites it for monthly analyses. In September 1999, Millstone increased the required analysis frequency for this composite sample to a monthly basis to increase monitoring effectiveness. For the Control Location, Giants Neck (location 37C), six weekly grab samples are obtained for quarterly compositing. In 2003, the LLD for H-3 (tritium) at the indicator location (32) was lowered by approximately a factor of four to further enhance monitoring effectiveness. This lower LLD was continued through 2007.

Naturally occurring K-40 was seen all of the samples. Measured plant related levels of H-3 in seawater from the immediate vicinity of discharge (location 32) were observed in 5 of the 12 samples. These samples are taken directly from liquid effluent flow prior to dilution into the Long Island Sound. Dilution studies performed for this discharge have determined that a dilution factor of 3 is appropriate to estimate concentrations immediately outside the quarry within a near-field area.

Tritium builds up in the reactor coolant during each fuel cycle. It is generated during plant operation from fission and neutron reactions. Between 1992 and 2002, H-3 was not typically detected. However, due to the enhanced detection sensitivity, H-3 levels are now often detected at the indicator location. Figure 4.14-1 shows a fourteen-year trend of H-3 releases in the Millstone liquid effluents versus the measured environmental concentrations from the vicinity of discharge location. As can be noted from the figure, since the restart of Unit 3 in 1998 and Unit 2 in 1999, tritium releases in liquid effluents have risen to levels at, or above, those observed during the pre-shutdown period. The lower LLD enables a direct comparison of effluent monitoring to environmental monitoring for this exposure pathway. Figure 4.14-2 shows this comparison. This comparison is also more accurate than Figure 4.1-1 since it takes into account the dilution flow during each month. Dilution flow can change substantially during plant outages. By plotting the data monthly, the resolution of the comparison is further enhanced, although there can be slight discrepancies due to the REMP sample not necessarily being on the last day of each month.





4.15 Bottom Sediment (Table 15)

Cs-137 was detected one sample from Golden Spur (67X). This is typical for this location, since it is a fresh water area. The levels of Cs-137 at this location are comparable to those observed in past river water sediments taken from other areas of the Connecticut River. Because of the relative distance and direction of the Golden Spur location from the station and comparable levels seen the much farther river water locations, the Cs-137 detected at Golden Spur is from weapons testing fallout.

In previous years, Cs-137 was also detected in the extra samples from Jordon Cove Bar (39X). Although these levels have decreased to below detectable, they are still similar to those at Golden Spur. These low levels likely exhibit some effect of the fresh water drainage from Jordan Brook.

Also in previous years, samples from Jordan Cove Bar indicated detectable quantities of Co-60. Just like the levels of Cs-137, the Co-60 levels have decreased to just below detectable. Somewhat higher levels were noted in 2004 – 2006 and similar levels noted in 2003. Prior to 2003, plant related activity had not been detected in bottom sediment for over a decade. Bottom sediment is not a significant dose pathway to man, especially at areas not typically used by the public. Examinations of other aquatic media, including seafood, sampled from near these locations (discussions that follow) do not show any detectable Co-60 or Cs-137.

A new sediment location was added in 2006 near the closest public beach (location 69X). The data for this location again did not indicate any plant related activity.

4.16 Aquatic Flora (Table 16)

Although sampling of this media is not required, it provides useful information since it is a very sensitive indicator of radioactivity in the environment. Low levels of activity (e.g., Mn-54, Co-58, Co-60, Zn-65, I-131 and Ag-110m) have been detected in the past. However, since 2000 levels have decreased to undetectable for all nuclides except for I-131. One positive I-131 measurement was noted in 2004, several in 2005 and in 2006 and one in 2007. There has been a decrease in liquid releases from the station, which has caused all except the I-131 to become undetectable. The I-131 levels noted in 2004 through 2007 have been determined to be caused by medical usage. Seaweed has a significant bioaccumulation factor for iodine which makes it an extremely sensitive indicator of iodine in the environment.

Initial investigation of the positive measurement from the September 14, 2005 sample (CR-05-10353) indicated that the I-131 activity may have been caused by low levels in recent releases. Additional follow-up samples were taken on November 7, 2005, prior to a Unit 2 liquid discharge and on November 8, 2005 after a Unit 2 liquid discharge. These extra samples seemed to confirm the effect from a liquid discharge. The I-131 levels were quite low and are often hidden within the counting statistics. However, further follow-up in 2006 included sampling in the Thames River and at Rocky Neck to determine if there may have been other sources for the I-131. These extra samples indicated the most likely cause for the 2004 – 2007 positive I-131 results was outfall from wastewater (sewage) treatment plants. The usage of I-131 in medical treatments is becoming more common and it is not unusual for it to be in wastewater. The New London Waste Water Treatment Plant is located on the west side of the Thames River near Fort Trumbull. Groton has two wastewater treatment plants, one located across the Thames River (and slightly upstream) from the New London treatment plant and the other near Bluff Point. The highest I-131 results were in the samples from the Thames River, which were taken near the outfall from the New London Waste Water Treatment Plant. There was no I-131 detected in any of the other aquatic (fish and shellfish) samples. No Station potentially related radioactivity was detected in aquatic flora in 2007.

4.17 Fish (Tables 17A and 17B)

4.17.1 Flounder (Table 17A)

The activity in Flounder is the same as that seen for the past decade. No activity was observed except for the naturally occurring nuclides.

4.17.2 Fish - Other (Table 17B)

The activity in other fish is the same as that seen for the past decade. No activity was observed in this media except for naturally occurring nuclides, including samples taken from within the quarry.

4.18 Mussels (Table 18)

Similar to the last several years, this sampling media showed no station related radioactivity at all locations.

4.19 Oysters (Table 19)

All locations, except for the quarry, utilize oysters stocked in trays. The oysters used for stocking these trays have been obtained from location 68Z for the last several years. To confirm that the stocked oysters are not initially contaminated, the oysters from location 68Z have also been analyzed. The stocked trays are kept at most of the sampling areas to guarantee samples and facilitate sample collection. Native oysters are sampled at the quarry (location 40X), which is an extra location. Due to safety concerns about diving operations, sampling at location 40X was suspended after the 2nd quarter samples.

Station related Ag-110m was observed in the two samples from the Quarry (40X). No station related activity was observed in samples from location 32 and from beyond the station discharge area. Although location 32 is labeled as the vicinity of discharge, it has actually been located at the end of the quarry until last year when it was moved to a more accessible area in the middle of the quarry. This was also done to address safety concerns.

For several previous years, high levels of Zn-65 were observed in oysters. This was caused by their high capacity for accumulating zinc. Studies have shown that oysters can accumulate as much as 50 times or more the amount of zinc compared to most other seafood (Wolfe, 1979). A remarkable correlation existed between the Zn-65 concentration measured in the native quarry oysters and the amount of Zn-65 discharged into the environment. However, since the permanent shutdown of Millstone Unit 1 in 1996, the amount of Zn-65 in liquid effluents has decreased to being undetectable in the station discharges. Starting in 2001, no Zn-65 has been released in liquid effluents and no Zn-65 has been detected in oysters. Figure 4.19-1, shows the historical trend that existed between Zn-65 releases and measured concentrations in quarry oysters. The decreasing trend in effluent radioactive releases is apparent in both the curies released and the measured concentrations in oysters.

