FERMI 2 NUCLEAR POWER PLANT

DETROIT EDISON COMPANY

OPERATING LICENSE NO. NPF - 43

Fermi 2 - 2008 Annual
Radiological Environmental Operating Report

for the period of
January 1, 2008 through December 31, 2008

Prepared by:

Fermi 2
Radiological Engineering

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Executive Summary

This Annual Radiological Environmental Operating Report is a detailed report on the Radiological Environmental Monitoring Program (REMP) conducted at Detroit Edison's Fermi 2 nuclear power plant from January 1 through December 31, 2008.

Samples collected as part of the REMP program are analyzed by AREVA NP Inc. Environmental Laboratory. Radioactivity measurements for these samples are reported in terms of sample concentration. Standard units of measure for reporting radioactivity are the Curie (Ci) for the amount of activity, and the Roentgen (R) for the amount of radiation exposure in free air. The unit of radioactivity used in this report is the picocurie (pCi). A picocurie is one-one trillionth of a curie. The unit of direct radiation used in this report is milliroentgen (mR). A milliroentgen is one-one thousandth of a roentgen. All radioactivity measurements for samples found to contain radioactivity are reported with a 2 sigma counting error, a standard counting practice. This means that, at a 95% confidence level, the true concentration of the sample lies somewhere between the measured concentration and plus or minus the counting error.

The Radiological Environmental Monitoring Program is divided into four major parts. These four parts are direct radiation monitoring, atmospheric monitoring, terrestrial monitoring, and aquatic monitoring. The results of 2008 data showed that environmental radioactivity levels have not increased from background radioactivity levels detected prior to the operation of Fermi 2.

Direct radiation measurements were taken at 71 locations using thermoluminescent dosimeters (TLD). The average quarterly exposure was 15.1 mR/standard quarter for indicating locations. This average exposure is equivalent to the ambient radiation levels measured prior to the operation of Fermi 2.

Atmospheric monitoring results for 2008 showed only naturally occurring radioactivity and were consistent with levels measured prior to the operation of Fermi 2. No radioactivity attributable to activities at Fermi 2 was detected in any atmospheric samples during 2008.

Terrestrial monitoring results for 2008 of milk, groundwater, and leafy garden vegetable samples, showed only naturally occurring radioactivity and radioactivity associated with fallout from past atmospheric nuclear weapons testing. The radioactivity levels detected were consistent with levels measured prior to the operation of Fermi 2. No radioactivity attributable to activities at Fermi 2 was detected in any terrestrial samples during 2008.

Aquatic monitoring results for 2008 of drinking water, surface water, sediment, and fish, showed only naturally occurring radioactivity and radioactivity associated with fallout from past atmospheric nuclear weapons testing and were consistent with levels measured prior to the operation of Fermi 2. No radioactivity attributable to activities at Fermi 2 was detected in any aquatic samples during 2008.

The operation of Fermi 2 caused no measurable radioactivity in the environment and no adverse effect on the quality of the environment in 2008. Comparisons of 2008 environmental data, past operational data, and preoperational data, show no adverse long-term trends in environmental radiation levels attributable to Fermi 2. In conclusion, the operation of Fermi 2 continues to have no significant radiological impact upon the environment.

Appendix F contains a corrected summary table for the 2007 Annual Radiological Environmental Operating Report. The 2007 report contained the 2006 report's data summary table and the table did not report the isotope Niobium-95.

Radiological Environmental Monitoring Program Results

Direct Radiation Monitoring

Radiation is a normal component of the environment resulting primarily from natural sources, such as cosmic radiation and naturally occurring radionuclides; and to a lesser extent, from manmade sources such as fallout from past nuclear weapons testing. The earth is constantly bombarded by cosmic radiation in the form of high energy gamma rays and particulates. The earth's crust also contains natural radioactive material, such as uranium and potassium-40, which contributes to the background radiation. Direct radiation monitoring primarily measures ionizing radiation from cosmic and terrestrial sources.

Thermoluminescent Dosimeters

Detroit Edison uses thermoluminescent dosimeters (TLDs) to measure direct gamma radiation in the environs of Fermi 2. In this process, ionizing radiation interacts with a phosphor which is the sensitive material in the TLD. Energy is trapped in the TLD material and can be stored for several months or years. This provides an excellent method to measure the dose received over long periods of time. The energy that was stored in the TLD as a result of interaction with radiation is released and measured by a controlled heating process in a calibrated reading system. As the TLD is heated, the phosphor releases the stored energy in the form of light. The amount of light detected is directly proportional to the amount of radiation to which the TLD was exposed. This reading process then rezeros the TLD and prepares it for reuse.

Fermi 2 has 71 TLD locations within a fifteen mile radius of the plant. Of the 71 TLD locations, 16 are located on-site and are not used for comparison with the control locations. These 16 TLDs are affected by Hydrogen Water Chemistry's sky shine and are not representative of off-site dose. The TLDs are thoroughly tested to comply with NRC Regulatory Guide 4.13 and American National Standards Institute's (ANSI) publication N545-1975, which assure accurate measurements under varying environmental conditions before being placed in the field. Indicator TLDs are located within a ten mile radius of the plant and control TLDs are located at a distance that is outside the influence of the plant. While in the field, TLDs are exposed to background radiation and, if measurable, gaseous effluents and direct radiation from Fermi 2. Environmental TLDs are exchanged and processed on a quarterly basis. The TLDs' data are reported in terms of milliroentgen per standard quarter (mR/std qtr), with a standard quarter being 91 days. Regardless of the duration of TLD exposure in the field, the data have been normalized to a standard quarter to allow convenient intercomparisons with the net value.

In 2008, the average exposure for TLDs at all off-site indicator locations was 15.1 mR/std qtr and for all control locations was 13.9 mR/std qtr. These exposures are consistent with preoperational and past operational measurements as shown in Figure 1.

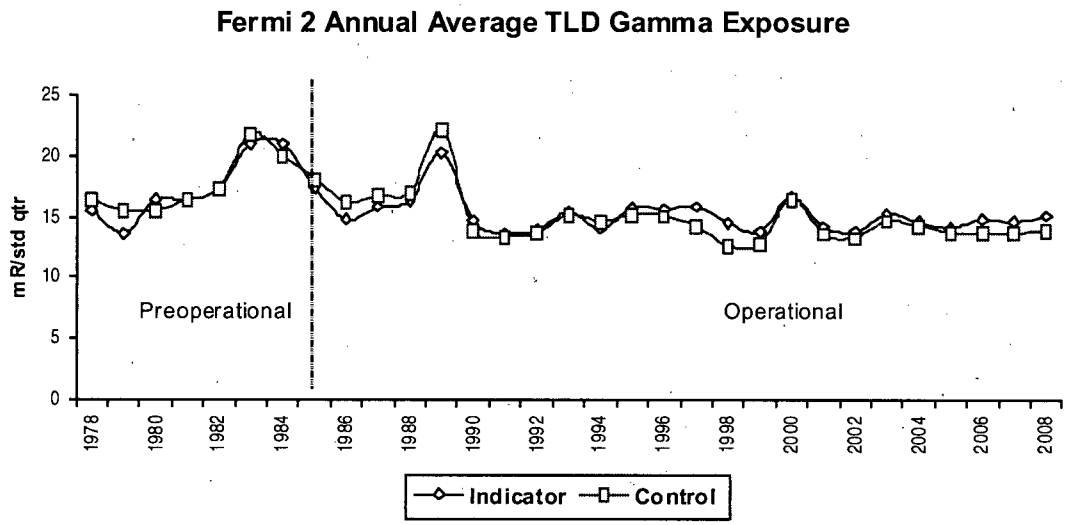


Figure 1 - Fermi 2 Annual Average TLD Gamma Exposure: The similarity between indicator and control results demonstrates that the operation of Fermi 2 has not caused any abnormal gamma exposure.

Atmospheric Monitoring

A potential exposure pathway to people is inhalation of airborne radioactive materials. Detroit Edison continuously samples the ambient air surrounding Fermi 2 for radioactivity. Air sampling began in 1979 during the preoperational program. At each sampling location, a mechanical air sampler is used to draw a continuous volume of air through two filters designed to collect particulates and radioiodines. Air samples are collected weekly and analyzed for gross beta radiation and iodine-131 gamma radiation. The particulate filters for each sampling location are combined on a quarterly basis to form a "composite sample" and are analyzed for gamma emitting radionuclides. There are four indicator sampling locations which were selected based on an evaluation of the predominant wind directions. A fifth sampling location is approximately fourteen miles west of the plant and is considered to be in a location unaffected by the operation of the plant. This is used as the control location.

Air Sampling

On October 16, 1980, the People's Republic of China conducted an atmospheric nuclear weapon test. The fallout from this test was detected in Fermi 2 preoperational environmental air samples in 1981 (see Figure 2). The average gross beta for 1981 was 1.60E-1 pCi/cubic meter for indicator samples and 2.40E-1 pCi/cubic meter for control samples which was a factor of ten times greater than background gross beta. Gamma spectroscopic analyses of the particulate filters indicated cesium-137, cerium-141, cerium-144, ruthenium-103, ruthenium-106, zirconium-95, niobium-95, manganese-54, and antimony-125 in the atmosphere as a result of this test. In 1986, as shown in Figure 2, there was a slight increase in gross beta activity and a 2.70E-1 pCi/cubic meter "spike" in the iodine-131 activity. These elevated levels in 1986 are attributed to the nuclear accident at Chernobyl on April 26, 1986. For all other years, the iodine-131 activity was below the lower limit of detection (LLD) of 7.0E-2 pCi/cubic meter.

During 2008, two hundred and sixty (260) particulate air filters and charcoal cartridges were collected and analyzed for gross beta activity and iodine-131 respectively. The average gross beta for indicator samples was 3.03E-2 pCi/cubic meter and 3.09E-2 pCi/cubic meter for control samples. None of the charcoal filters collected showed detectable levels of iodine-131. The following table contains the annual average gross beta results of all five sample locations for 2008.

2008 Average Gross Beta Concentrations in Air Particulates (pCi/m^3)

Table 1

Station	Description (sector/distance)	Annual Average
API-1 (I)	Estral Beach (NE/1.4 mi.)	2.56E-2
API-2 (I)	Site Boundary (NNW/0.6 mi.)	3.11E-2
API-3 (I)	Site Boundary (NW/0.6 mi.)	2.88E-2
API-4 (C)	North Custer Rd. (W/14 mi.)	3.09E-2
API-5 (I)	Site Boundary (S/1.2 mi.)	3.58E-2

(I) = Indicator Station (C) = Control Station

Twenty (20) quarterly particulate filter composites were prepared and analyzed for gamma emitting radionuclides. Naturally occurring beryllium-7 was detected in both indicator and control samples. One control sample detected naturally occurring potassium-40.

In conclusion, the atmospheric monitoring data are consistent with preoperational and prior operational data and show no adverse long-term trends in the environment attributable to operation of Fermi 2 as illustrated in Figures 2 and 3.

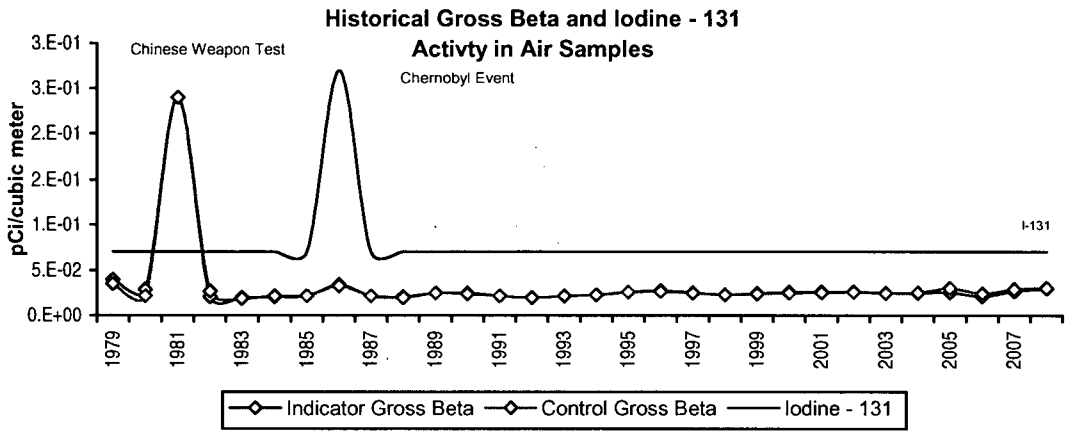


Figure 2 - Historical Gross Beta and Iodine-131 Activity in Air Samples; The similarity between indicator and control gross beta results demonstrates that the operation of Fermi 2 has had no adverse long-term trends in the environment. The lower limit of detection (LLD) for iodine-131 is 0.07 pCi/cubic meter.

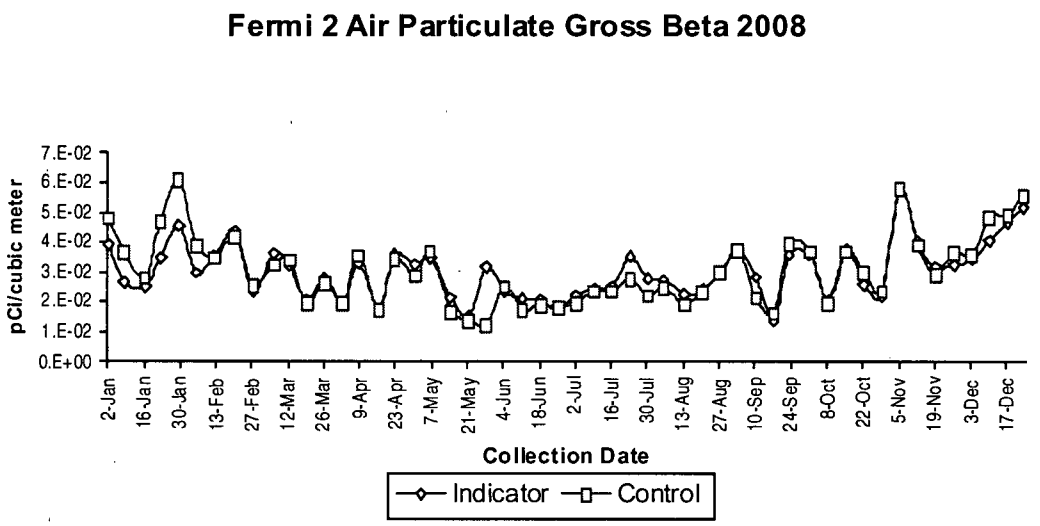


Figure 3 - Fermi 2 Air Particulate Gross Beta for 2008; the concentration of beta emitting radionuclides in airborne particulates samples was essentially identical at indicator and control locations. Gross beta activity varies throughout the year and is primarily an effect of seasonal precipitation.

Terrestrial Monitoring

Radionuclides released to the atmosphere may deposit on soil and vegetation, and therefore, may eventually be incorporated into the human food chain. To assess the impact of Fermi 2 operations to humans from the ingestion pathway, samples of milk, green leafy vegetables, and groundwater are collected and analyzed for radioactivity. The following sections discuss the type and frequency of terrestrial sampling, analyses performed, and a comparison of 2008 data to previous operational and preoperational data.

Milk Sampling

The milk sampling portion of the REMP is perhaps one of the most important aspects of the program. This is because a major pathway in the human food chain is the consumption of milk from grazing animals (dairy cows or goats) due to biological concentration and the short turn around time in this pathway. Milk is collected from one indicator location and one control location semimonthly when animals are in the pasture, and monthly when the animals are on stored feed. The milk is analyzed for iodine-131, gamma emitting radionuclides, and strontium-89/90. At times when milk samples are not available, grass samples are collected at both the control milk sample location and the location where milk is not available. Grass samples are analyzed for iodine-131 and other gamma emitting radionuclides.

Milk sampling began in 1979 during the preoperational program. During this time period, milk samples were analyzed for iodine-131 and other gamma emitting radionuclides. Cesium-137 and naturally occurring potassium-40 were the only radionuclides detected in milk samples during the preoperational program. The cesium-137 concentration averaged 3.60E+0 pCi/liter and is due to past atmospheric nuclear weapons testing. In 1986, after the nuclear accident at Chernobyl, iodine-131 and cesium-137 were detected in both indicator and control milk samples. The average concentration for iodine-131 was 3.70E+0 pCi/liter and 6.60E+0 pCi/liter for cesium-137.

The analysis for strontium-89/90 began in 1988, and strontium-90 is routinely detected in both indicator and control milk samples because of past atmospheric nuclear weapons testing.

During 2008, thirty four (34) milk samples were collected and analyzed for iodine-131, gamma emitting radionuclides, and strontium-89/90. No iodine-131 was detected in any of the samples. Strontium-90 was detected in one control milk sample and is due to fallout from past atmospheric weapons testing (see Figure 4).

The control sample had a strontium-90 concentration of 1.80E+0 pCi/liter. Naturally occurring potassium-40 was detected in both indicator and control samples. During 2008, no grass samples were scheduled or collected for the REMP program.

In 1970, the concentration of strontium-90 in Monroe County milk was 6.00E+0 pCi/liter according to the Michigan Department of Health's "Milk Surveillance," Radiation Data and Reports, Vol. 11-15, 1970-1974. Figure 4 shows the calculated radiological decay curve for the 1970 concentration of strontium-90 and the average concentrations since 1988. This graph illustrates that the inventory of strontium-90 in the local environment is decreasing with time and closely follows the calculated decay curve. This supports the fact that the inventory of strontium-90 in the environment is due to fallout from past atmospheric nuclear weapons testing and not the operation of Fermi 2.

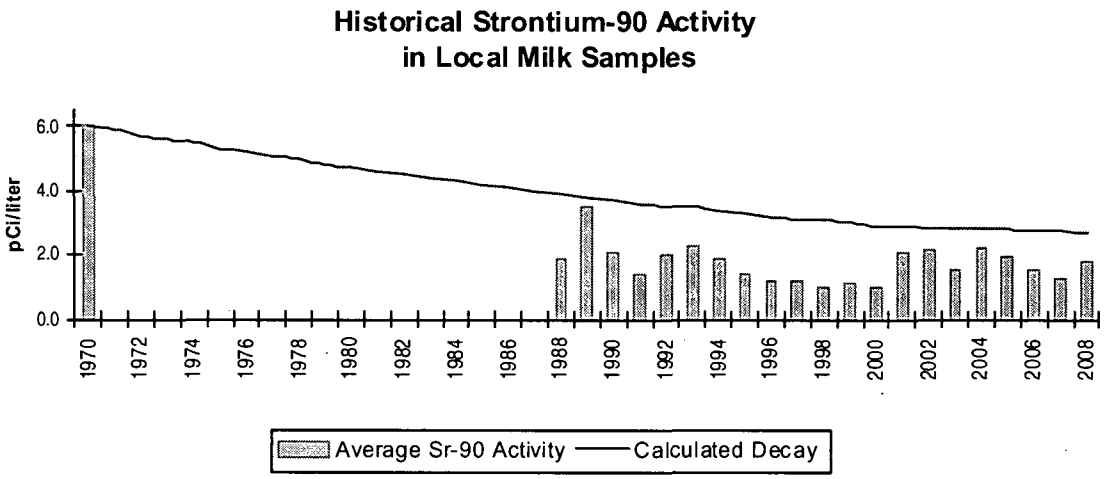


Figure 4 - Historical Strontium-90 Activity in Local Milk Samples; the concentration of strontium-90 in local milk samples is decreasing with time and is below the calculated decay curve. This supports the fact that strontium-90 in local milk is due to fallout from past atmospheric nuclear weapons testing and not the operation of Fermi 2.

Groundwater Sampling

In areas not served by municipal water systems, water supplies for domestic use are generally obtained from private wells. The network of private wells presently in use forms the source of water for domestic and livestock purposes in farms and homes west and north of the site. However, with the construction of new water plants and distribution systems, the water use trend in the area is from groundwater to surface water.

Groundwater is collected on a quarterly basis from four wells surrounding Fermi 2. The groundwater is analyzed for gamma emitting radionuclides and tritium. Sampling location GW-4, which is located approximately 0.6 miles west northwest, is designated as the control location because it is up-gradient and is least likely to be affected by the operation of the plant. The other three sampling locations are down-gradient from Fermi 2 and designated as indicator locations.

Groundwater sampling began in 1987, during the operational period of the REMP program. From 1987 to 1996, naturally occurring potassium-40, cesium-137, and tritium were detected in both indicator and control samples. The average concentration was 7.71E+0 pCi/liter for cesium-137 and 1.50E+2 pCi/liter for tritium. The presence of cesium-137 and tritium in groundwater samples is due to fallout from past atmospheric nuclear weapons testing leaching into the soil and becoming incorporated into the groundwater. From 1997 to 2007, only naturally occurring potassium-40 activity was detected in groundwater samples.

In 2008, sixteen (16) groundwater samples were collected and analyzed for gamma emitting radionuclides and tritium. During 2008, no gamma emitting radionuclides or tritium was detected in groundwater samples.

Garden Sampling

Fermi 2 collects samples of broad leaf vegetables from indicator locations identified by the annual Land Use Census. Samples are also collected at a control location that is at a distance and direction which is considered to be unaffected by plant operations. Samples are collected once a month during the growing season (June through September) and are analyzed for iodine-131 and other gamma emitting radionuclides.

Vegetable sampling started in 1982. During the preoperational period from 1982 to 1985, only naturally occurring potassium-40 was detected in both indicator and control vegetable samples. During the operational period from 1985 to 1990 and 1994 to 1995, only naturally occurring potassium-40 was detected in both indicator and control vegetable samples. However, in 1991, 1992, and 1993, cesium-137 was detected in one indicator sample each year and had an average concentration of 1.2E+1 pCi/kilogram.

Cesium-137 may become incorporated into plants by either uptake from the soil or direct deposition on foliar surfaces. Since cesium-137 is normally not detected in gaseous effluent samples from Fermi 2, and there have been no recent atmospheric weapons testing or nuclear accidents, the incorporation of cesium-137 by direct deposition is highly unlikely. The most probable source of cesium-137 in vegetable samples is the uptake of previously deposited cesium-137, which has leached into the soil. This cesium activity is

attributed to fallout from past atmospheric weapons testing and to the nuclear accident at Chernobyl.

During 2008, twelve (12) vegetable samples were collected and analyzed for iodine-131 and other gamma emitting radionuclides. No iodine-131 was detected in vegetable samples during 2008. The only gamma emitting radionuclide detected was naturally occurring potassium-40 in both indicator and control samples.

Terrestrial monitoring results for 2008 of milk, groundwater and leafy garden vegetable samples, showed only naturally occurring radioactivity and radioactivity associated with fallout from past atmospheric nuclear weapons testing. The radioactivity levels detected were consistent with levels measured prior to the operation of Fermi 2 and no radioactivity attributable to activities at Fermi 2 was detected in any terrestrial sample. In conclusion, the terrestrial monitoring data show no adverse long-term trends in the terrestrial environment.

Aquatic Monitoring

Lake Erie, on which Fermi 2 borders, is used as a source for drinking water, as well as for recreational activities such as fishing, swimming, sunbathing, and boating. For this reason, Lake Erie and its tributaries are routinely monitored for radioactivity.

The aquatic monitoring portion of the REMP consists of sampling raw municipal drinking water, surface water, lake sediments, and fish for the presence of radioactivity. The following sections discuss the type and frequency of aquatic sampling, analyses performed, and a comparison of 2008 data to previous operational and preoperational data.

Drinking Water Sampling

Detroit Edison monitors drinking water at one control location and one indicator location using automatic samplers. The automatic samplers collect samples, known as aliquots, at time intervals that are very short (hourly) relative to the sample collection period (monthly) in order to assure that a representative sample is obtained. Indicator water samples are obtained at the Monroe water intake located approximately 1.1 miles south of the plant. Detroit municipal water is used for the control samples and is obtained at the Allen Park water intake located approximately 18.6 miles north of the plant. Drinking water samples are collected on a monthly basis and analyzed for gross beta, strontium-89/90, and gamma emitting radionuclides. The monthly samples for each location are combined on a quarterly basis and analyzed for tritium activity.

In late 1980, as shown in Figure 5, an atmospheric nuclear weapon test was conducted by the People's Republic of China. As a result of this test, the average gross beta for 1981 was 9.80E+0 pCi/liter for water samples. Figure 5 also shows that, except for the Chinese weapons testing, the historic drinking water sample data are below or slightly above the lower limit of detection (4.00E+0 pCi/liter) required by US Environmental Protection Agency (USEPA) National Interim Primary Drinking Water regulations. Even during the Chinese weapons testing, the drinking water samples did not exceed the USEPA maximum allowable criteria of 5.00E+1 pCi/liter gross beta. In 1980 and 1983, cesium-137 was detected in drinking water samples at levels ranging from 5.40E+0 pCi/liter to 1.90E+1 pCi/liter. Tritium was also detected during the preoperational program and had an average of 3.25E+2 pCi/liter. The presence of cesium-137 and detectable levels of tritium in these water samples is due to fallout from past atmospheric nuclear weapons testing and naturally occurring tritium.

From 1985 to 2007, the average annual gross beta activity for indicator samples was 4.39E+0 pCi/liter and 4.23E+0 pCi/liter for control samples. The analysis for strontium-89/90 began in 1988, and strontium-90 has been detected in both indicator and control samples. The average strontium-90 activity for indicator samples was 7.25E-1 pCi/liter and 7.56E-1 pCi/liter for control samples during this time period. Tritium was also detected in both indicator and control drinking water samples during this time period. The average tritium activity for indicator samples was 2.52E+2 pCi/liter and 2.60E+2 pCi/liter for control samples. The presence of strontium-90 and detectable levels of tritium in these water samples is due to fallout from past atmospheric nuclear weapons testing and naturally occurring tritium.

In 2008, twenty-four (24) drinking water samples were collected and analyzed for gross beta, gamma emitting radionuclides, strontium-89/90, and tritium. The average gross beta for indicator samples was 5.50E+0 and 4.33E+0 pCi/liter for control samples. No gamma emitting radionuclides or strontium-89/90 activity was detected in drinking water samples during 2008. Eight (8) quarterly composite drinking water samples were prepared and analyzed for tritium. No tritium activity was detected in drinking water samples during 2008.

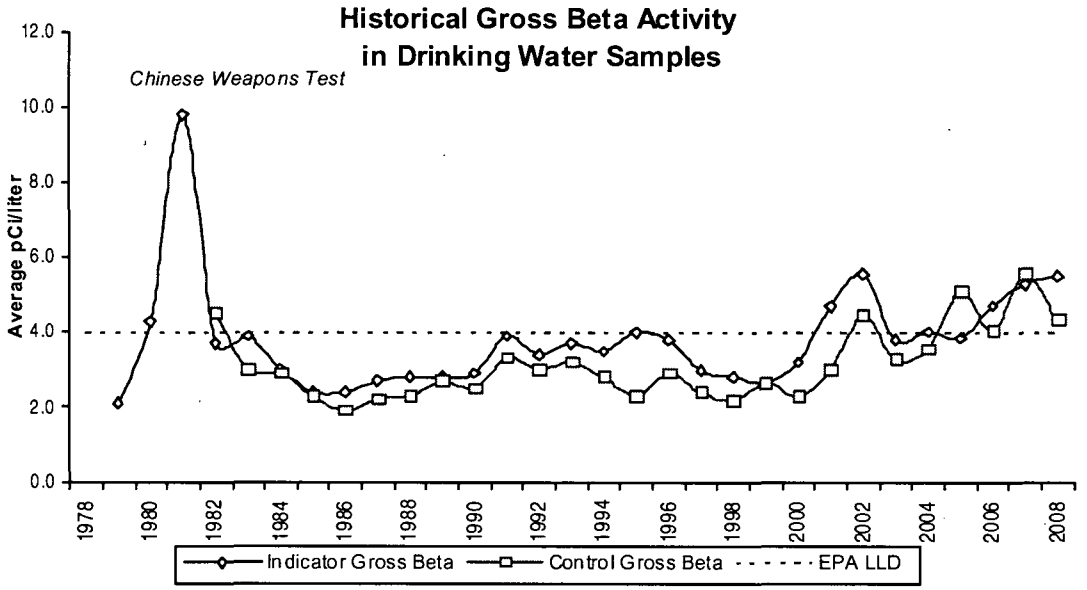


Figure 5 - Historical Gross Beta Activity in Drinking Water Samples; Since 1982, the annual concentrations of beta emitting radionuclides in drinking water samples collected from indicator locations have been consistent with those from control locations. This shows that Fermi 2 has had no measurable radiological impact on local drinking water.

Surface Water Sampling

Detroit Edison monitors surface water at two locations using automatic samplers. As with drinking water, surface water samples are collected at time intervals that are very short (hourly) relative to the sample collection period (monthly) in order to assure obtaining a representative sample. Indicator surface water samples are obtained at the Fermi 2 General Service Water building, located approximately 0.3 miles south southeast from Fermi 2. The control surface water samples are obtained from Trenton Channel Power Plant's cooling water intake on the Detroit River, which is approximately 11.7 miles north northeast of Fermi 2. Surface water samples are collected on a monthly basis and analyzed for strontium-89/90 and gamma emitting radionuclides. The monthly samples for each location are combined on a quarterly basis to form a quarterly composite sample and are analyzed for tritium.

Surface water sampling began in 1979, and the samples were analyzed for gamma emitting radionuclides and tritium. During this preoperational program, no gamma emitting radionuclides, except for naturally occurring potassium-40, were detected. Tritium was detected in both indicator and control samples during this time period and had an average concentration of 3.15E+2 pCi/liter. This tritium activity represents the background concentration due to naturally occurring tritium and tritium produced during past atmospheric nuclear weapons testing.

From 1985 to 2007, as part of the operational program, surface water samples were analyzed for gamma emitting radionuclides and tritium. The analysis for strontium-89/90 did not begin until 1988, and strontium-90 was detected in both indicator and control samples. The average strontium-90 concentration for this time period was 1.13E+0 pCi/liter. In 1990, two indicator samples showed detectable activity for cesium-137 at an average concentration of 1.20E+1 pCi/liter. The presence of cesium-137 and strontium-90 in these water samples is due to fallout from past atmospheric nuclear weapons testing. Tritium was detected in both indicator and control surface water samples during this time period at a concentration of 2.31E+2 pCi/liter. This tritium activity is consistent with background levels measured during the preoperational program.

In 2008, twenty-six (26) surface water samples were collected and analyzed for gamma emitting radionuclides and strontium-89/90. From these samples, eight (8) quarterly composite samples were prepared and analyzed for tritium. During 2008, no gamma emitting radionuclides, strontium-89/90 or tritium was detected in surface water samples.

Sediment Sampling

Sediments often act as a sink (temporary or permanent) for radionuclides, but they may also become a source, as when they are resuspended during periods of increased turbulence or are dredged and deposited elsewhere. Sediment, in the vicinity of the liquid discharge point, represents the most likely site for accumulation of radionuclides in the aquatic environment, and with long-lived radionuclides, a gradual increase in radioactivity concentration would be expected over time if discharges occur. Sediment, therefore, provides a long-term indication of change that may appear in other sample media (i.e., water and fish samples).

Lake Erie shoreline and bottom sediments from five locations are collected on a semiannual basis (Spring and Fall) and are analyzed for gamma emitting radionuclides and strontium-89/90. There is one control location and four indicator locations. The control sample is collected near the Trenton Channel Power Plant's cooling water intake. The indicator samples are collected at Estral Beach, near the Fermi 2 liquid discharge area, the shoreline at the end of Pointe Aux Peaux, and Indian Trails Community Beach.

During the preoperational program, there was not a control location, and indicator samples were analyzed for gamma emitting radionuclides. During the preoperational program, except for naturally occurring radionuclides, only cesium-137 was detected in sediment samples. For this time period, the average cesium-137 concentration was 3.27E+2 pCi/kilogram. The presence of cesium-137 in these sediment samples is due to fallout from past atmospheric nuclear weapons testing.

From 1985 to 2007, cesium-137, strontium-90, and naturally occurring radionuclides were detected in sediment samples. The average cesium-137 concentration was 8.50E+1 pCi/kilogram for all samples. The analysis for strontium-89/90 began in 1988, and strontium-90 has been routinely detected at similar concentrations in both indicator and control samples. The average strontium-90 activity for indicator samples was 1.80E+2 pCi/kilogram and 1.98E+2 pCi/kilogram for control samples. The presence of cesium-137 and strontium-90 in these sediment samples is due to fallout from past atmospheric nuclear weapons testing.

In 1990 and 1991, the Spring samples taken at the Fermi 2 liquid discharge line (Location S-2) showed activity for plant related radionuclides (manganese-54, cobalt-58, cobalt-60, and zinc-65) and was determined to be a result of liquid effluent from Fermi 2. The sample results were well below any regulatory reporting limits and were consistent with the activity released from the plant in liquid effluents and the dose impact was negligible.

In 2008, ten (10) sediment samples were collected and analyzed for gamma emitting radionuclides and strontium 89/90. Cesium-137 was detected in one control sample with a concentration of 3.85E+1 pCi/kilogram. Cesium-137 was not detected in any indicating sediment samples. The presence of cesium-137 in sediment samples is due to fallout from past atmospheric nuclear weapons testing. Naturally occurring radionuclides potassium-40 and beryllium-7 were also detected in sediment samples for this sampling period.

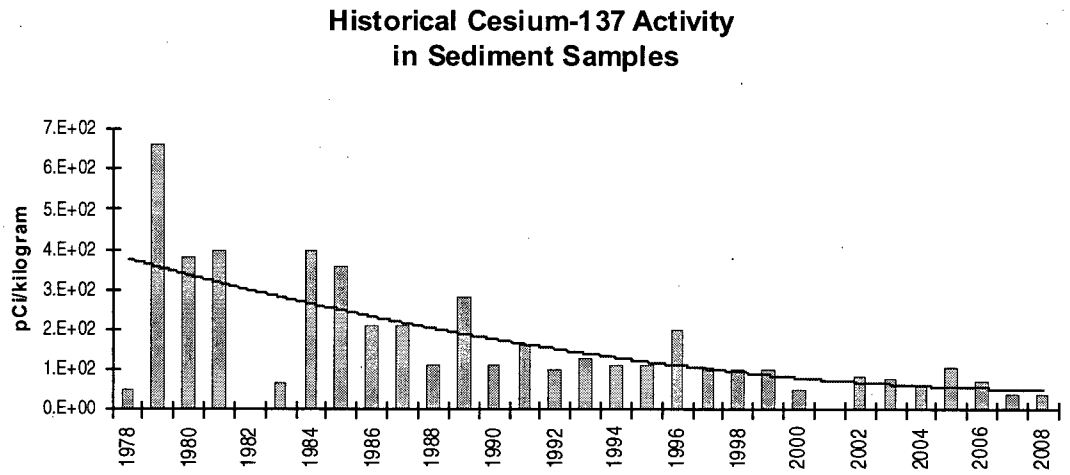


Figure 6 - Historical Cesium-137 Activity in Sediment Samples; As the calculated trend shows, the concentration of cesium-137 in Lake Erie sediments is decreasing with time. This supports the fact that cesium-137 in Lake Erie sediments is due to fallout from past atmospheric nuclear weapons testing and not the operation of Fermi 2.

Figure 6 shows the historical concentration of cesium-137 in sediment samples from 1978 to 2008. Using the data from these years, and the statistical method of least squares, an exponential curve can be calculated that represents the cesium-137 concentration in sediment. This curve has a negative slope which indicates the overall concentration of cesium-137 in the environment is decreasing with time. This supports the fact that the inventory of cesium-137 in the environment is due to fallout from past atmospheric nuclear weapons testing and not from the operation of Fermi 2.

Fish Sampling

Samples of fish are collected from Lake Erie at three locations on a semiannual basis. There are two control locations and one indicator location. The two control locations are offshore of Celeron Island and in Brest Bay. The indicator location is approximately 1200 feet offshore of the Fermi 2 liquid effluent discharge. Edible portions of the fish are analyzed for gamma emitting radionuclides and strontium-89/90.

During the preoperational program, fish samples were analyzed for gamma emitting radionuclides. Only cesium-137 and naturally occurring potassium-40 were detected during this time period. The average concentration of cesium-137 for indicator samples was 3.53E+1 pCi/kilogram and 4.20E+1 pCi/kilogram for control samples. The presence of cesium-137 in these fish samples is due to fallout from past atmospheric nuclear weapons testing.

