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Technical Specification 6.9.1.e

April 30, 2010

RA-10-003

U. S. Nuclear Regulatory Commission
Attn: Document Control Desk
Washington, DC 20555-0001

Oyster Creek Nuclear Generating Station
Renewed Facility Operating License No. DPR-16
NRC Docket No. 50-219

Subject: Annual Radiological Environmental Operating Report – 2009

Enclosed is a copy of the Annual Radiological Environmental Operating Report for calendar year 2009 for Oyster Creek Nuclear Generating Station. This submittal is made in accordance with Oyster Creek Nuclear Generating Station Technical Specification 6.9.1.e, "Annual Radiological Environmental Operating Report."

This report does not include impacts from the recently identified inoperability of the Main Stack effluent monitoring system. This issue has been entered into the station's corrective action program and a corrected report will be submitted after dose calculation impacts from the inoperability of the Main Stack effluent monitoring system have been determined.

If any further information or assistance is needed, please contact Lynda Fileppi at 609-971-4029.

Sincerely,

Michael J. Massaro

Michael J. Massaro
Vice President, Oyster Creek Nuclear Generating Station

Enclosure

IE25
NRR

cc: Administrator, USNRC Region I
USNRC Senior Project Manager, Oyster Creek
USNRC Senior Resident Inspector, Oyster Creek
E. Everett, American Nuclear Insurers
File No. 10003

Docket No: 50-219

OYSTER CREEK GENERATING STATION
UNIT 1

Annual Radiological
Environmental Operating Report

1 January Through 31 December 2009

Prepared By
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Environmental Services

Exelon SM
Nuclear

Oyster Creek Generating Station
Forked River, NJ 08731

April 2010

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I. Summary and Conclusions

This report on the Radiological Environmental Monitoring Program conducted for the Oyster Creek Generating Station (OCGS) by Exelon Nuclear covers the period 01 January 2009 through 31 December 2009. During that time period, 1477 analyses were performed on 1207 samples. In assessing all the data gathered for this report and comparing these results with historical data, it was concluded that the operation of OCGS had no adverse radiological impact on the environment.

REMP designated surface water samples were analyzed for concentrations of tritium and gamma emitting nuclides. No tritium and no fission or activation products were detected in any of the surface water samples collected as part of the Radiological Environmental Monitoring Program during 2009.

REMP designated drinking water samples were analyzed for concentrations of gross beta, tritium, and gamma emitting nuclides. Preoperational environmental monitoring program did not include analysis of drinking water for gross beta. No tritium and no fission or activation products were detected in any of the drinking water samples collected.

REMP designated groundwater samples were analyzed for concentrations of tritium and gamma emitting nuclides. No tritium and no fission or activation products were detected.

Fish (predator and bottom feeder), clams, crabs, and sediment samples were analyzed for concentrations of gamma emitting nuclides. No OCGS-produced fission or activation products were detected in fish, clams, crabs or sediment.

Air particulate samples were analyzed for concentrations of gross beta and gamma emitting nuclides. Cosmogenic Be-7 was detected at levels consistent with those detected in previous years. No fission or activation products were detected.

High sensitivity I-131 analyses were performed on weekly air samples. All results were less than the minimum detectable activity.

Strontium-89 and strontium-90 and gamma analyses were performed on quarterly composites of air particulate samples. All strontium-89 and strontium-90 results were below the minimum detectable activity.

Vegetation samples were analyzed for gamma emitting nuclides, strontium-89, and strontium-90. Concentrations of naturally occurring K-40 were consistent with those detected in previous years. All strontium-89 results were below the minimum detectable activity. Strontium-90 activity was detected at levels consistent with those detected in previous years at both control and indicator stations, and can be attributed to historical nuclear weapons testing and the

Chernobyl accident.

Environmental gamma radiation measurements were performed quarterly using thermoluminescent dosimeters. The maximum dose to any member of the public attributable to radioactive effluents and direct radiation from the OCGS was less than the 25 mrem/year limit established by the United States Environmental Protection Agency.

II. Introduction

The Oyster Creek Generating Station (OCGS), consisting of one boiling water reactor owned and operated by Exelon, is located on the Atlantic Coastal Plain Physiographic Province in Ocean County, New Jersey, about 60 miles south of Newark, 9 miles south of Toms River, and 35 miles north of Atlantic City. It lies approximately 2 miles inland from Barnegat Bay. The site, covering approximately 781 acres, is situated partly in Lacey Township and, to a lesser extent, in Ocean Township. Access is provided by U.S. Route 9, passing through the site and separating a 637-acre eastern portion from the balance of the property west of the highway. The station is about ¼ mile west of the highway and 1¼ miles east of the Garden State Parkway. The site property extends about 2½ miles inland from the bay; the maximum width in the north-south direction is almost 1 mile. The site location is part of the New Jersey shore area with its relatively flat topography and extensive freshwater and saltwater marshlands. The South Branch of Forked River runs across the northern side of the site and Oyster Creek partly borders the southern side.

A preoperational Radiological Environmental Monitoring Program (REMP) for OCGS was established in 1966, and continued for two years prior to the plant becoming operational in 1969. This report covers those analyses performed by Teledyne Brown Engineering (TBE), Global Dosimetry, and Environmental Inc. (Midwest Labs) on samples collected during the period 01 January 2009 through 31 December 2009.

A. Objectives of the REMP

The objectives of the REMP are to:

1. Determine whether any significant increase occurs in the concentration of radionuclides in major pathways.

2. Identify and evaluate the buildup, if any, of radionuclides in the local environment, or any changes in normal background radiation levels.

3. Verify the adequacy of the plant's controls for the release of radioactive materials.

4. Fulfill the obligations of the radiological surveillance sections of Oyster Creek's Offsite Dose Calculation Manual (ODCM).

B. Implementation of the Objectives

The implementation of the objectives is accomplished by:

1. Identifying significant exposure pathways.

2. Establishing baseline radiological data for media within those pathways.

3. Continuously monitoring those media before and during Station operation to assess Station radiological effects (if any) on man and the environment.

C. Discussion

1. General Program

The Radiological Environmental Monitoring Program (REMP) was established in 1966, three years before the plant became operational. This preoperational surveillance program was established to describe and quantify the radioactivity, and its variability, in the area prior to the operation of OCGS. After OCGS became operational in 1969, the operational surveillance program continued to measure radiation and radioactivity in the surrounding areas.

A variety of environmental samples are collected as part of the REMP at OCGS. The selection of sample types is based on the established pathways for the transfer of radionuclides through the environment to humans. The selection of sampling locations is based on sample availability, local meteorological and hydrological characteristics, local population characteristics, and land usage in the area of interest. The selection of sampling frequencies for the various environmental media is based on the radionuclides of interest, their respective half-lives, and their behavior in both the biological and physical environment.

2. Preoperational Surveillance Program

The federal government requires nuclear facilities to conduct radiological environmental monitoring prior to constructing the facility. This preoperational surveillance program is aimed at collecting the data needed to identify pathways, including selection of the radioisotope and sample media combinations to be included in the environmental surveillance program conducted after facility operation begins. Radiochemical analyses performed on the environmental samples should include not only those nuclides expected to be released during facility operation, but should also include typical radionuclides from nuclear weapons testing and

natural background radioactivity. All environmental media with a potential to be affected by facility operation as well as those media directly in the major pathways, should be sampled on at least an annual basis during the preoperational phase of the environmental surveillance program.

The preoperational surveillance design, including nuclide/media combinations, sampling frequencies and locations, collection techniques, and radioanalyses performed, should be carefully considered and incorporated in the design of the operational surveillance program. In this manner, data can be compared in a variety of ways (for example, from year to year, location to location, etc.) in order to detect any radiological impact the facility has on the surrounding environment. Data collection during the preoperational phase should be planned to provide a comprehensive database for evaluating any future changes in the environment surrounding the nuclear facility.

OCGS began its preoperational environmental surveillance program three years before the plant began operating in 1969. Data accumulated during those early years provide an extensive database from which environmental monitoring personnel are able to identify trends in the radiological characteristics of the local environment. The environmental surveillance program at OCGS will continue after the plant has reached the end of its economically useful life and decommissioning has begun.

3. Consideration of Plant Effluents

Effluents are strictly monitored to ensure that radioactivity released to the environment is as low as reasonably achievable and does not exceed regulatory limits. Effluent control includes the operation of monitoring systems, in-plant and environmental sampling and analyses programs, quality assurance programs for effluent and environmental programs, and procedures covering all aspects of effluent and environmental monitoring.

Both radiological environmental and effluent monitoring indicate that the operation of OCGS does not result in significant radiation exposure of people or the environment surrounding OCGS and is well below the applicable levels set by the Nuclear Regulatory Commission (NRC) and the Environmental Protection Agency (EPA).

There were no planned liquid radioactive effluent releases from the

OCGS during 2009. There were two releases of contaminated water into the groundwater during 2009. The Annual Radiological Groundwater Protection Program Report has details of the abnormal releases.

Utilizing gaseous effluent data, the maximum hypothetical dose to any individual in the southeast sector of the plant (sector of predominant wind direction) during 2009 was calculated using a mathematical model, which is based on the methods defined by the U.S. Nuclear Regulatory Commission. These methods accurately determine the types and quantities of radioactive materials being released to the environment.

The maximum hypothetical calculated organ dose (GI-LLI) from iodines and particulates to any individual due to gaseous effluents was 6.56E-03 mrem (0.00656 mrem) which was approximately 0.0437 percent of the annual limit. The maximum hypothetical calculated whole body dose to any individual due to noble gas effluents was 6.72E-05 mrem (0.0000672 mrem) which was 0.0000134 percent of the annual limit.

The total maximum hypothetical organ dose (GI-LLI) due to all radiological effluents of 6.56E-03 mrem (0.00656 mrem) received by any individual from gaseous effluents from the Oyster Creek Generating Station for the reporting period is more than 46,000 times lower than the dose the average individual in the Oyster Creek area received from background radiation, including that from radon, during the same time period. The background radiation dose averages approximately 300 mrem per year in the Central New Jersey area, which includes approximately 200 mrem/year from naturally occurring radon gas.

During 2009, the maximum direct radiation dose potentially attributable to the operation of Oyster Creek beyond the site boundary in the southeast sector, as shown by offsite thermoluminescent dosimeter (TLD) readings, was 3.5 mrem/year at Station 109. Therefore, the maximum combined direct radiation and whole body effluent dose potentially attributable to Oyster Creek in the south-east sector during 2009 was 3.50 mrem, or approximately 14.0 percent of the 40 CFR 190 limit of 25 mrem/year.

Additionally, comparison of environmental sampling results to iodine and particulate gaseous effluents released, showed no radioactivity attributable to the operation of OCGS. Both elevated

and ground-level release paths were considered in this review, with total iodines released of 0.603 mCi and total particulates with half-lives greater than 8 days released of 0.178 mCi. (1 mCi is one/one-thousandth of a Ci).

III. Program Description

A. Sample Collection

Samples for the OCGS REMP were collected for Exelon by on-site personnel and Normandeau Associates, Incorporated. This section describes the general collection methods used to obtain environmental samples for the OCGS REMP in 2009. Sample locations and descriptions can be found in Tables B–1 and B–2, and Figures B–1, B–2, and B-3, Appendix B. The collection procedures are listed in Table B–3.

Aquatic Environment

The aquatic environment was evaluated by performing radiological analyses on samples of surface water, drinking water, groundwater, fish, clams, crabs, and sediment. One gallon water samples were collected monthly from two surface locations (33 and 94), semiannually at two surface water locations (23 and 24), monthly from four drinking water wells (1, 37, 38, and 39) and quarterly from 2 groundwater stations (MW-24-3A and W-3C). Control locations were 94 and 37. All samples were collected in plastic bottles, which were rinsed at least twice with source water prior to collection. Fish samples comprising the flesh of two groups, bottom feeder and predator, were collected semiannually at three locations (33, 93 and 94 (control)). Clams were collected semiannually from three locations (23, 24, and 94 (control)). One annual crab sample was collected from one location (93). Sediment samples were collected at four locations semiannually (23, 24, 33, and 94 (control)).

Atmospheric Environment

The atmospheric environment was evaluated by performing radiological analyses on samples of air particulate and airborne iodine. Airborne iodine and particulate samples were collected and analyzed weekly at eight locations (C, 3, 20, 66, 71, 72, 73, and 111). The control location was C. Airborne iodine and particulate samples were obtained at each location, using a vacuum pump with charcoal and glass fiber filters attached. The pumps were run continuously and sampled air at the rate of approximately one cubic foot per minute. The filters were replaced weekly and sent to the laboratory for analysis.

Terrestrial Environment

The terrestrial environment was evaluated by performing radiological analyses on samples of garden vegetation.

No commercial dairy operations and no dairy animals producing milk for human consumption are located within a 5 mile radius of the plant. Therefore, vegetation samples were collected in lieu of milk. Vegetation samples were collected, when available, at three locations (35, 36, and 66). Station 36 was the control location. All samples were collected in 18" x 24" new unused plastic bags and shipped promptly to the laboratory.

Ambient Gamma Radiation

Direct radiation measurements were made using Panasonic Model 814 calcium sulfate ($CaSO_4$) thermoluminescent dosimeters (TLD). The TLDs were placed on and around the OCGS site and were categorized as follows:

A site boundary ring consisting of 19 locations (1, T1, 51, 52, 53, 54, 55, 56, 57, 58, 59, 61, 62, 63, 64, 65, 66, 112, and 113) near the site boundary.

An intermediate distance ring consisting of 31 locations (4, 5, 6, 8, 9, 22, 46, 47, 48, 68, 73, 74, 75, 78, 79, 82, 84, 85, 86, 98, 99, 100, 101, 102, 103, 104, 105, 106, 107, 109, and 110) extending to approximately 5 miles from the site designed to measure possible exposures to close-in population.

Special interest stations consisting of 9 locations (3, 11, 71, 72, 81, 88, 89, 90, and 92) representing special interest areas such as population centers, state parks, etc.

Background (Control) stations consisting of two locations (C and 14) greater than 20 miles distant from the site.

Indicator TLDs were placed systematically, with at least one station in each of 16 meteorological compass sectors in the general area of the site boundary. TLDs were also placed in each meteorological sector in the 1 to 5 mile range, where reasonable highway access would permit, in areas of public interest and population centers. Background locations were located greater than twenty miles distant from the OCGS and generally in an upwind direction from the OCGS.

Two TLDs – each comprised of three $CaSO_4$ thermoluminescent

phosphors enclosed in plastic – were placed at each location approximately three to eight feet above ground level. The TLDs were exchanged quarterly and sent to Global Dosimetry for analysis.

B. Sample Analysis

This section describes the general analytical methodologies used by TBE and Environmental Inc. (Midwest Labs) to analyze the environmental samples for radioactivity for the OCGS REMP in 2009. The analytical procedures used by the laboratories are listed in Table B–3.

In order to achieve the stated objectives, the current program includes the following analyses:

1. Concentrations of beta emitters in air particulates and drinking water.

2. Concentrations of gamma emitters in surface, drinking water, groundwater, fish, clams, crabs, sediment, air particulates, and vegetation.

3. Concentrations of tritium in REMP designated surface, drinking water and groundwater.

4. Concentrations of I-131 in air iodine cartridges.

5. Concentrations of strontium in air particulates and vegetation.

6. Ambient gamma radiation levels at various locations around the OCGS.

C. Data Interpretation

For trending purposes, the radiological and direct radiation data collected during 2009 were compared with data from past years. The results of environmental sampling show that radioactivity levels have not increased from the background radioactivity detected prior to the operation of OCGS. The operation of OCGS continues to have no measurable radiological impact upon the environment.

Several factors were important in the interpretation of the data:

1. <u>Lower Limit of Detection and Minimum Detectable Concentration</u>

The lower limit of detection (LLD) is defined as the smallest

concentration of radioactive material in a sample that would yield a net count (above background) that would be detected with only a 5% probability of falsely concluding that a blank observation represents a "real" signal. The LLD is intended as a before the fact estimate of a system (including instrumentation, procedure and sample type) and not as an after the fact criterion for the presence of activity. All analyses were designed to achieve the required OCGS detection capabilities for environmental sample analysis.

The minimum detectable concentration (MDC) is defined above with the exception that the measurement is an after the fact estimate of the presence of activity.

2. Net Activity Calculation and Reporting of Results

Net activity for a sample was calculated by subtracting background activity from the sample activity. Since the REMP measures extremely small changes in radioactivity in the environment, background variations may result in sample activity being lower than the background activity, which results in a negative number. An MDC was reported in all cases where positive activity was not detected.

Gamma spectroscopy results for each type of sample were grouped as follows:

For surface and drinking water 12 nuclides, Mn-54, Co-58, Fe-59, Co-60, Zn-65, Zr-95, Nb-95, I-131, Cs-134, Cs-137, Ba-140, and La-140 were reported.

For groundwater 13 nuclides, Be-7, Mn-54, Co-58, Fe-59, Co-60, Zn-65, Zr-95, Nb-95, I-131, Cs-134, Cs-137, Ba-140, and La-140 were reported.

For fish eight nuclides, K-40, Mn-54, Co-58, Fe-59, Co-60, Zn-65, Cs-134, and Cs-137 were reported.

For clams eight nuclides, K-40, Mn-54, Co-58, Fe-59, Co-60, Zn-65, Cs-134, and Cs-137 were reported.

For crabs eight nuclides, K-40, Mn-54, Co-58, Fe-59, Co-60, Zn-65, Cs-134, and Cs-137 were reported.

For sediment seven nuclides, Be-7, K-40, Mn-54, Co-58, Co-60, Cs-134, and Cs-137 were reported.

For air particulate six nuclides, Be-7, Mn-54, Co-58, Co-60, Cs-134, and Cs-137 were reported.

For air iodine cartridges one nuclide, I-131 was reported.

For vegetation seven nuclides, Be-7, K-40, I-131, Cs-134, Cs-137, Ba-140, and La-140 were reported.

Means and standard deviations of the results were calculated. The standard deviations represent the variability of measured results for different samples rather than single analysis uncertainty.

D. Program Exceptions

For 2009 the OCGS REMP had a sample recovery rate in excess of 99%. Exceptions are listed below:

1. Drinking water station was out of service for repair per Lacey Township Water Authority for the following period and location.
   01/09/2009 – 04/30/2009, Location 39

   Location 39 is 3.5 miles from the site and is not likely to be affected by plant operations. All other drinking water locations were sampled during this time period, with no positive results. This exception is classified as No Impact to the program.

2. No broadleaf vegetation samples were collected due to seasonal availability for the following periods and locations.
   06/09/2009, Location 35
   06/09/2009, Location 36
   06/09/2009, Location 66

   Air samplers were present in both indicator locations, and sampling media did not show any positive results during the month of June 2009. This exception is classified as No Impact to the program.*

3. Air particulate and air iodine sampler pump was found not running but the hour timer was running. Samples not counted since sample volume was unknown for the following period and location.
   06/10/2009 – 06/17/2009, Location 20

   The pump was replaced at the time of collection. Air samplers in sectors on both sides of Location 20 did not show any positive results during this week. This exception is classified as Low Impact to the program.

4. Both TLDs at each location were missing due to road construction during the following periods and locations.
07/14/2009 – 10/20/2009 Location 88
07/14/2009 – 01/22/2010 Location 99
07/14/2009 – 01/22/2010 Location 106
07/14/2009 – 01/22/2010 Location 107
10/20/2009 – 01/22/2010 Location 105

TLD number 98 was located immediately adjacent to TLD number 99, therefore there was no loss of data for this area. TLDs number 106 and 107 are located in an area that is not routinely occupied by members of the public. TLD number 104 was located in close proximity to TLD number 105, therefore there was no loss of data for this area. Due to ongoing construction activites on the Garden State Parkway, the affected TLDs have been relocated away from the construction site once access was allowed. TLD number 89 was located in close proximity to TLD number 88, therefore there was no loss of data for this area. This exception is classified as Low to No Impact to the program.

5. Air particulate and air iodine sampler pump was found not running. No sample for the following period and location.
07/22/2009 – 07/28/2009, Location 3

The pump was replaced at the time of collection. There was an additional air sampler in the E sector at Location 20, that was located closer to the plant. Sampling media at this location did not show any positive results during this time period. This exception is classified as Low Impact to the program.

6. Only two of three vegetation samples were taken due to excessive rain during the following periods and locations.
07/29/2009, Location 36
07/29/2009, Location 66
08/25/2009, Location 66
09/30/2009, Location 66
10/26/2009, Location 35

Samples were still obtained at the listed locations. This exception is classified as No Impact to the program.*

7. Only one of three vegetation samples were taken during the following periods and locations.
10/26/2009, Location 66

Samples were still obtained at the listed location. This exception is classified as No Impact to the program.*

*NOTE: Per the Oyster Creek ODCM, if garden vegetation samples are unobtainable due to any legitimate reason, the missed sample will be documented in the annual report, with no further actions necessary.

Program exceptions are tracked and investigated to understand the causes of the program exception. Sampling and maintenance errors are reviewed with the personnel involved to prevent recurrence.

The overall sample recovery rate indicates that the appropriate procedures and equipment are in place to assure reliable program implementation.

E. Program Changes

The sample collection frequency for drinking water changed from quarterly to monthly.

Ground Water Samples W-3C and MW-24-3A were added to the REMP during the first quarter of 2009.

Gross-beta analysis was added for drinking water during the second quarter of 2009.

Drinking Water Sample 39 was added to the REMP during the second quarter of 2009.

IV. Results and Discussion

A. Aquatic Environment

1. Surface Water

Samples were taken via grab sample methodology at two locations (33 and 94) on a monthly schedule. In addition, grab samples were collected semi-annually at two locations (23 and 24). Of these locations 23, 24, and 33, located downstream, could be affected by Oyster Creek's effluent releases. The following analyses were performed:

Tritium

Samples from all locations were analyzed for tritium activity (Table C–I.1, Appendix C). No tritium activity was detected. Data from this year indicates that surface water tritium concentrations remain very low and not significantly different from recent previous years.

Gamma Spectrometry

Samples from all locations were analyzed for gamma emitting nuclides (Table C–I.2, Appendix C). All nuclides were less than the MDC.

Surface water sampling began in 1966, and the samples were analyzed for tritium as well as other radioactivity. During this preoperational program, tritium was detected at an average concentration of 1.05E+3 pCi/liter. At that time, counting instrumentation was not as sensitive as it now, and the minimum detectable concentration was 1E+3 pCi/liter versus 2E+2 pCi/liter used today. By comparing the 2009 sampling results to the decay corrected average preoperational concentration reported in the 2007 Annual Radiological Environmental Operating Report (1.11E+2 pCi/liter), it can be seen that the inventory of tritium in the environment is due to fallout from past atmospheric nuclear weapons testing and Chernobyl, and is decreasing with time.

2. Drinking water

Monthly samples were composited from monthly grab samples from four drinking water wells (1, 37, 38, and 39). Station 1, because it is located on the OCGS site, could potentially be affected by radioactive releases from the plant. Station 38, the Ocean Township Municipal Utility Authority Well, could potentially be affected by effluent releases from the OCGS. Given its distance from the facility (1.6 miles) and depth (approximately 360 feet), however, the probability of any OCGS related impacts is very small. Stations 37 and 39, Lacey Township Municipal Utility Authority wells, are not likely to be impacted by effluents from the OCGS. These wells are located generally up-gradient of the regional groundwater flow direction (southeast). In addition, because of their depth (> 200 feet) and distance from the site (2.2 and 3.5 miles respectively), they are unlikely to be affected by OCGS operations. The following analyses were performed:

Tritium

Monthly samples from all locations were analyzed for tritium activity (Table C–II.1, Appendix C). No tritium activity was detected.

Gross Beta

Monthly samples from all locations were analyzed for concentrations of total gross beta activity (Tables C-II.2, Appendix C). Gross beta was detected in 21 of 35 samples, and is expected due to natural sources and fallout residual from previous bomb testing. The values ranged from 1.8 to 4.8 pCi/l. The investigation level for gross beta in water is 15pCi/l. Gross beta was detected at about the same concentration in both control and sample locations.

Gamma Spectrometry

Samples from all locations were analyzed for gamma emitting nuclides (Table C–II.3, Appendix C). All nuclides were less than the MDC.

Drinking water was sampled during the preoperational program and throughout the 38 years of the plant's operational program. Tritium sampling results during the preoperational years, yielded results all less than the minimum detectable concentration of 1E+3 pCi/liter. 2009 results are all less than the current MDC of 200 pCi/liter.

3. Groundwater

The following analyses were performed:

Tritium

Samples from all locations were analyzed for tritium activity (Table C–III.1, Appendix C). No tritium activity was detected.

Gamma Spectrometry

Samples from both locations were analyzed for gamma emitting nuclides (Table C–III.2, Appendix C). All nuclides were less than the MDC.

4. Fish

Fish samples comprised of American eel, black drum, croaker,

flounder, and tautog (bottom feeder) and striped bass, bluefish, herring, and perch (predator) were collected at three locations (33, 93, and 94) semiannually. Locations 93 and 33 could be affected by Oyster Creek's effluent releases. The following analysis was performed:

Gamma Spectrometry

The edible portions of fish samples from three locations were analyzed for gamma emitting nuclides (Table C–IV.1, Appendix C). Naturally occurring potassium-40 was found at all stations and ranged from 2,990 to 4,700 pCi/kg wet and was consistent with levels detected in previous years. No fission or activation products were found.

No fish were sampled during the preoperational sampling program for OCGS.

5. Clams and Crabs

Clams were collected at three locations (23, 24, and 94) semiannually. Crabs were collected at one location (93) annually. Locations 23, 24, and 93 could be affected by Oyster Creek's effluent releases. The following analysis was performed:

Gamma Spectrometry

The edible portions of clam samples from all three locations were analyzed for gamma emitting nuclides (Table C–IV.2, Appendix C). Naturally occurring potassium-40 was found at all stations and ranged from 1,040 to 1,620 pCi/kg wet and was consistent with levels detected in previous years. No fission or activation products were found. Historical levels of Co-60 in clams are shown in Figure C–1, Appendix C.

Preoperational clam sample results for potassium-40 ranged from 600 to 9,800 pCi/kg wet, which are consistent with current sample results.

The edible portions of crab samples from one location were analyzed for gamma emitting nuclides (Table C–IV.2, Appendix C). Naturally occurring potassium-40 was found at a concentration of 2,240 pCi/kg wet and was consistent with levels detected in previous years. No fission or activation products were found.

Crabs were not sampled during the preoperational years of the OCGS environmental monitoring program.

5. Sediment

Aquatic sediment samples were collected at four locations (23, 24, 33, and 94) semiannually. Of these locations, stations 23, 24, and 33 located downstream, could be affected by Oyster Creek's effluent releases. The following analysis was performed:

Gamma Spectrometry

Sediment samples from all four locations were analyzed for gamma emitting nuclides (Table C–V.1, Appendix C). The only radionuclide detected was naturally occurring K-40.

Potassium-40 was found at all stations and ranged from 617 to 18,400 pCi/kg dry. No fission or activation products were found. Figure C–3, Appendix C graphs Cs-137 concentrations in sediment from 1984 through 2009 and figure C–2, Appendix C graphs Co-60 concentrations in sediment from 1984 through 2009.

While aquatic sediment sampling was part of the preoperational program, samples were not analyzed for gamma emitting nuclides until 1981.

In conclusion, the 2009 aquatic monitoring results for surface water, drinking water, fish, clams and crabs, and aquatic sediment showed only naturally occurring radioactivity and were consistent with levels measured prior to the operation of OCGS, and with levels measured in past years. No radioactivity attributable to activities at OCGS was detected in any aquatic samples during 2009 and no adverse long-term trends are shown in the aquatic monitoring data.

B. Atmospheric Environment

1. Airborne

a. Air Particulates

Continuous air particulate samples were collected from eight locations on a weekly basis. The eight locations were separated into three groups: Group I represents locations near the OCGS site boundary (20, 66 and 111), Group II

represents the locations at an intermediate distance from the OCGS site (71, 72, and 73), and Group III represents the control and locations at a remote distance from OCGS (C and 3). The following analyses were performed:

Gross Beta

Weekly samples were analyzed for concentrations of beta emitters (Table C–VI.1 and C–VI.2, Appendix C).

Detectable gross beta activity was observed at all locations. Comparison of results among the three groups aids in determining the effects, if any, resulting from the operation of OCGS. The results from the Site Boundary locations (Group I) ranged from 6 to 28 E–3 pCi/m^3 with a mean of 15 E–3 pCi/m^3. The results from the Intermediate Distance locations (Group II) ranged from 6 to 36 E–3 pCi/m^3 with a mean of 15 E–3 pCi/m^3. The results from the Distant locations (Group III) ranged from 8 to 27 E–3 pCi/m^3 with a mean of 15 E–3 pCi/m^3. The similarity of the results from the three groups indicates that there is no relationship between gross beta activity and distance from the OCGS. These results are consistent with data from previous years and indicate no effects from the operation of OCGS (Figures C-4 and C–5, Appendix C).

Air sample filters have been analyzed for gross beta activity since the inception of the preoperational environmental monitoring program in 1966. The preoperational data values ranged from 1.90E-2 to 2.77E-1 pCi/m^3. 2009 gross beta activity values ranged from <6E-3 to 36E-3 pCi/m^3. The 2009 results are consistent with historical operational data (Figure C-5, Appendix C) and fall within the range of results observed during the preoperational period.

Strontium-89 and Strontium-90

Weekly samples were composited quarterly and analyzed for strontium-89 and strontium-90 (Table C–VI.3, Appendix C). No strontium was detected in any of the samples. These results are consistent with historical operational data. The preoperational environmental monitoring program did not include analysis of air samples for strontium-89 and strontium-90.

Gamma Spectrometry

Weekly samples were composited quarterly and analyzed for gamma emitting nuclides (Table C–VI.4, Appendix C). Naturally occurring Be-7 due to cosmic ray activity was detected in all samples. The values ranged from 36 to 392 E–3 pCi/m^3. All other nuclides were less than the MDC. These results are consistent with historical operational data. The preoperational environmental monitoring program did not include analysis of air samples for gamma emitting nuclides.

b. Airborne Iodine

Continuous air samples were collected from eight (C, 3, 20, 66, 71, 72, 73, 111) locations and analyzed weekly for I-131 (Table C–VII.1, Appendix C). Consistent with historical operational data, all results were less than the MDC.

The preoperational environmental monitoring program for OCGS did not include analysis of air media for iodine-131.

In conclusion, the atmospheric monitoring data are consistent with preoperational and prior operational data and show no long-term trends in the environment attributable to the operation of OCGS.

2. Terrestrial

a. Vegetation

Samples were collected from three locations (35, 36, and 66) when available. The following analyses were performed:

Strontium-89 and Strontium-90

Vegetation samples from all locations were analyzed for concentrations of strontium-89 and strontium-90 (Table C–VIII.1, Appendix C). All strontium-89 results were less than the MDC. Strontium-90 was detected in 25 of 29 samples. The values ranged from 3 to 20 pCi/kg wet, which is consistent with historical data. The mean strontium-90 concentration at control location 36 (10 pCi/kg wet) was higher than the mean concentrations observed at indicator stations 35 and 66 (8 and 6 pCi/kg wet respectively). These

results indicate that the strontium-90 detected in vegetation samples is attributable to fallout from past atmospheric nuclear weapons testing and the Chernobyl accident.

Gamma Spectrometry

Vegetation samples from locations 35, 36, and 66 were analyzed for concentrations of gamma emitting nuclides (Table C–VIII.1, Appendix C). Naturally occurring K-40 activity was found in all samples and ranged from 2,050 to 6,550 pCi/kg wet. Naturally occurring Be-7 was detected in 17 of 29 samples and ranged from 136 to 930 pCi/kg wet. These results are consistent with historical operational data. All other nuclides were less than the MDC.

Preoperational vegetation sample analyses did not include strontium analyses, or gamma spectroscopy.

In conclusion, terrestrial monitoring results for vegetation samples during 2009 showed only naturally occurring radioactivity and radioactivity associated with fallout from past atmospheric nuclear weapons testing and Chernobyl. The radioactivity levels detected were consistent with levels measured in past years, and no radioactivity attributable to activities at OCGS was detected in any terrestrial samples. The terrestrial monitoring data show no adverse long-term trends in the terrestrial environment.

C. Ambient Gamma Radiation

Ambient gamma radiation levels were measured utilizing Panasonic Model 814 ($CaSO_4$) thermoluminescent dosimeters. Sixty-one TLD locations were monitored around the site. Results of non-background corrected TLD measurements are summarized in Tables C–VIII.1 to C-VIII.3, and Figures C-6 and C-7, Appendix C.

The non-background corrected TLD measurements ranged from 10.8 to 23.1 mR/standard quarter. In order to correct these results for background radiation, the mean of the dose rates measured at the background TLD stations (C and 14) was subtracted from the dose measured at each indicator station. The maximum annual background corrected dose was 20 mR/year at Station 55, located near the site boundary, 0.3 miles west of the OCGS. This TLD is located in an area where public access is restricted. All background corrected TLD measurements were less than

the 40 CFR 190 limit of 25 mR/year.

Similar to previous years, there was no strong relationship between dose measured with TLDs and distance from the OCGS, and the mean background dose exceeded the mean indicator dose in two of the four quarterly monitoring periods during 2009.

The preoperational environmental monitoring program utilized film badges, the results of which are not comparable with the doses measured using thermoluminescent dosimeters during the operational REMP.

In conclusion, the 2009 TLD results are consistent with past operational measurements of direct radiation, and demonstrate that the OCGS continues to be in compliance with the 40 CFR 190 limit on maximum dose to the public.

D. Land Use Survey

A Land Use Survey, conducted during 2009 around the Oyster Creek Generating Station (OCGS), was performed by Normandeau Associates, Inc. for Exelon Nuclear. The purpose of the survey was, in part, to determine the location of animals producing milk for human consumption in each of the sixteen meteorological sectors out to a distance of 5 miles from the OCGS. None were observed. Another purpose of the survey was to determine the location of gardens greater than 500 square feet in size producing broad leaf vegetation, as well as the closest residence within each of the sixteen meteorological sectors. The distance and direction of all locations from the OCGS Reactor Building were determined using Global Positioning System (GPS) technology. There were no changes required to the OCGS REMP, as a result of this survey. The results of this survey are summarized below.

Distance in Miles from the OCGS Reactor Building			
Sector		Residence (Miles)	Garden* (Miles)
1	N	1.1	2.2
2	NNE	0.6	1.8
3	NE	0.7	1.0
4	ENE	1.1	1.2
5	E	1.2	None
6	ESE	0.7	0.4
7	SE	0.6	0.4
8	SSE	0.9	1.0
9	S	1.6	1.7
10	SSW	1.7	4.3
11	SW	1.7	None
12	WSW	2.0	None
13	W	None	None
14	WNW	None	None
15	NW	5.3	None
16	NNW	1.5	2.3

*Greater than 500 ft^2 in size producing broad leaf vegetation

E. Summary of Results – Inter-laboratory Comparison Program

The primary and secondary laboratories analyzed Performance Evaluation (PE) samples of air particulate, air iodine, milk, soil, vegetation and water matrices (Appendix F). The PE samples, supplied by Analytics Inc., Environmental Resource Associates (ERA) and DOE's Mixed Analyte Performance Evaluation Program (MAPEP), were evaluated against the following pre-set acceptance criteria:

1. Analytics Evaluation Criteria

Analytics' evaluation report provides a ratio of TBE's result and Analytics' known value. Since flag values are not assigned by Analytics, TBE-ES evaluates the reported ratios based on internal QC requirements, which are based on the DOE MAPEP criteria.

2. ERA Evaluation Criteria

ERA's evaluation report provides an acceptance range for control and warning limits with associated flag values. ERA's acceptance limits are established per the USEPA, NELAC, state specific PT program requirements or ERA's SOP for the Generation of Performance Acceptance Limits, as applicable. The acceptance

limits are either determined by a regression equation specific to each analyte or a fixed percentage limit promulgated under the appropriate regulatory document.

3. DOE Evaluation Criteria

   MAPEP's evaluation report provides an acceptance range with associated flag values.

   The MAPEP defines three levels of performance: Acceptable (flag = "A"), Acceptable with Warning (flag = "W"), and Not Acceptable (flag = "N"). Performance is considered acceptable when a mean result for the specified analyte is ± 20% of the reference value. Performance is acceptable with warning when a mean result falls in the range from ±20% to ±30% of the reference value (i.e., 20% < bias < 30%). If the bias is greater than 30%, the results are deemed not acceptable.

For the primary laboratory, 17 out of 18 analytes met the specified acceptance criteria. One sample did not meet the specified acceptance criteria for the following reason:

1. Teledyne Brown Engineering's Analytics June 2009 Zn-65 in AP result of 137 pCi/L was higher than the known value of 101 pCi/L, resulting in a found to known ratio of 1.36. NCR 09-23 was initiated to investigate this failure. The failure appears to be a result of a slightly high bias on Detector 7. A recount on Detector 17 resulted in a Zn-65 result of 101 pCi/L. The detector has been tagged out-of-service until a recalibration can be performed. Detector 7 is not used for client samples.

For the secondary laboratory, Environmental, Inc., 11 out of 14 analytes met the specified acceptance criteria. The three analytes that failed were Cs-137, H-3 and Sr-90. Four samples did not meet the specified acceptance criteria for following reasons:

1. Environmental Inc.'s ERA April 2009 Cs-137 in water result of 147.7 pCi/L exceeded the lower control limit of 151.0 pCi/L. All gamma emitters showed a low bias. A large plastic burr found on the base of the Marinelli kept the beaker from sitting directly on the detector. Recounting in a different beaker gave an acceptable result of 155.33 ± 14.55 pCi/L.
2. Environmental Inc.'s ERA April 2009 H-3 in water result of 22819 pCi/L exceeded the upper control limit of 22300 pCi/L. A recount of

the original vials averaged 23,009 pCi/L. Reanalysis results were acceptable at 19,170 pCi/L.

3. Environmental Inc.'s MAPEP January 2009 Sr-90 in AP result of 0.93 exceeded the upper control limit of 0.83. Reanalysis results were acceptable at 0.54 ± 0.12 Bq/filter. No reason was determined for the initial high results.
4. Environmental Inc.'s MAPEP July 2009 Sr-90 in soil result of 310.5 Bq/kg exceeded the lower control limit of 319 Bq/kg. Reanalysis results were acceptable at 363.3 Bq/kg. Incomplete separation of strontium from calcium could result in a higher recovery percentage and consequently lower reported activity.

The Inter-Laboratory Comparison Program provides evidence of "in control" counting systems and methods, and that the laboratories are producing accurate and reliable data.

V. References

1. Exelon Nuclear. Offsite Dose Calculation Manual for Oyster Creek Generating Station, Procedure CY-OC-170-301.

2. United States Nuclear Regulatory Commission Branch Technical Position, An Acceptable Radiological Environmental Monitoring Program, Revision 1, November 1979.

3 Pre-Operational Environmental Radiation Survey, Oyster Creek Nuclear Electric Generating Station, Jersey Central Power and Light Company, March 1968.

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APPENDIX A

RADIOLOGICAL ENVIRONMENTAL MONITORING REPORT SUMMARY

TABLE A-1 RADIOLOGICAL ENVIRONMENTAL MONITORING PROGRAM ANNUAL SUMMARY FOR THE OYSTER CREEK GENERATING STATION, 2009

Name of Facility: OYSTER CREEK GENERATING STATION **DOCKET NUMBER:** 50-219
Location of Facility: OCEAN COUNTY NJ **REPORTING PERIOD:** 2009

MEDIUM OR PATHWAY SAMPLED (UNIT OF MEASUREMENT)	TYPES OF ANALYSIS PERFORMED	NUMBER OF ANALYSIS PERFORMED	REQUIRED LOWER LIMIT OF DETECTION (LLD)	INDICATOR LOCATIONS MEAN (M) (F) RANGE	CONTROL LOCATION MEAN (M) (F) RANGE	LOCATION WITH HIGHEST ANNUAL MEAN (M) MEAN (M) (F) RANGE	STATION # NAME DISTANCE AND DIRECTION	NUMBER OF NONROUTINE REPORTED MEASUREMENTS
SURFACE WATER (PCI/LITER)	H-3	28	200	<LLD	<LLD	-		0
	GAMMA	28						
	MN-54		15	<LLD	<LLD	-		0
	CO-58		15	<LLD	<LLD	-		0
	FE-59		30	<LLD	<LLD	-		0
	CO-60		15	<LLD	<LLD	-		0
	ZN-65		30	<LLD	<LLD	-		0
	NB-95		15	<LLD	<LLD	-		0
	ZR-95		30	<LLD	<LLD	-		0

* THE MEAN AND 2 STANDARD DEVIATION VALUES ARE CALCULATED USING THE POSITIVE VALUES
FRACTION OF DETECTABLE MEASUREMENTS AT SPECIFIED LOCATIONS IS INDICATED IN PARENTHESES (F)

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SURFACE WATER (PCI/LITER)	I-131		15	<LLD	<LLD	-		0
	CS-134		15	<LLD	<LLD	-		0
	CS-137		18	<LLD	<LLD	-		0
	BA-140		60	<LLD	<LLD	-		0
	LA-140		15	<LLD	<LLD	-		0
DRINKING WATER (PCI/LITER)	H-3	44	200	<LLD	<LLD	-		0
	GR-B	35	4	3 (16/26) (1.9/4.8)	2 (5/9) (1.8/2.5)	3 (6/9) (2.7/4.8)	1 INDICATOR ON-SITE DOMESTIC WELL AT OCGS 0.2 MILES SW OF SITE	0
	GAMMA	44						
	MN-54		15	<LLD	<LLD	-		0

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DRINKING WATER (PCI/LITER)	CO-58		15	<LLD	<LLD	-		0
	FE-59		30	<LLD	<LLD	-		0
	CO-60		15	<LLD	<LLD	-		0
	ZN-65		30	<LLD	<LLD	-		0
	NB-95		15	<LLD	<LLD	-		0
	ZR-95		30	<LLD	<LLD	-		0
	I-131		15	<LLD	<LLD	-		0
	CS-134		15	<LLD	<LLD	-		0

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DRINKING WATER (PCI/LITER)	CS-137		18	<LLD	<LLD	-		0
	BA-140		60	<LLD	<LLD	-		0
	LA-140		15	<LLD	<LLD	-		0
GROUNDWATER (PCI/LITER)	H-3	9	200	<LLD	NA	-		0
	GAMMA	9						
	BE-7		NA	<LLD	NA	-		0
	K-40		NA	<LLD	NA	-		0
	MN-54		15	<LLD	NA	-		0
	CO-58		15	<LLD	NA	-		0

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GROUNDWATER (PCI/LITER)	FE-59		30	<LLD	NA	-		0
	CO-60		15	<LLD	NA	-		0
	ZN-65		30	<LLD	NA	-		0
	NB-95		15	<LLD	NA	-		0
	ZR-95		30	<LLD	NA	-		0
	I-131		15	<LLD	NA	-		0
	CS-134		15	<LLD	NA	-		0
	CS-137		18	<LLD	NA	-		0

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GROUNDWATER (PCI/LITER)	BA-140		60	<LLD	NA	-		0
	LA-140		15	<LLD	NA	-		0
BOTTOM FEEDER FISH (PCI/KG WET)	GAMMA	7						
	K-40		NA	3950 (4/4) (3180/4700)	3757 (3/3) (2990/4620)	4320 (2/2) (3940/4700)	93 INDICATOR OCGS DISCHARGE CANAL 0.1 MILES WSW OF SITE	0
	MN-54		130	<LLD	<LLD	-		0
	CO-58		130	<LLD	<LLD	-		0
	FE-59		260	<LLD	<LLD	-		0
	CO-60		130	<LLD	<LLD	-		0
	ZN-65		260	<LLD	<LLD	-		0

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BOTTOM FEEDER FISH (PCI/KG WET)	CS-134		130	<LLD	<LLD	-		0
	CS-137		150	<LLD	<LLD	-		0
PREDATOR FISH (PCI/KG WET)	GAMMA	11						
	K-40		NA	4023 (7/7) (3600/4500)	3795 (4/4) (3650/3910)	4060 (3/3) (3810/4220)	33 INDICATOR EAST OF RT 9 BRIDGE IN OCGS DISCHARGE 0.4 MILES ESE OF SITE	0
	MN-54		130	<LLD	<LLD	-		0
	CO-58		130	<LLD	<LLD	-		0
	FE-59		260	<LLD	<LLD	-		0
	CO-60		130	<LLD	<LLD	-		0
	ZN-65		260	<LLD	<LLD	-		0

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PREDATOR FISH (PCI/KG WET)	CS-134		130	<LLD	<LLD	-		0
	CS-137		150	<LLD	<LLD	-		0
CLAMS (PCI/KG WET)	GAMMA	6						
	K-40		NA	1315 (4/4) (1040/1620)	1215 (2/2) (1190/1240)	1335 (2/2) (1050/1620)	23 INDICATOR BARNEGAT BAY OFF STOUTS CREEK 3.6 MILES ENE OF SITE	0
	MN-54		130	<LLD	<LLD	-		0
	CO-58		130	<LLD	<LLD	-		0
	FE-59		260	<LLD	<LLD	-		0
	CO-60		130	<LLD	<LLD	-		0
	ZN-65		260	<LLD	<LLD	-		0

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CLAMS (PCI/KG WET)	CS-134		100	<LLD	<LLD	-		0
	CS-137		100	<LLD	<LLD	-		0
CRABS (PCI/KG WET)	GAMMA	1						
	K-40		NA	2240 (1/1)	NA	2240 (1/1)	93 INDICATOR OCGS DISCHARGE CANAL 0.1 MILES WSW OF SITE	0
	MN-54		130	<LLD	NA	-		0
	CO-58		130	<LLD	NA	-		0
	FE-59		260	<LLD	NA	-		0
	CO-60		130	<LLD	NA	-		0
	ZN-65		260	<LLD	NA	-		0

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CRABS (PCI/KG WET)	CS-134		100	<LLD	NA	-		0
	CS-137		100	<LLD	NA	-		0
SEDIMENT (PCI/KG DRY)	GAMMA	8						
	BE-7		NA	<LLD	<LLD	-		0
	K-40		NA	3455 (6/6) (617/7710)	17200 (2/2) (16000/18400)	17200 (2/2) (16000/18400)	94 CONTROL GREAT BAY/LITTLE EGG HARBOR 20.0 MILES SSW OF SITE	0
	MN-54		NA	<LLD	<LLD	-		0
	CO-58		NA	<LLD	<LLD	-		0
	CO-60		NA	<LLD	<LLD	-		0
	CS-134		150	<LLD	<LLD	-		0

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SEDIMENT (PCI/KG DRY)	CS-137		180	<LLD	<LLD	-		0
AIR PARTICULATE (E-3 PCI/CU.METER)	GR-B	414	10	15 (298/311) (6/36)	15 (94/103) (8/27)	16 (48/52) (8/27)	C CONTROL JCP&L OFFICE - COOKSTOWN NJ 24.7 MILES NW OF SITE	0
	SR-89	32	10	<LLD	<LLD	-		0
	SR-90	32	10	<LLD	<LLD	-		0
	GAMMA	32						
	BE-7		NA	99 (17/23) (36/392)	79 (5/8) (54/107)	183 (3/4) (70/392)	73 INDICATOR BAY PARKWAY - SANDS POINT HARBOR 1.8 MILES ESE OF SITE	0
	MN-54		NA	<LLD	<LLD	-		0
	CO-58		NA	<LLD	<LLD	-		0
	CO-60		NA	<LLD	<LLD	-		0

* THE MEAN AND 2 STANDARD DEVIATION VALUES ARE CALCULATED USING THE POSITIVE VALUES
FRACTION OF DETECTABLE MEASUREMENTS AT SPECIFIED LOCATIONS IS INDICATED IN PARENTHESES (F)

TABLE A-1 RADIOLOGICAL ENVIRONMENTAL MONITORING PROGRAM ANNUAL SUMMARY FOR THE OYSTER CREEK GENERATING STATION, 2009

Name of Facility: OYSTER CREEK GENERATING STATION **DOCKET NUMBER:** 50-219
Location of Facility: OCEAN COUNTY NJ **REPORTING PERIOD:** 2009