Figure 4.19-2 shows the trend of Ag-110m concentration in quarry oysters compared to the liquid effluents discharged. Similar to Zn-65, the correlation between Ag-110m discharged and the Ag-110m concentration measured in the native quarry oysters is apparent. Section 5 provides for a comparison of doses based upon effluent measurements (method 1) to doses based upon environmental measurements (method 2). Per regulatory guidance (reference 7), the bioaccumulation factors for both Zn and Ag were adjusted based upon several years of historical data to account for the higher measured uptakes. These adjustments have typically shown good agreement between the two methods, with method 1 usually being conservative. The 2006 and 2007 data indicate an unusual trend (see Section 5, Table 5-2). Method 2 (REMP dose assessment) indicates higher doses than method 1 (effluent dose assessment). Due to significant effluent reductions over the last several years, the low resulting doses (0.0064 mrem) make this comparison difficult and subject to significant error. Trending of these comparisons is routinely performed and adjustments are made, if appropriate.

Because no station activity was observed at locations beyond the station discharge area and since the two locations in the quarry are on-site and not available for public use, the actual concentration of the nuclides in oysters available for public consumption is much less. The near-field dilution factor for liquid discharges from the Millstone quarry discharge is a factor of 3. The dose consequence of the station related radioactivity via this pathway is discussed in Section 5.0.

4.20 Clams (Table 20)

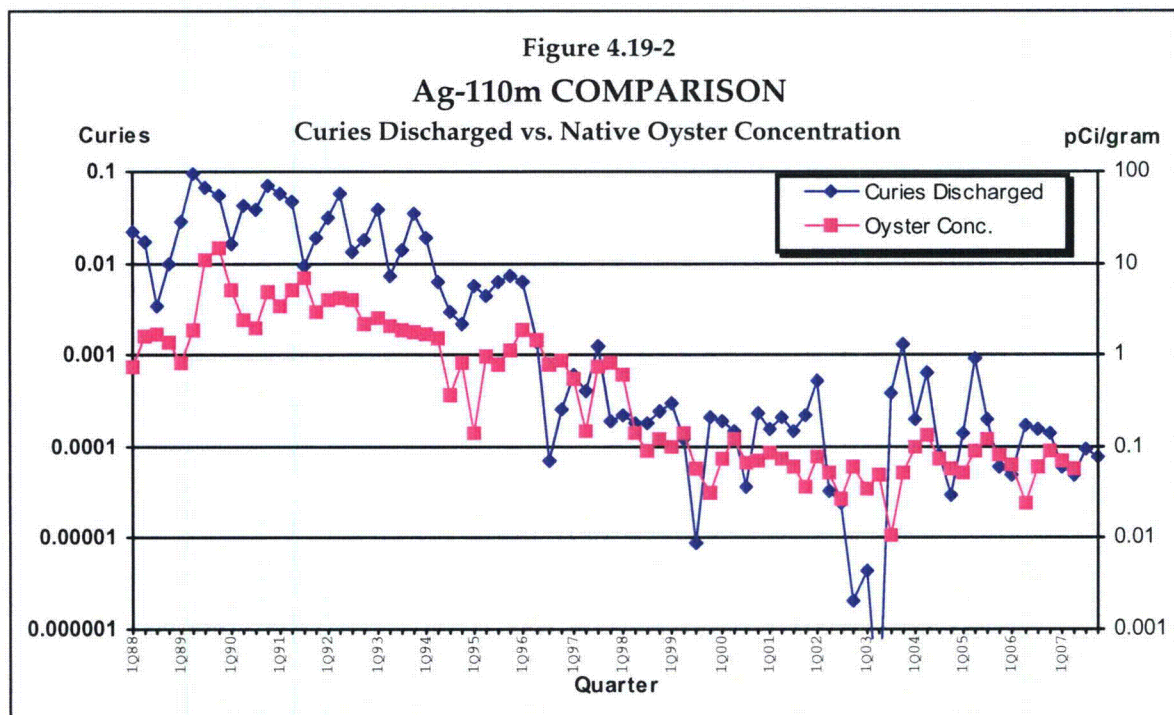
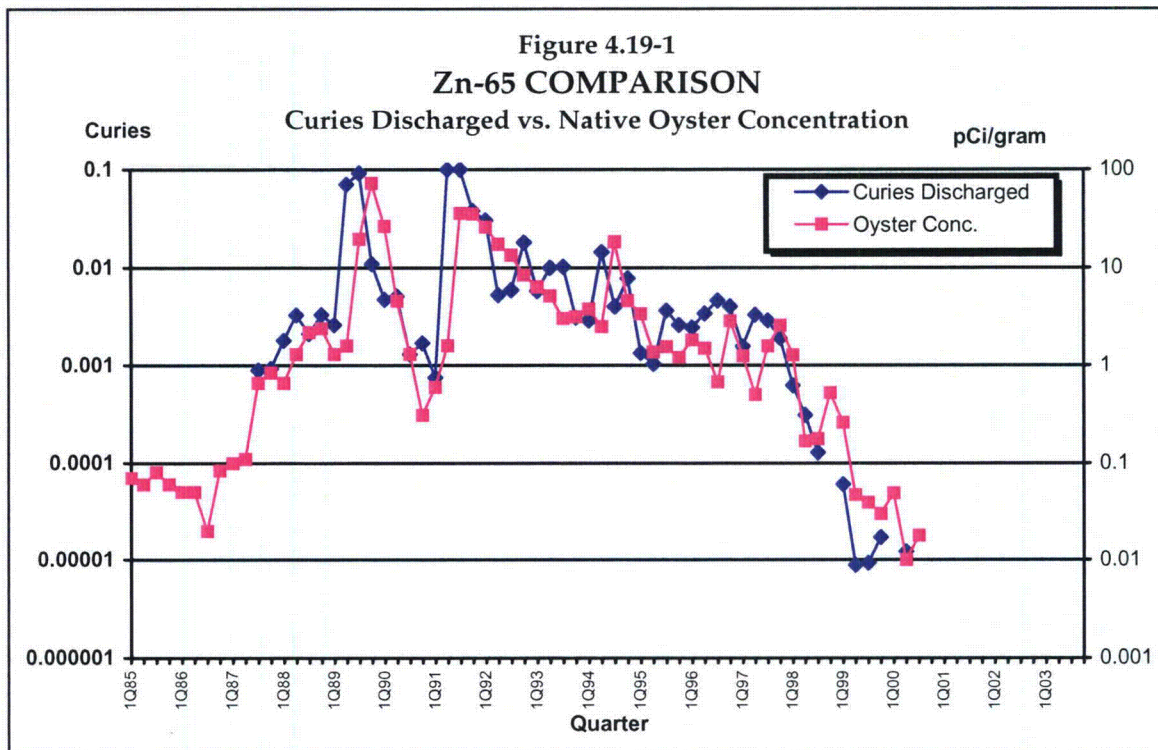
Occasionally this media indicates the presence of station related radioactivity. No station related radioactivity was observed in any of the clam samples taken in 2007.