From 1985 to 2007, cesium-137 and naturally occurring potassium-40 were detected in fish samples. The average cesium-137 concentration for indicator samples was 3.82E+1 pCi/kilogram and 3.92E+1 pCi/kilogram for control samples. The analysis for strontium-89/90 began in 1990, and strontium-90 was routinely detected at similar concentrations in both indicator and control samples. The average strontium-90 concentration for indicator samples was 3.84E+1 pCi/kilogram and 3.15E+1 pCi/kilogram for control samples. The presence of cesium-137 and strontium-90 in these fish samples is due to fallout from past atmospheric nuclear weapons testing.

In 2008, twenty-eight (28) fish samples were collected and analyzed for gamma emitting radionuclides and strontium-89/90. Only naturally occurring potassium-40 was detected in both control and indicator fish samples for 2007.

Aquatic monitoring results for 2008 of water, sediment, and fish showed only naturally occurring radioactivity and radioactivity associated with fallout from past atmospheric nuclear weapons testing and were consistent with levels measured prior to the operation of Fermi 2. In conclusion, no radioactivity attributable to activities at Fermi 2 was detected in any aquatic sample during 2008 and no adverse long-term trends are shown in the aquatic monitoring data.

Land Use Census

The Land Use Census is conducted in accordance with the Fermi 2 Offsite Dose Calculation Manual (ODCM), control 3.12.2, and satisfies the requirements of Section IV.B.3 of Appendix I to 10 CFR Part 50. This census identifies changes in the use of unrestricted areas to permit modifications to monitoring programs for evaluating doses to individuals from principal pathways of exposure. The pathways of concern are listed below:

- **Inhalation Pathway** - Internal exposure as a result of breathing radionuclides carried in the air.
- **Ground Exposure Pathway** - External exposure from radionuclides deposited on the ground.
- **Plume Exposure Pathway** - External exposure directly from a plume or cloud of radioactive material.
- **Vegetation Pathway** - Internal exposure as a result of eating vegetables which have absorbed deposited radioactive material or which have absorbed radionuclides through the soil.
- **Milk Pathway** - Internal exposure as a result of drinking milk which may contain radioactive material as a result of dairy animals grazing on a pasture contaminated by radionuclides.

The Land Use Census is conducted during the growing season and is used to identify, within a radius of 5 miles, the location of the nearest residences, milk animals, meat animals, and gardens (greater than 50 square meters and containing broad leaf vegetation) in each of 16 meteorological sectors surrounding Fermi 2. Gardens greater than 50 square meters are the minimum size required to produce the quantity (26 kg/year) of leafy vegetables assumed in NRC Regulatory Guide 1.109 for consumption by a child. To determine this minimum garden size, the following assumptions were made: (1) 20% of the garden is used for growing broad leaf vegetation (i.e., lettuce and cabbage); and (2) a vegetation yield of 2 kg/square meter.

2008 Land Use Census Results

The Land Use Census is conducted in accordance with ODCM control 3.12.2 and satisfies the requirements of Section IV.B.3 of Appendix I to 10 CFR Part 50. This census identifies changes in the use of unrestricted areas to permit modifications to monitoring programs for evaluating doses to individuals from principal pathways of exposure. The annual Land Use Census is conducted during the growing season and is used to identify, within a radius of 5 miles, the location of the closest residences, milk animals, meat animals, and gardens in each of the 11 land based meteorological sectors surrounding Fermi 2.

The 2008 Land Use Census was performed during the month of July. The 2008 census data were obtained with the use of a hand-held Global Positioning System (GPS) and aerial imagery from Google Earth. These data were compared to the 2007 data to determine any significant changes in the use of the land. The results of the census are tabulated in Tables 2 – 5 of this report.

No significant changes in the land use between 2007 and 2008 were found that would require changing the location of the "maximum exposed individual". There were no changes in the category of closest residences. There were changes in four meteorological sectors in the category of closest gardens. See Table 3 for these changes. The "maximum exposed individual" is located in the West-North-West sector and at one time participated in the REMP program. In 2007, this location did have a garden, but in 2008 a garden was not planted at this location. In the category of closest milk locations, there was one change; the goat in the North North West sector was not identified. As in past years, all milk locations that were identified are pets and any milk produced is not use for human consumption. There were three changes found in the category of closest meat locations. New beef locations were identified in the North North East, West North West, and West South West sectors in 2008. As with past surveys, this census identified new residential housing construction that shows a continuing trend of converting agricultural land to other uses in the area surrounding Fermi 2.

As stated above, there were no significant changes in the 2008 land use that would require changing the location of the "maximum exposed individual". For that reason, the location of "maximum exposed individual" remains the same and is described as follows:

Pathway	Sector	Azimuth (degrees)	Distance (miles)	Age Group	Maximum Organ
Ingestion (vegetation)	WNW	302.3	0.71	Child	Thyroid

2008 LAND USE CENSUS

Closest Residences

Table 2

Sector	Year	Azimuth (degrees)	Distance (miles)	Change (miles)
N	2007	8.9	1.11	
	2008	8.9	1.11	0.00
NE	2007	34.7	1.10	
	2008	34.7	1.10	0.00
NNE	2007	16.6	1.08	
	2008	16.6	1.08	0.00
NNW	2007	334.9	1.09	
	2008	334.9	1.09	0.00
NW	2007	309.7	1.07	
	2008	309.7	1.07	0.00
S	2007	169.6	1.03	
	2008	169.6	1.03	0.00
SSW	2007	200.1	1.12	
	2008	200.1	1.12	0.00
SW	2007	229.3	1.26	
	2008	229.3	1.26	0.00
W	2007	259.2	1.19	
	2008	259.2	1.19	0.00
WNW(a)	2007	302.3	0.71	
	2008	302.3	0.71	0.00
WSW	2007	236.3	1.39	
	2008	236.3	1.39	0.00

(a) = Location of "maximum exposed individual"

2008 LAND USE CENSUS

Closest Gardens

Table 3

Sector	Year	Azimuth (degrees)	Distance (miles)	Change (miles)
N	2007	358.5	2.13	
	2008	358.5	2.13	0.00
NE	2007	38.9	1.98	
	2008	38.9	1.98	0.00
NNE	2007	30.6	1.91	
	2008	30.6	1.91	0.00
NNW	2007	326.7	1.40	
	2008	326.7	1.40	0.00
NW	2007	313.5	1.08	
	2008	319.3	2.34	1.26
S	2007	No Data	No Data	
	2008	185.4	1.38	1.38
SSW	2007	195.9	1.50	
	2008	No Data	No Data	
SW	2007	No Data	No Data	
	2008	No Data	No Data	
W	2007	266.7	1.70	
	2008	266.7	1.70	0.00
WNW	2007	300.6	0.72	
	2008	297.7	4.40	3.68
WSW	2007	250.5	2.38	
	2008	250.5	2.38	0.00

2008 LAND USE CENSUS
Milk Locations

Table 4

Sector	Year	Azimuth (degrees)	Distance (miles)	Change (miles)	Type
N	2007	No Data	No Data		
	2008	No Data	No Data		
NE	2007	No Data	No Data		
	2008	No Data	No Data		
NNE	2007	No Data	No Data		
	2008	No Data	No Data		
NNW	2007	329.4	3.02		Goat
	2008	No Data	No Data		
NW	2007	No Data	No Data		
	2008	No Data	No Data		
S	2007	No Data	No Data		
	2008	No Data	No Data		
SSW	2007	No Data	No Data		
	2008	No Data	No Data		
SW	2007	No Data	No Data		
	2008	No Data	No Data		
W	2007	No Data	No Data		
	2008	No Data	No Data		
WNW	2007	297.4	2.38		Goat
	2008	297.4	2.38	0.00	Goat
WSW	2007	No Data	No Data		
	2008	No Data	No Data		

2008 LAND USE CENSUS

Closest Meat Locations

Table 5

Sector	Year	Azimuth (degrees)	Distance (miles)	Change (miles)	Type
N	2007	9.6	4.29		Beef/Sheep
	2008	9.6	4.29	0.00	Beef/Sheep
NE	2007	No Data	No Data		
	2008	No Data	No Data		
NNE	2007	No Data	No Data		
	2008	12.1	2.17	2.17	Beef
NNW	2007	338.2	4.36		Sheep
	2008	338.2	4.36	0.00	Sheep
NW	2007	321.4	3.02		Beef
	2008	321.4	3.02	0.00	Beef
S	2007	No Data	No Data		
	2008	No Data	No Data		
SSW	2007	No Data	No Data		
	2008	No Data	No Data		
SW	2007	No Data	No Data		
	2008	No Data	No Data		
W	2007	No Data	No Data		
	2008	No Data	No Data		
WNW	2007	No Data	No Data		
	2008	287.5	1.65	1.65	Beef
WSW	2007	No Data	No Data		
	2008	252.4	2.94	2.94	Beef

Appendix A

Sampling Locations

Direct Radiation Sample Locations

Table A-1

Station Number	Meteorological Sector/Azimuth (Degrees)	Distance from Reactor (Approx.)	Description	Collection Frequency	Type
T1	NE/38°	1.3 mi.	Estral Beach, Pole on Lakeshore 23 Poles S of Lakeview. (Special Area)	Q	I
T2	NNE/22°	1.2 mi.	Pole at termination of Brancheau St. (Special Area)	Q	I
T3	N/9°	1.1 mi.	Pole, NW corner of Swan Boat Club fence. (Special Area)	Q	I
T4	NNW/337°	0.6 mi.	Site boundary and Toll Rd. on Site fence by API #2.	Q	I
T5	NW/313°	0.6 mi.	Site boundary and Toll Rd. on Site fence by API #3.	Q	I
T6	WNW/294°	0.6 mi.	On Site fence at south end of N. Bullet Rd.	Q	I
T7	W/270°	14.0 mi.	Pole, at Michigan Gas substation on N. Custer Rd., 0.66 miles west of Doty Rd.	Q	C
T8	NW/305°	1.9 mi.	Pole on Post Rd. near NE corner of Dixie Hwy. and Post Rd.	Q	I
T9	NNW/334°	1.5 mi.	Pole, NW corner of Trombley and Swan View Rd.	Q	I
T10	N/6°	2.1 mi.	Pole, S side of Massarant-2 poles W of Chinavare.	Q	I

I = Indicator *C = Control* *O = On-site* *Q = Quarterly*

Direct Radiation Sample Locations (Table A-1 continued)

Station Number	Meteorological Sector/Azimuth (Degrees)	Distance from Reactor (Approx.)	Description	Collection Frequency	Type
T11	NNE/23°	6.2 mi.	Pole, NE corner of Milliman and Jefferson.	Q	I
T12	NNE/29°	6.3 mi.	Pointe Mouille Game Area Field Office, Pole near tree, N area of parking lot.	Q	I
T13	N/356°	4.1 mi.	Labo and Dixie Hwy. Pole on SW corner with light.	Q	I
T14	NNW/337°	4.4 mi.	Labo and Brandon Pole on SE corner near RR.	Q	I
T15	NW/315°	3.9 mi.	Pole, behind building at the corner of Swan Creek and Mill St.	Q	I
T16	WNW/283°	4.9 mi.	Pole, SE corner of War and Post Rd.	Q	I
T17	W/271°	4.9 mi.	Pole, NE corner of Nadeau and Laprad near mobile home park.	Q	I
T18	WSW/247°	4.8 mi.	Pole, NE corner of Mentel and Hurd Rd.	Q	I
T19	SW/236°	5.2 mi.	Fermi siren pole on Waterworks Rd. NE corner of intersection - Sterling State Park Rd. Entrance Drive/Waterworks.	Q	I
T20	WSW/257°	2.7 mi.	Pole, S side of Williams Rd, 9 poles W of Dixie Hwy. (Special Area)	Q	I
T21	WSW/239°	2.7 mi.	Pole, N side of Pearl at Parkview Woodland Beach. (Special Area)	Q	I

I = Indicator *C = Control* *O = On-site* *Q = Quarterly*

Direct Radiation Sample Locations (Table A-1 continued)

Station Number	Meteorological Sector/Azimuth (Degrees)	Distance from Reactor (Approx.)	Description	Collection Frequency	Type
T22	S/172°	1.2 mi.	Pole, N side of Pointe Aux Peaux 2 poles W of Long - Site Boundary.	Q	I
T23	SSW/195°	1.1 mi.	Pole, S side of Pointe Aux Peaux 1 pole W of Huron next to Vent Pipe - Site Boundary.	Q	I
T24	SW/225°	1.2 mi.	Fermi Gate along Pointe Aux Peaux Rd. on fence wire W of gate Site Boundary.	Q	I
T25	WSW/252°	1.4 mi.	Pole, Toll Rd. - 12 poles S of Fermi Drive.	Q	I
T26	WSW/259°	1.1 mi.	Pole, Toll Rd. - 6 poles S of Fermi Drive.	Q	I
T27	SW/225°	6.8 mi.	Pole, NE corner of McMillan and East Front St. (Special Area)	Q	I
T28	SW/229°	10.6 mi.	Pole, N side of Mortar Creek between Hull and LaPlaisance.	Q	C
T29	WSW/237°	10.3 mi.	Pole, NE corner of S Dixie and Albain.	Q	C
T30	WSW/247°	7.8 mi.	E side S end of foot bridge, St. Mary's Park corner of Elm and Monroe St. (Special Area)	Q	I
T31	WSW/255°	9.6 mi.	1st pole W of entrance drive Milton "Pat" Munson Recreational Reserve on North Custer Rd.	Q	C

I = Indicator *C = Control* *O = On-site* *Q = Quarterly*

Direct Radiation Sample Locations (Table A-1 continued)

Station Number	Meteorological Sector/Azimuth (Degrees)	Distance from Reactor (Approx.)	Description	Collection Frequency	Type
T32	WNW/295°	10.3 mi.	Pole, corner of Stony Creek and Finzel Rd.	Q	I
T33	NW/317°	9.2 mi.	Pole, W side of Grafton Rd. 1 pole N of Ash and Grafton intersection.	Q	I
T34	NNW/338°	9.8 mi.	Pole, SW corner of Port Creek and Will-Carleton Rd.	Q	I
T35	N/359°	6.9 mi.	Pole, S Side of S Huron River Dr. across from Race St. (Special Area)	Q	I
T36	N/358°	9.1 mi.	Pole, NE corner of Gibraltar and Cahill Rd.	Q	I
T37	NNE/21°	9.8 mi.	Pole, S corner of Adams and Gibraltar across from Humbug Marina.	Q	I
T38	WNW/294°	1.7 mi.	Residence - 6594 N. Dixie Hwy.	Q	I
T39	S/176°	0.3 mi.	SE corner of Protected Area Fence (PAF).	Q	O
T40	S/170°	0.3 mi.	Midway along OBA - PAF.	Q	O
T41	SSE/161°	0.2 mi.	Midway between OBA and Shield Wall on PAF.	Q	O
T42	SSE/149°	0.2 mi.	Midway along Shield Wall on PAF.	Q	O
T43	SE/131°	0.1 mi.	Midway between Shield Wall and Aux Boilers on PAF.	Q	O
T44	ESE/109°	0.1 mi.	Opposite OSSF door on PAF.	Q	O

I = Indicator *C = Control* *O = On-site* *Q = Quarterly*

Direct Radiation Sample Locations (Table A-1 continued)

Station Number	Meteorological Sector/Azimuth (Degrees)	Distance from Reactor (Approx.)	Description	Collection Frequency	Type
T45	E/86°	0.1 mi.	NE Corner of PAF.	Q	O
T46	ENE/67°	0.2 mi.	NE side of barge slip on fence.	Q	O
T47	S/185°	0.1 mi.	South of Turbine Bldg. rollup door on PAF.	Q	O
T48	SW/235°	0.2 mi.	30 ft. from corner of AAP on PAF.	Q	O
T49	WSW/251°	1.1 mi.	Corner of Site Boundary fence north of NOC along Critical Path Rd.	Q	I
T50	W/270°	0.9 mi.	Site Boundary fence near main gate by the south Bullet Street sign.	Q	I
T51	N/3°	0.4 mi.	Site Boundary fence north of north Cooling Tower.	Q	O
T52	NNE/20°	0.4 mi.	Site Boundary fence at the corner of Arson and Tower.	Q	O
T53	NE/55°	0.2 mi.	Site Boundary fence east of South Cooling Tower.	Q	O
T54	S/189°	0.3 mi.	Pole next to Fermi 2 Visitors Center.	Q	O
T55	WSW/251°	3.3 mi.	Pole, north side of Nadeau Rd. across from Sodt Elementary School Marquee.	Q	I
T56	WSW/256°	2.9 mi.	Pole, entrance to Jefferson Middle School on Stony Creek Rd.	Q	I

I = Indicator *C = Control* *O = On-site* *Q = Quarterly*

Direct Radiation Sample Locations (Table A-1 continued)

Station Number	Meteorological Sector/Azimuth (Degrees)	Distance from Reactor (Approx.)	Description	Collection Frequency	Type
T57	W/260°	2.7 mi.	Pole, north side of Williams Rd. across from Jefferson High School entrance.	Q	I
T58	WSW/249°	4.9 mi.	Pole west of Hurd Elementary School Marquee.	Q	I
T59	NW/325°	2.6 mi.	Pole north of St. Charles Church entrance on Dixie Hwy.	Q	I
T60	NNW/341°	2.5 mi.	1st pole north of North Elementary School entrance on Dixie Hwy.	Q	I
T61	W/268°	10.1 mi.	Pole, SW corner of Stewart and Raisinville Rd.	Q	I
T62	SW/232°	9.7 mi.	Pole, NE corner of Albain and Hull Rd.	Q	I
T63	WSW/245°	9.6 mi.	Pole, NE corner of Dunbar and Telegraph Rd.	Q	I
T64*	WNW/286°	0.2 mi.	West of switchgear yard on PAF.	Q	O
T65*	NW/322°	0.1 mi.	PAF switchgear yard area NW of RHR complex.	Q	O
T66*	NE/50°	0.1 mi.	Behind Bldg. 42 on PAF.	Q	O
T67*	NNW/338°	0.2 mi.	Site Boundary fence West of South Cooling Tower.	Q	O
T68	WNW/303°	0.6 mi	Langton Rd. seven poles East of Leroux Rd.	Q	I
T69	NW/306°	0.8 mi	Langton Rd. five poles East of Leroux Rd.	Q	I
T70	NNW/333°	1.1 mi	Leroux Rd. last pole North of Fermi Dr.	Q	I
T71	WNW/300°	1.1 mi	Leroux Rd. six poles North of Fermi Dr.	Q	I

I = Indicator *C = Control* *O = On-site* *Q = Quarterly*

Air Particulate and Air Iodine Sample Locations

Table A-2

Station Number	Meteorological Sector/Azimuth (Degrees)	Distance from Reactor (Approx.)	Description	Collection Frequency	Type
API-1	NE/39°	1.4 mi.	Estral Beach Pole on Lakeshore, 18 Poles S of Lakeview (Nearest Community with highest X/Q).	W	I
API-2	NNW/337°	0.6 mi.	Site Boundary and Toll Road, on Site Fence by T-4.	W	I
API-3	NW/313°	0.6 mi.	Site Boundary and Toll Road, on Site Fence by T-5.	W	I
API-4	W/270°	14.0 mi.	Pole, at Michigan Gas substation on N. Custer Rd., 0.66 miles west of Doty Rd.	W	C
API-5	S/188°	1.2 mi.	Pole, N corner of Pointe Aux Peaux and Dewey Rd.	W	I

I = Indicator *C = Control* *W = Weekly*

Milk Sample Locations

Table A-3

Station Number	Meteorological Sector/Azimuth (Degrees)	Distance from Reactor (Approx.)	Description	Collection Frequency	Type
M-2	NW/319°	5.4 mi.	Reaume Farm - 2705 E Labo.	M-SM	I
M-8	WNW/289°	9.9 mi.	Calder Dairy - 9334 Finzel Rd.	M-SM	C

I = Indicator *C = Control* *M = Monthly* *SM = Semimonthly*

Garden Sample Locations

Table A-4

Station Number	Meteorological Sector/Azimuth (Degrees)	Distance from Reactor (Approx.)	Description	Collection Frequency	Type
FP-1	NNE/21°	3.8 mi.	9501 Turnpike Highway.	M	I
FP-9	W/261°	10.9 mi.	4074 North Custer Road.	M	C

I = Indicator *C = Control* *M = Monthly (when available)*

Drinking Water Sample Locations

Table A-5

Station Number	Meteorological Sector/Azimuth (Degrees)	Distance from Reactor (Approx.)	Description	Collection Frequency	Type
DW-1	S/174°	1.1 mi.	Monroe Water Station N Side of Pointe Aux Peaux 1/2 Block W of Long Rd.	M	I
DW-2	N/8°	18.5 mi.	Detroit Water Station 14700 Moran Rd, Allen Park.	M	C

I = Indicator *C = Control* *M = Monthly*

Surface Water Sample Locations

Table A-6

Station Number	Meteorological Sector/Azimuth (Degrees)	Distance from Reactor (Approx.)	Description	Collection Frequency	Type
SW-2	NNE/20°	11.7 mi.	DECo's Trenton Channel Power Plant Intake Structure (Screenhouse #1).	M	C
SW-3	SSE/160°	0.2 mi.	DECO's Fermi 2 General Service Water Intake Structure.	M	I

I = Indicator *C = Control* *M = Monthly*

Groundwater Sample Locations

Table A-7

Station Number	Meteorological Sector/Azimuth (Degrees)	Distance from Reactor (Approx.)	Description	Collection Frequency	Type
GW-1	S/175°	0.4 mi.	Approx. 100 ft W of Lake Erie, EF-1 Parking lot near gas fired peakers.	Q	I
GW-2	SSW/208°	1.0 mi.	4 ft S of Pointe Aux Peaux (PAP) Rd. Fence 427 ft W of where PAP crosses over Stoney Point's Western Dike.	Q	I
GW-3	SW/226°	1.0 mi.	143 ft W of PAP Rd. Gate, 62 ft N of PAP Rd. Fence.	Q	I
GW-4	WNW/299°	0.6 mi.	42 ft S of Langton Rd, 8 ft E of Toll Rd. Fence.	Q	C

I = Indicator *C = Control* *Q = Quarterly*

Sediment Sample Locations

Table A-8

Station Number	Meteorological Sector/Azimuth (Degrees)	Distance from Reactor (Approx.)	Description	Collection Frequency	Type
S-1	SSE/165°	0.9 mi.	Pointe Aux Peaux, Shoreline to 500 ft offshore sighting directly to Land Base Water Tower.	SA	I
S-2	E/81°	0.2 mi.	Fermi 2 Discharge, approx. 200 ft offshore.	SA	I
S-3	NE/39°	1.1 mi.	Estral Beach, approx. 200 ft offshore, off North shoreline where Swan Creek and Lake Erie meet.	SA	I
S-4	WSW/241°	3.0 mi.	Indian Trails Community Beach.	SA	I
S-5	NNE/20°	11.7 mi.	DECo's Trenton Channel Power Plant intake area.	SA	C

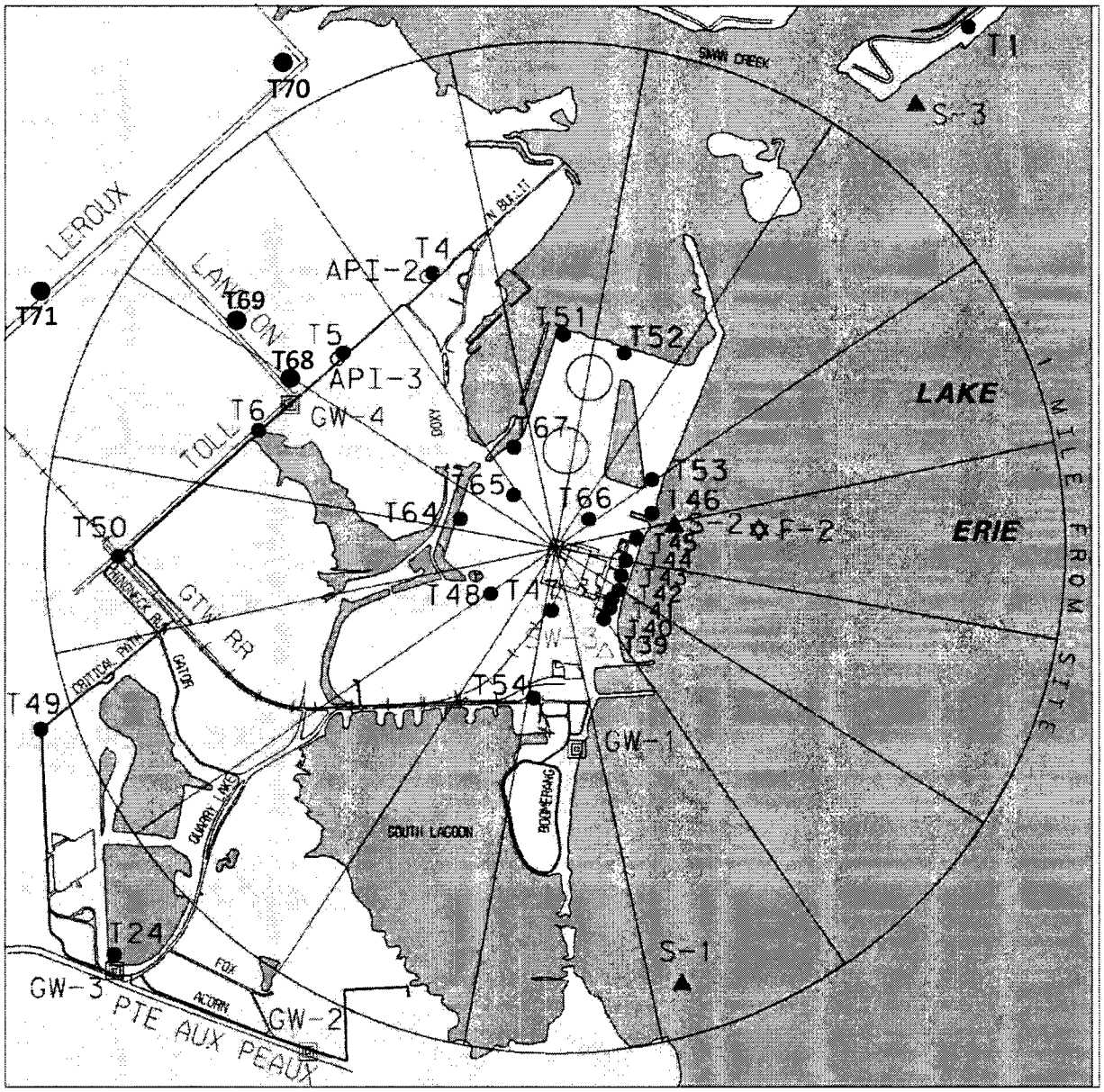
I = Indicator *C = Control* *SA = Semiannually*

Fish Sample Locations

Table A-9

Station Number	Meteorological Sector/Azimuth (Degrees)	Distance from Reactor (Approx.)	Description	Collection Frequency	Type
F-1	NNE/31°	9.5 mi.	Near Celeron Island.	SA	C
F-2	E/86°	0.4 mi.	Fermi 2 Discharge (approx. 1200 ft offshore).	SA	I
F-3	SW/227°	3.5 mi.	Brest Bay.	SA	C

I = Indicator *C = Control* *SA = Semiannually*



MAP - 1
SAMPLING LOCATIONS
BY STATION NUMBER
WITHIN 1 MILE

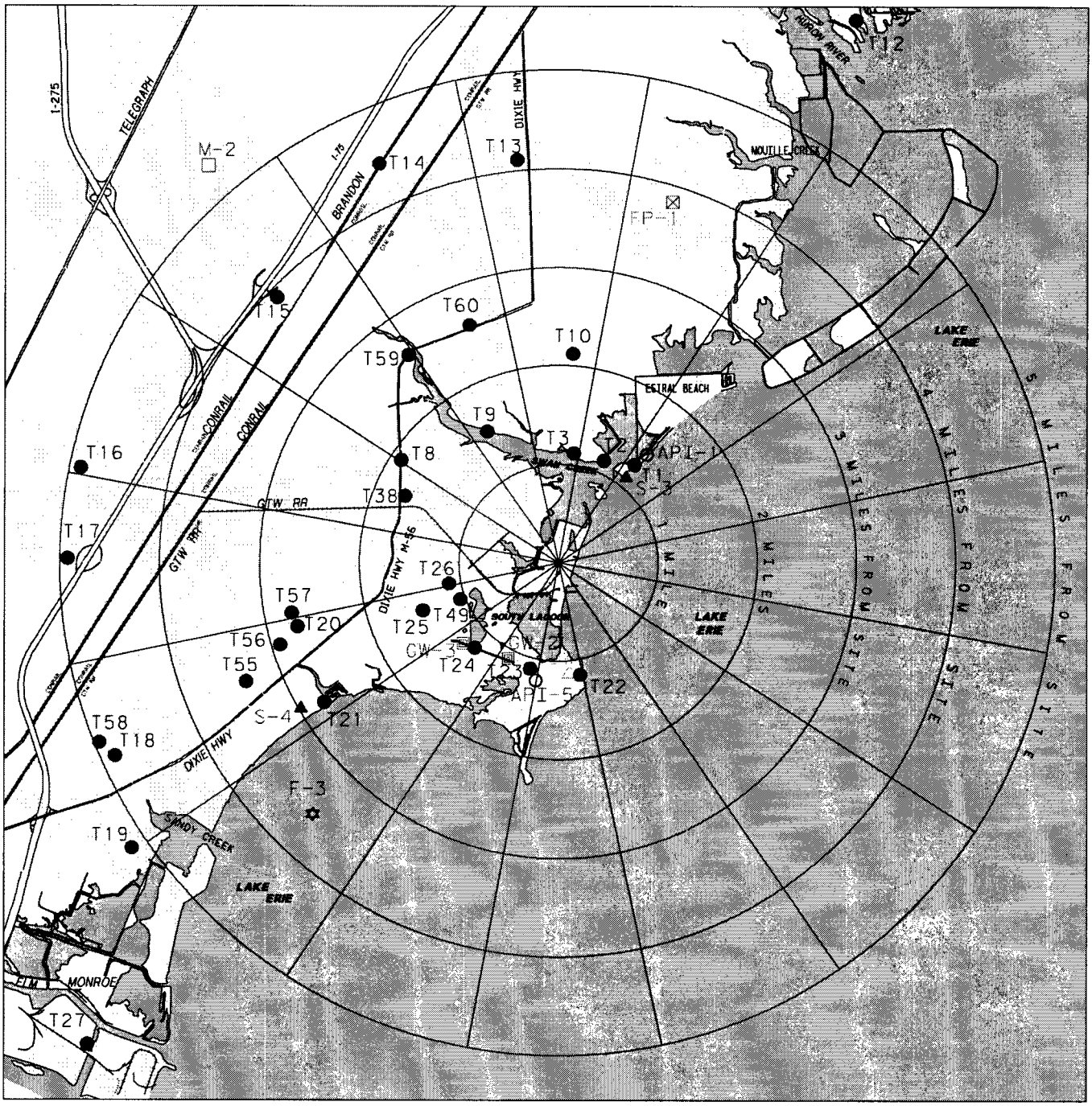
LEGEND

- ● T- DIRECT RADIATION
- ○ API- AIR PARTICULATES/AIR IODINE
- ▲ S- SEDIMENTS
- △ DW/SW- DRINKING WATER/SURFACE WATER
- ▣ GW- GROUND WATER
- □ M- MILK
- ⊠ FP- FOOD PRODUCTS
- ✡ F- FISH

N

0 0.5

SCALE IN MILES



MAP - 2
SAMPLING LOCATIONS
BY STATION NUMBER
(1 To 5 MILES)

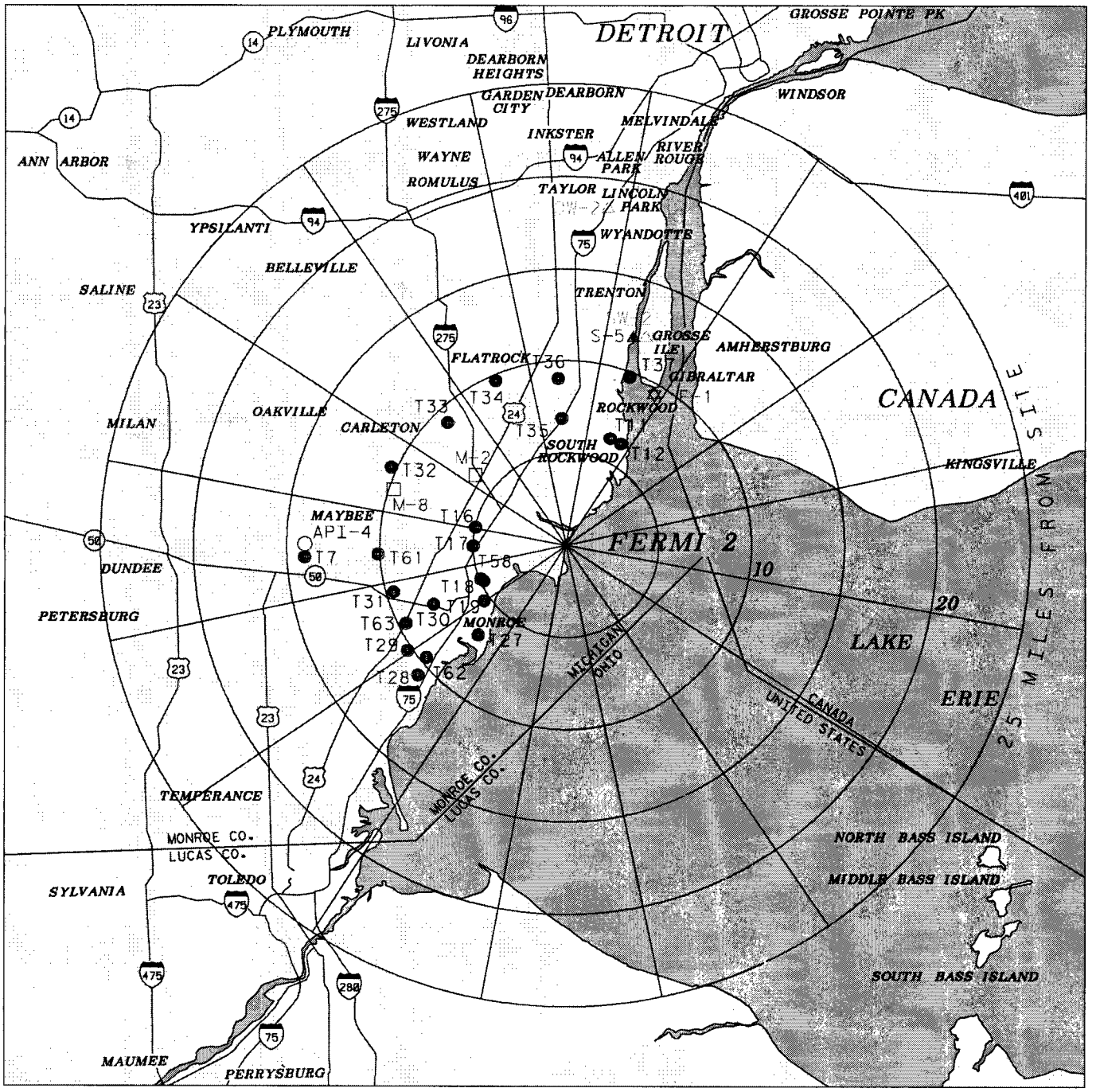
LEGEND

- ● T- DIRECT RADIATION
- ○ API- AIR PARTICULATES/AIR IODINE
- ▲ S- SEDIMENTS
- △ DW/SW- DRINKING WATER/SURFACE WATER
- ▣ GW- GROUND WATER
- □ M- MILK
- ⊠ FP- FOOD PRODUCTS
- ✡ F- FISH

N

0 1

SCALE IN MILES



MAP - 3
SAMPLING LOCATIONS
BY STATION NUMBER
(GREATER THAN 5 MILES)

LEGEND

- T- DIRECT RADIATION
- API- AIR PARTICULATES OR AIR IODINE
- S- SEDIMENTS
- DW/SW- DRINKING WATER/SURFACE WATER
- GW- GROUND WATER
- M- MILK
- FP- FOOD PRODUCTS
- F- FISH

N

5 0 5 10

SCALE IN MILES

Appendix B

Environmental Data Summary

Table B-1 Radiological Environmental Monitoring Program Summary

Name of Facility: Enrico Fermi Unit 2 Docket No.: 50-341 Reporting Period: January - December 2008
Location of Facility: 30 miles southeast of Detroit, Michigan (Frenchtown Township)

Sample Type (Units)	Type and Number of Analysis	LLD	Indicator Locations Mean and Range	Location with Highest Annual Mean: Location	Location with Highest Annual Mean: Mean and Range	Control Locations Mean and Range	Number of Non-routine Results
Direct Radiation *mR/std qtr*	Gamma (TLD) 199	1.0	15.1 (184/184) 10.9 to 23.1	T-35 (Indicator)	15.9 (4/4) 13.4 to 23.1	13.9 (15/15) 12.3 to 15.9	None
Airborne Particulates *pCi/cu. m.*	Gross Beta 260	1.00E-2	3.03E-2 (208/208) 1.03E-2 to 8.49E-2	API-5 (Indicator)	3.58E-2 (52/52) 1.67E-2 to 7.30E-2	3.09E-2 (52/52) 1.23E-2 to 6.09E-2	None
	Gamma Spec. 20						
	Be-7	N/A	1.29E-1 (16/16) 8.15E-2 to 2.06E+0	API-5 (Indicator)	1.58E-1 (4/4) 1.28E-1 to 2.06E-1	1.33E-1 (4/4) 1.09E-1 to 1.49E-1	None
	K-40	N/A	<MDA	API-4 (Control)	1.26E-2 (1/4)	1.26E-2 (1/4)	None
	Mn-54	N/A	<MDA			<MDA	None
	Co-58	N/A	<MDA			<MDA	None
	Fe-59	N/A	<MDA			<MDA	None
	Co-60	N/A	<MDA			<MDA	None
	Zn-65	N/A	<MDA			<MDA	None
	Zr-95	N/A	<MDA			<MDA	None
	Nb-95	N/A	<MDA			<MDA	None
	Ru-103	N/A	<MDA			<MDA	None
	Ru-106	N/A	<MDA			<MDA	None
	Cs-134	5.00E-2	<MDA			<MDA	None
	Cs-137	6.00E-2	<MDA			<MDA	None
	Ba-140	N/A	<MDA			<MDA	None
	La-140	N/A	<MDA			<MDA	None
	Ce-141	N/A	<MDA			<MDA	None
	Ce-144	N/A	<MDA			<MDA	None
Airborne Iodine *pCi/cu. m.*	I-131 260	7.00E-2	<MDA			<MDA	None

Table B-1 Radiological Environmental Monitoring Program Summary (cont.)