MEDIUM OR PATHWAY SAMPLED (UNIT OF MEASUREMENT)	TYPES OF ANALYSIS PERFORMED	NUMBER OF ANALYSIS PERFORMED	REQUIRED LOWER LIMIT OF DETECTION (LLD)	INDICATOR LOCATIONS MEAN (M) (F) RANGE	CONTROL LOCATION MEAN (M) (F) RANGE	LOCATION WITH HIGHEST ANNUAL MEAN (M) MEAN (M) (F) RANGE	STATION # NAME DISTANCE AND DIRECTION	NUMBER OF NONROUTINE REPORTED MEASUREMENTS
AIR PARTICULATE (E-3 PCI/CU.METER)	CS-134		50	<LLD	<LLD	-		0
	CS-137		60	<LLD	<LLD	-		0
AIR IODINE (E-3 PCI/CU.METER)	GAMMA I-131	414	70	<LLD	<LLD	-		0
VEGETATION (PCI/KG WET)	SR-89	29	25	<LLD	<LLD	-		0
	SR-90	29	5	7.3 (16/18) (2.6/20)	10.3 (9/11) (3.3/19.3)	10.3 (9/11) (3.3/19.3)	36 CONTROL U-PICK FARM - NEW EGYPT NJ 23.1 MILES NW OF SITE	0
	GAMMA BE-7	29	NA	447 (12/18) (136/930)	314 (5/11) (194/437)	516 (8/11) (175/930)	35 INDICATOR EAST OF RT 9 AND NORTH OF OCGS DISCHG 0.4 MILES ESE OF SITE	0
	K-40		NA	2971.7 (18/18) (2240/3880)	3906.4 (11/11) (2050/6550)	3906.4 (11/11) (2050/6550)	36 CONTROL U-PICK FARM - NEW EGYPT NJ 23.1 MILES NW OF SITE	0

* THE MEAN AND 2 STANDARD DEVIATION VALUES ARE CALCULATED USING THE POSITIVE VALUES
FRACTION OF DETECTABLE MEASUREMENTS AT SPECIFIED LOCATIONS IS INDICATED IN PARENTHESES (F)

TABLE A-1 RADIOLOGICAL ENVIRONMENTAL MONITORING PROGRAM ANNUAL SUMMARY FOR THE OYSTER CREEK GENERATING STATION, 2009

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VEGETATION (PCI/KG WET)	I-131		60	<LLD	<LLD	-		0
	CS-134		60	<LLD	<LLD	-		0
	CS-137		80	<LLD	<LLD	-		0
	BA-140		NA	<LLD	<LLD	-		0
	LA-140		NA	<LLD	<LLD	-		0
DIRECT RADIATION (MILLI-ROENTGEN/STD.QTR.)	TLD-QUARTERLY	236	NA	14.8 (228/228) (10.8/23.1)	15 (8/8) (13.2/17.7)	20.3 (4/4) (18.6/23.1)	55 INDICATOR SOUTHERN AREA STORES SECURITY FENCE 0.3 MILES W	0

* THE MEAN AND 2 STANDARD DEVIATION VALUES ARE CALCULATED USING THE POSITIVE VALUES
FRACTION OF DETECTABLE MEASUREMENTS AT SPECIFIED LOCATIONS IS INDICATED IN PARENTHESES (F)

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APPENDIX B

LOCATION DESIGNATION, DISTANCE & DIRECTION, AND SAMPLE COLLECTION & ANALYTICAL METHODS

TABLE B-1: Location Designation and Identification System for the Oyster Creek Generating Station

Sample Medium	–	APT = Air Particulate	Clam = Clam
		AIO = Air Iodine	TLD = Thermoluminescent Dosimetry
		DW = Drinking Water	
		VEG = Vegetation	Fish = Fish
		SWA = Surface Water	Crab = Crab
		AQS = Aquatic Sediment	
Station Code	–	Station's Designation	
Distance	–	Distance from the OCGS in miles	
Azimuth	–	Azimuth with respect to the OCGS in degrees	
Description	–	Meteorological sector in which the station is located and a narrative description	

TABLE B-2: Radiological Environmental Monitoring Program – Sampling Locations, Distance and Direction, Oyster Creek Generating Station, 2009

Sample Medium	Station Code	Distance (miles)	Azimuth (degrees)	Description	Latitude North	Longitude West
TLD	1	0.4	219	SW of site at OCGS Fire Pond, Forked River, NJ	39 *Degrees* 48 Minutes 44.8 Seconds	74 *Degrees* 12 Minutes 26.8 Seconds
DW	1	0.1	209	On-site southern domestic well at OCGS, Forked River, NJ	39 Degrees 48 Minutes 44.8 Seconds	74 Degrees 12 Minutes 26.8 Seconds
DW	1	0.2	349	On-site northern domestic well at OCGS, Forked River, NJ	39 Degrees 48 Minutes 44.8 Seconds	74 Degrees 12 Minutes 26.8 Seconds
APT, AIO, TLD	3	6.0	97	East of site, near old Coast Guard Station, Island Beach State Park	39 Degrees 48 Minutes 12.7 Seconds	74 Degrees 5 Minutes 39.1 Seconds
TLD	4	4.6	213	SSW of site, Route 554 and Garden State Parkway, Barnegat, NJ	39 Degrees 45 Minutes 34.4 Seconds	74 Degrees 15 Minutes 9.30 Seconds
TLD	5	4.2	353	North of site, at Garden State Parkway Rest Area, Forked River, NJ	39 Degrees 52 Minutes 27.9 Seconds	74 Degrees 12 Minutes 51.7 Seconds
TLD	6	2.1	13	NNE of site, Lane Place, behind St. Pius Church, Forked River, NJ	39 Degrees 50 Minutes 38.2 Seconds	74 Degrees 11 Minutes 46.1 Seconds
TLD	8	2.3	177	South of site, Route 9 at the Waretown Substation, Waretown, NJ	39 Degrees 46 Minutes 52.2 Seconds	74 Degrees 12 Minutes 12.5 Seconds
TLD	9	2.0	230	SW of site, where Route 532 and the Garden State Parkway meet, Waretown, NJ	39 Degrees 47 Minutes 47.4 *Seconds*	74 Degrees 14 Minutes 42.7 *Seconds*
APT, AIO, TLD	C	24.7	313	NW of site, JCP&L office in rear parking lot, Cookstown, NJ	40 Degrees 3 Minutes 30.9 Seconds	74 Degrees 32 Minutes 45.6 Seconds
TLD	11	8.2	152	SSE of site, 80th and Anchor Streets, Harvey Cedars, NJ	39 Degrees 42 Minutes 27.3 Seconds	74 Degrees 8 Minutes 4.3 Seconds
TLD	14	20.8	2	North of site, Larrabee Substation on Randolph Road, Lakewood, NJ	40 Degrees 6 Minutes 51.9 Seconds	74 Degrees 11 Minutes 24.5 Seconds
APT, AIO	20	0.7	95	East of site, on Finninger Farm on south side of access road, Forked River, NJ	39 Degrees 48 Minutes 47.5 Seconds	74 Degrees 11 Minutes 30.7 Seconds
TLD	22	1.6	145	SE of site, on Long John Silver Way, Skippers Cove, Waretown, NJ	39 Degrees 47 Minutes 39.6 Seconds	74 Degrees 11 Minutes 19.7 Seconds

TABLE B-2: Radiological Environmental Monitoring Program – Sampling Locations, Distance and Direction, Oyster Creek Generating Station, 2009

Sample Medium	Station Code	Distance (miles)	Azimuth (degrees)	Description	Latitude North	Longitude West
SWA, CLAM, AQS	23	3.6	64	ENE of site, Barnegat Bay off Stouts Creek, approximately 400 yards SE of "Flashing Light 1"	39 Degrees 49 Minutes 59.2 Seconds	74 Degrees 8 Minutes 46.8 Seconds
SWA, CLAM, AQS	24	2.1	101	East of site, Barnegat Bay, approximately 250 yards SE of "Flashing Light 3"	39 Degrees 48 Minutes 35.6 Seconds	74 Degrees 10 Minutes 6.2 Seconds
SWA, AQS, FISH	33	0.4	123	ESE of site, east of Route 9 Bridge in OCGS Discharge Canal	39 Degrees 48 Minutes 42.6 Seconds	74 Degrees 11 Minutes 58.5 Seconds
VEG	35	0.4	111	ESE of site, east of Route 9 and north of the OCGS Discharge Canal, Forked River, NJ	39 Degrees 48 Minutes 43.6 Seconds	74 Degrees 11 Minutes 56.1 Seconds
VEG	36	23.1	319	NW of site, at "U-Pick" Farm, New Egypt, NJ	40 Degrees 4 Minutes 19.0 Seconds	74 Degrees 29 Minutes 32.8 Seconds
DW	37	2.2	18	NNE of Site, off Boox Road at Lacey MUA Pumping Station, Forked River, NJ	39 Degrees 50 Minutes 42.2 Seconds	74 Degrees 11 Minutes 30.9 Seconds
DW	38	1.6	194	SSW of Site, on Route 532, at Ocean Township MUA Pumping Station, Waretown, NJ	39 Degrees 47 Minutes 31.3 Seconds	74 Degrees 12 Minutes 45.4 Seconds
DW	39	3.5	353	North of Site, Trenton Ave. off Lacey Rd, Lacey Twp. MUA Pump Station, Forked River, NJ	39 Degrees 51 Minutes 54.6 Seconds	74 Degrees 12 Minutes 49.6 Seconds
TLD	46	5.6	323	NW of site, on Lacey Road, adjacent to utility pole BT 259 65, Forked River, NJ	39 Degrees 52 Minutes 44.7 Seconds	74 Degrees 16 Minutes 5.5 Seconds
TLD	47	4.6	26	NNE of site, Route 9 and Harbor Inn Road, Bayville, NJ	39 Degrees 52 Minutes 26.9 Seconds	74 Degrees 10 Minutes 0.6 Seconds
TLD	48	4.5	189	South of site, at intersection of Brook and School Streets, Barnegat, NJ	39 Degrees 44 Minutes 58.8 Seconds	74 Degrees 13 Minutes 12.5 Seconds
TLD	51	0.4	358	North of site, on the access road to Forked River site, Forked River, NJ	39 Degrees 49 Minutes 12.1 Seconds	74 Degrees 12 Minutes 18.1 Seconds
TLD	52	0.3	333	NNW of site, on the access road to Forked River site, Forked River, NJ	39 Degrees 49 Minutes 5.6 Seconds	74 Degrees 12 Minutes 28.8 Seconds
TLD	53	0.3	309	NW of site, at sewage lift station on the access road to the Forked River site, Forked River, NJ	39 Degrees 49 Minutes 0.1 Seconds	74 Degrees 12 Minutes 33.8 Seconds

TABLE B-2: Radiological Environmental Monitoring Program – Sampling Locations, Distance and Direction, Oyster Creek Generating Station, 2009

Sample Medium	Station Code	Distance (miles)	Azimuth (degrees)	Description	Latitude North	Longitude West
TLD	54	0.3	288	WNW of site, on the access road to Forked River site, Forked River, NJ	39 Degrees 48 Minutes 56.3 Seconds	74 Degrees 12 Minutes 41.8 Seconds
TLD	55	0.3	263	West of site, on Southern Area Stores security fence, west of OCGS Switchyard, Forked River, NJ	39 Degrees 48 Minutes 50.1 Seconds	74 Degrees 12 Minutes 39.3 Seconds
TLD	56	0.3	249	WSW of site, on utility pole east of Southern Area Stores, west of the OCGS Switchyard, Forked River, NJ	39 Degrees 48 Minutes 46.4 Seconds	74 Degrees 12 Minutes 37.8 Seconds
TLD	57	0.2	206	SSW of site, on Southern Area Stores access road, Forked River, NJ	39 Degrees 48 Minutes 41.0 Seconds	74 Degrees 12 Minutes 27.4 Seconds
TLD	58	0.2	188	South of site, on Southern Area Stores access road, Forked River, NJ	39 Degrees 48 Minutes 40.4 Seconds	74 Degrees 12 Minutes 23.0 Seconds
TLD	59	0.3	166	SSE of site, on Southern Area Stores access road, Waretown, NJ	39 Degrees 48 Minutes 37.1 Seconds	74 Degrees 12 Minutes 15.2 Seconds
TLD	61	0.3	104	ESE of site, on Route 9 south of OCGS Main Entrance, Forked River, NJ	39 Degrees 48 Minutes 46.9 Seconds	74 Degrees 12 Minutes 0.0 Seconds
TLD	62	0.2	83	East of site, on Route 9 at access road to OCGS Main Gate, Forked River, NJ	39 Degrees 48 Minutes 53.6 Seconds	74 Degrees 12 Minutes 3.5 Seconds
TLD	63	0.2	70	ENE of site, on Route 9, between main gate and OCGS North Gate access road, Forked River, NJ	39 Degrees 48 Minutes 56.2 Seconds	74 Degrees 12 Minutes 4.2 Seconds
TLD	64	0.3	42	NE of site, on Route 9 North at entrance to Finninger Farm, Forked River, NJ	39 Degrees 49 Minutes 1.6 Seconds	74 Degrees 12 Minutes 6.9 Seconds
TLD	65	0.4	19	NNE of site, on Route 9 at Intake Canal Bridge, Forked River, NJ	39 Degrees 49 Minutes 11.2 Seconds	74 Degrees 12 Minutes 9.7 Seconds
APT, AIO, TLD, VEG	66	0.4	133	SE of site, east of Route 9 and south of the OCGS Discharge Canal, inside fence, Waretown, NJ	39 Degrees 48 Minutes 37.0 Seconds	74 Degrees 11 Minutes 57.5 Seconds
TLD	68	1.3	266	West of site, on Garden State Parkway North at mile marker 71.7, Lacey Township, NJ	39 Degrees 48 Minutes 46.1 Seconds	74 Degrees 13 Minutes 46.9 Seconds
APT, AIO, TLD	71	1.6	164	SSE of site, on Route 532 at the Waretown Municipal Building, Waretown, NJ	39 Degrees 47 Minutes 28.7 seconds	74 Degrees 11 Minutes 50.3 Seconds

TABLE B-2: Radiological Environmental Monitoring Program – Sampling Locations, Distance and Direction, Oyster Creek Generating Station, 2009

Sample Medium	Station Code	Distance (miles)	Azimuth (degrees)	Description	Latitude North	Longitude West
					39 Degrees	*74 Degrees*
APT, AIO, TLD	72	1.9	25	NNE of site, on Lacey Road at Knights of Columbus Hall, Forked River, NJ	50 Minutes 17.7 seconds	11 Minutes 24.4 Seconds
APT, AIO, TLD	73	1.8	108	ESE of site, on Bay Parkway, Sands Point Harbor, Waretown, NJ	39 Degrees 48 Minutes 20.9 Seconds	74 Degrees 10 Minutes 21.3 Seconds
TLD	74	1.8	88	East of site, Orlando Drive and Penguin Court, Forked River, NJ	39 Degrees 48 Minutes 55.3 Seconds	74 Degrees 10 Minutes 13.9 Seconds
TLD	75	2.0	71	ENE of site, Beach Blvd. and Maui Drive, Forked River, NJ	39 Degrees 49 Minutes 26.0 Seconds	74 Degrees 10 Minutes 10.9 Seconds
TLD	78	1.8	2	North of site, 1514 Arient Road, Forked River, NJ	39 Degrees 50 Minutes 36.7 Seconds	74 Degrees 12 Minutes 31.5 Seconds
TLD	79	2.9	160	SSE of site, Hightide Drive and Bonita Drive, Waretown, NJ	39 Degrees 46 Minutes 31.2 Seconds	74 Degrees 11 Minutes 12.1 Seconds
TLD	81	3.5	201	SSW of site, on Rose Hill Road at intersection with Barnegat Boulevard, Barnegat, NJ	39 Degrees 45 Minutes 57.0 Seconds	74 Degrees 13 Minutes 41.2 Seconds
TLD	82	4.4	36	NE of site, Bay Way and Clairmore Avenue, Lanoka Harbor, NJ	39 Degrees 51 Minutes 53.9 Seconds	74 Degrees 9 Minutes 26.7 Seconds
TLD	84	4.4	332	NNW of site, on Lacey Road, 1.3 miles west of the Garden State Parkway on siren pole, Lacey Township, NJ	39 Degrees 52 Minutes 16.2 Seconds	74 Degrees 14 Minutes 34.7 Seconds
TLD	85	3.9	250	WSW of site, on Route 532, just east of Wells Mills Park, Waretown, NJ	39 Degrees 47 Minutes 46.4 Seconds	74 Degrees 16 Minutes 27.9 Seconds
TLD	86	5.0	224	SW of site, on Route 554, 1 mile west of the Garden State Parkway, Barnegat, NJ	39 Degrees 45 Minutes 49.7 Seconds	74 Degrees 16 Minutes 16.7 Seconds
TLD	88	6.6	125	SE of site, eastern end of 3rd Street, Barnegat Light, NJ	39 Degrees 45 Minutes 43.8 Seconds	74 Degrees 6 Minutes 18.3 Seconds
TLD	89	6.1	108	ESE of site, Job Francis residence, Island Beach State Park	39 Degrees 47 Minutes 11.5 Seconds	74 Degrees 5 Minutes 49.3 Seconds
TLD	90	6.3	75	ENE of site, parking lot A-5, Island Beach State Park	39 Degrees 50 Minutes 12.4 Seconds	74 Degrees 5 Minutes 23.8 Seconds

TABLE B-2: Radiological Environmental Monitoring Program – Sampling Locations, Distance and Direction, Oyster Creek Generating Station, 2009

Sample Medium	Station Code	Distance (miles)	Azimuth (degrees)	Description	Latitude North	Longitude West
TLD	92	9.0	46	NE of site, at Guard Shack/Toll Booth, Island Beach State Park	39 Degrees 54 Minutes 14.8 Seconds	74 Degrees 4 Minutes 53.4 Seconds
FISH, CRAB	93	0.1	242	WSW of site, OCGS Discharge Canal between Pump Discharges and Route 9, Forked River, NJ	39 Degrees 48 Minutes 47.7 Seconds	74 Degrees 12 Minutes 27.3 Seconds
SWA, AQS, CLAM, FISH	94	20.0	198	SSW of site, in Great Bay/Little Egg Harbor	39 Degrees 34 Minutes 16.5 Seconds	74 Degrees 19 Minutes 14.5 Seconds
TLD	98	1.6	318	NW of site, on Garden State Parkway North at mile marker 73, Lacey Township, NJ	39 Degrees 49 Minutes 51.7 Seconds	74 Degrees 13 Minutes 29.3 Seconds
TLD	99	1.5	310	NW of site, on Garden State Parkway at mile marker 72.8, Lacey Township, NJ	39 Degrees 49 Minutes 41.4 Seconds	74 Degrees 13 Minutes 33.2 Seconds
TLD	100	1.4	43	NE of site, Yacht Basin Plaza South off Lakeside Dr., Lacey Township, NJ	39 Degrees 49 Minutes 43.8 Seconds	74 Degrees 11 Minutes 14.9 Seconds
TLD	101	1.7	49	NE of site, end of Lacey Rd. East, Lacey Township, NJ	39 Degrees 49 Minutes 47.6 Seconds	74 Degrees 10 Minutes 53.7 Seconds
TLD	102	1.6	344	NNW of site, end of Sheffield Dr., Barnegat Pines, Lacey Township, NJ	39 Degrees 50 Minutes 13.7 Seconds	74 Degrees 12 Minutes 49.2 Seconds
TLD	103	2.4	337	NNW of site, Llewellyn Pkwy., Barnegat Pines, Lacey Township, NJ	39 Degrees 50 Minutes 44.1 Seconds	74 Degrees 13 Minutes 21.4 Seconds
TLD	104	1.8	221	SW of site, Rt. 532 West, before Garden State Parkway, Ocean Township, NJ	39 Degrees 47 Minutes 40.1 Seconds	74 Degrees 13 Minutes 40.7 Seconds
TLD	105	2.8	222	SW of site, Garden State Parkway North beside mile marker 69.6, Ocean Township, NJ	39 Degrees 47 Minutes 3.4 Seconds	74 Degrees 14 Minutes 28.1 Seconds
TLD	106	1.2	288	NW of site, Garden State Parkway North beside mile marker 72.2, Lacey Township, NJ	39 Degrees 49 Minutes 10.6 Seconds	74 Degrees 13 Minutes 39.2 Seconds
TLD	107	1.3	301	NW of site, Garden State Parkway North beside mile marker 72.5, Lacey Township, NJ	39 Degrees 49 Minutes 26.5 Seconds	74 Degrees 13 Minutes 37.5 Seconds
TLD	109	1.2	141	SE of site, Lighthouse Dr., Waretown, Ocean Township, NJ	39 Degrees 47 Minutes 59.8 Seconds	74 Degrees 11 Minutes 27.2 Seconds

TABLE B-2: Radiological Environmental Monitoring Program – Sampling Locations, Distance and Direction, Oyster Creek Generating Station, 2009

Sample Medium	Station Code	Distance (miles)	Azimuth (degrees)	Description	Latitude North	Longitude West
TLD	110	1.5	127	SE of site, Tiller Dr. and Admiral Way, Waretown, Ocean Township, NJ	39 Degrees 48 Minutes 3.4 Seconds	74 Degrees 10 Minutes 59.2 Seconds
APT/AIO	111	1.5	127	ENE of site, Finninger Farm property along access road, Lacey Township, NJ	39 Degrees 48 Minutes 3.4 Seconds	74 Degrees 10 Minutes 59.2 Seconds
TLD	112	0.2	178	S of site, along southern access road	39 Degrees 48 Minutes 38.3 Seconds	74 Degrees 12 Minutes 19.1 Seconds
TLD	113	0.3	90	E of site, along Rt. 9, North	39 Degrees 48 Minutes 50.7 Seconds	74 Degrees 12 Minutes 1.6 Seconds
TLD	T1	0.4	219	SW of site, at OCGS Fire Pond, Forked River, NJ	39 Degrees 48 Minutes 44.8 Seconds	74 Degrees 12 Minutes 26.8 Seconds
GW	MW-24-3A	0.8	97	ESE of site, Finninger Farm on South side of access road, Lacey Township, NJ	39 Degrees 48 Minutes 48.0 Seconds	74 Degrees 11 Minutes 27.0 Seconds
GW	W-3C	0.4	112	E of site, Finninger Farm adjacent to Station 35, Lacey Township, NJ	39 Degrees 4 Minutes 43.6 Seconds	74 Degrees 11 Minutes 56.2 Seconds

TABLE B-3: Radiological Environmental Monitoring Program – Summary of Sample Collection and Analytical Methods, Oyster Creek Generating Station, 2009

Sample Medium	Analysis	Sampling Method	Collection Procedure Number	Sample Size	Analytical Procedure Number
Drinking Water	Gamma Spectroscopy	Monthly samples composited quarterly	ER-OCGS-10, Collection of well water samples for radiological analysis CY-OC-120-1200, REMP sample collection procedure – well water	1 gallon	TBE, TBE-2007 Gamma emitting radioisotopes analysis Env. Inc., GS-01 Determination of gamma emitters by gamma spectroscopy
Drinking Water	Tritium	Monthly samples composited quarterly	ER-OCGS-10, Collection of well water samples for radiological analysis CY-OC-120-1200, REMP sample collection procedure – well water	1 gallon	TBE, TBE-2010 Tritium and carbon-13 analysis by liquid scintillation Env. Inc., T-02 Determination of tritium in water (direct method)
Surface Water	Gamma Spectroscopy	Grab Sample	ER-OCGS-06, Collection of surface water samples for radiological analysis	1 gallon	TBE, TBE-2007 Gamma emitting radioisotopes analysis Env. Inc., GS-01 Determination of gamma emitters by gamma spectroscopy
Surface Water	Tritium	Grab Sample	ER-OCGS-06, Collection of surface water samples for radiological analysis	1 gallon	TBE, TBE-2010 Tritium and carbon-13 analysis by liquid scintillation Env. Inc., T-02 Determination of tritium in water (direct method)
Fish	Gamma Spectroscopy	Semi-annual samples collected via hook and line technique and traps	ER-OCGS-14, Collection of fish samples for radiological analysis	250 grams (wet)	TBE, TBE-2007 Gamma emitting radioisotopes analysis Env. Inc., GS-01 Determination of gamma emitters by gamma spectroscopy
Clams and Crabs	Gamma Spectroscopy	Semi-annual and annual samples collected using clam tongs and traps.	ER-OCGS-16, Collection of clam and crab samples for radiological analysis	300 grams (wet)	TBE, TBE-2007 Gamma emitting radioisotopes analysis Env. Inc., GS-01 Determination of gamma emitters by gamma spectroscopy
Sediment	Gamma Spectroscopy	Semi-annual grab samples	ER-OCGS-03, Collection of aquatic sediment samples for radiological analysis	1000 grams (dry)	TBE, TBE-2007 Gamma emitting radioisotopes analysis Env. Inc., GS-01 Determination of gamma emitters by gamma spectroscopy

TABLE B-3: Radiological Environmental Monitoring Program – Summary of Sample Collection and Analytical Methods, Oyster Creek Generating Station, 2009

Sample Medium	Analysis	Sampling Method	Collection Procedure Number	Sample Size	Analytical Procedure Number
Air Particulates	Gross Beta	One-week composite of continuous air sampling through glass fiber filter paper	ER-OCGS-05, Collection of air iodine and air particulate samples for radiological analysis	1 filter (approximately 300 cubic meters weekly)	TBE, TBE-2008 Gross alpha and/or beta activity in various matrices) Env. Inc., AP-02 Determination of gross alpha and/or gross beta in air particulate filters
Air Particulates	Gamma Spectroscopy	Quarterly composite of each station	TBE, TBE-2023 Compositing of samples Env. Inc., AP-03 Procedure for compositing air particulate filters for gamma spectroscopic analysis	13 filters (approximately 4000 cubic meters)	TBE, TBE-2007 Gamma emitting radioisotopes analysis Env. Inc., GS-01 Determination of gamma emitters by gamma spectroscopy
Air Particulates	Strontium-89/90	Quarterly composite of each station	ER-OCGS-05, Collection of air iodine and air particulate samples for radiological analysis	13 filters (approximately 4000 cubic meters)	TBE, TBE-2019 Radiostrontium analysis by ion exchange
Air Iodine	Gamma Spectroscopy	One-week composite of continuous air sampling through charcoal filter	ER-OCGS-05, Collection of air iodine and air particulate samples for radiological analysis	1 filter (approximately 300 cubic meters weekly)	TBE, TBE-2007 Gamma emitting radioisotopes analysis Env. Inc., I-131-02 Determination of I-131 in charcoal canisters by gamma spectroscopy (batch method)
Vegetation	Gamma Spectroscopy	Grab sample during growing season	ER-OCGS-04, Collection of food products and broadleaf vegetation samples for radiological analysis	1000 grams	TBE, TBE-2007 Gamma emitting radioisotopes analysis Env. Inc., GS-01 Determination of gamma emitters by gamma spectroscopy
Vegetation	Strontium-89/90	Grab sample during growing season	ER-OCGS-04, Collection of food products and broadleaf vegetation samples for radiological analysis	1000 grams	TBE, TBE-2019 Radiostrontium analysis by ion exchange
TLD	Thermoluminescence Dosimetry	Quarterly TLDs comprised of two Panasonic 814 (containing 3 each $CaSO_4$ elements)	ER OCGS-02, Collection of thermoluminescent dosimeters (TLDs) for radiological analysis	2 dosimeters	Global Dosimetry, Inc. TLD Processing Procedures

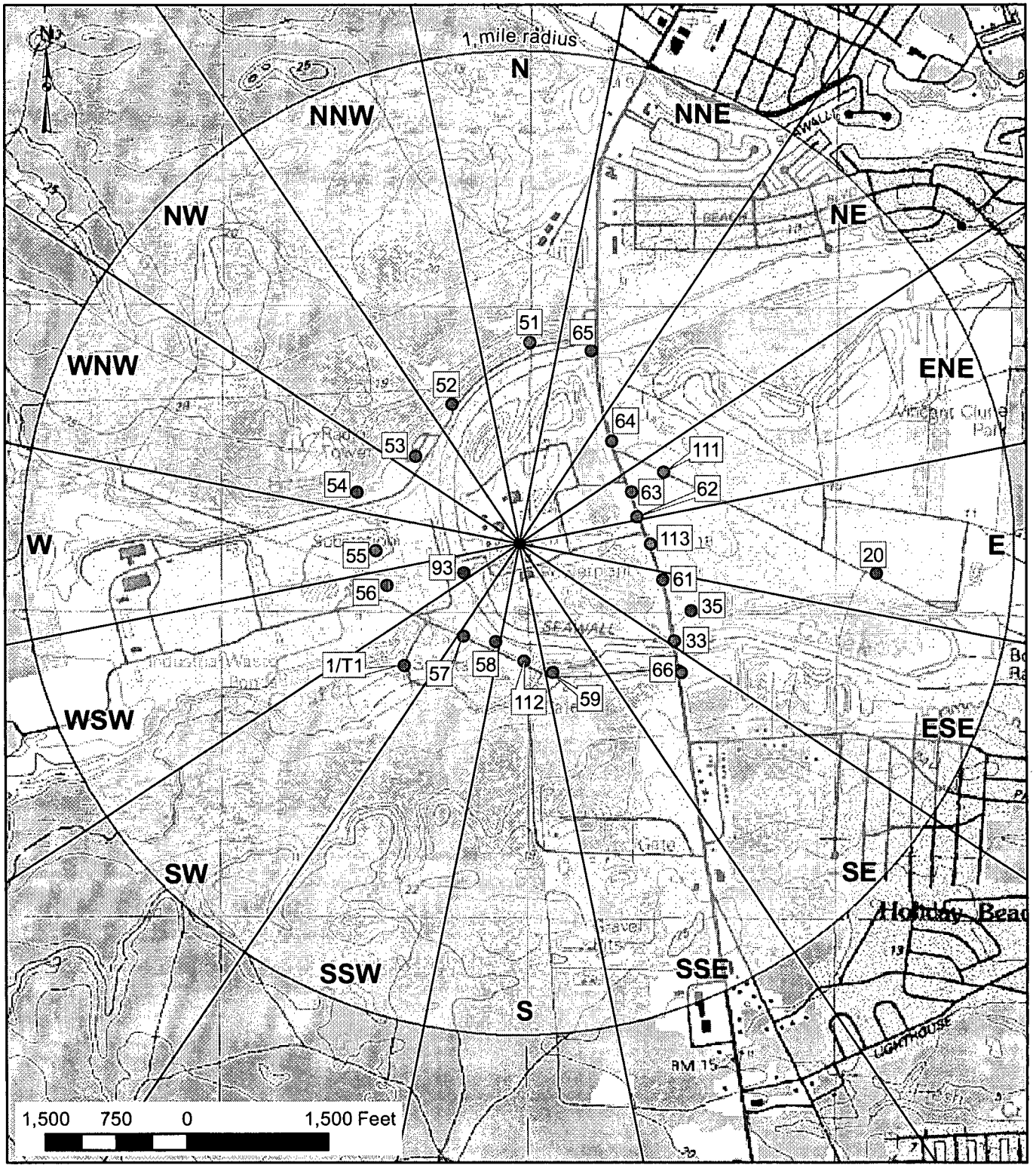


Figure B-1.
Locations of REMP Stations within a 1-mile radius
of the Oyster Creek Generating Station

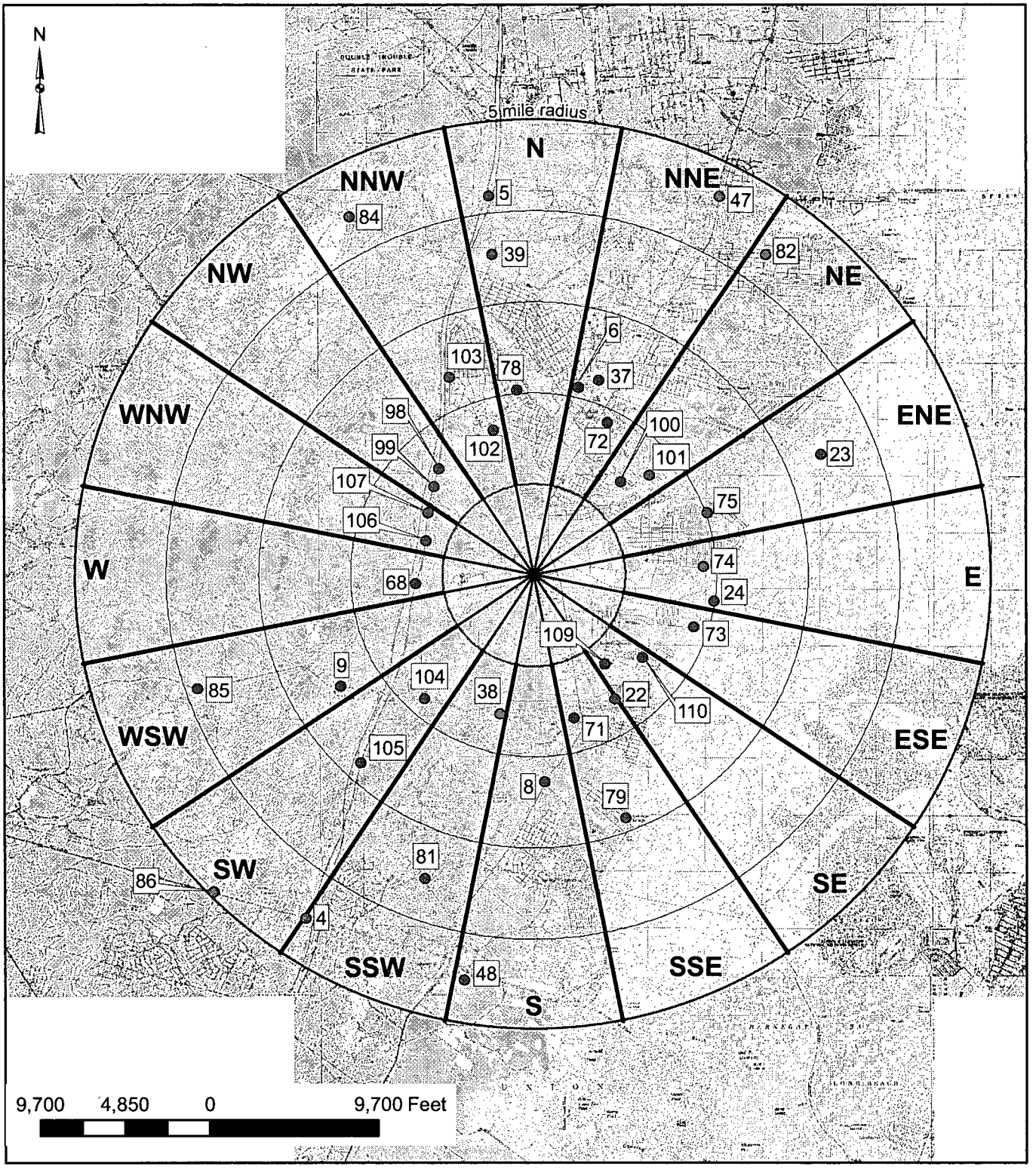


Figure B-2.
Locations of REMP Stations within a 1 to 5-mile radius
of the Oyster Creek Generating Station

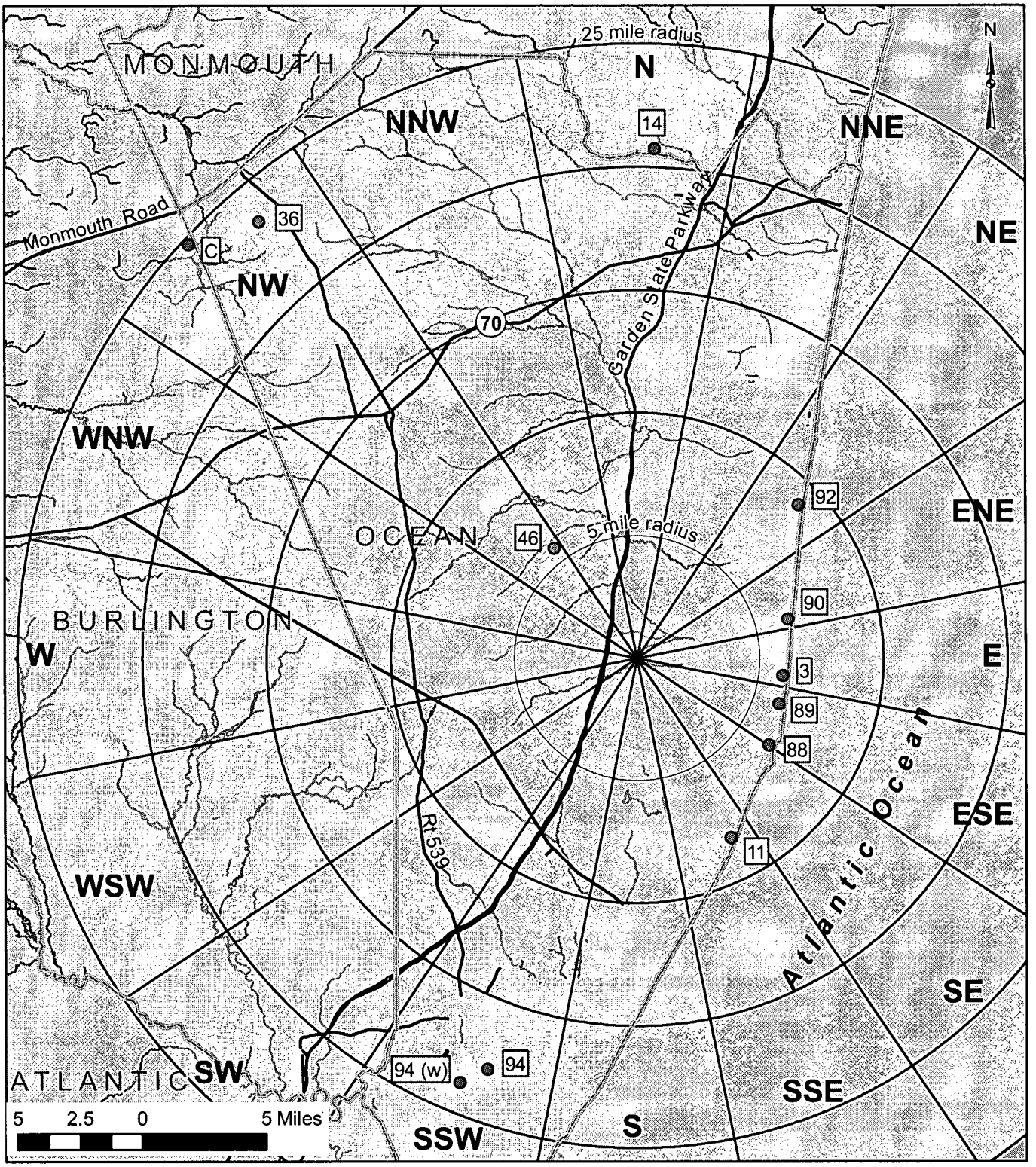


Figure B-3.
Locations of REMP Stations greater than 5 miles
from the Oyster Creek Generating Station

APPENDIX C

DATA TABLES
PRIMARY LABORATORY

TABLE C-I.1 **CONCENTRATIONS OF TRITIUM IN SURFACE WATER SAMPLES COLLECTED IN THE VICINITY OF OYSTER CREEK GENERATING STATION, 2009**

RESULTS IN UNITS OF PCI/LITER ± 2 SIGMA

COLLECTION PERIOD	23	24	33	94
01/07/09 - 01/27/09			< 183	< 176
02/04/09 - 02/26/09			< 197	< 193
03/05/09 - 03/26/09			< 198	< 192
04/13/09 - 04/13/09	< 127	< 136	< 159	< 159
05/06/09 - 05/28/09			< 110	< 109
06/03/09 - 06/24/09			< 181	< 177
07/01/09 - 07/28/09			< 164	< 162
08/05/09 - 08/26/09			< 184	< 182
09/02/09 - 10/01/09			< 163	< 163
10/07/09 - 10/29/09	< 165	< 159	< 165	< 162
11/05/09 - 11/24/09			< 180	< 183
12/02/09 - 12/29/09			< 152	< 150
MEAN	-	-	-	-

TABLE C-I.2 **CONCENTRATIONS OF GAMMA EMITTERS IN SURFACE WATER SAMPLES COLLECTED IN THE VICINITY OF OYSTER CREEK GENERATING STATION, 2009**

RESULTS IN UNITS OF PCI/LITER ± 2 SIGMA

STC	COLLECTION PERIOD	Mn-54	Co-58	Fe-59	Co-60	Zn-65	Nb-95	Zr-95	I-131	Cs-134	Cs-137	Ba-140	La-140
23	04/13/09 - 04/13/09	< 1	< 2	< 3	< 1	< 2	< 2	< 3	< 9	< 1	< 1	< 16	< 5
	10/05/09 - 10/05/09	< 3	< 3	< 6	< 3	< 6	< 3	< 5	< 6	< 3	< 3	< 15	< 5
	MEAN	-	-	-	-	-	-	-	-	-	-	-	-
24	04/13/09 - 04/13/09	< 2	< 2	< 5	< 2	< 5	< 2	< 4	< 13	< 2	< 2	< 21	< 8
	10/05/09 - 10/05/09	< 4	< 4	< 9	< 4	< 9	< 4	< 8	< 9	< 4	< 5	< 22	< 7
	MEAN	-	-	-	-	-	-	-	-	-	-	-	-
33	01/07/09 - 01/29/09	< 4	< 5	< 10	< 4	< 11	< 5	< 9	< 14	< 4	< 4	< 33	< 9
	02/04/09 - 02/26/09	< 6	< 6	< 12	< 5	< 12	< 6	< 9	< 13	< 6	< 6	< 34	< 8
	03/05/09 - 03/25/09	< 4	< 4	< 9	< 4	< 8	< 4	< 7	< 14	< 4	< 4	< 30	< 8
	04/01/09 - 04/30/09	< 1	< 1	< 3	< 1	< 2	< 1	< 2	< 14	< 1	< 1	< 17	< 5
	05/06/09 - 05/27/09	< 5	< 5	< 13	< 5	< 11	< 6	< 9	< 15	< 4	< 6	< 35	< 14
	06/03/09 - 06/25/09	< 4	< 4	< 8	< 4	< 7	< 5	< 8	< 13	< 4	< 4	< 30	< 10
	07/01/09 - 07/29/09	< 3	< 3	< 7	< 3	< 7	< 4	< 7	< 15	< 3	< 3	< 26	< 8
	08/05/09 - 08/27/09	< 5	< 6	< 11	< 5	< 12	< 6	< 9	< 10	< 5	< 6	< 27	< 9
	09/02/09 - 10/01/09	< 2	< 3	< 7	< 3	< 6	< 3	< 5	< 13	< 3	< 3	< 23	< 8
	10/05/09 - 10/29/09	< 2	< 2	< 4	< 1	< 3	< 2	< 3	< 5	< 1	< 1	< 11	< 3
	11/05/09 - 11/24/09	< 2	< 2	< 5	< 2	< 5	< 2	< 4	< 13	< 2	< 2	< 21	< 7
	12/02/09 - 12/29/09	< 3	< 3	< 6	< 3	< 5	< 4	< 6	< 8	< 3	< 3	< 18	< 6
	MEAN	-	-	-	-	-	-	-	-	-	-	-	-

TABLE C-I.2 **CONCENTRATIONS OF GAMMA EMITTERS IN SURFACE WATER SAMPLES COLLECTED IN THE VICINITY OF OYSTER CREEK GENERATING STATION, 2009**

RESULTS IN UNITS OF PCI/LITER ± 2 SIGMA

STC	COLLECTION PERIOD	Mn-54	Co-58	Fe-59	Co-60	Zn-65	Nb-95	Zr-95	I-131	Cs-134	Cs-137	Ba-140	La-140
94	01/07/09 - 01/27/09	< 4	< 5	< 9	< 4	< 7	< 4	< 8	< 15	< 3	< 4	< 29	< 10
	02/04/09 - 02/26/09	< 6	< 5	< 11	< 6	< 11	< 5	< 10	< 13	< 5	< 6	< 31	< 11
	03/05/09 - 03/26/09	< 2	< 2	< 3	< 2	< 3	< 2	< 3	< 5	< 1	< 2	< 10	< 4
	04/02/09 - 04/30/09	< 1	< 1	< 2	< 1	< 2	< 1	< 2	< 14	< 1	< 1	< 16	< 5
	05/06/09 - 05/28/09	< 5	< 6	< 12	< 5	< 12	< 6	< 12	< 15	< 5	< 6	< 29	< 11
	06/03/09 - 06/24/09	< 4	< 5	< 9	< 4	< 7	< 5	< 9	< 15	< 4	< 4	< 32	< 10
	07/01/09 - 07/28/09	< 3	< 3	< 6	< 3	< 4	< 3	< 4	< 12	< 2	< 3	< 24	< 6
	08/05/09 - 08/26/09	< 4	< 4	< 10	< 4	< 11	< 5	< 9	< 9	< 4	< 5	< 24	< 8
	09/02/09 - 10/01/09	< 3	< 3	< 7	< 3	< 6	< 3	< 5	< 12	< 3	< 3	< 25	< 8
	10/07/09 - 10/29/09	< 2	< 2	< 5	< 2	< 4	< 2	< 4	< 6	< 2	< 2	< 14	< 5
	11/05/09 - 11/24/09	< 2	< 2	< 4	< 2	< 3	< 2	< 4	< 12	< 2	< 2	< 19	< 6
	12/02/09 - 12/29/09	< 2	< 2	< 6	< 1	< 4	< 2	< 3	< 6	< 2	< 3	< 12	< 5
	MEAN	-	-	-	-	-	-	-	-	-	-	-	-

TABLE C-II.1 **CONCENTRATIONS OF TRITIUM IN DRINKING WATER SAMPLES COLLECTED IN THE VICINITY OF OYSTER CREEK GENERATING STATION, 2009**

RESULTS IN UNITS OF PCI/LITER ± 2 SIGMA

COLLECTION PERIOD	1	37	38	39
01/09/09 - 01/27/09	< 179	< 181	< 179	(1)
02/05/09 - 02/24/09	< 194	< 194	< 195	(1)
03/06/09 - 03/24/09	< 195	< 194	< 195	(1)
04/02/09 - 04/30/09	< 157	< 159	< 157	(1)
05/06/09 - 05/27/09	< 111	< 108	< 111	< 110
06/03/09 - 06/24/09	< 179	< 184	< 185	< 185
07/01/09 - 07/28/09	< 158	< 162	< 162	< 157
08/05/09 - 08/27/09	< 188	< 186	< 190	< 194
09/02/09 - 10/01/09	< 161	< 143	< 162	< 140
10/07/09 - 10/29/09	< 165	< 167	< 163	< 166
11/05/09 - 11/24/09	< 183	< 179	< 180	< 182
12/02/09 - 12/29/09	< 164	< 149	< 152	< 150
MEAN	-	-	-	-

TABLE C-II.2 **CONCENTRATIONS OF GROSS BETA IN DRINKING WATER SAMPLES COLLECTED IN THE VICINITY OF OYSTER CREEK GENERATING STATION, 2009**

RESULTS IN UNITS OF PCI/LITER ± 2 SIGMA

COLLECTION PERIOD	1	37	38	39
01/09/09 - 01/27/09	(2)	(2)	(2)	(2)
02/05/09 - 02/24/09	(2)	(2)	(2)	(2)
03/06/09 - 03/24/09	(2)	(2)	(2)	(2)
04/02/09 - 04/30/09	2.7 ± 1.3	< 1.7	2.0 ± 1.2	(1)
05/06/09 - 05/27/09	2.7 ± 1.3	1.8 ± 1.1	2.3 ± 1.2	< 1.6
06/03/09 - 06/24/09	4.8 ± 1.4	2.5 ± 1.1	3.5 ± 1.2	3.3 ± 1.3
07/01/09 - 07/28/09	< 3.4	< 2.0	< 2.0	< 2.0
08/05/09 - 08/27/09	3.0 ± 1.5	2.1 ± 1.3	1.9 ± 1.2	< 1.8
09/02/09 - 10/01/09	3.0 ± 1.6	1.8 ± 1.2	3.2 ± 1.3	2.3 ± 1.3
10/07/09 - 10/29/09	3.3 ± 1.6	< 1.9	2.4 ± 1.3	2.2 ± 1.3
11/05/09 - 11/24/09	< 2.2	< 1.8	2.0 ± 1.3	< 1.8
12/02/09 - 12/29/09	< 2.0	2.4 ± 1.3	< 1.9	< 1.9
MEAN	3.2 ± 1.6	2.1 ± 0.7	2.5 ± 1.3	2.6 ± 1.3

* THE MEAN AND 2 STANDARD DEVIATION VALUES ARE CALCULATED USING THE POSITIVE VALUES
(1) SEE PROGRAM EXCEPTIONS SECTION FOR EXPLANATION
(2) SEE PROGRAM CHANGES SECTION FOR EXPLANATION

TABLE C-II.3 **CONCENTRATIONS OF GAMMA EMITTERS IN DRINKING WATER SAMPLES COLLECTED IN THE VICINITY OF OYSTER CREEK GENERATING STATION, 2009**