4.21 Scallops (Table 21)

Scallops are not required by the REMP. However, attempts are made to sample this media to confirm station effects because scallops are available for public consumption. No scallop samples have been available for several years.

4.22 Lobsters (Table 22)

Like the last several years, no station related radioactivity was detected in this sample media in 2007.



5. OFFSITE DOSE EQUIVALENT COMMITMENTS

The off-site dose consequences (dose equivalent commitments) of the station's radioactive liquid and airborne effluents have been evaluated using two methods.

The first method utilizes calculations of direct dose from sources onsite and the station's measured radioactive discharges as input parameters into conservative models to simulate the transport mechanism through the environment to man. This results in the calculation of the maximum dose consequences to individuals. The results of these computations have been submitted to the NRC in the Radioactive Effluent Release Report written in accordance with the Radiological Effluent Monitoring and Offsite Site Calculation Manual, Section I.F.2. This method, which is usually conservative (i.e., computes higher doses than that which actually occur), has the advantage of approximating an upper bound to the dose consequences. This is important in those cases where the actual dose consequence cannot be measured because they are so small as to be well below the capabilities of conventional monitoring techniques.

The second method utilizes the actual measurements of the concentrations of radioactivity in various environmental media (e.g., fish, shellfish) and then computes the dose consequences resulting from the consumption of these foods.

The results of both methods are compared in Table 5.1 for those pathways where a potential dose consequence exists and a comparison is possible. The doses presented in this table are calculated at the location of maximum effect from the station effluents for that pathway and for the critical age group. For example, the external gamma dose from gaseous effluents is calculated for the site boundary location which is not only the nearest but also has the greatest directional wind frequency and fish and shellfish doses are calculated assuming they are from an area within 500 feet of the station discharge.

Summarizing the data in Table 5.1:

MAXIMUM TOTAL INDIVIDUAL DOSES :	WHOLE BODY = 0.21 mrem
	GI(LLI) = 0.0064 mrem
	Thyroid = 0.129 mrem

The majority of the whole body dose is due to a conservative determination of dose (≈ 0.18 mrem) to the nearest resident as a result of direct radiation from on-site radioactive waste operation/storage facilities and continuous occupancy. The GI(LLI) dose is essentially all attributable to the liquid pathway based upon Method 2. The thyroid dose is based upon conservative assessments using Method 1. Since the maximum dose consequence to an individual is at the location of highest dose consequence, doses will be less for all other locations. The average whole body dose to an individual within 50 miles historically is on the order of 1000 times less than the maximum individual whole body dose.

In order to provide perspective on the doses in Table 5.1, the standards on the allowable maximum dose to an individual of the general public are given in 40CFR190 as 25 mrem whole body, 75 mrem thyroid, and 25 mrem to any other organ. These standards are a fraction of the normal background radiation dose of approximately 284 mrem per year and are designed to be inconsequential in regard to public health and safety. Since station related doses are even a smaller fraction of natural background, they have insignificant public health consequences. In fact, the station related doses to the maximum individual are less than 10% of the variation in natural background in Connecticut.

TABLE 5.1
COMPARISON OF DOSE CALCULATION METHODS
MILLSTONE POWER STATION
2007 Annual Dose (millirem)

Pathway	Individual	Organ	Method 1 ⁽¹⁾				Method 2 ⁽¹⁾
			Unit 1 (BWR)	Unit 2 (PWR)	Unit 3 (PWR)	Station Total	Station
<i>Airborne Effluents</i>							
1. External Gamma Dose (gamma air) ⁽⁸⁾	Max ⁽²⁾	Whole Body	0.0000	0.00030	0.0037	0.0040	ND ⁽³⁾
2. Whole Body Dose (internal and external)	Max ⁽²⁾	Whole Body	0.00067	0.0019	0.026	0.029	ND
3. Inhalation, vegetables and goat milk	Max ⁽²⁾	Thyroid	0.00066	0.0049	0.123	0.129	ND
<i>Direct Dose</i>							
Nearest Residence	Max ⁽²⁾	Whole Body	N/A	N/A	N/A	~0.18 ⁽⁴⁾	<1.8 ^(5,8)

TABLE 5.1 (Cont.)
COMPARISON OF DOSE CALCULATION METHODS
MILLSTONE POWER STATION
2007 Annual Dose (millirem)

Pathway	Max Individual	Organ	Method 1 ⁽¹⁾				Method 2 ⁽¹⁾
			Unit 1 (BWR)	Unit 2 (PWR)	Unit 3 (PWR)	Station Total	Station
Liquid Effluents							
1. Fish	* Adult	Whole Body	0.000000	0.000088	0.000433	0.000521	ND ⁽³⁾
	Teen	"	0.000000	0.000069	0.000355	0.000424	
	Child	"	0.000000	0.000061	0.000329	0.000390	
	* Adult	GI(LLI) ⁽⁶⁾	0.000000	0.000239	0.001176	0.00142	ND
	Teen	"	0.000000	0.000174	0.000867	0.00104	
	Child	"	0.000000	0.000077	0.000437	0.00052	
	Adult	Liver	0.000000	0.000149	0.000660	0.000810	ND
	* Teen	"	0.000000	0.000147	0.000606	0.000752	
	Child	"	0.000000	0.000135	0.000549	0.000684	
2. Shellfish	* Adult	Whole Body	0.000000	0.000047	0.000228	0.000274	0.000009 ⁽⁷⁾
	Teen	"	0.000000	0.000045	0.000216	0.000260	0.000010
	Child	"	0.000000	0.000053	0.000251	0.000303	0.000011
	* Adult	GI(LLI)	0.000000	0.000616	0.000876	0.00149	0.0064 ⁽⁷⁾
	Teen	"	0.000000	0.000413	0.000642	0.00107	0.0044
	Child	"	0.000000	0.000161	0.000276	0.00044	0.0016
	Adult	Liver	0.000000	0.000124	0.000567	0.000691	0.000016 ⁽⁷⁾
	* Teen	"	0.000000	0.000130	0.000581	0.000711	0.000016
	Child	"	0.000000	0.000129	0.000578	0.000708	0.000013

Notes:

1. Except for direct dose, method 1 uses measured station discharges and meteorological data as input parameters to transport-to-man models that conservatively calculate dose to people; method 2 uses actual measured concentrations in environmental media to estimate the dose.
2. Maximum individual - The maximum individual dose is the dose to the most critical age group at the location of maximum concentration of station related activity. The dose to the average individual is much less than the maximum individual dose.
3. ND - Not Detectable - No station related activity could be detected above natural background or above the minimum detectable level (MDL).
4. The dominant source of direct dose from the station is from storage and movement of radioactive waste. Storage of radioactive waste is allowed in several areas onsite. Operation of the storage facilities is limited by design to ensure that the maximum direct dose at the site boundary from each area does not exceed one millirem. Actual exposure throughout the year was maintained much less than this operational limit. Each facility is monitored onsite by the Radiation Protection Department using TLDs. The exposure measured for each facility TLD was corrected for distance to the nearest site boundary residence. The resultant exposure was conservatively multiplied by 1.5 to account for sky-shine. These maximum estimated doses from each facility were summed for a cumulative site commitment of approximately 0.18 millirem. The whole body dose from airborne effluents was 0.029 and from liquid effluents was 0.0008. This results in a total estimated whole body dose to the maximum individual of 0.21 mrem ($0.18 + 0.029 + 0.0008$).
5. Measured dose was derived from monthly TLD readings. There are two residences that qualify as the closest residence; each has a TLD near enough to use as an estimate to each residence. The one with the highest average dose rate was used to estimate the direct dose to the closest residence. A background dose rate was subtracted. This background was derived from the average of the five control TLD locations. This method is very conservative assuming natural exposure influences, such as granite, are actually plant related exposure. This method provides a bounding high value. The exposure measurements of the select indicator locations are influenced by natural background exposure differences caused by the many granite out-croppings typical of the Millstone area. Historical data has shown that TLD sample locations in the vicinity of granite can be dramatically influenced by natural radioactivity contained within the granite.
6. GI (LLI) - Gastrointestinal Tract - Lower Large Intestine.
7. Based on measured levels in the native quarry oysters. A measured near field dilution factor of 3 was used to adjust for the fact that these oysters are on-site and inaccessible to the public. This factor adjusts the measured on-site concentration to that which could occur to a public accessible off-site location after dilution of the effluent by the Long Island Sound. The measured levels in the stocked oysters within the quarry were about one-half the native quarry oysters. For conservatism, it was assumed the maximum individual consumed primarily oysters (activity in clams was much lower than in the oysters).
8. Based upon the conservatively assuming no correction for building shielding and occupancy.

6. DISCUSSION

The evaluation of the effects of station operation on the environment requires the careful consideration of many factors. Those factors depend upon the media being affected. They include station release rates, effluent dispersion, occurrence of nuclear weapons tests, seasonal variability of fallout, local environment, and locational variability of fallout. Additional factors affecting the uptake of radionuclides in milk include soil conditions (mineral content, pH, etc.), quality of fertilization, quality of land management (e.g., irrigation), pasturing habits of animals, and type of pasturage. Any of these factors could cause significant variations in the measured radioactivity. A failure to consider these factors could cause erroneous conclusions.

Consider, for example, the problem of deciphering the effect of station releases on the radioactivity measured in milk samples. This is an important issue because this product is widely consumed and several fission products readily concentrate in this media. Some of these fission products, such as I-131 and Sr-89 are relatively short-lived. Therefore they can result from either station effluents, nuclear weapons tests or nuclear incidents (e.g. Chernobyl). Sr-89's lifetime is longer than I-131's, therefore it will remain around for much longer periods of time. The even longer-lived fission products, Sr-90 and Cs-137, cause more of a concern. These isotopes are still remaining from the weapons testing era of the 1960's. This results in measurable amounts of Sr-90 and Cs-137 appearing in some milk samples. Distinguishing between this "background" of fallout activity and station effects is of prime interest for a Radiological Environmental Monitoring Program.

In reviewing the historical and present Sr-90 and Cs-137 measured in cow and goat milk in the areas around Millstone station, a casual observer could notice that in some cases the levels of these isotopes are higher at farms closer to the station than at those further away from the station. The station's effluents might at first appear to be responsible. However, the investigation of the following facts proves this conclusion wrong.

- (1) The stations accurately measure many fission products, including Sr-90 and Cs-137 in their releases. Based on these measurements and proven models developed by the Nuclear Regulatory Commission, concentrations in the environment can be calculated. These calculations (generally conservative, see Section 5.0) show that insufficient quantities of Sr-90 and Cs-137 have been released from the plants to yield the measured concentrations in milk.
- (2) Over the many years of station operation, Sr-89 has often been released in comparable quantity to Sr-90. Since they are chemically similar, comparable levels should have been detected in milk if the Sr-90 was station related. No station related Sr-89 has ever been detected in milk samples.
- (3) Similar to Sr-89, Cs-134 can be used as an indication of station related Cs-137. Although not as conclusive as Sr-89, the lack of any measurable Cs-134 in any of the milk samples suggests that the Cs-137 is not station related. This is further confirmed by the evaluation of the air particulate data. The only occurrences of detectable Cs-134 in milk resulted from the Chernobyl incident.
- (4) Dairy milk sampling in Connecticut began in the 1960's, several years prior to nuclear station operation. The highest levels of weapons fallout related Sr-90 and Cs-137 (see Figures 6-1 and 6-2), were measured in the years prior to station operation. Samples taken in the immediate station areas have always shown higher levels of weapons related fallout than samples taken from the Central Connecticut Region (CT Pooled Milk). Radioactivity levels of fallout related Sr-90 and Cs-137 have decreased significantly since the 1964 Nuclear Test Ban Treaty due to decay.

- (5) Local variability of Sr-90 and Cs-137 in milk is common throughout the United States. Due to the variability in soil conditions, pasturing methods, rainfall, etc., it is the rule rather than the exception. Therefore, it is not surprising that certain farms have higher levels of radioactivity than other farms. In fact, in the past there are some cases where the farms further from the station have higher Sr-90 and Cs-137 values than the farms that are closer to the station.
- (6) In the past when a goat farm operated near Millstone (2.0 Mi - ENE), the highest levels of Sr-90 and Cs-137 were typically indicated. This same farm also experienced the highest levels of short-lived activity from the 1976 and 1977 Chinese Tests and the 1986 Chernobyl accident. This indicates that for some unknown reason this farm had the ability for higher reconcentration. Special studies performed at this and other farms failed to find any link to the station.

Based on these facts, the observation that the station effluents are responsible is obviously false. The cause must be one or more of the other variables.

Dominion has carefully examined the data throughout the years and has presented in this report all cases where station related radioactivity could be detected. An analysis of the potential exposure to the maximum individual from any station related activity has been performed and shows that in all cases the exposure is insignificant.

The Connecticut Department of Environmental Protection (DEP) performs an independent check on certain environmental program analyses. The results of their analyses are comparable to the results from this program's analyses. These comparisons can be used as a cross-reference to verify measured station activity. DEP performed a comprehensive review of all the historical Millstone data in 2006 (reference 17). It concluded that "the collective sampling in and around Millstone Power Station show expected levels of residual fallout from weapons testing and the Chernobyl event and are unrelated to the operation of the Millstone Power Station."