Name of Facility: Enrico Fermi Unit 2 Docket No.: 50-341 Reporting Period: January - December 2008
Location of Facility: 30 miles southeast of Detroit, Michigan (Frenchtown Township)

Sample Type (Units)	Type and Number of Analysis	LLD	Indicator Locations Mean and Range	Location with Highest Annual Mean: Location	Location with Highest Annual Mean: Mean and Range	Control Locations Mean and Range	Number of Non-routine Results
Milk	I-131 34	1.00E+0	<MDA			<MDA	None
pCi/l	Sr-89 34	N/A	<MDA			<MDA	None
	Sr-90	N/A	<MDA	M-8 (Control)	1.80E+0 (1/18)	1.80E+0 (1/18)	None
	Gamma Spec. 34						
	Be-7	N/A	<MDA			<MDA	None
	K-40	N/A	1.38E+3 (18/18) 1.25E+3 to 1.56E+3	M-8 (Control)	1.41E+3 (18/18) 1.28E+3 to 1.62E+3	1.41E+3 (18/18) 1.28E+3 to 1.62E+3	None
	Mn-54	N/A	<MDA			<MDA	None
	Co-58	N/A	<MDA			<MDA	None
	Fe-59	N/A	<MDA			<MDA	None
	Co-60	N/A	<MDA			<MDA	None
	Zn-65	N/A	<MDA			<MDA	None
	Zr-95	N/A	<MDA			<MDA	None
	Nb-95	N/A	<MDA			<MDA	None
	Ru-103	N/A	<MDA			<MDA	None
	Ru-106	N/A	<MDA			<MDA	None
	Cs-134	1.50E+1	<MDA			<MDA	None
	Cs-137	1.80E+1	<MDA			<MDA	None
	Ba-140	1.50E+1	<MDA			<MDA	None
	La-140	1.50E+1	<MDA			<MDA	None
	Ce-141	N/A	<MDA			<MDA	None
	Ce-144	N/A	<MDA			<MDA	None
Vegetation	I-131 12	6.00E+1	<MDA			<MDA	None
pCi/kg wet	Gamma Spec. 12						
	Be-7	N/A	<MDA			<MDA	None
	K-40	N/A	4.23E+3 (6/6) 2.82E+3 to 6.00E+3	FP-1 (Indictor)	4.23E+3 (6/6) 2.82E+3 to 6.00E+3	3.99E+3 (6/6) 2.27E+3 to 5.38E+3	None

Table B-1 Radiological Environmental Monitoring Program Summary (cont.)

Name of Facility: Enrico Fermi Unit 2 Docket No.: 50-341 Reporting Period: January - December 2008
Location of Facility: 30 miles southeast of Detroit, Michigan (Frenchtown Township)

Sample Type (Units)	Type and Number of Analysis	LLD	Indicator Locations Mean and Range	Location with Highest Annual Mean: Location	Location with Highest Annual Mean: Mean and Range	Control Locations Mean and Range	Number of Non-routine Results
Vegetation (cont.) *pCi/kg wet*	Mn-54	N/A	<MDA			<MDA	None
	Co-58	N/A	<MDA			<MDA	None
	Fe-59	N/A	<MDA			<MDA	None
	Co-60	N/A	<MDA			<MDA	None
	Zn-65	N/A	<MDA			<MDA	None
	Zr-95	N/A	<MDA			<MDA	None
	Nb-95	N/A	<MDA			<MDA	None
	Ru-103	N/A	<MDA			<MDA	None
	Ru-106	N/A	<MDA			<MDA	None
	Cs-134	6.00E+1	<MDA			<MDA	None
	Cs-137	8.00E+1	<MDA			<MDA	None
	Ba-140	N/A	<MDA			<MDA	None
	La-140	N/A	<MDA			<MDA	None
	Ce-141	N/A	<MDA			<MDA	None
	Ce-144	N/A	<MDA			<MDA	None
Drinking Water *pCi/l*	Gross Beta 24	4.00E+0	5.50E+0 (7/12) 3.50E+0 to 9.50E+0	DW-1 (Indicator)	5.50E+0 (7/12) 3.50E+0 to 9.50E+0	4.33E+0 (4/12) 3.70E+0 to 6.00E+0	None
	Sr-89 24	N/A	<MDA			<MDA	None
	Sr-90	N/A	<MDA			<MDA	None
	Gamma Spec. 24						
	Be-7	N/A	<MDA			<MDA	None
	K-40	N/A	<MDA			<MDA	None
	Cr-51	N/A	<MDA			<MDA	None
	Mn-54	1.50E+1	<MDA			<MDA	None
	Co-58	1.50E+1	<MDA			<MDA	None
	Fe-59	3.00E+1	<MDA			<MDA	None
	Co-60	1.50E+1	<MDA			<MDA	None
	Zn-65	3.00E+1	<MDA			<MDA	None
	Zr-95	1.50E+1	<MDA			<MDA	None
	Nb-95	1.50E+1	<MDA			<MDA	None

Table B-1 Radiological Environmental Monitoring Program Summary (cont.)

Name of Facility: Enrico Fermi Unit 2 Docket No.: 50-341 Reporting Period: January - December 2008
Location of Facility: 30 miles southeast of Detroit, Michigan (Frenchtown Township)

Sample Type (Units)	Type and Number of Analysis	LLD	Indicator Locations Mean and Range	Location with Highest Annual Mean: Location	Location with Highest Annual Mean: Mean and Range	Control Locations Mean and Range	Number of Non-routine Results
Drinking Water (cont.) *pCi/l*	Ru-103	N/A	<MDA			<MDA	None
	Ru-106	N/A	<MDA			<MDA	None
	Cs-134	1.50E+1	<MDA			<MDA	None
	Cs-137	1.80E+1	<MDA			<MDA	None
	Ba-140	1.50E+1	<MDA			<MDA	None
	La-140	1.50E+1	<MDA			<MDA	None
	Ce-141	N/A	<MDA			<MDA	None
	Ce-144	N/A	<MDA			<MDA	None
	H-3 8	2.00E+3	<MDA			<MDA	None
Surface Water *pCi/l*	Sr-89 24	N/A	<MDA			<MDA	None
	Sr-90	N/A	<MDA			<MDA	None
	Gamma Spec. 24						
	Be-7	N/A	<MDA			<MDA	None
	K-40	N/A	<MDA			<MDA	None
	Cr-51	N/A	<MDA			<MDA	None
	Mn-54	1.50E+1	<MDA			<MDA	None
	Co-58	1.50E+1	<MDA			<MDA	None
	Fe-59	3.00E+1	<MDA			<MDA	None
	Co-60	1.50E+1	<MDA			<MDA	None
	Zn-65	3.00E+1	<MDA			<MDA	None
	Zr-95	1.50E+1	<MDA			<MDA	None
	Nb-95	1.50E+1	<MDA			<MDA	None
	Ru-103	N/A	<MDA			<MDA	None
	Ru-106	N/A	<MDA			<MDA	None
	Cs-134	1.50E+1	<MDA			<MDA	None
	Cs-137	1.80E+1	<MDA			<MDA	None
	Ba-140	1.50E+1	<MDA			<MDA	None
	La-140	1.50E+1	<MDA			<MDA	None
	Ce-141	N/A	<MDA			<MDA	None

Table B-1 Radiological Environmental Monitoring Program Summary (cont.)

Name of Facility: Enrico Fermi Unit 2 Docket No.: 50-341 Reporting Period: January - December 2008
Location of Facility: 30 miles southeast of Detroit, Michigan (Frenchtown Township)

Sample Type (Units)	Type and Number of Analysis	LLD	Indicator Locations Mean and Range	Location with Highest Annual Mean: Location	Location with Highest Annual Mean: Mean and Range	Control Locations Mean and Range	Number of Non-routine Results
Surface Water	Ce-144	N/A	<MDA			<MDA	None
(cont.) *pCi/l*	H-3 8	2.00E+3	<MDA			<MDA	None
Groundwater	Gamma Spec. 16						
pCi/l	Be-7	N/A	<MDA			<MDA	None
	K-40	N/A	<MDA			<MDA	None
	Cr-51	N/A	<MDA			<MDA	None
	Mn-54	1.50E+1	<MDA			<MDA	None
	Co-58	1.50E+1	<MDA			<MDA	None
	Fe-59	3.00E+1	<MDA			<MDA	None
	Co-60	1.50E+1	<MDA			<MDA	None
	Zn-65	3.00E+1	<MDA			<MDA	None
	Zr-95	1.50E+1	<MDA			<MDA	None
	Nb-95	1.50E+1	<MDA			<MDA	None
	Ru-103	N/A	<MDA			<MDA	None
	Ru-106	N/A	<MDA			<MDA	None
	Cs-134	1.50E+1	<MDA			<MDA	None
	Cs-137	1.80E+1	<MDA			<MDA	None
	Ba-140	1.50E+1	<MDA			<MDA	None
	La-140	1.50E+1	<MDA			<MDA	None
	Ce-141	N/A	<MDA			<MDA	None
	Ce-144	N/A	<MDA			<MDA	None
	H-3 16	2.00E+3	<MDA			<MDA	None
Sediment	Sr-89 10	N/A	<MDA			<MDA	
pCi/kg dry	Sr-90	N/A	<MDA			<MDA	None
	Gamma Spec. 10						
	Be-7	N/A	<MDA	S-5 (Control)	3.90E+2 (1/2)	3.90E+2 (1/2)	None
	K-40	N/A	1.04E+4 (8/8)	S-3 (Indicator)	1.16E+4 (2/2)	1.22E+4 (2/2)	
			8.71E+3 to 1.29E+4		1.02E+4 to 1.29E+4	1.16E+4 to 1.28E+4	None

Table B-1 Radiological Environmental Monitoring Program Summary (cont.)

Name of Facility: Enrico Fermi Unit 2 Docket No.: 50-341 Reporting Period: January - December 2008
Location of Facility: 30 miles southeast of Detroit, Michigan (Frenchtown Township)

Sample Type (Units)	Type and Number of Analysis	LLD	Indicator Locations Mean and Range	Location with Highest Annual Mean: Location	Location with Highest Annual Mean: Mean and Range	Control Locations Mean and Range	Number of Non-routine Results
Sediment (cont.)	Mn-54	N/A	<MDA			<MDA	None
pCi/kg dry	Co-58	N/A	<MDA			<MDA	None
	Fe-59	N/A	<MDA			<MDA	None
	Co-60	N/A	<MDA			<MDA	None
	Zn-65	N/A	<MDA			<MDA	None
	Zr-95	N/A	<MDA			<MDA	None
	Nb-95	N/A	<MDA			<MDA	None
	Ru-103	N/A	<MDA			<MDA	None
	Ru-106	N/A	<MDA			<MDA	None
	Cs-134	1.50E+2	<MDA			<MDA	None
	Cs-137	1.80E+2	<MDA	S-5 (Control)	3.85E+1 (1/2)	3.85E+1 (1/2)	None
	Ba-140	N/A	<MDA			<MDA	None
	La-140	N/A	<MDA			<MDA	None
	Ce-141	N/A	<MDA			<MDA	None
	Ce-144	N/A	<MDA			<MDA	None
Fish	Sr-89 28	N/A	<MDA			<MDA	None
pCi/kg wet	Sr-90	N/A	<MDA			<MDA	None
	Gamma Spec. 28						
	Be-7	N/A	<MDA			<MDA	None
	K-40	N/A	2.79E+3 (11/11) 1.48E+3 to 3.68E+3	F-2 (Indicator)	2.79E+3 (11/11) 1.48E+3 to 3.68E+3	2.76E+3 (18/18) 1.83E+3 to 3.60E+3	None
	Mn-54	1.30E+2	<MDA			<MDA	None
	Co-58	1.30E+2	<MDA			<MDA	None
	Fe-59	2.60E+2	<MDA			<MDA	None
	Co-60	1.30E+2	<MDA			<MDA	None
	Zn-65	2.60E+2	<MDA			<MDA	None

Table B-1 Radiological Environmental Monitoring Program Summary (cont.)

Name of Facility: Enrico Fermi Unit 2 Docket No.: 50-341 Reporting Period: January - December 2008
Location of Facility: 30 miles southeast of Detroit, Michigan (Frenchtown Township)

Sample Type (Units)	Type and Number of Analysis	LLD	Indicator Locations Mean and Range	Location with Highest Annual Mean		Control Locations Mean and Range	Number of Non-routine Results
				Location	Mean and Range		
Fish (cont.)	Zr-95	N/A	<MDA			<MDA	None
pCi/kg wet	Nb-95	N/A	<MDA			<MDA	None
	Ru-103	N/A	<MDA			<MDA	None
	Ru-106	N/A	<MDA			<MDA	None
	Cs-134	1.30E+2	<MDA			<MDA	None
	Cs-137	1.50E+2	<MDA			<MDA	None
	Ba-140	N/A	<MDA			<MDA	None
	La-140	N/A	<MDA			<MDA	None
	Ce-141	N/A	<MDA			<MDA	None
	Ce-144	N/A	<MDA			<MDA	None

Direct Radiation mean and range values are based on off-site TLDs
LLD = Fermi 2 ODCM LLD: nominal lower limit of detection based on 4.66 sigma error for background sample.
<MDA = Less than the lab's minimum detectable activity which is less than the LLD.
Mean and range based upon detectable measurements only. Fraction of detectable measurements at specified locations is indicated in parentheses (F).
Locations are specified by Fermi 2 code and are described in Appendix A Sampling Locations.
Non-routine results are those which are reportable according to Fermi 2 ODCM control 3.12.1.

Note: Other nuclides were considered in analysis results, but only those identifiable were reported in addition to ODCM listed nuclides.

Appendix C

Environmental Data Tables

FERMI 2
TLD ANALYSIS
(mR/Std Qtr)

STATION NUMBER	FIRST QUARTER	SECOND QUARTER	THIRD QUARTER	FOURTH QUARTER
T-1	12.50	13.23	11.11	13.19
T-2	12.21	14.30	15.92	13.01
T-3	11.44	13.02	12.43	11.73
T-4	11.83	14.70	17.54	14.40
T-5	12.90	15.65	19.32	15.76
T-6	12.46	15.05	17.76	15.44
T-7	13.91	15.73	15.24	15.91
T-8	13.70	16.94	18.54	15.77
T-9	11.99	15.44	12.60	14.11
T-10	13.01	16.65	15.37	15.35
T-11	11.96	14.25	17.51	13.74
T-12	10.89	13.50	16.39	12.85
T-13	13.60	15.64	15.60	16.11
T-14	14.30	15.90	20.87	16.14
T-15	11.61	13.49	18.51	13.40
T-16	17.15	17.38	20.49	17.19
T-17	12.69	12.84	17.45	13.03
T-18	13.11	14.52	15.69	14.18
T-19	15.14	15.57	18.38	15.85
T-20	15.28	15.60	19.30	16.23
T-21	12.42	13.27	15.04	13.45
T-22	(a)	14.07	14.90	14.18
T-23	13.26	14.44	14.41	13.79
T-24	12.08	13.10	15.93	12.89
T-25	16.32	17.10	18.38	16.74
T-26	16.25	16.88	19.52	17.50
T-27	12.04	11.86	11.56	12.00
T-28	12.60	12.76	15.42	13.10
T-29	12.33	12.84	13.71	13.02
T-30	13.95	(a)	(a)	14.24
T-31	13.52	14.56	(a)	14.41
T-32	14.89	15.01	15.38	15.46
T-33	12.40	(a)	13.95	12.65
T-34	13.47	14.57	16.86	14.15
T-35	23.09	13.39	13.36	13.86
T-36	13.19	14.02	13.75	14.81
T-37	14.30	14.00	14.05	14.86
T-38	15.53	15.09	17.73	16.06
T-39	64.20	60.82	64.68	70.34
T-40	49.90	44.77	47.83	52.32
T-41	100.07	97.90	105.16	107.91
T-42	102.27	97.93	92.90	104.94
T-43	108.28	101.39	92.90	118.31
T-44	102.28	94.78	87.48	104.34
T-45	58.72	59.87	60.41	62.81
T-46	44.55	45.60	53.28	47.07
T-47	98.47	91.81	105.78	114.25

(a) TLD missing, see Appendix D - Program Execution.

FERMI 2
TLD ANALYSIS (CONT.)
(mR/Std Qtr)

STATION NUMBER	FIRST QUARTER	SECOND QUARTER	THIRD QUARTER	FOURTH QUARTER
T-48	48.12	49.06	48.80	48.98
T-49	17.88	18.40	20.42	19.35
T-50	14.65	14.56	18.00	15.71
T-51	11.45	10.67	14.83	12.59
T-52	15.58	15.39	18.09	16.29
T-53	28.90	28.24	36.31	29.93
T-54	18.21	17.70	23.53	17.90
T-55	15.30	15.24	18.51	15.72
T-56	14.07	13.90	15.77	14.92
T-57	15.90	16.77	20.56	17.89
T-58	12.06	13.63	15.03	13.46
T-59	13.00	17.32	18.76	13.84
T-60	14.59	14.51	15.53	14.93
T-61	15.52	15.40	15.49	15.57
T-62	15.52	15.67	15.59	16.41
T-63	12.36	12.70	16.55	13.07
T-64	25.83	24.95	23.95	26.32
T-65	30.36	29.90	27.48	29.36
T-66	158.81	150.27	150.08	157.07
T-67	18.55	18.67	21.14	19.14
T-68	N/A	N/A	20.62	17.73
T-69	N/A	N/A	17.51	16.97
T-70	N/A	N/A	15.79	16.03
T-71	N/A	N/A	19.87	16.83

FERMI 2
AIR PARTICULATE GROSS BETA
(pCi/cubic meter)

API-1 FIRST QUARTER

Date	Activity		
1/2/2008	3.54E-02	+/-	2.60E-03
1/8/2008	2.42E-02	+/-	3.10E-03
1/16/2008	2.24E-02	+/-	2.20E-03
1/22/2008	3.19E-02	+/-	2.80E-03
1/29/2008	3.93E-02	+/-	3.20E-03
2/5/2008	2.51E-02	+/-	2.60E-03
2/12/2008	3.61E-02	+/-	2.80E-03
2/20/2008	4.06E-02	+/-	2.50E-03
2/27/2008	2.45E-02	+/-	2.90E-03
3/6/2008	3.58E-02	+/-	2.50E-03
3/12/2008	2.87E-02	+/-	3.10E-03
3/19/2008	1.78E-02	+/-	2.30E-03
3/26/2008	2.91E-02	+/-	2.30E-03

API-1 SECOND QUARTER

Date	Activity		
4/2/2008	1.45E-02	+/-	2.30E-03
4/8/2008	3.00E-02	+/-	2.90E-03
4/16/2008	1.69E-02	+/-	2.20E-03
4/22/2008	3.33E-02	+/-	3.10E-03
4/30/2008	2.91E-02	+/-	2.30E-03
5/6/2008	2.70E-02	+/-	3.00E-03
5/14/2008	1.82E-02	+/-	2.00E-03
5/21/2008	1.17E-02	+/-	2.20E-03
5/28/2008	1.41E-02	+/-	2.40E-03
6/4/2008	1.49E-02	+/-	2.40E-03
6/11/2008	1.92E-02	+/-	2.20E-03
6/18/2008	1.73E-02	+/-	2.50E-03
6/25/2008	1.30E-02	+/-	2.20E-03

FERMI 2
AIR PARTICULATE GROSS BETA
(pCi/cubic meter)

API-1 THIRD QUARTER

Date	Activity		
7/2/2008	1.74E-02	+/-	2.20E-03
7/9/2008	2.16E-02	+/-	2.40E-03
7/16/2008	1.97E-02	+/-	2.20E-03
7/23/2008	3.31E-02	+/-	2.80E-03
7/30/2008	2.12E-02	+/-	2.30E-03
8/5/2008	2.41E-02	+/-	2.60E-03
8/13/2008	1.71E-02	+/-	1.80E-03
8/20/2008	1.91E-02	+/-	2.20E-03
8/27/2008	2.69E-02	+/-	2.60E-03
9/3/2008	2.99E-02	+/-	2.40E-03
9/10/2008	2.65E-02	+/-	2.30E-03
9/17/2008	1.03E-02	+/-	2.50E-03
9/23/2008	3.13E-02	+/-	3.00E-03

API-1 FOURTH QUARTER

Date	Activity		
10/1/2008	3.17E-02	+/-	2.50E-03
10/8/2008	1.60E-02	+/-	2.60E-03
10/15/2008	2.99E-02	+/-	2.40E-03
10/22/2008	2.03E-02	+/-	2.80E-03
10/29/2008	1.92E-02	+/-	2.80E-03
11/5/2008	4.25E-02	+/-	2.60E-03
11/12/2008	3.19E-02	+/-	3.10E-03
11/19/2008	2.44E-02	+/-	2.70E-03
11/26/2008	2.63E-02	+/-	2.50E-03
12/3/2008	3.27E-02	+/-	3.00E-03
12/10/2008	2.82E-02	+/-	2.40E-03
12/17/2008	3.60E-02	+/-	2.90E-03
12/23/2008	4.14E-02	+/-	3.30E-03

FERMI 2
AIR PARTICULATE GROSS BETA
(pCi/cubic meter)

API-2 FIRST QUARTER

Date	Activity		
1/2/2008	3.92E-02	+/-	2.70E-03
1/8/2008	3.15E-02	+/-	3.10E-03
1/16/2008	2.72E-02	+/-	2.20E-03
1/22/2008	3.34E-02	+/-	2.90E-03
1/29/2008	4.68E-02	+/-	3.30E-03
2/5/2008	3.00E-02	+/-	2.70E-03
2/12/2008	2.91E-02	+/-	2.70E-03
2/20/2008	3.67E-02	+/-	2.40E-03
2/27/2008	2.36E-02	+/-	2.90E-03
3/6/2008	3.19E-02	+/-	2.50E-03
3/12/2008	2.99E-02	+/-	3.10E-03
3/19/2008	1.96E-02	+/-	2.30E-03
3/26/2008	2.59E-02	+/-	2.30E-03

API-2 SECOND QUARTER

Date	Activity		
4/2/2008	1.58E-02	+/-	2.30E-03
4/8/2008	3.32E-02	+/-	3.00E-03
4/16/2008	1.97E-02	+/-	2.20E-03
4/22/2008	3.93E-02	+/-	3.20E-03
4/30/2008	3.28E-02	+/-	2.30E-03
5/6/2008	3.82E-02	+/-	3.20E-03
5/14/2008	2.38E-02	+/-	2.10E-03
5/21/2008	1.40E-02	+/-	2.20E-03
5/28/2008	8.49E-02	+/-	3.10E-03
6/4/2008	2.26E-02	+/-	2.50E-03
6/11/2008	2.05E-02	+/-	2.20E-03
6/18/2008	2.10E-02	+/-	2.60E-03
6/25/2008	2.09E-02	+/-	2.30E-03

FERMI 2
AIR PARTICULATE GROSS BETA
(pCi/cubic meter)

API-2 THIRD QUARTER

Date	Activity		
7/2/2008	2.21E-02	+/-	2.30E-03
7/9/2008	2.63E-02	+/-	2.50E-03
7/16/2008	2.80E-02	+/-	2.40E-03
7/23/2008	3.55E-02	+/-	2.80E-03
7/30/2008	2.59E-02	+/-	2.40E-03
8/5/2008	2.68E-02	+/-	2.60E-03
8/13/2008	2.39E-02	+/-	2.70E-03
8/20/2008	2.29E-02	+/-	2.30E-03
8/27/2008	2.96E-02	+/-	2.60E-03
9/3/2008	3.83E-02	+/-	2.50E-03
9/10/2008	2.61E-02	+/-	2.30E-03
9/17/2008	1.08E-02	+/-	2.50E-03
9/23/2008	3.31E-02	+/-	3.10E-03

API-2 FOURTH QUARTER

Date	Activity		
10/1/2008	3.61E-02	+/-	2.50E-03
10/8/2008	2.05E-02	+/-	2.70E-03
10/15/2008	3.86E-02	+/-	2.50E-03
10/22/2008	2.82E-02	+/-	2.90E-03
10/29/2008	2.27E-02	+/-	2.90E-03
11/5/2008	5.94E-02	+/-	2.90E-03
11/12/2008	4.24E-02	+/-	3.30E-03
11/19/2008	3.26E-02	+/-	2.70E-03
12/3/2008	3.20E-02	+/-	3.00E-03
12/10/2008	3.18E-02	+/-	2.40E-03
12/17/2008	3.80E-02	+/-	2.90E-03
12/23/2008	4.62E-02	+/-	3.40E-03
12/30/2008	4.72E-02	+/-	2.70E-03

FERMI 2
AIR PARTICULATE GROSS BETA
(pCi/cubic meter)

API-3 FIRST QUARTER

Date	Activity		
1/2/2008	4.10E-02	+/-	2.70E-03
1/8/2008	2.62E-02	+/-	3.10E-03
1/16/2008	2.65E-02	+/-	2.20E-03
1/22/2008	4.18E-02	+/-	3.00E-03
1/29/2008	5.55E-02	+/-	3.50E-03
2/5/2008	3.51E-02	+/-	2.80E-03
2/12/2008	2.96E-02	+/-	2.70E-03
2/20/2008	4.02E-02	+/-	2.40E-03
2/27/2008	1.63E-02	+/-	2.70E-03
3/6/2008	2.89E-02	+/-	2.40E-03
3/12/2008	2.93E-02	+/-	3.10E-03
3/19/2008	1.86E-02	+/-	2.30E-03
3/26/2008	2.32E-02	+/-	2.20E-03

API-3 SECOND QUARTER

Date	Activity		
4/2/2008	1.73E-02	+/-	2.30E-03
4/8/2008	3.22E-02	+/-	2.90E-03
4/16/2008	1.56E-02	+/-	2.10E-03
4/22/2008	3.24E-02	+/-	3.00E-03
4/30/2008	2.91E-02	+/-	2.30E-03
5/6/2008	3.67E-02	+/-	3.10E-03
5/14/2008	1.96E-02	+/-	2.00E-03
5/21/2008	1.67E-02	+/-	2.30E-03
5/28/2008	1.15E-02	+/-	2.40E-03
6/4/2008	2.19E-02	+/-	2.50E-03
6/11/2008	2.15E-02	+/-	2.20E-03
6/18/2008	1.90E-02	+/-	2.50E-03
6/25/2008	1.45E-02	+/-	2.20E-03

FERMI 2
AIR PARTICULATE GROSS BETA
(pCi/cubic meter)

API-3 THIRD QUARTER

Date	Activity		
7/2/2008	2.00E-02	+/-	2.20E-03
7/9/2008	2.30E-02	+/-	2.50E-03
7/16/2008	2.47E-02	+/-	2.30E-03
7/23/2008	2.91E-02	+/-	2.70E-03
7/30/2008	2.66E-02	+/-	2.40E-03
8/5/2008	2.55E-02	+/-	2.60E-03
8/13/2008	2.52E-02	+/-	2.70E-03
8/20/2008	2.45E-02	+/-	2.30E-03
8/27/2008	2.89E-02	+/-	2.60E-03
9/3/2008	3.48E-02	+/-	2.50E-03
9/10/2008	2.81E-02	+/-	2.40E-03
9/17/2008	1.35E-02	+/-	2.50E-03
9/23/2008	3.42E-02	+/-	3.10E-03

API-3 FOURTH QUARTER

Date	Activity		
10/1/2008	3.37E-02	+/-	2.50E-03
10/8/2008	2.13E-02	+/-	2.70E-03
10/15/2008	4.02E-02	+/-	2.60E-03
10/22/2008	2.29E-02	+/-	2.80E-03
10/29/2008	2.18E-02	+/-	2.80E-03
11/5/2008	5.63E-02	+/-	2.80E-03
11/12/2008	3.72E-02	+/-	3.20E-03
11/19/2008	2.72E-02	+/-	2.70E-03
12/3/2008	3.24E-02	+/-	3.00E-03
12/10/2008	2.95E-02	+/-	2.40E-03
12/17/2008	4.10E-02	+/-	2.90E-03
12/23/2008	4.46E-02	+/-	3.40E-03
12/30/2008	5.21E-02	+/-	2.80E-03

FERMI 2
AIR PARTICULATE GROSS BETA
(pCi/cubic meter)

API-4 FIRST QUARTER

Date	Activity		
1/2/2008	4.81E-02	+/-	2.80E-03
1/8/2008	3.66E-02	+/-	3.20E-03
1/16/2008	2.84E-02	+/-	2.30E-03
1/22/2008	4.70E-02	+/-	3.00E-03
1/29/2008	6.09E-02	+/-	3.60E-03
2/5/2008	3.92E-02	+/-	2.80E-03
2/12/2008	3.49E-02	+/-	2.80E-03
2/20/2008	4.18E-02	+/-	2.50E-03
2/27/2008	2.59E-02	+/-	3.00E-03
3/6/2008	3.26E-02	+/-	2.40E-03
3/12/2008	3.42E-02	+/-	3.20E-03
3/19/2008	1.96E-02	+/-	2.30E-03
3/26/2008	2.64E-02	+/-	2.30E-03

API-4 SECOND QUARTER

Date	Activity		
4/2/2008	1.98E-02	+/-	2.40E-03
4/8/2008	3.58E-02	+/-	3.00E-03
4/16/2008	1.76E-02	+/-	2.20E-03
4/22/2008	3.44E-02	+/-	3.10E-03
4/30/2008	2.90E-02	+/-	2.20E-03
5/6/2008	3.72E-02	+/-	3.20E-03
5/14/2008	1.69E-02	+/-	2.00E-03
5/21/2008	1.38E-02	+/-	2.20E-03
5/28/2008	1.23E-02	+/-	2.40E-03
6/4/2008	2.54E-02	+/-	2.60E-03
6/11/2008	1.76E-02	+/-	2.20E-03
6/18/2008	1.93E-02	+/-	2.50E-03
6/25/2008	1.83E-02	+/-	2.20E-03

FERMI 2
AIR PARTICULATE GROSS BETA
(pCi/cubic meter)

API-4 THIRD QUARTER

Date	Activity		
7/2/2008	1.99E-02	+/-	2.20E-03
7/9/2008	2.39E-02	+/-	2.50E-03
7/16/2008	2.37E-02	+/-	2.30E-03
7/23/2008	2.80E-02	+/-	2.70E-03
7/30/2008	2.23E-02	+/-	2.30E-03
8/5/2008	2.48E-02	+/-	2.60E-03
8/13/2008	1.94E-02	+/-	1.90E-03
8/20/2008	2.35E-02	+/-	2.30E-03
8/27/2008	3.00E-02	+/-	2.60E-03
9/3/2008	3.74E-02	+/-	2.50E-03
9/10/2008	2.15E-02	+/-	2.30E-03
9/17/2008	1.66E-02	+/-	2.50E-03
9/23/2008	3.96E-02	+/-	3.10E-03

API-4 FOURTH QUARTER

Date	Activity		
10/1/2008	3.72E-02	+/-	2.60E-03
10/8/2008	1.99E-02	+/-	2.70E-03
10/15/2008	3.72E-02	+/-	2.50E-03
10/22/2008	3.00E-02	+/-	3.00E-03
10/29/2008	2.38E-02	+/-	2.90E-03
11/5/2008	5.82E-02	+/-	2.80E-03
11/12/2008	3.93E-02	+/-	3.20E-03
11/19/2008	2.93E-02	+/-	2.70E-03
12/3/2008	3.66E-02	+/-	3.10E-03
12/10/2008	3.61E-02	+/-	2.50E-03
12/17/2008	4.87E-02	+/-	3.00E-03
12/23/2008	4.92E-02	+/-	3.40E-03
12/30/2008	5.58E-02	+/-	2.90E-03

FERMI 2
AIR PARTICULATE GROSS BETA
(pCi/cubic meter)

API-5 FIRST QUARTER

Date	Activity		
1/2/2008	4.13E-02	+/-	2.70E-03
1/8/2008	2.50E-02	+/-	3.00E-03
1/16/2008	2.46E-02	+/-	2.20E-03
1/22/2008	3.14E-02	+/-	2.80E-03
1/29/2008	4.08E-02	+/-	3.20E-03
2/5/2008	2.91E-02	+/-	2.70E-03
2/12/2008	4.50E-02	+/-	2.90E-03
2/20/2008	5.72E-02	+/-	2.70E-03
2/27/2008	2.99E-02	+/-	3.00E-03
3/6/2008	4.81E-02	+/-	2.60E-03
3/12/2008	4.08E-02	+/-	3.30E-03
3/19/2008	2.64E-02	+/-	2.40E-03
3/26/2008	3.34E-02	+/-	2.40E-03

API-5 SECOND QUARTER

Date	Activity		
4/2/2008	2.74E-02	+/-	2.50E-03
4/8/2008	3.62E-02	+/-	3.00E-03
4/16/2008	1.98E-02	+/-	2.20E-03
4/22/2008	3.88E-02	+/-	3.20E-03
4/30/2008	3.88E-02	+/-	2.40E-03
5/6/2008	3.71E-02	+/-	3.20E-03
5/14/2008	2.39E-02	+/-	2.10E-03
5/21/2008	1.88E-02	+/-	2.30E-03
5/28/2008	1.67E-02	+/-	2.50E-03
6/4/2008	3.49E-02	+/-	2.70E-03
6/11/2008	2.35E-02	+/-	2.20E-03
6/18/2008	2.65E-02	+/-	2.70E-03
6/25/2008	2.11E-02	+/-	2.30E-03

FERMI 2
AIR PARTICULATE GROSS BETA
(pCi/cubic meter)

API-5 THIRD QUARTER

Date	Activity		
7/2/2008	2.95E-02	+/-	2.40E-03
7/9/2008	2.69E-02	+/-	2.50E-03
7/16/2008	2.90E-02	+/-	2.40E-03
7/23/2008	4.26E-02	+/-	2.90E-03
7/30/2008	3.75E-02	+/-	2.60E-03
8/5/2008	3.39E-02	+/-	2.70E-03
8/13/2008	2.44E-02	+/-	2.00E-03
8/20/2008	2.93E-02	+/-	2.40E-03
8/27/2008	3.54E-02	+/-	2.70E-03
9/3/2008	4.59E-02	+/-	2.70E-03
9/10/2008	3.26E-02	+/-	2.40E-03
9/17/2008	2.08E-02	+/-	2.60E-03
9/23/2008	4.50E-02	+/-	3.20E-03