RESULTS IN UNITS OF PCI/LITER ± 2 SIGMA

STC	COLLECTION PERIOD	Mn-54	Co-58	Fe-59	Co-60	Zn-65	Nb-95	Zr-95	I-131	Cs-134	Cs-137	Ba-140	La-140
1	01/09/09 - 01/27/09	< 3	< 4	< 8	< 4	< 6	< 4	< 7	< 15	< 3	< 3	< 28	< 8
	02/05/09 - 02/24/09	< 3	< 4	< 8	< 4	< 8	< 4	< 7	< 12	< 3	< 4	< 28	< 8
	03/06/09 - 03/24/09	< 2	< 2	< 5	< 2	< 5	< 2	< 4	< 7	< 2	< 2	< 16	< 5
	03/31/09 - 04/28/09	< 1	< 1	< 2	< 1	< 2	< 1	< 2	< 15	< 1	< 1	< 16	< 4
	05/04/09 - 05/26/09	< 6	< 6	< 11	< 6	< 10	< 7	< 11	< 14	< 5	< 6	< 37	< 12
	06/02/09 - 06/22/09	< 4	< 4	< 8	< 4	< 8	< 4	< 6	< 14	< 4	< 4	< 31	< 7
	07/01/09 - 07/28/09	< 3	< 3	< 7	< 3	< 5	< 3	< 6	< 14	< 3	< 3	< 26	< 9
	08/05/09 - 08/25/09	< 3	< 4	< 9	< 4	< 6	< 5	< 7	< 7	< 4	< 4	< 19	< 6
	08/31/09 - 09/29/09	< 3	< 3	< 7	< 3	< 6	< 4	< 4	< 15	< 3	< 3	< 27	< 8
	10/06/09 - 10/27/09	< 2	< 2	< 5	< 2	< 4	< 2	< 4	< 7	< 2	< 2	< 15	< 5
	11/02/09 - 11/23/09	< 1	< 1	< 3	< 1	< 2	< 1	< 2	< 10	< 1	< 1	< 14	< 5
	12/01/09 - 12/29/09	< 2	< 3	< 6	< 2	< 5	< 3	< 5	< 14	< 2	< 2	< 23	< 7
	MEAN	-	-	-	-	-	-	-	-	-	-	-	-
37	01/07/09 - 01/29/09	< 5	< 5	< 12	< 4	< 11	< 6	< 10	< 14	< 5	< 5	< 31	< 13
	02/04/09 - 02/25/09	< 4	< 4	< 9	< 4	< 8	< 5	< 8	< 12	< 5	< 5	< 28	< 8
	03/05/09 - 03/25/09	< 2	< 2	< 5	< 2	< 4	< 2	< 4	< 6	< 2	< 2	< 13	< 5
	04/01/09 - 04/30/09	< 1	< 1	< 2	< 1	< 1	< 1	< 2	< 12	< 1	< 1	< 16	< 5
	05/06/09 - 05/27/09	< 4	< 5	< 9	< 4	< 9	< 5	< 7	< 12	< 4	< 4	< 33	< 9
	06/03/09 - 06/24/09	< 3	< 3	< 8	< 3	< 7	< 5	< 6	< 13	< 3	< 4	< 24	< 10
	07/01/09 - 07/28/09	< 2	< 2	< 5	< 2	< 5	< 3	< 4	< 13	< 2	< 3	< 21	< 6
	08/05/09 - 08/27/09	< 5	< 5	< 11	< 6	< 13	< 5	< 9	< 10	< 5	< 5	< 25	< 9
	09/02/09 - 10/01/09	< 3	< 3	< 6	< 3	< 5	< 3	< 6	< 13	< 2	< 3	< 25	< 7
	10/07/09 - 10/29/09	< 2	< 2	< 5	< 2	< 5	< 2	< 4	< 7	< 2	< 2	< 16	< 6
	11/05/09 - 11/24/09	< 1	< 2	< 4	< 1	< 3	< 2	< 3	< 11	< 1	< 1	< 17	< 6
	12/02/09 - 12/29/09	< 2	< 2	< 2	< 1	< 2	< 1	< 3	< 4	< 1	< 2	< 12	< 4
	MEAN	-	-	-	-	-	-	-	-	-	-	-	-

TABLE C-II.3 **CONCENTRATIONS OF GAMMA EMITTERS IN DRINKING WATER SAMPLES COLLECTED IN THE VICINITY OF OYSTER CREEK GENERATING STATION, 2009**

RESULTS IN UNITS OF PCI/LITER ± 2 SIGMA

STC	COLLECTION PERIOD	Mn-54	Co-58	Fe-59	Co-60	Zn-65	Nb-95	Zr-95	I-131	Cs-134	Cs-137	Ba-140	La-140
38	01/07/09 - 01/29/09	< 4	< 4	< 9	< 4	< 8	< 5	< 7	< 13	< 3	< 4	< 27	< 8
	02/04/09 - 02/26/09	< 5	< 5	< 13	< 5	< 10	< 5	< 10	< 14	< 5	< 6	< 33	< 9
	03/05/09 - 03/26/09	< 2	< 2	< 4	< 2	< 3	< 2	< 3	< 5	< 2	< 2	< 12	< 4
	04/02/09 - 04/30/09	< 1	< 1	< 2	< 1	< 2	< 1	< 2	< 14	< 1	< 1	< 18	< 4
	05/06/09 - 05/28/09	< 5	< 6	< 12	< 6	< 9	< 7	< 9	< 14	< 6	< 6	< 37	< 13
	06/03/09 - 06/25/09	< 3	< 3	< 7	< 3	< 6	< 4	< 6	< 13	< 3	< 3	< 24	< 8
	07/01/09 - 07/29/09	< 3	< 3	< 7	< 3	< 6	< 3	< 6	< 13	< 3	< 3	< 27	< 9
	08/05/09 - 08/27/09	< 5	< 4	< 11	< 6	< 11	< 5	< 10	< 8	< 4	< 5	< 24	< 7
	09/02/09 - 10/01/09	< 3	< 3	< 8	< 3	< 6	< 4	< 6	< 14	< 3	< 3	< 32	< 8
	10/07/09 - 10/29/09	< 2	< 2	< 4	< 2	< 3	< 2	< 3	< 6	< 2	< 2	< 14	< 4
	11/05/09 - 11/24/09	< 1	< 2	< 4	< 1	< 3	< 2	< 3	< 11	< 1	< 2	< 18	< 5
	12/02/09 - 12/29/09	< 4	< 4	< 9	< 4	< 7	< 5	< 8	< 13	< 4	< 4	< 30	< 8
	MEAN	-	-	-	-	-	-	-	-	-	-	-	-
39	01/07/09 - 01/29/09	(1)											
	02/04/09 - 02/25/09	(1)											
	03/05/09 - 03/25/09	(1)											
	04/01/09 - 04/30/09	(1)											
	05/06/09 - 05/27/09	< 5	< 4	< 10	< 5	< 9	< 6	< 9	< 14	< 5	< 5	< 36	< 12
	06/03/09 - 06/24/09	< 2	< 2	< 3	< 3	< 4	< 2	< 3	< 10	< 2	< 2	< 16	< 5
	07/01/09 - 07/28/09	< 3	< 3	< 7	< 3	< 6	< 3	< 6	< 14	< 2	< 3	< 26	< 9
	08/05/09 - 08/27/09	< 5	< 6	< 12	< 6	< 10	< 6	< 10	< 8	< 5	< 5	< 25	< 8
	09/02/09 - 10/01/09	< 3	< 3	< 8	< 3	< 6	< 3	< 6	< 14	< 3	< 3	< 27	< 8
	10/07/09 - 10/29/09	< 2	< 2	< 4	< 2	< 4	< 2	< 4	< 7	< 2	< 2	< 14	< 5
	11/05/09 - 11/24/09	< 3	< 3	< 6	< 2	< 5	< 3	< 5	< 13	< 2	< 2	< 24	< 8
	12/02/09 - 12/29/09	< 4	< 4	< 11	< 5	< 8	< 5	< 9	< 14	< 4	< 5	< 27	< 9
	MEAN	-	-	-	-	-	-	-	-	-	-	-	-

(1) SEE PROGRAM EXCEPTIONS SECTION FOR EXPLANATION

TABLE C-III.1 CONCENTRATIONS OF TRITIUM IN GROUNDWATER SAMPLES COLLECTED IN THE VICINITY OF OYSTER CREEK GENERATING STATION, 2009

RESULTS IN UNITS OF PCI/LITER ± 2 SIGMA

COLLECTION PERIOD	MW-24-3A	W-3C
03/10/09	< 193	< 193
04/29/09	< 192	< 192
05/27/09		< 179
08/27/09	< 174	< 174
12/08/09	< 159	< 171
MEAN	-	-

TABLE C-III.2 **CONCENTRATIONS OF GAMMA EMITTERS IN GROUNDWATER SAMPLES COLLECTED IN THE VICINITY OF OYSTER CREEK GENERATING STATION, 2009**

RESULTS IN UNITS OF PCI/LITER ± 2 SIGMA

STC	COLLECTION PERIOD	Be-7	K-40	Mn-54	Co-58	Fe-59	Co-60	Zn-65	Nb-95	Zr-95	I-131	Cs-134	Cs-137	Ba-140	La-140
MW-24-3A	03/10/09	< 14	< 12	< 1	< 1	< 3	< 1	< 3	< 2	< 2	< 5	< 1	< 1	< 12	< 3
	04/29/09	< 32	< 56	< 4	< 4	< 8	< 4	< 8	< 4	< 7	< 7	< 3	< 4	< 20	< 6
	08/27/09	< 49	< 51	< 4	< 5	< 13	< 5	< 10	< 5	< 10	< 10	< 5	< 6	< 25	< 9
	12/08/09	< 28	< 32	< 3	< 3	< 6	< 3	< 6	< 3	< 6	< 10	< 3	< 3	< 23	< 8
	MEAN	-	-	-	-	-	-	-	-	-	-	-	-	-	-
W-3C	03/10/09	< 16	< 30	< 2	< 2	< 4	< 2	< 3	< 2	< 3	< 6	< 2	< 2	< 13	< 4
	04/29/09	< 41	< 34	< 5	< 5	< 8	< 4	< 9	< 5	< 8	< 8	< 4	< 5	< 23	< 7
	05/27/09	< 51	< 46	< 5	< 4	< 10	< 5	< 10	< 6	< 9	< 14	< 5	< 5	< 32	< 10
	08/27/09	< 42	< 93	< 5	< 5	< 11	< 5	< 10	< 6	< 9	< 9	< 4	< 6	< 25	< 8
	12/08/09	< 25	< 22	< 3	< 3	< 6	< 2	< 5	< 3	< 5	< 9	< 2	< 3	< 19	< 6
	MEAN			-	-	-	-	-	-	-	-	-	-	-	-

TABLE C-IV.1 CONCENTRATIONS OF GAMMA EMITTERS IN PREDATOR AND BOTTOM FEEDER (FISH) SAMPLES COLLECTED IN THE VICINITY OF OYSTER CREEK GENERATING STATION, 2009

RESULTS IN UNITS OF PCI/KG WET ± 2 SIGMA

STC	COLLECTION PERIOD	K-40	Mn-54	Co-58	Fe-59	Co-60	Zn-65	Cs-134	Cs-137
33	PREDATOR								
	04/13/09	4220 ± 279	< 15	< 13	< 30	< 15	< 30	< 14	< 16
	04/14/09	4150 ± 268	< 11	< 12	< 26	< 14	< 26	< 11	< 12
	10/05/09	3810 ± 701	< 37	< 41	< 95	< 33	< 80	< 40	< 43
	MEAN	4060 ± 439	-	-	-	-	-	-	-
33	BOTTOM FEEDER								
	10/05/09	3180 ± 935	< 69	< 74	< 128	< 64	< 145	< 62	< 72
	10/05/09	3980 ± 1020	< 64	< 73	< 146	< 56	< 137	< 61	< 62
	MEAN	3580 ± 1131	-	-	-	-	-	-	-
93	PREDATOR								
	04/15/09	4500 ± 357	< 19	< 19	< 39	< 20	< 41	< 20	< 22
	06/04/09	4240 ± 763	< 44	< 67	< 133	< 55	< 108	< 43	< 53
	10/06/09	3640 ± 715	< 35	< 41	< 85	< 35	< 77	< 38	< 39
	10/06/09	3600 ± 659	< 36	< 32	< 84	< 32	< 75	< 31	< 38
	MEAN	3995 ± 892	-	-	-	-	-	-	-
93	BOTTOM FEEDER								
	10/05/09	4700 ± 745	< 40	< 47	< 105	< 38	< 90	< 42	< 44
	10/06/09	3940 ± 655	< 40	< 41	< 98	< 36	< 92	< 37	< 42
	MEAN	4320 ± 1075	-	-	-	-	-	-	-

TABLE C-IV.1 CONCENTRATIONS OF GAMMA EMITTERS IN PREDATOR AND BOTTOM FEEDER (FISH) SAMPLES COLLECTED IN THE VICINITY OF OYSTER CREEK GENERATING STATION, 2009

RESULTS IN UNITS OF PCI/KG WET ± 2 SIGMA

STC	COLLECTION PERIOD	K-40	Mn-54	Co-58	Fe-59	Co-60	Zn-65	Cs-134	Cs-137
94	PREDATOR								
	04/15/09	3650 ± 327	< 17	< 17	< 35	< 15	< 36	< 16	< 18
	04/15/09	3910 ± 367	< 18	< 18	< 40	< 18	< 38	< 18	< 21
	10/7/2009	3870 ± 579	< 32	< 27	< 74	< 36	< 63	< 31	< 34
	10/7/2009	3750 ± 512	< 27	< 30	< 66	< 31	< 62	< 27	< 29
94	MEAN	3795 ± 236	-	-	-	-	-	-	-
	BOTTOM FEEDER								
	04/15/09	4620 ± 397	< 21	< 20	< 40	< 20	< 45	< 22	< 22
	04/15/09	2990 ± 263	< 12	< 10	< 24	< 12	< 27	< 12	< 12
	10/07/09	3660 ± 707	< 43	< 43	< 89	< 40	< 93	< 38	< 40
	MEAN	3757 ± 1639	-	-	-	-	-	-	-

TABLE C-IV.2 CONCENTRATIONS OF GAMMA EMITTERS IN CLAM AND CRAB SAMPLES COLLECTED IN THE VICINITY OF OYSTER CREEK GENERATING STATION, 2009

RESULTS IN UNITS OF PCI/KG WET ± 2 SIGMA

STC	COLLECTION PERIOD	K-40	Mn-54	Co-58	Fe-59	Co-60	Zn-65	Cs-134	Cs-137
23	CLAMS								
	04/13/09	1050 ± 493	< 33	< 35	< 76	< 33	< 64	< 28	< 30
	10/05/09	1620 ± 582	< 44	< 51	< 108	< 38	< 107	< 40	< 46
	MEAN	1335 ± 806	-	-	-	-	-	-	-
24	CLAMS								
	04/13/09	1040 ± 474	< 35	< 24	< 80	< 29	< 70	< 27	< 29
	10/05/09	1550 ± 449	< 29	< 33	< 79	< 39	< 67	< 31	< 35
	MEAN	1295 ± 721	-	-	-	-	-	-	-
94	CLAMS								
	04/15/09	1190 ± 477	< 34	< 42	< 82	< 32	< 71	< 36	< 40
	10/07/09	1240 ± 699	< 44	< 62	< 134	< 46	< 94	< 49	< 54
	MEAN	1215 ± 71	-	-	-	-	-	-	-
93	CRABS								
	10/05/09	2240 ± 541	< 36	< 40	< 81	< 35	< 71	< 31	< 30
	MEAN	2240 ± 0	-	-	-	-	-	-	-

TABLE C-V.1 **CONCENTRATIONS OF GAMMA EMITTERS IN SEDIMENT SAMPLES COLLECTED IN THE VICINITY OF OYSTER CREEK GENERATING STATION, 2009**

RESULTS IN UNITS OF PCI/KG DRY ± 2 SIGMA

STC	COLLECTION PERIOD	Be-7	K-40	Mn-54	Co-58	Co-60	Cs-134	Cs-137
23	04/13/09	< 395	2310 ± 528	< 39	< 28	< 36	< 33	< 38
	10/05/09	< 592	4450 ± 958	< 52	< 55	< 44	< 52	< 60
	MEAN	-	3380 ± 3026	-	-	-	-	-
24	04/13/09	< 399	1650 ± 500	< 25	< 30	< 31	< 33	< 30
	10/05/09	< 293	617 ± 295	< 25	< 26	< 22	< 23	< 25
	MEAN	-	1134 ± 1461	-	-	-	-	-
33	04/13/09	< 488	7710 ± 973	< 53	< 57	< 51	< 55	< 71
	10/05/09	< 686	3990 ± 1120	< 64	< 76	< 80	< 64	< 86
	MEAN	-	5850 ± 5261	-	-	-	-	-
94	04/15/09	< 474	18400 ± 1320	< 56	< 56	< 49	< 43	< 53
	10/07/09	< 642	16000 ± 1920	< 87	< 74	< 87	< 71	< 66
	MEAN	-	17200 ± 3394	-	-	-	-	-

TABLE C-VI.1 CONCENTRATIONS OF GROSS BETA IN AIR PARTICULATE SAMPLES COLLECTED IN THE VICINITY OF OYSTER CREEK GENERATING STATION, 2009

RESULTS IN UNITS OF E-3 PCI/CU METER ± 2 SIGMA

COLLECTION	GROUP I			GROUP II			GROUP III	
PERIOD	20	66	111	71	72	73	3	C
12/30/08 - 01/06/09	13 ± 5	16 ± 5	15 ± 5	17 ± 5	15 ± 5	21 ± 6	16 ± 5	19 ± 5
01/06/09 - 01/14/09	21 ± 5	19 ± 5	13 ± 4	18 ± 5	18 ± 5	20 ± 5	16 ± 4	16 ± 4
01/14/09 - 01/21/09	24 ± 5	24 ± 6	25 ± 5	19 ± 5	25 ± 5	24 ± 5	23 ± 5	25 ± 5
01/21/09 - 01/27/09	22 ± 6	22 ± 6	25 ± 6	26 ± 6	20 ± 6	24 ± 6	24 ± 6	25 ± 6
01/27/09 - 02/04/09	28 ± 5	19 ± 4	23 ± 5	20 ± 5	26 ± 5	22 ± 5	24 ± 5	24 ± 5
02/04/09 - 02/11/09	15 ± 5	15 ± 5	16 ± 5	15 ± 5	17 ± 6	16 ± 5	18 ± 6	18 ± 5
02/11/09 - 02/18/09	12 ± 5	11 ± 5	7 ± 4	10 ± 5	10 ± 5	13 ± 5	13 ± 5	10 ± 4
02/18/09 - 02/25/09	17 ± 5	22 ± 5	20 ± 5	21 ± 6	23 ± 5	21 ± 5	22 ± 5	20 ± 5
02/25/09 - 03/04/09	14 ± 5	12 ± 5	12 ± 5	15 ± 5	14 ± 5	16 ± 5	16 ± 5	22 ± 6
03/04/09 - 03/11/09	20 ± 5	17 ± 5	23 ± 5	17 ± 5	21 ± 5	19 ± 5	20 ± 5	19 ± 5
03/11/09 - 03/18/09	23 ± 5	19 ± 5	26 ± 5	17 ± 5	25 ± 5	22 ± 5	11 ± 5	23 ± 5
03/18/09 - 03/25/09	14 ± 5	15 ± 5	14 ± 5	15 ± 5	16 ± 5	15 ± 5	12 ± 5	20 ± 5
03/25/09 - 04/01/09	< 6	< 7	7 ± 4	10 ± 5	< 7	9 ± 5	< 7	< 7
04/01/09 - 04/08/09	< 6	< 7	< 7	8 ± 5	< 7	< 7	< 7	< 7
04/08/09 - 04/15/09	14 ± 5	11 ± 5	12 ± 5	8 ± 5	18 ± 5	11 ± 5	16 ± 5	18 ± 5
04/15/09 - 04/22/09	15 ± 5	14 ± 5	13 ± 5	18 ± 5	13 ± 5	10 ± 5	11 ± 5	13 ± 5
04/22/09 - 04/29/09	22 ± 5	15 ± 5	22 ± 5	24 ± 5	21 ± 5	18 ± 5	19 ± 5	20 ± 5
04/29/09 - 05/06/09	11 ± 5	8 ± 5	14 ± 5	9 ± 5	13 ± 5	11 ± 5	8 ± 4	13 ± 5
05/06/09 - 05/13/09	10 ± 4	12 ± 5	13 ± 5	8 ± 4	11 ± 5	14 ± 5	8 ± 4	13 ± 5
05/13/09 - 05/20/09	13 ± 5	11 ± 5	11 ± 4	15 ± 5	11 ± 5	6 ± 4	9 ± 4	9 ± 5
05/20/09 - 05/27/09	10 ± 4	14 ± 5	15 ± 5	11 ± 4	15 ± 5	10 ± 5	9 ± 4	17 ± 5
05/27/09 - 06/03/09	11 ± 4	11 ± 5	9 ± 4	12 ± 5	7 ± 4	12 ± 5	8 ± 4	13 ± 5
06/03/09 - 06/10/09	9 ± 4	11 ± 4	11 ± 4	8 ± 4	8 ± 4	10 ± 4	8 ± 4	8 ± 4
06/10/09 - 06/17/09	(1)	13 ± 4	10 ± 4	11 ± 4	9 ± 4	12 ± 4	9 ± 4	12 ± 5
06/17/09 - 06/24/09	6 ± 4	9 ± 5	9 ± 4	9 ± 4	14 ± 5	10 ± 5	11 ± 5	10 ± 5
06/24/09 - 07/01/09	9 ± 5	10 ± 5	9 ± 5	< 8	8 ± 5	9 ± 5	< 8	< 8
07/01/09 - 07/08/09	11 ± 5	12 ± 5	8 ± 5	12 ± 5	9 ± 5	11 ± 5	11 ± 5	12 ± 5
07/08/09 - 07/15/09	10 ± 5	9 ± 5	8 ± 5	< 7	8 ± 5	10 ± 5	8 ± 5	< 7
07/15/09 - 07/22/09	22 ± 5	18 ± 5	19 ± 5	18 ± 5	19 ± 5	15 ± 5	20 ± 5	15 ± 5
07/22/09 - 07/28/09	12 ± 6	11 ± 6	13 ± 6	20 ± 6	12 ± 6	13 ± 6	(1)	11 ± 6
07/28/09 - 08/05/09	18 ± 5	13 ± 5	13 ± 5	10 ± 5	< 7	8 ± 5	12 ± 5	12 ± 5
08/05/09 - 08/12/09	14 ± 5	16 ± 6	< 7	12 ± 5	16 ± 6	13 ± 5	11 ± 5	10 ± 5
08/12/09 - 08/19/09	20 ± 5	16 ± 5	19 ± 5	21 ± 5	19 ± 6	20 ± 6	14 ± 5	15 ± 5
08/19/09 - 08/26/09	19 ± 5	17 ± 5	21 ± 5	14 ± 5	15 ± 5	10 ± 5	16 ± 5	13 ± 5
08/26/09 - 09/02/09	14 ± 4	16 ± 5	11 ± 4	12 ± 4	12 ± 4	13 ± 4	11 ± 4	11 ± 5
09/02/09 - 09/09/09	15 ± 5	17 ± 5	19 ± 5	36 ± 11	16 ± 5	16 ± 5	15 ± 5	10 ± 5
09/09/09 - 09/16/09	12 ± 5	15 ± 5	18 ± 5	16 ± 6	19 ± 5	16 ± 5	16 ± 5	17 ± 5
09/16/09 - 09/23/09	8 ± 4	12 ± 5	14 ± 5	8 ± 5	9 ± 5	12 ± 5	10 ± 5	9 ± 5
09/23/09 - 09/30/09	14 ± 5	14 ± 5	18 ± 5	15 ± 5	12 ± 5	12 ± 5	16 ± 5	13 ± 5
09/30/09 - 10/07/09	21 ± 4	13 ± 4	15 ± 4	14 ± 4	19 ± 4	18 ± 4	17 ± 4	17 ± 5
10/07/09 - 10/14/09	15 ± 5	11 ± 5	15 ± 5	12 ± 5	13 ± 5	13 ± 5	10 ± 5	14 ± 6
10/14/09 - 10/21/09	10 ± 5	14 ± 5	9 ± 5	9 ± 5	12 ± 5	9 ± 5	8 ± 5	11 ± 5
10/21/09 - 10/28/09	< 6	19 ± 5	14 ± 4	19 ± 5	15 ± 5	10 ± 4	15 ± 5	18 ± 5
10/28/09 - 11/04/09	11 ± 5	13 ± 5	14 ± 5	10 ± 4	15 ± 5	11 ± 5	< 6	13 ± 5
11/04/09 - 11/11/09	26 ± 5	23 ± 5	25 ± 5	28 ± 5	29 ± 5	25 ± 5	25 ± 5	23 ± 5
11/11/09 - 11/18/09	11 ± 4	9 ± 4	16 ± 4	13 ± 4	11 ± 4	9 ± 4	12 ± 4	9 ± 4
11/18/09 - 11/24/09	19 ± 5	17 ± 5	18 ± 5	19 ± 5	15 ± 5	13 ± 5	14 ± 5	20 ± 5
11/24/09 - 12/02/09	10 ± 4	11 ± 4	11 ± 4	10 ± 4	13 ± 5	9 ± 4	< 6	9 ± 5
12/02/09 - 12/09/09	19 ± 5	16 ± 5	13 ± 5	10 ± 5	13 ± 5	12 ± 5	13 ± 5	20 ± 6
12/09/09 - 12/16/09	21 ± 5	24 ± 5	26 ± 5	22 ± 5	24 ± 5	25 ± 6	21 ± 5	27 ± 6
12/16/09 - 12/22/09	17 ± 5	13 ± 8	16 ± 5	20 ± 5	16 ± 5	24 ± 5	12 ± 5	22 ± 6
12/22/09 - 12/29/09	17 ± 4	17 ± 4	15 ± 4	17 ± 4	24 ± 4	17 ± 4	18 ± 4	17 ± 4
MEAN	15 ± 10	15 ± 8	15 ± 10	15 ± 12	16 ± 11	14 ± 10	14 ± 10	16 ± 10

* THE MEAN AND 2 STANDARD DEVIATION VALUES ARE CALCULATED USING THE POSITIVE VALUES

(1) SEE PROGRAM EXCEPTIONS SECTION FOR EXPLANATION

TABLE C-VI.2 **MONTHLY AND YEARLY MEAN VALUES OF GROSS BETA CONCENTRATIONS IN AIR PARTICULATE SAMPLES COLLECTED IN THE VICINITY OF OYSTER CREEK GENERATING STATION, 2009**

RESULTS IN UNITS OF E-3 PCI/CU METER ± 2 SIGMA

GROUP I - ON-SITE LOCATIONS				GROUP II - INTERMEDIATE DISTANCE LOCATIONS				GROUP III - CONTROL LOCATIONS			
COLLECTION PERIOD	MIN	MAX	MEAN ± 2SD	COLLECTION PERIOD	MIN	MAX	MEAN ± 2SD	COLLECTION PERIOD	MIN	MAX	MEAN ± 2SD
12/30/08 - 01/27/09	13	25	20 ± 9	12/30/08 - 01/27/09	15	26	21 ± 7	12/30/08 - 01/27/09	16	25	21 ± 9
01/27/09 - 02/25/09	7	28	17 ± 11	01/27/09 - 02/25/09	10	26	18 ± 10	01/27/09 - 02/25/09	10	24	19 ± 10
02/25/09 - 04/01/09	< 6	26	17 ± 11	02/25/09 - 04/01/09	< 7	25	16 ± 9	02/25/09 - 04/01/09	< 7	23	18 ± 9
04/01/09 - 04/29/09	< 6	22	15 ± 8	04/01/09 - 04/29/09	< 7	24	15 ± 11	04/01/09 - 04/29/09	< 7	20	16 ± 7
04/29/09 - 06/03/09	8	15	11 ± 4	04/29/09 - 06/03/09	6	15	11 ± 5	04/29/09 - 06/03/09	8	17	11 ± 6
06/03/09 - 07/01/09	6	13	10 ± 3	06/03/09 - 07/01/09	< 8	14	10 ± 4	06/03/09 - 07/01/09	< 8	12	10 ± 4
07/01/09 - 07/28/09	8	22	13 ± 9	07/01/09 - 07/28/09	< 7	20	13 ± 8	07/01/09 - 07/28/09	< 7	20	13 ± 8
07/28/09 - 09/02/09	< 7	21	16 ± 6	07/28/09 - 09/02/09	< 7	21	14 ± 8	07/28/09 - 09/02/09	10	16	12 ± 4
09/02/09 - 09/30/09	8	19	15 ± 6	09/02/09 - 09/30/09	8	36	16 ± 14	09/02/09 - 09/30/09	9	17	13 ± 7
09/30/09 - 10/28/09	< 6	21	14 ± 7	09/30/09 - 10/28/09	9	19	13 ± 7	09/30/09 - 10/28/09	8	18	14 ± 8
10/28/09 - 12/02/09	9	26	15 ± 11	10/28/09 - 12/02/09	9	29	15 ± 14	10/28/09 - 12/02/09	< 6	25	16 ± 13
12/02/09 - 12/29/09	13	26	18 ± 8	12/02/09 - 12/29/09	10	25	19 ± 11	12/02/09 - 12/29/09	12	27	19 ± 10
12/30/08 - 12/29/09	< 6	28	15 ± 10	12/30/08 - 12/29/09	< 7	36	15 ± 11	12/30/08 - 12/29/09	< 6	27	15 ± 10

* THE MEAN AND 2 STANDARD DEVIATION VALUES ARE CALCULATED USING THE POSITIVE VALUES

TABLE C-VI.3 **CONCENTRATIONS OF STRONTIUM IN AIR PARTICULATE SAMPLES COLLECTED IN THE VICINITY OF OYSTER CREEK GENERATING STATION, 2009**

RESULTS IN UNITS OF E-3 PCI/CU METER ± 2 SIGMA

STC	COLLECTION PERIOD	SR-89	SR-90
3	12/30/08 - 04/01/09	< 6	< 2
	04/01/09 - 07/01/09	< 6	< 5
	07/01/09 - 09/30/09	< 10	< 2
	09/30/09 - 12/29/09	< 7	< 2
	MEAN	-	-
20	12/30/08 - 04/01/09	< 8	< 6
	04/01/09 - 07/01/09	< 7	< 5
	07/01/09 - 09/30/09	< 9	< 7
	09/30/09 - 12/29/09	< 6	< 3
	MEAN	-	-
66	12/30/08 - 04/01/09	< 8	< 2
	04/01/09 - 07/01/09	< 7	< 6
	07/01/09 - 09/30/09	< 9	< 3
	09/30/09 - 12/29/09	< 8	< 3
	MEAN	-	-
71	12/30/08 - 04/01/09	< 6	< 2
	04/01/09 - 07/01/09	< 7	< 5
	07/01/09 - 09/30/09	< 9	< 3
	09/30/09 - 12/29/09	< 6	< 2
	MEAN	-	-

STC	COLLECTION PERIOD	SR-89	SR-90
72	12/30/08 - 04/01/09	< 5	< 2
	04/01/09 - 07/01/09	< 8	< 7
	07/01/09 - 09/30/09	< 8	< 3
	09/30/09 - 12/29/09	< 7	< 3
	MEAN	-	-
73	12/30/08 - 04/01/09	< 6	< 2
	04/01/09 - 07/01/09	< 7	< 7
	07/01/09 - 09/30/09	< 9	< 2
	09/30/09 - 12/29/09	< 7	< 2
	MEAN	-	-
111	12/30/08 - 04/01/09	< 9	< 0
	04/01/09 - 07/01/09	< 7	< 5
	07/01/09 - 09/30/09	< 10	< 4
	09/30/09 - 12/29/09	< 8	< 3
	MEAN	-	-
C	12/30/08 - 04/01/09	< 6	< 2
	04/01/09 - 07/01/09	< 8	< 8
	07/01/09 - 09/30/09	< 8	< 3
	09/30/09 - 12/29/09	< 7	< 6
	MEAN	-	-

TABLE C-VI.4 **CONCENTRATIONS OF GAMMA EMITTERS IN AIR PARTICULATE SAMPLES COLLECTED IN THE VICINITY OF OYSTER CREEK GENERATING STATION, 2009**

RESULTS IN UNITS OF E-3 PCI/CU METER ± 2 SIGMA

STC	COLLECTION PERIOD	Be-7	Mn-54	Co-58	Co-60	Cs-134	Cs-137
3	12/30 - 04/01/09	107 ± 35	< 4	< 4	< 3	< 2	< 2
	04/01 - 07/01/09	< 101	< 3	< 7	< 6	< 6	< 4
	07/01 - 09/30/09	< 127	< 3	< 8	< 3	< 4	< 4
	09/30 - 12/29/09	54 ± 24	< 3	< 4	< 4	< 3	< 3
	MEAN	81 ± 75	-	-	-	-	-
20	12/30 - 04/01/09	67 ± 22	< 3	< 3	< 2	< 3	< 2
	04/01 - 07/01/09	85 ± 41	< 3	< 5	< 3	< 3	< 2
	07/01 - 09/30/09	< 116	< 4	< 7	< 4	< 3	< 3
	09/30 - 12/29/09	63 ± 23	< 3	< 4	< 2	< 3	< 4
	MEAN	72 ± 24	-	-	-	-	-
66	12/30 - 04/01/09	80 ± 38	< 4	< 5	< 3	< 4	< 3
	04/01 - 07/01/09	109 ± 42	< 4	< 7	< 3	< 5	< 3
	07/01 - 09/30/09	< 96	< 2	< 8	< 3	< 3	< 2
	09/30 - 12/29/09	67 ± 29	< 3	< 3	< 2	< 3	< 4
	MEAN	85 ± 43	-	-	-	-	-
71	12/30 - 04/01/09	86 ± 31	< 3	< 5	< 3	< 3	< 3
	04/01 - 07/01/09	89 ± 48	< 5	< 7	< 7	< 5	< 4
	07/01 - 09/30/09	< 88	< 5	< 11	< 5	< 4	< 3
	09/30 - 12/29/09	45 ± 23	< 4	< 4	< 5	< 3	< 3
	MEAN	74 ± 49	-	-	-	-	-
72	12/30 - 04/01/09	90 ± 36	< 3	< 4	< 2	< 3	< 2
	04/01 - 07/01/09	132 ± 61	< 4	< 8	< 5	< 6	< 4
	07/01 - 09/30/09	< 99	< 3	< 9	< 3	< 3	< 3
	09/30 - 12/29/09	64 ± 29	< 3	< 3	< 4	< 4	< 3
	MEAN	95 ± 69	-	-	-	-	-
73	12/30 - 04/01/09	86 ± 32	< 3	< 4	< 3	< 3	< 3
	04/01 - 07/01/09	70 ± 28	< 3	< 5	< 3	< 4	< 3
	07/01 - 09/30/09	< 113	< 4	< 10	< 3	< 4	< 3
	09/30 - 12/29/09	392 ± 128	< 18	< 22	< 16	< 16	< 20
	MEAN	183 ± 363	-	-	-	-	-
111	12/30 - 04/01/09	< 1100	< 5	< 57	< 3	< 3	< 3
	04/01 - 07/01/09	120 ± 44	< 4	< 5	< 4	< 5	< 4
	07/01 - 09/30/09	< 143	< 4	< 11	< 2	< 3	< 3
	09/30 - 12/29/09	36 ± 20	< 2	< 4	< 4	< 3	< 4
	MEAN	78 ± 120	-	-	-	-	-
C	12/30 - 04/01/09	95 ± 46	< 4	< 6	< 3	< 4	< 3
	04/01 - 07/01/09	73 ± 59	< 4	< 11	< 8	< 5	< 4
	07/01 - 09/30/09	< 153	< 4	< 8	< 3	< 5	< 3
	09/30 - 12/29/09	65 ± 24	< 4	< 3	< 5	< 4	< 4
	MEAN	78 ± 31	-	-	-	-	-

* THE MEAN AND 2 STANDARD DEVIATION VALUES ARE CALCULATED USING THE POSITIVE VALUES

TABLE C-VII.1 CONCENTRATIONS OF I-131 IN AIR IODINE SAMPLES COLLECTED IN THE VICINITY OF OYSTER CREEK GENERATING STATION, 2009

RESULTS IN UNITS OF E-3 PCI/CU METER ± 2 SIGMA

COLLECTION	GROUP I			GROUP II			GROUP III	
PERIOD	20	66	111	71	72	73	3	C
12/30/08 - 01/06/09	< 35	< 41	< 40	< 42	< 35	< 41	< 35	< 34
01/06/09 - 01/14/09	< 18	< 18	< 17	< 10	< 17	< 18	< 17	< 16
01/14/09 - 01/21/09	< 35	< 40	< 39	< 41	< 34	< 40	< 34	< 33
01/21/09 - 01/27/09	< 56	< 56	< 54	< 57	< 51	< 34	< 51	< 50
01/27/09 - 02/04/09	< 24	< 24	< 23	< 25	< 23	< 24	< 23	< 23
02/04/09 - 02/11/09	< 40	< 22	< 39	< 41	< 34	< 40	< 34	< 33
02/11/09 - 02/18/09	< 43	< 56	< 54	< 57	< 43	< 56	< 43	< 41
02/18/09 - 02/25/09	< 29	< 29	< 17	< 37	< 26	< 29	< 27	< 26
02/25/09 - 03/04/09	< 64	< 60	< 57	< 60	< 64	< 60	< 64	< 62
03/04/09 - 03/11/09	< 15	< 28	< 28	< 28	< 30	< 28	< 29	< 31
03/11/09 - 03/18/09	< 42	< 44	< 43	< 43	< 45	< 44	< 44	< 52
03/18/09 - 03/25/09	< 41	< 43	< 42	< 23	< 22	< 44	< 36	< 38
03/25/09 - 04/01/09	< 22	< 22	< 22	< 22	< 23	< 23	< 23	< 24
04/01/09 - 04/08/09	< 60	< 65	< 63	< 64	< 63	< 65	< 26	< 65
04/08/09 - 04/15/09	< 23	< 31	< 30	< 30	< 24	< 31	< 24	< 25
04/15/09 - 04/22/09	< 55	< 55	< 54	< 54	< 58	< 55	< 57	< 36
04/22/09 - 04/29/09	< 51	< 60	< 60	< 59	< 54	< 61	< 52	< 55
04/29/09 - 05/06/09	< 65	< 68	< 66	< 37	< 67	< 69	< 66	< 69
05/06/09 - 05/13/09	< 54	< 56	< 55	< 31	< 61	< 57	< 59	< 62
05/13/09 - 05/20/09	< 60	< 69	< 68	< 68	< 63	< 70	< 62	< 61
05/20/09 - 05/27/09	< 59	< 66	< 64	< 65	< 62	< 66	< 60	< 63
05/27/09 - 06/03/09	< 29	< 31	< 30	< 15	< 56	< 31	< 55	< 57
06/03/09 - 06/10/09	< 29	< 45	< 44	< 45	< 30	< 46	< 29	< 31
06/10/09 - 06/17/09	(2)	< 31	< 30	< 30	< 20	< 31	< 35	< 38
06/17/09 - 06/24/09	< 60	< 62	< 61	< 61	< 53	< 38	< 52	< 27
06/24/09 - 07/01/09	< 55	< 32	< 56	< 56	< 30	< 58	< 29	< 31
07/01/09 - 07/08/09	< 38	< 39	< 39	< 39	< 18	< 17	< 26	< 28
07/08/09 - 07/15/09	< 38	< 67	< 64	< 65	< 40	< 67	< 39	< 40
07/15/09 - 07/22/09	< 24	< 37	< 36	< 37	< 39	< 37	< 39	< 30
07/22/09 - 07/28/09	< 39	< 41	< 40	< 40	< 40	< 25	(2)	< 40
07/28/09 - 08/05/09	< 28	< 19	< 19	< 19	< 30	< 19	< 33	< 31
08/05/09 - 08/12/09	< 31	< 32	< 32	< 32	< 32	< 33	< 32	< 33
08/12/09 - 08/19/09	< 45	< 47	< 46	< 46	< 50	< 26	< 49	< 28
08/19/09 - 08/26/09	< 42	< 44	< 43	< 43	< 39	< 24	< 16	< 39
08/26/09 - 09/02/09	< 13	< 13	< 13	< 13	< 17	< 7	< 16	< 7
09/02/09 - 09/09/09	< 45	< 47	< 46	< 54	< 58	< 48	< 57	< 26
09/09/09 - 09/16/09	< 49	< 51	< 50	< 33	< 55	< 52	< 54	< 24
09/16/09 - 09/23/09	< 50	< 52	< 51	< 52	< 58	< 29	< 57	< 59
09/23/09 - 09/30/09	< 41	< 43	< 42	< 43	< 48	< 24	< 47	< 27
09/30/09 - 10/07/09	< 22	< 23	< 23	< 23	< 61	< 13	< 60	< 27
10/07/09 - 10/14/09	< 64	< 67	< 66	< 66	< 39	< 29	< 38	< 22
10/14/09 - 10/21/09	< 53	< 56	< 55	< 31	< 55	< 57	< 53	< 24
10/21/09 - 10/28/09	< 42	< 59	< 58	< 58	< 44	< 59	< 43	< 45
10/28/09 - 11/04/09	< 53	< 34	< 54	< 55	< 53	< 34	< 52	< 55
11/04/09 - 11/11/09	< 36	< 48	< 47	< 48	< 38	< 49	< 37	< 39
11/11/09 - 11/18/09	< 62	< 39	< 63	< 63	< 53	< 64	< 52	< 54
11/18/09 - 11/24/09	< 30	< 31	< 30	< 30	< 32	< 31	< 31	< 32
11/24/09 - 12/02/09	< 34	< 35	< 15	< 35	< 32	< 35	< 31	< 33
12/02/09 - 12/09/09	< 53	< 69	< 67	< 68	< 55	< 70	< 56	< 60
12/09/09 - 12/16/09	< 38	< 59	< 58	< 58	< 59	< 60	< 57	< 59
12/16/09 - 12/22/09	< 65	< 64	< 66	< 23	< 70	< 67	< 53	< 24
12/22/09 - 12/29/09	< 58	< 60	< 59	< 60	< 67	< 34	< 63	< 67
MEAN	-	-	-	-	-	-	-	-

(2) SEE PROGRAM EXCEPTIONS SECTION FOR EXPLANATION

TABLE C-VIII.1 **CONCENTRATIONS OF STRONTIUM AND GAMMA EMITTERS IN VEGETATION SAMPLES COLLECTED IN THE VICINITY OF OYSTER CREEK GENERATING STATION, 2009**

RESULTS IN UNITS OF PCI/KG WET ± 2 SIGMA

STC	COLLECTION PERIOD		SR-89	SR-90	Be-7	K-40	I-131	Cs-134	Cs-137	Ba-140	La-140
35	07/29/09	Cabbage	< 11	10 ± 1	175 ± 139	2840 ± 263	< 56	< 10	< 13	< 101	< 29
	07/29/09	Collards	< 16	7 ± 2	< 291	3130 ± 406	< 41	< 23	< 25	< 601	< 183
	07/29/09	Kale	< 17	8 ± 2	< 140	2690 ± 255	< 53	< 12	< 13	< 106	< 36
	08/25/09	Cabbage	< 6	3 ± 1	291 ± 156	3000 ± 540	< 52	< 24	< 31	< 141	< 40
	08/25/09	Collards	< 6	20 ± 2	356 ± 189	2310 ± 439	< 50	< 24	< 34	< 129	< 36
	08/25/09	Kale	< 7	6 ± 1	< 218	2430 ± 450	< 52	< 25	< 26	< 124	< 39
	09/30/09	Cabbage	< 14	10 ± 2	704 ± 194	3530 ± 399	< 58	< 17	< 20	< 119	< 35
	09/30/09	Collards	< 9	7 ± 2	564 ± 162	3400 ± 349	< 57	< 15	< 17	< 120	< 25
	09/30/09	Kale	< 11	5 ± 2	673 ± 176	3510 ± 415	< 59	< 21	< 18	< 158	< 38
	10/26/09	Cabbage	< 12	< 3	437 ± 241	2560 ± 449	< 26	< 21	< 21	< 93	< 28
	10/26/09	Collards	< 8	3 ± 2	930 ± 321	2360 ± 545	< 42	< 29	< 37	< 126	< 42
	MEAN		-	8 ± 10	516 ± 497	2887 ± 917	-	-	-	-	-

* THE MEAN AND 2 STANDARD DEVIATION VALUES ARE CALCULATED USING THE POSITIVE VALUES

TABLE C-VIII.1 **CONCENTRATIONS OF STRONTIUM AND GAMMA EMITTERS IN VEGETATION SAMPLES COLLECTED IN THE VICINITY OF OYSTER CREEK GENERATING STATION, 2009**

RESULTS IN UNITS OF PCI/KG WET ± 2 SIGMA

STC	COLLECTION PERIOD		SR-89	SR-90	Be-7	K-40	I-131	Cs-134	Cs-137	Ba-140	La-140
36	07/29/09	Cabbage	< 13	< 3	< 123	2570 ± 307	< 59	< 12	< 14	< 125	< 38
	07/29/09	Swiss Chard	< 5	5 ± 1	256 ± 129	6550 ± 311	< 53	< 11	< 12	< 105	< 28
	08/25/09	Cabbage	< 6	4 ± 1	< 171	2960 ± 487	< 44	< 22	< 29	< 144	< 39
	08/25/09	Collards	< 11	17 ± 1	258 ± 213	4790 ± 562	< 49	< 26	< 22	< 131	< 31
	08/25/09	Kale	< 6	19 ± 2	427 ± 159	4170 ± 491	< 51	< 25	< 27	< 131	< 36
	09/30/09	Cabbage	< 8	3 ± 2	< 135	2700 ± 274	< 49	< 14	< 17	< 115	< 33
	09/30/09	Collards	< 13	12 ± 2	194 ± 120	4460 ± 335	< 57	< 16	< 17	< 119	< 30
	09/30/09	Kale	< 12	14 ± 2	437 ± 134	6120 ± 377	< 51	< 14	< 17	< 109	< 25
	10/26/09	Cabbage	< 11	< 3	< 228	2050 ± 486	< 30	< 28	< 27	< 103	< 21
	10/26/09	Collards	< 11	6 ± 2	< 259	3390 ± 615	< 33	< 28	< 34	< 102	< 42
	10/26/09	Kale	< 15	13 ± 3	< 258	3210 ± 570	< 35	< 30	< 34	< 119	< 24
	MEAN		-	10 ± 12	314 ± 221	3906 ± 2924	-	-	-	-	-

* THE MEAN AND 2 STANDARD DEVIATION VALUES ARE CALCULATED USING THE POSITIVE VALUES

TABLE C-VIII.1 **CONCENTRATIONS OF STRONTIUM AND GAMMA EMITTERS IN VEGETATION SAMPLES COLLECTED IN THE VICINITY OF OYSTER CREEK GENERATING STATION, 2009**

RESULTS IN UNITS OF PCI/KG WET ± 2 SIGMA

STC	COLLECTION PERIOD		SR-89	SR-90	Be-7	K-40	I-131	Cs-134	Cs-137	Ba-140	La-140
66	07/29/09	Cabbage	< 4	5 ± 1	< 132	3880 ± 416	< 56	< 10	< 13	< 106	< 25
	07/29/09	Kale	< 4	6 ± 2	136 ± 66	3320 ± 173	< 38	< 7	< 7	< 69	< 21
	08/25/09	Cabbage	< 6	16 ± 3	< 252	2850 ± 406	< 41	< 19	< 23	< 110	< 32
	08/25/09	Kale	< 6	3 ± 1	459 ± 199	3070 ± 446	< 49	< 24	< 24	< 126	< 34
	09/30/09	Cabbage	< 14	4 ± 2	205 ± 148	2700 ± 286	< 46	< 15	< 16	< 106	< 29
	09/30/09	Kale	< 14	4 ± 1	439 ± 208	3670 ± 367	< 60	< 18	< 19	< 137	< 43
	10/26/09	Cabbage	< 11	< 3	< 371	2240 ± 502	< 45	< 35	< 28	< 145	< 46
	MEAN		-	6 ± 9	310 ± 327	3104 ± 1139	-	-	-	-	-