Figure 6-1 Strontium-90 in Milk

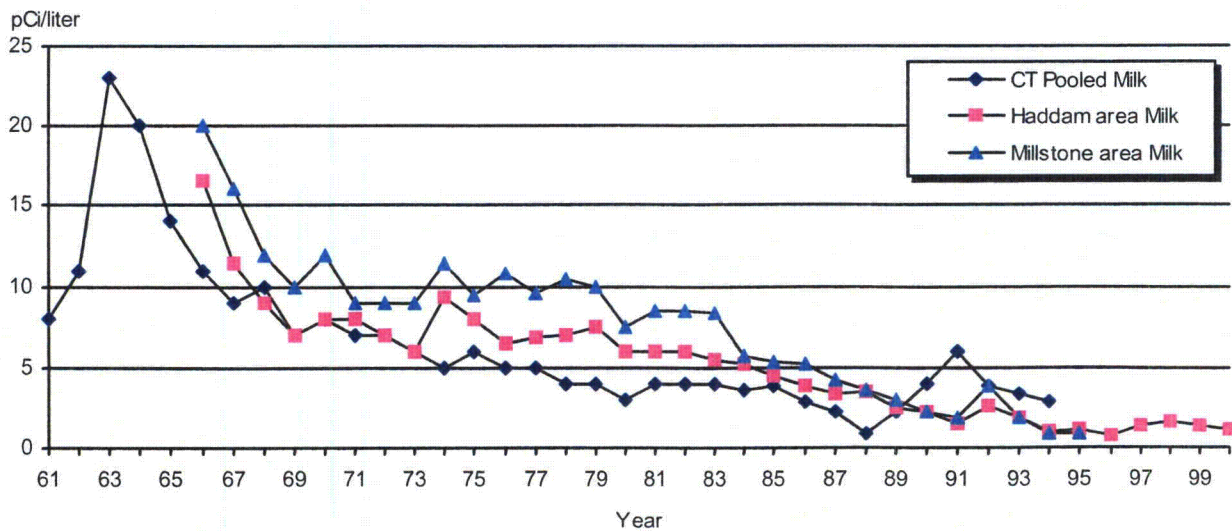
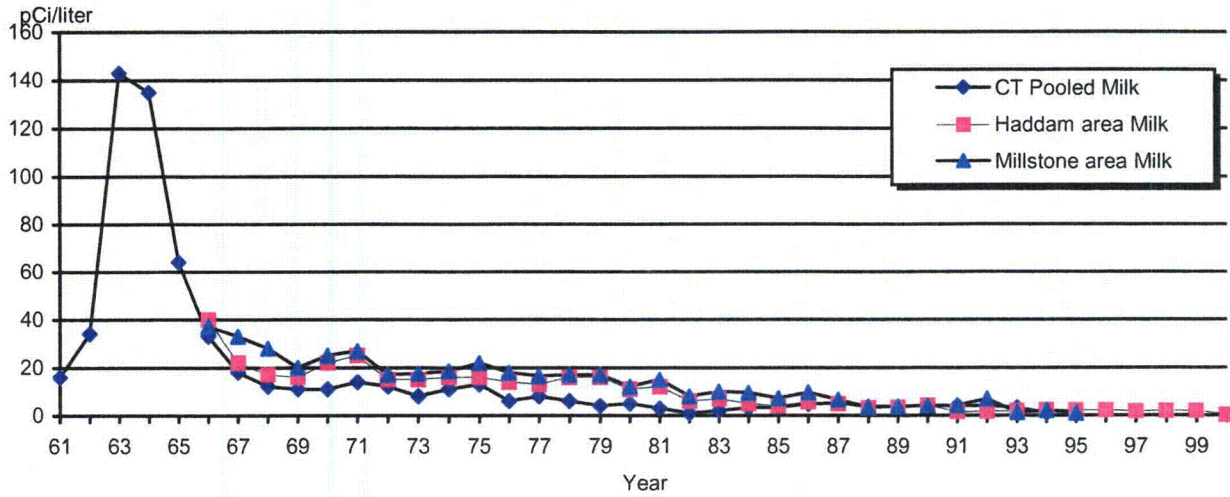


Figure 6-2 Cesium-137 in Milk



Dairy milk is no longer available in the Millstone area, Haddam Neck no longer collects milk, and CT Pooled milk has not been collected by the State of CT since 1994. Graphs provided to show historical trends.

CY Start-up occurred: July 24, 1967
 MP1 Start-up occurred: October 26, 1970

MP2 Start-up occurred: December, 1975
 MP3 Start-up occurred: January 23, 1986

7. REFERENCES

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- 3) National Council on Radiation Protection and Measurements, Report No. 93, "Ionizing Radiation Exposures of the Population of the United States," September 1987.
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- 6) Millstone Training Brochure.
- 7) United States Nuclear Regulatory Commission, Regulatory Guide 1.109, "Calculation of Annual Doses to Man from Routine Releases of Reactor Effluents for the Purpose of Evaluating Compliance with 10 CFR Part 50, Appendix I," Revision 1, October 1977.
- 8) Millstone Power Station Radiological Effluent Monitoring and Offsite Dose Calculation Manual, Revision 025-02, December 2006.
- 9) United States of America, Code of Federal Regulations, Title 10, Part 20.1301.
- 10) United States of America, Code of Federal Regulations, Title 10, Part 50, Appendix I.
- 11) United States of America, Code of Federal Regulations, Title 40, Part 190.
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- 13) ICN/Tracerlab, "Millstone Nuclear Power Station Pre-operational Environmental Radiation Survey Program, Quarterly Reports," April 1967 to June 1970.
- 14) International Commission of Radiological Protection, Publication No. 43, "Principles of Monitoring for the Radiation Protection of the Population," May 1984.
- 15) United States Nuclear Regulatory Commission, NUREG-1301, "Offsite Dose Calculation Manual Guidance: Standard Radiological Effluent Controls for Pressurized Water Reactors," April 1991.
- 16) United States Nuclear Regulatory Commission, Branch Technical Position, "An Acceptable Radiological Environmental Monitoring Program," Revision 1, November 1979.
- 17) Reassessment of Millstone Power Station's Environmental Monitoring Data, Connecticut Department of Environmental Protection, Division of Radiation, March 2006.

APPENDIX A

LAND USE CENSUS FOR 2007

TABLE A-1

Dairy Cows Within 20 miles of Millstone Point- 2007

Direction	Distance	Location	# of Cows
N	14 Miles	Preston	60*
N	20 Miles	Norwich	350
NNE	16 Miles	Norwich	100
NNE	17 Miles	Preston	270
NNE	18 Miles	Preston	300*
NNE	19 Miles	Preston	135
NE	13.5 Miles	Ledyard	50*
NE	18 Miles	Preston	105
NE	18 Miles	North Stonington	150
NE	19 Miles	North Stonington	100
ENE	17.3 Miles	North Stonington	300
ENE	20 Miles	North Stonington	500
WNW	10.5 Miles	Lyme	200
NW	10.4 Miles	Lyme	5
NNW	12.4 Miles	Salem	2

Note: No cow farms on this list are used for sampling, all farms are greater than ten miles from plant.