API-5 FOURTH QUARTER

Date	Activity		
10/1/2008	4.11E-02	+/-	2.60E-03
10/8/2008	2.34E-02	+/-	2.70E-03
10/15/2008	4.30E-02	+/-	2.60E-03
10/22/2008	3.17E-02	+/-	2.90E-03
10/29/2008	2.37E-02	+/-	2.90E-03
11/5/2008	7.30E-02	+/-	3.10E-03
11/12/2008	4.95E-02	+/-	3.40E-03
11/19/2008	4.24E-02	+/-	2.90E-03
12/3/2008	3.96E-02	+/-	3.20E-03
12/10/2008	4.31E-02	+/-	2.60E-03
12/17/2008	5.56E-02	+/-	3.10E-03
12/23/2008	5.95E-02	+/-	3.60E-03
12/30/2008	6.64E-02	+/-	3.00E-03

FERMI 2
AIR IODINE – 131
(pCi/cubic meter)

API-1 FIRST QUARTER

Date	Activity	
1/2/2008	<	4.60E-02
1/8/2008	<	3.30E-02
1/16/2008	<	5.10E-02
1/22/2008	<	3.90E-02
1/29/2008	<	4.30E-02
2/5/2008	<	5.10E-02
2/12/2008	<	4.30E-02
2/20/2008	<	5.20E-02
2/27/2008	<	3.90E-02
3/6/2008	<	4.80E-02
3/12/2008	<	5.30E-02
3/19/2008	<	4.40E-02
3/26/2008	<	4.30E-02

API-1 SECOND QUARTER

Date	Activity	
4/2/2008	<	3.20E-02
4/8/2008	<	4.70E-02
4/16/2008	<	1.80E-02
4/22/2008	<	4.70E-02
4/30/2008	<	4.60E-02
5/6/2008	<	4.20E-02
5/14/2008	<	3.20E-02
5/21/2008	<	3.40E-02
5/28/2008	<	2.30E-02
6/4/2008	<	3.90E-02
6/11/2008	<	2.70E-02
6/18/2008	<	3.00E-02
6/25/2008	<	4.20E-02

FERMI 2
AIR IODINE – 131
(pCi/cubic meter)

API-1 THIRD QUARTER

Date		Activity
7/2/2008	<	3.80E-02
7/9/2008	<	3.90E-02
7/16/2008	<	3.70E-02
7/23/2008	<	3.10E-02
7/30/2008	<	6.40E-02
8/5/2008	<	5.80E-02
8/13/2008	<	5.30E-02
8/20/2008	<	4.30E-02
8/27/2008	<	2.30E-02
9/3/2008	<	3.60E-02
9/10/2008	<	2.40E-02
9/17/2008	<	2.80E-02
9/23/2008	<	5.30E-02

API-1 FOURTH QUARTER

Date		Activity
10/1/2008	<	2.20E-02
10/8/2008	<	2.00E-02
10/15/2008	<	5.10E-02
10/22/2008	<	2.40E-02
10/29/2008	<	3.30E-02
11/5/2008	<	3.20E-02
11/12/2008	<	4.50E-02
11/19/2008	<	3.00E-02
11/26/2008	<	2.80E-02
12/3/2008	<	4.10E-02
12/10/2008	<	3.90E-02
12/17/2008	<	2.10E-02
12/23/2008	<	6.30E-02

FERMI 2
AIR IODINE – 131
(pCi/cubic meter)

API-2 FIRST QUARTER

Date	Activity	
1/2/2008	<	3.50E-02
1/8/2008	<	3.30E-02
1/16/2008	<	5.70E-02
1/22/2008	<	4.60E-02
1/29/2008	<	4.90E-02
2/5/2008	<	4.10E-02
2/12/2008	<	2.70E-02
2/20/2008	<	5.50E-02
2/27/2008	<	4.00E-02
3/6/2008	<	4.70E-02
3/12/2008	<	4.10E-02
3/19/2008	<	5.30E-02
3/26/2008	<	3.90E-02

API-2 SECOND QUARTER

Date	Activity	
4/2/2008	<	4.10E-02
4/8/2008	<	4.30E-02
4/16/2008	<	2.80E-02
4/22/2008	<	5.20E-02
4/30/2008	<	3.80E-02
5/6/2008	<	5.70E-02
5/14/2008	<	3.80E-02
5/21/2008	<	3.60E-02
5/28/2008	<	2.30E-02
5/28/2008	<	6.40E-03
6/4/2008	<	3.40E-02
6/11/2008	<	3.30E-02
6/18/2008	<	3.80E-02
6/25/2008	<	4.10E-02

FERMI 2
AIR IODINE – 131
(pCi/cubic meter)

API-2 THIRD QUARTER

Date	Activity	
7/2/2008	<	3.40E-02
7/9/2008	<	2.80E-02
7/16/2008	<	5.00E-02
7/23/2008	<	4.70E-02
7/30/2008	<	5.60E-02
8/5/2008	<	5.70E-02
8/13/2008	<	4.90E-02
8/20/2008	<	3.90E-02
8/27/2008	<	3.90E-02
9/3/2008	<	3.40E-02
9/10/2008	<	2.20E-02
9/17/2008	<	3.10E-02
9/23/2008	<	3.10E-02

API-2 FOURTH QUARTER

Date	Activity	
10/1/2008	<	3.90E-02
10/8/2008	<	3.20E-02
10/15/2008	<	4.00E-02
10/22/2008	<	3.80E-02
10/29/2008	<	3.20E-02
11/5/2008	<	3.10E-02
11/12/2008	<	5.60E-02
11/19/2008	<	2.90E-02
12/3/2008	<	4.40E-02
12/10/2008	<	3.90E-02
12/17/2008	<	3.10E-02
12/23/2008	<	5.40E-02
12/30/2008	<	2.70E-02

FERMI 2
AIR IODINE - 131
(pCi/cubic meter)

API-3 FIRST QUARTER

Date	Activity	
1/2/2008	<	4.70E-02
1/8/2008	<	4.10E-02
1/16/2008	<	5.60E-02
1/22/2008	<	4.40E-02
1/29/2008	<	4.00E-02
2/5/2008	<	3.80E-02
2/12/2008	<	4.10E-02
2/20/2008	<	5.00E-02
2/27/2008	<	3.50E-02
3/6/2008	<	5.80E-02
3/12/2008	<	4.70E-02
3/19/2008	<	5.60E-02
3/26/2008	<	3.90E-02

API-3 SECOND QUARTER

Date	Activity	
4/2/2008	<	4.30E-02
4/8/2008	<	3.20E-02
4/16/2008	<	2.10E-02
4/22/2008	<	4.90E-02
4/30/2008	<	5.20E-02
5/6/2008	<	4.80E-02
5/14/2008	<	3.10E-02
5/21/2008	<	3.60E-02
5/28/2008	<	2.30E-02
6/4/2008	<	3.80E-02
6/11/2008	<	2.80E-02
6/18/2008	<	2.90E-02
6/25/2008	<	3.80E-02

FERMI 2
AIR IODINE - 131
(pCi/cubic meter)

API-3 THIRD QUARTER

Date		Activity
7/2/2008	<	3.50E-02
7/9/2008	<	2.20E-02
7/16/2008	<	5.30E-02
7/23/2008	<	3.30E-02
7/30/2008	<	4.80E-02
8/5/2008	<	6.10E-02
8/13/2008	<	4.90E-02
8/20/2008	<	4.20E-02
8/27/2008	<	2.00E-02
9/3/2008	<	3.90E-02
9/10/2008	<	2.40E-02
9/17/2008	<	2.80E-02
9/23/2008	<	5.00E-02

API-3 FOURTH QUARTER

Date		Activity
10/1/2008	<	3.60E-02
10/8/2008	<	2.80E-02
10/15/2008	<	4.80E-02
10/22/2008	<	2.90E-02
10/29/2008	<	4.90E-02
11/5/2008	<	2.80E-02
11/12/2008	<	5.50E-02
11/19/2008	<	3.80E-02
12/3/2008	<	4.10E-02
12/10/2008	<	4.70E-02
12/17/2008	<	2.70E-02
12/23/2008	<	5.40E-02
12/30/2008	<	3.30E-02

FERMI 2
AIR IODINE - 131
(pCi/cubic meter)

API-4 FIRST QUARTER

Date	Activity	
1/2/2008	<	4.20E-02
1/8/2008	<	3.20E-02
1/16/2008	<	5.00E-02
1/22/2008	<	5.50E-02
1/29/2008	<	4.80E-02
2/5/2008	<	3.80E-02
2/12/2008	<	2.70E-02
2/20/2008	<	4.70E-02
2/27/2008	<	4.00E-02
3/6/2008	<	4.10E-02
3/12/2008	<	4.90E-02
3/19/2008	<	4.10E-02
3/26/2008	<	4.30E-02

API-4 SECOND QUARTER

Date	Activity	
4/2/2008	<	3.50E-02
4/8/2008	<	3.80E-02
4/16/2008	<	2.40E-02
4/22/2008	<	4.90E-02
4/30/2008	<	3.90E-02
5/6/2008	<	3.50E-02
5/14/2008	<	4.70E-02
5/21/2008	<	3.70E-02
5/28/2008	<	2.20E-02
6/4/2008	<	3.90E-02
6/11/2008	<	2.80E-02
6/18/2008	<	2.80E-02
6/25/2008	<	4.40E-02

FERMI 2
AIR IODINE - 131
(pCi/cubic meter)

API-4 THIRD QUARTER

Date	Activity	
7/2/2008	<	2.80E-02
7/9/2008	<	3.90E-02
7/16/2008	<	3.10E-02
7/23/2008	<	3.30E-02
7/30/2008	<	4.50E-02
8/5/2008	<	5.80E-02
8/13/2008	<	4.70E-02
8/20/2008	<	4.90E-02
8/27/2008	<	2.50E-02
9/3/2008	<	4.30E-02
9/10/2008	<	2.20E-02
9/17/2008	<	2.80E-02
9/23/2008	<	4.90E-02

API-4 FOURTH QUARTER

Date	Activity	
10/1/2008	<	3.50E-02
10/8/2008	<	2.40E-02
10/15/2008	<	5.30E-02
10/22/2008	<	3.50E-02
10/29/2008	<	4.20E-02
11/5/2008	<	3.00E-02
11/12/2008	<	5.20E-02
11/19/2008	<	1.90E-02
12/3/2008	<	3.70E-02
12/10/2008	<	4.30E-02
12/17/2008	<	2.50E-02
12/23/2008	<	5.30E-02
12/30/2008	<	3.90E-02

FERMI 2
AIR IODINE – 131
(pCi/cubic meter)

API-5 FIRST QUARTER

Date		Activity
1/2/2008	<	4.40E-02
1/8/2008	<	3.10E-02
1/16/2008	<	4.50E-02
1/22/2008	<	5.30E-02
1/29/2008	<	4.60E-02
2/5/2008	<	3.70E-02
2/12/2008	<	3.80E-02
2/20/2008	<	4.90E-02
2/27/2008	<	4.50E-02
3/6/2008	<	4.40E-02
3/12/2008	<	5.50E-02
3/19/2008	<	4.60E-02
3/26/2008	<	3.80E-02

API-5 SECOND QUARTER

Date		Activity
4/2/2008	<	4.30E-02
4/8/2008	<	3.80E-02
4/16/2008	<	2.90E-02
4/22/2008	<	4.00E-02
4/30/2008	<	4.00E-02
5/6/2008	<	4.00E-02
5/14/2008	<	3.30E-02
5/21/2008	<	3.00E-02
5/28/2008	<	2.70E-02
6/4/2008	<	3.20E-02
6/11/2008	<	3.00E-02
6/18/2008	<	3.00E-02
6/25/2008	<	3.40E-02

FERMI 2
AIR IODINE – 131
(pCi/cubic meter)

API-5 THIRD QUARTER

Date	Activity	
7/2/2008	<	4.10E-02
7/9/2008	<	3.50E-02
7/16/2008	<	4.20E-02
7/23/2008	<	3.20E-02
7/30/2008	<	5.00E-02
8/5/2008	<	5.40E-02
8/13/2008	<	5.10E-02
8/20/2008	<	4.40E-02
8/27/2008	<	2.90E-02
9/3/2008	<	3.20E-02
9/10/2008	<	3.80E-02
9/17/2008	<	3.70E-02
9/23/2008	<	3.80E-02

API-5 FOURTH QUARTER

Date	Activity	
10/1/2008	<	2.80E-02
10/8/2008	<	2.90E-02
10/15/2008	<	5.40E-02
10/22/2008	<	1.80E-02
10/29/2008	<	4.90E-02
11/5/2008	<	2.00E-02
11/12/2008	<	4.80E-02
11/19/2008	<	2.30E-02
12/3/2008	<	4.30E-02
12/10/2008	<	3.90E-02
12/17/2008	<	2.50E-02
12/23/2008	<	5.50E-02
12/30/2008	<	3.70E-02

FERMI 2
AIR PARTICULATE QUARTERLY COMPOSITE ANALYSIS

API-1 (indicator)
(pCi/cubic meter)

Nuclide	First Quarter				Second Quarter			
Be-7		1.05E-01	+/-	2.40E-02		1.02E-01	+/-	1.60E-02
K-40	<	3.20E-02			<	2.90E-02		
Mn-54	<	3.10E-03			<	2.90E-03		
Co-58	<	4.50E-03			<	4.80E-03		
Fe-59	<	1.30E-02			<	1.30E-02		
Co-60	<	2.20E-03			<	2.10E-03		
Zn-65	<	7.00E-03			<	7.50E-03		
Zr-95	<	8.10E-03			<	8.70E-03		
Nb-95	<	8.70E-03			<	9.90E-03		
Ru-103	<	6.40E-03			<	4.80E-03		
Ru-106	<	3.40E-02			<	1.30E-02		
Cs-134	<	3.50E-03			<	2.10E-03		
Cs-137	<	2.10E-03			<	1.80E-03		
Ba-140	<	5.30E-02			<	1.10E-01		
La-140	<	6.10E-02			<	1.10E-01		
Ce-141	<	1.00E-02			<	4.90E-03		
Ce-144	<	1.40E-02			<	5.10E-03		

API-1 (indicator)
(pCi/cubic meter)

Nuclide	Third Quarter				Fourth Quarter			
Be-7		1.24E-01	+/-	1.50E-02		8.15E-02	+/-	5.20E-03
K-40	<	1.90E-02			<	9.00E-03		
Mn-54	<	2.00E-03			<	1.50E-02		
Co-58	<	3.10E-03			<	5.90E-04		
Fe-59	<	8.00E-03			<	9.60E-04		
Co-60	<	2.80E-03			<	2.70E-03		
Zn-65	<	6.30E-03			<	6.20E-04		
Zr-95	<	3.80E-03			<	1.90E-03		
Nb-95	<	4.60E-03			<	1.70E-03		
Ru-103	<	4.20E-03			<	1.80E-03		
Ru-106	<	1.60E-02			<	1.50E-03		
Cs-134	<	2.20E-03			<	5.30E-03		
Cs-137	<	1.70E-03			<	6.40E-04		
Ba-140	<	2.10E-02			<	4.60E-04		
La-140	<	2.10E-02			<	1.30E-02		
Ce-141	<	5.30E-03			<	1.30E-02		
Ce-144	<	6.40E-03			<	1.70E-03		

FERMI 2
AIR PARTICULATE QUARTERLY COMPOSITE ANALYSIS

API-2 (indicator)
(pCi/cubic meter)

Nuclide	First Quarter				Second Quarter			
Be-7		1.40E-01	+/-	2.10E-02		1.60E-01	+/-	2.40E-02
K-40	<	3.00E-02			<	3.20E-02		
Mn-54	<	2.50E-03			<	2.50E-03		
Co-58	<	4.10E-03			<	1.00E-03		
Fe-59	<	1.10E-02			<	1.20E-02		
Co-60	<	2.20E-03			<	3.30E-03		
Zn-65	<	5.50E-03			<	7.70E-03		
Zr-95	<	4.50E-03			<	6.70E-03		
Nb-95	<	5.80E-03			<	7.90E-03		
Ru-103	<	4.80E-03			<	6.30E-03		
Ru-106	<	2.20E-02			<	2.20E-02		
Cs-134	<	2.00E-03			<	2.10E-03		
Cs-137	<	2.20E-03			<	2.20E-03		
Ba-140	<	6.30E-02			<	1.20E-01		
La-140	<	7.30E-02			<	1.20E-01		
Ce-141	<	8.30E-03			<	5.60E-03		
Ce-144	<	9.50E-03			<	7.50E-03		

API-2 (indicator)
(pCi/cubic meter)

Nuclide	Third Quarter				Fourth Quarter			
Be-7		1.46E-01	+/-	1.90E-02		1.07E-01	+/-	1.70E-02
K-40	<	3.20E-02			<	3.00E-02		
Mn-54	<	3.60E-03			<	2.80E-03		
Co-58	<	4.50E-03			<	2.60E-03		
Fe-59	<	1.10E-02			<	1.10E-02		
Co-60	<	8.60E-04			<	8.40E-04		
Zn-65	<	5.60E-03			<	7.70E-03		
Zr-95	<	4.80E-03			<	9.50E-03		
Nb-95	<	4.40E-03			<	5.10E-03		
Ru-103	<	3.30E-03			<	3.10E-03		
Ru-106	<	2.10E-02			<	1.20E-02		
Cs-134	<	1.80E-03			<	1.80E-03		
Cs-137	<	2.10E-03			<	1.60E-03		
Ba-140	<	4.80E-02			<	4.00E-02		
La-140	<	4.80E-02			<	4.00E-02		
Ce-141	<	5.40E-03			<	5.80E-03		
Ce-144	<	6.30E-03			<	6.30E-03		

FERMI 2
AIR PARTICULATE QUARTERLY COMPOSITE ANALYSIS

API-3 (indicator)
(pCi/cubic meter)

Nuclide	First Quarter				Second Quarter			
Be-7		1.15E-01	+/-	1.80E-02		1.11E-01	+/-	1.90E-02
K-40	<	3.00E-02			<	2.40E-02		
Mn-54	<	1.80E-03			<	2.90E-03		
Co-58	<	2.70E-03			<	4.60E-03		
Fe-59	<	1.10E-02			<	1.70E-02		
Co-60	<	2.50E-03			<	2.40E-03		
Zn-65	<	4.70E-03			<	9.30E-03		
Zr-95	<	5.40E-03			<	7.10E-03		
Nb-95	<	5.40E-03			<	9.90E-03		
Ru-103	<	4.80E-03			<	5.60E-03		
Ru-106	<	2.10E-02			<	1.80E-02		
Cs-134	<	1.80E-03			<	2.60E-03		
Cs-137	<	1.70E-03			<	1.90E-03		
Ba-140	<	5.80E-02			<	3.60E-02		
La-140	<	6.70E-02			<	3.60E-02		
Ce-141	<	8.40E-03			<	7.20E-03		
Ce-144	<	9.10E-03			<	7.50E-03		

API-3 (indicator)
(pCi/cubic meter)

Nuclide	Third Quarter				Fourth Quarter			
Be-7		1.47E-01	+/-	1.80E-02		1.01E-01	+/-	1.60E-02
K-40	<	3.20E-02			<	2.10E-02		
Mn-54	<	2.90E-03			<	4.40E-02		
Co-58	<	2.90E-03			<	2.40E-03		
Fe-59	<	7.10E-03			<	3.30E-03		
Co-60	<	3.10E-03			<	1.00E-02		
Zn-65	<	6.30E-03			<	3.20E-03		
Zr-95	<	5.20E-03			<	6.50E-03		
Nb-95	<	6.40E-03			<	5.40E-03		
Ru-103	<	3.60E-03			<	5.30E-03		
Ru-106	<	2.00E-02			<	3.70E-03		
Cs-134	<	1.50E-03			<	2.00E-02		
Cs-137	<	1.80E-03			<	2.30E-03		
Ba-140	<	3.50E-02			<	2.10E-03		
La-140	<	3.50E-02			<	1.10E-02		
Ce-141	<	4.70E-03			<	1.10E-02		
Ce-144	<	5.70E-03			<	4.20E-03		

FERMI 2
AIR PARTICULATE QUARTERLY COMPOSITE ANALYSIS

API-4 (control)
(pCi/cubic meter)

Nuclide	First Quarter				Second Quarter			
Be-7		1.35E-01	+/-	2.00E-02		1.49E-01	+/-	2.10E-02
K-40	<	3.10E-02			<	3.40E-02		
Mn-54	<	2.50E-03			<	1.90E-03		
Co-58	<	3.00E-03			<	9.00E-04		
Fe-59	<	1.10E-02			<	9.00E-03		
Co-60	<	1.50E-03			<	2.60E-03		
Zn-65	<	5.50E-03			<	8.00E-03		
Zr-95	<	6.90E-03			<	6.10E-03		
Nb-95	<	6.80E-03			<	9.90E-03		
Ru-103	<	5.70E-03			<	6.30E-03		
Ru-106	<	2.20E-02			<	1.80E-02		
Cs-134	<	2.30E-03			<	1.50E-03		
Cs-137	<	2.50E-03			<	1.90E-03		
Ba-140	<	6.80E-02			<	3.10E-02		
La-140	<	7.80E-02			<	3.10E-02		
Ce-141	<	1.00E-02			<	5.60E-03		
Ce-144	<	8.80E-03			<	5.20E-03		

API-4 (control)
(pCi/cubic meter)

Nuclide	Third Quarter				Fourth Quarter			
Be-7		1.37E-01	+/-	1.80E-02		1.09E-01	+/-	5.90E-03
K-40	<	2.90E-02				1.26E-02	+/-	3.20E-03
Mn-54	<	2.40E-03			<	6.00E-04		
Co-58	<	3.50E-03			<	9.40E-04		
Fe-59	<	1.00E-02			<	2.70E-03		
Co-60	<	2.60E-03			<	5.40E-04		
Zn-65	<	1.40E-03			<	1.80E-03		
Zr-95	<	6.70E-03			<	1.80E-03		
Nb-95	<	3.20E-03			<	1.90E-03		
Ru-103	<	3.20E-03			<	1.30E-03		
Ru-106	<	1.60E-02			<	5.70E-03		
Cs-134	<	1.70E-03			<	5.90E-04		
Cs-137	<	2.50E-03			<	5.30E-04		
Ba-140	<	1.20E-02			<	1.40E-02		
La-140	<	1.20E-02			<	1.40E-02		
Ce-141	<	4.50E-03			<	1.80E-03		
Ce-144	<	7.40E-03			<	2.40E-03		

FERMI 2
AIR PARTICULATE QUARTERLY COMPOSITE ANALYSIS

API-5 (Indicator)
(pCi/cubic meter)

Nuclide	First Quarter				Second Quarter			
Be-7		1.35E-01	+/-	2.00E-02		2.06E-01	+/-	2.50E-02
K-40	<	3.40E-02			<	2.60E-02		
Mn-54	<	1.60E-03			<	1.90E-03		
Co-58	<	3.00E-03			<	4.10E-03		
Fe-59	<	1.20E-02			<	1.30E-02		
Co-60	<	2.50E-03			<	2.10E-03		
Zn-65	<	6.80E-03			<	7.10E-03		
Zr-95	<	7.50E-03			<	6.90E-03		
Nb-95	<	5.00E-03			<	7.30E-03		
Ru-103	<	5.10E-03			<	4.40E-03		
Ru-106	<	2.30E-02			<	1.70E-02		
Cs-134	<	2.50E-03			<	1.70E-03		
Cs-137	<	1.90E-03			<	2.00E-03		
Ba-140	<	5.80E-02			<	1.40E-01		
La-140	<	6.70E-02			<	1.40E-01		
Ce-141	<	1.00E-02			<	6.60E-03		
Ce-144	<	9.40E-03			<	6.80E-03		

API-5 (Indicator)
(pCi/cubic meter)

Nuclide	Third Quarter				Fourth Quarter			
Be-7		1.62E-01	+/-	1.70E-02		1.28E-01	+/-	1.40E-02
K-40	<	2.30E-02			<	2.20E-02		
Mn-54	<	1.40E-03			<	1.90E-03		
Co-58	<	2.60E-03			<	1.80E-03		
Fe-59	<	8.80E-03			<	6.90E-03		
Co-60	<	1.30E-03			<	2.30E-03		
Zn-65	<	4.70E-03			<	4.30E-03		
Zr-95	<	5.00E-03			<	5.70E-03		
Nb-95	<	5.60E-03			<	3.90E-03		
Ru-103	<	4.20E-03			<	3.80E-03		
Ru-106	<	1.30E-02			<	1.10E-02		
Cs-134	<	1.90E-03			<	1.60E-03		
Cs-137	<	1.50E-03			<	1.40E-03		
Ba-140	<	2.70E-02			<	1.80E-02		
La-140	<	2.70E-02			<	1.80E-02		
Ce-141	<	5.00E-03			<	4.50E-03		
Ce-144	<	4.60E-03			<	6.30E-03		

FERMI 2
MILK ANALYSIS

M-2 (Indicator)
(pCi/liter)

Nuclide	24-JAN			14-FEB			20-MAR		
I-131	< 8.10E-01			< 7.70E-01			< 9.10E-01		
Sr-89	< 7.10E+00			< 9.30E+00			< 8.30E+00		
Sr-90	< 1.50E+00			< 1.80E+00			< 1.50E+00		
Be-7	< 6.70E+01			< 5.50E+01			< 4.70E+01		
K-40	1.28E+03	+/-	9.30E+01	1.46E+03	+/-	7.90E+01	1.45E+03	+/-	7.20E+01
Mn-54	< 9.00E+00			< 6.70E+00			< 6.10E+00		
Co-58	< 8.60E+00			< 7.50E+00			< 7.00E+00		
Fe-59	< 1.80E+01			< 1.70E+01			< 1.60E+01		
Co-60	< 1.30E+01			< 8.90E+00			< 7.90E+00		
Zn-65	< 2.60E+01			< 1.80E+01			< 1.90E+01		
Zr-95	< 1.60E+01			< 1.30E+01			< 1.10E+01		
Nb-95	< 1.00E+01			< 8.90E+00			< 9.20E+00		
Ru-103	< 9.70E+00			< 6.40E+00			< 6.50E+00		
Ru-106	< 7.50E+01			< 5.50E+01			< 6.00E+01		
Cs-134	< 8.70E+00			< 7.80E+00			< 6.30E+00		
Cs-137	< 8.10E+00			< 7.40E+00			< 6.50E+00		
Ba-140	< 1.40E+01			< 1.40E+01			< 1.30E+01		
La-140	< 1.40E+01			< 1.40E+01			< 1.30E+01		
Ce-141	< 1.30E+01			< 8.80E+00			< 9.50E+00		
Ce-144	< 4.00E+01			< 3.10E+01			< 3.50E+01		

Nuclide	17-APR			15-MAY			29-MAY		
I-131	< 7.30E-01			< 8.30E-01			< 9.00E-01		
Sr-89	< 6.20E+00			< 9.90E+00			< 6.10E+00		
Sr-90	< 1.70E+00			< 1.90E+00			< 1.70E+00		
Be-7	< 5.80E+01			< 5.50E+01			< 3.80E+01		
K-40	1.41E+03	+/-	8.00E+01	1.39E+03	+/-	7.50E+01	1.44E+03	+/-	5.70E+01
Mn-54	< 7.70E+00			< 7.60E+00			< 5.70E+00		
Co-58	< 8.00E+00			< 7.80E+00			< 5.50E+00		
Fe-59	< 2.10E+01			< 1.70E+01			< 1.30E+01		
Co-60	< 9.40E+00			< 8.90E+00			< 6.10E+00		
Zn-65	< 2.00E+01			< 1.60E+01			< 1.30E+01		
Zr-95	< 1.40E+01			< 1.10E+01			< 8.60E+00		
Nb-95	< 9.10E+00			< 8.40E+00			< 5.90E+00		
Ru-103	< 8.30E+00			< 7.00E+00			< 5.40E+00		
Ru-106	< 6.10E+01			< 6.70E+01			< 4.20E+01		
Cs-134	< 6.80E+00			< 7.30E+00			< 4.20E+00		
Cs-137	< 7.50E+00			< 7.00E+00			< 4.80E+00		
Ba-140	< 1.50E+01			< 1.40E+01			< 1.20E+01		
La-140	< 1.50E+01			< 1.40E+01			< 1.20E+01		
Ce-141	< 9.40E+00			< 1.10E+01			< 9.00E+00		
Ce-144	< 3.20E+01			< 3.90E+01			< 2.00E+01		

FERMI 2
MILK ANALYSIS

M-2 (Indicator)
(pCi/liter)

Nuclide	12-JUN			26-JUN			10-JUL		
I-131	<9.30E-01			<7.20E-01			<8.40E-01		
Sr-89	<8.80E+00			<7.50E+00			<6.70E+00		
Sr-90	<1.60E+00			<1.80E+00			<1.00E+00		
Be-7	<6.60E+01			<4.80E+01			<5.70E+01		
K-40	1.31E+03	+/-	8.70E+01	1.39E+03	+/-	5.60E+01	1.33E+03	+/-	8.10E+01
Mn-54	<7.70E+00			<5.40E+00			<8.90E+00		
Co-58	<8.70E+00			<6.20E+00			<7.50E+00		
Fe-59	<2.10E+01			<1.40E+01			<1.70E+01		
Co-60	<1.00E+01			<6.40E+00			<7.00E+00		
Zn-65	<2.40E+01			<2.60E+01			<2.10E+01		
Zr-95	<1.50E+01			<8.90E+00			<1.20E+01		
Nb-95	<1.00E+01			<7.90E+00			<9.10E+00		
Ru-103	<7.40E+00			<5.30E+00			<8.80E+00		
Ru-106	<6.50E+01			<4.60E+01			<6.70E+01		
Cs-134	<6.50E+00			<4.50E+00			<8.20E+00		
Cs-137	<7.00E+00			<5.50E+00			<7.40E+00		
Ba-140	<1.10E+01			<1.10E+01			<1.30E+01		
La-140	<1.10E+01			<1.10E+01			<1.30E+01		
Ce-141	<1.00E+01			<7.90E+00			<1.20E+01		
Ce-144	<3.10E+01			<3.10E+01			<4.50E+01		

Nuclide	24-JUL			14-AUG			28-AUG		
I-131	<9.00E-01			<9.30E-01			<7.60E-01		
Sr-89	<6.00E+00			<5.30E+00			<7.80E+00		
Sr-90	<1.10E+00			<1.40E+00			<1.70E+00		
Be-7	<5.40E+01			<5.50E+01			<5.20E+01		
K-40	1.44E+03	+/-	7.80E+01	1.27E+03	+/-	7.50E+01	1.47E+03	+/-	8.20E+01
Mn-54	<7.60E+00			<6.20E+00			<7.20E+00		
Co-58	<7.10E+00			<6.20E+00			<8.10E+00		
Fe-59	<1.70E+01			<1.60E+01			<1.90E+01		
Co-60	<9.00E+00			<7.60E+00			<8.80E+00		
Zn-65	<2.00E+01			<1.90E+01			<1.90E+01		
Zr-95	<1.20E+01			<1.10E+01			<1.20E+01		
Nb-95	<8.30E+00			<7.50E+00			<8.10E+00		
Ru-103	<6.90E+00			<6.70E+00			<7.50E+00		
Ru-106	<6.50E+01			<5.50E+01			<5.90E+01		
Cs-134	<6.20E+00			<5.70E+00			<6.70E+00		
Cs-137	<6.40E+00			<6.10E+00			<6.10E+00		
Ba-140	<1.50E+01			<1.20E+01			<1.50E+01		
La-140	<1.50E+01			<1.20E+01			<1.50E+01		
Ce-141	<1.40E+01			<8.00E+00			<1.00E+01		
Ce-144	<3.00E+01			<3.10E+01			<2.80E+01		

FERMI 2
MILK ANALYSIS

M-2 (Indicator)
(pCi/liter)

Nuclide	11-SEP				25-SEP				9-OCT			
I-131	<	9.40E-01			<	7.00E-01			<	8.90E-01		
Sr-89	<	5.40E+00			<	7.80E+00			<	7.10E+00		
Sr-90	<	1.30E+00			<	1.60E+00			<	1.50E+00		
Be-7	<	5.60E+01			<	1.00E+02			<	5.90E+01		
K-40		1.56E+03	+/-	8.70E+01		1.25E+03	+/-	1.10E+02		1.31E+03	+/-	8.40E+01
Mn-54	<	9.60E+00			<	1.20E+01			<	9.30E+00		
Co-58	<	8.00E+00			<	1.00E+01			<	7.30E+00		
Fe-59	<	1.90E+01			<	3.10E+01			<	2.00E+01		
Co-60	<	9.70E+00			<	1.10E+01			<	9.60E+00		
Zn-65	<	2.50E+01			<	3.20E+01			<	3.60E+01		
Zr-95	<	1.40E+01			<	2.30E+01			<	1.60E+01		
Nb-95	<	8.90E+00			<	1.10E+01			<	1.10E+01		
Ru-103	<	7.60E+00			<	1.00E+01			<	8.40E+00		
Ru-106	<	7.70E+01			<	7.90E+01			<	7.70E+01		
Cs-134	<	8.90E+00			<	1.00E+01			<	7.80E+00		
Cs-137	<	7.40E+00			<	1.10E+01			<	9.10E+00		
Ba-140	<	1.30E+01			<	1.10E+01			<	1.30E+01		
La-140	<	1.30E+01			<	1.10E+01			<	1.30E+01		
Ce-141	<	1.10E+01			<	1.40E+01			<	1.30E+01		
Ce-144	<	4.20E+01			<	5.20E+01			<	4.10E+01		

Nuclide	13-NOV				13-DEC			
I-131	<	7.20E-01			<	9.50E-01		
Sr-89	<	8.20E+00			<	7.00E+00		
Sr-90	<	1.80E+00			<	1.40E+00		
Be-7	<	5.00E+01			<	4.70E+01		
K-40		1.38E+03	+/-	6.80E+01		1.38E+03	+/-	6.20E+01
Mn-54	<	6.30E+00			<	6.00E+00		
Co-58	<	6.70E+00			<	5.80E+00		
Fe-59	<	1.50E+01			<	1.50E+01		
Co-60	<	8.50E+00			<	6.60E+00		
Zn-65	<	1.80E+01			<	1.70E+01		
Zr-95	<	1.10E+01			<	1.00E+01		
Nb-95	<	6.20E+00			<	7.20E+00		
Ru-103	<	5.70E+00			<	5.60E+00		
Ru-106	<	5.00E+01			<	6.00E+01		
Cs-134	<	6.20E+00			<	6.20E+00		
Cs-137	<	6.50E+00			<	5.90E+00		
Ba-140	<	1.50E+01			<	1.30E+01		
La-140	<	1.50E+01			<	1.30E+01		
Ce-141	<	8.00E+00			<	6.90E+00		
Ce-144	<	2.60E+01			<	3.20E+01		

FERMI 2
MILK ANALYSIS

M-8 (Control)
(pCi/liter)

Nuclide	24-JAN			14-FEB			30-MAR		
I-131	< 8.30E-01			< 8.20E-01			< 8.60E-01		
Sr-89	< 6.50E+00			< 6.90E+00			< 9.00E+00		
Sr-90	< 1.30E+00			< 1.70E+00			< 1.80E+00		
Be-7	< 7.10E+01			< 4.90E+01			< 6.00E+01		
K-40	1.40E+03	+/-	9.10E+01	1.38E+03	+/-	6.00E+01	1.35E+03	+/-	8.30E+01
Mn-54	< 9.90E+00			< 5.40E+00			< 8.00E+00		
Co-58	< 9.80E+00			< 6.30E+00			< 9.30E+00		
Fe-59	< 2.50E+01			< 1.50E+01			< 2.00E+01		
Co-60	< 7.40E+00			< 5.80E+00			< 1.00E+01		
Zn-65	< 2.50E+01			< 1.60E+01			< 2.20E+01		
Zr-95	< 1.80E+01			< 1.10E+01			< 1.40E+01		
Nb-95	< 1.00E+01			< 8.00E+00			< 1.10E+01		
Ru-103	< 9.80E+00			< 6.50E+00			< 9.10E+00		
Ru-106	< 9.20E+01			< 5.50E+01			< 7.30E+01		
Cs-134	< 9.70E+00			< 6.40E+00			< 7.90E+00		
Cs-137	< 8.20E+00			< 6.00E+00			< 9.00E+00		
Ba-140	< 1.20E+01			< 1.20E+01			< 1.40E+01		
La-140	< 1.20E+01			< 1.20E+01			< 1.40E+01		
Ce-141	< 1.50E+01			< 9.70E+00			< 1.30E+01		
Ce-144	< 4.60E+01			< 2.90E+01			< 4.50E+01		