* THE MEAN AND 2 STANDARD DEVIATION VALUES ARE CALCULATED USING THE POSITIVE VALUES

TABLE C-IX.1 QUARTERLY TLD RESULTS FOR OYSTER CREEK GENERATING STATION, 2009

RESULTS IN UNITS OF MILLI-ROENTGEN/STD. QUARTER ± STANDARD DEVIATIONS

STATION CODE	MEAN ± 2 S.D.	FIRST	SECOND	THIRD	FOURTH
1	15.5 ± 2.6	16.8 ± 4.5	13.8 ± 2.1	16.2 ± 1.8	15.3 ± 2.4
3	14.5 ± 2.5	15.6 ± 1.2	12.9 ± 2.4	15.3 ± 0.6	14.1 ± 4.2
4	13.3 ± 2.9	12.6 ± 2.1	12.0 ± 1.5	15.3 ± 1.5	13.2 ± 1.8
5	18.5 ± 3.0	18.0 ± 1.2	17.4 ± 0.9	20.7 ± 0.9	18.0 ± 2.4
6	14.2 ± 2.7	15.6 ± 1.8	12.9 ± 1.8	15.0 ± 1.8	13.2 ± 1.8
8	14.2 ± 2.9	15.0 ± 3.9	12.3 ± 2.1	15.6 ± 2.1	13.8 ± 1.8
9	13.4 ± 4.9	12.3 ± 1.2	11.1 ± 1.5	16.8 ± 2.1	13.5 ± 3.0
C	14.3 ± 3.1	14.4 ± 1.5	13.2 ± 2.7	16.2 ± 1.2	13.2 ± 2.7
11	14.8 ± 3.4	15.0 ± 2.7	13.2 ± 1.2	17.1 ± 1.5	13.8 ± 0.9
14	15.8 ± 3.3	14.7 ± 1.8	14.1 ± 2.7	16.5 ± 1.8	17.7 ± 2.1
22	14.4 ± 3.7	15.3 ± 1.8	12.3 ± 1.5	16.5 ± 1.5	13.5 ± 0.9
46	12.6 ± 2.0	12.3 ± 0.9	11.4 ± 1.5	13.8 ± 0.9	12.9 ± 1.5
47	15.0 ± 3.4	15.9 ± 5.7	12.9 ± 1.5	16.8 ± 1.8	14.4 ± 2.7
48	14.3 ± 3.3	13.8 ± 1.8	13.2 ± 0.9	16.8 ± 4.8	13.5 ± 1.2
51	16.5 ± 2.1	17.1 ± 2.7	15.6 ± 1.5	17.7 ± 1.2	15.6 ± 1.5
52	18.3 ± 4.9	17.4 ± 3.3	17.4 ± 2.1	21.9 ± 2.4	16.5 ± 3.0
53	16.7 ± 2.0	17.1 ± 2.7	16.8 ± 0.9	17.7 ± 1.5	15.3 ± 1.8
54	14.0 ± 3.7	14.7 ± 2.1	12.3 ± 0.9	16.2 ± 0.9	12.6 ± 1.2
55	20.3 ± 4.1	20.4 ± 3.6	18.6 ± 1.5	23.1 ± 3.3	18.9 ± 0.9
56	18.5 ± 1.7	18.6 ± 0.6	18.6 ± 1.5	19.5 ± 2.4	17.4 ± 4.8
57	15.8 ± 3.6	15.3 ± 0.9	15.3 ± 0.9	18.3 ± 2.1	14.1 ± 0.9
58	15.5 ± 3.3	15.6 ± 0.9	15.0 ± 1.2	17.7 ± 3.3	13.8 ± 0.6
59	15.5 ± 2.5	14.7 ± 1.2	15.0 ± 2.1	17.4 ± 2.7	15.0 ± 1.5
61	14.9 ± 4.3	15.3 ± 1.5	13.2 ± 2.4	17.7 ± 3.0	13.2 ± 1.2
62	14.6 ± 3.0	13.8 ± 1.5	13.5 ± 1.2	16.8 ± 2.7	14.4 ± 2.1
63	14.9 ± 2.7	15.0 ± 1.5	15.0 ± 2.4	16.5 ± 3.6	13.2 ± 1.8
64	15.8 ± 6.6	15.6 ± 1.5	12.9 ± 1.8	20.4 ± 5.7	14.1 ± 1.2
65	14.9 ± 3.5	16.2 ± 1.2	13.2 ± 1.2	16.5 ± 1.8	13.5 ± 1.2
66	13.4 ± 2.5	14.4 ± 2.4	12.0 ± 1.8	14.4 ± 2.1	12.6 ± 1.5
68	13.2 ± 4.7	14.4 ± 0.9	10.8 ± 0.9	15.9 ± 2.4	11.7 ± 2.1
71	14.2 ± 3.0	15.3 ± 0.9	12.6 ± 0.6	15.6 ± 1.2	13.2 ± 1.5
72	14.2 ± 2.9	14.7 ± 1.5	12.6 ± 1.5	15.9 ± 1.8	13.5 ± 2.1
73	13.2 ± 3.7	13.2 ± 1.2	11.1 ± 1.8	15.6 ± 3.3	12.9 ± 1.8
74	14.3 ± 3.5	14.7 ± 2.1	12.3 ± 0.6	16.5 ± 1.5	13.8 ± 2.7
75	15.8 ± 3.4	15.6 ± 2.1	16.8 ± 9.6	17.4 ± 2.4	13.5 ± 1.2
78	14.7 ± 4.0	14.7 ± 0.9	12.6 ± 0.9	17.4 ± 2.1	14.1 ± 2.1
79	14.6 ± 3.5	14.7 ± 2.1	12.6 ± 1.2	16.8 ± 2.7	14.1 ± 1.8
81	14.8 ± 3.7	16.2 ± 1.2	12.9 ± 1.8	16.5 ± 2.4	13.5 ± 1.8
82	14.3 ± 3.2	14.4 ± 3.6	12.3 ± 1.8	16.2 ± 2.1	14.1 ± 1.2
84	15.0 ± 3.1	16.2 ± 3.6	13.8 ± 1.2	16.5 ± 2.1	13.5 ± 2.1
85	13.1 ± 3.5	12.6 ± 2.4	11.4 ± 1.8	15.6 ± 2.1	12.9 ± 2.4
86	14.8 ± 2.4	15.3 ± 0.6	14.1 ± 1.5	16.2 ± 0.9	13.5 ± 2.1
88	12.9 ± 1.6	13.8 ± 2.1	12.3 ± 1.2	(1)	12.6 ± 2.1
89	13.7 ± 1.8	14.1 ± 1.8	13.5 ± 1.5	14.7 ± 0.6	12.6 ± 1.8
90	13.4 ± 4.1	14.1 ± 1.8	11.7 ± 1.2	15.9 ± 3.0	11.7 ± 0.6
92	15.2 ± 2.7	15.3 ± 4.5	14.4 ± 3.9	17.1 ± 0.9	14.1 ± 1.5
98	13.9 ± 3.3	14.4 ± 0.6	13.8 ± 1.8	15.6 ± 1.5	11.7 ± 0.9
99	11.3 ± 0.4	11.1 ± 1.2	11.4 ± 0.9	(1)	(1)
100	13.5 ± 4.0	12.6 ± 1.2	12.3 ± 1.5	16.5 ± 0.9	12.6 ± 1.2

(1) SEE PROGRAM EXCEPTIONS SECTION FOR EXPLANATION

TABLE C-IX.1 QUARTERLY TLD RESULTS FOR OYSTER CREEK GENERATING STATION, 2009

RESULTS IN UNITS OF MILLI-ROENTGEN/STD. QUARTER ± STANDARD DEVIATIONS

STATION CODE	MEAN ± 2 S.D.	FIRST	SECOND	THIRD	FOURTH
101	14.5 ± 4.3	14.4 ± 2.1	12.3 ± 0.3	17.4 ± 3.0	13.8 ± 1.8
102	15.4 ± 3.1	16.2 ± 6.6	13.8 ± 0.9	17.1 ± 3.3	14.4 ± 1.8
103	14.9 ± 2.4	14.1 ± 3.0	13.8 ± 0.6	16.5 ± 1.8	15.0 ± 4.2
104	14.4 ± 3.7	13.8 ± 2.4	12.9 ± 1.8	17.1 ± 1.5	13.8 ± 1.5
105	13.3 ± 3.1	12.9 ± 3.9	12.0 ± 0.9	15.0 ± 3.3	(1)
106	12.6 ± 0.8	12.9 ± 2.1	12.3 ± 1.8	(1)	(1)
107	12.5 ± 0.4	12.6 ± 1.5	12.3 ± 1.2	(1)	(1)
109	15.7 ± 4.8	15.0 ± 1.5	14.4 ± 2.1	19.2 ± 1.5	14.1 ± 1.2
110	13.7 ± 3.5	12.9 ± 1.2	11.7 ± 0.9	15.6 ± 1.5	14.7 ± 0.9
112	17.4 ± 4.2	16.5 ± 3.6	17.1 ± 2.7	20.4 ± 5.7	15.6 ± 0.6
113	14.9 ± 3.0	13.2 ± 1.5	14.4 ± 3.0	16.8 ± 0.6	15.3 ± 3.3
T1	16.2 ± 4.7	16.2 ± 3.6	14.4 ± 1.5	19.5 ± 0.6	14.7 ± 1.8

(1) SEE PROGRAM EXCEPTIONS SECTION FOR EXPLANATION

TABLE C-IX.2 MEAN QUARTERLY TLD RESULTS FOR THE SITE BOUNDARY, INTERMEDIATE, SPECIAL INTEREST AND CONTROL LOCATIONS FOR OYSTER CREEK GENERATING STATION, 2009

RESULTS IN UNITS OF MILLI-ROENTGEN PER STD. QUARTER ± 2 STANDARD DEVIATIONS OF THE STATION DATA

COLLECTION PERIOD	SITE BOUNDARY ± 2 S.D.	INTERMEDIATE	SPECIAL INTEREST	CONTROL
JAN-MAR	16.0 ± 3.4	14.2 ± 3.0	14.9 ± 1.6	14.6 ± 0.4
APR-JUN	15.0 ± 4.0	12.8 ± 3.0	12.9 ± 1.5	13.7 ± 1.3
JUL-SEP	18.1 ± 4.3	16.5 ± 2.6	16.0 ± 1.7	16.4 ± 0.4
OCT-DEC	14.8 ± 3.2	13.7 ± 2.3	13.2 ± 1.6	15.5 ± 6.4

TABLE C-IX.3 SUMMARY OF THE AMBIENT DOSIMETRY PROGRAM FOR OYSTER CREEK GENERATING STATION, 2009

RESULTS IN UNITS OF MILLI-ROENTGEN/STD. QUARTER

LOCATION	SAMPLES ANALYZED	PERIOD MINIMUM	PERIOD MAXIMUM	PERIOD MEAN ± 2 S.D.
SITE BOUNDARY	76	12.0	23.1	16.0 ± 4.6
INTERMEDIATE	117	10.8	20.7	14.3 ± 3.8
SPECIAL INTEREST	35	11.7	17.1	14.2 ± 3.0
CONTROL	8	13.2	17.7	15.0 ± 3.3

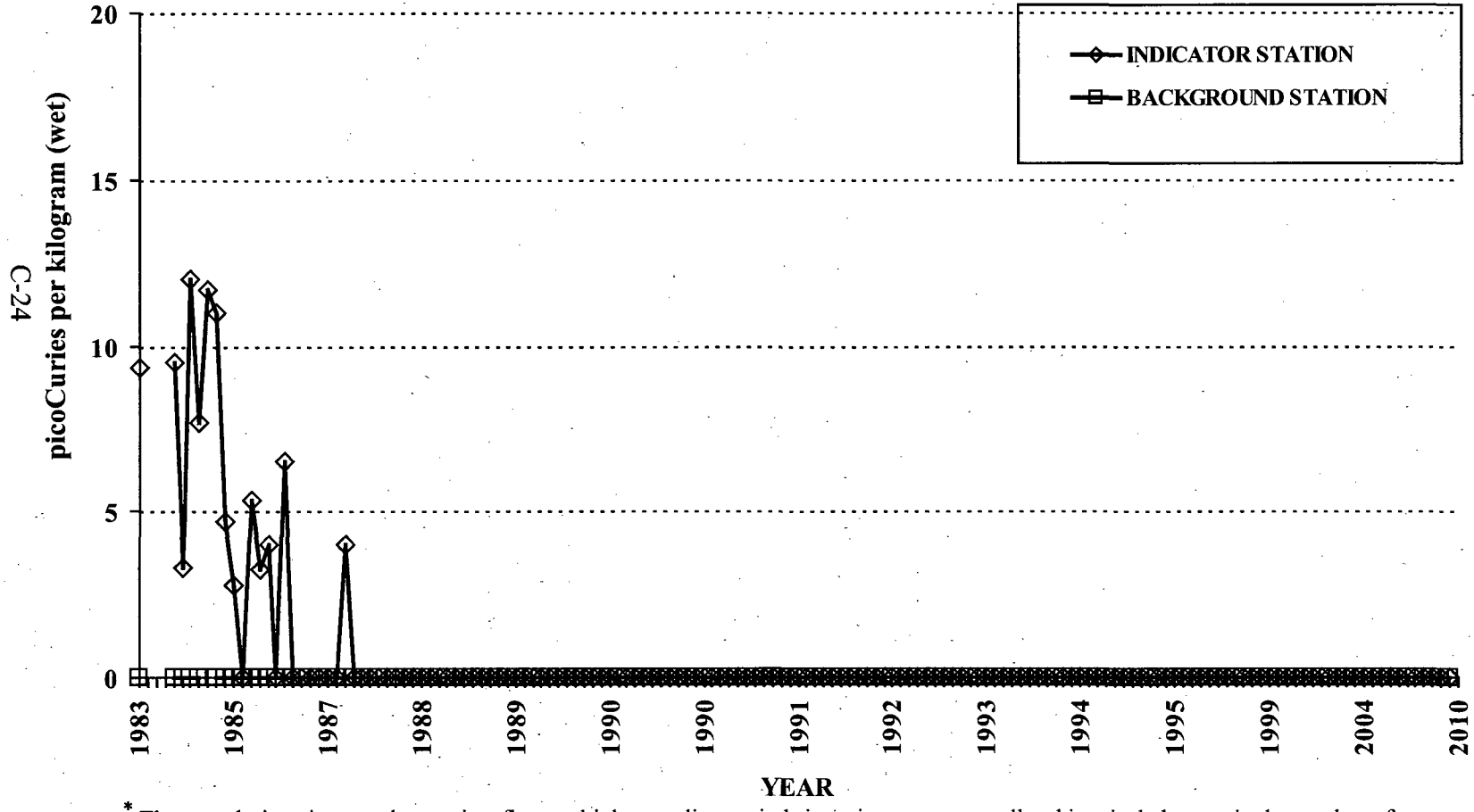
SITE BOUNDARY STATIONS - 1, 112, 113, 51, 52, 53, 54, 55, 56, 57, 58, 59, 61, 62, 63, 64, 65, 66, T1

INTERMEDIATE STATIONS - 100, 101, 102, 103, 104, 105, 106, 107, 109, 110, 22, 4, 46, 47, 48, 5, 6, 68, 73, 74, 75, 78, 79, 8, 82, 84, 85, 86, 9, 98, 99

SPECIAL INTEREST STATIONS - 11, 3, 71, 72, 81, 88, 89, 90, 92

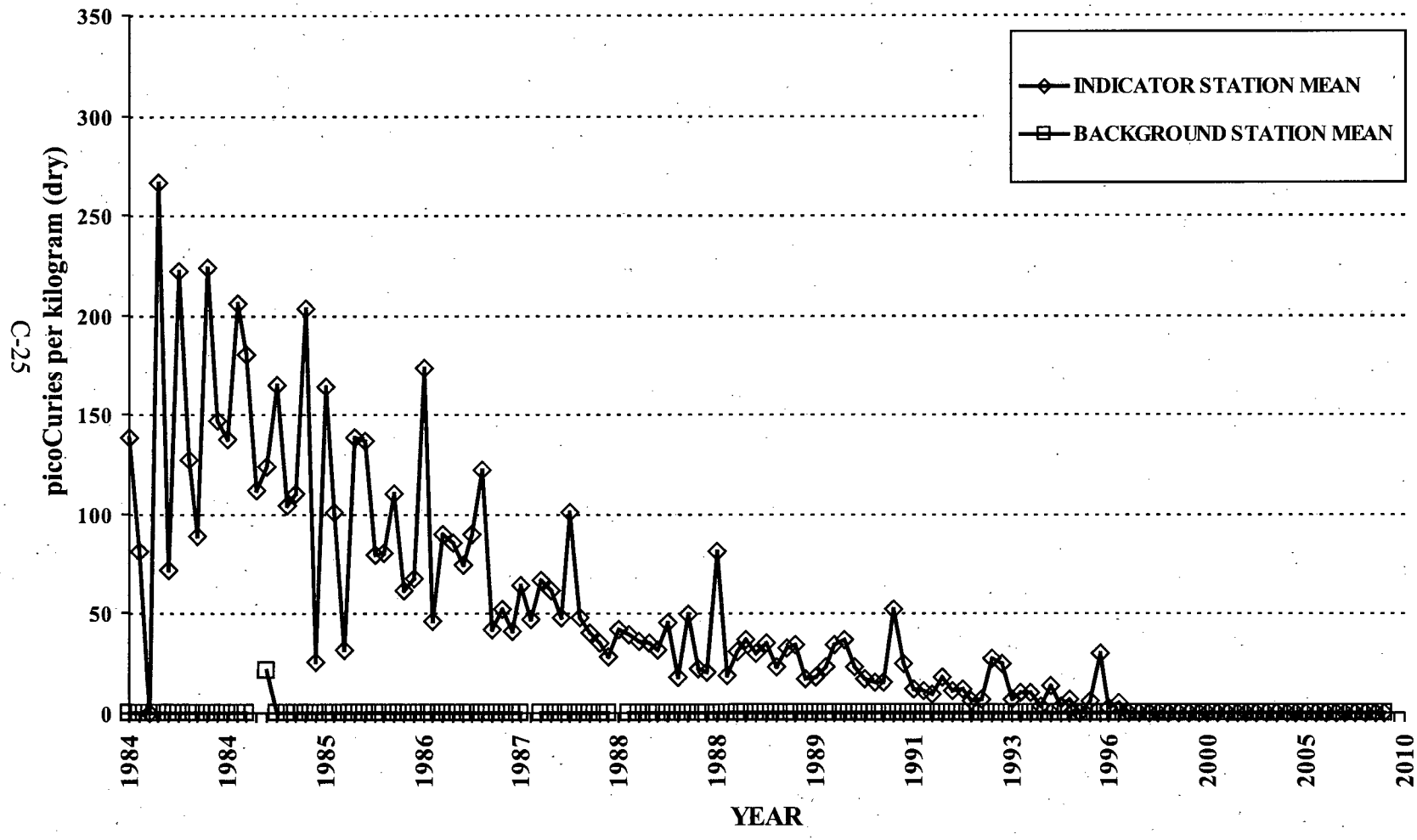
CONTROL STATIONS - 14, C,

FIGURE C-1
MEAN COBALT-60 CONCENTRATION IN CLAMS
OYSTER CREEK GENERATING STATION, 1983 - 2009



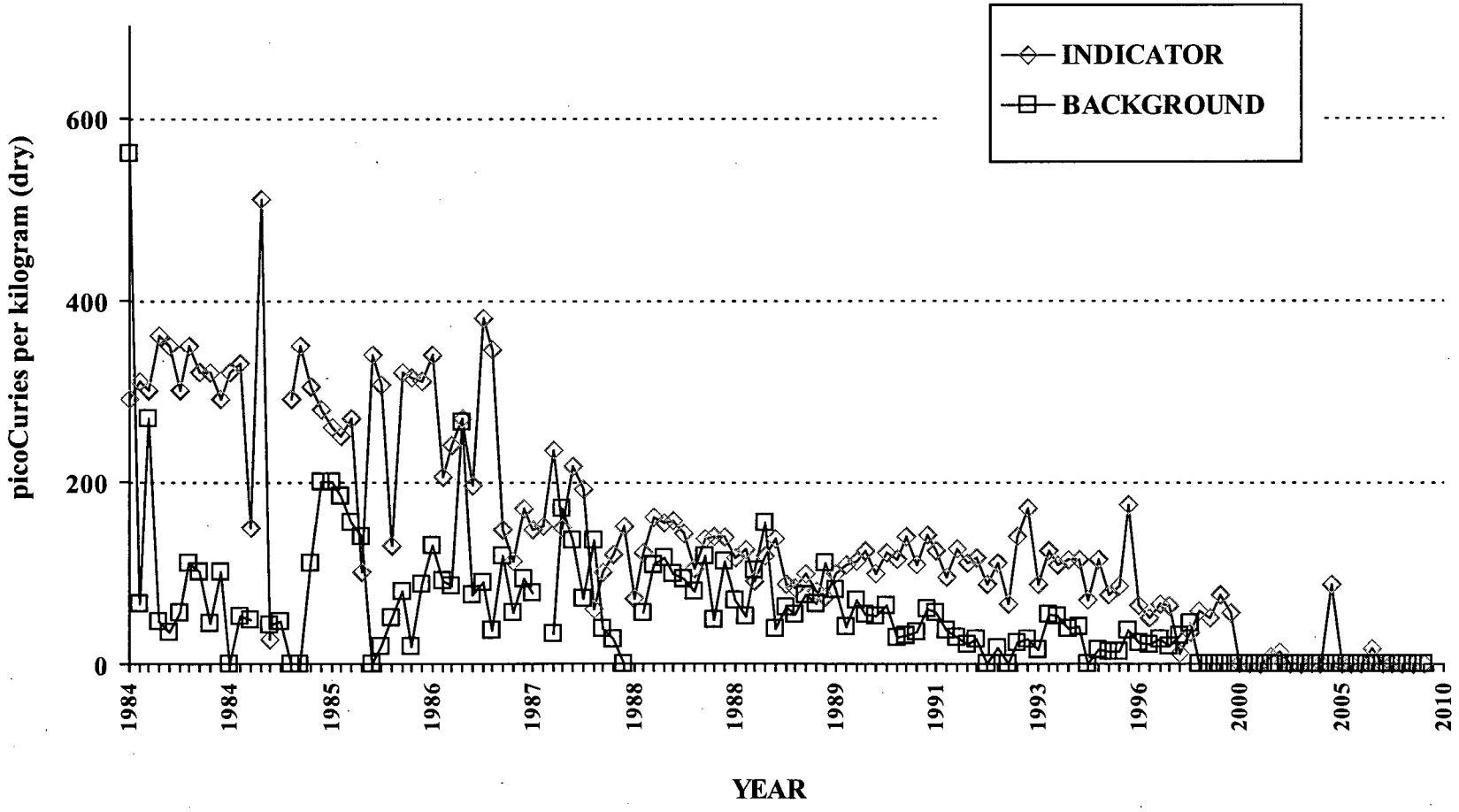
* The year designations on the x-axis reflect multiple sampling periods in a given year, as well as historical changes in the number of sampling periods per year.

FIGURE C-2
MEAN COBALT-60 CONCENTRATION IN AQUATIC SEDIMENT
OYSTER CREEK GENERATING STATION, 1984 - 2009



* The year designations on the x-axis reflect multiple sampling periods in a given year, as well as historical changes in the number of sampling periods per year.

FIGURE C-3
MEAN CESIUM-137 CONCENTRATION IN AQUATIC SEDIMENT
OYSTER CREEK GENERATING STATION, 1984 - 2009



* The year designations on the x-axis reflect multiple sampling periods in a given year, as well as historical changes in the number of sampling periods per year.

FIGURE C-4
MEAN WEEKLY GROSS BETA CONCENTRATIONS IN AIR PARTICULATES OYSTER CREEK GENERATING STATION, 2009

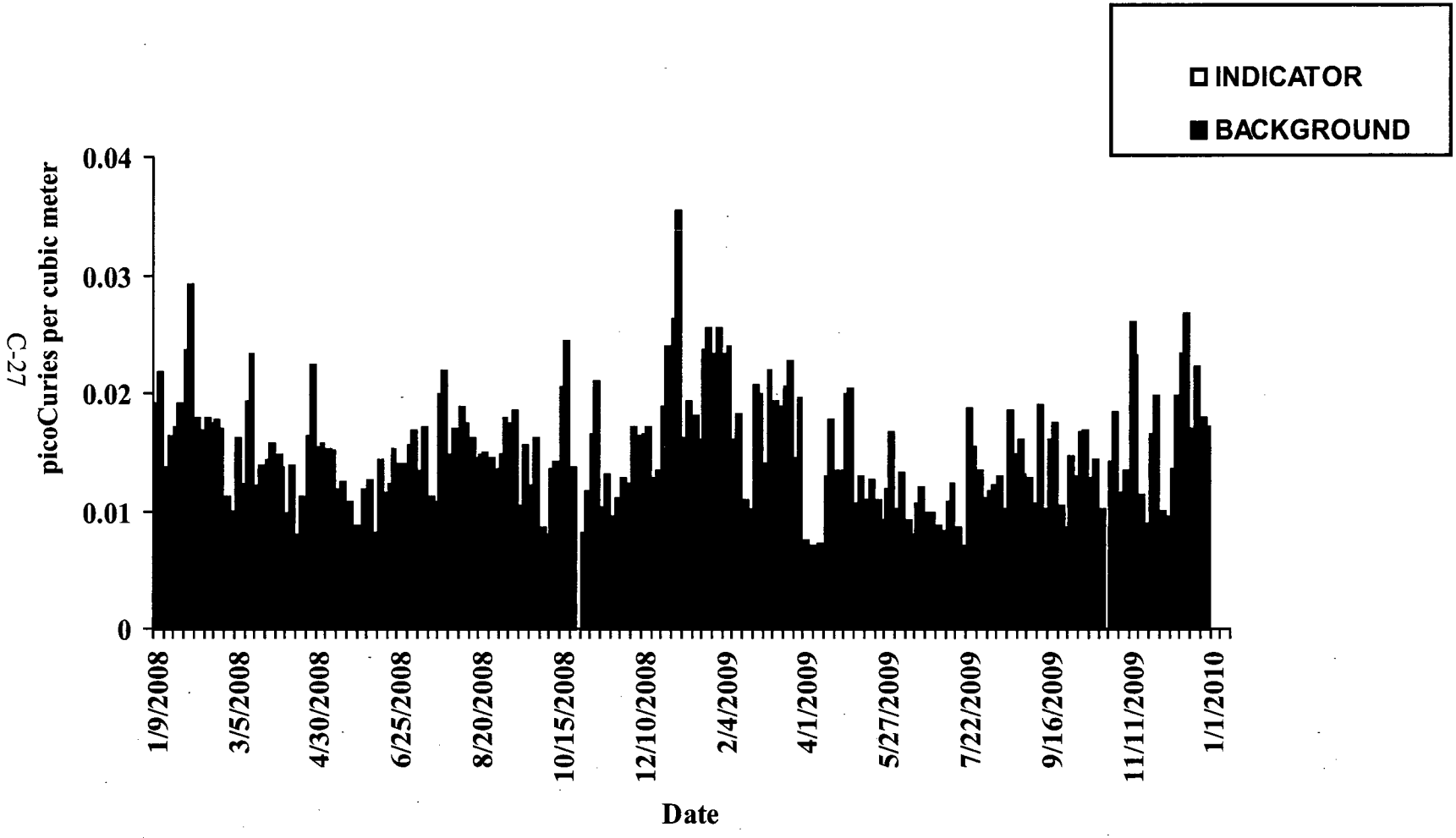
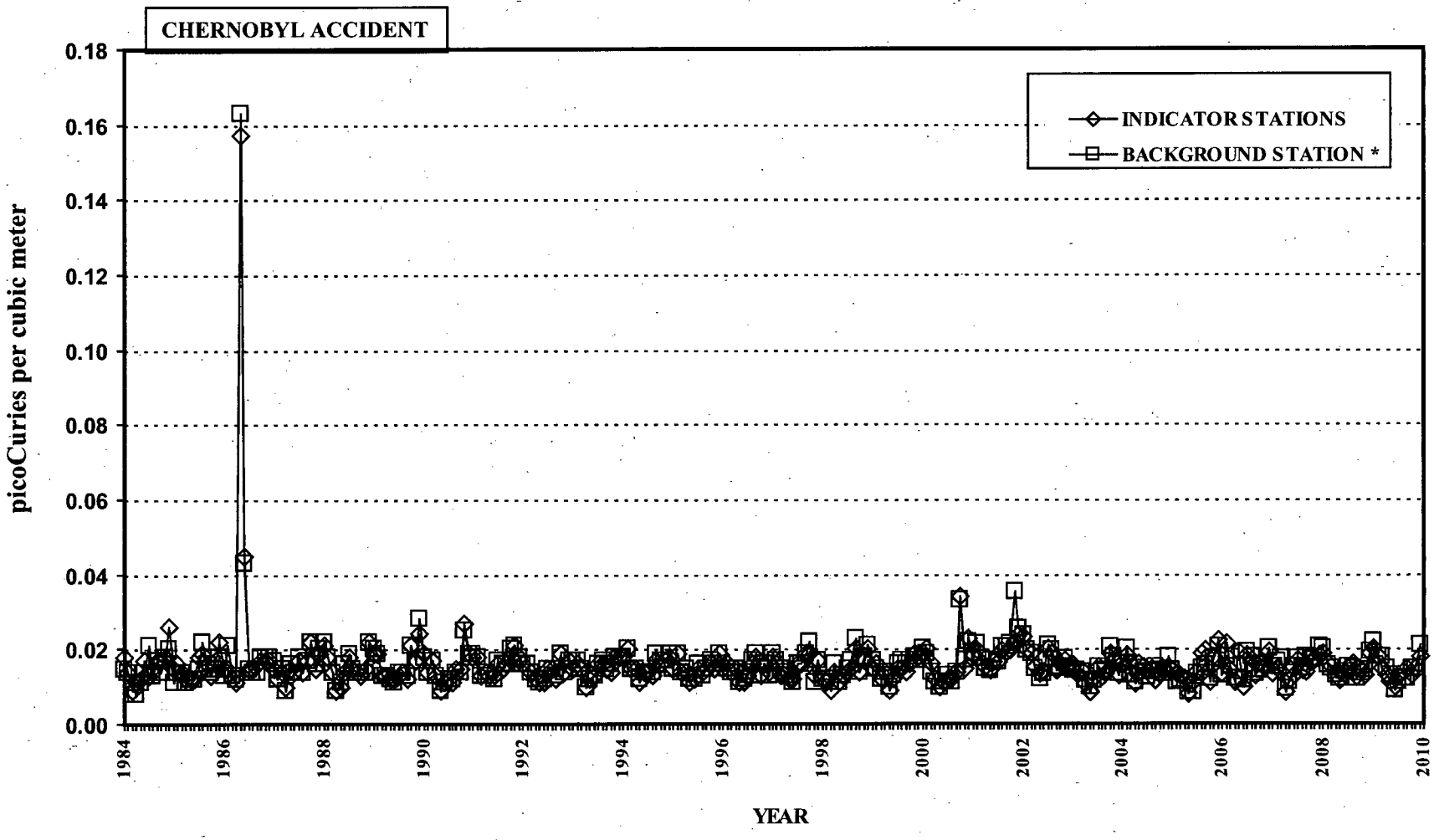


FIGURE C-5
MEAN MONTHLY GROSS BETA CONCENTRATIONS IN AIR PARTICULATES OYSTER CREEK GENERATING STATION, 1984 - 2009



* Data from Cookstown station ONLY after December 1996

FIGURE C-6
MEAN QUARTERLY TLD GAMMA DOSE
OYSTER CREEK GENERATING STATION, 2009

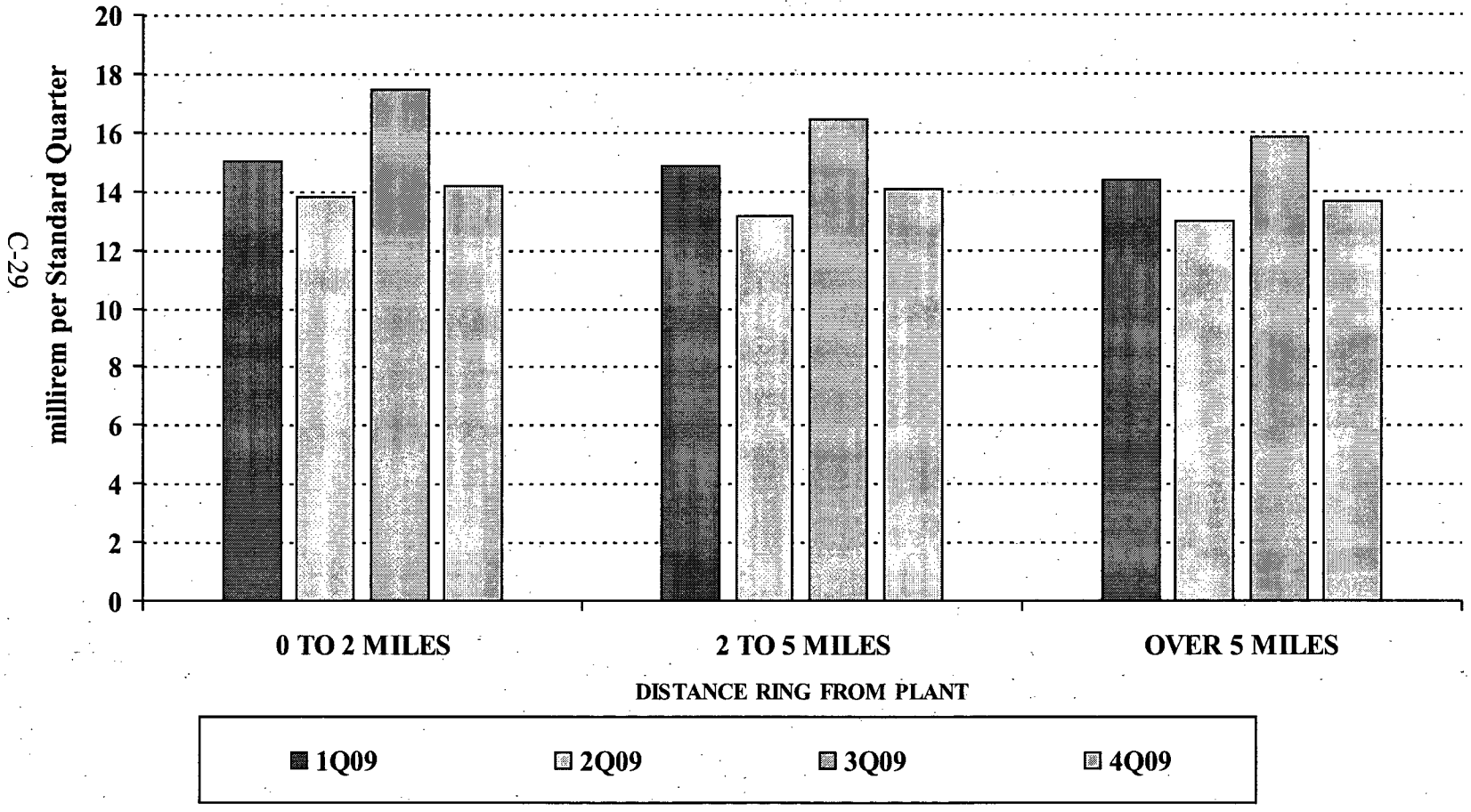
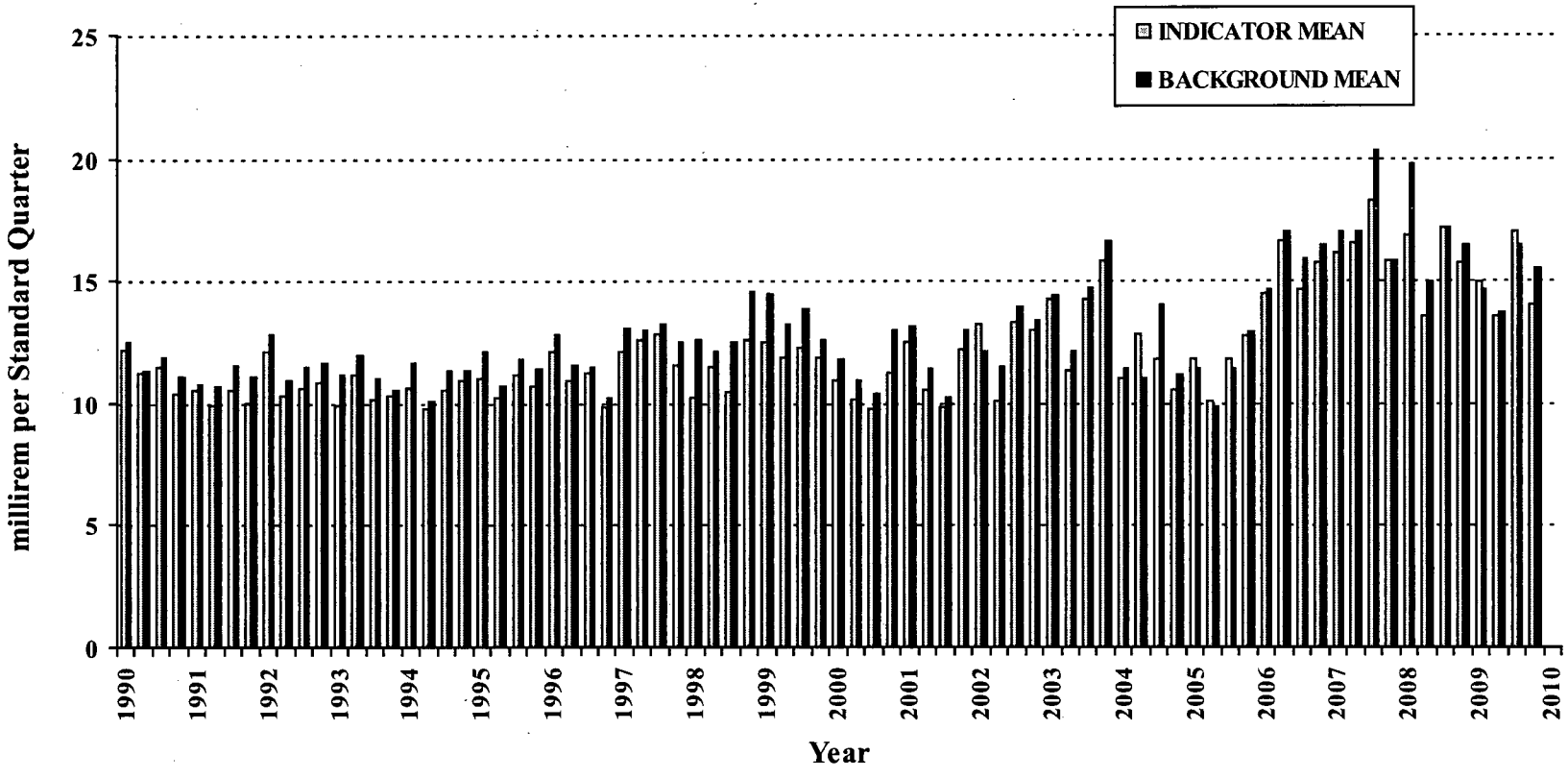


FIGURE C-7
MEAN QUARTERLY TLD GAMMA DOSE
OYSTER CREEK GENERATING STATION, 1990 – 2009*



* Harshaw Model 110 TLDs were used during the first quarter of 2001. Panasonic Model 814 TLDs were used in the second, third, and fourth quarters of 2001.

APPENDIX D

DATA TABLES
QC LABORATORY

The following section presents the results of data analyses performed by the QC laboratory, Environmental, Inc. Duplicate samples were obtained from several locations and media and split between the primary laboratory, Teledyne Brown Engineering (TBE) and the QC laboratory. Comparison of the results for most media were within expected ranges.

TABLE D-I.1 CONCENTRATIONS OF TRITIUM IN SURFACE WATER SAMPLES COLLECTED IN THE VICINITY OF OYSTER CREEK GENERATING STATION, 2009

RESULTS IN UNITS OF PCI/LITER ± 2 SIGMA

COLLECTION PERIOD	24	QCA	QCB
04/13/09	< 136	< 137	< 157
10/05/09	< 159	< 140	< 151
MEAN	-	-	-

TABLE D-I.2 CONCENTRATIONS OF GAMMA EMITTERS IN SURFACE WATER SAMPLES COLLECTED IN THE VICINITY OF OYSTER CREEK GENERATING STATION, 2009

RESULTS IN UNITS OF PCI/LITER ± 2 SIGMA

STC	COLLECTION PERIOD	Mn-54	Co-58	Fe-59	Co-60	Zn-65	Nb-95	Zr-95	Cs-134	Cs-137	Ba-140	La-140
24	04/13/09	< 2	< 2	< 5	< 2	< 5	< 2	< 4	< 2	< 2	< 21	< 8
	10/05/09	< 4	< 4	< 9	< 4	< 9	< 4	< 8	< 4	< 5	< 22	< 7
QCA	04/13/09	< 1	< 2	< 4	< 2	< 4	< 2	< 3	< 1	< 2	< 19	< 5
	10/05/09	< 4	< 4	< 9	< 5	< 8	< 4	< 7	< 4	< 4	< 22	< 5
QCB	04/13/09	< 2	< 2	< 7	< 3	< 5	< 2	< 4	< 3	< 3	< 16	< 4
	10/05/09	< 2	< 2	< 6	< 3	< 5	< 3	< 4	< 4	< 3	< 9	< 4

TABLE D-II.1 CONCENTRATIONS OF TRITIUM IN DRINKING WATER SAMPLES COLLECTED IN THE VICINITY OF OYSTER CREEK GENERATING STATION, 2009

RESULTS IN UNITS OF PCI/LITER ± 2 SIGMA

COLLECTION PERIOD	1	QCA	QCB
01/09/09 - 01/27/09	< 179	< 178	< 159
02/05/09 - 02/24/09	< 194	< 196	< 148
03/06/09 - 03/24/09	< 195	< 195	< 158
03/31/09 - 04/28/09	< 157	< 159	< 167
05/04/09 - 05/26/09	< 111	< 113	< 158
06/02/09 - 06/22/09	< 179	< 182	< 154
07/01/09 - 07/28/09	< 158	< 163	< 149
08/05/09 - 08/25/09	< 188	< 193	< 147
08/31/09 - 09/29/09	< 161	< 139	< 154
10/06/09 - 10/27/09	< 165	< 164	< 157
11/02/09 - 11/23/09	< 183	< 183	< 155
12/01/09 - 12/29/09	< 164	< 165	< 155

TABLE D-II.2 **CONCENTRATIONS OF GAMMA EMITTERS IN DRINKING WATER SAMPLES COLLECTED IN THE VICINITY OF OYSTER CREEK GENERATING STATION, 2009**

RESULTS IN UNITS OF PCI/LITER ± 2 SIGMA

STC	COLLECTION PERIOD	Mn-54	Co-58	Fe-59	Co-60	Zn-65	Nb-95	Zr-95	Cs-134	Cs-137	Ba-140	La-140
1	01/09/09 - 01/27/09	< 3	< 4	< 8	< 4	< 6	< 4	< 7	< 3	< 3	< 28	< 8
	02/05/09 - 02/24/09	< 3	< 4	< 8	< 4	< 8	< 4	< 7	< 3	< 4	< 28	< 8
	03/06/09 - 03/24/09	< 2	< 2	< 5	< 2	< 5	< 2	< 4	< 2	< 2	< 16	< 5
	03/31/09 - 04/28/09	< 1	< 1	< 2	< 1	< 2	< 1	< 2	< 1	< 1	< 16	< 4
	05/04/09 - 05/26/09	< 6	< 6	< 11	< 6	< 10	< 7	< 11	< 5	< 6	< 37	< 12
	06/02/09 - 06/22/09	< 4	< 4	< 8	< 4	< 8	< 4	< 6	< 4	< 4	< 31	< 7
	07/01/09 - 07/28/09	< 3	< 3	< 7	< 3	< 5	< 3	< 6	< 3	< 3	< 26	< 9
	08/05/09 - 08/25/09	< 3	< 4	< 9	< 4	< 6	< 5	< 7	< 4	< 4	< 19	< 6
	08/31/09 - 09/29/09	< 3	< 3	< 7	< 3	< 6	< 4	< 4	< 3	< 3	< 27	< 8
	10/06/09 - 10/27/09	< 2	< 2	< 5	< 2	< 4	< 2	< 4	< 2	< 2	< 15	< 5
	11/02/09 - 11/23/09	< 1	< 1	< 3	< 1	< 2	< 1	< 2	< 1	< 1	< 14	< 5
	12/01/09 - 12/29/09	< 2	< 3	< 6	< 2	< 5	< 3	< 5	< 2	< 2	< 23	< 7
QCA	01/09/09 - 01/27/09	< 3	< 3	< 7	< 3	< 6	< 4	< 6	< 3	< 3	< 26	< 8
	02/05/09 - 02/24/09	< 3	< 4	< 10	< 5	< 8	< 5	< 7	< 4	< 4	< 30	< 10
	03/06/09 - 03/24/09	< 2	< 2	< 5	< 2	< 4	< 2	< 4	< 2	< 2	< 16	< 5
	03/31/09 - 04/28/09	< 1	< 1	< 2	< 1	< 1	< 1	< 2	< 1	< 1	< 16	< 5
	05/04/09 - 05/26/09	< 4	< 4	< 9	< 4	< 7	< 4	< 7	< 4	< 4	< 30	< 8
	06/02/09 - 06/22/09	< 2	< 3	< 6	< 2	< 5	< 3	< 4	< 2	< 2	< 25	< 9
	07/01/09 - 07/28/09	< 2	< 3	< 7	< 3	< 6	< 3	< 5	< 2	< 3	< 25	< 1
	08/05/09 - 08/25/09	< 4	< 4	< 8	< 4	< 10	< 5	< 7	< 4	< 5	< 21	< 8
	08/31/09 - 09/29/09	< 3	< 3	< 7	< 3	< 6	< 3	< 6	< 2	< 3	< 26	< 9
	10/06/09 - 10/27/09	< 2	< 2	< 4	< 2	< 3	< 2	< 3	< 2	< 2	< 14	< 4
	11/02/09 - 11/23/09	< 1	< 2	< 4	< 1	< 3	< 2	< 3	< 1	< 2	< 18	< 6
	12/01/09 - 12/29/09	< 2	< 3	< 6	< 3	< 5	< 3	< 4	< 2	< 3	< 26	< 8

TABLE D-II.2 **CONCENTRATIONS OF GAMMA EMITTERS IN DRINKING WATER SAMPLES COLLECTED IN THE VICINITY OF OYSTER CREEK GENERATING STATION, 2009**

RESULTS IN UNITS OF PCI/LITER ± 2 SIGMA

STC	COLLECTION PERIOD	Mn-54	Co-58	Fe-59	Co-60	Zn-65	Nb-95	Zr-95	Cs-134	Cs-137	Ba-140	La-140
QCB	01/27/09	< 2	< 2	< 8	< 2	< 4	< 2	< 4	< 3	< 3	< 16	< 3
	02/24/09	< 4	< 3	< 6	< 2	< 4	< 3	< 3	< 2	< 4	< 12	< 2
	03/24/09	< 2	< 2	< 4	< 2	< 6	< 3	< 3	< 2	< 3	< 11	< 2
	04/28/09	< 3	< 2	< 4	< 2	< 6	< 2	< 5	< 3	< 3	< 12	< 2
	05/26/09	< 3	< 3	< 5	< 2	< 5	< 3	< 4	< 2	< 3	< 10	< 3
	06/22/09	< 3	< 3	< 6	< 3	< 6	< 3	< 4	< 3	< 3	< 12	< 3
	07/28/09	< 3	< 2	< 3	< 2	< 4	< 2	< 2	< 3	< 2	< 11	< 2
	08/25/09	< 2	< 2	< 4	< 3	< 6	< 2	< 4	< 3	< 3	< 13	< 2
	09/29/09	< 4	< 2	< 4	< 1	< 3	< 3	< 3	< 3	< 2	< 19	< 4
	10/27/09	< 3	< 2	< 5	< 2	< 2	< 3	< 5	< 3	< 3	< 21	< 2
	11/23/09	< 4	< 2	< 5	< 4	< 7	< 4	< 6	< 4	< 2	< 10	< 3
	12/29/09	< 2	< 1	< 4	< 2	< 3	< 2	< 3	< 2	< 2	< 14	< 2

TABLE D-III.1 CONCENTRATIONS OF TRITIUM IN GOUNDWATER SAMPLES COLLECTED IN THE VICINITY OF OYSTER CREEK GENERATING STATION, 2009

RESULTS IN UNITS OF PCI/LITER ± 2 SIGMA

COLLECTION PERIOD	W-3C	QCB
03/10/09	< 193	< 149
04/29/09	< 192	
05/27/09	< 179	< 162
08/27/09	< 174	< 147
12/08/09	< 171	< 151
MEAN	-	-