* unknown (based upon 2005 census)

TABLE A-2

Dairy Goats Within 20 miles of Millstone Point- 2007

Direction	Distance	Sample Location	# of Goats
N	2.4 Miles	Waterford (LOCATION 21)	6/4*
N	20 Miles	North Franklin	2/2
NE	2.7 Miles	Waterford (LOCATION 22)	9/0
ENE	2 Miles	Waterford	1/0
ENE	12 Miles	Stonington	7/3
ENE	13 Miles	Stonington	5/3
WNW	18 Miles	Haddam	6/3
NW	17.3 Miles	East Haddam	1/1
NNW	12.3 Miles	Salem	50/30
NNW	18 Miles	Colchester	37/20**
NNW	20.8 Miles	Colchester	6/3**
NNW	29 Miles	Hebron (LOCATION 24)	73/36

* Number of Goats/Number of Milkers

** Unable To Contact As Of This Time, 2006 data

TABLE A-3

2007 Resident/Garden Survey

<u>Downwind Direction</u>	<u>Distance to Closest Resident (meters)</u>	<u>Distance to Closest Garden (meters)</u>
N	1500	1490
NNE	860	820
NE	790	800
ENE	1590	1590
E	1500	1670
ESE	1690	1990
SE	*	*
SSE	*	*
S	*	*
SSW	*	*
SW	3700	3840
WSW	3190	3210
W	2870	2950
WNW	2400	2740
NW	770	2180
NNW	740	1020

* N/A - not applicable (over water sectors)

APPENDIX B

DNC QA PROGRAM

INTRODUCTION

Dominion Nuclear Connecticut (DNC) maintains an independent non-required quality assurance (QA) program as part of the radiological environmental monitoring program (REMP). The QA program consists of contractor appraisals and quality control samples. This independent program is applicable to all Dominion nuclear facilities because they share a joint contract with AREVA-NP Environmental Laboratory.

DNC QA PROGRAM

The DNC independent QA Program includes spikes of various sample media and duplicate samples. Sample spikes are a check on the accuracy of results of the contractor's radioanalyses. Duplicate samples tests the contractor's precision, or reproducibility of results, by comparing analytical results of split samples. The number and type of DNC QA Program quality control samples are defined in Millstone Nuclear Power Station Procedure REMP 1.4, "Quality Control of Radiological Environmental Monitoring Program." An investigation is conducted on any result or trend that does not satisfy acceptance criteria.

OTHER QA PROGRAMS

The DNC Independent QA Program is not the only QA Program which monitors REMP radioanalysis performance. Other programs include:

1. Contractor lab's internal QA program. In addition to the Millstone quality control samples, the radioanalysis contractor has its own quality control samples. In total, at least five percent of the contractor's sample analyses include quality control samples.
2. Contractor lab's interlaboratory comparison program with an independent third party, Analytics, Inc. Results of the Analytics intercomparison are contained in Appendix C. Primary contractor participation in an interlaboratory comparison program is required by station Technical Specifications. The Analytics comparison satisfies this requirement.
3. Contractor lab's participation in the National Institute of Standards and Technology (NIST) Measurement Assurance Program (MAP), the Environmental Resource Associates (ERA) Proficiency Test (PT) Program, the Department of Energy (DOE) Quality Assessment Program (QAP), and the Mixed Analyte performance Evaluation Program (MAPEP). The lab participates in these interlaboratory QA programs because of other clients' needs, not because of nuclear power station environmental sample analyses. However, some of these intercomparison samples are also applicable to nuclear power environmental samples.

RESULTS OF MILLSTONE QA PROGRAM FOR CONTRACTOR RADIOANALYSES

Criteria for passing QA sample analysis is that the result be within 20% of the known spike except in the case of Sr-89 or Sr-90 spikes in milk which have to be within 30% of the known spike. To allow more tolerance for lower activity spikes the following alternate criterion may be used: If the two sigma error range of the analyzed result includes the known spike value the result passes.

The Millstone QA Program indicated that the contractor lab's environmental radiological analysis program was adequate in 2007. Results are shown on Table 2. All of the TLD spike tests satisfied the procedural criteria. Of the 67 individual nuclide analysis results on QA samples, 63 passed the acceptance criteria, a 94 % success rate. Of the 4 failures, 3 were low by 21 – 35% and one was low by 56%. The later was caused by plateout problems with the spiked solution. These results are consistent with last year's results.

TABLE 1 2007 QUALITY CONTROL SAMPLES		
<u>SAMPLE TYPE</u>	<u>QC SAMPLES (Note 1)</u>	<u>ROUTINE SAMPLES</u>
TLD Spike	16	160
Milk - Strontium	1	12
Milk - Iodine	4	~30
Milk - Gamma	(Note 2)	~30
Pasture Grass/Hay - Gamma (Milk Substitute)	0	~30
Water - Gamma	6	60
Water - Tritium	4	60
Fish/Invertebrate - Gamma	4	80
Vegetation/Aquatic Flora/Sediment/Soil - Gamma	0	74
Air Particulate - Gross Beta	4	416
- Iodine	4	416
- Gamma	2	32

FOOTNOTE (Table 1):

1. All samples are spikes except fish/invertebrate which are duplicate oyster samples.
2. Gamma in water QA spikes are treated as milk surrogates.

TABLE 2 RESULTS OF 2007 QUALITY CONTROL SAMPLE ANALYSES*		
<u>SAMPLE TYPE</u>	<u>ANALYSES PASSED</u>	<u>ANALYSES FAILED</u>
TLD Spike	16	0
Milk - Strontium	1	0
Milk - Iodine	4	0
Water - Gamma	33	3 (note 1)
Water - Tritium	4	0
Oysters - Gamma	4	0
Air Particulate - Gross Beta	4	0
- Iodine	3	1 (note 2)
- Gamma	10	0
TOTALS	TLDs: 16 Individual Nuclides: 63	TLDs: 0 Individual Nuclides: 4

FOOTNOTE (Table 2):

* To provide a more detailed comparison of pass versus failure, each nuclide was considered for the gamma and strontium analyses.