Nuclide	17-APR			21-MAY			29-MAY		
I-131	< 7.20E-01			< 8.40E-01			< 8.70E-01		
Sr-89	< 4.80E+00			< 9.50E+00			< 6.70E+00		
Sr-90	< 1.20E+00			< 2.00E+00			< 1.90E+00		
Be-7	< 7.10E+01			< 6.00E+01			< 3.40E+01		
K-40	1.40E+03	+/-	8.60E+01	1.38E+03	+/-	7.40E+01	1.39E+03	+/-	4.40E+01
Mn-54	< 8.50E+00			< 7.90E+00			< 4.30E+00		
Co-58	< 9.30E+00			< 7.20E+00			< 4.10E+00		
Fe-59	< 2.20E+01			< 1.60E+01			< 9.50E+00		
Co-60	< 1.10E+01			< 7.90E+00			< 4.30E+00		
Zn-65	< 2.30E+01			< 1.80E+01			< 1.50E+01		
Zr-95	< 1.70E+01			< 1.20E+01			< 6.90E+00		
Nb-95	< 9.40E+00			< 8.30E+00			< 4.40E+00		
Ru-103	< 8.00E+00			< 8.30E+00			< 4.10E+00		
Ru-106	< 7.00E+01			< 7.40E+01			< 3.60E+01		
Cs-134	< 7.50E+00			< 7.00E+00			< 4.60E+00		
Cs-137	< 7.30E+00			< 7.70E+00			< 4.20E+00		
Ba-140	< 1.50E+01			< 1.10E+01			< 8.20E+00		
La-140	< 1.50E+01			< 1.10E+01			< 8.20E+00		
Ce-141	< 1.10E+01			< 1.40E+01			< 5.80E+00		
Ce-144	< 3.70E+01			< 3.70E+01			< 2.10E+01		

FERMI 2
MILK ANALYSIS

M-8 (Control)
(pCi/liter)

Nuclide	12-JUN			26-JUN			10-JUL		
I-131	<9.70E-01			<8.20E-01			<8.00E-01		
Sr-89	<8.40E+00			<7.70E+00			<7.10E+00		
Sr-90	<1.50E+00			<1.70E+00			<1.10E+00		
Be-7	<3.10E+01			<4.60E+01			<5.10E+01		
K-40	1.39E+03	+/-	4.20E+01	1.42E+03	+/-	6.30E+01	1.38E+03	+/-	6.70E+01
Mn-54	<3.70E+00			<6.00E+00			<5.40E+00		
Co-58	<3.70E+00			<6.80E+00			<5.70E+00		
Fe-59	<9.40E+00			<1.40E+01			<1.30E+01		
Co-60	<4.30E+00			<6.70E+00			<7.10E+00		
Zn-65	<1.60E+01			<2.70E+01			<1.60E+01		
Zr-95	<7.00E+00			<1.10E+01			<9.40E+00		
Nb-95	<6.80E+00			<9.80E+00			<6.20E+00		
Ru-103	<4.30E+00			<6.40E+00			<6.00E+00		
Ru-106	<3.60E+01			<5.80E+01			<5.60E+01		
Cs-134	<4.00E+00			<5.90E+00			<5.60E+00		
Cs-137	<3.80E+00			<6.00E+00			<6.50E+00		
Ba-140	<8.00E+00			<1.30E+01			<1.40E+01		
La-140	<8.00E+00			<1.30E+01			<1.40E+01		
Ce-141	<6.60E+00			<9.30E+00			<9.70E+00		
Ce-144	<2.00E+01			<3.40E+01			<2.50E+01		

Nuclide	24-JUL			14-AUG			28-AUG		
I-131	<9.30E-01			<7.80E-01			<9.60E-01		
Sr-89	<7.40E+00			<5.60E+00			<5.60E+00		
Sr-90	<1.50E+00			<1.50E+00			<1.20E+00		
Be-7	<5.80E+01			<4.90E+01			<6.00E+01		
K-40	1.40E+03	+/-	6.80E+01	1.33E+03	+/-	6.80E+01	1.28E+03	+/-	8.00E+01
Mn-54	<7.50E+00			<6.30E+00			<9.20E+00		
Co-58	<7.80E+00			<6.70E+00			<8.10E+00		
Fe-59	<1.70E+01			<1.70E+01			<2.00E+01		
Co-60	<6.80E+00			<9.00E+00			<8.60E+00		
Zn-65	<3.20E+01			<1.70E+01			<2.10E+01		
Zr-95	<1.10E+01			<1.20E+01			<1.20E+01		
Nb-95	<1.00E+01			<8.10E+00			<9.90E+00		
Ru-103	<7.70E+00			<6.50E+00			<7.40E+00		
Ru-106	<6.30E+01			<5.50E+01			<8.20E+01		
Cs-134	<6.70E+00			<5.10E+00			<7.70E+00		
Cs-137	<7.50E+00			<6.20E+00			<7.20E+00		
Ba-140	<1.40E+01			<1.30E+01			<1.50E+01		
La-140	<1.40E+01			<1.30E+01			<1.50E+01		
Ce-141	<1.10E+01			<7.80E+00			<1.20E+01		
Ce-144	<4.10E+01			<2.90E+01			<4.10E+01		

FERMI 2
MILK ANALYSIS

M-8 (Control)
(pCi/liter)

Nuclide	11-SEP			25-SEP			9-OCT		
I-131	< 9.00E-01			< 7.90E-01			< 9.80E-01		
Sr-89	< 5.50E+00			< 8.00E+00			< 7.70E+00		
Sr-90	< 1.40E+00			< 1.70E+00			< 1.60E+00		
Be-7	< 7.20E+01			< 4.90E+01			< 6.00E+01		
K-40	1.41E+03	+/-	9.10E+01	1.49E+03	+/-	7.10E+01	1.62E+03	+/-	7.40E+01
Mn-54	< 9.80E+00			< 6.00E+00			< 6.50E+00		
Co-58	< 8.00E+00			< 5.90E+00			< 7.00E+00		
Fe-59	< 2.00E+01			< 1.60E+01			< 1.60E+01		
Co-60	< 9.50E+00			< 7.20E+00			< 8.20E+00		
Zn-65	< 2.40E+01			< 1.80E+01			< 2.10E+01		
Zr-95	< 1.40E+01			< 1.20E+01			< 1.10E+01		
Nb-95	< 1.10E+01			< 7.80E+00			< 6.60E+00		
Ru-103	< 9.80E+00			< 6.30E+00			< 7.40E+00		
Ru-106	< 8.40E+01			< 5.70E+01			< 6.90E+01		
Cs-134	< 9.40E+00			< 6.40E+00			< 7.50E+00		
Cs-137	< 8.20E+00			< 6.70E+00			< 6.90E+00		
Ba-140	< 1.00E+01			< 1.30E+01			< 1.50E+01		
La-140	< 1.00E+01			< 1.30E+01			< 1.50E+01		
Ce-141	< 1.30E+01			< 9.90E+00			< 9.30E+00		
Ce-144	< 4.20E+01			< 2.90E+01			< 3.60E+01		

Nuclide	13-NOV			11-DEC		
I-131	< 8.70E-01			< 9.60E-01		
Sr-89	< 8.60E+00			< 8.30E+00		
Sr-90	1.80E+00	+/-	5.70E-01	< 1.80E+00		
Be-7	< 5.00E+01			< 5.70E+01		
K-40	1.52E+03	+/-	8.00E+01	1.53E+03	+/-	7.30E+01
Mn-54	< 8.90E+00			< 8.00E+00		
Co-58	< 8.90E+00			< 7.80E+00		
Fe-59	< 1.80E+01			< 1.90E+01		
Co-60	< 8.80E+00			< 8.60E+00		
Zn-65	< 2.00E+01			< 2.10E+01		
Zr-95	< 1.40E+01			< 1.40E+01		
Nb-95	< 9.80E+00			< 9.40E+00		
Ru-103	< 8.80E+00			< 8.50E+00		
Ru-106	< 7.90E+01			< 7.50E+01		
Cs-134	< 7.40E+00			< 6.60E+00		
Cs-137	< 8.10E+00			< 6.80E+00		
Ba-140	< 1.40E+01			< 1.30E+01		
La-140	< 1.40E+01			< 1.30E+01		
Ce-141	< 1.10E+01			< 1.10E+01		
Ce-144	< 4.20E+01			< 3.50E+01		

FERMI 2
VEGETABLE ANALYSIS

FP-1 (Indicator)
(pCi/kg wet)

Nuclide	24-JUL Broccoli			24-JUL Cabbage			24-JUL Cauliflower		
I-131	< 5.60E+01			< 4.90E+01			< 4.20E+01		
Be-7	< 3.60E+02			< 5.40E+02			< 3.30E+02		
K-40	4.26E+03	+/-	4.70E+02	3.69E+03	+/-	6.00E+02	4.59E+03	+/-	4.20E+02
Mn-54	< 4.50E+01			< 7.20E+01			< 4.20E+01		
Co-58	< 5.20E+01			< 4.60E+01			< 5.20E+01		
Fe-59	< 9.90E+01			< 1.30E+02			< 9.00E+01		
Co-60	< 7.10E+01			< 1.10E+02			< 6.10E+01		
Zn-65	< 1.10E+02			< 1.30E+02			< 1.20E+02		
Zr-95	< 1.00E+02			< 1.30E+02			< 8.50E+01		
Nb-95	< 6.80E+01			< 8.10E+01			< 4.80E+01		
Ru-103	< 5.60E+01			< 6.80E+01			< 4.20E+01		
Ru-106	< 3.20E+02			< 5.10E+02			< 3.30E+02		
Cs-134	< 4.60E+01			< 4.40E+01			< 3.50E+01		
Cs-137	< 4.10E+01			< 5.50E+01			< 4.50E+01		
Ba-140	< 7.70E+01			< 1.70E+02			< 1.40E+02		
La-140	< 7.70E+01			< 1.70E+02			< 1.40E+02		
Ce-141	< 5.90E+01			< 7.60E+01			< 4.70E+01		
Ce-144	< 1.70E+02			< 2.30E+02			< 1.50E+02		

FP-1 (Indicator)
(pCi/kg wet)

Nuclide	14-AUG Broccoli			14-AUG Cabbage			14-AUG Lettuce		
I-131	< 2.60E+01			< 2.80E+01			< 5.10E+01		
Be-7	< 3.50E+02			< 3.30E+02			< 3.30E+02		
K-40	4.04E+03	+/-	4.20E+02	2.82E+03	+/-	3.60E+02	6.00E+03	+/-	3.80E+02
Mn-54	< 4.00E+01			< 4.60E+01			< 2.60E+01		
Co-58	< 4.40E+01			< 3.60E+01			< 3.50E+01		
Fe-59	< 1.30E+02			< 9.90E+01			< 8.80E+01		
Co-60	< 6.00E+01			< 4.60E+01			< 2.30E+01		
Zn-65	< 1.10E+02			< 1.20E+02			< 9.90E+01		
Zr-95	< 9.40E+01			< 7.90E+01			< 6.60E+01		
Nb-95	< 4.50E+01			< 5.50E+01			< 3.70E+01		
Ru-103	< 4.30E+01			< 3.50E+01			< 3.60E+01		
Ru-106	< 4.50E+02			< 3.90E+02			< 3.60E+02		
Cs-134	< 3.70E+01			< 3.00E+01			< 3.60E+01		
Cs-137	< 3.60E+01			< 4.60E+01			< 3.00E+01		
Ba-140	< 1.10E+02			< 1.30E+02			< 4.90E+01		
La-140	< 1.10E+02			< 1.30E+02			< 4.90E+01		
Ce-141	< 5.70E+01			< 4.40E+01			< 5.00E+01		
Ce-144	< 1.80E+02			< 1.40E+02			< 1.60E+02		

FERMI 2
VEGETABLE ANALYSIS

FP-9 (Control)
(pCi/kg wet)

Nuclide	24-JUL Broccoli			24-JUL Cabbage			24-JUL Lettuce		
I-131	< 4.20E+01			< 5.40E+01			< 5.10E+01		
Be-7	< 3.20E+02			< 3.30E+02			< 2.90E+02		
K-40	4.92E+03	+/-	3.90E+02	3.82E+03	+/-	4.00E+02	3.21E+03	+/-	2.70E+02
Mn-54	< 3.90E+01			< 3.90E+01			< 3.90E+01		
Co-58	< 3.90E+01			< 4.40E+01			< 3.70E+01		
Fe-59	< 9.80E+01			< 1.10E+02			< 8.50E+01		
Co-60	< 4.20E+01			< 3.90E+01			< 3.70E+01		
Zn-65	< 1.10E+02			< 7.10E+01			< 8.90E+01		
Zr-95	< 6.80E+01			< 6.60E+01			< 5.10E+01		
Nb-95	< 4.60E+01			< 5.70E+01			< 4.20E+01		
Ru-103	< 4.80E+01			< 4.20E+01			< 3.50E+01		
Ru-106	< 3.20E+02			< 4.50E+02			< 3.70E+02		
Cs-134	< 4.10E+01			< 4.60E+01			< 3.30E+01		
Cs-137	< 4.40E+01			< 4.30E+01			< 3.70E+01		
Ba-140	< 9.60E+01			< 1.10E+02			< 5.10E+01		
La-140	< 9.60E+01			< 1.10E+02			< 5.10E+01		
Ce-141	< 5.30E+01			< 5.30E+01			< 4.80E+01		
Ce-144	< 1.70E+02			< 1.80E+02			< 1.80E+02		

FP-9 (Control)
(pCi/kg wet)

Nuclide	14-AUG Broccoli			14-AUG Cabbage			14-AUG Horse Radish		
I-131	< 4.60E+01			< 3.10E+01			< 4.00E+01		
Be-7	< 3.30E+02			< 2.70E+02			5.40E+02	+/-	1.40E+02
K-40	5.38E+03	+/-	5.20E+02	2.27E+03	+/-	2.50E+02	4.36E+03	+/-	4.70E+02
Mn-54	< 3.90E+01			< 3.20E+01			< 4.60E+01		
Co-58	< 5.20E+01			< 3.30E+01			< 5.70E+01		
Fe-59	< 1.20E+02			< 7.20E+01			< 1.30E+02		
Co-60	< 6.20E+01			< 2.90E+01			< 3.30E+01		
Zn-65	< 1.10E+02			< 6.50E+01			< 1.30E+02		
Zr-95	< 7.70E+01			< 6.10E+01			< 8.40E+01		
Nb-95	< 4.30E+01			< 3.70E+01			< 5.40E+01		
Ru-103	< 3.90E+01			< 3.50E+01			< 4.50E+01		
Ru-106	< 3.80E+02			< 3.20E+02			< 5.00E+02		
Cs-134	< 4.20E+01			< 3.40E+01			< 5.50E+01		
Cs-137	< 5.80E+01			< 3.10E+01			< 4.20E+01		
Ba-140	< 1.20E+02			< 6.10E+01			< 1.10E+02		
La-140	< 1.20E+02			< 6.10E+01			< 1.10E+02		
Ce-141	< 4.30E+01			< 4.60E+01			< 5.50E+01		
Ce-144	< 1.70E+02			< 1.40E+02			< 2.10E+02		

FERMI 2
DRINKING WATER ANALYSIS

DW-1 (Indicator)
(pCi/liter)

Nuclide	29-JAN			27-FEB			26-MAR		
GR-B	5.20E+00	+/-	1.20E+00	9.50E+00	+/-	1.20E+00	3.80E+00	+/-	1.10E+00
Sr-89	< 7.30E+00			< 7.70E+00			< 7.60E+00		
Sr-90	< 1.60E+00			< 1.40E+00			< 1.50E+00		
Be-7	< 6.00E+01			< 3.60E+01			< 4.50E+01		
K-40	< 8.60E+01			< 7.60E+01			< 1.10E+02		
Mn-54	< 6.90E+00			< 5.50E+00			< 5.30E+00		
Co-58	< 6.70E+00			< 5.10E+00			< 6.10E+00		
Fe-59	< 1.30E+01			< 1.10E+01			< 1.30E+01		
Co-60	< 6.20E+00			< 6.20E+00			< 7.40E+00		
Zn-65	< 1.50E+01			< 1.20E+01			< 1.30E+01		
Zr-95	< 1.10E+01			< 9.50E+00			< 9.80E+00		
Nb-95	< 7.00E+00			< 6.10E+00			< 7.10E+00		
Ru-103	< 7.80E+00			< 5.30E+00			< 6.20E+00		
Ru-106	< 6.40E+01			< 3.90E+01			< 6.30E+01		
Cs-134	< 7.40E+00			< 4.50E+00			< 5.90E+00		
Cs-137	< 6.60E+00			< 4.50E+00			< 6.60E+00		
Ba-140	< 1.20E+01			< 9.70E+00			< 1.10E+01		
La-140	< 1.20E+01			< 9.70E+00			< 1.10E+01		
Ce-141	< 1.10E+01			< 8.90E+00			< 8.30E+00		
Ce-144	< 3.30E+01			< 2.20E+01			< 3.00E+01		

Nuclide	30-APR			28-MAY			25-JUN		
GR-B	5.50E+00	+/-	1.20E+00	< 3.10E+00			< 3.10E+00		
Sr-89	< 8.70E+00			< 8.20E+00			< 6.90E+00		
Sr-90	< 1.70E+00			< 1.30E+00			< 1.40E+00		
Be-7	< 6.00E+01			< 4.60E+01			< 2.80E+01		
K-40	< 1.10E+02			< 7.80E+01			< 7.90E+01		
Mn-54	< 5.10E+00			< 4.70E+00			< 3.40E+00		
Co-58	< 7.00E+00			< 5.10E+00			< 3.80E+00		
Fe-59	< 1.60E+01			< 1.00E+01			< 8.70E+00		
Co-60	< 6.30E+00			< 5.70E+00			< 4.20E+00		
Zn-65	< 1.70E+01			< 1.60E+01			< 8.30E+00		
Zr-95	< 1.10E+01			< 9.90E+00			< 7.30E+00		
Nb-95	< 7.00E+00			< 5.80E+00			< 4.80E+00		
Ru-103	< 6.70E+00			< 5.30E+00			< 5.20E+00		
Ru-106	< 6.30E+01			< 4.20E+01			< 2.90E+01		
Cs-134	< 7.00E+00			< 4.80E+00			< 3.00E+00		
Cs-137	< 7.10E+00			< 5.10E+00			< 3.30E+00		
Ba-140	< 1.40E+01			< 8.70E+00			< 9.70E+00		
La-140	< 1.40E+01			< 8.70E+00			< 9.70E+00		
Ce-141	< 8.60E+00			< 7.90E+00			< 8.60E+00		
Ce-144	< 3.20E+01			< 2.60E+01			< 1.70E+01		

FERMI 2
DRINKING WATER ANALYSIS

DW-1 (Indicator)
(pCi/liter)

Nuclide	30-JUL			27-AUG			23-SEP		
GR-B	4.70E+00	+/-	1.20E+00	3.50E+00	+/-	1.00E+00	6.30E+00	+/-	1.40E+00
Sr-89	<7.90E+00			<6.60E+00			<4.50E+00		
Sr-90	<1.70E+00			<1.20E+00			<1.20E+00		
Be-7	<5.00E+01			<4.40E+01			<5.20E+01		
K-40	<8.90E+01			<9.90E+01			<1.00E+02		
Mn-54	<6.30E+00			<5.30E+00			<6.90E+00		
Co-58	<7.20E+00			<5.30E+00			<7.70E+00		
Fe-59	<1.50E+01			<1.10E+01			<1.40E+01		
Co-60	<8.90E+00			<6.30E+00			<6.50E+00		
Zn-65	<1.40E+01			<1.30E+01			<1.90E+01		
Zr-95	<1.10E+01			<1.20E+01			<1.20E+01		
Nb-95	<8.80E+00			<4.90E+00			<7.70E+00		
Ru-103	<6.30E+00			<5.30E+00			<8.20E+00		
Ru-106	<5.40E+01			<3.90E+01			<7.00E+01		
Cs-134	<6.60E+00			<4.60E+00			<7.60E+00		
Cs-137	<6.20E+00			<4.70E+00			<8.60E+00		
Ba-140	<1.50E+01			<1.10E+01			<1.40E+01		
La-140	<1.50E+01			<1.10E+01			<1.40E+01		
Ce-141	<7.80E+00			<6.40E+00			<9.80E+00		
Ce-144	<2.90E+01			<2.20E+01			<3.80E+01		

Nuclide	29-OCT			26-NOV			26-DEC		
GR-B	<3.20E+00			<3.10E+00			<3.00E+00		
Sr-89	<1.10E+01			<6.10E+00			<6.00E+00		
Sr-90	<5.20E+00			<1.60E+00			<1.60E+00		
Be-7	<1.60E+00			<4.20E+01			<4.50E+01		
K-40	<4.40E+01			<8.20E+01			<8.90E+01		
Mn-54	<8.40E+01			<4.80E+00			<5.20E+00		
Co-58	<5.10E+00			<5.20E+00			<5.60E+00		
Fe-59	<6.00E+00			<1.20E+01			<1.20E+01		
Co-60	<1.30E+01			<5.70E+00			<6.20E+00		
Zn-65	<5.90E+00			<1.20E+01			<1.30E+01		
Zr-95	<1.50E+01			<9.80E+00			<9.40E+00		
Nb-95	<9.80E+00			<6.20E+00			<6.40E+00		
Ru-103	<6.30E+00			<5.60E+00			<5.60E+00		
Ru-106	<6.00E+00			<4.50E+01			<5.30E+01		
Cs-134	<5.40E+01			<5.00E+00			<5.40E+00		
Cs-137	<5.40E+00			<5.10E+00			<5.70E+00		
Ba-140	<6.20E+00			<1.20E+01			<1.40E+01		
La-140	<1.00E+01			<1.20E+01			<1.40E+01		
Ce-141	<1.00E+01			<7.30E+00			<8.20E+00		
Ce-144	<8.20E+00			<2.50E+01			<2.50E+01		

FERMI 2
DRINKING WATER ANALYSIS

DW-2 (Control)
(pCi/liter)

Nuclide	29-JAN			27-FEB			26-MAR		
GR-B	6.00E+00	+/-	1.10E+00	< 4.00E+00			< 3.00E+00		
Sr-89	< 7.00E+00			< 8.30E+00			< 8.20E+00		
Sr-90	< 1.50E+00			< 1.60E+00			< 1.70E+00		
Be-7	< 3.20E+01			< 3.20E+01			< 4.10E+01		
K-40	< 7.10E+01			< 7.70E+01			< 8.60E+01		
Mn-54	< 3.40E+00			< 3.90E+00			< 5.70E+00		
Co-58	< 4.40E+00			< 4.40E+00			< 5.40E+00		
Fe-59	< 9.60E+00			< 9.70E+00			< 1.30E+01		
Co-60	< 5.20E+00			< 5.00E+00			< 7.00E+00		
Zn-65	< 9.30E+00			< 1.00E+01			< 1.50E+01		
Zr-95	< 7.60E+00			< 8.30E+00			< 1.10E+01		
Nb-95	< 4.90E+00			< 4.80E+00			< 7.30E+00		
Ru-103	< 4.50E+00			< 5.20E+00			< 6.80E+00		
Ru-106	< 3.50E+01			< 3.80E+01			< 4.80E+01		
Cs-134	< 4.70E+00			< 4.50E+00			< 4.70E+00		
Cs-137	< 4.60E+00			< 4.30E+00			< 5.40E+00		
Ba-140	< 8.20E+00			< 8.70E+00			< 1.10E+01		
La-140	< 8.20E+00			< 8.70E+00			< 1.10E+01		
Ce-141	< 5.20E+00			< 6.30E+00			< 1.40E+01		
Ce-144	< 2.00E+01			< 2.40E+01			< 3.00E+01		

Nuclide	30-APR			28-MAY			25-JUN		
GR-B	< 2.90E+00			< 3.30E+00			3.70E+00	+/-	1.10E+00
Sr-89	< 8.80E+00			< 9.00E+00			< 6.90E+00		
Sr-90	< 1.70E+00			< 1.50E+00			< 1.40E+00		
Be-7	< 5.60E+01			< 4.90E+01			< 3.20E+01		
K-40	< 8.40E+01			< 1.10E+02			< 8.10E+01		
Mn-54	< 5.70E+00			< 5.50E+00			< 3.60E+00		
Co-58	< 6.80E+00			< 6.70E+00			< 4.20E+00		
Fe-59	< 1.40E+01			< 1.50E+01			< 1.00E+01		
Co-60	< 4.90E+00			< 6.70E+00			< 4.50E+00		
Zn-65	< 1.50E+01			< 1.40E+01			< 8.80E+00		
Zr-95	< 1.00E+01			< 1.30E+01			< 7.50E+00		
Nb-95	< 8.40E+00			< 8.40E+00			< 4.80E+00		
Ru-103	< 6.60E+00			< 8.40E+00			< 4.30E+00		
Ru-106	< 5.90E+01			< 5.90E+01			< 3.40E+01		
Cs-134	< 6.00E+00			< 7.10E+00			< 4.20E+00		
Cs-137	< 6.00E+00			< 5.80E+00			< 3.90E+00		
Ba-140	< 1.30E+01			< 1.40E+01			< 1.20E+01		
La-140	< 1.30E+01			< 1.40E+01			< 1.20E+01		
Ce-141	< 8.60E+00			< 1.40E+01			< 5.90E+00		
Ce-144	< 3.40E+01			< 3.50E+01			< 1.90E+01		

FERMI 2
DRINKING WATER ANALYSIS

DW-2 (Control)
(pCi/liter)

Nuclide	30-JUL			27-AUG			23-SEP		
GR-B	3.90E+00	+/-	1.10E+00	< 2.70E+00			< 3.90E+00		
Sr-89	< 7.70E+00			< 6.40E+00			< 4.70E+00		
Sr-90	< 1.70E+00			< 1.20E+00			< 1.30E+00		
Be-7	< 5.10E+01			< 5.90E+01			< 6.50E+01		
K-40	< 8.80E+01			< 9.40E+01			< 1.00E+02		
Mn-54	< 5.10E+00			< 6.60E+00			< 6.80E+00		
Co-58	< 5.70E+00			< 6.50E+00			< 5.90E+00		
Fe-59	< 1.40E+01			< 1.40E+01			< 1.50E+01		
Co-60	< 5.50E+00			< 6.20E+00			< 6.70E+00		
Zn-65	< 1.60E+01			< 1.80E+01			< 1.60E+01		
Zr-95	< 1.00E+01			< 1.10E+01			< 1.30E+01		
Nb-95	< 6.60E+00			< 8.80E+00			< 7.70E+00		
Ru-103	< 6.70E+00			< 6.80E+00			< 7.20E+00		
Ru-106	< 5.80E+01			< 7.00E+01			< 6.60E+01		
Cs-134	< 5.80E+00			< 6.30E+00			< 8.40E+00		
Cs-137	< 5.90E+00			< 7.10E+00			< 6.60E+00		
Ba-140	< 1.30E+01			< 1.20E+01			< 1.40E+01		
La-140	< 1.30E+01			< 1.20E+01			< 1.40E+01		
Ce-141	< 8.50E+00			< 9.50E+00			< 9.70E+00		
Ce-144	< 3.20E+01			< 3.90E+01			< 3.80E+01		

Nuclide	29-OCT			26-NOV			30-DEC		
GR-B	< 3.10E+00			3.70E+00	+/-	1.00E+00	< 2.90E+00		
Sr-89	< 9.70E+00			< 6.40E+00			< 6.00E+00		
Sr-90	< 5.00E+00			< 1.70E+00			< 1.60E+00		
Be-7	< 1.50E+00			< 5.00E+01			< 3.80E+01		
K-40	< 5.50E+01			< 8.30E+01			< 6.90E+01		
Mn-54	< 7.90E+01			< 7.30E+00			< 4.60E+00		
Co-58	< 5.70E+00			< 6.90E+00			< 5.20E+00		
Fe-59	< 6.80E+00			< 1.20E+01			< 8.50E+00		
Co-60	< 1.00E+01			< 6.10E+00			< 4.80E+00		
Zn-65	< 6.00E+00			< 3.00E+01			< 1.20E+01		
Zr-95	< 1.60E+01			< 9.00E+00			< 8.00E+00		
Nb-95	< 1.00E+01			< 9.80E+00			< 5.10E+00		
Ru-103	< 7.10E+00			< 7.70E+00			< 5.20E+00		
Ru-106	< 6.20E+00			< 6.20E+01			< 4.50E+01		
Cs-134	< 4.50E+01			< 5.90E+00			< 5.20E+00		
Cs-137	< 6.20E+00			< 6.80E+00			< 5.00E+00		
Ba-140	< 5.50E+00			< 1.30E+01			< 1.00E+01		
La-140	< 1.10E+01			< 1.30E+01			< 1.00E+01		
Ce-141	< 1.10E+01			< 1.10E+01			< 7.00E+00		
Ce-144	< 8.20E+00			< 3.50E+01			< 2.60E+01		

FERMI 2
SURFACE WATER ANALYSIS

SW-2 (Control)
(pCi/liter)

Nuclide	29-JAN			27-FEB			26-MAR		
Sr-89	<	6.80E+00		<	7.70E+00		<	7.80E+00	
Sr-90	<	1.50E+00		<	1.40E+00		<	1.50E+00	
Be-7	<	6.40E+01		<	4.70E+01		<	4.90E+01	
K-40	<	1.20E+02		<	7.70E+01		<	8.50E+01	
Mn-54	<	9.40E+00		<	5.40E+00		<	6.50E+00	
Co-58	<	8.50E+00		<	5.60E+00		<	7.10E+00	
Fe-59	<	1.60E+01		<	1.20E+01		<	1.70E+01	
Co-60	<	5.90E+00		<	5.60E+00		<	9.70E+00	
Zn-65	<	2.00E+01		<	1.30E+01		<	1.70E+01	
Zr-95	<	1.30E+01		<	9.00E+00		<	1.30E+01	
Nb-95	<	3.40E+00		<	5.70E+00		<	7.10E+00	
Ru-103	<	9.70E+00		<	5.70E+00		<	7.90E+00	
Ru-106	<	7.60E+01		<	4.80E+01		<	5.70E+01	
Cs-134	<	9.20E+00		<	5.50E+00		<	7.80E+00	
Cs-137	<	7.40E+00		<	5.30E+00		<	7.00E+00	
Ba-140	<	1.30E+01		<	1.10E+01		<	1.40E+01	
La-140	<	1.30E+01		<	1.10E+01		<	1.40E+01	
Ce-141	<	1.20E+01		<	7.90E+00		<	1.10E+01	
Ce-144	<	4.10E+01		<	2.90E+01		<	3.70E+01	

Nuclide	30-APR			28-MAY			25-JUN		
Sr-89	<	8.00E+00		<	8.00E+00		<	6.70E+00	
Sr-90	<	1.40E+00		<	1.00E+00		<	1.30E+00	
Be-7	<	4.70E+01		<	4.70E+01		<	3.80E+01	
K-40	<	1.00E+02		<	1.00E+02		<	1.00E+02	
Mn-54	<	7.60E+00		<	5.80E+00		<	5.00E+00	
Co-58	<	6.70E+00		<	6.70E+00		<	5.10E+00	
Fe-59	<	1.40E+01		<	1.30E+01		<	1.20E+01	
Co-60	<	8.80E+00		<	9.70E+00		<	6.30E+00	
Zn-65	<	1.60E+01		<	2.60E+01		<	1.10E+01	
Zr-95	<	1.30E+01		<	9.40E+00		<	9.60E+00	
Nb-95	<	8.60E+00		<	7.30E+00		<	6.50E+00	
Ru-103	<	6.20E+00		<	5.60E+00		<	5.60E+00	
Ru-106	<	5.60E+01		<	5.80E+01		<	4.30E+01	
Cs-134	<	6.30E+00		<	6.00E+00		<	4.80E+00	
Cs-137	<	5.90E+00		<	7.40E+00		<	4.70E+00	
Ba-140	<	1.40E+01		<	1.40E+01		<	1.40E+01	
La-140	<	1.40E+01		<	1.40E+01		<	1.40E+01	
Ce-141	<	1.10E+01		<	7.90E+00		<	6.50E+00	
Ce-144	<	3.50E+01		<	2.90E+01		<	2.30E+01	

FERMI 2
SURFACE WATER ANALYSIS

SW-2 (Control)
(pCi/liter)

Nuclide	30-JUL			27-AUG			23-SEP		
Sr-89	<	7.00E+00		<	6.20E+00		<	5.30E+00	
Sr-90	<	1.50E+00		<	1.10E+00		<	1.40E+00	
Be-7	<	4.70E+01		<	4.90E+01		<	5.20E+01	
K-40	<	9.50E+01		<	1.10E+02		<	1.20E+02	
Mn-54	<	5.50E+00		<	6.50E+00		<	6.30E+00	
Co-58	<	6.30E+00		<	7.70E+00		<	8.50E+00	
Fe-59	<	1.40E+01		<	1.30E+01		<	1.50E+01	
Co-60	<	6.80E+00		<	6.00E+00		<	9.40E+00	
Zn-65	<	1.30E+01		<	1.50E+01		<	1.70E+01	
Zr-95	<	1.00E+01		<	1.20E+01		<	1.10E+01	
Nb-95	<	6.20E+00		<	8.40E+00		<	9.50E+00	
Ru-103	<	6.20E+00		<	5.70E+00		<	7.60E+00	
Ru-106	<	4.50E+01		<	4.90E+01		<	6.50E+01	
Cs-134	<	4.80E+00		<	6.80E+00		<	6.40E+00	
Cs-137	<	5.20E+00		<	6.10E+00		<	6.90E+00	
Ba-140	<	1.20E+01		<	1.40E+01		<	1.20E+01	
La-140	<	1.20E+01		<	1.40E+01		<	1.20E+01	
Ce-141	<	6.60E+00		<	8.80E+00		<	1.10E+01	
Ce-144	<	2.20E+01		<	3.00E+01		<	4.10E+01	

Nuclide	29-OCT			26-NOV			30-DEC		
Sr-89	<	5.50E+00		<	6.30E+00		<	5.90E+00	
Sr-90	<	1.70E+00		<	1.60E+00		<	1.60E+00	
Be-7	<	4.30E+01		<	4.80E+01		<	1.80E+01	
K-40	<	9.20E+01		<	1.00E+02		<	3.40E+01	
Mn-54	<	6.60E+00		<	7.10E+00		<	1.90E+00	
Co-58	<	5.90E+00		<	6.40E+00		<	2.10E+00	
Fe-59	<	1.20E+01		<	1.50E+01		<	4.30E+00	
Co-60	<	7.00E+00		<	8.30E+00		<	1.90E+00	
Zn-65	<	1.50E+01		<	2.00E+01		<	6.90E+00	
Zr-95	<	8.80E+00		<	1.20E+01		<	3.60E+00	
Nb-95	<	6.10E+00		<	9.20E+00		<	2.70E+00	
Ru-103	<	5.30E+00		<	8.10E+00		<	2.50E+00	
Ru-106	<	5.20E+01		<	6.40E+01		<	1.80E+01	
Cs-134	<	5.60E+00		<	7.40E+00		<	2.30E+00	
Cs-137	<	5.70E+00		<	7.60E+00		<	2.00E+00	
Ba-140	<	1.20E+01		<	1.40E+01		<	5.60E+00	
La-140	<	1.20E+01		<	1.40E+01		<	5.60E+00	
Ce-141	<	7.50E+00		<	1.10E+01		<	4.60E+00	
Ce-144	<	2.40E+01		<	4.10E+01		<	1.10E+01	

FERMI 2
SURFACE WATER ANALYSIS

SW-3 (Indicator)
(pCi/liter)

Nuclide	29-JAN			27-FEB			26-MAR		
Sr-89	<	6.80E+00		<	8.10E+00		<	8.10E+00	
Sr-90	<	1.50E+00		<	1.50E+00		<	1.60E+00	
Be-7	<	5.80E+01		<	3.10E+01		<	5.00E+01	
K-40	<	1.00E+02		<	8.00E+01		<	9.60E+01	
Mn-54	<	8.60E+00		<	3.90E+00		<	5.30E+00	
Co-58	<	7.70E+00		<	4.50E+00		<	7.30E+00	
Fe-59	<	1.20E+01		<	8.10E+00		<	1.50E+01	
Co-60	<	6.50E+00		<	4.50E+00		<	7.00E+00	
Zn-65	<	1.60E+01		<	1.10E+01		<	1.60E+01	
Zr-95	<	1.40E+01		<	7.60E+00		<	1.20E+01	
Nb-95	<	7.30E+00		<	4.00E+00		<	8.80E+00	
Ru-103	<	8.00E+00		<	4.40E+00		<	7.60E+00	
Ru-106	<	6.00E+01		<	3.80E+01		<	6.00E+01	
Cs-134	<	6.40E+00		<	4.00E+00		<	6.40E+00	
Cs-137	<	6.00E+00		<	4.60E+00		<	6.70E+00	
Ba-140	<	1.20E+01		<	9.90E+00		<	1.20E+01	
La-140	<	1.20E+01		<	9.90E+00		<	1.20E+01	
Ce-141	<	1.20E+01		<	9.40E+00		<	8.90E+00	
Ce-144	<	3.60E+01		<	2.00E+01		<	3.70E+01	