TABLE D-III.2 **CONCENTRATIONS OF GAMMA EMITTERS IN GROUNDWATER SAMPLES COLLECTED IN THE VICINITY OF OYSTER CREEK GENERATING STATION, 2009**

RESULTS IN UNITS OF PCI/LITER ± 2 SIGMA

STC	COLLECTION PERIOD	Be-7	K-40	Mn-54	Co-58	Fe-59	Co-60	Zn-65	Nb-95	Zr-95	I-131	Cs-134	Cs-137	Ba-140	La-140
W-3C	03/10/09	< 29	< 78	< 3	< 2	< 6	< 1	< 7	< 2	< 4	< 5	< 3	< 2	< 9	< 2
	05/27/09	< 34	97 ± 35	< 4	< 4	< 6	< 3	< 5	< 4	< 8	< 7	< 2	< 4	< 11	< 3
	08/27/09	< 19	112 ± 25	< 2	< 3	< 3	< 1	< 3	< 3	< 4	< 4	< 2	< 2	< 11	< 2
	12/08/09	< 26	151 ± 36	< 3	< 2	< 6	< 2	< 5	< 3	< 4	< 5	< 3	< 3	17 ± 7	< 3
	MEAN	-	120 ± 55	-	-	-	-	-	-	-	-	-	-	17 ± 0	

* THE MEAN AND 2 STANDARD DEVIATION VALUES ARE CALCULATED USING THE POSITIVE VALUES

TABLE D-IV.1 CONCENTRATIONS OF GAMMA EMITTERS IN CLAM SAMPLES
COLLECTED IN THE VICINITY OF OYSTER CREEK GENERATING STATION, 2009

RESULTS IN UNITS OF PCI/KG WET ± 2 SIGMA

STC	COLLECTION PERIOD	K-40	Mn-54	Co-58	Fe-59	Co-60	Zn-65	Cs-134	Cs-137
24	04/13/09	1040 ± 474	< 35	< 24	< 80	< 29	< 70	< 27	< 29
QCA	04/13/09	1500 ± 409	< 33	< 33	< 70	< 31	< 71	< 28	< 29
QCB	04/13/09	1290 ± 218	< 7	< 7	< 30	< 8	< 16	< 12	< 10
	MEAN*	1277 ± 460.6	-	-	-	-	-	-	-

TABLE D-V.1 CONCENTRATIONS OF GAMMA EMITTERS IN SEDIMENT SAMPLES COLLECTED IN THE VICINITY OF OYSTER CREEK GENERATING STATION, 2009

RESULTS IN UNITS OF PCI/KG DRY ± 2 SIGMA

STC	COLLECTION PERIOD	Be-7	K-40	Mn-54	Co-58	Co-60	Cs-134	Cs-137	Ra-226	Th-228	Th-232
24	04/13/09	< 399	1650 ± 500	< 25	< 30	< 31	< 33	< 30	< 724	145 ± 64	< 169
	10/05/09	< 293	617 ± 295	< 25	< 26	< 22	< 23	< 25	< 788	210 ± 33	146 ± 54
	MEAN*	-	1134 ± 1461	-	-	-	-	-	-	178 ± 92	146 ± 0
QCA	04/13/09	< 312	1560 ± 475	< 33	< 22	< 26	< 30	< 32	647 ± 567	98 ± 47	< 158
	10/05/09	< 306	559 ± 191	< 21	< 30	< 20	< 23	< 20	< 453	172 ± 29	176 ± 56
	MEAN*	-	1060 ± 402	-	-	-	-	-	647 ± 0	135 ± 104	176 ± 0
QCB	04/13/09	< 135	1744 ± 234	< 12	< 10	< 8	< 12	< 10	794 ± 342	< 840	NA
	10/05/09	< 164	392 ± 232	< 13	< 15	< 16	< 22	< 20	601 ± 204	< 1170	NA
	MEAN*	-	1068 ± 1912	-	-	-	-	-	698 ± 273	-	-

* THE MEAN AND 2 STANDARD DEVIATION VALUES ARE CALCULATED USING THE POSITIVE VALUES

TABLE D-VI.1 CONCENTRATIONS OF STRONTIUM AND GAMMA EMITTERS IN VEGETATION SAMPLES COLLECTED IN THE VICINITY OF OYSTER CREEK GENERATING STATION, 2009

RESULTS IN UNITS OF PCI/KG WET ± 2 SIGMA

STC		COLLECTION PERIOD	Sr-89	Sr-90	K-40	I-131	Cs-134	Cs-137	Ba-140	La-140
36	CABBAGE	AUGUST	< 6	4 ± 1	2960 ± 487	< 44	< 22	< 29	< 144	< 39
	COLLARDS	AUGUST	< 11	17 ± 1	4790 ± 562	< 49	< 26	< 22	< 131	< 31
	KALE	AUGUST	< 6	19 ± 2	4170 ± 491	< 51	< 25	< 27	< 131	< 36
		MEAN*	-	13 ± 16	3973 ± 1861	-	-	-	-	-
QCA	CABBAGE	AUGUST	< 5	4 ± 1	3380 ± 445	< 43	< 22	< 24	< 130	< 35
	COLLARDS	AUGUST	< 6	13 ± 1	4300 ± 475	< 40	< 20	< 18	< 103	< 28
	KALE	AUGUST	< 11	20 ± 3	4110 ± 713	< 59	< 25	< 31	< 163	< 51
		MEAN*	-	12 ± 16	3930 ± 971	-	-	-	-	-
QCB	CABBAGE	AUGUST	< 8	< 4	2279 ± 277	< 12	< 8	< 8	< 55	< 5
	CABBAGE	AUGUST	< 5	< 3	2671 ± 263	< 8	< 6	< 8	< 47	< 11
	COLLARDS	AUGUST	< 14	< 13	4840 ± 370	< 22	< 12	< 11	< 59	< 14
	KALE	AUGUST	< 13	13 ± 5	4520 ± 360	< 12	< 11	< 12	< 42	< 5
		MEAN*	-	13 ± 0	3578 ± 2579	-	-	-	-	-

* THE MEAN AND 2 STANDARD DEVIATION VALUES ARE CALCULATED USING THE POSITIVE VALUES

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APPENDIX E

INTER-LABORATORY COMPARISON PROGRAM

TABLE E-1 ANALYTICS ENVIRONMENTAL RADIOACTIVITY CROSS CHECK PROGRAM
TELEDYNE BROWN ENGINEERING, 2009
(PAGE 1 OF 3)

Month/Year	Identification Number	Matrix	Nuclide	Units	Reported Value (a)	Known Value (b)	Ratio (c) TBE/Analytics	Evaluation (d)
March 2009	E6533-396	Milk	Sr-89	pCi/L	102	97.7	1.04	A
			Sr-90	pCi/L	14.9	15.6	0.96	A
	E6534-396	Milk	I-131	pCi/L	66.7	79.3	0.84	A
			Ce-141	pCi/L	87.5	94.9	0.92	A
			Cr-51	pCi/L	275	305	0.90	A
			Cs-134	pCi/L	82.0	93.7	0.88	A
			Cs-137	pCi/L	111	111	1.00	A
			Co-58	pCi/L	114	119	0.96	A
			Mn-54	pCi/L	136	128	1.06	A
			Fe-59	pCi/L	112	99.9	1.12	A
			Zn-65	pCi/L	160	156	1.03	A
			Co-60	pCi/L	142	142	1.00	A
	E6536-396	AP	Ce-141	pCi	120	115	1.04	A
			Cr-51	pCi	385	371	1.04	A
			Cs-134	pCi	113	114	0.99	A
			Cs-137	pCi	149	135	1.10	A
			Co-58	pCi	153	145	1.06	A
			Mn-54	pCi	155	155	1.00	A
			Fe-59	pCi	118	121	0.98	A
			Zn-65	pCi	195	189	1.03	A
			Co-60	pCi	190	173	1.10	A
	E6535-396	Charcoal	I-131	pCi	82.8	79.4	1.04	A
June 2009	E6742-396	Milk	Sr-89	pCi/L	107	112	0.96	A
			Sr-90	pCi/L	19.0	16.7	1.14	A
	E6743-396	Milk	I-131	pCi/L	98.1	102.0	0.96	A
			Ce-141	pCi/L	260	284	0.92	A
			Cr-51	pCi/L	389	400	0.97	A
			Cs-134	pCi/L	144.0	166	0.87	A
			Cs-137	pCi/L	185	192	0.96	A
			Co-58	pCi/L	86.9	91.9	0.95	A
			Mn-54	pCi/L	133	137	0.97	A
			Fe-59	pCi/L	126	122	1.03	A
			Zn-65	pCi/L	173	175	0.99	A
			Co-60	pCi/L	298	312	0.96	A
	E6745-396	AP	Ce-141	pCi	186	163	1.14	A
			Cr-51	pCi	262	231	1.13	A
			Cs-134	pCi	101	95	1.06	A
			Cs-137	pCi	135	111	1.22	W
			Co-58	pCi	61	53	1.16	A
			Mn-54	pCi	83.1	79	1.05	A
			Fe-59	pCi	84	70	1.19	A
			Zn-65	pCi	137	101	1.36	N (1)
			Co-60	pCi	202	180	1.12	A
	E6744-396	Charcoal	I-131	pCi	92.2	95.8	0.96	A

TABLE E-1 ANALYTICS ENVIRONMENTAL RADIOACTIVITY CROSS CHECK PROGRAM
TELEDYNE BROWN ENGINEERING, 2009
(PAGE 2 OF 3)

Month/Year	Identification Number	Matrix	Nuclide	Units	Reported Value (a)	Known Value (b)	Ratio (c) TBE/Analytics	Evaluation (d)
September 2009	E6897-396	Milk	Sr-89	pCi/L	113	107	1.06	A
			Sr-90	pCi/L	17.4	18.8	0.93	A
	E6898-396	Milk	I-131	pCi/L	89.2	98.6	0.90	A
			Ce-141	pCi/L	249	275	0.91	A
			Cr-51	pCi/L	213	221	0.96	A
			Cs-134	pCi/L	104.0	123	0.85	A
			Cs-137	pCi/L	172	185	0.93	A
			Co-58	pCi/L	96.3	99.4	0.97	A
			Mn-54	pCi/L	201	206	0.98	A
			Fe-59	pCi/L	154	147	1.05	A
			Zn-65	pCi/L	213	204	1.04	A
			Co-60	pCi/L	154	160	0.96	A
	E6900-396	AP	Ce-141	pCi	181	161	1.12	A
			Cr-51	pCi	145	130	1.12	A
			Cs-134	pCi	71.8	72	0.99	A
			Cs-137	pCi	115	109	1.06	A
			Co-58	pCi	62	58	1.06	A
			Mn-54	pCi	129	121	1.07	A
			Fe-59	pCi	97	98	0.98	A
			Zn-65	pCi	110	120	0.92	A
			Co-60	pCi	98.7	94.1	1.05	A
	E6899-396	Charcoal	I-131	pCi	89.5	92.3	0.97	A
December 2009	E6946-396	Milk	Sr-89	pCi/L	131	131	1.00	A
			Sr-90	pCi/L	19.3	17.9	1.08	A
	E6947-396	Milk	I-131	pCi/L	79.2	87.3	0.91	A
			Ce-141	pCi/L	193	202	0.96	A
			Cr-51	pCi/L	512	548	0.93	A
			Cs-134	pCi/L	222	253	0.88	A
			Cs-137	pCi/L	163	179	0.91	A
			Co-58	pCi/L	200	211	0.95	A
			Mn-54	pCi/L	178	178	1.00	A
			Fe-59	pCi/L	176	178	0.99	A
			Zn-65	pCi/L	326	345	0.94	A
			Co-60	pCi/L	240	256	0.94	A
	E6949-396	AP	Ce-141	pCi	103	103	1.00	A
			Cr-51	pCi	290	280	1.04	A
			Cs-134	pCi	116	129	0.90	A
			Cs-137	pCi	93.4	91.5	1.02	A
			Co-58	pCi	111	108	1.03	A
			Mn-54	pCi	81.0	90.8	0.89	A
			Fe-59	pCi	106	90.8	1.17	A
			Zn-65	pCi	155	176	0.88	A
			Co-60	pCi	135	131	1.03	A

TABLE E-1 **ANALYTICS ENVIRONMENTAL RADIOACTIVITY CROSS CHECK PROGRAM**
TELEDYNE BROWN ENGINEERING, 2009
(PAGE 3 OF 3)

Month/Year	Identification Number	Matrix	Nuclide	Units	Reported Value (a)	Known Value (b)	Ratio (c) TBE/Analytics	Evaluation (d)
December 2009	E6948-396	Charcoal	I-131	pCi	93.3	93.9	0.99	A

(1) Detector 7 appears to have a slightly high bias. Detector 7 was removed from service until it can be recalibrated. NCR 09-23

(a) Teledyne Brown Engineering reported result.

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

(c) Ratio of Teledyne Brown Engineering to Analytics results.

(d) Analytics evaluation based on TBE internal QC limits: A= Acceptable. Reported result falls within ratio limits of 0.80-1.20. W-Acceptable with warning. Reported result falls within 0.70-0.80 or 1.20-1.30. N = Not Acceptable. Reported result falls outside the ratio limits of < 0.70 and > 1.30.

TABLE E-2 **ERA ENVIRONMENTAL RADIOACTIVITY CROSS CHECK PROGRAM**
TELEDYNE BROWN ENGINEERING, 2009
(PAGE 1 OF 1)

Month/Year	Identification Number	Media	Nuclide	Units	Reported Value (a)	Known Value (b)	Control Limits	Evaluation (c)
April 2009	RAD 77	Water	Sr-89	pCi/L	57.4	48.3	37.8 - 55.7	N (1)
			Sr-90	pCi/L	30.6	31.4	22.9 - 36.4	A
			Ba-133	pCi/L	55.2	52.7	43.4 - 58.3	A
			Cs-134	pCi/L	65.8	72.9	59.5 - 80.2	A
			Cs-137	pCi/L	157	168	151 - 187	A
			Co-60	pCi/L	86.4	88.9	80.0 - 100	A
			Zn-65	pCi/L	85.5	84.4	76.0 - 101	A
			Gr-A	pCi/L	47.7	54.2	28.3 - 67.7	A
			Gr-B	pCi/L	45.2	43.5	29.1 - 50.8	A
			I-131	pCi/L	25.2	26.1	21.7 - 30.8	A
			H-3	pCi/L	19733	20300	17800 - 22300	A
October 2009	RAD 79	Water	Sr-89	pCi/L	64.75	62.2	50.2 - 70.1	A
			Sr-90	pCi/L	30.30	30.7	22.4 - 35.6	A
			Ba-133	pCi/L	97.9	92.9	78.3 - 102	A
			Cs-134	pCi/L	76.8	79.4	65.0 - 87.3	A
			Cs-137	pCi/L	59.9	54.6	49.1 - 62.9	A
			Co-60	pCi/L	121	117	105 - 131	A
			Zn-65	pCi/L	115	99.5	89.6 - 119	A
			Gr-A	pCi/L	19.6	23.2	11.6 - 31.1	A
			Gr-B	pCi/L	28.5	26.0	16.2 - 33.9	A
			I-131	pCi/L	22.1	22.2	18.4 - 26.5	A
			H-3	pCi/L	16133	16400	14300 - 18000	A

(1) Calculation did not allow for Y-90 ingrowth on the Sr-89 mount. NCR 09-14

(a) Teledyne Brown Engineering reported result.

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

(c) ERA evaluation: A=acceptable. Reported result falls within the Warning Limits. NA=not acceptable. Reported result falls outside of the Control Limits. CE=check for Error. Reported result falls within the Control Limits and outside of the Warning Limit.

TABLE E-3 DOE'S MIXED ANALYTE PERFORMANCE EVALUATION PROGRAM (MAPEP)
TELEDYNE BROWN ENGINEERING, 2009
(PAGE 1 OF 2)

Month/Year	Identification Number	Media	Nuclide	Units	Reported Value (a)	Known Value (b)	Acceptance Range	Evaluation (c)
March 2009	09-MaW20	Water	Cs-134	Bq/L	18.8	22.5	18.5 - 29.3	A
			Cs-137	Bq/L	0.0601		(1)	A
			Co-57	Bq/L	17.0	18.9	13.2 - 24.6	A
			Co-60	Bq/L	16.1	17.21	12.05 - 22.37	A
			H-3	Bq/L	332	330.9	231.6 - 430.2	A
			Mn-54	Bq/L	13.8	14.7	10.26 - 19.06	A
			Sr-90	Bq/L	6.88	7.21	5.05- 9.37	A
			Zn-65	Bq/L	13.2	13.6	9.5 - 17.7	A
	09-GrW20	Water	Gr-A	Bq/L	0.529	0.635	>0.0 - 1.270	A
			Gr-B	Bq/L	1.87	1.27	0.64 - 1.91	A
	09-MaS20	Soil	Cs-134	Bq/kg	433	467	327 - 607	A
			Cs-137	Bq/kg	649	605	424 - 787	A
			Co-57	Bq/kg	-0.120		(1)	A
			Co-60	Bq/kg	3.91	4.113	(2)	A
			Mn-54	Bq/kg	339	307	215 - 399	A
			K-40	Bq/kg	644	570	399 - 741	A
			Sr-90	Bq/kg	245	257	180 - 334	A
			Zn-65	Bq/kg	272	242	169 - 315	A
	09-RdF20	AP	Cs-134	Bq/sample	2.77	2.93	2.05 - 3.81	A
			Cs-137	Bq/sample	1.41	1.52	1.06 - 1.98	A
			Co-57	Bq/sample	1.24	1.30	0.91 - 1.69	A
			Co-60	Bq/sample	1.33	1.22	0.85 - 1.59	A
			Mn-54	Bq/sample	2.42	2.2709	1.5898 - 2.9522	A
			Sr-90	Bq/sample	0.713	0.64	0.448 - 0.832	A
			Zn-65	Bq/sample	1.30	1.36	0.95 - 1.77	A
	09-GrF20	AP	Gr-A	Bq/sample	0.188	0.348	>0.0 - 0.696	A
			Gr-B	Bq/sample	0.313	0.279	0.140 - 0.419	A
March 2009	09-RdV20	Vegetation	Cs-134	Bq/sample	3.48	3.40	2.38 - 4.42	A
			Cs-137	Bq/sample	1.15	0.93	0.65 - 1.21	W
			Co-57	Bq/sample	3.12	2.36	1.65 - 3.07	N (3)
			Co-60	Bq/sample	-0.0105		(1)	A
			Mn-54	Bq/sample	2.98	2.3	1.61 - 2.99	W
			K-40	Bq/sample	64.1		(4)	
			Sr-90	Bq/sample	1.09	1.260	0.882 - 1.638	A
			Zn-65	Bq/sample	1.73	1.3540	0.948 - 1.760	W
September 2009	09-MaW21	Water	Cs-134	Bq/L	26.5	32.2	22.5 - 41.9	A
			Cs-137	Bq/L	37.2	41.2	28.8 - 53.6	A
			Co-57	Bq/L	32.2	36.6	25.6 - 47.6	A
			Co-60	Bq/L	14.0	15.40	10.8 - 20.0	A
			H-3	Bq/L	705	634.1	443.9 - 824.3	A
			Mn-54	Bq/L	-0.1015		(1)	A
			Sr-90	Bq/L	13.9	12.99	9.09- 16.89	A
			Zn-65	Bq/L	26.2	26.9	18.8 - 35.0	A
	09-GrW21	Water	Gr-A	Bq/L	1.27	1.047	>0.0 - 2.094	A
			Gr-B	Bq/L	9.70	7.53	3.77 - 11.30	A

TABLE E-3 DOE'S MIXED ANALYTE PERFORMANCE EVALUATION PROGRAM (MAPEP)
TELEDYNE BROWN ENGINEERING, 2009
(PAGE 2 OF 2)

Month/Year	Identification Number	Media	Nuclide	Units	Reported Value (a)	Known Value (b)	Acceptance Range	Evaluation (c)
September 2009	09-MaS21	Soil	Am-241	Bq/kg	74.7	89.8	62.9 - 116.7	A
			Cs-134	Bq/kg	0.554		(1)	A
			Cs-137	Bq/kg	706	669	468 - 870	A
			Co-57	Bq/kg	606	586	410 - 762	A
			Co-60	Bq/kg	350	327.000	229 - 425	A
			Mn-54	Bq/kg	876	796	557 - 1035	A
			K-40	Bq/kg	425	375	263 - 488	A
			Sr-90	Bq/kg	505	455	319 - 592	A
			Zn-65	Bq/kg	1370	1178	825 - 1531	A
	09-RdF21	AP	Cs-134	Bq/sample	-0.02		(1)	A
			Cs-137	Bq/sample	1.4	1.4	0.98 - 1.82	A
			Co-57	Bq/sample	5.98	6.48	4.54 - 8.42	A
			Co-60	Bq/sample	1.01	1.03	0.72 - 1.34	A
			Mn-54	Bq/sample	5.16	5.49	3.84 - 7.14	A
			Sr-90	Bq/sample	0.925	0.0835	0.585 - 1.086	A
			Zn-65	Bq/sample	4.39	3.93	2.75 - 5.11	A
	09-GrF21	AP	Gr-A	Bq/sample	0.357	0.659	>0.0 - 1.318	A
			Gr-B	Bq/sample	1.403	1.320	0.66 - 1.98	A
	09-RdV21	Vegetation	Cs-134	Bq/sample	-0.0027		(1)	A
			Cs-137	Bq/sample	2.36	2.43	1.70 - 3.16	A
			Co-60	Bq/sample	2.58	2.57	1.80 - 3.34	A
			Mn-54	Bq/sample	8.36	7.9	5.5 - 10.3	A
			K-40	Bq/sample	57.8		(4)	
			Sr-90	Bq/sample	1.73	1.78	1.25 - 2.31	A
			Zn-65	Bq/sample	-0.59		(1)	A

(1) False positive test.

(2) Sensativity evaluation.

(3) Homogeniety problem. MAPEP requires using entire sample but due to geometry limitations we can only use part of the sample. NCR 09-13

(4) Not evaluated by MAPEP.

(a) Teledyne Brown Engineering reported result.

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

(c) DOE/MAPEP evaluation: A=acceptable, W=acceptable with warning, N=not acceptable.

TABLE E-4 **ERA (a) STATISTICAL SUMMARY PROFICIENCY TESTING PROGRAM ENVIRONMENTAL, INC., 2009**

Lab Code	Date	Concentration (pCi/L) Analysis	Laboratory Result[b]	ERA Result[c]	Control Limits	Acceptance
STW-1181	04/06/09	Sr-89	41.0 ± 5.8	48.3	37.8 - 55.7	Pass
STW-1181	04/06/09	Sr-90	32.4 ± 2.4	31.4	22.9 - 36.4	Pass
STW-1182	04/06/09	Ba-133	44.6 ± 3.1	52.7	43.4 - 58.3	Pass
STW-1182	04/06/09	Co-60	81.0 ± 3.1	88.9	80.0 - 100.0	Pass
STW-1182	04/06/09	Cs-134	65.6 ± 5.2	72.9	59.5 - 80.2	Pass
STW-1182 [d]	04/06/09	Cs-137	147.7 ± 5.3	168.0	151.0 - 187.0	Fail
STW-1182	04/06/09	Zn-65	79.8 ± 7.5	84.4	76.0 - 101.0	Pass
STW-1183	04/06/09	Gr. Alpha	47.6 ± 2.1	54.2	28.3 - 67.7	Pass
STW-1183	04/06/09	Gr. Beta	38.5 ± 1.3	43.5	29.1 - 50.8	Pass
STW-1184	04/06/09	I-131	24.4 ± 2.5	26.1	21.7 - 30.8	Pass
STW-1186 [e]	04/06/09	H-3	22819.0 ± 453.0	20300.0	17800.0 - 22300.0	Fail
STW-1193	10/05/09	Sr-89	53.0 ± 6.0	62.2	50.2 - 70.1	Pass
STW-1193	10/05/09	Sr-90	31.1 ± 2.2	30.7	22.4 - 35.6	Pass
STW-1194	10/05/09	Ba-133	82.5 ± 3.5	92.9	78.3 - 102.0	Pass
STW-1194	10/05/09	Co-60	116.8 ± 3.3	117.0	105.0 - 131.0	Pass
STW-1194	10/05/09	Cs-134	78.8 ± 5.7	78.8	65.0 - 87.3	Pass
STW-1194	10/05/09	Cs-137	54.2 ± 3.7	54.6	49.1 - 62.9	Pass
STW-1194	10/05/09	Zn-65	102.5 ± 6.2	99.5	89.6 - 119.0	Pass
STW-1195	10/05/09	Gr. Alpha	20.3 ± 2.0	23.2	11.6 - 31.1	Pass
STW-1195	10/05/09	Gr. Beta	23.7 ± 1.4	26.0	16.2 - 33.9	Pass
STW-1196	10/05/09	I-131	22.4 ± 1.4	22.2	18.4 - 26.5	Pass
STW-1198	10/05/09	H-3	17228.0 ± 694.0	16400.0	14300.0 - 18000.0	Pass

[a] *Results obtained by Environmental, Inc., Midwest Laboratory as a participant in the crosscheck program for proficiency testing in drinking water conducted by Environmental Resources Assc (ERA).*

[b] *Unless otherwise indicated, the laboratory result is given as the mean ± standard deviation for three determinations.*

[c] *Results are presented as the known values, expected laboratory precision (1 sigma, 1 determination) and control limits as provided by ERA.*

[d] *All gamma -emitters showed a low bias. A large plastic burr found on the base of the Marinelli kept the beaker from sitting directly on the detector. Result of recount in a different beaker, Cs-137, 155.33 ± 14.55 pCi/L.*

[e] *Samples were recounted and also reanalyzed. A recount of the original vials averaged 23,009 pCi/L. Reanalysis results were acceptable, 19,170 pCi/L.*

TABLE E-5 DOE'S MIXED ANALYTE PERFORMANCE EVALUATION PROGRAM (MAPEP)[a]
ENVIRONMENTAL, INC., 2009
(Page 1 of 2)

			Concentration [b]			
Lab Code [c]	Date	Analysis	Laboratory result	Known Activity	Control Limits [d]	Acceptance
STW-1170	01/01/09	Co-57	19.60 ± 0.40	18.90	13.20 - 24.60	Pass
STW-1170	01/01/09	Co-60	16.60 ± 0.30	17.21	12.05 - 22.37	Pass
STW-1170	01/01/09	Cs-134	20.40 ± 0.50	22.50	15.80 - 29.30	Pass
STW-1170 [e]	01/01/09	Cs-137	0.10 ± 0.20	0.00	0.00 - 1.00	Pass
STW-1170	01/01/09	H-3	359.90 ± 33.90	330.90	231.60 - 430.20	Pass
STW-1170	01/01/09	Mn-54	15.00 ± 0.40	14.66	10.26 - 19.06	Pass
STW-1170	01/01/09	Sr-90	7.87 ± 1.39	7.21	5.05 - 9.37	Pass
STW-1170	01/01/09	Zn-65	14.00 ± 0.70	13.60	9.50 - 17.70	Pass
STW-1171	01/01/09	Gr. Alpha	0.56 ± 0.06	0.64	0.00 - 1.27	Pass
STW-1171	01/01/09	Gr. Beta	1.29 ± 0.05	1.27	0.64 - 1.91	Pass
STSO-1172 [e]	01/01/09	Co-57	0.00 ± 0.00	0.00	0.00 - 1.00	Pass
STSO-1172	01/01/09	Cs-134	458.60 ± 7.40	467.00	327.00 - 607.00	Pass
STSO-1172	01/01/09	Cs-137	652.30 ± 3.50	605.00	424.00 - 787.00	Pass
STSO-1172	01/01/09	K-40	636.40 ± 9.50	570.00	360.40 - 669.40	Pass
STSO-1172	01/01/09	Mn-54	346.40 ± 3.10	307.00	215.00 - 399.00	Pass
STSO-1172	01/01/09	Sr-90	180.60 ± 12.10	257.00	180.00 - 334.00	Pass
STSO-1172	01/01/09	Zn-65	268.30 ± 4.00	242.00	169.00 - 315.00	Pass
STVE-1173	01/01/09	Co-57	2.75 ± 0.11	2.36	1.65 - 3.07	Pass
STVE-1173 [e]	01/01/09	Co-60	0.06 ± 0.09	0.00	0.00 - 1.00	Pass
STVE-1173	01/01/09	Cs-134	3.49 ± 0.22	3.40	2.38 - 4.42	Pass
STVE-1173	01/01/09	Cs-137	1.01 ± 0.11	0.93	0.65 - 1.21	Pass
STVE-1173	01/01/09	Mn-54	2.52 ± 0.14	2.30	1.61 - 2.99	Pass
STVE-1173	01/01/09	Zn-65	1.52 ± 0.18	1.35	0.95 - 1.76	Pass
STAP-1174	01/01/09	Co-57	1.25 ± 0.05	1.30	0.91 - 1.69	Pass
STAP-1174	01/01/09	Co-60	1.17 ± 0.06	1.22	0.85 - 1.59	Pass
STAP-1174	01/01/09	Cs-134	2.67 ± 0.14	2.93	2.05 - 3.81	Pass
STAP-1174	01/01/09	Cs-137	1.53 ± 0.08	1.52	1.06 - 1.98	Pass
STAP-1174	01/01/09	Mn-54	2.34 ± 0.09	2.27	1.59 - 2.95	Pass
STAP-1174 [f]	01/01/09	Sr-90	0.93 ± 0.14	0.64	0.45 - 0.83	Fail
STAP-1174	01/01/09	Zn-65	1.44 ± 0.14	1.36	0.95 - 1.77	Pass
STAP-1175	01/01/09	Gr. Alpha	0.22 ± 0.03	0.35	0.00 - 0.70	Pass
STAP-1175	01/01/09	Gr. Beta	0.36 ± 0.04	0.28	0.14 - 0.42	Pass
STW-1192	07/01/09	Co-57	37.20 ± 1.50	36.60	25.60 - 47.60	Pass
STW-1192	07/01/09	Co-60	15.10 ± 0.90	15.40	10.80 - 20.00	Pass
STW-1192	07/01/09	Cs-134	30.30 ± 2.10	32.20	22.50 - 41.90	Pass
STW-1192	07/01/09	Cs-137	41.90 ± 1.80	41.20	28.80 - 53.60	Pass
STW-1192	07/01/09	H-3	680.30 ± 33.60	634.10	443.90 - 824.30	Pass
STW-1192 [e]	07/01/09	Mn-54	0.01 ± 0.26	0.00	0.00 - 1.00	Pass
STW-1192	07/01/09	Sr-90	12.90 ± 1.70	12.99	9.09 - 16.89	Pass
STW-1192	07/01/09	Zn-65	28.50 ± 2.40	26.90	18.80 - 35.00	Pass

TABLE E-5 DOE'S MIXED ANALYTE PERFORMANCE EVALUATION PROGRAM (MAPEP)[a] ENVIRONMENTAL, INC., 2009

			Concentration [b]			
Lab Code [c]	Date	Analysis	Laboratory result	Known Activity	Control Limits [d]	Acceptance
STW-1191	07/01/09	Gr. Alpha	0.88 ± 0.07	1.05	0.00 - 2.09	Pass
STW-1191	07/01/09	Gr. Beta	7.29 ± 0.10	7.53	3.77 - 11.30	Pass
STSO-1188	07/01/09	Co-57	674.60 ± 9.00	586.00	410.00 - 762.00	Pass
STSO-1188	07/01/09	Co-60	356.40 ± 6.30	327.00	229.00 - 425.00	Pass
STSO-1188	07/01/09	Cs-134	0.20 ± 1.90	0.00	0.00 - 1.00	Pass
STSO-1188	07/01/09	Cs-137	767.50 ± 12.00	669.00	468.00 - 870.00	Pass
STSO-1188	07/01/09	K-40	433.00 ± 37.20	375.00	263.00 - 488.00	Pass
STSO-1188	07/01/09	Mn-54	931.60 ± 14.10	796.00	557.00 - 1035.00	Pass
STSO-1188 [g]	07/01/09	Sr-90	310.50 ± 12.20	455.00	319.00 - 592.00	Fail
STSO-1188	07/01/09	Zn-65	1433.90 ± 25.20	1178.00	825.00 - 1531.00	Pass
STVE-1190	07/01/09	Co-57	8.90 ± 0.60	8.00	5.60 - 10.40	Pass
STVE-1190	07/01/09	Co-60	2.50 ± 0.36	2.57	1.80 - 3.34	Pass
STVE-1190	07/01/09	Cs-134	0.01 ± 0.11	0.00	0.00 - 0.10	Pass
STVE-1190	07/01/09	Cs-137	2.42 ± 0.16	2.43	1.70 - 3.16	Pass
STVE-1190	07/01/09	Mn-54	8.35 ± 0.70	7.90	5.50 - 10.30	Pass
STVE-1190	07/01/09	Zn-65	0.01 ± 0.26	0.00	0.00 - 0.10	Pass
STAP-1189	07/01/09	Gr. Alpha	0.33 ± 0.04	0.66	0.00 - 1.32	Pass
STAP-1189	07/01/09	Gr. Beta	1.57 ± 0.07	1.32	0.66 - 1.98	Pass
STAP-1190	07/01/09	Co-57	6.78 ± 0.27	6.48	4.54 - 8.42	Pass
STAP-1190	07/01/09	Co-60	1.06 ± 0.18	1.03	0.72 - 1.34	Pass
STAP-1190	07/01/09	Cs-134	0.01 ± 0.06	0.00	0.01 - 0.05	Pass
STAP-1190	07/01/09	Cs-137	1.49 ± 0.27	1.40	0.98 - 1.82	Pass
STAP-1190	07/01/09	Mn-54	6.00 ± 0.45	5.49	3.84 - 7.14	Pass
STAP-1190	07/01/09	Sr-90	0.79 ± 0.13	0.84	0.59 - 1.09	Pass
STAP-1190	07/01/09	Zn-65	4.55 ± 0.66	3.93	2.75 - 5.11	Pass

[a] *Results obtained by Environmental, Inc., Midwest Laboratory as a participant in the Department of Energy's Mixed Analyte Performance Evaluation Program, Idaho Operations office, Idaho Falls, Idaho*

[b] *Results are reported in units of Bq/kg (soil), Bq/L (water) or Bq/total sample (filters, vegetation).*

[c] *Laboratory codes as follows: STW (water), STAP (air filter), STSO (soil), STVE (vegetation).*

[d] *MAPEP results are presented as the known values and expected laboratory precision (1 sigma, 1 determination) and control limits as defined by the MAPEP.*

[e] *Included in the testing series as a "false positive".*

[f] *No reason was determined for the initial high results. The analysis was repeated; result of reanalysis; 0.54 ± 0.12 Bq/filter.*

[g] *Incomplete separation of strontium from calcium could result in a higher recovery percentage and consequently lower reported activity. The analysis was repeated; result of reanalysis 363.3 ± 28.6 Bq/kg.*

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APPENDIX F

ANNUAL RADIOLOGICAL GROUNDWATER PROTECTION PROGRAM REPORT (ARGPPR)

2009

Docket No: 50-219

OYSTER CREEK GENERATING STATION
UNIT 1

Annual Radiological
Groundwater Protection Program Report

1 January Through 31 December 2009

Prepared By

Teledyne Brown Engineering
Environmental Services

Exelon SM
Nuclear

Oyster Creek Generating Station
Forked River, NJ 08731

April 2010

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Appendices

I. Summary and Conclusions

This report on the Radiological Groundwater Protection Program (RGPP) conducted for the Oyster Creek Generating Station (OCGS) by Exelon covers the period 01 January 2009 through 31 December 2009.

In 2006, Exelon instituted a comprehensive program to evaluate the impact of station operations on groundwater and surface water in the vicinity of the Oyster Creek Generating Station. This evaluation involved numerous station personnel and contractor support personnel.

This is the fourth in a series of annual reports on the status of the Radiological Groundwater Protection Program (RGPP) conducted at the Oyster Creek Generating Station. This report covers groundwater and surface water samples collected from the environment, both on and off station property in 2009. Two thousand one hundred and one (2,101) analyses were performed on 1,068 samples from 62 locations.

There were three releases of contaminated water into the groundwater during 2009.

On February 9, 2009 less than 1 gallon of condensation from the B Isocondenser vent leaked onto the ground. The tritium in the condensed water was 2.19E+04 pCi/l (8.29E-08 Ci). The contaminated soil was placed in drums for disposal. No doses were calculated since the spill was contained and soil put in containers for disposal.

On April 15, 2009, in preparation for work inside the Emergency Service Water (ESW) vault, water was found inside the vault. As part of standard practices for water removal, the water was pumped into drums and sampled for gamma emitters, tritium, and pH. Sample analysis identified tritium levels at 102,000 pCi/l. The release of tritiated water was caused by leaks in the 8-inch and 10-inch carbon steel Condensate System lines. The piping leaks developed due to a corrosion mechanism known as anodic dissolution. Poor application of pipe coating left the buried pipes susceptible to this corrosion.

On August 24, 2009 an eight to ten gallon per minute leak was discovered in the condenser bay. The leak was coming from the turbine building west wall penetration housing the Condensate Transfer CH-5 line, the six-inch Condensate Transfer Main Header. Two leaks were found in the pipe within the wall penetration. A tritium concentration of 1.08E+07 pCi/l was detected. The piping leaks were due to galvanic corrosion. Dissimilar metals were left in contact during pipe installation.

Gamma-emitting radionuclides associated with licensed plant operations were

not detected in any of the groundwater or surface water samples.

In the case of tritium, Exelon specified that its laboratories achieve a lower limit of detection 100 times lower than the drinking water limit specified by the United States Environmental Protection Agency (USEPA) (200 pCi/liter versus 20,000 pCi/liter).

Tritium was detected in groundwater samples. Tritium concentrations varied from 1.61E+02 to 4.16E+06 pCi/l. The highest concentrations were close to the source of the underground leaks. The flow of the tritium was in the direction of the discharge canal. These results were expected and were consistent with the releases experienced during 2009.

No detectable tritium (greater than the LLD) was found in surface water samples collected from onsite and offsite monitoring locations; however, an anomalous indication of tritium at a low concentration level (less than the federal drinking water limit) was present in an onsite sample of surface water collected from the intake structure. This location was re-sampled and tritium was not detected in the confirmatory sample or any other samples from this same location. The sample was not collected for either the REMP or the RGPP monitoring programs, and therefore is not included in the tabular results.

Strontium-90 was not detected in any groundwater or surface water sample during 2009.

In assessing all the data gathered for this report, it was concluded that the operation of the Oyster Creek Generating Station had no adverse radiological impact on the environment beyond the site boundaries.

II. Introduction

The Oyster Creek Generating Station (OCGS), consisting of one boiling water reactor owned and operated by Exelon, is located on the Atlantic Coastal Plain Physiographic Province in Ocean County, New Jersey, about 60 miles south of Newark, 9 miles south of Toms River, and 35 miles north of Atlantic City. It lies approximately 2 miles inland from Barnegat Bay. The site, covering approximately 781 acres, is situated partly in Lacey Township and, to a lesser extent, in Ocean Township. Access is provided by U.S. Route 9, passing through the site and separating a 637-acre eastern portion from the balance of the property west of the highway. The station is about ¼ mile west of the highway and 1¼ miles east of the Garden State Parkway. The site property extends about 2½ miles inland from the bay; the maximum width in the north-south direction is almost 1 mile. The site location is part of the New Jersey shore area with its relatively flat topography and extensive freshwater and saltwater marshlands. The South Branch of Forked River runs across the northern side of the site and Oyster Creek partly borders the southern side.

This report covers those analyses performed by Teledyne Brown Engineering (TBE) and Environmental Inc. (Midwest Labs) on samples collected in 2009.

A. Objectives of the RGPP

The long-term objectives of the RGPP are as follows:

1. Identify suitable locations to monitor and evaluate potential impacts from station operations before significant radiological impact to the environment and potential drinking water sources.

2. Understand the local hydrogeologic regime in the vicinity of the station and maintain up-to-date knowledge of flow patterns on the surface and shallow subsurface.

3. Perform routine water sampling and radiological analysis of water from selected locations.

4. Report new leaks, spills, or other detections with potential radiological significance to stakeholders in a timely manner.

5. Regularly assess analytical results to identify adverse trends.

6. Take necessary corrective actions to protect groundwater resources.

B. Implementation of the Objectives

The objectives identified have been implemented at the Oyster Creek Generating Station as discussed below:

1. Exelon and its consultant identified locations as described in the Phase 1 study. Phase 1 studies were conducted by Connestoga Rovers and Associates (CRA) and the results and conclusions were made available to state and federal regulators as well as the public in station specific reports.

2. The Oyster Creek Generating Station report describes the local hydrogeologic regime. Periodically, the groundwater flow patterns are updated based on ongoing measurements.

3. The Oyster Creek Generating Station will continue to perform routine sampling and radiological analysis of water from selected locations.

4. The Oyster Creek Generating Station has implemented new procedures to identify and report new leaks, spills, or other detections with potential radiological significance in a timely manner.

5. The Oyster Creek Generating Station staff and independent consultants, including a hydrogeologist, assess analytical results on an ongoing basis to identify adverse trends.

C. Program Description

Samples for the OCGS site were collected for Exelon by on-site personnel and Normandeau Associates, Inc. This section describes the general collection methods used to obtain environmental samples for the OCGS RGPP in 2009. Sample locations can be found in Table A–1, Appendix A.

1. Sample Collection

<u>Groundwater and Surface Water</u>

Samples of water are collected, managed, transported and analyzed in accordance with approved procedures following EPA methods. Both groundwater and surface water are collected. Sample locations, sample collection frequencies and analytical frequencies are controlled in accordance with approved station procedures. Contractor and/or station personnel are trained in the

collection, preservation management, and shipment of samples, as well as in documentation of sampling events. Analytical laboratories are subject to internal quality assurance programs and industry cross-check programs, as well as nuclear industry audits. Station personnel review and evaluate all analytical data deliverables as data are received.

Analytical data results are reviewed by both station personnel and independent consultants, including a hydrogeologist, for adverse trends or changes to hydrogeologic conditions.

D. Characteristics of Tritium (H-3)

Tritium (chemical symbol H-3) is a radioactive isotope of hydrogen. The most common form of tritium is tritium oxide, which is also called "tritiated water." The chemical properties of tritium are essentially those of ordinary hydrogen.

Tritiated water behaves the same as ordinary water in both the environment and the body. Tritium can be taken into the body by drinking water, breathing air, eating food, or absorption through the skin. Once tritium enters the body, it disperses quickly and is uniformly distributed throughout the body. Tritium is excreted primarily through urine with a clearance rate characterized by an effective biological half-life of about 14 days. Within one month or so after ingestion, essentially all tritium is cleared. Organically bound tritium (tritium that is incorporated in organic compounds) can remain in the body for a longer period. Tritium atoms can exchange with any hydrogen atom. If the hydrogen atom is part of an organic molecule, the tritium becomes 'organically bound' and is transported with the molecule rather than moving freely like water.

Tritium is produced naturally in the upper atmosphere when cosmic rays strike air molecules. Tritium is also produced during nuclear weapons explosions, as a by-product in reactors producing electricity, and in special production reactors, where the isotopes lithium-7 and/or boron-10 are activated to produce tritium. Also, tritium was released into the atmosphere from Chernobyl in 1986. Like normal water, tritiated water is colorless and odorless. Tritiated water behaves chemically and physically like non-tritiated water in the subsurface, and therefore tritiated water will travel at the same velocity as the average groundwater velocity.

Tritium has a half-life of approximately 12.3 years. It decays spontaneously to helium-3 (He-3). This radioactive decay releases a beta particle (18.6 keV low-energy electron). The radioactive decay of tritium is the source of the health risk from exposure to tritium. Tritium is one of the

least dangerous radionuclides because it emits very weak radiation and leaves the body relatively quickly. Since tritium is almost always found as water, it goes directly into soft tissues and organs. The associated dose to these tissues is generally uniform and is dependent on the water content of the specific tissue.

III. Program Description

A. Sample Analysis

This section describes the general analytical methodologies used by TBE to analyze the environmental samples for radioactivity for the Oyster Creek Generating Station RGPP in 2009.

In order to achieve the stated objectives, the current program includes the following analyses:

1. Biennial concentrations of gamma emitters in groundwater and surface water.

2. Biennial concentrations of strontium-90 in groundwater and surface water.

3. Semi-annual concentrations of tritium in groundwater and surface water.

4. Analysis frequencies increase if activity is detected.

B. Data Interpretation

The radiological data collected prior to Oyster Creek Generating Station becoming operational, as well as background data from publicly available databases, were used as a baseline with which these operational data were compared. For the purpose of this report, Oyster Creek Generating Station was considered operational at initial criticality. Several factors were important in the interpretation of the data:

1. <u>Lower Limit of Detection and Minimum Detectable Concentration</u>

   The lower limit of detection (LLD) is defined as the smallest concentration of radioactive material in a sample that would yield a net count (above background) that would be detected with only a 5% probability of falsely concluding that a blank observation represents a "real" signal. The LLD is intended as a before the fact

estimate of a system (including instrumentation, procedure and sample type) and not as an after the fact criterion for the presence of activity. All analyses were designed to achieve the required OCGS detection capabilities for environmental sample analysis.

The minimum detectable concentration (MDC) is defined above with the exception that the measurement is an after the fact estimate of the presence of activity.

2. Laboratory Measurements Uncertainty

The estimated uncertainty in measurement of tritium in environmental samples is frequently on the order of 50% of the measurement value.

Statistically, the exact value of a measurement is expressed as a range with a stated level of confidence. The convention is to report results with a 95% level of confidence. The uncertainty comes from calibration standards, sample volume or weight measurements, sampling uncertainty and other factors. Exelon reports the uncertainty of a measurement created by statistical process (counting error) as well as all sources of error (Total Propagated Uncertainty or TPU). Each result has two values calculated. Exelon reports the TPU by following the result with plus or minus (±) the estimated sample standard deviation, as TPU, that is obtained by propagating all sources of analytical uncertainty in measurements.

Analytical uncertainties are reported at the 95% confidence level in this report for reporting consistency with the AREOR.

C. Background Analysis

A pre-operational radiological environmental monitoring program (pre-operational REMP) was conducted to establish background radioactivity levels prior to operation of the station. The environmental media sampled and analyzed during the pre-operational REMP were atmospheric radiation, fall-out, domestic water, surface water, marine life, and foodstuffs. The results of the monitoring were detailed in the report entitled, Pre-Operational Environmental Radiation Survey, Oyster Creek Nuclear Electric Generating Station, Jersey Central Power & Light Company, dated March 1968.

This report contains analytical results from samples collected from both surface water and groundwater.

Monthly surface water sampling began in 1966, and the samples were analyzed for tritium as well as other radioactivity. During the preoperational program, tritium was detected at an average concentration of 1.05E+3 pCi/liter, indicating that these preoperational results were from nuclear weapons testing and are radioactively decaying as predicted. At that time, counting instrumentation was not as sensitive as it is now, and the minimum detectable concentration was 1E+3 pCi/liter versus 2E+2 pCi/liter used today. Gamma isotopic and radio strontium analyses results average concentrations were all greater than radioisotope analyses results from operational data.

1. Background Concentrations of Tritium

   The purpose of the following discussion is to summarize background measurements of tritium in various media performed by others. Additional detail may be found by consulting references.

   a. Tritium Production

      Tritium is created in the environment from naturally occurring processes both cosmic and subterranean, as well as from anthropogenic (i.e., man-made) sources. In the upper atmosphere, "cosmogenic" tritium is produced from the bombardment of stable nuclides and combines with oxygen to form tritiated water, which will then enter the hydrologic cycle. Below ground, "lithogenic" tritium is produced by the bombardment of natural lithium present in crystalline rocks by neutrons produced by the radioactive decay of naturally abundant uranium and thorium. Lithogenic production of tritium is usually negligible compared to other sources due to the limited abundance of lithium in rock. The lithogenic tritium is introduced directly to groundwater.