1. These ranged from 21 to 56 percent low, caused by Ag plateout issues
2. Low by 25%

APPENDIX C

SUMMARY OF INTERLABORATORY COMPARISONS

INTRODUCTION

This appendix covers the Intercomparison Program of the AREVA-NP Environmental Laboratory as required by technical specifications for each Millstone unit. AREVA-NP uses QA/QC samples provided by Analytics, Inc to monitor the quality of analytical processing associated with the Radiological Environmental Monitoring Program (REMP). The suite of Analytics QA/QC samples are designed to be comparable with the pre-1996 US EPA Interlaboratory Cross-Check Program in terms of sample number, matrices, and nuclides. It was modified to more closely match the media mix presently being processed by AREVA-NP and includes:

- milk for gamma (10 nuclides) and low-level (LL) Iodine-131 analyses once per quarter
- water for gamma (10 nuclides) and low-level (LL) Iodine-131 analyses during the 1st and 3rd quarters
- water for Sr-89 and Sr-90 analyses during the 1st and 4th quarters
- water tritium analysis during the 2nd and 4th quarters
- air filter for gamma (9 nuclides) analyses during the 2nd quarter
- air filter for gross beta analysis during the 1st and 3rd quarters
- charcoal filter for I-131 during the 1st and 3rd quarters
- air filter for Sr-89 and Sr-90 analyses during the 2nd and 4th quarters

In addition to the Analytics Intercomparison Program, AREVA-NP also participates in other intercomparison programs which include radionuclides and media similar to those required by the Millstone program. These programs are the National Institute of Standards and Technology (NIST) Measurement Assurance Program (MAP), the Environmental Resource Associates (ERA) Proficiency Test (PT) Program, the Department of Energy (DOE) Quality Assessment Program Program (QAP), and the Mixed Analyte Performance Evaluation Program (MAPEP).

RESULTS

Intercomparison program results are evaluated using AREVA-NP's internal bias acceptance criterion. The criterion is defined as within 25% of the known strontium value for samples containing both Sr-89 and Sr-90 and within 15% of the known value for other radionuclides, or within two sigma of the known value. Any sample analysis result which does not pass the criteria is investigated by AREVA-NP.

Analytics Intercomparison Program results are included on pages C-3 through C-6 for 2007. Since the Fourth Quarter Analytics results are not usually available until mid April, the previous year's results are listed. A total of 113 analysis results were obtained with 109 passing criteria, a 96% success rate. The four failures ranged from 82 to 84% of the known activities.

**AREVA NP ENVIRONMENTAL LABORATORY
ANALYTICS RADIOLOGICAL ENVIRONMENTAL CROSS-CHECK
PERFORMANCE EVALUATION**

Sample Number	Quarter/ Year	Sample Media	Nuclide	Units	Reported Value	Known Value	Ratio E-LAB/ Analytics
E5222-162	4th/2006	Water	H-3	pCi/L	14570	14800	0.99
E5223-162	4th/2006	Water	Sr-89	pCi/L	68.8	72.6	0.95
E5223-162	4th/2006	Water	Sr-90	pCi/L	5.56	5.9	0.94
E5224-162	4th/2006	Filter	Gross Alpha	pCi	63.3	67.2	0.94
E5224-162	4th/2006	Filter	Gross Beta	pCi	209.6	203	1.03
E5225-162	4th/2006	Filter	Ce-141	pCi	179.0	185	0.97
E5225-162	4th/2006	Filter	Cr-51	pCi	277.9	273	1.02
E5225-162	4th/2006	Filter	Cs-134	pCi	89.1	92.7	0.96
E5225-162	4th/2006	Filter	Cs-137	pCi	158.8	149	1.06
E5225-162	4th/2006	Filter	Co-58	pCi	54.0	52.8	1.02
E5225-162	4th/2006	Filter	Mn-54	pCi	71.2	69.8	1.02
E5225-162	4th/2006	Filter	Fe-59	pCi	51.0	50.2	1.02
E5225-162	4th/2006	Filter	Zn-65	pCi	104.3	103	1.01
E5225-162	4th/2006	Filter	Co-60	pCi	166.7	177	0.94
E5226-162	4th/2006	Filter	Sr-89	pCi	69.5	74.2	0.94
E5226-162	4th/2006	Filter	Sr-90	pCi	6.46	6.06	1.07
E5227-162	4th/2006	Milk	I-131LL	pCi/L	71.0	70.8	1.00
E5227-162	4th/2006	Milk	I-131	pCi/L	64.8	70.8	0.91
E5227-162	4th/2006	Milk	Ce-141	pCi/L	277.7	294	0.94
E5227-162	4th/2006	Milk	Cr-51	pCi/L	430.7	433	0.99
E5227-162	4th/2006	Milk	Cs-134	pCi/L	141.4	147	0.96
E5227-162	4th/2006	Milk	Cs-137	pCi/L	233.9	237	0.99
E5227-162	4th/2006	Milk	Co-58	pCi/L	83.1	83.8	0.99
E5227-162	4th/2006	Milk	Mn-54	pCi/L	110.6	111	1.00
E5227-162	4th/2006	Milk	Fe-59	pCi/L	82.3	79.7	1.03
E5227-162	4th/2006	Milk	Zn-65	pCi/L	171.4	164	1.05
E5227-162	4th/2006	Milk	Co-60	pCi/L	273.1	281	0.97
E5228-162	4th/2006	Charcoal	I-131	pCi	84.2	87.1	0.97

**AREVA NP ENVIRONMENTAL LABORATORY
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PERFORMANCE EVALUATION**

Sample Number	Quarter/ Year	Sample Media	Nuclide	Units	Reported Value	Known Value	Ratio E-LAB/ Analytics
E5238-162	1st/2007	Water	Gross Alpha	pCi/L	117	112	1.05
E5238-162	1st/2007	Water	Gross Beta	pCi/L	104	100	1.04
E5239-162	1st/2007	Water	I-131LL	pCi/L	88.3	89.8	0.98
E5239-162	1st/2007	Water	I-131	pCi/L	74.3	89.8	0.83
E5239-162	1st/2007	Water	Ce-141	pCi/L	257	258	1.00
E5239-162	1st/2007	Water	Cr-51	pCi/L	218	213	1.02
E5239-162	1st/2007	Water	Cs-134	pCi/L	93.6	97.1	0.96
E5239-162	1st/2007	Water	Cs-137	pCi/L	197	204	0.97
E5239-162	1st/2007	Water	Co-58	pCi/L	86.2	85.8	1.00
E5239-162	1st/2007	Water	Mn-54	pCi/L	155	158	0.98
E5239-162	1st/2007	Water	Fe-59	pCi/L	87.1	91.7	0.95
E5239-162	1st/2007	Water	Zn-65	pCi/L	886	869	1.02
E5239-162	1st/2007	Water	Co-60	pCi/L	131	132	0.99
E5240-162	1st/2007	Water	Sr-89	pCi/L	127	137	0.92
E5240-162	1st/2007	Water	Sr-90	pCi/L	9.39	9.99	0.94
E5241-162	1st/2007	Charcoal	I-131	pCi	67.6	70.2	0.96
E5242-162	1st/2007	Filter	Gross Alpha	pCi	67.2	69.1	0.97
E5242-162	1st/2007	Filter	Gross Beta	pCi	69.4	61.9	1.12
E5243-162	1st/2007	Milk	I-131LL	pCi/L	85.1	85.2	1.00
E5243-162	1st/2007	Milk	I-131	pCi/L	75.4	85.2	0.88
E5243-162	1st/2007	Milk	Ce-141	pCi/L	294	297	0.99
E5243-162	1st/2007	Milk	Cr-51	pCi/L	226	245	0.92
E5243-162	1st/2007	Milk	Cs-134	pCi/L	104	112	0.93
E5243-162	1st/2007	Milk	Cs-137	pCi/L	228	234	0.97
E5243-162	1st/2007	Milk	Co-58	pCi/L	98.1	98.8	0.99
E5243-162	1st/2007	Milk	Mn-54	pCi/L	184	182	1.01
E5243-162	1st/2007	Milk	Fe-59	pCi/L	109	106	1.03
E5243-162	1st/2007	Milk	Zn-65	pCi/L	1041	1000	1.04
E5243-162	1st/2007	Milk	Co-60	pCi/L	148	152	0.98
E5244-162	1st/2007	Milk	Sr-89	pCi/L	126	137	0.92
E5244-162	1st/2007	Milk	Sr-90	pCi/L	8.85	10	0.88