Nuclide	30-APR			28-MAY			25-JUN		
Sr-89	<	8.60E+00		<	8.70E+00		<	6.60E+00	
Sr-90	<	1.60E+00		<	1.40E+00		<	1.30E+00	
Be-7	<	6.30E+01		<	5.20E+01		<	3.70E+01	
K-40	<	9.20E+01		<	1.20E+02		<	9.30E+01	
Mn-54	<	7.10E+00		<	7.30E+00		<	4.40E+00	
Co-58	<	6.70E+00		<	7.70E+00		<	4.50E+00	
Fe-59	<	1.50E+01		<	1.50E+01		<	9.80E+00	
Co-60	<	9.30E+00		<	7.20E+00		<	4.40E+00	
Zn-65	<	1.90E+01		<	1.50E+01		<	1.10E+01	
Zr-95	<	1.20E+01		<	1.20E+01		<	8.30E+00	
Nb-95	<	8.50E+00		<	8.60E+00		<	5.40E+00	
Ru-103	<	7.30E+00		<	7.10E+00		<	4.90E+00	
Ru-106	<	7.60E+01		<	5.70E+01		<	3.60E+01	
Cs-134	<	7.50E+00		<	5.70E+00		<	3.50E+00	
Cs-137	<	8.10E+00		<	6.50E+00		<	4.30E+00	
Ba-140	<	1.30E+01		<	1.20E+01		<	1.30E+01	
La-140	<	1.30E+01		<	1.20E+01		<	1.30E+01	
Ce-141	<	1.10E+01		<	8.80E+00		<	1.00E+01	
Ce-144	<	3.80E+01		<	3.30E+01		<	2.00E+01	

FERMI 2
SURFACE WATER ANALYSIS

SW-3 (Indicator)
(pCi/liter)

Nuclide	30-JUL			27-AUG			23-SEP		
Sr-89	<	7.90E+00		<	5.80E+00		<	4.60E+00	
Sr-90	<	1.70E+00		<	1.00E+00		<	1.20E+00	
Be-7	<	5.80E+01		<	2.40E+01		<	4.50E+01	
K-40	<	1.20E+02		<	5.20E+01		<	1.00E+02	
Mn-54	<	6.40E+00		<	2.60E+00		<	6.10E+00	
Co-58	<	6.30E+00		<	2.90E+00		<	6.20E+00	
Fe-59	<	1.50E+01		<	5.90E+00		<	1.40E+01	
Co-60	<	7.20E+00		<	2.40E+00		<	8.30E+00	
Zn-65	<	1.40E+01		<	6.30E+00		<	1.50E+01	
Zr-95	<	1.10E+01		<	4.40E+00		<	1.20E+01	
Nb-95	<	7.20E+00		<	3.20E+00		<	5.90E+00	
Ru-103	<	6.70E+00		<	3.20E+00		<	6.70E+00	
Ru-106	<	6.50E+01		<	2.50E+01		<	5.30E+01	
Cs-134	<	6.50E+00		<	2.80E+00		<	6.40E+00	
Cs-137	<	7.80E+00		<	2.90E+00		<	6.90E+00	
Ba-140	<	1.40E+01		<	7.00E+00		<	1.30E+01	
La-140	<	1.40E+01		<	7.00E+00		<	1.30E+01	
Ce-141	<	8.80E+00		<	6.30E+00		<	8.40E+00	
Ce-144	<	3.20E+01		<	1.50E+01		<	2.50E+01	

Nuclide	29-OCT			26-NOV			30-DEC		
Sr-89	<	5.00E+00		<	7.40E+00		<	6.30E+00	
Sr-90	<	1.50E+00		<	1.50E+00		<	1.70E+00	
Be-7	<	3.70E+01		<	6.50E+01		<	4.80E+01	
K-40	<	6.40E+01		<	1.00E+02		<	9.40E+01	
Mn-54	<	4.20E+00		<	5.60E+00		<	8.10E+00	
Co-58	<	4.80E+00		<	6.80E+00		<	6.90E+00	
Fe-59	<	9.10E+00		<	1.10E+01		<	1.40E+01	
Co-60	<	4.50E+00		<	6.50E+00		<	7.10E+00	
Zn-65	<	1.20E+01		<	1.50E+01		<	1.50E+01	
Zr-95	<	7.40E+00		<	1.10E+01		<	1.10E+01	
Nb-95	<	5.90E+00		<	6.60E+00		<	7.90E+00	
Ru-103	<	4.80E+00		<	6.20E+00		<	7.20E+00	
Ru-106	<	4.00E+01		<	5.80E+01		<	5.30E+01	
Cs-134	<	4.70E+00		<	7.40E+00		<	5.50E+00	
Cs-137	<	4.50E+00		<	5.80E+00		<	5.70E+00	
Ba-140	<	8.30E+00		<	1.30E+01		<	1.30E+01	
La-140	<	8.30E+00		<	1.30E+01		<	1.30E+01	
Ce-141	<	6.90E+00		<	8.70E+00		<	8.40E+00	
Ce-144	<	2.30E+01		<	3.90E+01		<	3.00E+01	

FERMI 2
DRINKING AND SURFACE WATER
QUARTERLY COMPOSITE SAMPLES

Tritium
(pCi/liter)

Station	First Quarter				Second Quarter			
DW-1	<	4.40E+02			<	3.40E+02		
DW-2	<	4.50E+02			<	3.40E+02		
SW-2	<	4.40E+02			<	3.40E+02		
SW-3	<	4.40E+02			<	3.40E+02		

Station	Third Quarter				Fourth Quarter			
DW-1	<	4.40E+02			<	4.40E+02		
DW-2	<	4.30E+02			<	4.40E+02		
SW-2	<	4.40E+02			<	4.30E+02		
SW-3	<	4.30E+02			<	4.40E+02		

FERMI 2
GROUNDWATER ANALYSIS

GW-1 (Indicator)
(pCi/liter)

Nuclide	First Quarter				Second Quarter			
Be-7	<	5.20E+01			<	3.20E+01		
K-40	<	9.30E+01			<	8.30E+01		
Mn-54	<	6.80E+00			<	3.30E+00		
Co-58	<	7.80E+00			<	4.40E+00		
Fe-59	<	1.20E+01			<	8.30E+00		
Co-60	<	7.20E+00			<	4.60E+00		
Zn-65	<	1.70E+01			<	8.50E+00		
Zr-95	<	1.30E+01			<	7.00E+00		
Nb-95	<	6.40E+00			<	4.50E+00		
Ru-103	<	6.50E+00			<	4.20E+00		
Ru-106	<	5.00E+01			<	2.90E+01		
Cs-134	<	5.90E+00			<	3.00E+00		
Cs-137	<	5.60E+00			<	3.20E+00		
Ba-140	<	1.30E+01			<	1.30E+01		
La-140	<	1.30E+01			<	1.30E+01		
Ce-141	<	7.40E+00			<	4.60E+00		
Ce-144	<	2.90E+01			<	1.40E+01		
H-3	<	4.40E+02			<	4.20E+02		

Nuclide	Third Quarter				Fourth Quarter			
Be-7	<	5.60E+01			<	1.70E+01		
K-40	<	9.40E+01			<	3.60E+01		
Mn-54	<	6.40E+00			<	2.00E+00		
Co-58	<	6.30E+00			<	2.10E+00		
Fe-59	<	1.70E+01			<	4.10E+00		
Co-60	<	8.00E+00			<	2.20E+00		
Zn-65	<	1.70E+01			<	5.80E+00		
Zr-95	<	1.20E+01			<	3.50E+00		
Nb-95	<	8.30E+00			<	2.50E+00		
Ru-103	<	7.20E+00			<	2.40E+00		
Ru-106	<	7.70E+01			<	1.90E+01		
Cs-134	<	7.70E+00			<	2.40E+00		
Cs-137	<	6.70E+00			<	2.00E+00		
Ba-140	<	1.40E+01			<	4.80E+00		
La-140	<	1.40E+01			<	4.80E+00		
Ce-141	<	1.10E+01			<	3.10E+00		
Ce-144	<	3.80E+01			<	1.10E+01		
H-3	<	4.20E+02			<	4.50E+02		

FERMI 2
GROUNDWATER ANALYSIS

GW-2 (Indicator)
(pCi/liter)

Nuclide	First Quarter			Second Quarter		
Be-7	<	5.20E+01		<	3.10E+01	
K-40	<	1.00E+02		<	7.90E+01	
Mn-54	<	6.60E+00		<	3.30E+00	
Co-58	<	7.70E+00		<	3.60E+00	
Fe-59	<	1.20E+01		<	8.90E+00	
Co-60	<	7.10E+00		<	3.70E+00	
Zn-65	<	1.60E+01		<	9.00E+00	
Zr-95	<	1.10E+01		<	5.90E+00	
Nb-95	<	7.40E+00		<	4.80E+00	
Ru-103	<	7.00E+00		<	4.30E+00	
Ru-106	<	5.90E+01		<	3.20E+01	
Cs-134	<	6.20E+00		<	3.80E+00	
Cs-137	<	6.80E+00		<	3.90E+00	
Ba-140	<	1.50E+01		<	1.30E+01	
La-140	<	1.50E+01		<	1.30E+01	
Ce-141	<	8.40E+00		<	6.30E+00	
Ce-144	<	3.10E+01		<	1.80E+01	
H-3	<	4.40E+02		<	4.10E+02	

Nuclide	Third Quarter			Fourth Quarter		
Be-7	<	6.40E+01		<	3.90E+01	
K-40	<	9.70E+01		<	6.80E+01	
Mn-54	<	8.10E+00		<	5.30E+00	
Co-58	<	8.20E+00		<	5.10E+00	
Fe-59	<	1.10E+01		<	1.00E+01	
Co-60	<	8.30E+00		<	5.30E+00	
Zn-65	<	1.80E+01		<	2.00E+01	
Zr-95	<	1.10E+01		<	8.90E+00	
Nb-95	<	7.40E+00		<	6.80E+00	
Ru-103	<	7.20E+00		<	5.90E+00	
Ru-106	<	5.80E+01		<	4.60E+01	
Cs-134	<	6.60E+00		<	5.30E+00	
Cs-137	<	6.40E+00		<	5.10E+00	
Ba-140	<	1.20E+01		<	1.00E+01	
La-140	<	1.20E+01		<	1.00E+01	
Ce-141	<	1.40E+01		<	1.30E+01	
Ce-144	<	3.60E+01		<	2.70E+01	
H-3	<	4.20E+02		<	4.50E+02	

FERMI 2
GROUNDWATER ANALYSIS

GW-3 (Indicator)
(pCi/liter)

Nuclide	First Quarter				Second Quarter			
Be-7	<	5.00E+01			<	2.40E+01		
K-40	<	1.00E+02			<	5.10E+01		
Mn-54	<	6.80E+00			<	3.00E+00		
Co-58	<	7.00E+00			<	3.00E+00		
Fe-59	<	1.50E+01			<	6.10E+00		
Co-60	<	7.90E+00			<	3.00E+00		
Zn-65	<	3.00E+01			<	8.60E+00		
Zr-95	<	1.20E+01			<	5.50E+00		
Nb-95	<	8.90E+00			<	4.90E+00		
Ru-103	<	7.30E+00			<	3.70E+00		
Ru-106	<	5.90E+01			<	2.60E+01		
Cs-134	<	6.40E+00			<	2.70E+00		
Cs-137	<	6.30E+00			<	2.60E+00		
Ba-140	<	1.00E+01			<	7.80E+00		
La-140	<	1.00E+01			<	7.80E+00		
Ce-141	<	9.00E+00			<	8.00E+00		
Ce-144	<	3.50E+01			<	1.50E+01		
H-3	<	4.40E+02			<	4.10E+02		

Nuclide	Third Quarter				Fourth Quarter			
Be-7	<	4.90E+01			<	3.50E+01		
K-40	<	1.10E+02			<	1.00E+02		
Mn-54	<	6.30E+00			<	4.80E+00		
Co-58	<	6.10E+00			<	5.30E+00		
Fe-59	<	1.40E+01			<	1.10E+01		
Co-60	<	7.10E+00			<	6.60E+00		
Zn-65	<	1.60E+01			<	1.30E+01		
Zr-95	<	9.90E+00			<	8.70E+00		
Nb-95	<	7.00E+00			<	6.10E+00		
Ru-103	<	6.70E+00			<	5.50E+00		
Ru-106	<	4.80E+01			<	4.10E+01		
Cs-134	<	5.20E+00			<	4.50E+00		
Cs-137	<	6.10E+00			<	4.80E+00		
Ba-140	<	1.40E+01			<	1.30E+01		
La-140	<	1.40E+01			<	1.30E+01		
Ce-141	<	9.40E+00			<	4.80E+00		
Ce-144	<	2.80E+01			<	2.30E+01		
H-3	<	4.10E+02			<	4.50E+02		

FERMI 2
GROUNDWATER ANALYSIS

GW-4 (Control)
(pCi/liter)

Nuclide	First Quarter				Second Quarter			
Be-7	<	5.50E+01			<	3.20E+01		
K-40	<	9.30E+01			<	9.00E+01		
Mn-54	<	7.80E+00			<	3.60E+00		
Co-58	<	8.10E+00			<	4.20E+00		
Fe-59	<	1.80E+01			<	9.80E+00		
Co-60	<	7.70E+00			<	4.10E+00		
Zn-65	<	1.60E+01			<	9.70E+00		
Zr-95	<	1.30E+01			<	8.10E+00		
Nb-95	<	8.10E+00			<	4.60E+00		
Ru-103	<	7.90E+00			<	4.30E+00		
Ru-106	<	6.10E+01			<	3.10E+01		
Cs-134	<	6.60E+00			<	3.70E+00		
Cs-137	<	7.10E+00			<	3.50E+00		
Ba-140	<	1.40E+01			<	1.40E+01		
La-140	<	1.40E+01			<	1.40E+01		
Ce-141	<	1.10E+01			<	9.60E+00		
Ce-144	<	3.30E+01			<	1.80E+01		
H-3	<	4.40E+02			<	4.10E+02		

Nuclide	Third Quarter				Fourth Quarter			
Be-7	<	5.50E+01			<	1.70E+01		
K-40	<	9.50E+01			<	4.40E+01		
Mn-54	<	5.50E+00			<	2.00E+00		
Co-58	<	5.70E+00			<	2.30E+00		
Fe-59	<	1.20E+01			<	5.40E+00		
Co-60	<	7.20E+00			<	2.10E+00		
Zn-65	<	2.50E+01			<	7.10E+00		
Zr-95	<	1.30E+01			<	3.70E+00		
Nb-95	<	7.60E+00			<	2.60E+00		
Ru-103	<	8.00E+00			<	2.40E+00		
Ru-106	<	5.70E+01			<	1.90E+01		
Cs-134	<	6.10E+00			<	1.90E+00		
Cs-137	<	6.90E+00			<	2.00E+00		
Ba-140	<	1.30E+01			<	8.10E+00		
La-140	<	1.30E+01			<	8.10E+00		
Ce-141	<	1.00E+01			<	4.00E+00		
Ce-144	<	3.70E+01			<	9.40E+00		
H-3	<	4.20E+02			<	4.50E+02		

FERMI 2
SEDIMENT ANALYSIS

S-1 (Indicator)
(pCi/kg dry)

Nuclide	6-JUN				15-OCT			
Sr-89	<	4.80E+02			<	2.80E+02		
Sr-90	<	1.10E+02			<	1.70E+02		
Be-7	<	7.10E+02			<	4.40E+02		
K-40		1.02E+04	+/-	6.20E+02		1.09E+04	+/-	4.50E+02
Mn-54	<	5.80E+01			<	3.20E+01		
Co-58	<	9.60E+01			<	4.80E+01		
Fe-59	<	2.60E+02			<	1.70E+02		
Co-60	<	6.50E+01			<	3.80E+01		
Zn-65	<	2.90E+02			<	1.70E+02		
Nb-95	<	1.70E+02			<	8.40E+01		
Zr-95	<	1.90E+02			<	1.10E+02		
Ru-103	<	1.00E+02			<	6.70E+01		
Ru-106	<	3.40E+02			<	3.20E+02		
Cs-134	<	4.40E+01			<	2.90E+01		
Cs-137	<	5.20E+01			<	3.30E+01		
Ba-140	<	2.40E+03			<	1.80E+03		
La-140	<	1.50E+03			<	1.30E+03		
Ce-141	<	2.20E+02			<	1.30E+02		
Ce-144	<	2.90E+02			<	1.70E+02		

S-2 (Indicator)
(pCi/kg dry)

Nuclide	6-JUN				15-OCT			
Sr-89	<	9.40E+02			<	2.80E+02		
Sr-90	<	2.30E+02			<	2.60E+02		
Be-7	<	5.20E+02			<	5.30E+02		
K-40		8.74E+03	+/-	5.30E+02		1.09E+04	+/-	4.80E+02
Mn-54	<	3.80E+01			<	4.00E+01		
Co-58	<	6.70E+01			<	6.10E+01		
Fe-59	<	1.70E+02			<	2.30E+02		
Co-60	<	4.00E+01			<	4.60E+01		
Zn-65	<	2.60E+02			<	2.00E+02		
Zr-95	<	1.30E+02			<	9.50E+01		
Nb-95	<	1.40E+02			<	1.80E+02		
Ru-103	<	7.90E+01			<	8.70E+01		
Ru-106	<	3.80E+02			<	3.00E+02		
Cs-134	<	3.60E+01			<	3.20E+01		
Cs-137	<	4.40E+01			<	4.00E+01		
Ba-140	<	1.80E+03			<	3.10E+03		
La-140	<	9.00E+02			<	1.50E+03		
Ce-141	<	1.70E+02			<	1.70E+02		
Ce-144	<	2.30E+02			<	2.20E+02		

FERMI 2
SEDIMENT ANALYSIS

S-3 (Indicator)
(pCi/kg dry)

Nuclide	6-JUN				15-OCT			
Sr-89	<	3.80E+02			<	2.80E+02		
Sr-90	<	8.60E+01			<	1.60E+02		
Be-7	<	6.20E+02			<	3.40E+02		
K-40		1.02E+04	+/-	5.80E+02		1.29E+04	+/-	4.20E+02
Mn-54	<	4.80E+01			<	3.00E+01		
Co-58	<	8.40E+01			<	4.10E+01		
Fe-59	<	1.90E+02			<	1.80E+02		
Co-60	<	5.80E+01			<	3.50E+01		
Zn-65	<	1.50E+02			<	1.50E+02		
Zr-95	<	1.60E+02			<	6.80E+01		
Nb-95	<	1.30E+02			<	7.60E+01		
Ru-103	<	9.20E+01			<	5.70E+01		
Ru-106	<	3.30E+02			<	2.90E+02		
Cs-134	<	3.60E+01			<	2.50E+01		
Cs-137	<	3.80E+01			<	2.40E+01		
Ba-140	<	1.90E+03			<	2.00E+03		
La-140	<	1.20E+03			<	9.90E+02		
Ce-141	<	1.50E+02			<	9.70E+01		
Ce-144	<	2.20E+02			<	1.40E+02		

S-4 (Indicator)
(pCi/kg dry)

Nuclide	27-JUN				31-OCT			
Sr-89	<	4.60E+02			<	2.20E+02		
Sr-90	<	1.50E+02			<	2.50E+02		
Be-7	<	4.00E+02			<	2.70E+02		
K-40		8.71E+03	+/-	5.50E+02		1.09E+04	+/-	3.70E+02
Mn-54	<	3.50E+01			<	2.60E+01		
Co-58	<	4.80E+01			<	3.90E+01		
Fe-59	<	1.80E+02			<	1.30E+02		
Co-60	<	4.30E+01			<	3.10E+01		
Zn-65	<	1.40E+02			<	1.40E+02		
Zr-95	<	8.40E+01			<	6.20E+01		
Nb-95	<	7.60E+01			<	8.70E+01		
Ru-103	<	6.00E+01			<	4.30E+01		
Ru-106	<	4.00E+02			<	2.20E+02		
Cs-134	<	4.30E+01			<	2.80E+01		
Cs-137	<	3.90E+01			<	2.50E+01		
Ba-140	<	5.80E+02			<	8.30E+02		
La-140	<	3.40E+02			<	4.10E+02		
Ce-141	<	8.70E+01			<	7.90E+01		
Ce-144	<	2.30E+02			<	1.50E+02		

FERMI 2
SEDIMENT ANALYSIS

S-5 (Control)
(pCi/kg dry)

Nuclide	2-JUN				17-NOV			
Sr-89	<	4.20E+02			<	1.30E+02		
Sr-90	<	9.20E+01			<	1.10E+02		
Be-7	<	8.10E+02				3.90E+02	+/-	8.80E+01
K-40		1.28E+04	+/-	7.60E+02		1.16E+04	+/-	2.80E+02
Mn-54	<	6.70E+01			<	1.90E+01		
Co-58	<	9.20E+01			<	2.40E+01		
Fe-59	<	2.70E+02			<	6.90E+01		
Co-60	<	6.50E+01			<	1.90E+01		
Zn-65	<	3.50E+02			<	1.00E+02		
Zr-95	<	2.00E+02			<	4.70E+01		
NB-95	<	1.60E+02			<	4.00E+01		
Ru-103	<	1.30E+02			<	2.60E+01		
Ru-106	<	4.80E+02			<	1.70E+02		
Cs-134	<	5.10E+01			<	2.40E+01		
Cs-137	<	5.80E+01				3.85E+01	+/-	7.30E+00
Ba-140	<	3.60E+03			<	3.00E+02		
La-140	<	1.80E+03			<	1.40E+02		
Ce-141	<	2.30E+02			<	4.90E+01		
Ce-144	<	3.50E+02			<	1.40E+02		

FERMI 2
FISH ANALYSIS

F-1 (Control)
(pCi/kg wet)

Nuclide	3-JUN Bull Head				3-JUN Catfish				3-JUN Rock Bass			
Sr-89	<	2.70E+02			<	2.80E+02			<	2.70E+02		
Sr-90	<	1.70E+02			<	1.80E+02			<	1.80E+02		
Be-7	<	6.50E+02			<	1.20E+03			<	4.90E+02		
K-40		1.83E+03	+/-	2.70E+02		2.17E+03	+/-	3.40E+02		2.51E+03	+/-	2.30E+02
Mn-54	<	4.70E+01			<	7.10E+01			<	3.80E+01		
Co-58	<	7.80E+01			<	9.90E+01			<	5.70E+01		
Fe-59	<	2.50E+02			<	2.60E+02			<	1.60E+02		
Co-60	<	5.80E+01			<	7.40E+01			<	4.00E+01		
Zn-65	<	1.20E+02			<	2.00E+02			<	9.20E+01		
Zr-95	<	1.50E+02			<	1.90E+02			<	1.00E+02		
Nb-95	<	1.60E+02			<	2.20E+02			<	1.20E+02		
Ru-103	<	1.10E+02			<	1.30E+02			<	7.60E+01		
Ru-106	<	4.60E+02			<	6.20E+02			<	2.90E+02		
Cs-134	<	5.10E+01			<	6.20E+01			<	3.30E+01		
Cs-137	<	4.50E+01			<	6.10E+01			<	2.90E+01		
Ba-140	<	1.90E+03			<	2.50E+03			<	1.40E+03		
La-140	<	1.90E+03			<	2.50E+03			<	1.40E+03		
Ce-141	<	2.80E+02			<	2.20E+02			<	1.00E+02		
Ce-144	<	2.20E+02			<	2.80E+02			<	1.10E+02		

Nuclide	3-JUN Sucker				3-JUN White Bass				10-DEC Carp			
Sr-89	<	2.80E+02			<	2.50E+02			<	1.10E+02		
Sr-90	<	1.70E+02			<	1.80E+02			<	8.20E+01		
Be-7	<	5.90E+02			<	5.70E+02			<	8.20E+02		
K-40		2.43E+03	+/-	2.80E+02		2.43E+03	+/-	3.70E+02		3.34E+03	+/-	3.90E+02
Mn-54	<	4.80E+01			<	5.40E+01			<	5.90E+01		
Co-58	<	7.00E+01			<	8.50E+01			<	9.90E+01		
Fe-59	<	2.10E+02			<	2.30E+02			<	2.30E+02		
Co-60	<	5.00E+01			<	7.30E+01			<	5.00E+01		
Zn-65	<	1.10E+02			<	1.70E+02			<	1.20E+02		
Zr-95	<	1.20E+02			<	1.20E+02			<	1.30E+02		
Nb-95	<	1.30E+02			<	1.30E+02			<	1.40E+02		
Ru-103	<	9.90E+01			<	1.10E+02			<	1.30E+02		
Ru-106	<	3.70E+02			<	4.30E+02			<	5.30E+02		
Cs-134	<	3.90E+01			<	5.10E+01			<	5.10E+01		
Cs-137	<	3.60E+01			<	4.20E+01			<	5.10E+01		
Ba-140	<	1.80E+03			<	1.40E+03			<	1.20E+03		
La-140	<	1.80E+03			<	1.40E+03			<	1.20E+03		
Ce-141	<	1.40E+02			<	1.40E+02			<	1.50E+02		
Ce-144	<	1.40E+02			<	1.60E+02			<	2.70E+02		

FERMI 2
FISH ANALYSIS

F-1 (Control)
(pCi/kg wet)

Nuclide	10-DEC Sunfish				10-DEC Trout				10-DEC Walleye			
Sr-89	<	9.40E+01			<	1.60E+02			<	6.20E+01		
Sr-90	<	7.20E+01			<	1.20E+02			<	4.60E+01		
Be-7	<	5.20E+02			<	7.40E+02			<	5.70E+02		
K-40		3.16E+03	+/-	3.00E+02		2.78E+03	+/-	3.20E+02		3.60E+03	+/-	3.70E+02
Mn-54	<	3.70E+01			<	4.10E+01			<	4.40E+01		
Co-58	<	5.10E+01			<	6.20E+01			<	7.60E+01		
Fe-59	<	1.40E+02			<	2.00E+02			<	2.50E+02		
Co-60	<	3.90E+01			<	4.20E+01			<	5.00E+01		
Zn-65	<	1.00E+02			<	1.30E+02			<	1.30E+02		
Zr-95	<	1.10E+02			<	1.40E+02			<	1.20E+02		
Nb-95	<	9.40E+01			<	1.40E+02			<	1.10E+02		
Ru-103	<	7.10E+01			<	8.60E+01			<	9.40E+01		
Ru-106	<	3.70E+02			<	4.10E+02			<	4.10E+02		
Cs-134	<	2.90E+01			<	3.70E+01			<	3.60E+01		
Cs-137	<	3.50E+01			<	4.20E+01			<	3.20E+01		
Ba-140	<	1.00E+03			<	1.30E+03			<	1.20E+03		
La-140	<	1.00E+03			<	1.30E+03			<	1.20E+03		
Ce-141	<	1.10E+02			<	1.40E+02			<	1.20E+02		
Ce-144	<	1.60E+02			<	2.10E+02			<	1.70E+02		

FERMI 2
FISH ANALYSIS

F-2 (Indicator)
(pCi/kg wet)

Nuclide	6-JUN Bull Head				6-JUN Walleye				6-JUN White Bass			
Sr-89	<	2.00E+02			<	2.50E+02			<	2.60E+02		
Sr-90	<	1.50E+02			<	1.70E+02			<	1.80E+02		
Be-7	<	5.60E+02			<	6.80E+02			<	7.00E+02		
K-40		1.48E+03	+/-	3.50E+02		2.71E+03	+/-	5.60E+02		2.24E+03	+/-	3.70E+02
Mn-54	<	6.00E+01			<	4.80E+01			<	3.80E+01		
Co-58	<	1.00E+02			<	9.80E+01			<	1.10E+02		
Fe-59	<	2.50E+02			<	2.40E+02			<	2.30E+02		
Co-60	<	5.00E+01			<	6.30E+01			<	5.00E+01		
Zn-65	<	1.60E+02			<	1.90E+02			<	1.80E+02		
Zr-95	<	1.40E+02			<	1.20E+02			<	1.70E+02		
Nb-95	<	1.40E+02			<	1.60E+02			<	1.90E+02		
Ru-103	<	9.80E+01			<	1.10E+02			<	1.10E+02		
Ru-106	<	4.80E+02			<	3.60E+02			<	4.30E+02		
Cs-134	<	5.10E+01			<	4.10E+01			<	4.20E+01		
Cs-137	<	6.30E+01			<	4.30E+01			<	4.90E+01		
Ba-140	<	1.80E+03			<	1.20E+03			<	1.60E+03		
La-140	<	1.80E+03			<	1.20E+03			<	1.60E+03		
Ce-141	<	1.70E+02			<	1.40E+02			<	1.70E+02		
Ce-144	<	2.30E+02			<	1.80E+02			<	1.90E+02		

Nuclide	6-JUN White Perch				15-OCT Carp				15-OCT Catfish			
Sr-89	<	2.80E+02			<	2.10E+02			<	2.20E+02		
Sr-90	<	2.30E+02			<	1.60E+02			<	1.60E+02		
Be-7	<	6.60E+02			<	5.40E+02			<	6.50E+02		
K-40		2.68E+03	+/-	3.70E+02		3.22E+03	+/-	3.40E+02		2.42E+03	+/-	4.00E+02
Mn-54	<	4.70E+01			<	5.20E+01			<	3.70E+01		
Co-58	<	8.90E+01			<	7.20E+01			<	5.60E+01		
Fe-59	<	2.40E+02			<	1.60E+02			<	2.30E+02		
Co-60	<	6.30E+01			<	4.50E+01			<	6.70E+01		
Zn-65	<	1.60E+02			<	1.30E+02			<	1.20E+02		
Zr-95	<	1.40E+02			<	1.20E+02			<	1.30E+02		
Nb-95	<	1.30E+02			<	1.20E+02			<	1.10E+02		
Ru-103	<	1.20E+02			<	8.50E+01			<	9.50E+01		
Ru-106	<	4.60E+02			<	4.40E+02			<	4.10E+02		
Cs-134	<	3.60E+01			<	4.40E+01			<	4.60E+01		
Cs-137	<	4.80E+01			<	4.90E+01			<	5.20E+01		
Ba-140	<	1.80E+03			<	1.10E+03			<	1.80E+03		
La-140	<	1.80E+03			<	1.10E+03			<	1.80E+03		
Ce-141	<	1.80E+02			<	1.60E+02			<	1.20E+02		
Ce-144	<	2.20E+02			<	2.00E+02			<	1.80E+02		

FERMI 2
FISH ANALYSIS

F-2 (Indicator)
(pCi/kg wet)

Nuclide	15-OCT Drum				15-OCT Sucker				15-OCT Walleye			
Sr-89	<	2.70E+02			<	1.40E+02			<	2.10E+02		
Sr-90	<	2.00E+02			<	1.10E+02			<	1.60E+02		
Be-7	<	7.60E+02			<	5.40E+02			<	4.20E+02		
K-40		3.23E+03	+/-	3.70E+02		2.72E+03	+/-	2.80E+02		3.68E+03	+/-	3.20E+02
Mn-54	<	4.70E+01			<	3.90E+01			<	4.30E+01		
Co-58	<	8.30E+01			<	5.10E+01			<	4.80E+01		
Fe-59	<	2.30E+02			<	1.60E+02			<	1.50E+02		
Co-60	<	5.80E+01			<	4.60E+01			<	3.70E+01		
Zn-65	<	1.60E+02			<	8.60E+01			<	1.10E+02		
Zr-95	<	1.30E+02			<	8.30E+01			<	1.00E+02		
Nb-95	<	1.40E+02			<	1.10E+02			<	9.80E+01		
Ru-103	<	1.20E+02			<	9.90E+01			<	7.20E+01		
Ru-106	<	5.20E+02			<	3.00E+02			<	3.30E+02		
Cs-134	<	4.90E+01			<	4.00E+01			<	3.60E+01		
Cs-137	<	5.20E+01			<	3.40E+01			<	3.00E+01		
Ba-140	<	1.30E+03			<	7.10E+02			<	9.90E+02		
La-140	<	1.30E+03			<	7.10E+02			<	9.90E+02		
Ce-141	<	1.50E+02			<	1.40E+02			<	1.00E+02		
Ce-144	<	2.10E+02			<	1.90E+02			<	1.30E+02		

Nuclide	15-OCT White Bass				15-OCT White Perch			
Sr-89	<	2.00E+02			<	1.50E+02		
Sr-90	<	1.50E+02			<	1.10E+02		
Be-7	<	4.80E+02			<	5.20E+02		
K-40		3.36E+03	+/-	3.40E+02		2.92E+03	+/-	3.10E+02
Mn-54	<	4.40E+01			<	4.00E+01		
Co-58	<	4.70E+01			<	5.10E+01		
Fe-59	<	1.80E+02			<	1.60E+02		
Co-60	<	5.20E+01			<	4.10E+01		
Zn-65	<	1.10E+02			<	9.90E+01		
Zr-95	<	1.00E+02			<	9.90E+01		
Nb-95	<	1.20E+02			<	9.30E+01		
Ru-103	<	1.00E+02			<	7.20E+01		
Ru-106	<	3.80E+02			<	3.10E+02		
Cs-134	<	4.20E+01			<	3.20E+01		
Cs-137	<	4.00E+01			<	2.70E+01		
Ba-140	<	9.30E+02			<	1.20E+03		
La-140	<	9.30E+02			<	1.20E+03		
Ce-141	<	1.30E+02			<	1.20E+02		
Ce-144	<	2.30E+02			<	1.70E+02		

FERMI 2
FISH ANALYSIS

F-3 (Control)
(pCi/kg wet)

Nuclide	19-JUN Bull Head				19-JUN Drum				19-JUN White Perch			
Sr-89	<	2.00E+02			<	2.40E+02			<	2.60E+02		
Sr-90	<	1.60E+02			<	1.90E+02			<	2.10E+02		
Be-7	<	5.10E+02			<	6.90E+02			<	5.20E+02		
K-40		2.94E+03	+/-	3.60E+02		3.00E+03	+/-	3.80E+02		2.38E+03	+/-	3.30E+02
Mn-54	<	5.10E+01			<	5.70E+01			<	4.60E+01		
Co-58	<	6.80E+01			<	8.00E+01			<	6.10E+01		
Fe-59	<	1.80E+02			<	2.40E+02			<	2.20E+02		
Co-60	<	4.00E+01			<	9.20E+01			<	4.90E+01		
Zn-65	<	1.20E+02			<	1.60E+02			<	1.10E+02		
Zr-95	<	1.00E+02			<	1.20E+02			<	1.00E+02		
Nb-95	<	1.00E+02			<	1.00E+02			<	1.00E+02		
Ru-103	<	9.90E+01			<	1.10E+02			<	6.90E+01		
Ru-106	<	4.50E+02			<	4.50E+02			<	4.60E+02		
Cs-134	<	4.20E+01			<	5.70E+01			<	4.90E+01		
Cs-137	<	3.30E+01			<	5.20E+01			<	4.80E+01		
Ba-140	<	8.60E+02			<	1.10E+03			<	6.70E+02		
La-140	<	8.60E+02			<	1.10E+03			<	6.70E+02		
Ce-141	<	1.00E+02			<	1.60E+02			<	1.20E+02		
Ce-144	<	1.60E+02			<	2.30E+02			<	1.90E+02		

Nuclide	19-JUN Yellow Perch				14-OCT Catfish				14-OCT Drum			
Sr-89	<	2.20E+02			<	1.50E+02			<	1.50E+02		
Sr-90	<	1.70E+02			<	1.20E+02			<	1.20E+02		
Be-7	<	4.70E+02			<	4.80E+02			<	4.80E+02		
K-40		2.72E+03	+/-	2.50E+02		3.16E+03	+/-	2.40E+02		3.16E+03	+/-	2.40E+02
Mn-54	<	4.10E+01			<	3.20E+01			<	3.20E+01		
Co-58	<	5.40E+01			<	3.70E+01			<	3.70E+01		
Fe-59	<	1.40E+02			<	1.30E+02			<	1.30E+02		
Co-60	<	3.80E+01			<	3.20E+01			<	3.20E+01		
Zn-65	<	9.50E+01			<	7.30E+01			<	7.30E+01		
Zr-95	<	8.70E+01			<	8.90E+01			<	8.90E+01		
Nb-95	<	7.20E+01			<	7.60E+01			<	9.70E+01		
Ru-103	<	7.10E+01			<	7.30E+01			<	7.30E+01		
Ru-106	<	3.40E+02			<	3.20E+02			<	3.20E+02		
Cs-134	<	3.30E+01			<	2.90E+01			<	2.90E+01		
Cs-137	<	3.50E+01			<	3.20E+01			<	3.20E+01		
Ba-140	<	5.40E+02			<	6.80E+02			<	6.80E+02		
La-140	<	5.40E+02			<	6.80E+02			<	6.80E+02		
Ce-141	<	7.50E+01			<	1.20E+02			<	1.20E+02		
Ce-144	<	1.40E+02			<	1.60E+02			<	1.20E+02		

FERMI 2
FISH ANALYSIS

F-3 (Control)
(pCi/kg wet)

Nuclide	14-OCT Walleye				14- OCT White Bass				14-OCT White Perch			
Sr-89	<	1.80E+02			<	1.50E+02			<	1.30E+02		
Sr-90	<	1.40E+02			<	1.10E+02			<	9.90E+01		
Be-7	<	5.60E+02			<	4.50E+02			<	4.10E+02		
K-40		3.08E+03	+/-	3.20E+02		2.55E+03	+/-	2.50E+02		2.48E+03	+/-	2.10E+02
Mn-54	<	4.10E+01			<	3.20E+01			<	2.40E+01		
Co-58	<	5.30E+01			<	4.20E+01			<	4.90E+01		
Fe-59	<	2.20E+02			<	2.00E+02			<	1.20E+02		
Co-60	<	5.30E+01			<	4.20E+01			<	2.70E+01		
Zn-65	<	1.30E+02			<	9.40E+01			<	8.40E+01		
Zr-95	<	9.90E+01			<	6.70E+01			<	7.90E+01		
Nb-95	<	9.30E+01			<	9.90E+01			<	7.70E+01		
Ru-103	<	9.10E+01			<	6.10E+01			<	7.30E+01		
Ru-106	<	4.00E+02			<	2.80E+02			<	2.40E+02		
Cs-134	<	4.00E+01			<	2.70E+01			<	2.50E+01		
Cs-137	<	4.00E+01			<	3.20E+01			<	2.90E+01		
Ba-140	<	2.60E+02			<	1.10E+03			<	9.00E+02		
La-140	<	2.60E+02			<	1.10E+03			<	9.00E+02		
Ce-141	<	1.30E+02			<	1.20E+02			<	1.20E+02		
Ce-144	<	1.80E+02			<	1.40E+02			<	1.50E+02		

Appendix D

Environmental Program Execution

Environmental Program Execution

On occasions, samples cannot be collected. This can be due to a variety of events, such as equipment malfunction, loss of electrical power, severe weather conditions, or vandalism. In 2008, missed samples were a result of missing field TLDs. The following sections list all missed samples, changes and corrective actions taken during 2008. These missed samples did not have a significant impact on the execution of the REMP.