      A major anthropogenic source of tritium and strontium-90 comes from the former atmospheric testing of thermonuclear weapons. Levels of tritium in precipitation increased significantly during the 1950s and early 1960s, and later with additional testing, resulting in the release of significant amounts of tritium to the atmosphere. The Canadian heavy water nuclear power reactors, other commercial power reactors, nuclear research and weapons production continue to influence tritium concentrations in the environment. Also, tritium was released into the atmosphere from Chernobyl in 1986.

b. Precipitation Data

Precipitation samples are routinely collected at stations around the world for the analysis of tritium and other radionuclides. Two publicly available databases that provide tritium concentrations in precipitation are Global Network of Isotopes in Precipitation (GNIP) and USEPA's RadNet database. GNIP provides tritium precipitation concentration data for samples collected world wide from 1960 to 2006. RadNet provides tritium precipitation concentration data for samples collected at stations throughout the U.S. from 1960 up to and including 2006. Based on GNIP data for sample stations located in the U.S. Midwest, tritium concentrations peaked around 1963. This peak, which approached 10,000 pCi/liter for some stations, coincided with the atmospheric testing of thermonuclear weapons. Tritium concentrations in surface water showed a sharp decline up until 1975 followed by a gradual decline since that time. Tritium concentrations in precipitation in New Jersey have typically been below 100 pCi/liter since around 1980. Tritium concentrations in wells may still be above the 200 pCi/liter detection limit from the external causes described above. Water from previous years and decades is naturally captured in groundwater, so some well water sources today are affected by the surface water from the 1960s that was elevated in tritium.

c. Surface Water Data

Tritium concentrations are routinely measured in large surface water bodies, including Forked River and Barnegat Bay. New Jersey surface water data were typically less than 100 pCi/liter.

The USEPA RadNet surface water data typically has a reported 'Combined Standard Uncertainty' of 35 to 50 pCi/liter. According to USEPA, this corresponds to a ±70 to 100 pCi/liter 95% confidence bound on each given measurement. Therefore, the typical background data provided may be subject to measurement uncertainty of approximately ± 70 to 100 pCi/liter.

The radio-analytical laboratory is counting tritium results to an Exelon specified LLD of 200 pCi/liter. Typically, the lowest positive measurement will be reported within a range of 40 – 240 pCi/liter or 140 ± 100 pCi/liter. Clearly, these

sample results cannot be distinguished as different from background at this concentration.

IV. Results and Discussion

Gamma spectroscopy results for each type of sample were grouped as follows:

For groundwater and surface water 13 nuclides, Be-7, K-40, Mn-54, Co-58, Fe-59, Co-60, Zn-65, Nb-95, Zr-95, Cs-134, Cs-137, Ba-140 and La-140 were reported.

A. Groundwater Results

Samples were collected from on-site wells in March, April, May, June, July, August, September, October, November, and December in accordance with the station radiological groundwater protection program. As reported in CRA's 2006 Hydrogeologic Investigation Report and previous groundwater investigations at the Station, groundwater flow in the vicinity of the Torus Water Storage Tank and the Condensate Storage Tank is towards the intake and discharge structures. Groundwater accumulating in the vicinity of the intake and discharge structures is directed into the discharge canal via a system of gravel drains installed during Station construction. Lysimeter CST-9 is positioned to intercept this flow. Due to the limited amount of water available from this lysimeter, the sample was only analyzed for tritium. Analytical results and anomalies are discussed below.

Tritium

Samples from 56 locations were analyzed for tritium activity (Table B–I.1 Appendix B). Tritium was detected in 257 of 451 samples. The values ranged from < 200 to 4,160,000 pCi/l.

Strontium

Strontium-90 was not detected in any location sampled in 2009.

Gamma Emitters

No gamma emitting nuclides, other than naturally occurring potassium-40, were detected in any of the samples analyzed during 2009. (Table B–I.2, Appendix B).

B. Surface Water Results

Samples were collected from on-site locations in May, June, July, August, September, October, November, and December in accordance with the station radiological groundwater protection program. Analytical results and anomalies are discussed below.

Tritium

Samples from seven locations were analyzed for tritium activity (Table B–II.1, Appendix B). No detectable tritium (greater than the LLD) was found in surface water samples collected from onsite and offsite monitoring locations; however, an anomalous indication of tritium at a low concentration level (less than the federal drinking water limit) was present in an onsite sample of surface water collected from the intake structure. This location was re-sampled and tritium was not detected in the confirmatory sample or any other samples from this same location. The sample was not collected for either the REMP or the RGPP monitoring programs, and therefore is not included in the tabular results.

Strontium

Strontium-90 was not detected in any location sampled in 2009.

Gamma Emitters

No gamma emitting nuclides, other than naturally occurring potassium-40, were detected in any of the samples analyzed. (Table B–II.2, Appendix B).

C. Drinking Water Well Survey

A drinking water well survey was conducted during the summer of 2006 by CRA (CRA 2006) around the Oyster Creek Generating Station. CRA reviewed the New Jersey Geological Survey Bureau of Water Allocation Database Search included in the report entitled "Remedial Action Work Plan – Non-Radiological GPU Nuclear, Inc.; Oyster Creek Nuclear Generating Station U.S. Route 9 Forked River New Jersey" (URS GWC, 2000). The database provides a list of permitted wells within a 5-mile radius of the station and includes private, public, and industrial water supply wells and monitoring wells. The database indicates no public water supply well permits exist within a 0.5-mile radius of the center of the station (i.e., Reactor Building).

There are two domestic water supply wells located on the OCGS site, the database indicated that there were three individually owned locations permitted for a water supply well outside of 0.5-mile radius but within 1.0 mile of the station.

In addition to the water supply wells identified in the database, there are seven wells located on the property to the west of the station (i.e., combustion turbine facility). These seven wells supply water for fire protection (4 wells), and process water for the combustion turbine system (2 wells).

D. Summary of Results – Inter-Laboratory Comparison Program

Inter-Laboratory Comparison Program results for TBE and Environmental Inc. (Midwest Labs) are presented in the 2009 Oyster Creek AREOR.

E. Leaks, Spills, and Releases

The OCGS records inadvertent releases of radioactive liquids in accordance with 10 CFR 50.75(g). As part of the hydrogeologic investigation associated with Exelon's fleet wide assessment in 2006, a third party environmental engineering firm was contracted to evaluate historic releases, if any, and determine if a potential pathway to the environment existed. Those releases that were determined to have potentially impacted groundwater were subsequently investigated as part of the fleet wide assessment. The hydrogeologic investigation determined that there were no radiological impacts to groundwater at the Oyster Creek Generating Station.

There were three abnormal releases during 2009 resulting in an estimated total exposure of < 0.001 mRem to the most limiting member of the public.

On February 9, 2009 less than 1 gallon of condensation from the B Isocondenser vent leaked onto the ground. The tritium in the condensed water was 2.19E+04 pCi/l (8.29E-08 Ci). The contaminated soil was placed in drums for disposal. No doses were calculated since the spill was contained and soil put in containers for disposal.

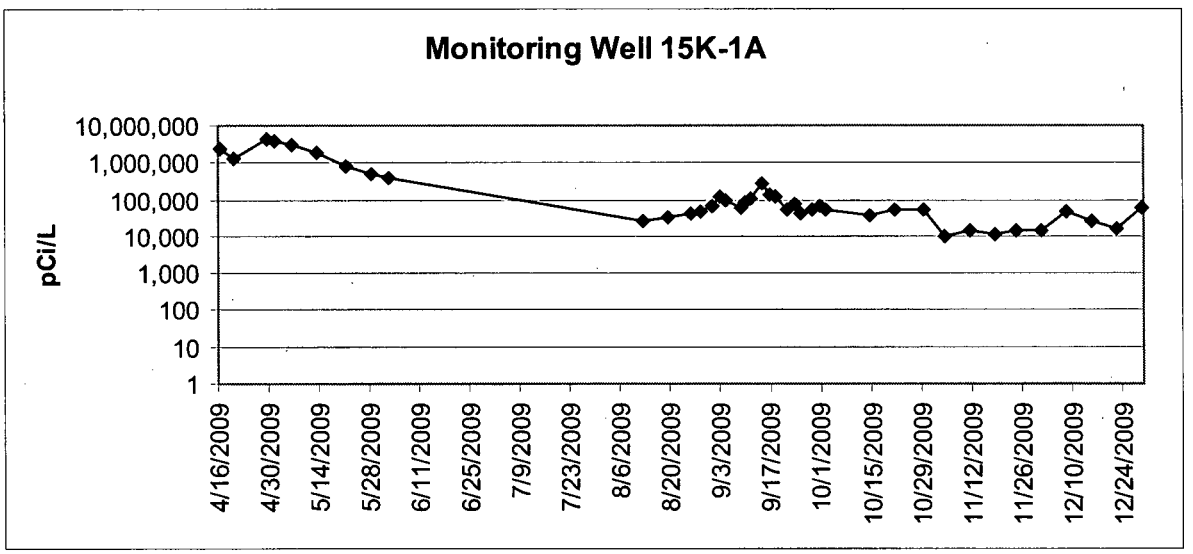
On April 15, 2009, in preparation for work inside the Emergency Service Water (ESW) vault, water was found inside the vault. As part of standard practices for water removal, the water was pumped into drums and sampled for gamma emitters, tritium, and pH. Sample analysis identified tritium levels at 102,000 pCi/l. The release of tritiated water was caused by leaks in the 8-inch and 10-inch carbon steel Condensate System lines.

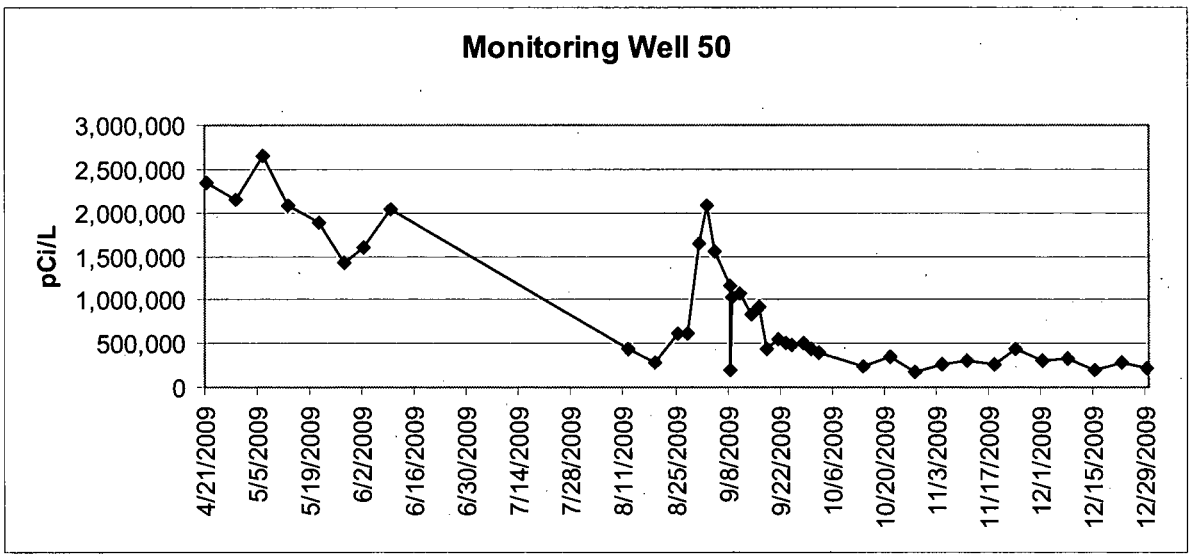
The piping leaks developed due to a corrosion mechanism known as anodic dissolution. Poor application of pipe coating left the buried pipes susceptible to this corrosion.

On August 24, 2009 a leak was discovered inside the turbine building coming from the turbine building west wall penetration housing a six-inch Condensate Transfer line. The leakage was found coming from the six-inch pipe within the wall penetration. The water leaking from the pipe was sampled and indicated a tritium concentration of 1.08E+07 pCi/l.

F. Trends

The two leaks both occurred on the west side of the turbine building. The close proximity of the leaks allows the same wells to monitor the tritium plume. An independent hydrogeologist has determined that the flow of the tritium plume is toward the intake and discharge canal.
The wells closest to the leaks have the highest tritium concentrations. After the leaks were fixed, the tritium concentrations have been decreasing.

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2,500,000
2,000,000
1,500,000
1,000,000
500,000
0
4/21/2009
5/5/2009
5/19/2009
6/2/2009
6/16/2009
6/30/2009
7/14/2009
7/28/2009
8/11/2009
8/25/2009
9/8/2009
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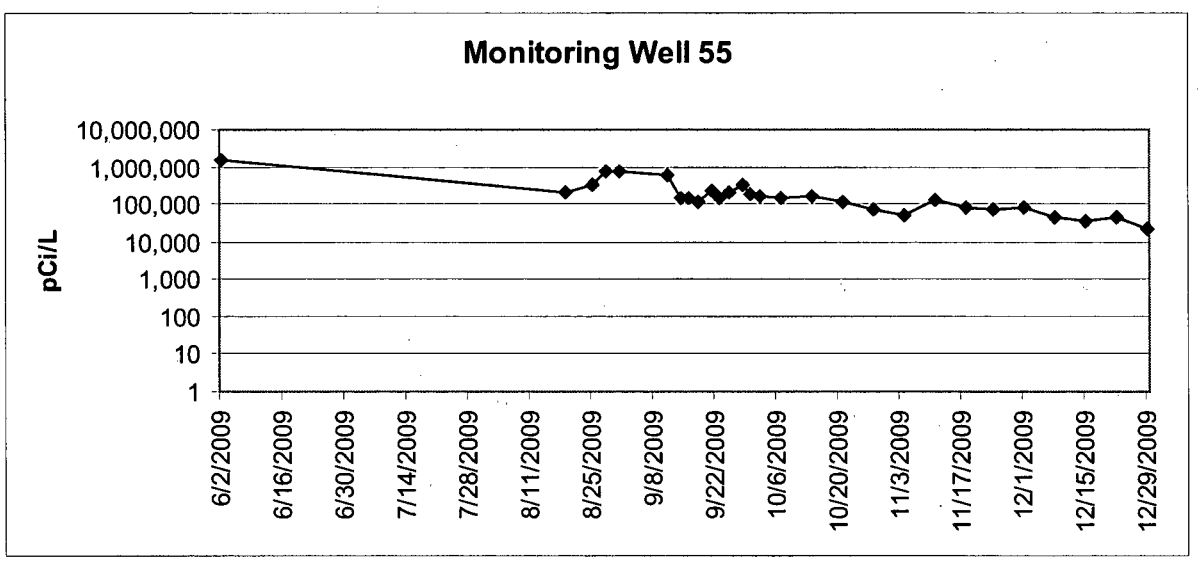
11/17/2009
12/1/2009
12/15/2009
12/29/2009


Monitoring Well 55
pCi/L
10,000,000
1,000,000
100,000
10,000
1,000
100
10
1
6/2/2009
6/16/2009
6/30/2009
7/14/2009
7/28/2009
8/11/2009
8/25/2009
9/8/2009
9/22/2009
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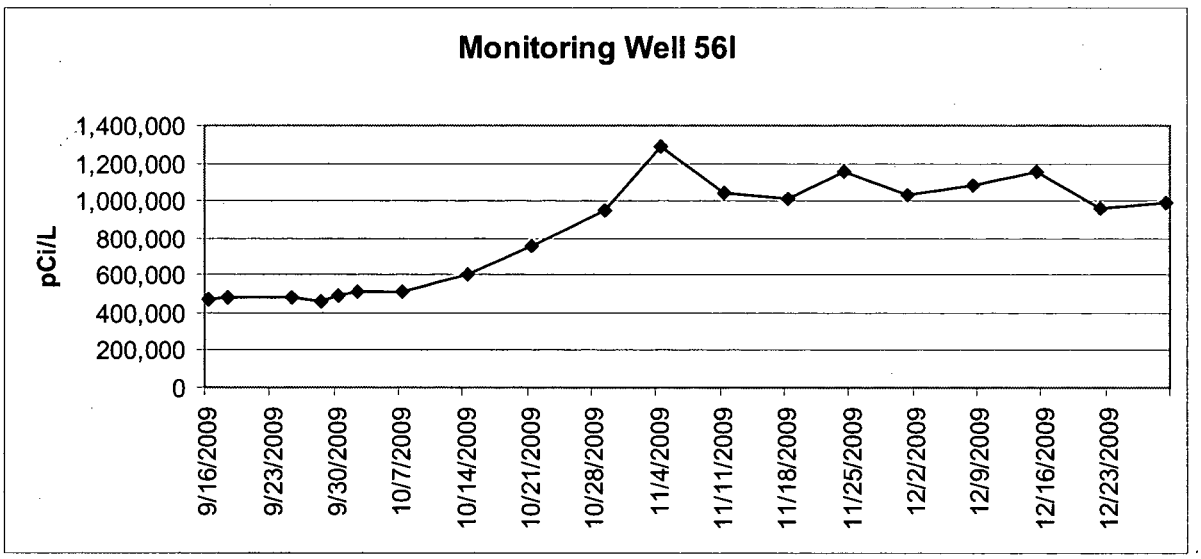
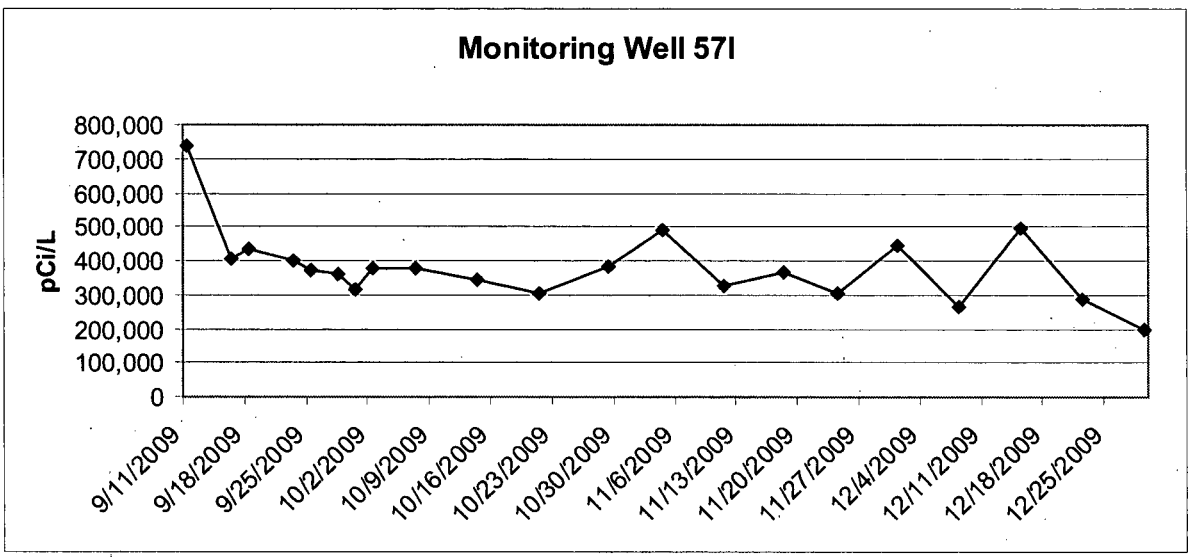
11/3/2009
11/17/2009
12/1/2009
12/15/2009
12/29/2009





G. Investigations

Conestoga Rovers and Associates performed an independent assessment of the tritium plume. The results of their assessment can be found in References 2 and 3.

H. Actions Taken

1. Compensatory Actions

The compensatory actions taken during 2009 were to add 8 additional

monitoring wells to better determine the magnitude of the tritium plume.

2. Installation of Monitoring Wells

   The following wells were installed in 2009 to better delineate the high levels of tritium found in well MW-15K-1A. Wells MW-56I and MW-57I were installed to determine if there is migration of tritium from the Cape May Formation to the Cohansey Formation.

Well Number	Formation
MW-50	Cape May
MW-51	Cape May
MW-52	Cape May
MW-53	Cape May
MW-54	Cape May
MW-55	Cape May
MW-56I	Cohansey
MW-57I	Cohansey

3. Actions to Recover/Reverse Plumes

   Currently no actions are planned to recover the plumes. Exelon will continue to monitor the natural attenuation of the plume.

V. References

1. Conestoga Rovers and Associates, Hydrogeologic Investigation Report, Fleetwide Assessment, Oyster Creek Generating Station, Forked River, New Jersey, Ref. No. 045136(18), September 2006
2. Conestoga Rovers and Associates, Site Investigation Report, Oyster Creek Generating Station, Forked River, New Jersey, Ref. No. 055875 (4), August 2009
3. Conestoga Rovers and Associates, Remedial Investigation Workplan, Oyster Creek Generating Station, Forked River, New Jersey, Ref. No. 055875 (5), October 2009

APPENDIX A

LOCATION DESIGNATION

TABLE A-1: Radiological Groundwater Protection Program - Sampling Locations, Oyster Creek Generating Station, 2009

Site	Site Type	Location
MW-1I-2A	Monitoring Well	Onsite
CST-9	Monitoring Well	Onsite
Intake	Surface Water	Onsite
LW-3	Monitoring Well	Onsite
LW-4	Monitoring Well	Onsite
Main Condenser Discharge (MCD)	Surface Water	Onsite
MW-1	Monitoring Well	Onsite
MW-15K-1A	Monitoring Well	Onsite
MW-16D	Monitoring Well	Onsite
MW-1A-2A	Monitoring Well	Onsite
MW-1I-1A	Monitoring Well	Onsite
MW-1I-2A	Monitoring Well	Onsite
MW-3	Monitoring Well	Onsite
MW-4	Monitoring Well	Onsite
MW-4K	Monitoring Well	Onsite
MW-50	Monitoring Well	Onsite
MW-51	Monitoring Well	Onsite
MW-52	Monitoring Well	Onsite
MW-53	Monitoring Well	Onsite
MW-54	Monitoring Well	Onsite
MW-55	Monitoring Well	Onsite
MW-56I	Monitoring Well	Onsite
MW-57I	Monitoring Well	Onsite
MW-6	Monitoring Well	Onsite
North Domestic Well	Monitoring Well	Onsite
RT 9 Bridge	Surface Water	Onsite
South Domestic Well	Monitoring Well	Onsite
SW-1	Surface Water	Onsite
SW-2	Surface Water	Onsite
SW-3	Surface Water	Offsite
MW-10	Monitoring Well	Onsite
MW-12	Monitoring Well	Onsite
MW-13	Monitoring Well	Onsite
MW-14	Monitoring Well	Onsite
MW-15	Monitoring Well	Onsite
MW-16	Monitoring Well	Onsite
MW-1A	Monitoring Well	Onsite
MW-2	Monitoring Well	Onsite
MW-20	Monitoring Well	Onsite
MW-24	Monitoring Well	Onsite
MW-2A	Monitoring Well	Onsite
MW-2B	Monitoring Well	Onsite
MW-2C	Monitoring Well	Onsite
MW-2K	Monitoring Well	Onsite
MW-31	Monitoring Well	Onsite
MW-4A	Monitoring Well	Onsite
MW-4B	Monitoring Well	Onsite
MW-4K	Monitoring Well	Onsite
MW-5	Monitoring Well	Onsite
MW-7	Monitoring Well	Onsite
MW-9	Monitoring Well	Onsite
MW-59	Monitoring Well	Onsite
MW-62	Monitoring Well	Onsite
MW-64	Monitoring Well	Onsite
MW-65	Monitoring Well	Onsite
MW-67	Monitoring Well	Onsite

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APPENDIX B

DATA TABLES

TABLE B-I.1 CONCENTRATIONS OF TRITIUM AND STRONTIUM IN GROUNDWATER SAMPLES COLLECTED IN THE VICINITY OF OYSTER CREEK GENERATING STATION, 2009

RESULTS IN UNITS OF PCI/LITER ± 2 SIGMA

SITE	COLLECTION PERIOD		H-3	SR-90
CST-9	03/11/09		< 182	
CST-9	04/16/09		< 173	
CST-9	04/20/09		< 147	
LW-3	03/12/09		< 192	
LW-3	10/02/09		< 176	< 1.0
LW-4	03/12/09		< 189	
LW-4	10/02/09		< 174	< 0.8
MW-1	05/27/09		< 179	
MW-1	09/11/09		< 171	
MW-1	11/24/09		< 171	
MW-10	03/10/09		< 189	
MW-10	09/29/09		< 188	< 0.6
MW-12	03/10/09		< 182	
MW-12	09/30/09		< 185	< 0.6
MW-12	09/30/09		< 188	< 0.6
MW-13	03/10/09		< 177	
MW-13	09/30/09		< 188	< 0.8
MW-14	03/11/09		< 186	
MW-14	10/01/09		< 184	< 0.7
MW-15	03/11/09	TBE	< 183	
MW-15	03/11/09	TBE	< 174	
MW-15	03/11/09	EIML	< 149	
MW-15	10/01/09		< 191	< 0.7
MW-15K-1A	03/10/09		< 192	
MW-15K-1A	04/16/09		2390000 ± 160000	
MW-15K-1A	04/20/09		1290000 ± 23600	
MW-15K-1A	04/29/09		4160000 ± 339000	
MW-15K-1A	05/01/09		3940000 ± 331000	
MW-15K-1A	05/06/09		3170000 ± 294000	
MW-15K-1A	05/13/09		1790000 ± 171000	
MW-15K-1A	05/20/09		837000 ± 19700	
MW-15K-1A	05/28/09		500000 ± 15400	
MW-15K-1A	06/02/09		377000 ± 13500	
MW-15K-1A	06/09/09		62400 ± 6100	
MW-15K-1A	06/16/09		80000 ± 6760	
MW-15K-1A	06/23/09		71100 ± 6420	
MW-15K-1A	07/01/09		47700 ± 4800	
MW-15K-1A	07/07/09		53200 ± 5780	
MW-15K-1A	07/15/09		61500 ± 6750	
MW-15K-1A	07/22/09		67800 ± 7360	
MW-15K-1A	07/29/09		115000 ± 12000	
MW-15K-1A	08/05/09		118000 ± 12400	
MW-15K-1A	08/12/09		26300 ± 2610	
MW-15K-1A	08/19/09		31800 ± 3210	
MW-15K-1A	08/25/09		40000 ± 4030	
MW-15K-1A	08/28/09		46400 ± 4660	
MW-15K-1A	08/31/09		70400 ± 4040	
MW-15K-1A	09/02/09		128000 ± 13000	
MW-15K-1A	09/04/09		90400 ± 11200	

TABLE B-I.1 CONCENTRATIONS OF TRITIUM AND STRONTIUM IN GROUNDWATER SAMPLES COLLECTED IN THE VICINITY OF OYSTER CREEK GENERATING STATION, 2009

RESULTS IN UNITS OF PCI/LITER ± 2 SIGMA

SITE	COLLECTION PERIOD	H-3	SR-90
MW-15K-1A	09/08/09	61800 ± 9630	
MW-15K-1A	09/09/09	88100 ± 11000	
MW-15K-1A	09/11/09	108000 ± 12300	
MW-15K-1A	09/14/09	284000 ± 16800	
MW-15K-1A	09/16/09	131000 ± 13500	
MW-15K-1A	09/18/09	123000 ± 7960	
MW-15K-1A	09/21/09	50800 ± 5130	
MW-15K-1A	09/23/09	78500 ± 9190	
MW-15K-1A	09/25/09	43600 ± 4240	
MW-15K-1A	09/28/09	53600 ± 5690	
MW-15K-1A	09/30/09	63900 ± 8420	
MW-15K-1A	10/02/09	55000 ± 5740	
MW-15K-1A	10/07/09	52900 ± 5670	
MW-15K-1A	10/14/09	35000 ± 4880	
MW-15K-1A	10/21/09	51700 ± 4640	
MW-15K-1A	10/29/09	51400 ± 7640	
MW-15K-1A	11/04/09	9810 ± 5160	
MW-15K-1A	11/11/09	14200 ± 5520	
MW-15K-1A	11/18/09	10600 ± 5300	
MW-15K-1A	11/24/09	13700 ± 5510	
MW-15K-1A	12/01/09	13900 ± 5530	
MW-15K-1A	12/08/09	43900 ± 7540	
MW-15K-1A	12/15/09	25000 ± 2550	
MW-15K-1A	12/22/09	15100 ± 1550	
MW-15K-1A	12/29/09	62100 ± 6060	
MW-16	03/10/09	< 178	
MW-16	10/01/09	< 188	< 0.9
MW-16D	03/10/09	< 186	
MW-16D	09/30/09	< 177	< 0.8
MW-1A	03/10/09	< 190	
MW-1A	09/30/09	< 177	< 0.8
MW-1A-2A	03/11/09	< 187	
MW-1A-2A	10/01/09	< 190	< 0.6
MW-1I-1A	03/10/09	< 192	
MW-1I-1A	04/16/09	< 196	
MW-1I-1A	04/20/09	< 190	
MW-1I-1A	05/27/09	< 177	
MW-1I-1A	06/30/09	280 ± 123	
MW-1I-1A	07/29/09	< 152	
MW-1I-1A	08/26/09	< 183	
MW-1I-1A	09/30/09	< 177	
MW-1I-1A	09/30/09	< 172	
MW-1I-1A	10/01/09	< 178	< 0.6
MW-1I-1A	10/29/09	< 178	
MW-1I-1A	11/24/09	< 155	
MW-1I-2A	03/10/09	< 194	
MW-1I-2A	04/20/09	< 192	
MW-1I-2A	05/27/09	< 199	
MW-1I-2A	06/30/09	< 166	
MW-1I-2A	07/29/09	< 159	

TABLE B-I.1 CONCENTRATIONS OF TRITIUM AND STRONTIUM IN GROUNDWATER SAMPLES COLLECTED IN THE VICINITY OF OYSTER CREEK GENERATING STATION, 2009

RESULTS IN UNITS OF PCI/LITER ± 2 SIGMA

SITE	COLLECTION PERIOD		H-3	SR-90
MW-1I-2A	08/26/09		< 168	
MW-1I-2A	10/01/09		< 174	< 0.7
MW-1I-2A	10/29/09		< 183	
MW-1I-2A	11/24/09		< 160	
MW-2	03/10/09	TBE	< 192	
MW-2	03/10/09	TBE	< 185	
MW-2	03/10/09	EIML	< 149	
MW-20	03/10/09	TBE	< 189	
MW-20	03/10/09	TBE	< 181	
MW-20	03/10/09	EIML	< 149	
MW-24	03/10/09		< 184	
MW-24	10/01/09		< 186	< 0.8
MW-2A	03/10/09		< 186	
MW-2A	09/30/09		< 176	< 0.7
MW-2B	03/10/09		< 189	
MW-2B	09/30/09	TBE	< 175	< 0.9
MW-2B	09/30/09	TBE	< 172	< 0.8
MW-2B	09/30/09	EIML	< 154	< 0.7
MW-2C	05/27/09		< 175	
MW-2C	09/11/09		< 168	
MW-2C	11/24/09		< 160	
MW-2K	05/27/09		< 173	
MW-2K	11/24/09		< 155	
MW-3	03/10/09		< 191	
MW-3	04/17/09		< 187	
MW-3	04/20/09		< 196	
MW-3	05/27/09		< 177	
MW-3	06/30/09		< 164	
MW-3	07/29/09		< 157	
MW-3	08/26/09		< 187	
MW-3	09/30/09		< 175	
MW-3	10/01/09		< 177	< 0.6
MW-3	10/29/09		< 171	
MW-3	11/24/09		< 154	
MW-31	03/10/09		< 184	
MW-4	03/10/09		< 187	
MW-4	04/17/09		< 191	
MW-4	04/20/09		< 193	
MW-4	05/27/09		< 181	
MW-4	06/30/09		< 167	
MW-4	07/29/09		< 157	
MW-4	08/26/09		< 184	
MW-4	09/30/09		< 176	
MW-4	10/01/09		< 179	< 0.9
MW-4	10/29/09		< 170	
MW-4	11/24/09		< 156	
MW-4	12/30/09		< 170	

TABLE B-I.1 CONCENTRATIONS OF TRITIUM AND STRONTIUM IN GROUNDWATER SAMPLES COLLECTED IN THE VICINITY OF OYSTER CREEK GENERATING STATION, 2009

RESULTS IN UNITS OF PCI/LITER ± 2 SIGMA

SITE	COLLECTION PERIOD	H-3	SR-90
MW-4A	03/11/09	< 187	
MW-4A	10/01/09	< 181	< 0.8
MW-4B	03/11/09	< 189	
MW-4B	10/01/09	< 176	< 0.9
MW-4K	03/11/09	< 191	
MW-4K	04/16/09	< 187	
MW-4K	04/20/09	< 191	
MW-4K	04/21/09	2350000 ± 32100	
MW-4K	04/22/09	2300000 ± 236000	< 5.8
MW-4K	04/24/09	5230 ± 2000	
MW-4K	04/29/09	2140000 ± 31600	
MW-4K	04/29/09	1770000 ± 28800	
MW-4K	04/29/09	6300 ± 677	
MW-4K	05/01/09	8320 ± 879	
MW-4K	05/01/09	455 ± 130	
MW-4K	05/06/09	2650000 ± 234000	
MW-4K	05/06/09	2170000 ± 31800	
MW-4K	05/06/09	< 172	
MW-4K	05/06/09	7270 ± 766	
MW-4K	05/06/09	6990 ± 744	
MW-4K	05/13/09	2090000 ± 31300	
MW-4K	05/13/09	2530000 ± 225000	
MW-4K	05/13/09	161 ± 97	
MW-4K	05/13/09	2240 ± 269	
MW-4K	05/13/09	4150 ± 458	
MW-4K	05/20/09	1880000 ± 29600	
MW-4K	05/20/09	2020000 ± 30800	
MW-4K	05/20/09	< 179	
MW-4K	05/20/09	1440 ± 205	
MW-4K	05/20/09	2400 ± 288	
MW-4K	05/27/09	< 177	
MW-4K	05/27/09	2030000 ± 31100	
MW-4K	05/27/09	< 179	
MW-4K	05/27/09	1390 ± 194	
MW-4K	05/27/09	< 178	
MW-4K	05/28/09	1420000 ± 25800	
MW-4K	05/28/09	4720 ± 515	
MW-4K	06/02/09	1600000 ± 27400	
MW-4K	06/02/09	1780000 ± 28700	
MW-4K	06/02/09	< 164	
MW-4K	06/02/09	1040 ± 160	
MW-4K	06/02/09	7830 ± 820	
MW-4K	06/02/09	1550000 ± 26900	
MW-4K	06/09/09	2040000 ± 30700	
MW-4K	06/09/09	1570000 ± 27200	

TABLE B-I.1 CONCENTRATIONS OF TRITIUM AND STRONTIUM IN GROUNDWATER SAMPLES COLLECTED IN THE VICINITY OF OYSTER CREEK GENERATING STATION, 2009

RESULTS IN UNITS OF PCI/LITER ± 2 SIGMA

SITE	COLLECTION PERIOD	H-3	SR-90
MW-4K	06/09/09	< 161	
MW-4K	06/09/09	< 163	
MW-4K	06/09/09	5820 ± 629	
MW-4K	06/16/09	1890000 ± 29700	
MW-4K	06/16/09	1570000 ± 27200	
MW-4K	06/16/09	< 195	
MW-4K	06/16/09	< 197	
MW-4K	06/16/09	2580 ± 304	
MW-4K	06/23/09	1700000 ± 28200	
MW-4K	06/23/09	721000 ± 18500	
MW-4K	06/23/09	< 170	
MW-4K	06/23/09	< 159	
MW-4K	06/23/09	4920 ± 535	
MW-4K	06/30/09	< 164	
MW-4K	06/30/09	< 169	
MW-4K	06/30/09	< 159	
MW-4K	06/30/09	3350 ± 375	
MW-4K	06/30/09	< 152	
MW-4K	07/01/09	1420000 ± 25600	
MW-4K	07/01/09	767000 ± 19200	
MW-4K	07/01/09	128000 ± 8220	
MW-4K	07/07/09	1120000 ± 22900	
MW-4K	07/07/09	982000 ± 21700	
MW-4K	07/07/09	< 167	
MW-4K	07/07/09	< 163	
MW-4K	07/07/09	4180 ± 462	
MW-4K	07/15/09	1180000 ± 117000	
MW-4K	07/15/09	1620000 ± 158000	
MW-4K	07/15/09	< 159	
MW-4K	07/15/09	183 ± 117	
MW-4K	07/15/09	7840 ± 827	
MW-4K	07/15/09	645000 ± 60800	
MW-4K	07/22/09	1060000 ± 106000	
MW-4K	07/22/09	< 159	
MW-4K	07/22/09	192 ± 115	
MW-4K	07/22/09	4770 ± 518	
MW-4K	07/22/09	837000 ± 83600	
MW-4K	07/29/09	< 161	
MW-4K	07/29/09	998000 ± 99700	
MW-4K	07/29/09	1830000 ± 180000	
MW-4K	07/29/09	< 196	
MW-4K	07/29/09	< 191	
MW-4K	07/29/09	4070 ± 452	
MW-4K	07/29/09	283000 ± 28800	
MW-4K	07/29/09	< 158	

TABLE B-I.1 CONCENTRATIONS OF TRITIUM AND STRONTIUM IN GROUNDWATER SAMPLES COLLECTED IN THE VICINITY OF OYSTER CREEK GENERATING STATION, 2009

RESULTS IN UNITS OF PCI/LITER ± 2 SIGMA

SITE	COLLECTION PERIOD	H-3	SR-90
MW-4K	08/05/09	1180000 ± 117000	
MW-4K	08/05/09	1470000 ± 144000	
MW-4K	08/05/09	< 158	
MW-4K	08/05/09	174 ± 111	
MW-4K	08/05/09	2650 ± 315	
MW-4K	08/05/09	175000 ± 18000	
MW-4K	08/12/09	443000 ± 9790	
MW-4K	08/12/09	456000 ± 9910	
MW-4K	08/12/09	< 191	
MW-4K	08/12/09	< 184	
MW-4K	08/12/09	1010 ± 268	
MW-4K	08/12/09	61400 ± 3790	
MW-4K	08/12/09	57000 ± 3660	
MW-4K	08/12/09	30000 ± 2750	
MW-4K	08/19/09	287000 ± 7930	
MW-4K	08/19/09	< 193	
MW-4K	08/19/09	< 178	
MW-4K	08/19/09	3300 ± 374	
MW-4K	08/19/09	207000 ± 6730	
MW-4K	08/20/09	109000 ± 4960	
MW-4K	08/25/09	608000 ± 11500	
MW-4K	08/25/09	< 179	
MW-4K	08/25/09	< 183	
MW-4K	08/25/09	1870 ± 237	
MW-4K	08/25/09	348000 ± 8690	
MW-4K	08/26/09	164000 ± 6010	
MW-4K	08/26/09	< 176	
MW-4K	08/27/09	< 179	
MW-4K	08/28/09	621000 ± 11600	
MW-4K	08/28/09	129000 ± 5360	
MW-4K	08/28/09	759000 ± 12800	
MW-4K	08/31/09	1650000 ± 44800	
MW-4K	08/31/09	215000 ± 16900	
MW-4K	08/31/09	744000 ± 30700	
MW-4K	09/02/09	2070000 ± 49300	
MW-4K	09/02/09	210000 ± 16300	
MW-4K	09/02/09	372 ± 116	
MW-4K	09/02/09	93800 ± 6340	
MW-4K	09/02/09	2430 ± 296	
MW-4K	09/02/09	544000 ± 25700	
MW-4K	09/04/09	1550000 ± 42600	
MW-4K	09/04/09	195000 ± 15800	
MW-4K	09/04/09	514000 ± 24800	
MW-4K	09/08/09	1170000 ± 37200	
MW-4K	09/08/09	201000 ± 16000	

TABLE B-I.1 CONCENTRATIONS OF TRITIUM AND STRONTIUM IN GROUNDWATER SAMPLES COLLECTED IN THE VICINITY OF OYSTER CREEK GENERATING STATION, 2009

RESULTS IN UNITS OF PCI/LITER ± 2 SIGMA

SITE	COLLECTION PERIOD		H-3	SR-90
MW-4K	09/08/09		603000 ± 26900	
MW-4K	09/09/09		1030000 ± 34900	
MW-4K	09/09/09		217000 ± 16500	
MW-4K	09/09/09		169 ± 103	
MW-4K	09/09/09		194 ± 107	
MW-4K	09/09/09		2610 ± 315	
MW-4K	09/09/09		587000 ± 26600	
MW-4K	09/11/09		1080000 ± 32200	
MW-4K	09/11/09		272000 ± 18700	
MW-4K	09/11/09		575000 ± 26900	
MW-4K	09/14/09		839000 ± 28200	
MW-4K	09/14/09		146000 ± 8600	
MW-4K	09/16/09		910000 ± 33600	
MW-4K	09/16/09		711 ± 138	
MW-4K	09/16/09		137000 ± 13700	
MW-4K	09/16/09		< 170	
MW-4K	09/16/09		< 152	
MW-4K	09/18/09		431000 ± 14300	
MW-4K	09/18/09		116000 ± 7730	
MW-4K	09/21/09		539000 ± 26200	
MW-4K	09/21/09		236000 ± 17600	
MW-4K	09/23/09		512000 ± 25300	
MW-4K	09/23/09		1130 ± 174	
MW-4K	09/23/09		147000 ± 12200	
MW-4K	09/23/09		< 150	
MW-4K	09/23/09		< 149	
MW-4K	09/25/09		486000 ± 24800	
MW-4K	09/25/09		207000 ± 16500	
MW-4K	09/28/09		499000 ± 21600	
MW-4K	09/28/09		327000 ± 17700	
MW-4K	09/30/09		445000 ± 14400	
MW-4K	09/30/09		177000 ± 9360	
MW-4K	09/30/09		< 177	
MW-4K	09/30/09		< 173	
MW-4K	09/30/09		< 151	
MW-4K	09/30/09		762 ± 151	
MW-4K	09/30/09		< 178	
MW-4K	10/01/09	TBE	< 189	< 0.9
MW-4K	10/01/09	TBE	< 188	< 0.5
MW-4K	10/01/09	EIML	< 154	< 0.5
MW-4K	10/02/09		387000 ± 13500	
MW-4K	10/02/09		160000 ± 8970	
MW-4K	10/07/09		322000 ± 12400	
MW-4K	10/07/09		150000 ± 8750	
MW-4K	10/07/09		< 180	

TABLE B-I.1 CONCENTRATIONS OF TRITIUM AND STRONTIUM IN GROUNDWATER SAMPLES COLLECTED IN THE VICINITY OF OYSTER CREEK GENERATING STATION, 2009

RESULTS IN UNITS OF PCI/LITER ± 2 SIGMA

SITE	COLLECTION PERIOD	H-3	SR-90
MW-4K	10/07/09	< 167	
MW-4K	10/07/09	1070 ± 165	
MW-4K	10/14/09	241000 ± 10800	
MW-4K	10/14/09	161000 ± 9010	
MW-4K	10/14/09	< 164	
MW-4K	10/14/09	< 168	
MW-4K	10/14/09	1550 ± 210	
MW-4K	10/21/09	345000 ± 18500	
MW-4K	10/21/09	121000 ± 11200	
MW-4K	10/21/09	< 168	
MW-4K	10/21/09	< 164	
MW-4K	10/21/09	545 ± 128	
MW-4K	10/28/09	< 167	
MW-4K	10/28/09	186000 ± 13500	
MW-4K	10/28/09	74500 ± 9180	
MW-4K	10/28/09	< 181	
MW-4K	10/28/09	< 180	
MW-4K	10/28/09	264 ± 124	
MW-4K	11/04/09	273000 ± 16100	
MW-4K	11/04/09	48000 ± 7790	
MW-4K	11/04/09	< 182	
MW-4K	11/04/09	< 184	
MW-4K	11/04/09	277 ± 124	
MW-4K	11/11/09	299000 ± 17000	
MW-4K	11/11/09	2210 ± 278	
MW-4K	11/11/09	124000 ± 11300	
MW-4K	11/11/09	< 180	
MW-4K	11/11/09	< 179	
MW-4K	11/18/09	264000 ± 15900	
MW-4K	11/18/09	< 171	
MW-4K	11/18/09	< 170	
MW-4K	11/18/09	82300 ± 8160	
MW-4K	11/18/09	1030 ± 163	
MW-4K	11/24/09	< 172	
MW-4K	11/24/09	431000 ± 42400	
MW-4K	11/24/09	3490 ± 830	
MW-4K	11/24/09	69800 ± 9030	
MW-4K	11/24/09	< 159	
MW-4K	11/24/09	< 157	
MW-4K	11/24/09	< 159	
MW-4K	12/01/09	300000 ± 17000	
MW-4K	12/01/09	9520 ± 1000	
MW-4K	12/01/09	78000 ± 9380	
MW-4K	12/01/09	< 161	
MW-4K	12/01/09	< 158	

TABLE B-I.1 CONCENTRATIONS OF TRITIUM AND STRONTIUM IN GROUNDWATER SAMPLES COLLECTED IN THE VICINITY OF OYSTER CREEK GENERATING STATION, 2009

RESULTS IN UNITS OF PCI/LITER ± 2 SIGMA

SITE	COLLECTION PERIOD	H-3	SR-90
MW-4K	12/08/09	328000 ± 17700	
MW-4K	12/08/09	45000 ± 4550	
MW-4K	12/08/09	< 158	
MW-4K	12/08/09	< 161	
MW-4K	12/08/09	1080 ± 169	
MW-4K	12/15/09	204000 ± 9970	
MW-4K	12/15/09	35800 ± 3620	
MW-4K	12/15/09	< 164	
MW-4K	12/15/09	< 164	
MW-4K	12/15/09	381 ± 119	
MW-4K	12/22/09	277000 ± 11500	
MW-4K	12/22/09	43800 ± 5340	
MW-4K	12/22/09	< 164	
MW-4K	12/22/09	< 164	
MW-4K	12/22/09	776 ± 140	
MW-4K	12/29/09	220000 ± 10300	
MW-4K	12/29/09	4860 ± 531	
MW-4K	12/29/09	22900 ± 2330	
MW-4K	12/29/09	< 161	
MW-4K	12/29/09	< 163	
MW-4K	12/29/09	205 ± 109	
MW-5	03/11/09	< 184	
MW-5	04/16/09	< 165	
MW-5	04/20/09	< 193	
MW-5	05/27/09	< 178	
MW-5	06/30/09	< 158	
MW-5	07/29/09	< 161	
MW-5	08/26/09	< 181	
MW-5	09/30/09	< 172	
MW-5	10/01/09	< 177	< 0.7
MW-5	10/29/09	< 157	
MW-5	11/24/09	< 159	
MW-56I	09/16/09	472000 ± 24400	
MW-56I	09/18/09	485000 ± 15100	
MW-56I	09/23/09	611000 ± 27800	
MW-56I	09/25/09	482000 ± 24700	
MW-56I	09/28/09	458000 ± 20700	
MW-56I	09/30/09	493000 ± 15200	
MW-56I	10/02/09	514000 ± 15500	
MW-56I	10/07/09	508000 ± 15500	
MW-56I	10/14/09	608000 ± 24000	
MW-56I	10/21/09	753000 ± 26700	
MW-56I	10/29/09	955000 ± 29600	
MW-56I	11/04/09	1290000 ± 121000	
MW-56I	11/11/09	1040000 ± 31100	

TABLE B-I.1 CONCENTRATIONS OF TRITIUM AND STRONTIUM IN GROUNDWATER SAMPLES COLLECTED IN THE VICINITY OF OYSTER CREEK GENERATING STATION, 2009

RESULTS IN UNITS OF PCI/LITER ± 2 SIGMA

SITE	COLLECTION PERIOD	H-3	SR-90
MW-56I	11/18/09	1010000 ± 94500	
MW-56I	11/24/09	1150000 ± 108000	
MW-56I	12/01/09	1030000 ± 30700	
MW-56I	12/08/09	1080000 ± 31400	
MW-56I	12/15/09	1150000 ± 22800	
MW-56I	12/22/09	962000 ± 20800	
MW-56I	12/29/09	993000 ± 21100	
MW-57I	09/11/09	738000 ± 29700	
MW-57I	09/16/09	408000 ± 22700	
MW-57I	09/18/09	431000 ± 14200	
MW-57I	09/23/09	398000 ± 22500	
MW-57I	09/25/09	372000 ± 21800	
MW-57I	09/28/09	360000 ± 18600	
MW-57I	09/30/09	313000 ± 12300	
MW-57I	10/02/09	380000 ± 13400	
MW-57I	10/07/09	380000 ± 13500	
MW-57I	10/14/09	344000 ± 18100	
MW-57I	10/21/09	307000 ± 17400	
MW-57I	10/29/09	384000 ± 19000	
MW-57I	11/04/09	490000 ± 43000	
MW-57I	11/11/09	326000 ± 17900	
MW-57I	11/18/09	367000 ± 18600	
MW-57I	11/24/09	305000 ± 17100	
MW-57I	12/01/09	444000 ± 20400	
MW-57I	12/08/09	263000 ± 16000	
MW-57I	12/15/09	495000 ± 15100	
MW-57I	12/22/09	285000 ± 11700	
MW-57I	12/29/09	200000 ± 9940	
MW-6	10/29/09	< 172	
NORTH DOMES	10/02/09	< 175	< 0.8
SOUTH DOMES	04/17/09	< 182	
SOUTH DOMES	10/02/09	< 175	< 0.8
W-7	03/11/09	< 187	
W-7	09/30/09	< 181	< 0.7
W-9	03/10/09	< 186	
W-9	09/30/09	< 186	< 0.8