**AREVA NP ENVIRONMENTAL LABORATORY
ANALYTICS RADIOLOGICAL ENVIRONMENTAL CROSS-CHECK
PERFORMANCE EVALUATION**

Sample Number	Quarter/ Year	Sample Media	Nuclide	Units	Reported Value	Known Value	Ratio E-LAB/ Analytics
E5334-162	2nd/2007	Water	H-3	pCi/L	8520	9040	0.94
E5335-162	2nd/2007	Filter	Gross Alpha	pCi	122.7	125	0.98
E5335-162	2nd/2007	Filter	Gross Beta	pCi	137.9	122	1.13
E5336-162	2nd/2007	Filter	Ce-141	pCi	94.1	107	0.88
E5336-162	2nd/2007	Filter	Cr-51	pCi	230	273	0.84
E5336-162	2nd/2007	Filter	Cs-134	pCi	114.3	129	0.89
E5336-162	2nd/2007	Filter	Cs-137	pCi	86.3	90.1	0.96
E5336-162	2nd/2007	Filter	Co-58	pCi	98.4	106	0.93
E5336-162	2nd/2007	Filter	Mn-54	pCi	83.3	88.5	0.94
E5336-162	2nd/2007	Filter	Fe-59	pCi	79	89.0	0.89
E5336-162	2nd/2007	Filter	Zn-65	pCi	167	178	0.94
E5336-162	2nd/2007	Filter	Co-60	pCi	112	127	0.89
E5337-162	2nd/2007	Filter	Sr-89	pCi	71.4	91.2	0.78
E5337-162	2nd/2007	Filter	Sr-90	pCi	10.1	12.4	0.82
E5338-162	2nd/2007	Milk	I-131LL	pCi/L	73.5	70.1	1.05
E5338-162	2nd/2007	Milk	I-131	pCi/L	75	70.1	1.07
E5338-162	2nd/2007	Milk	Ce-141	pCi/L	168	200	0.84
E5338-162	2nd/2007	Milk	Cr-51	pCi/L	447	512	0.87
E5338-162	2nd/2007	Milk	Cs-134	pCi/L	223	242	0.92
E5338-162	2nd/2007	Milk	Cs-137	pCi/L	165	169	0.98
E5338-162	2nd/2007	Milk	Co-58	pCi/L	203	198	1.02
E5338-162	2nd/2007	Milk	Mn-54	pCi/L	178	166	1.07
E5338-162	2nd/2007	Milk	Fe-59	pCi/L	170	167	1.02
E5338-162	2nd/2007	Milk	Zn-65	pCi/L	343	334	1.03
E5338-162	2nd/2007	Milk	Co-60	pCi/L	238	238	1.00

**AREVA NP ENVIRONMENTAL LABORATORY
ANALYTICS ENVIRONMENTAL CROSS CHECK PROGRAM
PERFORMANCE EVALUATION**

Sample Number	Quarter/ Year	Sample Media	Nuclide	Units	Reported Value	Known Value	Ratio E-LAB/ Analytics
E5430-162	3rd /2007	Water	Gross Alpha	pCi/L	112	109	1.03
E5430-162	3rd /2007	Water	Gross Beta	pCi/L	218	214	1.02
E5431-162	3rd /2007	Water	I-131LL	pCi/L	83.4	80.1	1.04
E5431-162	3rd /2007	Water	I-131	pCi/L	80.2	80.1	1.00
E5431-162	3rd /2007	Water	Ce-141	pCi/L	176	182	0.97
E5431-162	3rd /2007	Water	Cr-51	pCi/L	228	249	0.92
E5431-162	3rd /2007	Water	Cs-134	pCi/L	111	127	0.87
E5431-162	3rd /2007	Water	Cs-137	pCi/L	112	112	1.00
E5431-162	3rd /2007	Water	Co-58	pCi/L	94.3	98.1	0.96
E5431-162	3rd /2007	Water	Mn-54	pCi/L	141	144	0.98
E5431-162	3rd /2007	Water	Fe-59	pCi/L	94.8	95.1	1.00
E5431-162	3rd /2007	Water	Zn-65	pCi/L	186	174	1.07
E5431-162	3rd /2007	Water	Co-60	pCi/L	120	127	0.94
E5432-162	3rd /2007	Charcoal	I-131	pCi	66.5	69.6	0.96
E5433-162	3rd /2007	Filter	Gross Alpha	pCi	86.4	105	0.82
E5433-162	3rd /2007	Filter	Gross Beta	pCi	207	213	0.97
E5434-162	3rd /2007	Milk	I-131LL	pCi/L	87.2	85.2	1.02
E5434-162	3rd /2007	Milk	I-131	pCi/L	82.9	85.2	0.97
E5434-162	3rd /2007	Milk	Ce-141	pCi/L	196	211	0.93
E5434-162	3rd /2007	Milk	Cr-51	pCi/L	282	289	0.97
E5434-162	3rd /2007	Milk	Cs-134	pCi/L	141	147	0.96
E5434-162	3rd /2007	Milk	Cs-137	pCi/L	126	131	0.96
E5434-162	3rd /2007	Milk	Co-58	pCi/L	111	114	0.97
E5434-162	3rd /2007	Milk	Mn-54	pCi/L	171	168	1.02
E5434-162	3rd /2007	Milk	Fe-59	pCi/L	112	111	1.01
E5434-162	3rd /2007	Milk	Zn-65	pCi/L	212	202	1.05
E5434-162	3rd /2007	Milk	Co-60	pCi/L	145	148	0.98
E5435-162	3rd /2007	Milk	Sr-89	pCi/L	89.2	94.9	0.94
E5435-162	3rd /2007	Milk	Sr-90	pCi/L	12.9	13.1	0.98