Direct Radiation Monitoring

All TLDs are placed in the field in inconspicuous locations to minimize the loss of TLDs due to vandalism. During 2008, two hundred seventy-six (276) TLDs were placed in the field for the REMP program and all but five (5) TLDs were collected and processed. Four new TLD locations were added to the REMP program in the vicinity of the "maximum exposed individual" in 2008.

- T-22 was found missing during the first quarter collection and was replaced with the next quarter's TLD.
- T-33 was found missing during the second quarter collection and was replaced with the next quarter's TLD.
- T-31 was found missing during the third quarter collection and was replaced with the next quarter's TLD.
- T-30 was found missing during the second and third quarter collection and was replaced with the next quarter's TLD. T-30 is located in a city park and has been a target for vandalism is the past.

Atmospheric Monitoring

During 2008, two hundred sixty (260) air samples were placed in the field and all particulate filters and charcoal filters were collected and processed. There were no changes to the Atmospheric Monitoring program during 2008.

- Cobalt-60 was detected in the API-2 air sample for the sampling period 5/21/2008 to 5/28/2008. The investigation of this incident is attached to this Appendix. The investigation determined that the activity detected by the laboratory was not a result of Fermi 2 airborne effluents, but from cross-contamination.

Terrestrial Monitoring

During 2008, all scheduled terrestrial monitoring samples were collected. There were no changes to the Terrestrial Monitoring program during 2008.

Milk Sampling

All scheduled milk samples were collected in 2008.

Garden Sampling

All scheduled garden samples were collected in 2008.

Groundwater Sampling

All scheduled groundwater samples were collected in 2008.

Aquatic Monitoring

During 2008, all scheduled aquatic monitoring samples were collected. There were no changes to the Aquatic Monitoring program during 2008.

Drinking Water Sampling

All scheduled drinking water samples were collected in 2008.

Surface Water Sampling

All scheduled surface water samples were collected in 2008.

Sediment Sampling

All scheduled sediment samples were collected in 2008.

Fish Sampling

All scheduled fish samples were collected in 2008.

Plant Related Isotope Detected In Environmental Air Sampling Media

Introduction:

On 6/6/2008, Areva, the REMP analytical laboratory, notified Detroit Edison that for the sampling period of 5/21/2008 to 5/28/2008, air sample from location API-2 had an elevated Gross Beta count. The Gross Beta activity was 8.49E-2 pCi/m^3 and API-2 has a past average of about 3.22E-2 pCi/m^3. API-2 is located along the west owner controlled fence line in the NNW metrological sector, 0.6 miles from the Fermi 2 reactor building effluent release point. All other sampling locations were normal for the same time period. The laboratory was requested to perform a Gamma Spectrometry analysis of the sample. This analysis detected Cobalt-60 (Co-60) at an activity of 9.58E-3 pCi/m^3 with a MDA of 3.5E-3 pCi/m^3.

Cobalt-60 is a long lived neutron activated isotope with a half-life of 5.27 years. Cobalt-60 is periodically detected in Fermi 2 airborne effluents. In accordance with procedure 62.000.203, REMP Results Analysis - Review and Action, Section 3.3.3, if isotopes related to plant effluents are detected in environmental sample media, an investigation in the form of a situational surveillance must be initiated. The following discussion is the investigation into this cobalt-60 activity detected in this air sample from API-2.

Investigation:

The scope of this investigation was to determine if the activity detected at API-2 originated from Fermi 2's airborne effluents. Two sources of data were reviewed, (1) effluent release data and (2) meteorological data. Additionally, the laboratory was instructed to cut the air sample filter paper into quarters and count each quarter to determine if the cobalt-60 was evenly deposited on the filter paper.

Review of the effluent data for the time period of 5/21/08 to 5/28/08 showed no detectable activity for cobalt-60. The last date cobalt-60 was detected in airborne effluents was on 1/15/08. To determine what activity would had to have been released during the sampling period, to produce the measured concentrations at API-2 the following calculation was used:

$$\textbf{Activity Released} = \frac{\textbf{Activity Concentration at Sampler}}{\textbf{Dispersion Factor } (X/Q)}$$

The following assumptions and values were used to perform the calculations:

Activity concentrations detected at API-2 = 9.58E-3 *p*Ci/m^3 Co-60
X/Q = 6.0E-7 sec/cubic meter
Sampling Period = 609,780 seconds (169 hours and 23 minutes)

Co-60 Calculation:

9.58E-3 *p*Ci/m^3 = 9.58E-9 *u*Ci/m^3

(9.58E-9 *u*Ci/m^3 / 6.0E-7 sec/m^3) **x** 609,780 sec = 9.73E+3 *u*Ci

Review of the meteorological data indicated that the wind was blowing 5.8% of the time in the direction of API-2 during the sampling period. The wind was blowing towards the other two fence line air sampling locations, API-3 (NW) and API-5 (S), 6.4% and 10.5% respectively. Figure 1 graphically shows the 10 meter wind rose of the wind direction during the sampling period.

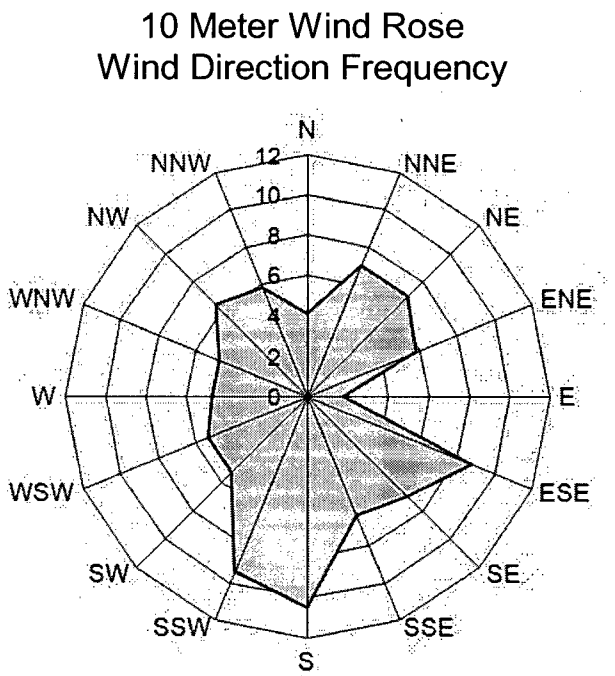


Figure 1

As directed, the laboratory quartered the filter paper and counted each quarter by gamma spectroscopy for 200,000 seconds each. Because the laboratory does not have a geometry for a quartered filter paper, only the number of counts were reported. Three of the quarters had no indication of any cobalt-60 gamma energy lines. One quarter had both (1173 and 1332 kev) cobalt-60 energy lines identified. Using the 1173 kev line, the results of the original un-quartered count matches the one quartered results.

Conclusion:

After evaluating the information from the investigation, it was determined that the activity detected at API-2 during the sampling period, 5/21/08 to 5/28/08, was not a result of Fermi 2 airborne effluents. This determination was based on the following reasons:

1. After a review of station airborne effluent data, it was determined that no cobalt-60 was released during the sampling period of 5/21/08 to 5/28/08.

2. The amount of activity that would have been released to produce the concentration of cobalt-60 at API-2 was calculated to be 9.73 *m*Ci (9.73E+3 *u*Ci). This amount of activity is greater than 50 times the total activity released in 2007. The total cobalt-60 activity released was 0.177 *m*Ci for 2007.

3. The meteorological data indicated the wind was blowing in the direction of API-2 only 5.8% of the time during the sampling period. However, the wind was blowing towards the other two fence line sample location at a greater frequency and these locations indicated no cobalt-60 activity.

4. Quartering the filter paper and counting each quarter independently, determined that the cobalt-60 activity was not evenly deposited on the filter paper which indicates the activity was not a result of air sampling, but from cross-contamination.

Appendix E

Interlaboratory Comparison Data
Areva NP Inc. Environmental Laboratory's
Quality Assurance Programs

Interlaboratory Comparison Program for 2008

In an interlaboratory comparison program, participant laboratories receive from a commerce source, environmental samples of known activity concentration for analysis. After the samples have been analyzed by the laboratory, the manufacturer of the sample reports the known activity concentration of the samples to the laboratory. The laboratory compares its results to the reported concentrations to determine any significant deviations, investigates such deviations if found, and initiates corrective action if necessary. Participation in this program provides assurance that the contract laboratory is capable of meeting accepted criteria for radioactivity analysis.

Included in this Appendix are selected tables from the Semi-Annual Status Reports covering the Areva NP Inc. Environmental Laboratory's Quality Assurance Programs for 2008. The entire report is available upon request.

For the report covering January – December 2008, the laboratory achieved:

- 96.5% of 1166 individual QC analyses evaluated during this semi-annual period met E-LAB acceptance criteria for bias, while
- 98.2% of 856 QC analyses met the Laboratory QC acceptance criteria for precision.

TABLE 1

AREVA NP ENVIRONMENTAL LABORATORY
ECKERT & ZIEGLER ANALYTICS ENVIRONMENTAL
CROSSCHECK PROGRAM RESULTS BY
ACCEPTANCE CRITERIA, MEDIA AND ANALYSIS CATEGORIES
JANUARY – DECEMBER 2008

	Bias Criteria (1)		Precision Criteria (2)	
	Within Criteria	Outside Criteria	Within Criteria	Outside Criteria
I. Air Particulate				
Alpha	8	4	12	0
Beta	12	0	12	0
Gamma	38	16	48	6
Sr-89	0	2	2	0
Sr-90	0	2	2	0
II. Charcoal				
Gamma	12	0	12	0
II. Milk				
Gamma	120	0	119	1
Iodine (LL)	12	0	12	0
Sr-89	5	1	6	0
Sr-90	5	1	6	0
III. Water				
Alpha	9	0	9	0
Beta	9	0	9	0
Gamma	89	1	90	0
H-3	10	2	12	0
I-131 (LL)	9	0	9	0
Sr-89	12	0	12	0
Sr-90	12	0	12	0
Total Number in Range:	**362**	**29**	**384**	**7**
Percentage of Total Processed:	**92.6**	**7.4**	**98.2**	**1.8**
Sum of Analyses:	**391**		**391**	

(1) Bias as noted in Table 1, Footnote (1)

(2) Precision as noted in Table 1, Footnote (2)

* Total may not equal 100 due to rounding

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TABLE 1

AREVA NP ENVIRONMENTAL LABORATORY
ECKERT & ZIEGLER ANALYTICS ENVIRONMENTAL
CROSSCHECK PROGRAM RESULTS BY
ACCEPTANCE CRITERIA, MEDIA AND ANALYSIS CATEGORIES
JANUARY – DECEMBER 2008
(Continued)

(1) Percent Bias Acceptance Criteria

≤15 (or within 2 sigma of known, see Reference 1)

For Gross Alpha and Beta In water	≤25 (or within 2 sigma of known)
For Sr-89/90 mixtures	≤25 (or within 2 sigma of known)
For Alpha Spectrometry*,	≤20 (or within 2 sigma of known)
For Uranium-Total, Pu-241, Zn-65 on an air filter	≤20 (or within 2 sigma of known)

(2) Percent Precision Acceptance Criteria

≤15 (or within 2 sigma of mean, see Reference 1). Exceptions as above.

* Isotopic Uranium (U-234, 235, 238)
Isotopic Thorium (Th-230, 232)
Np-237
Am-241/Cm-242, 243/244
Pu-alpha (Pu-238, 239, 240)
Ra-226

TABLE 2

AREVA NP ENVIRONMENTAL LABORATORY
ECKERT & ZIEGLER ANALYTICS ENVIRONMENTAL CROSS CHECK PROGRAM
PERFORMANCE EVALUATION

Sample Number	Quarter/ Year	Sample Media	Nuclide	Units	Reported Value	Known Value	Ratio E-LAB/ Analytics	Evaluation
E5527-162	4th/2007	Water	H-3	pCi/L	9000	9020	1.00	Agreement
E5528-162	4th/2007	Water	Sr-89	pCi/L	87.1	94.9	0.92	Agreement
E5528-162	4th/2007	Water	Sr-90	pCi/L	14.4	15.4	0.93	Agreement
E5529-162	4th/2007	Charcoal	I-131	pCi	69.8	73.4	0.95	Agreement
E5530-162	4th/2007	Filter	Gross Alpha	pCi	103	120	0.86	Agreement
E5530-162	4th/2007	Filter	Gross Beta	pCi	166	152	1.09	Agreement
E5531-162	4th/2007	Filter	Ce-141	pCi	84.1	98.4	0.85	Agreement
E5531-162	4th/2007	Filter	Cr-51	pCi	312	358	0.87	Agreement
E5531-162	4th/2007	Filter	Cs-134	pCi	82.3	96.1	0.86	Agreement
E5531-162	4th/2007	Filter	Cs-137	pCi	109	116	0.94	Agreement
E5531-162	4th/2007	Filter	Co-58	pCi	108	122	0.88	Agreement
E5531-162	4th/2007	Filter	Mn-54	pCi	117	133	0.88	Agreement
E5531-162	4th/2007	Filter	Fe-59	pCi	86.6	104	0.83	Non-Agreement (1)
E5531-162	4th/2007	Filter	Zn-65	pCi	135	164	0.83	Non-Agreement (1)
E5531-162	4th/2007	Filter	Co-60	pCi	123	148	0.83	Non-Agreement (1)
E5532-162	4th/2007	Filter	Sr-89	pCi	45.9	102	0.45	Non-Agreement (2)
E5532-162	4th/2007	Filter	Sr-90	pCi	7.2	16.5	0.44	Non-Agreement (2)
E5533-162	4th/2007	Milk	I-131LL	pCi/L	59.2	60.8	0.97	Agreement
E5533-162	4th/2007	Milk	I-131	pCi/L	58.5	60.8	0.96	Agreement
E5533-162	4th/2007	Milk	Ce-141	pCi/L	136	141	0.97	Agreement
E5533-162	4th/2007	Milk	Cr-51	pCi/L	517	512	1.01	Agreement
E5533-162	4th/2007	Milk	Cs-134	pCi/L	137	137	1.00	Agreement
E5533-162	4th/2007	Milk	Cs-137	pCi/L	166	166	1.00	Agreement
E5533-162	4th/2007	Milk	Co-58	pCi/L	167	174	0.96	Agreement
E5533-162	4th/2007	Milk	Mn-54	pCi/L	201	190	1.06	Agreement
E5533-162	4th/2007	Milk	Fe-59	pCi/L	155	148	1.05	Agreement
E5533-162	4th/2007	Milk	Zn-65	pCi/L	223	234	0.95	Agreement
E5533-162	4th/2007	Milk	Co-60	pCi/L	205	211	0.97	Agreement

(1) CR 08-11 was issued to address these analyses
(2) CR 08-10 was issued to address these analyses

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TABLE 2

AREVA NP ENVIRONMENTAL LABORATORY
ECKERT & ZIEGLER ANALYTICS ENVIRONMENTAL CROSS CHECK PROGRAM
PERFORMANCE EVALUATION
(Continued)

Sample Number	Quarter/ Year	Sample Media	Nuclide	Units	Reported Value	Known Value	Ratio E-LAB/ Analytics	Evaluation
E5837-162	1st/2008	Water	Gross Alpha	pCi/L	97.2	104	0.93	Agreement
E5837-162	1st/2008	Water	Gross Beta	pCi/L	211	209	1.01	Agreement
E5838-162	1st/2008	Water	I-131LL	pCi/L	66.8	70.4	0.95	Agreement
E5838-162	1st/2008	Water	I-131	pCi/L	65.6	70.4	0.93	Agreement
E5838-162	1st/2008	Water	Ce-141	pCi/L	187	198	0.94	Agreement
E5838-162	1st/2008	Water	Cr-51	pCi/L	272	286	0.95	Agreement
E5838-162	1st/2008	Water	Cs-134	pCi/L	96.2	99.7	0.96	Agreement
E5838-162	1st/2008	Water	Cs-137	pCi/L	109	116	0.94	Agreement
E5838-162	1st/2008	Water	Co-58	pCi/L	55.8	56.4	0.99	Agreement
E5838-162	1st/2008	Water	Mn-54	pCi/L	75.7	75	1.01	Agreement
E5838-162	1st/2008	Water	Fe-59	pCi/L	81.6	81.4	1.00	Agreement
E5838-162	1st/2008	Water	Zn-65	pCi/L	106	109	0.97	Agreement
E5838-162	1st/2008	Water	Co-60	pCi/L	184	188	0.98	Agreement
E5839-162	1st/2008	Water	Sr-89	pCi/L	89.7	94.1	0.95	Agreement
E5839-162	1st/2008	Water	Sr-90	pCi/L	11.6	12.7	0.91	Agreement
E5840-162	1st/2008	Water	H-3	pCi/L	3280	4010	0.82	Non-Agreement (3)
E5841-162	1st/2008	Charcoal	I-131	pCi	59.7	60.0	1.00	Agreement
E5842-162	1st/2008	Filter	Gross Alpha	pCi	79.5	99.5	0.80	Non-Agreement (4)
E5842-162	1st/2008	Filter	Gross Beta	pCi	209	200	1.05	Agreement
E5843-162	1st/2008	Milk	I-131LL	pCi/L	60.0	60.0	1.00	Agreement
E5843-162	1st/2008	Milk	I-131	pCi/L	54.8	60.0	0.91	Agreement
E5843-162	1st/2008	Milk	Ce-141	pCi/L	241	249	0.97	Agreement
E5843-162	1st/2008	Milk	Cr-51	pCi/L	360	359	1.00	Agreement
E5843-162	1st/2008	Milk	Cs-134	pCi/L	122	125	0.97	Agreement
E5843-162	1st/2008	Milk	Cs-137	pCi/L	147	146	1.01	Agreement
E5843-162	1st/2008	Milk	Co-58	pCi/L	69.5	70.8	0.98	Agreement
E5843-162	1st/2008	Milk	Mn-54	pCi/L	98.3	94.2	1.04	Agreement
E5843-162	1st/2008	Milk	Fe-59	pCi/L	107	102	1.05	Agreement
E5843-162	1st/2008	Milk	Zn-65	pCi/L	129	137	0.94	Agreement
E5843-162	1st/2008	Milk	Co-60	pCi/L	237	236	1.00	Agreement
E5844-162	1st/2008	Milk	Sr-89	pCi/L	87.9	95.8	0.92	Agreement
E5844-162	1st/2008	Milk	Sr-90	pCi/L	10.6	12.9	0.82	Agreement

(3) CR 08-19 was issued to address the H-3 analyses.
(4) The gross alpha analyses are being addressed by CR 08-01.

TABLE 2

AREVA NP ENVIRONMENTAL LABORATORY
ECKERT & ZIEGLER ANALYTICS ENVIRONMENTAL CROSS CHECK PROGRAM
PERFORMANCE EVALUATION
(Continued)

Sample Number	Quarter/ Year	Sample Media	Nuclide	Units	Reported Value	Known Value	Ratio E-LAB/ Analytics	Evaluation
E5900-162	2nd/2008	Water	Gross Alpha	pCi/L	184	194	0.95	Agreement
E5900-162	2nd/2008	Water	Gross Beta	pCi/L	177	169	1.05	Agreement
E5901-162	2nd/2008	Water	I-131LL	pCi/L	45.4	45.3	1.00	Agreement
E5901-162	2nd/2008	Water	I-131	pCi/L	45.5	45.3	1.00	Agreement
E5901-162	2nd/2008	Water	Ce-141	pCi/L	223	237	0.94	Agreement
E5901-162	2nd/2008	Water	Cr-51	pCi/L	183	188	0.97	Agreement
E5901-162	2nd/2008	Water	Cs-134	pCi/L	94.8	104	0.91	Agreement
E5901-162	2nd/2008	Water	Cs-137	pCi/L	155	158	0.98	Agreement
E5901-162	2nd/2008	Water	Co-58	pCi/L	83.7	84.2	0.99	Agreement
E5901-162	2nd/2008	Water	Mn-54	pCi/L	191	184	1.04	Agreement
E5901-162	2nd/2008	Water	Fe-59	pCi/L	123	125	0.99	Agreement
E5901-162	2nd/2008	Water	Zn-65	pCi/L	162	172	0.94	Agreement
E5901-162	2nd/2008	Water	Co-60	pCi/L	143	142	1.01	Agreement
E5902-162	2nd/2008	Water	Sr-89	pCi/L	76.7	86.3	0.89	Agreement
E5902-162	2nd/2008	Water	Sr-90	pCi/L	15.3	16	0.95	Agreement
E5903-162	2nd/2008	Water	H-3	pCi/L	11700	13000	0.90	Agreement
E5904-162	2nd/2008	Charcoal	I-131	pCi	97.1	97.8	0.99	Agreement
E5905-162	2nd/2008	Filter	Gross Alpha	pCi	214	228	0.94	Agreement
E5905-162	2nd/2008	Filter	Gross Beta	pCi	210	199	1.06	Agreement
E5906-162	2nd/2008	Filter	Ce-141	pCi	204	211	0.97	Agreement
E5906-162	2nd/2008	Filter	Cr-51	pCi	180	167	1.08	Agreement
E5906-162	2nd/2008	Filter	Cs-134	pCi	89.5	92.7	0.97	Agreement
E5906-162	2nd/2008	Filter	Cs-137	pCi	151.6	140	1.08	Agreement
E5906-162	2nd/2008	Filter	Co-58	pCi	76	74.8	1.02	Agreement
E5906-162	2nd/2008	Filter	Mn-54	pCi	172	163	1.06	Agreement
E5906-162	2nd/2008	Filter	Fe-59	pCi	110	111	0.99	Agreement
E5906-162	2nd/2008	Filter	Zn-65	pCi	153	153	1.00	Agreement
E5906-162	2nd/2008	Filter	Co-60	pCi	124	126	0.98	Agreement
E5907-162	2nd/2008	Milk	I-131LL	pCi/L	69.9	71.4	0.98	Agreement
E5907-162	2nd/2008	Milk	I-131	pCi/L	62.3	71.4	0.87	Agreement
E5907-162	2nd/2008	Milk	Ce-141	pCi/L	171	174	0.98	Agreement
E5907-162	2nd/2008	Milk	Cr-51	pCi/L	123	138	0.89	Agreement
E5907-162	2nd/2008	Milk	Cs-134	pCi/L	72.3	76.7	0.94	Agreement
E5907-162	2nd/2008	Milk	Cs-137	pCi/L	119	116	1.03	Agreement
E5907-162	2nd/2008	Milk	Co-58	pCi/L	59.3	61.9	0.96	Agreement
E5907-162	2nd/2008	Milk	Mn-54	pCi/L	146	135	1.08	Agreement
E5907-162	2nd/2008	Milk	Fe-59	pCi/L	97.6	91.7	1.06	Agreement
E5907-162	2nd/2008	Milk	Zn-65	pCi/L	125	127	0.98	Agreement
E5907-162	2nd/2008	Milk	Co-60	pCi/L	106	104	1.02	Agreement

TABLE 2

AREVA NP ENVIRONMENTAL LABORATORY
ECKERT & ZIEGLER ANALYTICS ENVIRONMENTAL CROSS CHECK PROGRAM
PERFORMANCE EVALUATION
(Continued)

Sample Number	Quarter/ Year	Sample Media	Nuclide	Units	Reported Value	Known Value	Ratio E-LAB/ Analytics	Evaluation
E6238-162	3rd/2008	Water	Gross Alpha	pCi/L	141	152	0.93	Agreement
E6238-162	3rd/2008	Water	Gross Beta	pCi/L	147	134	1.09	Agreement
E6239-162	3rd/2008	Water	I-131LL	pCi/L	101.9	105	0.96	Agreement
E6239-162	3rd/2008	Water	I-131	pCi/L	101	105	0.96	Agreement
E6239-162	3rd/2008	Water	Ce-141	pCi/L	110	107	1.03	Agreement
E6239-162	3rd/2008	Water	Cr-51	pCi/L	252	279	0.90	Agreement
E6239-162	3rd/2008	Water	Cs-134	pCi/L	135	154	0.88	Agreement
E6239-162	3rd/2008	Water	Cs-137	pCi/L	104	107	0.97	Agreement
E6239-162	3rd/2008	Water	Co-58	pCi/L	115	118	0.98	Agreement
E6239-162	3rd/2008	Water	Mn-54	pCi/L	117	110	1.06	Agreement
E6239-162	3rd/2008	Water	Fe-59	pCi/L	99.3	95.6	1.04	Agreement
E6239-162	3rd/2008	Water	Zn-65	pCi/L	208	211	0.99	Agreement
E6239-162	3rd/2008	Water	Co-60	pCi/L	148	155	0.95	Agreement
E6240-162	3rd/2008	Water	Sr-89	pCi/L	77.6	95.5	0.81	Agreement
E6240-162	3rd/2008	Water	Sr-90	pCi/L	12.3	14.2	0.86	Agreement
E6241-162	3rd/2008	Water	H-3	pCi/L	10200	11400	0.90	Agreement
E6242-162	3rd/2008	Charcoal	I-131	pCi	75.6	81.4	0.93	Agreement
E6243-162	3rd/2008	Filter	Gross Alpha	pCi	120	129	0.93	Agreement
E6243-162	3rd/2008	Filter	Gross Beta	pCi	122	113	1.07	Agreement
E6244-162	3rd/2008	Milk	I-131LL	pCi/L	65.9	67.9	0.97	Agreement
E6244-162	3rd/2008	Milk	I-131	pCi/L	71.0	67.9	1.05	Agreement
E6244-162	3rd/2008	Milk	Ce-141	pCi/L	163	161	1.01	Agreement
E6244-162	3rd/2008	Milk	Cr-51	pCi/L	395	421	0.94	Agreement
E6244-162	3rd/2008	Milk	Cs-134	pCi/L	206	232	0.89	Agreement
E6244-162	3rd/2008	Milk	Cs-137	pCi/L	164	162	1.01	Agreement
E6244-162	3rd/2008	Milk	Co-58	pCi/L	177	179	0.99	Agreement
E6244-162	3rd/2008	Milk	Mn-54	pCi/L	176	166	1.06	Agreement
E6244-162	3rd/2008	Milk	Fe-59	pCi/L	154	144	1.06	Agreement
E6244-162	3rd/2008	Milk	Zn-65	pCi/L	320	319	1.00	Agreement
E6244-162	3rd/2008	Milk	Co-60	pCi/L	230	234	0.98	Agreement
E6245-162	3rd/2008	Milk	Sr-89	pCi/L	59.6	73.9	0.81	Agreement
E6245-162	3rd/2008	Milk	Sr-90	pCi/L	9.9	11	0.90	Agreement

TABLE 3

DEPARTMENT OF ENERGY MIXED ANALYTE PERFORMANCE EVALUATION PROGRAM RESULTS AREVA NP ENVIRONMENTAL LABORATORY

SAMPLE ID	MATRIX/ UNITS	REFERENCE DATE	RADIO-NUCLIDE	REPORTED MEAN VALUE Bq/Units	MAPEP VALUE Bq/Units	% Bias	EVALUATION
MAPEP-07-RdF18	Filter (Bq/filter)	1-Jan-08	Am-241	0.1345	0.158	-14.9	Agreement
MAPEP-07-RdF18	Filter (Bq/filter)	1-Jan-08	Cs-134	2.322	2.52	-7.9	Agreement
MAPEP-07-RdF18	Filter (Bq/filter)	1-Jan-08	Cs-137	2.544	2.7	-5.8	Agreement
MAPEP-07-RdF18	Filter (Bq/filter)	1-Jan-08	Co-57	3.425	3.55	-3.5	Agreement
MAPEP-07-RdF18	Filter (Bq/filter)	1-Jan-08	Co-60	1.208	1.31	-7.8	Agreement
MAPEP-07-RdF18	Filter (Bq/filter)	1-Jan-08	Mn-54	-0.14	0	N/A	Agreement
MAPEP-07-RdF18	Filter (Bq/filter)	1-Jan-08	Pu-238	0.1038	0.1053	-1.4	Agreement
MAPEP-07-RdF18	Filter (Bq/filter)	1-Jan-08	Pu-239/240	0.1082	0.1141	-5.2	Agreement
MAPEP-07-RdF18	Filter (Bq/filter)	1-Jan-08	Sr-90	1.498	1.548	-3.2	Agreement
MAPEP-07-RdF18	Filter (Bq/filter)	1-Jan-08	Zn-65	1.979	2.04	-3.0	Agreement
MAPEP-07-MaS18	Soil (Bq/kg)	1-Jan-08	Cs-134	895.9	854	4.9	Agreement
MAPEP-07-MaS18	Soil (Bq/kg)	1-Jan-08	Cs-137	610.9	545	12.1	Agreement
MAPEP-07-MaS18	Soil (Bq/kg)	1-Jan-08	Co-57	477.3	421	13.4	Agreement
MAPEP-07-MaS18	Soil (Bq/kg)	1-Jan-08	Co-60	2.17	2.9	N/A	Agreement
MAPEP-07-MaS18	Soil (Bq/kg)	1-Jan-08	Mn-54	647.7	570	13.6	Agreement
MAPEP-07-MaS18	Soil (Bq/kg)	1-Jan-08	K-40	644	571	12.8	Agreement
MAPEP-07-MaS18	Soil (Bq/kg)	1-Jan-08	Sr-90	457	493	-7.3	Agreement
MAPEP-07-MaS18	Soil (Bq/kg)	1-Jan-08	Zn-65	-1.3	0	N/A	Agreement
MAPEP-07-RdV18	Vegetation (Bq/sample)	1-Jan-08					(1)
MAPEP-07-MaW18	Water (Bq/L)	1-Jan-08	Am-241	1.05	1.23	-14.6	Agreement
MAPEP-07-MaW18	Water (Bq/L)	1-Jan-08	Cs-134	0.01	0	N/A	Agreement
MAPEP-07-MaW18	Water (Bq/L)	1-Jan-08	Cs-137	0.07	0	N/A	Agreement
MAPEP-07-MaW18	Water (Bq/L)	1-Jan-08	Co-57	21.69	22.8	-4.9	Agreement
MAPEP-07-MaW18	Water (Bq/L)	1-Jan-08	Co-60	8.00	8.40	-4.8	Agreement
MAPEP-07-MaW18	Water (Bq/L)	1-Jan-08	H-3	475.9	472	0.8	Agreement
MAPEP-07-MaW18	Water (Bq/L)	1-Jan-08	Fe-55	33	36.5	-9.6	Agreement
MAPEP-07-MaW18	Water (Bq/L)	1-Jan-08	Mn-54	12.11	12.1	0.1	Agreement
MAPEP-07-MaW18	Water (Bq/L)	1-Jan-08	Ni-63	27.3	30.7	-11.1	Agreement
MAPEP-07-MaW18	Water (Bq/L)	1-Jan-08	Pu-238	0.632	0.73	-13.4	Agreement
MAPEP-07-MaW18	Water (Bq/L)	1-Jan-08	Pu-239/240	0.0259	0.0141	N/A	Non-Agreement (2)
MAPEP-07-MaW18	Water (Bq/L)	1-Jan-08	Sr-90	10.27	11.40	-9.9	Agreement
MAPEP-07-MaW18	Water (Bq/L)	1-Jan-08	Zn-65	16.18	16.3	-0.7	Agreement

(1) - Vegetation sample was not analyzed this round due to difficulties encountered with the provided sample.
(2) - Sensitivity evaluation, CR 08-16 issued

TABLE 3

DEPARTMENT OF ENERGY MIXED ANALYTE PERFORMANCE EVALUATION PROGRAM RESULTS AREVA NP ENVIRONMENTAL LABORATORY (Continued)

SAMPLE ID	MATRIX/ UNITS	REFERENCE DATE	RADIO-NUCLIDE	REPORTED MEAN VALUE Bq/Units	MAPEP VALUE Bq/Units	% Bias	EVALUATION
MAPEP-08-RdF19	Filter (Bq/filter)	1-Aug-08	Am-241	0.00022	0		Agreement
MAPEP-08-RdF19	Filter (Bq/filter)	1-Aug-08	Cs-134	2.24	2.63	-14.8	Agreement
MAPEP-08-RdF19	Filter (Bq/filter)	1-Aug-08	Cs-137	0.01	0		Agreement
MAPEP-08-RdF19	Filter (Bq/filter)	1-Aug-08	Co-57	1.247	1.5	-16.9	Agreement
MAPEP-08-RdF19	Filter (Bq/filter)	1-Aug-08	Co-60	0.0271	0		Non-Agreement (3)
MAPEP-08-RdF19	Filter (Bq/filter)	1-Aug-08	Mn-54	2.29	2.64	-13.3	Agreement
MAPEP-08-RdF19	Filter (Bq/filter)	1-Aug-08	Pu-238	0.1008	0.118	-14.6	Agreement
MAPEP-08-RdF19	Filter (Bq/filter)	1-Aug-08	Pu-239/240	0.1269	0.152	-16.5	Agreement
MAPEP-08-RdF19	Filter (Bq/filter)	1-Aug-08	Sr-90	1.04	1.12	-7.1	Agreement
MAPEP-08-RdF19	Filter (Bq/filter)	1-Aug-08	Zn-65	0.794	0.94	-15.5	Agreement
MAPEP-08-MaS19	Soil (Bq/kg)	1-Aug-08	Sb-125	24.7	22.8	8.3	Agreement
MAPEP-08-MaS19	Soil (Bq/kg)	1-Aug-08	Cs-134	594	581	2.2	Agreement
MAPEP-08-MaS19	Soil (Bq/kg)	1-Aug-08	Cs-137	2.3	2.8		Agreement
MAPEP-08-MaS19	Soil (Bq/kg)	1-Aug-08	Co-57	382	333	14.7	Agreement
MAPEP-08-MaS19	Soil (Bq/kg)	1-Aug-08	Co-60	163.9	145	13.0	Agreement
MAPEP-08-MaS19	Soil (Bq/kg)	1-Aug-08	Mn-54	477	415	14.9	Agreement
MAPEP-08-MaS19	Soil (Bq/kg)	1-Aug-08	K-40	653	570	14.6	Agreement
MAPEP-08-MaS19	Soil (Bq/kg)	1-Aug-08	Sr-90	N/A	N/A		(4)
MAPEP-08-MaS19	Soil (Bq/kg)	1-Aug-08	Zn-65	-2.9	0		Agreement
MAPEP-08-MaW19	Water (Bq/L)	1-Aug-08	Am-241	0.001	0		Agreement
MAPEP-08-MaW19	Water (Bq/L)	1-Aug-08	Cs-134	17.41	19.5	-10.7	Agreement
MAPEP-08-MaW19	Water (Bq/L)	1-Aug-08	Cs-137	23.2	23.6	-1.7	Agreement
MAPEP-08-MaW19	Water (Bq/L)	1-Aug-08	Co-57	0.021	0		Agreement
MAPEP-08-MaW19	Water (Bq/L)	1-Aug-08	Co-60	11.25	11.6	-3.0	Agreement
MAPEP-08-MaW19	Water (Bq/L)	1-Aug-08	H-3	329	341	-3.5	Agreement
MAPEP-08-MaW19	Water (Bq/L)	1-Aug-08	Fe-55	43.8	46.2	-5.2	Agreement
MAPEP-08-MaW19	Water (Bq/L)	1-Aug-08	Mn-54	13.74	13.7	0.3	Agreement
MAPEP-08-MaW19	Water (Bq/L)	1-Aug-08	Ni-63	0.27	0		Agreement
MAPEP-08-MaW19	Water (Bq/L)	1-Aug-08	Pu-238	0.357	0.5	-28.6	Warning (5)
MAPEP-08-MaW19	Water (Bq/L)	1-Aug-08	Pu-239/240	0.0035	0		Agreement
MAPEP-08-MaW19	Water (Bq/L)	1-Aug-08	Sr-90	5.77	6.45	-10.5	Agreement
MAPEP-08-MaW19	Water (Bq/L)	1-Aug-08	U-234	3.54	3.44	2.9	Agreement
MAPEP-08-MaW19	Water (Bq/L)	1-Aug-08	U-238	3.67	3.55	3.4	Agreement
MAPEP-08-MaW19	Water (Bq/L)	1-Aug-08	Zn-65	17.45	17.1	2.0	Agreement
MAPEP-08-RdV19	Vegetation (Bq/Sample)	1-Aug-08	Cs-134	5.14	5.5	-7.0	Agreement (6)
MAPEP-08-RdV19	Vegetation (Bq/Sample)	1-Aug-08	Cs-137	0.029	0		Agreement (6)
MAPEP-08-RdV19	Vegetation (Bq/Sample)	1-Aug-08	Co-57	6.5	7.1	-9.2	Agreement (6)
MAPEP-08-RdV19	Vegetation (Bq/Sample)	1-Aug-08	Co-60	4.31	4.7	-9.0	Agreement (6)
MAPEP-08-RdV19	Vegetation (Bq/Sample)	1-Aug-08	Mn-54	5.22	5.8	-11.1	Agreement (6)
MAPEP-08-RdV19	Vegetation (Bq/Sample)	1-Aug-08	Sr-90	1.52	1.9	-20.0	Agreement
MAPEP-08-RdV19	Vegetation (Bq/Sample)	1-Aug-08	Zn-65	6.12	6.9	-12.7	Agreement (6)

(3) CR 08-39 was initiated.
(4) Samples were processed but results were inconsistent and not submitted. CR 08-40 was initiated.
(5) CR 08-38 was initiated.
(6) Samples were processed as internal PCs. Results were not submitted to MAPEP but would have passed the agreement criteria.