TABLE B-I.2

CONCENTRATIONS OF GAMMA EMITTERS IN GROUNDWATER SAMPLES COLLECTED IN THE VICINITY OF OYSTER CREEK GENERATING STATION, 2009

RESULTS IN UNITS OF PCI/LITER ± 2 SIGMA

STC	COLLECTION PERIOD	Be-7	K-40	Mn-54	Co-58	Fe-59	Co-60	Zn-65	Nb-95	Zr-95	Cs-134	Cs-137	Ba-140	La-140
LW-3	10/02/09	< 37	< 82	< 4	< 5	< 8	< 5	< 8	< 4	< 7	< 4	< 4	< 22	< 7
LW-4	10/02/09	< 46	< 30	< 4	< 4	< 9	< 5	< 9	< 5	< 9	< 4	< 4	< 20	< 8
MW-1	05/27/09	< 39	< 28	< 3	< 4	< 7	< 3	< 8	< 4	< 7	< 3	< 4	< 36	< 9
MW-1	09/11/09	< 15	< 15	< 1	< 1	< 5	< 1	< 2	< 2	< 2	< 1	< 1	< 212	< 67
MW-1	11/24/09	< 20	< 10	< 2	< 2	< 6	< 1	< 3	< 2	< 4	< 1	< 1	< 64	< 18
MW-10	09/29/09	< 46	< 37	< 4	< 4	< 9	< 4	< 11	< 5	< 8	< 4	< 5	< 24	< 8
MW-12	09/30/09	< 47	< 43	< 5	< 5	< 9	< 4	< 11	< 7	< 9	< 5	< 5	< 27	< 7
MW-12	09/30/09	< 55	< 49	< 6	< 5	< 10	< 6	< 12	< 6	< 10	< 6	< 7	< 35	< 10
MW-13	09/30/09	< 40	< 39	< 4	< 4	< 9	< 4	< 9	< 5	< 8	< 4	< 4	< 24	< 9
MW-14	10/01/09	< 53	< 58	< 6	< 6	< 13	< 5	< 12	< 7	< 10	< 5	< 6	< 35	< 9
MW-15	10/01/09	< 46	103 ± 53	< 5	< 5	< 10	< 5	< 11	< 5	< 9	< 5	< 5	< 27	< 9
MW-15K-1A	04/29/09	< 53	76 ± 50	< 2	< 4	< 15	< 2	< 5	< 5	< 8	< 2	< 2	< 1370	< 430
MW-15K-1A	05/01/09	< 43	< 14	< 2	< 4	< 12	< 2	< 4	< 4	< 7	< 2	< 2	< 1060	< 329
MW-15K-1A	05/06/09	< 26	37 ± 18	< 1	< 2	< 8	< 1	< 3	< 3	< 5	< 1	< 1	< 281	< 95
MW-15K-1A	05/13/09	< 12	< 5	< 1	< 1	< 3	< 1	< 1	< 1	< 2	< 1	< 1	< 95	< 29
MW-15K-1A	05/20/09	< 42	< 41	< 2	< 4	< 15	< 2	< 5	< 5	< 8	< 2	< 2	< 826	< 286
MW-15K-1A	05/28/09	< 36	< 15	< 2	< 3	< 10	< 2	< 3	< 4	< 6	< 2	< 2	< 452	< 152
MW-15K-1A	06/02/09	< 21	< 9	< 1	< 2	< 6	< 1	< 3	< 2	< 4	< 1	< 1	< 275	< 81
MW-15K-1A	06/09/09	< 35	< 15	< 2	< 3	< 11	< 2	< 4	< 3	< 6	< 2	< 2	< 323	< 123
MW-15K-1A	06/16/09	< 29	< 15	< 2	< 3	< 8	< 1	< 4	< 3	< 5	< 2	< 2	< 210	< 70
MW-15K-1A	06/23/09	< 37	< 37	< 2	< 4	< 10	< 2	< 5	< 4	< 7	< 2	< 2	< 258	< 86
MW-15K-1A	07/01/09	< 34	< 17	< 2	< 3	< 9	< 2	< 5	< 4	< 6	< 2	< 2	< 169	< 51
MW-15K-1A	07/07/09	< 50	< 29	< 3	< 5	< 14	< 3	< 7	< 5	< 9	< 3	< 3	< 209	< 62
MW-15K-1A	07/15/09	< 44	< 12	< 2	< 3	< 10	< 2	< 4	< 4	< 7	< 2	< 2	< 532	< 177
MW-15K-1A	07/22/09	< 37	< 16	< 2	< 4	< 12	< 3	< 4	< 4	< 8	< 2	< 2	< 403	< 142
MW-15K-1A	07/29/09	< 15	273 ± 34	< 1	< 1	< 4	< 1	< 2	< 1	< 3	< 1	< 1	< 58	< 15
MW-15K-1A	08/05/09	< 23	260 ± 42	< 2	< 2	< 5	< 2	< 3	< 2	< 4	< 1	< 1	< 65	< 14
MW-15K-1A	08/12/09	< 13	< 7	< 1	< 1	< 3	< 1	< 2	< 1	< 2	< 1	< 1	< 42	< 14
MW-15K-1A	08/19/09	< 16	< 9	< 1	< 1	< 4	< 1	< 2	< 2	< 3	< 1	< 1	< 49	< 13
MW-15K-1A	08/25/09	< 13	< 12	< 1	< 1	< 4	< 1	< 2	< 2	< 3	< 1	< 1	< 32	< 10
MW-15K-1A	08/28/09	< 18	< 8	< 2	< 2	< 4	< 2	< 3	< 2	< 4	< 1	< 2	< 39	< 8
MW-15K-1A	08/31/09	< 18	< 11	< 1	< 2	< 3	< 1	< 3	< 2	< 3	< 1	< 2	< 28	< 8
MW-15K-1A	09/02/09	< 21	< 26	< 1	< 2	< 5	< 1	< 2	< 2	< 4	< 1	< 1	< 171	< 51
MW-15K-1A	09/04/09	< 18	< 27	< 1	< 2	< 4	< 1	< 2	< 2	< 3	< 1	< 1	< 140	< 38

TABLE B-I.2

CONCENTRATIONS OF GAMMA EMITTERS IN GROUNDWATER SAMPLES COLLECTED IN THE VICINITY OF OYSTER CREEK GENERATING STATION, 2009

RESULTS IN UNITS OF PCI/LITER ± 2 SIGMA

STC	COLLECTION PERIOD	Be-7	K-40	Mn-54	Co-58	Fe-59	Co-60	Zn-65	Nb-95	Zr-95	Cs-134	Cs-137	Ba-140	La-140
MW-15K-1A	09/08/09	< 30	< 13	< 2	< 3	< 8	< 1	< 4	< 3	< 5	< 1	< 1	< 224	< 82
MW-15K-1A	09/09/09	< 24	< 10	< 1	< 2	< 6	< 1	< 3	< 2	< 4	< 1	< 1	< 180	< 49
MW-15K-1A	09/11/09	< 18	< 20	< 1	< 2	< 5	< 1	< 2	< 2	< 3	< 1	< 1	< 388	< 116
MW-15K-1A	09/14/09	< 24	< 8	< 1	< 2	< 6	< 1	< 2	< 2	< 3	< 1	< 1	< 348	< 72
MW-15K-1A	09/16/09	< 19	< 23	< 1	< 2	< 4	< 1	< 2	< 2	< 3	< 1	< 1	< 123	< 37
MW-15K-1A	09/18/09	< 52	< 11	< 2	< 4	< 14	< 1	< 3	< 5	< 7	< 1	< 1	< 2900	< 756
MW-15K-1A	09/21/09	< 25	< 10	< 1	< 2	< 6	< 2	< 3	< 3	< 5	< 1	< 1	< 113	< 35
MW-15K-1A	09/23/09	< 18	< 24	< 1	< 2	< 5	< 1	< 2	< 2	< 3	< 1	< 1	< 187	< 54
MW-15K-1A	09/25/09	< 18	< 27	< 1	< 2	< 4	< 1	< 2	< 2	< 3	< 1	< 1	< 74	< 25
MW-15K-1A	09/28/09	< 38	< 21	< 1	< 3	< 9	< 1	< 2	< 3	< 6	< 1	< 1	< 3670	< 1200
MW-15K-1A	09/30/09	< 14	< 6	< 1	< 1	< 4	< 1	< 2	< 1	< 2	< 1	< 1	< 116	< 35
MW-15K-1A	10/02/09	< 37	< 9	< 1	< 3	< 10	< 1	< 3	< 4	< 5	< 1	< 1	< 1070	< 339
MW-15K-1A	10/07/09	< 27	< 9	< 1	< 2	< 8	< 1	< 2	< 2	< 4	< 1	< 1	< 630	< 218
MW-15K-1A	10/14/09	< 30	< 8	< 1	< 2	< 8	< 1	< 3	< 3	< 5	< 1	< 1	< 709	< 191
MW-15K-1A	10/21/09	< 10	< 6	< 1	< 1	< 2	< 1	< 1	< 1	< 2	< 1	< 1	< 38	< 10
MW-15K-1A	10/29/09	< 19	< 37	< 1	< 2	< 4	< 1	< 3	< 2	< 3	< 1	< 1	< 48	< 15
MW-15K-1A	11/04/09	< 26	< 8	< 1	< 2	< 6	< 1	< 2	< 2	< 4	< 1	< 1	< 565	< 193
MW-15K-1A	11/11/09	< 36	68 ± 44	< 1	< 3	< 9	< 1	< 3	< 3	< 6	< 1	< 1	< 555	< 169
MW-15K-1A	11/18/09	< 22	< 7	< 1	< 2	< 6	< 1	< 3	< 2	< 4	< 1	< 1	< 288	< 87
MW-15K-1A	11/24/09	< 28	< 12	< 2	< 2	< 5	< 1	< 3	< 2	< 4	< 1	< 1	< 287	< 88
MW-15K-1A	12/01/09	< 25	< 9	< 1	< 2	< 5	< 1	< 3	< 2	< 4	< 1	< 1	< 163	< 63
MW-15K-1A	12/08/09	< 25	< 11	< 1	< 2	< 6	< 1	< 3	< 2	< 4	< 1	< 1	< 121	< 28
MW-15K-1A	12/15/09	< 15	< 7	< 1	< 1	< 4	< 1	< 2	< 2	< 2	< 1	< 1	< 103	< 29
MW-15K-1A	12/22/09	< 18	< 28	< 1	< 2	< 4	< 1	< 2	< 2	< 3	< 1	< 1	< 88	< 25
MW-15K-1A	12/29/09	< 20	< 10	< 1	< 2	< 5	< 2	< 3	< 2	< 3	< 1	< 1	< 82	< 22
MW-16	10/01/09	< 27	61 ± 34	< 3	< 3	< 7	< 4	< 7	< 3	< 6	< 3	< 3	< 15	< 5
MW-16D	09/30/09	< 36	< 70	< 4	< 4	< 8	< 4	< 7	< 5	< 8	< 4	< 5	< 28	< 6
MW-1A	09/30/09	< 39	< 87	< 4	< 4	< 9	< 4	< 8	< 4	< 9	< 4	< 4	< 24	< 7
MW-1A-2A	10/01/09	< 38	< 38	< 4	< 4	< 7	< 5	< 8	< 4	< 7	< 4	< 4	< 20	< 8
MW-1I-1A	05/27/09	< 46	< 83	< 4	< 5	< 13	< 5	< 8	< 5	< 8	< 4	< 4	< 39	< 15
MW-1I-1A	06/30/09	< 30	< 40	< 2	< 3	< 9	< 2	< 4	< 3	< 6	< 2	< 2	< 156	< 56
MW-1I-1A	07/29/09	< 17	< 40	< 1	< 2	< 4	< 1	< 3	< 2	< 3	< 1	< 1	< 39	< 13
MW-1I-1A	08/26/09	< 20	< 14	< 2	< 2	< 5	< 1	< 3	< 2	< 4	< 1	< 1	< 42	< 13

TABLE B-I.2

CONCENTRATIONS OF GAMMA EMITTERS IN GROUNDWATER SAMPLES COLLECTED IN THE VICINITY OF OYSTER CREEK GENERATING STATION, 2009

RESULTS IN UNITS OF PCI/LITER ± 2 SIGMA

STC	COLLECTION PERIOD	Be-7	K-40	Mn-54	Co-58	Fe-59	Co-60	Zn-65	Nb-95	Zr-95	Cs-134	Cs-137	Ba-140	La-140
MW-1I-1A	09/30/09	< 17	64 ± 38	< 1	< 2	< 4	< 1	< 3	< 2	< 3	< 1	< 1	< 60	< 18
MW-1I-1A	09/30/09	< 25	< 12	< 2	< 2	< 5	< 2	< 4	< 3	< 5	< 2	< 1	< 95	< 27
MW-1I-1A	10/01/09	< 42	< 51	< 6	< 5	< 12	< 5	< 11	< 6	< 10	< 5	< 5	< 32	< 8
MW-1I-1A	10/29/09	< 20	80 ± 43	< 1	< 2	< 4	< 1	< 3	< 2	< 3	< 1	< 1	< 81	< 28
MW-1I-1A	11/24/09	< 20	< 34	< 1	< 2	< 5	< 1	< 3	< 2	< 3	< 1	< 1	< 93	< 28
MW-1I-2A	05/27/09	< 35	< 32	< 4	< 5	< 10	< 4	< 8	< 4	< 7	< 3	< 4	< 32	< 10
MW-1I-2A	06/30/09	< 25	< 26	< 2	< 2	< 7	< 2	< 3	< 3	< 5	< 1	< 2	< 137	< 46
MW-1I-2A	07/29/09	< 19	< 35	< 1	< 2	< 5	< 1	< 3	< 2	< 4	< 1	< 1	< 43	< 13
MW-1I-2A	08/26/09	< 18	< 12	< 2	< 2	< 3	< 1	< 2	< 2	< 4	< 1	< 1	< 36	< 15
MW-1I-2A	10/01/09	< 39	< 92	< 5	< 5	< 10	< 6	< 8	< 5	< 10	< 4	< 5	< 30	< 10
MW-1I-2A	10/29/09	< 17	< 9	< 1	< 2	< 5	< 1	< 2	< 2	< 3	< 1	< 1	< 71	< 22
MW-1I-2A	11/24/09	< 19	< 11	< 1	< 2	< 5	< 1	< 3	< 2	< 3	< 1	< 1	< 82	< 19
MW-24	10/01/09	< 40	< 43	< 6	< 5	< 11	< 5	< 8	< 4	< 8	< 4	< 5	< 23	< 8
MW-2A	09/30/09	< 41	< 37	< 4	< 5	< 10	< 4	< 8	< 5	< 8	< 4	< 5	< 26	< 8
MW-2B	09/30/09 TBE	< 43	< 98	< 5	< 6	< 8	< 5	< 8	< 5	< 9	< 5	< 6	< 27	< 10
MW-2B	09/30/09 TBE	< 39	< 39	< 4	< 4	< 9	< 5	< 9	< 4	< 8	< 4	< 4	< 27	< 7
MW-2B	09/30/09 EIML	< 21	95 ± 32	< 2	< 3	< 5	< 1	< 5	< 4	< 4	< 2	< 3	< 11	< 4
MW-2C	05/27/09	< 45	< 94	< 4	< 5	< 11	< 5	< 9	< 7	< 9	< 5	< 4	< 46	< 12
MW-2C	09/11/09	< 20	< 8	< 1	< 2	< 5	< 1	< 2	< 2	< 3	< 1	< 1	< 266	< 87
MW-2C	11/24/09	< 21	< 11	< 1	< 2	< 5	< 1	< 3	< 2	< 4	< 1	< 1	< 80	< 23
MW-2K	05/27/09	< 35	< 30	< 3	< 3	< 9	< 4	< 7	< 4	< 7	< 3	< 3	< 34	< 12
MW-2K	11/24/09	< 19	< 12	< 1	< 2	< 5	< 1	< 3	< 2	< 3	< 1	< 1	< 86	< 28
MW-3	05/27/09	< 37	< 27	< 3	< 3	< 8	< 3	< 5	< 4	< 8	< 3	< 3	< 35	< 8
MW-3	06/30/09	< 30	< 15	< 2	< 3	< 8	< 2	< 4	< 4	< 5	< 2	< 2	< 154	< 53
MW-3	07/29/09	< 24	< 19	< 2	< 2	< 6	< 3	< 4	< 2	< 4	< 2	< 2	< 39	< 13
MW-3	08/26/09	< 18	< 11	< 1	< 2	< 4	< 1	< 3	< 2	< 3	< 1	< 1	< 38	< 13
MW-3	09/30/09	< 23	90 ± 49	< 2	< 2	< 5	< 1	< 4	< 2	< 5	< 1	< 2	< 83	< 23
MW-3	10/01/09	< 42	< 104	< 5	< 5	< 11	< 4	< 9	< 6	< 10	< 5	< 6	< 27	< 10
MW-3	10/29/09	< 26	< 8	< 1	< 2	< 6	< 1	< 3	< 2	< 4	< 1	< 1	< 245	< 67
MW-3	11/24/09	< 19	< 10	< 1	< 2	< 5	< 1	< 3	< 2	< 3	< 1	< 1	< 84	< 27
MW-4	05/27/09	< 47	< 34	< 5	< 5	< 11	< 5	< 10	< 6	< 9	< 4	< 5	< 41	< 13

TABLE B-I.2

CONCENTRATIONS OF GAMMA EMITTERS IN GROUNDWATER SAMPLES COLLECTED IN THE VICINITY OF OYSTER CREEK GENERATING STATION, 2009

RESULTS IN UNITS OF PCI/LITER ± 2 SIGMA

STC	COLLECTION PERIOD	Be-7	K-40	Mn-54	Co-58	Fe-59	Co-60	Zn-65	Nb-95	Zr-95	Cs-134	Cs-137	Ba-140	La-140
MW-4	06/30/09	< 23	< 20	< 1	< 2	< 6	< 1	< 3	< 2	< 4	< 1	< 1	< 114	< 37
MW-4	07/29/09	< 22	< 54	< 2	< 3	< 6	< 2	< 4	< 2	< 4	< 2	< 2	< 37	< 14
MW-4	08/26/09	< 17	< 32	< 1	< 1	< 4	< 1	< 3	< 2	< 3	< 1	< 1	< 37	< 11
MW-4	09/30/09	< 19	< 30	< 1	< 2	< 5	< 1	< 2	< 2	< 3	< 1	< 1	< 64	< 19
MW-4	10/01/09	< 53	< 48	< 6	< 6	< 12	< 6	< 12	< 7	< 9	< 6	< 6	< 38	< 8
MW-4	10/29/09	< 18	< 7	< 1	< 2	< 5	< 1	< 2	< 2	< 3	< 1	< 1	< 191	< 42
MW-4	11/24/09	< 15	< 9	< 1	< 1	< 3	< 1	< 2	< 2	< 2	< 1	< 1	< 71	< 17
MW-4A	10/01/09	< 45	< 43	< 5	< 5	< 10	< 4	< 10	< 6	< 9	< 5	< 5	< 30	< 9
MW-4B	10/01/09	< 44	< 54	< 5	< 5	< 11	< 5	< 10	< 6	< 10	< 5	< 5	< 32	< 7
MW-4K	04/22/09	< 149	< 186	< #	< #	< 40	< 9	< 23	< 17	< 30	< 10	< 11	< 728	< 243
MW-4K	04/29/09	< 54	43 ± 26	< 2	< 5	< 19	< 2	< 5	< 5	< 10	< 2	< 2	< 2430	< 872
MW-4K	04/29/09	< 53	< 41	< 2	< 5	< 18	< 2	< 5	< 5	< 9	< 2	< 2	< 2200	< 789
MW-4K	04/29/09	< 43	< 14	< 2	< 4	< 13	< 2	< 4	< 4	< 7	< 2	< 2	< 1070	< 363
MW-4K	05/01/09	< 51	< 57	< 2	< 4	< 16	< 2	< 5	< 5	< 9	< 2	< 2	< 1230	< 359
MW-4K	05/01/09	< 14	89 ± 17	< 1	< 1	< 4	< 1	< 2	< 2	< 3	< 1	< 1	< 32	< 10
MW-4K	05/06/09	< 51	< 16	< 2	< 4	< 14	< 2	< 5	< 5	< 8	< 2	< 2	< 963	< 307
MW-4K	05/06/09	< 39	43 ± 20	< 2	< 3	< 13	< 1	< 3	< 4	< 7	< 1	< 1	< 1270	< 431
MW-4K	05/06/09	< 13	< 24	< 1	< 2	< 4	< 1	< 2	< 2	< 3	< 1	< 1	< 28	< 9
MW-4K	05/06/09	< 54	< 16	< 2	< 4	< 16	< 2	< 5	< 5	< 9	< 2	< 2	< 1600	< 565
MW-4K	05/06/09	< 40	85 ± 47	< 2	< 4	< 13	< 2	< 5	< 4	< 7	< 2	< 2	< 870	< 239
MW-4K	05/13/09	< 45	68 ± 25	< 2	< 4	< 14	< 2	< 5	< 5	< 7	< 2	< 2	< 1110	< 342
MW-4K	05/13/09	< 33	43 ± 24	< 2	< 3	< 10	< 2	< 4	< 4	< 6	< 2	< 2	< 257	< 80
MW-4K	05/13/09	< 30	< 28	< 2	< 3	< 8	< 2	< 4	< 3	< 5	< 1	< 1	< 226	< 80
MW-4K	05/13/09	< 37	48 ± 25	< 2	< 3	< 10	< 2	< 4	< 4	< 7	< 2	< 2	< 282	< 91
MW-4K	05/13/09	< 31	110 ± 26	< 2	< 3	< 10	< 2	< 4	< 3	< 6	< 2	< 2	< 256	< 80
MW-4K	05/20/09	< 38	37 ± 23	< 2	< 3	< 12	< 2	< 4	< 4	< 7	< 1	< 2	< 642	< 226
MW-4K	05/20/09	< 46	< 17	< 2	< 4	< 15	< 2	< 5	< 5	< 8	< 2	< 2	< 839	< 292
MW-4K	05/20/09	< 33	< 54	< 4	< 4	< 10	< 3	< 8	< 4	< 7	< 4	< 3	< 45	< 14
MW-4K	05/20/09	< 22	< 31	< 2	< 2	< 5	< 2	< 4	< 2	< 4	< 2	< 2	< 28	< 9
MW-4K	05/20/09	< 49	112 ± 31	< 2	< 4	< 14	< 2	< 5	< 5	< 8	< 2	< 2	< 871	< 276
MW-4K	05/27/09	< 35	< 65	< 3	< 4	< 8	< 3	< 8	< 4	< 7	< 3	< 4	< 31	< 11

TABLE B-I.2

CONCENTRATIONS OF GAMMA EMITTERS IN GROUNDWATER SAMPLES COLLECTED IN THE VICINITY OF OYSTER CREEK GENERATING STATION, 2009

RESULTS IN UNITS OF PCI/LITER ± 2 SIGMA

STC	COLLECTION PERIOD	Be-7	K-40	Mn-54	Co-58	Fe-59	Co-60	Zn-65	Nb-95	Zr-95	Cs-134	Cs-137	Ba-140	La-140
MW-4K	05/27/09	< 49	< 16	< 2	< 4	< 13	< 2	< 4	< 4	< 8	< 2	< 2	< 1000	< 304
MW-4K	05/27/09	< 50	< 42	< 4	< 4	< 11	< 5	< 9	< 5	< 9	< 4	< 5	< 49	< 13
MW-4K	05/27/09	< 46	288 ± 33	< 2	< 4	< 12	< 2	< 4	< 4	< 7	< 2	< 2	< 552	< 164
MW-4K	05/27/09	< 50	< 37	< 4	< 6	< 10	< 4	< 10	< 6	< 10	< 5	< 5	< 39	< 14
MW-4K	05/28/09	< 24	< 9	< 1	< 2	< 7	< 1	< 3	< 2	< 4	< 1	< 1	< 342	< 108
MW-4K	05/28/09	< 41	122 ± 28	< 2	< 4	< 11	< 2	< 4	< 4	< 7	< 2	< 2	< 513	< 165
MW-4K	06/02/09	< 32	< 13	< 2	< 3	< 9	< 1	< 3	< 3	< 5	< 1	< 1	< 348	< 102
MW-4K	06/02/09	< 19	< 26	< 1	< 2	< 5	< 1	< 2	< 2	< 3	< 1	< 1	< 232	< 74
MW-4K	06/02/09	< 37	68 ± 23	< 2	< 3	< 11	< 2	< 4	< 4	< 6	< 2	< 2	< 385	< 131
MW-4K	06/02/09	< 40	< 17	< 2	< 3	< 11	< 2	< 4	< 4	< 7	< 2	< 2	< 409	< 136
MW-4K	06/02/09	< 20	57 ± 26	< 1	< 2	< 5	< 1	< 2	< 2	< 3	< 1	< 1	< 206	< 62
MW-4K	06/02/09	< 40	43 ± 28	< 2	< 3	< 11	< 2	< 4	< 4	< 7	< 2	< 2	< 421	< 127
MW-4K	06/09/09	< 21	< 12	< 1	< 2	< 6	< 2	< 3	< 2	< 4	< 1	< 1	< 184	< 65
MW-4K	06/09/09	< 21	< 33	< 1	< 2	< 6	< 1	< 2	< 2	< 4	< 1	< 1	< 191	< 75
MW-4K	06/09/09	< 18	< 22	< 1	< 2	< 5	< 1	< 2	< 2	< 3	< 1	< 1	< 148	< 52
MW-4K	06/09/09	< 22	< 29	< 1	< 2	< 5	< 1	< 3	< 2	< 4	< 1	< 1	< 173	< 57
MW-4K	06/09/09	< 35	92 ± 29	< 2	< 3	< 11	< 2	< 4	< 4	< 6	< 2	< 2	< 319	< 94
MW-4K	06/16/09	< 33	< 42	< 2	< 3	< 10	< 2	< 5	< 4	< 6	< 2	< 2	< 241	< 87
MW-4K	06/16/09	< 26	< 26	< 2	< 3	< 8	< 1	< 3	< 3	< 5	< 1	< 1	< 188	< 67
MW-4K	06/16/09	< 29	< 14	< 2	< 3	< 8	< 1	< 4	< 3	< 5	< 2	< 2	< 199	< 69
MW-4K	06/16/09	< 27	< 29	< 2	< 2	< 7	< 1	< 3	< 3	< 5	< 1	< 1	< 188	< 57
MW-4K	06/16/09	< 43	73 ± 31	< 2	< 4	< 11	< 2	< 5	< 4	< 7	< 2	< 2	< 446	< 141
MW-4K	06/23/09	< 25	< 26	< 1	< 2	< 7	< 1	< 3	< 3	< 4	< 1	< 1	< 165	< 53
MW-4K	06/23/09	< 23	< 30	< 2	< 2	< 7	< 2	< 4	< 3	< 5	< 1	< 1	< 154	< 55
MW-4K	06/23/09	< 25	< 12	< 1	< 2	< 7	< 1	< 3	< 3	< 5	< 1	< 1	< 166	< 57
MW-4K	06/23/09	< 23	< 11	< 1	< 2	< 6	< 1	< 3	< 2	< 4	< 1	< 1	< 147	< 46
MW-4K	06/23/09	< 26	70 ± 24	< 2	< 2	< 7	< 1	< 3	< 3	< 5	< 1	< 1	< 168	< 53
MW-4K	06/30/09	< 30	< 14	< 2	< 3	< 8	< 2	< 4	< 3	< 6	< 2	< 2	< 156	< 49
MW-4K	06/30/09	< 27	< 28	< 2	< 3	< 8	< 2	< 3	< 3	< 5	< 2	< 2	< 134	< 45
MW-4K	06/30/09	< 31	< 18	< 2	< 3	< 8	< 2	< 4	< 3	< 6	< 2	< 2	< 153	< 51
MW-4K	06/30/09	< 32	75 ± 31	< 2	< 3	< 8	< 2	< 4	< 4	< 6	< 2	< 2	< 162	< 52

TABLE B-I.2

CONCENTRATIONS OF GAMMA EMITTERS IN GROUNDWATER SAMPLES COLLECTED IN THE VICINITY OF OYSTER CREEK GENERATING STATION, 2009

RESULTS IN UNITS OF PCI/LITER ± 2 SIGMA

STC	COLLECTION PERIOD	Be-7	K-40	Mn-54	Co-58	Fe-59	Co-60	Zn-65	Nb-95	Zr-95	Cs-134	Cs-137	Ba-140	La-140
MW-4K	06/30/09	< 30	< 16	< 2	< 3	< 9	< 2	< 4	< 3	< 6	< 2	< 2	< 153	< 55
MW-4K	07/01/09	< 28	< 16	< 2	< 3	< 8	< 2	< 4	< 3	< 5	< 2	< 2	< 137	< 50
MW-4K	07/01/09	< 30	< 41	< 2	< 3	< 10	< 2	< 5	< 3	< 6	< 2	< 2	< 152	< 60
MW-4K	07/01/09	< 26	< 31	< 2	< 2	< 7	< 2	< 3	< 3	< 5	< 2	< 2	< 128	< 41
MW-4K	07/07/09	< 42	< 50	< 3	< 4	< 10	< 3	< 6	< 4	< 7	< 2	< 3	< 156	< 48
MW-4K	07/07/09	< 50	< 68	< 3	< 5	< 14	< 3	< 8	< 5	< 9	< 3	< 3	< 198	< 65
MW-4K	07/07/09	< 50	< 27	< 3	< 5	< 13	< 3	< 7	< 5	< 9	< 3	< 3	< 200	< 64
MW-4K	07/07/09	< 49	< 24	< 3	< 5	< 13	< 3	< 6	< 5	< 8	< 3	< 3	< 192	< 57
MW-4K	07/07/09	< 51	369 ± 55	< 3	< 5	< 13	< 3	< 7	< 5	< 9	< 3	< 3	< 205	< 74
MW-4K	07/15/09	< 50	< 59	< 2	< 4	< 14	< 2	< 5	< 5	< 8	< 2	< 2	< 659	< 178
MW-4K	07/15/09	< 15	< 5	< 1	< 1	< 4	< 1	< 1	< 2	< 3	< 1	< 1	< 181	< 53
MW-4K	07/15/09	< 18	< 10	< 1	< 2	< 4	< 2	< 2	< 2	< 3	< 1	< 1	< 58	< 13
MW-4K	07/15/09	< 18	< 14	< 1	< 2	< 5	< 1	< 3	< 2	< 4	< 1	< 1	< 48	< 15
MW-4K	07/15/09	< 36	131 ± 36	< 2	< 3	< 9	< 2	< 3	< 3	< 6	< 1	< 2	< 506	< 120
MW-4K	07/15/09	< 39	< 17	< 2	< 3	< 11	< 2	< 4	< 4	< 6	< 2	< 2	< 577	< 180
MW-4K	07/22/09	< 32	< 13	< 2	< 3	< 8	< 1	< 3	< 3	< 6	< 1	< 2	< 292	< 97
MW-4K	07/22/09	< 14	< 21	< 1	< 1	< 3	< 1	< 2	< 2	< 3	< 1	< 1	< 34	< 11
MW-4K	07/22/09	< 17	< 11	< 1	< 2	< 4	< 1	< 3	< 2	< 3	< 1	< 1	< 43	< 15
MW-4K	07/22/09	< 48	171 ± 68	< 3	< 5	< 14	< 3	< 6	< 5	< 9	< 2	< 2	< 570	< 143
MW-4K	07/22/09	< 47	< 20	< 3	< 4	< 13	< 2	< 5	< 5	< 9	< 2	< 2	< 489	< 169
MW-4K	07/29/09	< 17	< 11	< 1	< 2	< 4	< 1	< 3	< 2	< 3	< 1	< 1	< 37	< 10
MW-4K	07/29/09	< 13	< 7	< 1	< 1	< 3	< 1	< 2	< 1	< 2	< 1	< 1	< 45	< 15
MW-4K	07/29/09	< 14	< 23	< 1	< 1	< 3	< 1	< 2	< 1	< 3	< 1	< 1	< 59	< 14
MW-4K	07/29/09	< 28	< 20	< 2	< 3	< 7	< 2	< 4	< 3	< 5	< 2	< 2	< 46	< 14
MW-4K	07/29/09	< 25	< 52	< 2	< 2	< 5	< 2	< 5	< 3	< 5	< 2	< 2	< 39	< 12
MW-4K	07/29/09	< 36	132 ± 44	< 2	< 3	< 9	< 2	< 4	< 4	< 6	< 2	< 2	< 282	< 99
MW-4K	07/29/09	< 43	< 15	< 2	< 3	< 9	< 2	< 4	< 4	< 6	< 2	< 2	< 304	< 97
MW-4K	07/29/09	< 20	< 24	< 2	< 2	< 5	< 1	< 3	< 2	< 4	< 1	< 2	< 43	< 14
MW-4K	08/05/09	< 22	84 ± 45	< 2	< 2	< 5	< 2	< 4	< 3	< 5	< 1	< 2	< 67	< 24
MW-4K	08/05/09	< 14	< 9	< 1	< 1	< 3	< 1	< 2	< 2	< 3	< 1	< 1	< 38	< 9
MW-4K	08/05/09	< 32	< 24	< 3	< 3	< 8	< 2	< 5	< 4	< 6	< 2	< 3	< 47	< 13

TABLE B-I.2

CONCENTRATIONS OF GAMMA EMITTERS IN GROUNDWATER SAMPLES COLLECTED IN THE VICINITY OF OYSTER CREEK GENERATING STATION, 2009

RESULTS IN UNITS OF PCI/LITER ± 2 SIGMA

STC	COLLECTION PERIOD	Be-7	K-40	Mn-54	Co-58	Fe-59	Co-60	Zn-65	Nb-95	Zr-95	Cs-134	Cs-137	Ba-140	La-140
MW-4K	08/05/09	< 27	290 ± 30	< 2	< 3	< 7	< 2	< 5	< 3	< 5	< 2	< 2	< 46	< 14
MW-4K	08/05/09	< 21	116 ± 58	< 2	< 2	< 5	< 2	< 4	< 2	< 4	< 2	< 2	< 69	< 21
MW-4K	08/05/09	< 21	< 17	< 2	< 2	< 5	< 2	< 3	< 2	< 4	< 1	< 2	< 55	< 21
MW-4K	08/12/09	< 14	< 29	< 1	< 1	< 4	< 1	< 2	< 2	< 3	< 1	< 1	< 50	< 15
MW-4K	08/12/09	< 11	< 20	< 1	< 1	< 3	< 1	< 2	< 1	< 2	< 1	< 1	< 43	< 14
MW-4K	08/12/09	< 24	< 15	< 2	< 2	< 6	< 2	< 4	< 3	< 4	< 2	< 2	< 53	< 15
MW-4K	08/12/09	< 19	< 12	< 1	< 2	< 4	< 1	< 3	< 2	< 3	< 1	< 1	< 44	< 14
MW-4K	08/12/09	< 15	107 ± 39	< 1	< 1	< 4	< 1	< 2	< 1	< 3	< 1	< 1	< 52	< 14
MW-4K	08/12/09	< 15	< 25	< 1	< 1	< 3	< 1	< 2	< 1	< 2	< 1	< 1	< 50	< 14
MW-4K	08/12/09	< 13	58 ± 37	< 1	< 1	< 3	< 1	< 2	< 1	< 2	< 1	< 1	< 48	< 15
MW-4K	08/12/09	< 14	< 30	< 1	< 2	< 4	< 1	< 3	< 2	< 3	< 1	< 1	< 50	< 14
MW-4K	08/19/09	< 16	< 10	< 1	< 1	< 4	< 1	< 2	< 2	< 3	< 1	< 1	< 44	< 14
MW-4K	08/19/09	< 14	< 23	< 1	< 1	< 3	< 1	< 2	< 2	< 3	< 1	< 1	< 33	< 12
MW-4K	08/19/09	< 17	< 11	< 1	< 2	< 4	< 1	< 2	< 2	< 3	< 1	< 1	< 46	< 15
MW-4K	08/19/09	< 13	170 ± 40	< 1	< 1	< 3	< 1	< 2	< 1	< 2	< 1	< 1	< 34	< 14
MW-4K	08/19/09	< 15	< 9	< 1	< 1	< 4	< 1	< 2	< 2	< 3	< 1	< 1	< 41	< 14
MW-4K	08/20/09	< 16	< 9	< 1	< 1	< 3	< 1	< 3	< 2	< 3	< 1	< 1	< 36	< 7
MW-4K	08/25/09	< 18	< 14	< 2	< 2	< 5	< 2	< 3	< 2	< 3	< 1	< 2	< 42	< 14
MW-4K	08/25/09	< 19	< 15	< 2	< 2	< 4	< 1	< 3	< 2	< 3	< 1	< 2	< 44	< 12
MW-4K	08/25/09	< 18	< 13	< 1	< 2	< 5	< 2	< 3	< 2	< 4	< 1	< 2	< 46	< 13
MW-4K	08/25/09	< 17	96 ± 43	< 1	< 2	< 4	< 1	< 2	< 2	< 3	< 1	< 1	< 38	< 9
MW-4K	08/25/09	< 26	< 41	< 2	< 2	< 6	< 1	< 3	< 2	< 4	< 2	< 2	< 47	< 13
MW-4K	08/26/09	< 23	< 52	< 2	< 2	< 6	< 2	< 3	< 2	< 4	< 1	< 2	< 43	< 14
MW-4K	08/26/09	< 16	< 8	< 1	< 2	< 4	< 2	< 3	< 2	< 3	< 1	< 1	< 42	< 11
MW-4K	08/27/09	< 16	< 11	< 1	< 2	< 4	< 2	< 3	< 2	< 3	< 1	< 1	< 38	< 13
MW-4K	08/28/09	< 21	< 14	< 2	< 2	< 5	< 1	< 4	< 2	< 4	< 2	< 2	< 41	< 11
MW-4K	08/28/09	< 18	< 13	< 2	< 2	< 4	< 2	< 3	< 2	< 3	< 1	< 1	< 35	< 11
MW-4K	08/28/09	< 22	< 48	< 2	< 2	< 5	< 1	< 3	< 2	< 3	< 1	< 2	< 41	< 14
MW-4K	08/31/09	< 21	< 9	< 1	< 2	< 6	< 1	< 2	< 2	< 4	< 1	< 1	< 241	< 77
MW-4K	08/31/09	< 32	< 11	< 1	< 3	< 8	< 1	< 2	< 3	< 5	< 1	< 1	< 323	< 94
MW-4K	08/31/09	< 38	< 13	< 2	< 3	< 9	< 1	< 4	< 4	< 6	< 2	< 2	< 403	< 133

TABLE B-I.2

CONCENTRATIONS OF GAMMA EMITTERS IN GROUNDWATER SAMPLES COLLECTED IN THE VICINITY OF OYSTER CREEK GENERATING STATION, 2009

RESULTS IN UNITS OF PCI/LITER ± 2 SIGMA

STC	COLLECTION PERIOD	Be-7	K-40	Mn-54	Co-58	Fe-59	Co-60	Zn-65	Nb-95	Zr-95	Cs-134	Cs-137	Ba-140	La-140
MW-4K	09/02/09	< 23	< 31	< 1	< 2	< 6	< 1	< 2	< 2	< 4	< 1	< 1	< 201	< 57
MW-4K	09/02/09	< 24	< 39	< 2	< 2	< 8	< 2	< 3	< 3	< 4	< 1	< 1	< 195	< 79
MW-4K	09/02/09	< 17	< 7	< 1	< 2	< 4	< 1	< 2	< 2	< 3	< 1	< 1	< 143	< 38
MW-4K	09/02/09	< 23	< 32	< 1	< 2	< 6	< 1	< 3	< 2	< 4	< 1	< 1	< 186	< 58
MW-4K	09/02/09	< 22	120 ± 36	< 1	< 2	< 5	< 1	< 3	< 2	< 4	< 1	< 1	< 174	< 53
MW-4K	09/02/09	< 21	< 10	< 1	< 2	< 6	< 1	< 2	< 2	< 4	< 1	< 1	< 195	< 61
MW-4K	09/04/09	< 26	< 33	< 1	< 2	< 7	< 1	< 3	< 2	< 4	< 1	< 1	< 175	< 57
MW-4K	09/04/09	< 40	< 17	< 2	< 3	< 9	< 2	< 4	< 4	< 6	< 2	< 2	< 309	< 83
MW-4K	09/04/09	< 20	< 34	< 1	< 2	< 5	< 1	< 2	< 2	< 3	< 1	< 1	< 163	< 52
MW-4K	09/08/09	< 26	< 11	< 2	< 2	< 5	< 1	< 2	< 2	< 4	< 1	< 1	< 192	< 50
MW-4K	09/08/09	< 29	< 14	< 2	< 3	< 7	< 2	< 3	< 3	< 6	< 2	< 2	< 217	< 88
MW-4K	09/08/09	< 34	< 47	< 2	< 3	< 10	< 2	< 4	< 3	< 6	< 1	< 2	< 244	< 64
MW-4K	09/09/09	< 36	< 51	< 2	< 3	< 9	< 2	< 4	< 3	< 6	< 2	< 2	< 237	< 73
MW-4K	09/09/09	< 30	< 13	< 2	< 2	< 7	< 2	< 4	< 3	< 5	< 2	< 2	< 210	< 58
MW-4K	09/09/09	< 35	< 14	< 2	< 3	< 7	< 2	< 4	< 3	< 6	< 2	< 2	< 239	< 82
MW-4K	09/09/09	< 29	< 34	< 2	< 2	< 6	< 1	< 4	< 3	< 5	< 1	< 1	< 200	< 62
MW-4K	09/09/09	< 30	138 ± 53	< 2	< 3	< 8	< 1	< 4	< 3	< 5	< 1	< 2	< 204	< 50
MW-4K	09/09/09	< 30	< 12	< 2	< 2	< 7	< 2	< 4	< 3	< 5	< 1	< 2	< 219	< 76
MW-4K	09/11/09	< 21	< 22	< 1	< 2	< 5	< 1	< 2	< 2	< 3	< 1	< 1	< 387	< 115
MW-4K	09/11/09	< 25	< 29	< 1	< 2	< 8	< 1	< 2	< 3	< 4	< 1	< 1	< 602	< 208
MW-4K	09/11/09	< 24	< 7	< 1	< 2	< 6	< 1	< 2	< 2	< 4	< 1	< 1	< 377	< 147
MW-4K	09/14/09	< 22	< 9	< 1	< 2	< 6	< 1	< 2	< 2	< 4	< 1	< 1	< 352	< 113
MW-4K	09/14/09	< 40	< 9	< 1	< 3	< 12	< 1	< 3	< 4	< 6	< 1	< 1	< 2750	< 566
MW-4K	09/16/09	< 26	< 38	< 2	< 2	< 7	< 2	< 3	< 3	< 4	< 1	< 1	< 160	< 47
MW-4K	09/16/09	< 29	83 ± 45	< 2	< 3	< 7	< 2	< 3	< 3	< 5	< 1	< 2	< 163	< 54
MW-4K	09/16/09	< 25	< 46	< 1	< 2	< 7	< 1	< 4	< 3	< 5	< 1	< 1	< 158	< 50
MW-4K	09/16/09	< 23	< 35	< 1	< 2	< 6	< 1	< 3	< 3	< 4	< 1	< 1	< 235	< 78
MW-4K	09/16/09	< 18	< 24	< 1	< 2	< 5	< 1	< 2	< 2	< 3	< 1	< 1	< 185	< 59
MW-4K	09/18/09	< 41	< 10	< 1	< 3	< 13	< 2	< 3	< 4	< 7	< 1	< 1	< 2210	< 704
MW-4K	09/18/09	< 29	< 9	< 1	< 2	< 9	< 1	< 2	< 3	< 5	< 1	< 1	< 1530	< 488
MW-4K	09/21/09	< 20	< 9	< 1	< 2	< 5	< 1	< 2	< 2	< 4	< 1	< 1	< 91	< 25

TABLE B-I.2

CONCENTRATIONS OF GAMMA EMITTERS IN GROUNDWATER SAMPLES COLLECTED IN THE VICINITY OF OYSTER CREEK GENERATING STATION, 2009

RESULTS IN UNITS OF PCI/LITER ± 2 SIGMA

STC	COLLECTION PERIOD	Be-7	K-40	Mn-54	Co-58	Fe-59	Co-60	Zn-65	Nb-95	Zr-95	Cs-134	Cs-137	Ba-140	La-140
MW-4K	09/21/09	< 26	< 42	< 2	< 2	< 6	< 2	< 3	< 3	< 4	< 1	< 2	< 130	< 36
MW-4K	09/23/09	< 20	< 12	< 1	< 2	< 4	< 1	< 3	< 2	< 4	< 1	< 1	< 96	< 23
MW-4K	09/23/09	< 15	93 ± 32	< 1	< 1	< 4	< 1	< 2	< 2	< 3	< 1	< 1	< 74	< 19
MW-4K	09/23/09	< 21	< 7	< 1	< 2	< 5	< 1	< 2	< 2	< 4	< 1	< 1	< 230	< 62
MW-4K	09/23/09	< 19	< 8	< 1	< 2	< 4	< 1	< 2	< 2	< 4	< 1	< 1	< 148	< 44
MW-4K	09/23/09	< 16	< 7	< 1	< 1	< 4	< 1	< 2	< 1	< 3	< 1	< 1	< 123	< 33
MW-4K	09/25/09	< 18	< 27	< 1	< 2	< 3	< 1	< 2	< 2	< 3	< 1	< 1	< 75	< 20
MW-4K	09/25/09	< 16	< 8	< 1	< 2	< 4	< 1	< 2	< 2	< 3	< 1	< 1	< 70	< 20
MW-4K	09/28/09	< 52	< 36	< 2	< 4	< 13	< 1	< 3	< 5	< 9	< 1	< 1	< 5750	< 1570
MW-4K	09/28/09	< 61	< 12	< 2	< 4	< 16	< 2	< 4	< 4	< 8	< 1	< 1	< 5530	< 1700
MW-4K	09/30/09	< 44	< 12	< 1	< 3	< 10	< 1	< 3	< 4	< 6	< 1	< 1	< 1380	< 368
MW-4K	09/30/09	< 37	< 43	< 2	< 3	< 13	< 1	< 3	< 3	< 7	< 1	< 1	< 1410	< 340
MW-4K	09/30/09	< 14	< 9	< 1	< 2	< 4	< 1	< 2	< 2	< 3	< 1	< 1	< 59	< 15
MW-4K	09/30/09	< 22	< 40	< 1	< 2	< 5	< 1	< 3	< 2	< 4	< 1	< 1	< 84	< 24
MW-4K	09/30/09	< 15	< 7	< 1	< 1	< 3	< 1	< 2	< 1	< 3	< 1	< 1	< 89	< 28
MW-4K	09/30/09	< 33	139 ± 40	< 2	< 3	< 8	< 2	< 3	< 3	< 6	< 1	< 1	< 339	< 142
MW-4K	09/30/09	< 22	< 38	< 1	< 2	< 4	< 1	< 3	< 2	< 3	< 1	< 1	< 65	< 22
MW-4K	10/01/09 TBE	< 35	< 44	< 4	< 4	< 7	< 4	< 7	< 4	< 8	< 3	< 4	< 18	< 7
MW-4K	10/01/09 TBE	< 46	< 115	< 5	< 6	< 11	< 7	< 10	< 5	< 10	< 5	< 5	< 29	< 9
MW-4K	10/01/09 EIML	< 21	93 ± 30	< 3	< 2	< 4	< 2	< 6	< 3	< 6	< 2	< 3	< 17	< 2
MW-4K	10/02/09	< 39	< 10	< 1	< 3	< 10	< 1	< 3	< 3	< 6	< 1	< 1	< 1200	< 358
MW-4K	10/02/09	< 29	80 ± 37	< 1	< 2	< 9	< 1	< 2	< 3	< 4	< 1	< 1	< 914	< 280
MW-4K	10/07/09	< 29	< 7	< 1	< 2	< 7	< 1	< 2	< 3	< 5	< 1	< 1	< 733	< 276
MW-4K	10/07/09	< 28	< 8	< 1	< 2	< 8	< 1	< 2	< 3	< 4	< 1	< 1	< 687	< 233
MW-4K	10/07/09	< 19	< 6	< 1	< 1	< 5	< 1	< 2	< 2	< 3	< 1	< 1	< 289	< 86
MW-4K	10/07/09	< 24	< 8	< 1	< 2	< 7	< 1	< 2	< 2	< 4	< 1	< 1	< 402	< 137
MW-4K	10/07/09	< 26	111 ± 42	< 1	< 2	< 6	< 1	< 2	< 3	< 4	< 1	< 1	< 367	< 141
MW-4K	10/14/09	< 25	< 6	< 1	< 2	< 6	< 1	< 2	< 3	< 4	< 1	< 1	< 505	< 199
MW-4K	10/14/09	< 32	< 9	< 1	< 2	< 7	< 1	< 3	< 3	< 5	< 1	< 1	< 697	< 224
MW-4K	10/14/09	< 23	< 9	< 1	< 2	< 5	< 1	< 2	< 2	< 4	< 1	< 1	< 280	< 77
MW-4K	10/14/09	< 24	< 9	< 1	< 2	< 6	< 1	< 2	< 2	< 4	< 1	< 1	< 309	< 75