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TABLE 4

ENVIRONMENTAL RESOURCE ASSOCIATES AND ENVIRONMENTAL LABORATORY APPROVAL PROGRAM PROFICIENCY TEST RESULTS AREVA NP ENVIRONMENTAL LABORATORY

ERA LOT #/ REF. DATE	MATRIX/ UNITS	RADIO-NUCLIDE	REPORTED MEAN VALUE pCi/L	ERA VALUE pCi/L	ERA ACCEPTANCE LIMITS	PERFORMANCE EVALUATION
RAD 72 01/07/2008	Water pCi/L	Gross Alpha	12.7	14.8	7.15-21.2	Acceptable
RAD 72 01/07/2008	Water pCi/L	Gross Beta	27.7	22.5	13.7-30.6	Acceptable
RAD 72 01/07/2008	Water pCi/L	Tritium	3610	3540	3000-3910	Acceptable
RAD 72 01/07/2008	Water pCi/L	Ba-133	22.1	25.7	20.0-29.5	Acceptable
RAD 72 01/07/2008	Water pCi/L	Cs-134	91.6	92.6	76.0-102	Acceptable
RAD 72 01/07/2008	Water pCi/L	Cs-137	147	158	142-176	Acceptable
RAD 72 01/07/2008	Water pCi/L	Co-60	12.4	14.4	11.4-18.7	Acceptable
RAD 72 01/07/2008	Water pCi/L	Zn-65	195	204	184-240	Acceptable
RAD 72 01/07/2008	Water pCi/L	I-131	23.3	23.6	19.6-28.0	Acceptable

ERA LOT #/ REF. DATE	MATRIX/ UNITS	RADIO-NUCLIDE	REPORTED MEAN VALUE pCi/L	ERA VALUE pCi/L	ERA CONTROL LIMITS	EVALUATION
(1)	Water pCi/L	Gross Alpha	(1)	(1)	(1)	(1)
(1)	Water pCi/L	Gross Beta	(1)	(1)	(1)	(1)
RAD 73 04/07/2008	Water pCi/L	Tritium	11237	12000	10400-13200	Acceptable
RAD 73 04/07/2008	Water pCi/L	Ba-133	53.9	58.3	48.3-64.3	Acceptable
RAD 73 04/07/2008	Water pCi/L	Cs-134	43.9	46.6	37.4-51.3	Acceptable
RAD 73 04/07/2008	Water pCi/L	Cs-137	95.2	102	91.8-115	Acceptable
RAD 73 04/07/2008	Water pCi/L	Co-60	72.9	76.6	68.9-86.7	Acceptable
RAD 73 04/07/2008	Water pCi/L	Zn-65	104.7	106	95.4-126	Acceptable
(1)	Water pCi/L	I-131	(1)	(1)	(1)	(1)

(1) - ERA samples were analyzed for H-3 and gamma emitters only.

ELAP No./ REF. DATE	MATRIX/ UNITS	RADIO-NUCLIDE	REPORTED VALUE pCi/L	ELAP VALUE pCi/L	ELAP CONTROL LIMITS	EVALUATION
1763/ 09-29-08	Water pCi/L	Gross Alpha	32.5	54.2	32.2-76.2	Satisfactory
1763/ 09-29-08	Water pCi/L	Gross Beta	60.2	49.9	37.8-62.1	Satisfactory
1766/ 09-29-08	Water pCi/L	Tritium	16700	18300	16300-20400	Satisfactory
1762/ 09-29-08	Water pCi/L	Ba-133	71.3	73.1	63.2-83	Satisfactory
1762/ 09-29-08	Water pCi/L	Cs-134	61.7	64.9	56.4-73.5	Satisfactory
1762/ 09-29-08	Water pCi/L	Cs-137	174	176	161-191	Satisfactory
1762/ 09-29-08	Water pCi/L	Co-60	78.1	84.4	76.3-92.6	Satisfactory
1762/ 09-29-08	Water pCi/L	Zn-65	310	321	285-357	Satisfactory

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TABLE 5

AREVA NP ENVIRONMENTAL LABORATORY
INTRA-LABORATORY ENVIRONMENTAL PROCESS CONTROL RESULTS BY ACCEPTANCE CRITERIA, MEDIA, AND ANALYSIS CATEGORIES
JANUARY - DECEMBER 2008

	Bias Criteria (1)		Precision Criteria (2), (3)	
	Within Criteria	Outside Criteria	Within Criteria	Outside Criteria
I. Air Particulate				
Beta	275	0	0	0
Sr-90	0	0	0	0
II. Air Charcoal				
Gamma-Quantitative	153	3	0	0
III. Food (Aquatic/Terrestrial)				
Gamma	0	0	8	0
IV. Milk				
Gamma	3	0	2	0
Iodine (LL)	2	0	2	0
V. Soil/Sed.				
Gamma	12	0	22	0
Sr-90	0	0	0	2
Th-228, Th-230, Th-232	0	0	6	0
U-234, 235, 238	0	0	6	0
VI. Vegetation (Aquatic/Terrestrial)				
Gamma	15	0	22	0
Iodine (LL)	2	1	0	0
VII. Water				
Gross Alpha	16	2	21	0
Gross Beta	24	0	29	4
Gamma	197	4	228	0
Iodine (LL)	0	1	0	0
Sr-90	0	0	0	0
Tritium	41	0	76	2
Am-241	2	0	4	0
Ra-226	3	0	6	0
Ra-228	6	0	7	0
Th-230	3	1	6	0
U-234, U-235, U-238	8	1	12	0
Total Number in Range:	**762**	**13**	**457**	**8**
Percentage of Total Processed:	**98.3**	**1.7**	**98.3**	**1.7**
Sum of Analyses:	**775**		**465**	

(1) Bias as noted in Table 1, Footnote (1)

(2) Precision as noted in Table 1, Footnote (2)

(3) Most Precision data generated from non-positive client samples for specific contractual evaluation

* Total may not equal 100 due to rounding

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TABLE 6

AREVA NP ENVIRONMENTAL LABORATORY
ENVIRONMENTAL INTRA-LABORATORY AND INTER-LABORATORY
DATA SUMMARY: BIAS AND PRECISION BY MEDIA
JANUARY - DECEMBER 2008

	Bias Criteria (1)		Precision Criteria (2), (3)	
	Within Criteria	Outside Criteria	Within Criteria	Outside Criteria
I. Air Particulate				
Alpha	8	4	12	0
Beta	287	0	12	0
Gamma	38	16	48	6
Sr-89	0	2	2	0
Sr-90	0	2	2	0
II. Air Charcoal				
Gamma-Quantitative	165	3	12	0
III. Food (Aquatic/Terrestrial)				
Gamma	0	0	8	0
IV. Milk				
Gamma	123	0	121	1
Iodine (LL)	14	0	14	0
Sr-89	5	1	6	0
Sr-90	5	1	6	0
V. Soil/Sed.				
Gamma	12	0	22	0
Sr-90	0	0	0	2
Th-228, Th-230, Th-232	0	0	6	0
U-234, 235, 238	0	0	6	0
VI. Vegetation (Aquatic/Terrestrial)				
Gamma	15	0	22	0
Iodine (LL)	3	0	0	0
VII. Water				
Gross Alpha	25	2	30	0
Gross Beta	33	0	38	4
Gamma	286	5	318	0
Iodine (LL)	9	1	9	0
Sr-89	12	0	12	0
Sr-90	12	0	12	0
Tritium	51	2	88	2
Am-241	2	0	4	0
Ra-226	3	0	6	0
Ra-228	6	0	7	0
Th-230	3	1	6	0
U-234, U-235, U-238	8	1	12	0
Total Number in Range:	**1125**	**41**	**841**	**15**
Percentage of Total Processed:	**96.5**	**3.5**	**98.2**	**1.8**
Sum of Analyses:	**1166**		**856**	

(1) Bias as noted in Table 1, Footnote (1)

(2) Precision as noted in Table 1, Footnote (2)

(3) Most Precision data generated from non-positive client samples for specific contractual evaluation

* Total may not equal 100 due to rounding

** Totals summarize Internal PCs and Analytics Cross Check program

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TABLE 7

AREVA NP ENVIRONMENTAL LABORATORY
ENVIRONMENTAL INTRA-LABORATORY AND INTER-LABORATORY
DATA SUMMARY: BIAS AND PRECISION BY ANALYSIS TYPE
JANUARY - DECEMBER 2008

	Bias Criteria (1)		Precision Criteria (2), (3)	
	Within Criteria	Outside Criteria	Within Criteria	Outside Criteria
I. Gross Alpha				
Air Filter	8	4	12	0
Water	25	2	30	0
II. Gross Beta				
Air Filter	287	0	12	0
Water	33	0	38	4
III. Gamma				
Air Filter	38	16	48	6
Charcoal-Quantitative	165	3	12	0
Food	0	0	8	0
Milk	123	0	121	1
Soil/Sediment	12	0	22	0
Vegetation	15	0	22	0
Water	286	5	318	0
IV. Iodine (LL)				
Milk	14	0	14	0
Vegetation	3	0	0	0
Water	9	1	9	0
V. Sr-89				
Air Filter	0	2	2	0
Milk	5	1	6	0
Water	12	0	12	0
VI. Sr-90				
Air Filter	0	2	2	0
Milk	5	1	6	0
Soil/Sediment	0	0	0	2
Water	12	0	12	0
VII. Tritium				
Water	51	2	88	2
VIII. Am-241				
Water	2	0	4	0
IX. Ra-226				
Water	3	0	6	0
X. Ra-228				
Water	6	0	7	0
XI. Th-228				
Soil	0	0	2	0
XII. Th-230, Th-232				
Soil	0	0	4	0
Water	3	1	6	0
XIII. U-234, U-235, U-238				
Soil	0	0	6	0
Water	8	1	12	0
Total Number in Range:	**1125**	**41**	**841**	**15**
Percentage of Total Processed:	**96.5**	**3.5**	**98.2**	**1.8**
Sum of Analyses:	**1166**		**856**	

(1) Percent Bias by Deviation Category as noted in Table 1, Footnote (1)
(2) Percent Precision by Deviation Category as noted in Table 1, Footnote (2)
(3) Most Precision data generated from non-positive client samples for specific
* Total may not equal 100 due to rounding.
** Totals summarize Internal PCs and Analytics Cross Check programs

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TABLE 8

AREVA NP ENVIRONMENTAL LABORATORY ENVIRONMENTAL BIAS AND PRECISION BY YEAR

	Bias Deviation from Known			Precision Deviation from Mean		
	Bias Criteria* (1)			Precision Criteria* (2)		
Year	# Within Criteria	# Outside Criteria	% Within Criteria	# Within Criteria	# Outside Criteria	% Within Criteria
2008	1125	41	96.5	841	15	98.2
2007	798	17	97.9	488	1	99.8
2006	689	5	99.3	589	2	99.7
2005	1069	3	99.7	507	0	100.0
2004	1294	10	99.2	862	2	99.8
2003	828	13	98.5	515	1	99.8
2002	863	7	99.2	471	3	99.4
2001	578	22	96.3	394	2	99.5
2000	574	18	97.0	448	1	99.8
1999	467	13	97.3	357	2	99.4
1998	496	7	98.6	432	4	99.1
1997	515	11	97.9	363	0	100.0
1996	907	24	97.4	800	3	99.6
1995	403	12	97.1	267	0	100.0
1994	529	14	97.4	336	1	99.7
1993	443	29	93.9	312	1	99.7
1992	728	21	97.2	797	1	99.9
1991	770	19	97.6	822	4	99.5
1990	728	34	95.5	761	2	99.7
1989	689	28	96.1	710	4	99.4
1988	632	22	96.6	632	1	99.8
1987	702	27	96.3	718	3	99.6
1986	813	27	96.8	815	0	100.0
1985	718	25	96.6	682	0	100.0
1984	837	31	96.4	850	0	100.0
1983	794	36	95.7	798	4	99.5
1982	585	30	95.1	743	12	98.4
1981	443	29	93.9	404	1	99.8
1980	442	37	92.3	490	1	99.8
1979	199	20	90.9	354	16	95.7
1978	242	20	92.4	361	14	96.3
1977	58	8	87.9	119	7	94.4
Total # in Range:	20,958	619	97.1	18,038	108	99.4
% of all Analyses in Range*	97.1	2.9		99.4	0.6	
Total Number	21,577			18,146		

* Total may not equal 100 due to rounding.

(1) Bias as noted in Table 1, Footnote (1)

(2) Precision as noted in Table 1, Footnote (2)

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TABLE 9

AREVA NP ENVIRONMENTAL LABORATORY
ECKERT & ZIEGLER ANALYTICS RADIOCHEMISTRY
CROSSCHECK PROGRAM RESULTS BY
ACCEPTANCE CRITERIA, MEDIA, AND ANALYSIS CATEGORIES
JANUARY – DECEMBER 2008

	Bias Criteria (1)		Precision Criteria (2)	
	Within Criteria	Outside Criteria	Within Criteria	Outside Criteria
I. Water				
Fe-55	12	0	12	0
Sr-89	10	2	12	0
Sr-90	11	1	11	1
Total Number in Range:	**33**	**3**	**35**	**1**
Percentage of Total Processed:	**91.7**	**8.3**	**97.2**	**2.8**
Sum of Analyses:	**36**		**36**	

(1) Bias as noted in Table 9, Footnote (1)

(2) Precision as noted in Table 9, Footnote (2)

* Total may not equal 100 due to rounding

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TABLE 9

AREVA NP ENVIRONMENTAL LABORATORY
ECKERT & ZIEGLER ANALYTICS RADIOCHEMISTRY
CROSSCHECK PROGRAM RESULTS BY
ACCEPTANCE CRITERIA, MEDIA, AND ANALYSIS CATEGORIES
JANUARY – DECEMBER 2008
(Continued)

(1) Percent Bias by Deviation Category

≤15 (or within 2 sigma of known, see Reference 1)

For Gross Alpha and Beta In water,	≤25 (or within 2 sigma of known)
For Alpha Spectrometry*,	≤20 (or within 2 sigma of known)
For Uranium-Total, Pu-241, C-14,	≤20 (or within 2 sigma of known)

(2) Percent Precision by Deviation Category

≤15 (or within 2 sigma of mean, see Reference 1)

* Isotopic Uranium (U-234, 235, 238)
Isotopic Thorium (Th-230, 232)
Np-237
Am-241/Cm-242, 243/244
Pu-alpha (Pu-238, 239, 240)
Ra-226

** Total may not equal 100 due to rounding.

TABLE 10

AREVA NP ENVIRONMENTAL LABORATORY
ECKERT & ZIEGLER ANALYTICS RADIOCHEMISTRY CROSS CHECK PROGRAM
PERFORMANCE EVALUATION

Sample Number	Quarter/ Year	Sample Media	Nuclide	Units	Mean Reported Value	Known Value	Ratio E-LAB/ Analytics	Evaluation
A22211-162	1st/2008	Liquid	Fe-55	uCi/cc	8.25E-04	8.25E-04	1.00	Agreement
A22212-162	1st/2008	Liquid	Sr-89	uCi/cc	8.27E-03	9.14E-03	0.90	Agreement
A22212-162	1st/2008	Liquid	Sr-90	uCi/cc	7.85E-04	8.53E-04	0.92	Agreement
A22447-162	2nd/2008	Liquid	Fe-55	uCi/cc	6.48E-04	6.80E-04	0.95	Agreement
A22448-162	2nd/2008	Liquid	Sr-89	uCi/cc	7.45E-03	8.15E-03	0.91	Agreement
A22448-162	2nd/2008	Liquid	Sr-90	uCi/cc	8.70E-04	9.51E-04	0.91	Agreement
A22749-162	3rd/2008	Liquid	Fe-55	uCi/cc	8.47E-04	8.95E-04	0.95	Agreement
A22750-162	3rd/2008	Liquid	Sr-89	uCi/cc	1.75E-02	1.99E-02	0.88	Agreement
A22750-162	3rd/2008	Liquid	Sr-90	uCi/cc	1.71E-03	1.86E-03	0.92	Agreement
A23042-162	4th/2008	Liquid	Fe-55	uCi/cc	2.06E-03	1.99E-03	1.04	Agreement
A23043-162	4th/2008	Liquid	Sr-89	uCi/cc	9.60E-03	1.01E-02	0.95	Agreement
A23043-162	4th/2008	Liquid	Sr-90	uCi/cc	9.51E-04	9.54E-04	1.00	Agreement

Appendix F

Correction to 2007 Annual Radiological Operating Report

Table B-1 Radiological Environmental Monitoring Program Summary

Name of Facility: Enrico Fermi Unit 2 Docket No.: 50-341 Reporting Period: January - December 2007
Location of Facility: 30 miles southeast of Detroit, Michigan (Frenchtown Township)

Sample Type (Units)	Type and Number of Analysis	LLD	Indicator Locations Mean and Range	Location with Highest Annual Mean: Location	Location with Highest Annual Mean: Mean and Range	Control Locations Mean and Range	Number of Non-routine Results
Direct Radiation *mR/std qtr*	Gamma (TLD) 202	1.0	14.6 (187/187) 10.6 to 20.3	T-49 (Indicator)	18.5 (4/4) 17.2 to 20.3	13.7 (15/15) 12.2 to 17.0	None
Airborne Particulates *pCi/cu. m.*	Gross Beta 260	1.00E-2	2.70E-2 (208/208) 9.10E-3 to 5.64E-2	API-2 (Indicator)	3.22E-2 (52/52) 1.85E-2 to 5.64E-2	2.93E-2 (52/52) 1.45E-2 to 6.22E-2	None
	Gamma Spec. 20						
	Be-7	N/A	2.20E-1 (16/16) 6.41E-2 to 1.52E+0	API-1 (Indicator)	4.64E-1 (4/4) 7.40E-2 to 1.52E+0	1.21E-1 (4/4) 7.20E-2 to 1.40E-1	None
	K-40	N/A	1.20E-2 (1/16)	API-5 (Indicator)	1.20E-2 (1/16)	<MDA	None
	Mn-54	N/A	<MDA			<MDA	None
	Co-58	N/A	<MDA			<MDA	None
	Fe-59	N/A	<MDA			<MDA	None
	Co-60	N/A	<MDA			<MDA	None
	Zn-65	N/A	<MDA			<MDA	None
	Zr-95	N/A	<MDA			<MDA	None
	Nb-95	N/A	<MDA			<MDA	None
	Ru-103	N/A	<MDA			<MDA	None
	Ru-106	N/A	<MDA			<MDA	None
	Cs-134	5.00E-2	<MDA			<MDA	None
	Cs-137	6.00E-2	<MDA			<MDA	None
	Ba-140	N/A	<MDA			<MDA	None
	La-140	N/A	<MDA			<MDA	None
	Ce-141	N/A	<MDA			<MDA	None
	Ce-144	N/A	<MDA			<MDA	None
Airborne Iodine *pCi/cu. m.*	I-131 260	7.00E-2	<MDA			<MDA	None

Table B-1 Radiological Environmental Monitoring Program Summary (cont.)

Name of Facility: Enrico Fermi Unit 2 Docket No.: 50-341 Reporting Period: January - December 2007
Location of Facility: 30 miles southeast of Detroit, Michigan (Frenchtown Township)

Sample Type (Units)	Type and Number of Analysis	LLD	Indicator Locations Mean and Range	Location with Highest Annual Mean: Location	Location with Highest Annual Mean: Mean and Range	Control Locations Mean and Range	Number of Non-routine Results
Milk	I-131 34	1.00E+0	<MDA			<MDA	None
pCi/l	Sr-89 34	N/A	<MDA			<MDA	None
	Sr-90	N/A	1.24E+0 (1/17)	M-2 (Indicator)	1.24E+0 (1/17)	<MDA	None
	Gamma Spec. 34						
	Be-7	N/A	<MDA			<MDA	None
	K-40	N/A	1.40E+3 (17/17) 1.20E+3 to 1.57E+3	M-8 (Control)	1.42E+3 (17/17) 1.30E+3 to 1.54E+3	1.42E+3 (17/17) 1.30E+3 to 1.54E+3	None
	Mn-54	N/A	<MDA			<MDA	None
	Co-58	N/A	<MDA			<MDA	None
	Fe-59	N/A	<MDA			<MDA	None
	Co-60	N/A	<MDA			<MDA	None
	Zn-65	N/A	<MDA			<MDA	None
	Zr-95	N/A	<MDA			<MDA	None
	Nb-95	N/A	<MDA			<MDA	None
	Ru-103	N/A	<MDA			<MDA	None
	Ru-106	N/A	<MDA			<MDA	None
	Cs-134	1.50E+1	<MDA			<MDA	None
	Cs-137	1.80E+1	<MDA			<MDA	None
	Ba-140	1.50E+1	<MDA			<MDA	None
	La-140	1.50E+1	<MDA			<MDA	None
	Ce-141	N/A	<MDA			<MDA	None
	Ce-144	N/A	<MDA			<MDA	None
Vegetation	I-131 12	6.00E+1	<MDA			<MDA	None
pCi/kg wet	Gamma Spec. 12						
	Be-7	N/A	5.50E+2 (1/6)	FP-9 (Control)	1.56E+3 (3/6) 7.00E+2 to 3.20E+3	1.56E+3 (3/6) 7.00E+2 to 3.20E+3	None
	K-40	N/A	3.73E+3 (6/6) 1.51E+3 to 6.99E+3	FP-9 (Control)	4.46E+3 (6/6) 3.79E+3 to 5.73E+3	4.46E+3 (6/6) 3.79E+3 to 5.73E+3	None

Table B-1 Radiological Environmental Monitoring Program Summary (cont.)

Name of Facility: Enrico Fermi Unit 2 Docket No.: 50-341 Reporting Period: January - December 2007
Location of Facility: 30 miles southeast of Detroit, Michigan (Frenchtown Township)

Sample Type (Units)	Type and Number of Analysis	LLD	Indicator Locations Mean and Range	Location with Highest Annual Mean: Location	Location with Highest Annual Mean: Mean and Range	Control Locations Mean and Range	Number of Non-routine Results
Vegetation (cont.) *pCi/kg wet*	Mn-54	N/A	<MDA			<MDA	None
	Co-58	N/A	<MDA			<MDA	None
	Fe-59	N/A	<MDA			<MDA	None
	Co-60	N/A	<MDA			<MDA	None
	Zn-65	N/A	<MDA			<MDA	None
	Zr-95	N/A	<MDA			<MDA	None
	Nb-95	N/A	<MDA			<MDA	None
	Ru-103	N/A	<MDA			<MDA	None
	Ru-106	N/A	<MDA			<MDA	None
	Cs-134	6.00E+1	<MDA			<MDA	None
	Cs-137	8.00E+1	<MDA			<MDA	None
	Ba-140	N/A	<MDA			<MDA	None
	La-140	N/A	<MDA			<MDA	None
	Ce-141	N/A	<MDA			<MDA	None
	Ce-144	N/A	<MDA			<MDA	None
Drinking Water *pCi/l*	Gross Beta 24	4.00E+0	5.30E+0 (6/12) 3.30E+0 to 7.10E+0	DW-2 (Control)	5.55E+0 (4/12) 3.60E+0 to 9.30E+0	5.55E+0 (4/12) 3.60E+0 to 9.30E+0	None
	Sr-89 24	N/A	<MDA			<MDA	None
	Sr-90	N/A	<MDA			<MDA	None
	Gamma Spec. 24						
	Be-7	N/A	<MDA			<MDA	None
	K-40	N/A	<MDA			<MDA	None
	Cr-51	N/A	<MDA			<MDA	None
	Mn-54	1.50E+1	<MDA			<MDA	None
	Co-58	1.50E+1	<MDA			<MDA	None
	Fe-59	3.00E+1	<MDA			<MDA	None
	Co-60	1.50E+1	<MDA			<MDA	None
	Zn-65	3.00E+1	<MDA			<MDA	None
	Zr-95	1.50E+1	<MDA			<MDA	None
	Nb-95	1.50E+1	<MDA			<MDA	None

Table B-1 Radiological Environmental Monitoring Program Summary (cont.)

Name of Facility: Enrico Fermi Unit 2 Docket No.: 50-341 Reporting Period: January - December 2007
Location of Facility: 30 miles southeast of Detroit, Michigan (Frenchtown Township)

Sample Type (Units)	Type and Number of Analysis	LLD	Indicator Locations Mean and Range	Location with Highest Annual Mean		Control Locations Mean and Range	Number of Non-routine Results
				Location	Mean and Range		
Drinking Water (cont.) *pCi/l*	Ru-103	N/A	<MDA			<MDA	None
	Ru-106	N/A	<MDA			<MDA	None
	Cs-134	1.50E+1	<MDA			<MDA	None
	Cs-137	1.80E+1	<MDA			<MDA	None
	Ba-140	1.50E+1	<MDA			<MDA	None
	La-140	1.50E+1	<MDA			<MDA	None
	Ce-141	N/A	<MDA			<MDA	None
	Ce-144	N/A	<MDA			<MDA	None
	H-3 8	2.00E+3	<MDA			<MDA	None
Surface Water *pCi/l*	Sr-89 26	N/A	<MDA			<MDA	None
	Sr-90	N/A	<MDA			<MDA	None
	Gamma Spec. 26						
	Be-7	N/A	<MDA			<MDA	None
	K-40	N/A	<MDA			<MDA	None
	Cr-51	N/A	<MDA			<MDA	None
	Mn-54	1.50E+1	<MDA			<MDA	None
	Co-58	1.50E+1	<MDA			<MDA	None
	Fe-59	3.00E+1	<MDA			<MDA	None
	Co-60	1.50E+1	<MDA			<MDA	None
	Zn-65	3.00E+1	<MDA			<MDA	None
	Zr-95	1.50E+1	<MDA			<MDA	None
	Nb-95	1.50E+1	<MDA			<MDA	None
	Ru-103	N/A	<MDA			<MDA	None
	Ru-106	N/A	<MDA			<MDA	None
	Cs-134	1.50E+1	<MDA			<MDA	None
	Cs-137	1.80E+1	<MDA			<MDA	None
	Ba-140	1.50E+1	<MDA			<MDA	None
	La-140	1.50E+1	<MDA			<MDA	None
	Ce-141	N/A	<MDA			<MDA	None

Table B-1 Radiological Environmental Monitoring Program Summary (cont.)

Name of Facility: Enrico Fermi Unit 2 Docket No.: 50-341 Reporting Period: January - December 2007
Location of Facility: 30 miles southeast of Detroit, Michigan (Frenchtown Township)

Sample Type (Units)	Type and Number of Analysis	LLD	Indicator Locations Mean and Range	Location with Highest Annual Mean: Location	Location with Highest Annual Mean: Mean and Range	Control Locations Mean and Range	Number of Non-routine Results
Surface Water	Ce-144	N/A	<MDA			<MDA	None
(cont.) *pCi/l*	H-3 8	2.00E+3	<MDA			<MDA	None
Groundwater	Gamma Spec. 16						
pCi/l	Be-7	N/A	<MDA			<MDA	None
	K-40	N/A	<MDA	GW-4 (Control)	1.30E+1 (1/4)	1.30E+1 (1/4)	None
	Cr-51	N/A	<MDA			<MDA	None
	Mn-54	1.50E+1	<MDA			<MDA	None
	Co-58	1.50E+1	<MDA			<MDA	None
	Fe-59	3.00E+1	<MDA			<MDA	None
	Co-60	1.50E+1	<MDA			<MDA	None
	Zn-65	3.00E+1	<MDA			<MDA	None
	Zr-95	1.50E+1	<MDA			<MDA	None
	Nb-95	1.50E+1	<MDA			<MDA	None
	Ru-103	N/A	<MDA			<MDA	None
	Ru-106	N/A	<MDA			<MDA	None
	Cs-134	1.50E+1	<MDA			<MDA	None
	Cs-137	1.80E+1	<MDA			<MDA	None
	Ba-140	1.50E+1	<MDA			<MDA	None
	La-140	1.50E+1	<MDA			<MDA	None
	Ce-141	N/A	<MDA			<MDA	None
	Ce-144	N/A	<MDA			<MDA	None
	H-3 16	2.00E+3	<MDA			<MDA	None
Sediment	Sr-89 10	N/A	<MDA			<MDA	
pCi/kg dry	Sr-90	N/A	<MDA			<MDA	None
	Gamma Spec. 10						
	Be-7	N/A	<MDA			<MDA	None
	K-40	N/A	1.06E+4 (8/8) 7.30E+3 to 1.34E+4	S-1 (Indicator)	1.30E+4 (2/2) 1.26E+4 to 1.34E+4	1.08E+4 (2/2) 9.77E+3 to 1.18E+4	None

Table B-1 Radiological Environmental Monitoring Program Summary (cont.)

Name of Facility: Enrico Fermi Unit 2 Docket No.: 50-341 Reporting Period: January - December 2007
Location of Facility: 30 miles southeast of Detroit, Michigan (Frenchtown Township)

Sample Type (Units)	Type and Number of Analysis	LLD	Indicator Locations Mean and Range	Location with Highest Annual Mean: Location	Location with Highest Annual Mean: Mean and Range	Control Locations Mean and Range	Number of Non-routine Results
Sediment (cont.)	Mn-54	N/A	<MDA			<MDA	None
pCi/kg dry	Co-58	N/A	<MDA			<MDA	None
	Fe-59	N/A	<MDA			<MDA	None
	Co-60	N/A	<MDA			<MDA	None
	Zn-65	N/A	<MDA			<MDA	None
	Zr-95	N/A	<MDA			<MDA	None
	Nb-95	N/A	<MDA			<MDA	None
	Ru-103	N/A	<MDA			<MDA	None
	Ru-106	N/A	<MDA			<MDA	None
	Cs-134	1.50E+2	<MDA			<MDA	None
	Cs-137	1.80E+2	<MDA	S-5 (Control)	4.10E+1 (1/2)	4.10E+1 (1/2)	None
	Ba-140	N/A	<MDA			<MDA	None
	La-140	N/A	<MDA			<MDA	None
	Ce-141	N/A	<MDA			<MDA	None
	Ce-144	N/A	<MDA			<MDA	None
Fish	Sr-89 28	N/A	<MDA			<MDA	None
pCi/kg wet	Sr-90	N/A	<MDA			<MDA	None
	Gamma Spec. 28						
	Be-7	N/A	<MDA			<MDA	None
	K-40	N/A	2.47E+3 (13/13) 1.76E+3 to 3.40E+3	F-1 (Control)	2.57E+3 (4/6) 1.04E+3 to 3.95E+3	2.56E+3 (13/15) 1.04E+3 to 3.95E+3	None
	Mn-54	1.30E+2	<MDA			<MDA	None
	Co-58	1.30E+2	<MDA			<MDA	None
	Fe-59	2.60E+2	<MDA			<MDA	None
	Co-60	1.30E+2	<MDA			<MDA	None
	Zn-65	2.60E+2	<MDA			<MDA	None

Table B-1 Radiological Environmental Monitoring Program Summary (cont.)

Name of Facility: Enrico Fermi Unit 2 Docket No.: 50-341 Reporting Period: January - December 2007
Location of Facility: 30 miles southeast of Detroit, Michigan (Frenchtown Township)

Sample Type (Units)	Type and Number of Analysis	LLD	Indicator Locations Mean and Range	Location with Highest Annual Mean		Control Locations Mean and Range	Number of Non-routine Results
				Location	Mean and Range		
Fish (cont.)	Zr-95	N/A	<MDA			<MDA	None
pCi/kg wet	Nb-95	N/A	<MDA			<MDA	None
	Ru-103	N/A	<MDA			<MDA	None
	Ru-106	N/A	<MDA			<MDA	None
	Cs-134	1.30E+2	<MDA			<MDA	None
	Cs-137	1.50E+2	<MDA			<MDA	None
	Ba-140	N/A	<MDA			<MDA	None
	La-140	N/A	<MDA			<MDA	None
	Ce-141	N/A	<MDA			<MDA	None
	Ce-144	N/A	<MDA			<MDA	None

Direct Radiation mean and range values are based on off-site TLDs
LLD = Fermi 2 ODCM LLD: nominal lower limit of detection based on 4.66 sigma error for background sample.
<MDA = Less than the lab's minimum detectable activity which is less than the LLD.
Mean and range based upon detectable measurements only. Fraction of detectable measurements at specified locations is indicated in parentheses (F).
Locations are specified by Fermi 2 code and are described in Appendix A Sampling Locations.
Non-routine results are those which are reportable according to Fermi 2 ODCM control 3.12.1.

Note: Other nuclides were considered in analysis results, but only those identifiable were reported in addition to ODCM listed nuclides.