TABLE B-I.2

CONCENTRATIONS OF GAMMA EMITTERS IN GROUNDWATER SAMPLES COLLECTED IN THE VICINITY OF OYSTER CREEK GENERATING STATION, 2009

RESULTS IN UNITS OF PCI/LITER ± 2 SIGMA

STC	COLLECTION PERIOD	Be-7	K-40	Mn-54	Co-58	Fe-59	Co-60	Zn-65	Nb-95	Zr-95	Cs-134	Cs-137	Ba-140	La-140
MW-4K	10/14/09	< 18	120 ± 34	< 1	< 2	< 5	< 1	< 2	< 2	< 3	< 1	< 1	< 208	< 65
MW-4K	10/21/09	< 12	< 5	< 1	< 1	< 3	< 1	< 1	< 1	< 2	< 1	< 1	< 41	< 11
MW-4K	10/21/09	< 10	< 7	< 1	< 1	< 3	< 1	< 2	< 1	< 2	< 1	< 1	< 34	< 12
MW-4K	10/21/09	< 27	< 44	< 1	< 3	< 8	< 2	< 4	< 3	< 5	< 1	< 1	< 220	< 57
MW-4K	10/21/09	< 20	< 9	< 1	< 2	< 5	< 1	< 2	< 2	< 3	< 1	< 1	< 179	< 65
MW-4K	10/21/09	< 23	117 ± 42	< 1	< 2	< 6	< 1	< 2	< 2	< 4	< 1	< 1	< 208	< 60
MW-4K	10/28/09	< 59	< 18	< 4	< 6	< 17	< 2	< 6	< 7	< 13	< 3	< 3	< 1250	< 277
MW-4K	10/28/09	< 16	< 10	< 1	< 2	< 4	< 2	< 3	< 2	< 3	< 1	< 1	< 42	< 16
MW-4K	10/28/09	< 35	< 35	< 1	< 3	< 10	< 1	< 3	< 3	< 5	< 1	< 1	< 998	< 316
MW-4K	10/28/09	< 25	< 12	< 1	< 2	< 6	< 2	< 3	< 2	< 4	< 1	< 1	< 93	< 32
MW-4K	10/28/09	< 19	< 10	< 1	< 2	< 5	< 1	< 3	< 2	< 4	< 1	< 1	< 73	< 21
MW-4K	10/28/09	< 21	109 ± 47	< 1	< 2	< 4	< 1	< 3	< 2	< 4	< 1	< 1	< 93	< 22
MW-4K	11/04/09	< 31	< 25	< 1	< 2	< 8	< 1	< 3	< 3	< 6	< 1	< 1	< 668	< 191
MW-4K	11/04/09	< 32	< 11	< 1	< 3	< 9	< 1	< 3	< 3	< 5	< 1	< 1	< 687	< 196
MW-4K	11/04/09	< 20	< 15	< 2	< 2	< 5	< 1	< 3	< 2	< 4	< 1	< 1	< 63	< 20
MW-4K	11/04/09	< 18	< 10	< 1	< 2	< 4	< 1	< 3	< 2	< 3	< 1	< 1	< 57	< 17
MW-4K	11/04/09	< 26	173 ± 54	< 2	< 2	< 6	< 2	< 4	< 3	< 3	< 2	< 2	< 82	< 24
MW-4K	11/11/09	< 13	< 29	< 1	< 1	< 3	< 1	< 2	< 1	< 3	< 1	< 1	< 21	< 4
MW-4K	11/11/09	< 30	199 ± 45	< 1	< 3	< 8	< 1	< 3	< 2	< 5	< 1	< 1	< 400	< 106
MW-4K	11/11/09	< 13	< 9	< 1	< 1	< 3	< 1	< 2	< 1	< 2	< 1	< 1	< 20	< 6
MW-4K	11/11/09	< 17	< 39	< 2	< 2	< 6	< 2	< 4	< 2	< 4	< 1	< 2	< 50	< 15
MW-4K	11/11/09	< 25	< 10	< 2	< 2	< 6	< 2	< 3	< 3	< 3	< 1	< 2	< 54	< 20
MW-4K	11/18/09	< 26	< 9	< 1	< 3	< 8	< 1	< 3	< 2	< 4	< 1	< 1	< 392	< 86
MW-4K	11/18/09	< 18	< 9	< 1	< 2	< 5	< 1	< 2	< 2	< 3	< 1	< 1	< 82	< 25
MW-4K	11/18/09	< 26	< 10	< 2	< 2	< 6	< 1	< 3	< 2	< 4	< 1	< 2	< 102	< 31
MW-4K	11/18/09	< 31	< 38	< 1	< 2	< 7	< 1	< 2	< 3	< 5	< 1	< 1	< 415	< 119
MW-4K	11/18/09	< 17	131 ± 26	< 1	< 1	< 4	< 1	< 2	< 2	< 3	< 1	< 1	< 344	< 94
MW-4K	11/24/09	< 18	< 9	< 1	< 2	< 3	< 1	< 2	< 2	< 3	< 1	< 1	< 54	< 10
MW-4K	11/24/09	< 30	< 13	< 1	< 3	< 7	< 2	< 3	< 3	< 4	< 1	< 1	< 297	< 84
MW-4K	11/24/09	< 28	119 ± 59	< 1	< 2	< 6	< 1	< 2	< 3	< 4	< 1	< 2	< 274	< 87
MW-4K	11/24/09	< 25	< 42	< 1	< 2	< 5	< 1	< 3	< 2	< 4	< 1	< 2	< 134	< 39

TABLE B-I.2

CONCENTRATIONS OF GAMMA EMITTERS IN GROUNDWATER SAMPLES COLLECTED IN THE VICINITY OF OYSTER CREEK GENERATING STATION, 2009

RESULTS IN UNITS OF PCI/LITER ± 2 SIGMA

STC	COLLECTION PERIOD	Be-7	K-40	Mn-54	Co-58	Fe-59	Co-60	Zn-65	Nb-95	Zr-95	Cs-134	Cs-137	Ba-140	La-140
MW-4K	11/24/09	< 28	< 43	< 2	< 2	< 6	< 1	< 4	< 3	< 4	< 1	< 2	< 269	< 51
MW-4K	11/24/09	< 18	< 8	< 1	< 2	< 5	< 1	< 3	< 2	< 3	< 1	< 1	< 85	< 28
MW-4K	11/24/09	< 19	< 33	< 1	< 2	< 4	< 1	< 2	< 2	< 4	< 1	< 1	< 84	< 27
MW-4K	12/01/09	< 25	< 44	< 2	< 3	< 8	< 1	< 3	< 3	< 5	< 1	< 1	< 188	< 47
MW-4K	12/01/09	< 23	112 ± 55	< 1	< 3	< 7	< 1	< 3	< 3	< 4	< 1	< 2	< 191	< 46
MW-4K	12/01/09	< 20	< 36	< 1	< 2	< 7	< 1	< 3	< 2	< 4	< 1	< 2	< 161	< 56
MW-4K	12/01/09	< 31	435 ± 65	< 2	< 3	< 8	< 2	< 3	< 3	< 5	< 2	< 2	< 181	< 50
MW-4K	12/01/09	< 21	< 10	< 1	< 2	< 6	< 1	< 3	< 2	< 3	< 1	< 1	< 128	< 30
MW-4K	12/08/09	< 18	< 9	< 1	< 2	< 5	< 1	< 2	< 2	< 3	< 1	< 1	< 89	< 19
MW-4K	12/08/09	< 23	< 11	< 1	< 2	< 5	< 2	< 3	< 2	< 4	< 1	< 1	< 104	< 31
MW-4K	12/08/09	< 23	68 ± 45	< 1	< 2	< 6	< 2	< 3	< 2	< 4	< 1	< 1	< 107	< 33
MW-4K	12/08/09	< 17	< 10	< 1	< 1	< 5	< 1	< 2	< 2	< 3	< 1	< 1	< 84	< 23
MW-4K	12/08/09	< 28	141 ± 50	< 2	< 2	< 7	< 1	< 4	< 2	< 5	< 1	< 2	< 220	< 60
MW-4K	12/15/09	< 14	< 25	< 1	< 1	< 3	< 1	< 2	< 1	< 2	< 1	< 1	< 89	< 27
MW-4K	12/15/09	< 20	< 29	< 1	< 2	< 5	< 1	< 2	< 2	< 3	< 1	< 1	< 127	< 35
MW-4K	12/15/09	< 25	< 11	< 1	< 2	< 6	< 2	< 3	< 2	< 4	< 1	< 2	< 163	< 38
MW-4K	12/15/09	< 25	85 ± 50	< 1	< 3	< 6	< 1	< 3	< 3	< 5	< 1	< 1	< 163	< 42
MW-4K	12/15/09	< 23	131 ± 44	< 1	< 2	< 7	< 1	< 3	< 2	< 4	< 1	< 2	< 141	< 46
MW-4K	12/22/09	< 19	< 8	< 1	< 2	< 4	< 1	< 2	< 2	< 3	< 1	< 1	< 97	< 25
MW-4K	12/22/09	< 21	64 ± 38	< 1	< 2	< 5	< 1	< 2	< 2	< 3	< 1	< 1	< 96	< 34
MW-4K	12/22/09	< 21	106 ± 47	< 1	< 2	< 4	< 1	< 3	< 2	< 4	< 1	< 1	< 105	< 29
MW-4K	12/22/09	< 23	< 13	< 1	< 2	< 6	< 1	< 3	< 2	< 4	< 1	< 1	< 99	< 28
MW-4K	12/22/09	< 19	< 34	< 1	< 2	< 4	< 1	< 2	< 2	< 3	< 1	< 1	< 73	< 24
MW-4K	12/29/09	< 14	< 18	< 1	< 1	< 4	< 1	< 2	< 2	< 2	< 1	< 1	< 56	< 14
MW-4K	12/29/09	< 35	< 66	< 2	< 4	< 7	< 2	< 5	< 3	< 6	< 2	< 3	< 138	< 37
MW-4K	12/29/09	< 20	< 35	< 2	< 2	< 5	< 1	< 3	< 2	< 4	< 1	< 1	< 79	< 25
MW-4K	12/29/09	< 21	< 10	< 1	< 2	< 5	< 1	< 3	< 2	< 4	< 1	< 1	< 74	< 18
MW-4K	12/29/09	< 16	91 ± 43	< 1	< 1	< 4	< 1	< 2	< 2	< 3	< 1	< 1	< 56	< 19
MW-4K	12/29/09	< 11	146 ± 29	< 1	< 1	< 3	< 1	< 2	< 1	< 2	< 1	< 1	< 41	< 11
MW-5	05/27/09	< 21	< 50	< 2	< 3	< 5	< 1	< 5	< 3	< 6	< 2	< 2	< 25	< 8
MW-5	06/30/09	< 30	< 35	< 2	< 3	< 9	< 2	< 4	< 3	< 6	< 2	< 2	< 162	< 54

TABLE B-I.2

CONCENTRATIONS OF GAMMA EMITTERS IN GROUNDWATER SAMPLES COLLECTED IN THE VICINITY OF OYSTER CREEK GENERATING STATION, 2009

RESULTS IN UNITS OF PCI/LITER ± 2 SIGMA

STC	COLLECTION PERIOD	Be-7	K-40	Mn-54	Co-58	Fe-59	Co-60	Zn-65	Nb-95	Zr-95	Cs-134	Cs-137	Ba-140	La-140
MW-5	07/29/09	< 21	< 38	< 2	< 2	< 5	< 2	< 3	< 2	< 4	< 2	< 2	< 32	< 10
MW-5	08/26/09	< 16	< 13	< 1	< 2	< 5	< 1	< 3	< 2	< 3	< 1	< 1	< 31	< 15
MW-5	09/30/09	< 19	< 30	< 1	< 2	< 5	< 2	< 3	< 2	< 3	< 1	< 1	< 66	< 25
MW-5	10/01/09	< 47	< 53	< 5	< 5	< 12	< 5	< 12	< 6	< 10	< 5	< 5	< 31	< 9
MW-5	10/29/09	< 38	< 10	< 2	< 3	< 10	< 2	< 3	< 4	< 6	< 1	< 1	< 962	< 244
MW-5	11/24/09	< 21	< 36	< 1	< 2	< 6	< 1	< 3	< 2	< 4	< 1	< 1	< 99	< 24
MW-56I	09/16/09	< 24	< 32	< 1	< 2	< 6	< 1	< 3	< 2	< 4	< 1	< 1	< 125	< 48
MW-56I	09/18/09	< 35	86 ± 42	< 1	< 3	< 10	< 1	< 3	< 3	< 6	< 1	< 1	< 1920	< 522
MW-56I	09/23/09	< 20	< 28	< 1	< 2	< 5	< 1	< 2	< 2	< 4	< 1	< 1	< 89	< 23
MW-56I	09/25/09	< 15	< 20	< 1	< 2	< 4	< 1	< 2	< 2	< 2	< 1	< 1	< 69	< 16
MW-56I	09/28/09	< 55	< 37	< 2	< 5	< 17	< 1	< 4	< 4	< 8	< 1	< 1	< 6070	< 1970
MW-56I	09/30/09	< 35	< 11	< 1	< 3	< 10	< 1	< 3	< 4	< 6	< 1	< 1	< 1180	< 270
MW-56I	10/02/09	< 23	< 6	< 1	< 2	< 7	< 1	< 2	< 2	< 3	< 1	< 1	< 764	< 256
MW-56I	10/07/09	< 38	82 ± 42	< 2	< 3	< 11	< 1	< 3	< 4	< 6	< 1	< 1	< 1090	< 331
MW-56I	10/14/09	< 10	32 ± 20	< 1	< 1	< 2	< 1	< 1	< 1	< 2	< 1	< 1	< 45	< 15
MW-56I	10/21/09	< 20	< 30	< 1	< 2	< 4	< 1	< 2	< 2	< 4	< 1	< 1	< 75	< 18
MW-56I	10/29/09	< 33	< 10	< 1	< 3	< 8	< 1	< 3	< 3	< 5	< 1	< 1	< 926	< 350
MW-56I	11/04/09	< 39	< 10	< 2	< 3	< 9	< 1	< 3	< 3	< 5	< 1	< 2	< 801	< 196
MW-56I	11/11/09	< 11	< 7	< 1	< 1	< 2	< 1	< 2	< 1	< 2	< 1	< 1	< 21	< 5
MW-56I	11/18/09	< 30	< 12	< 2	< 3	< 8	< 1	< 3	< 3	< 5	< 1	< 1	< 415	< 120
MW-56I	11/24/09	< 26	< 9	< 1	< 2	< 6	< 1	< 2	< 2	< 4	< 1	< 1	< 258	< 64
MW-56I	12/01/09	< 19	< 31	< 1	< 2	< 6	< 1	< 2	< 2	< 5	< 1	< 1	< 151	< 59
MW-56I	12/08/09	< 26	< 35	< 2	< 2	< 6	< 1	< 3	< 2	< 4	< 1	< 1	< 119	< 40
MW-56I	12/15/09	< 12	< 6	< 1	< 1	< 3	< 1	< 2	< 1	< 2	< 1	< 1	< 86	< 26
MW-56I	12/22/09	< 15	< 7	< 1	< 2	< 4	< 1	< 2	< 2	< 3	< 1	< 1	< 73	< 20
MW-56I	12/29/09	< 20	< 42	< 1	< 2	< 6	< 1	< 3	< 2	< 4	< 1	< 1	< 77	< 24
MW-57I	09/11/09	< 28	68 ± 39	< 1	< 2	< 8	< 1	< 2	< 3	< 5	< 1	< 1	< 494	< 143
MW-57I	09/16/09	< 26	< 12	< 2	< 2	< 6	< 1	< 3	< 3	< 5	< 1	< 1	< 142	< 42
MW-57I	09/18/09	< 61	< 39	< 2	< 4	< 14	< 1	< 3	< 5	< 7	< 1	< 2	< 2940	< 795
MW-57I	09/23/09	< 20	< 29	< 1	< 2	< 6	< 1	< 2	< 2	< 3	< 1	< 1	< 80	< 27
MW-57I	09/25/09	< 24	< 43	< 2	< 2	< 5	< 1	< 3	< 3	< 4	< 1	< 2	< 120	< 29

TABLE B-I.2

CONCENTRATIONS OF GAMMA EMITTERS IN GROUNDWATER SAMPLES COLLECTED IN THE VICINITY OF OYSTER CREEK GENERATING STATION, 2009

RESULTS IN UNITS OF PCI/LITER ± 2 SIGMA

STC	COLLECTION PERIOD	Be-7	K-40	Mn-54	Co-58	Fe-59	Co-60	Zn-65	Nb-95	Zr-95	Cs-134	Cs-137	Ba-140	La-140
MW-57I	09/28/09	< 51	< 10	< 1	< 4	< 14	< 1	< 3	< 5	< 7	< 1	< 1	< 5780	< 1660
MW-57I	09/30/09	< 38	< 9	< 1	< 2	< 8	< 1	< 3	< 3	< 4	< 1	< 1	< 1140	< 304
MW-57I	10/02/09	< 34	< 34	< 1	< 3	< 10	< 1	< 3	< 4	< 5	< 1	< 2	< 1130	< 331
MW-57I	10/07/09	< 39	209 ± 37	< 1	< 3	< 13	< 1	< 3	< 4	< 6	< 1	< 2	< 1210	< 348
MW-57I	10/14/09	< 14	< 27	< 1	< 1	< 4	< 1	< 2	< 1	< 2	< 1	< 1	< 68	< 22
MW-57I	10/21/09	< 9	36 ± 22	< 1	< 1	< 2	< 1	< 1	< 1	< 2	< 1	< 1	< 34	< 10
MW-57I	10/29/09	< 12	< 24	< 1	< 1	< 3	< 1	< 2	< 1	< 3	< 1	< 1	< 34	< 10
MW-57I	11/04/09	< 38	< 32	< 2	< 3	< 10	< 2	< 3	< 3	< 6	< 1	< 1	< 867	< 202
MW-57I	11/11/09	< 12	< 8	< 1	< 1	< 2	< 1	< 2	< 1	< 2	< 1	< 1	< 21	< 6
MW-57I	11/18/09	< 19	< 21	< 1	< 2	< 5	< 1	< 2	< 2	< 3	< 1	< 1	< 287	< 71
MW-57I	11/24/09	< 25	< 39	< 1	< 3	< 7	< 1	< 3	< 2	< 5	< 1	< 1	< 246	< 83
MW-57I	12/01/09	< 17	< 9	< 1	< 1	< 5	< 1	< 2	< 2	< 3	< 1	< 1	< 134	< 48
MW-57I	12/08/09	< 18	< 40	< 1	< 2	< 5	< 1	< 2	< 2	< 4	< 1	< 1	< 111	< 29
MW-57I	12/15/09	< 21	< 29	< 1	< 2	< 5	< 1	< 2	< 2	< 3	< 1	< 1	< 132	< 42
MW-57I	12/22/09	< 17	< 8	< 1	< 2	< 4	< 1	< 2	< 2	< 3	< 1	< 1	< 93	< 26
MW-57I	12/29/09	< 12	< 9	< 1	< 1	< 3	< 1	< 2	< 1	< 2	< 1	< 1	< 49	< 14
MW-6	10/29/09	< 31	< 45	< 2	< 3	< 8	< 1	< 3	< 3	< 5	< 1	< 2	< 311	< 85
NORTH DOMESTIC WELL	10/02/09	< 29	< 30	< 3	< 3	< 6	< 4	< 7	< 4	< 6	< 3	< 4	< 16	< 5
SOUTH DOMESTIC WELL	10/02/09	< 49	< 93	< 5	< 5	< 10	< 6	< 11	< 6	< 8	< 6	< 6	< 26	< 11
W-7	09/30/09	< 37	< 59	< 5	< 4	< 12	< 6	< 12	< 4	< 10	< 5	< 5	< 26	< 8
W-9	09/30/09	< 37	< 90	< 4	< 4	< 9	< 4	< 8	< 4	< 8	< 4	< 4	< 21	< 6

TABLE B-II.1 **CONCENTRATIONS OF TRITIUM AND STRONTIUM IN SURFACE WATER SAMPLES COLLECTED IN THE VICINITY OF OYSTER CREEK GENERATING STATION, 2009**

RESULTS IN UNITS OF PCI/LITER ± 2 SIGMA

SITE	COLLECTION DATE	H-3	SR-90
INTAKE	04/28/09	< 149	
INTAKE	04/29/09	< 156	
INTAKE	05/05/09	< 199	
INTAKE	05/12/09	< 179	
INTAKE	05/19/09	< 179	
INTAKE	05/26/09	< 178	
INTAKE	06/02/09	< 168	
INTAKE	06/08/09	< 162	
INTAKE	06/15/09	< 158	
INTAKE	06/22/09	< 158	
INTAKE	06/26/09	< 181	
INTAKE	06/27/09	< 168	
INTAKE	06/28/09	< 181	
INTAKE	06/29/09	< 178	
INTAKE	06/30/09	< 168	
INTAKE	07/01/09	< 179	
INTAKE	07/02/09	< 178	
INTAKE	07/03/09	< 186	
INTAKE	07/04/09	< 118	
INTAKE	07/05/09	< 200	
INTAKE	07/06/09	< 116	
INTAKE	07/07/09	< 117	
INTAKE	07/08/09	< 110	
INTAKE	07/09/09	< 120	
INTAKE	07/10/09	< 114	
INTAKE	07/11/09	< 179	
INTAKE	07/12/09	< 180	
INTAKE	07/13/09	< 169	
INTAKE	07/14/09	< 161	
INTAKE	07/15/09	< 163	
INTAKE	07/16/09	< 166	
INTAKE	07/17/09	< 168	
INTAKE	07/18/09	< 178	
INTAKE	07/19/09	< 180	
INTAKE	07/20/09	< 179	
INTAKE	07/21/09	< 133	
INTAKE	07/22/09	< 148	
INTAKE	07/23/09	< 154	
INTAKE	07/24/09	< 160	
INTAKE	07/25/09	< 159	
INTAKE	07/26/09	< 169	
INTAKE	07/27/09	< 126	
INTAKE	07/28/09	< 161	
INTAKE	07/29/09	< 161	
INTAKE	07/30/09	< 181	
INTAKE	07/31/09	< 181	
INTAKE	08/01/09	< 181	
INTAKE	08/02/09	< 161	
INTAKE	08/03/09	< 161	
INTAKE	08/04/09	< 157	
INTAKE	08/05/09	< 166	
INTAKE	08/06/09	< 167	

TABLE B-II.1 **CONCENTRATIONS OF TRITIUM AND STRONTIUM IN SURFACE WATER SAMPLES COLLECTED IN THE VICINITY OF OYSTER CREEK GENERATING STATION, 2009**

RESULTS IN UNITS OF PCI/LITER ± 2 SIGMA

SITE	COLLECTION DATE	H-3	SR-90
INTAKE	08/07/09	< 162	
INTAKE	08/08/09	< 169	
INTAKE	08/09/09	< 174	
INTAKE	08/10/09	< 161	
INTAKE	08/11/09	< 163	
INTAKE	08/12/09	< 165	
INTAKE	08/13/09	< 159	
INTAKE	08/14/09	< 189	
INTAKE	08/15/09	< 187	
INTAKE	08/16/09	< 178	
INTAKE	08/17/09	< 172	
INTAKE	08/18/09	< 163	
INTAKE	08/19/09	< 164	
INTAKE	08/20/09	< 191	
INTAKE	08/21/09	< 192	
INTAKE	08/22/09	< 183	
INTAKE	08/23/09	< 166	
INTAKE	08/24/09	< 167	
INTAKE	08/25/09	< 178	
INTAKE	08/26/09	< 194	
INTAKE	08/27/09	< 183	
INTAKE	08/28/09	< 171	
INTAKE	08/29/09	< 189	
INTAKE	08/30/09	< 192	
INTAKE	08/31/09	< 192	
INTAKE	09/01/09	< 169	
INTAKE	09/02/09	< 168	
INTAKE	09/03/09	< 169	
INTAKE	09/04/09	< 190	
INTAKE	09/05/09	< 192	
INTAKE	09/06/09	< 182	
INTAKE	09/07/09	< 193	
INTAKE	09/08/09	< 175	
INTAKE	09/09/09	< 171	
INTAKE	09/10/09	< 154	
INTAKE	09/11/09	< 178	
INTAKE	09/12/09	< 160	
INTAKE	09/13/09	< 190	
INTAKE	09/14/09	< 185	
INTAKE	09/15/09	< 194	
INTAKE	09/16/09	< 164	
INTAKE	09/17/09	< 166	
INTAKE	09/18/09	< 166	
INTAKE	09/19/09	< 127	
INTAKE	09/20/09	< 183	
INTAKE	09/21/09	< 138	
INTAKE	09/22/09	< 128	
INTAKE	09/23/09	< 141	
INTAKE	09/24/09	< 136	
INTAKE	09/25/09	< 124	

TABLE B-II.1 **CONCENTRATIONS OF TRITIUM AND STRONTIUM IN SURFACE WATER SAMPLES COLLECTED IN THE VICINITY OF OYSTER CREEK GENERATING STATION, 2009**

RESULTS IN UNITS OF PCI/LITER ± 2 SIGMA

SITE	COLLECTION DATE	H-3	SR-90
INTAKE	09/26/09	< 126	
INTAKE	09/27/09	< 128	
INTAKE	09/28/09	< 174	
INTAKE	09/29/09	< 167	
INTAKE	09/30/09	< 168	
INTAKE	10/01/09	< 166	
INTAKE	10/02/09	< 146	
INTAKE	10/03/09	< 142	
INTAKE	10/04/09	< 148	
INTAKE	10/05/09	< 151	
INTAKE	10/06/09	< 147	
INTAKE	10/07/09	< 170	
INTAKE	10/08/09	< 172	
INTAKE	10/09/09	< 168	
INTAKE	10/10/09	< 169	
INTAKE	10/11/09	< 181	
INTAKE	10/12/09	< 180	
INTAKE	10/13/09	< 177	
INTAKE	10/14/09	< 171	
INTAKE	10/15/09	< 173	
INTAKE	10/16/09	< 166	
INTAKE	10/16/09	< 165	
INTAKE	10/17/09	< 168	
INTAKE	10/17/09	< 164	
INTAKE	10/18/09	< 168	
INTAKE	10/18/09	< 164	
INTAKE	10/19/09	< 169	
INTAKE	10/20/09	< 170	
INTAKE	10/21/09	< 167	
INTAKE	10/22/09	< 180	
INTAKE	10/23/09	< 168	
INTAKE	10/24/09	< 168	
INTAKE	10/25/09	< 180	
INTAKE	10/26/09	< 181	
INTAKE	10/27/09	< 179	
INTAKE	10/28/09	< 161	
INTAKE	10/29/09	< 165	
INTAKE	10/30/09	< 159	
INTAKE	10/31/09	< 178	
INTAKE	11/01/09	< 182	
INTAKE	11/02/09	< 179	
INTAKE	11/03/09	< 163	
INTAKE	11/04/09	< 162	
INTAKE	11/05/09	< 188	
INTAKE	11/06/09	< 178	
INTAKE	11/07/09	< 182	
INTAKE	11/08/09	< 181	
INTAKE	11/09/09	< 180	

TABLE B-II.1 **CONCENTRATIONS OF TRITIUM AND STRONTIUM IN SURFACE WATER SAMPLES COLLECTED IN THE VICINITY OF OYSTER CREEK GENERATING STATION, 2009**

RESULTS IN UNITS OF PCI/LITER ± 2 SIGMA

SITE	COLLECTION DATE	H-3	SR-90
INTAKE	11/10/09	< 181	
INTAKE	11/11/09	< 180	
INTAKE	11/12/09	< 170	
INTAKE	11/13/09	< 170	
INTAKE	11/14/09	< 171	
INTAKE	11/15/09	< 164	
INTAKE	11/16/09	< 154	
INTAKE	11/17/09	< 166	
INTAKE	11/18/09	< 163	
INTAKE	11/19/09	< 165	
INTAKE	11/20/09	< 161	
INTAKE	11/21/09	< 169	
INTAKE	11/22/09	< 169	
INTAKE	11/23/09	< 169	
INTAKE	11/24/09	< 165	
INTAKE	11/25/09	< 162	
INTAKE	11/26/09	< 182	
INTAKE	11/27/09	< 184	
INTAKE	11/28/09	< 187	
INTAKE	11/29/09	< 186	
INTAKE	11/30/09	< 165	
INTAKE	12/01/09	< 159	
INTAKE	12/02/09	< 188	
INTAKE	12/03/09	< 187	
INTAKE	12/04/09	< 192	
INTAKE	12/05/09	< 185	
INTAKE	12/06/09	< 172	
INTAKE	12/07/09	< 169	
INTAKE	12/08/09	< 164	
INTAKE	12/09/09	< 193	
INTAKE	12/10/09	< 161	
INTAKE	12/11/09	< 162	
INTAKE	12/12/09	< 159	
INTAKE	12/13/09	< 154	
INTAKE	12/14/09	< 164	
INTAKE	12/15/09	< 160	
INTAKE	12/16/09	< 168	
INTAKE	12/17/09	< 170	
INTAKE	12/18/09	< 177	
INTAKE	12/18/09	< 166	
INTAKE	12/19/09	< 168	
INTAKE	12/20/09	< 163	
INTAKE	12/21/09	< 167	
INTAKE	12/22/09	< 162	
INTAKE	12/23/09	< 162	
INTAKE	12/24/09	< 157	

TABLE B-II.1 **CONCENTRATIONS OF TRITIUM AND STRONTIUM IN SURFACE WATER SAMPLES COLLECTED IN THE VICINITY OF OYSTER CREEK GENERATING STATION, 2009**

RESULTS IN UNITS OF PCI/LITER ± 2 SIGMA

SITE	COLLECTION DATE	H-3	SR-90
INTAKE	12/25/09	< 157	
INTAKE	12/26/09	< 157	
INTAKE	12/27/09	< 173	
INTAKE	12/28/09	< 172	
INTAKE	12/29/09	< 173	
MAIN CONDENSER DISCHARGE (MCD	04/28/09	< 153	
MAIN CONDENSER DISCHARGE (MCD	04/29/09	< 157	
MAIN CONDENSER DISCHARGE (MCD	05/05/09	< 198	
MAIN CONDENSER DISCHARGE (MCD	05/12/09	< 181	
MAIN CONDENSER DISCHARGE (MCD	05/19/09	< 182	
MAIN CONDENSER DISCHARGE (MCD	05/26/09	< 175	
MAIN CONDENSER DISCHARGE (MCD	06/02/09	< 166	
MAIN CONDENSER DISCHARGE (MCD	06/08/09	< 158	
MAIN CONDENSER DISCHARGE (MCD	06/13/09	< 181	
MAIN CONDENSER DISCHARGE (MCD	06/15/09	< 179	
MAIN CONDENSER DISCHARGE (MCD	06/22/09	< 158	
MAIN CONDENSER DISCHARGE (MCD	06/26/09	< 181	
MAIN CONDENSER DISCHARGE (MCD	06/27/09	< 180	
MAIN CONDENSER DISCHARGE (MCD	06/28/09	< 178	
MAIN CONDENSER DISCHARGE (MCD	06/29/09	< 181	
MAIN CONDENSER DISCHARGE (MCD	06/30/09	< 171	
MAIN CONDENSER DISCHARGE (MCD	07/01/09	< 183	
MAIN CONDENSER DISCHARGE (MCD	07/02/09	< 185	
MAIN CONDENSER DISCHARGE (MCD	07/03/09	< 185	
MAIN CONDENSER DISCHARGE (MCD	07/04/09	< 116	
MAIN CONDENSER DISCHARGE (MCD	07/05/09	< 117	
MAIN CONDENSER DISCHARGE (MCD	07/06/09	< 111	
MAIN CONDENSER DISCHARGE (MCD	07/07/09	< 108	
MAIN CONDENSER DISCHARGE (MCD	07/08/09	< 118	
MAIN CONDENSER DISCHARGE (MCD	07/09/09	< 114	
MAIN CONDENSER DISCHARGE (MCD	07/10/09	< 117	
MAIN CONDENSER DISCHARGE (MCD	07/11/09	< 167	
MAIN CONDENSER DISCHARGE (MCD	07/12/09	< 175	
MAIN CONDENSER DISCHARGE (MCD	07/13/09	< 165	
MAIN CONDENSER DISCHARGE (MCD	07/14/09	< 166	
MAIN CONDENSER DISCHARGE (MCD	07/15/09	< 168	
MAIN CONDENSER DISCHARGE (MCD	07/16/09	< 167	
MAIN CONDENSER DISCHARGE (MCD	07/17/09	< 176	
MAIN CONDENSER DISCHARGE (MCD	07/18/09	< 181	
MAIN CONDENSER DISCHARGE (MCD	07/19/09	< 182	
MAIN CONDENSER DISCHARGE (MCD	07/20/09	< 179	
MAIN CONDENSER DISCHARGE (MCD	07/21/09	< 135	
MAIN CONDENSER DISCHARGE (MCD	07/22/09	< 164	
MAIN CONDENSER DISCHARGE (MCD	07/23/09	< 162	
MAIN CONDENSER DISCHARGE (MCD	07/24/09	< 162	
MAIN CONDENSER DISCHARGE (MCD	07/25/09	< 165	

TABLE B-II.1 **CONCENTRATIONS OF TRITIUM AND STRONTIUM IN SURFACE WATER SAMPLES COLLECTED IN THE VICINITY OF OYSTER CREEK GENERATING STATION, 2009**

RESULTS IN UNITS OF PCI/LITER ± 2 SIGMA

SITE	COLLECTION DATE	H-3	SR-90
MAIN CONDENSER DISCHARGE (MCD	07/26/09	< 125	
MAIN CONDENSER DISCHARGE (MCD	07/27/09	< 127	
MAIN CONDENSER DISCHARGE (MCD	07/28/09	< 159	
MAIN CONDENSER DISCHARGE (MCD	07/29/09	< 169	
MAIN CONDENSER DISCHARGE (MCD	07/30/09	< 178	
MAIN CONDENSER DISCHARGE (MCD	07/31/09	< 173	
MAIN CONDENSER DISCHARGE (MCD	08/01/09	< 194	
MAIN CONDENSER DISCHARGE (MCD	08/02/09	< 153	
MAIN CONDENSER DISCHARGE (MCD	08/03/09	< 149	
MAIN CONDENSER DISCHARGE (MCD	08/04/09	< 183	
MAIN CONDENSER DISCHARGE (MCD	08/05/09	< 168	
MAIN CONDENSER DISCHARGE (MCD	08/06/09	< 159	
MAIN CONDENSER DISCHARGE (MCD	08/07/09	< 160	
MAIN CONDENSER DISCHARGE (MCD	08/08/09	< 168	
MAIN CONDENSER DISCHARGE (MCD	08/09/09	< 151	
MAIN CONDENSER DISCHARGE (MCD	08/10/09	< 162	
MAIN CONDENSER DISCHARGE (MCD	08/11/09	< 162	
MAIN CONDENSER DISCHARGE (MCD	08/12/09	< 154	
MAIN CONDENSER DISCHARGE (MCD	08/13/09	< 154	
MAIN CONDENSER DISCHARGE (MCD	08/14/09	< 187	
MAIN CONDENSER DISCHARGE (MCD	08/15/09	< 188	
MAIN CONDENSER DISCHARGE (MCD	08/16/09	< 185	
MAIN CONDENSER DISCHARGE (MCD	08/17/09	< 165	
MAIN CONDENSER DISCHARGE (MCD	08/18/09	< 163	
MAIN CONDENSER DISCHARGE (MCD	08/19/09	< 167	
MAIN CONDENSER DISCHARGE (MCD	08/20/09	< 195	
MAIN CONDENSER DISCHARGE (MCD	08/21/09	< 195	
MAIN CONDENSER DISCHARGE (MCD	08/22/09	< 182	
MAIN CONDENSER DISCHARGE (MCD	08/23/09	< 180	
MAIN CONDENSER DISCHARGE (MCD	08/24/09	< 166	
MAIN CONDENSER DISCHARGE (MCD	08/25/09	< 176	
MAIN CONDENSER DISCHARGE (MCD	08/26/09	< 174	
MAIN CONDENSER DISCHARGE (MCD	08/27/09	< 175	
MAIN CONDENSER DISCHARGE (MCD	08/28/09	< 178	
MAIN CONDENSER DISCHARGE (MCD	08/29/09	< 177	
MAIN CONDENSER DISCHARGE (MCD	08/30/09	< 193	
MAIN CONDENSER DISCHARGE (MCD	08/31/09	< 177	
MAIN CONDENSER DISCHARGE (MCD	09/01/09	< 170	
MAIN CONDENSER DISCHARGE (MCD	09/02/09	< 172	
MAIN CONDENSER DISCHARGE (MCD	09/03/09	< 164	
MAIN CONDENSER DISCHARGE (MCD	09/04/09	< 192	
MAIN CONDENSER DISCHARGE (MCD	09/05/09	< 192	
MAIN CONDENSER DISCHARGE (MCD	09/06/09	< 190	
MAIN CONDENSER DISCHARGE (MCD	09/07/09	< 178	
MAIN CONDENSER DISCHARGE (MCD	09/08/09	< 191	
MAIN CONDENSER DISCHARGE (MCD	09/09/09	< 174	

TABLE B-II.1 **CONCENTRATIONS OF TRITIUM AND STRONTIUM IN SURFACE WATER SAMPLES COLLECTED IN THE VICINITY OF OYSTER CREEK GENERATING STATION, 2009**

RESULTS IN UNITS OF PCI/LITER ± 2 SIGMA

SITE	COLLECTION DATE	H-3	SR-90
MAIN CONDENSER DISCHARGE (MCD	09/10/09	< 173	
MAIN CONDENSER DISCHARGE (MCD	09/11/09	< 184	
MAIN CONDENSER DISCHARGE (MCD	09/12/09	< 170	
MAIN CONDENSER DISCHARGE (MCD	09/13/09	< 194	
MAIN CONDENSER DISCHARGE (MCD	09/14/09	< 190	
MAIN CONDENSER DISCHARGE (MCD	09/15/09	< 196	
MAIN CONDENSER DISCHARGE (MCD	09/16/09	< 165	
MAIN CONDENSER DISCHARGE (MCD	09/17/09	< 175	
MAIN CONDENSER DISCHARGE (MCD	09/18/09	< 163	
MAIN CONDENSER DISCHARGE (MCD	09/19/09	< 131	
MAIN CONDENSER DISCHARGE (MCD	09/20/09	< 140	
MAIN CONDENSER DISCHARGE (MCD	09/21/09	< 130	
MAIN CONDENSER DISCHARGE (MCD	09/22/09	< 140	
MAIN CONDENSER DISCHARGE (MCD	09/23/09	< 138	
MAIN CONDENSER DISCHARGE (MCD	09/24/09	< 136	
MAIN CONDENSER DISCHARGE (MCD	09/25/09	< 130	
MAIN CONDENSER DISCHARGE (MCD	09/26/09	< 140	
MAIN CONDENSER DISCHARGE (MCD	09/27/09	< 171	
MAIN CONDENSER DISCHARGE (MCD	09/28/09	< 172	
MAIN CONDENSER DISCHARGE (MCD	09/29/09	< 172	
MAIN CONDENSER DISCHARGE (MCD	09/30/09	< 169	
MAIN CONDENSER DISCHARGE (MCD	10/01/09	< 150	
MAIN CONDENSER DISCHARGE (MCD	10/02/09	< 142	
MAIN CONDENSER DISCHARGE (MCD	10/03/09	< 150	
MAIN CONDENSER DISCHARGE (MCD	10/04/09	< 143	
MAIN CONDENSER DISCHARGE (MCD	10/05/09	< 151	
MAIN CONDENSER DISCHARGE (MCD	10/06/09	< 164	
MAIN CONDENSER DISCHARGE (MCD	10/07/09	< 171	
MAIN CONDENSER DISCHARGE (MCD	10/08/09	< 171	
MAIN CONDENSER DISCHARGE (MCD	10/09/09	< 177	
MAIN CONDENSER DISCHARGE (MCD	10/10/09	< 183	
MAIN CONDENSER DISCHARGE (MCD	10/11/09	< 181	
MAIN CONDENSER DISCHARGE (MCD	10/12/09	< 179	
MAIN CONDENSER DISCHARGE (MCD	10/13/09	< 173	
MAIN CONDENSER DISCHARGE (MCD	10/14/09	< 176	
MAIN CONDENSER DISCHARGE (MCD	10/15/09	< 168	
MAIN CONDENSER DISCHARGE (MCD	10/16/09	< 173	
MAIN CONDENSER DISCHARGE (MCD	10/16/09	< 167	
MAIN CONDENSER DISCHARGE (MCD	10/17/09	< 166	
MAIN CONDENSER DISCHARGE (MCD	10/17/09	< 165	
MAIN CONDENSER DISCHARGE (MCD	10/18/09	< 163	
MAIN CONDENSER DISCHARGE (MCD	10/18/09	< 185	
MAIN CONDENSER DISCHARGE (MCD	10/19/09	< 166	
MAIN CONDENSER DISCHARGE (MCD	10/20/09	< 169	
MAIN CONDENSER DISCHARGE (MCD	10/21/09	< 162	
MAIN CONDENSER DISCHARGE (MCD	10/22/09	< 169	

TABLE B-II.1 **CONCENTRATIONS OF TRITIUM AND STRONTIUM IN SURFACE WATER SAMPLES COLLECTED IN THE VICINITY OF OYSTER CREEK GENERATING STATION, 2009**

RESULTS IN UNITS OF PCI/LITER ± 2 SIGMA

SITE	COLLECTION DATE	H-3	SR-90
MAIN CONDENSER DISCHARGE (MCD	10/23/09	< 169	
MAIN CONDENSER DISCHARGE (MCD	10/24/09	< 168	
MAIN CONDENSER DISCHARGE (MCD	10/25/09	< 178	
MAIN CONDENSER DISCHARGE (MCD	10/26/09	< 184	
MAIN CONDENSER DISCHARGE (MCD	10/27/09	< 182	
MAIN CONDENSER DISCHARGE (MCD	10/28/09	< 162	
MAIN CONDENSER DISCHARGE (MCD	10/29/09	< 161	
MAIN CONDENSER DISCHARGE (MCD	10/30/09	< 158	
MAIN CONDENSER DISCHARGE (MCD	10/31/09	< 181	
MAIN CONDENSER DISCHARGE (MCD	11/01/09	< 181	
MAIN CONDENSER DISCHARGE (MCD	11/02/09	< 182	
MAIN CONDENSER DISCHARGE (MCD	11/03/09	< 160	
MAIN CONDENSER DISCHARGE (MCD	11/04/09	< 162	
MAIN CONDENSER DISCHARGE (MCD	11/05/09	< 183	
MAIN CONDENSER DISCHARGE (MCD	11/06/09	< 182	
MAIN CONDENSER DISCHARGE (MCD	11/07/09	< 177	
MAIN CONDENSER DISCHARGE (MCD	11/08/09	< 187	
MAIN CONDENSER DISCHARGE (MCD	11/09/09	< 180	
MAIN CONDENSER DISCHARGE (MCD	11/10/09	< 176	
MAIN CONDENSER DISCHARGE (MCD	11/11/09	< 178	
MAIN CONDENSER DISCHARGE (MCD	11/12/09	< 172	
MAIN CONDENSER DISCHARGE (MCD	11/13/09	< 172	
MAIN CONDENSER DISCHARGE (MCD	11/14/09	< 174	
MAIN CONDENSER DISCHARGE (MCD	11/15/09	< 167	
MAIN CONDENSER DISCHARGE (MCD	11/16/09	< 156	
MAIN CONDENSER DISCHARGE (MCD	11/17/09	< 167	
MAIN CONDENSER DISCHARGE (MCD	11/18/09	< 160	
MAIN CONDENSER DISCHARGE (MCD	11/19/09	< 164	
MAIN CONDENSER DISCHARGE (MCD	11/20/09	< 164	
MAIN CONDENSER DISCHARGE (MCD	11/21/09	< 169	
MAIN CONDENSER DISCHARGE (MCD	11/22/09	< 168	
MAIN CONDENSER DISCHARGE (MCD	11/23/09	< 168	
MAIN CONDENSER DISCHARGE (MCD	11/24/09	< 164	
MAIN CONDENSER DISCHARGE (MCD	11/25/09	< 164	
MAIN CONDENSER DISCHARGE (MCD	11/26/09	< 172	
MAIN CONDENSER DISCHARGE (MCD	11/27/09	< 193	
MAIN CONDENSER DISCHARGE (MCD	11/28/09	< 190	
MAIN CONDENSER DISCHARGE (MCD	11/29/09	< 192	
MAIN CONDENSER DISCHARGE (MCD	11/30/09	< 161	
MAIN CONDENSER DISCHARGE (MCD	12/01/09	< 161	
MAIN CONDENSER DISCHARGE (MCD	12/02/09	< 193	
MAIN CONDENSER DISCHARGE (MCD	12/03/09	< 187	
MAIN CONDENSER DISCHARGE (MCD	12/04/09	< 187	
MAIN CONDENSER DISCHARGE (MCD	12/05/09	< 185	
MAIN CONDENSER DISCHARGE (MCD	12/06/09	< 164	
MAIN CONDENSER DISCHARGE (MCD	12/07/09	< 166	

TABLE B-II.1 **CONCENTRATIONS OF TRITIUM AND STRONTIUM IN SURFACE WATER SAMPLES COLLECTED IN THE VICINITY OF OYSTER CREEK GENERATING STATION, 2009**

RESULTS IN UNITS OF PCI/LITER ± 2 SIGMA

SITE	COLLECTION DATE	H-3	SR-90
MAIN CONDENSER DISCHARGE (MCD	12/08/09	< 166	
MAIN CONDENSER DISCHARGE (MCD	12/09/09	< 158	
MAIN CONDENSER DISCHARGE (MCD	12/10/09	< 156	
MAIN CONDENSER DISCHARGE (MCD	12/11/09	< 158	
MAIN CONDENSER DISCHARGE (MCD	12/12/09	< 161	
MAIN CONDENSER DISCHARGE (MCD	12/13/09	< 129	
MAIN CONDENSER DISCHARGE (MCD	12/14/09	< 163	
MAIN CONDENSER DISCHARGE (MCD	12/15/09	< 162	
MAIN CONDENSER DISCHARGE (MCD	12/16/09	< 169	
MAIN CONDENSER DISCHARGE (MCD	12/17/09	< 168	
MAIN CONDENSER DISCHARGE (MCD	12/18/09	< 177	
MAIN CONDENSER DISCHARGE (MCD	12/18/09	< 165	
MAIN CONDENSER DISCHARGE (MCD	12/19/09	< 166	
MAIN CONDENSER DISCHARGE (MCD	12/20/09	< 164	
MAIN CONDENSER DISCHARGE (MCD	12/21/09	< 164	
MAIN CONDENSER DISCHARGE (MCD	12/22/09	< 165	
MAIN CONDENSER DISCHARGE (MCD	12/23/09	< 165	
MAIN CONDENSER DISCHARGE (MCD	12/24/09	< 165	
MAIN CONDENSER DISCHARGE (MCD	12/25/09	< 166	
MAIN CONDENSER DISCHARGE (MCD	12/26/09	< 169	
MAIN CONDENSER DISCHARGE (MCD	12/27/09	< 172	
MAIN CONDENSER DISCHARGE (MCD	12/28/09	< 169	
MAIN CONDENSER DISCHARGE (MCD	12/29/09	< 176	
RT 9 BRIDGE	04/27/09	< 154	
RT 9 BRIDGE	04/28/09	< 156	
RT 9 BRIDGE	04/29/09	< 151	
RT 9 BRIDGE	05/05/09	< 197	
RT 9 BRIDGE	05/12/09	< 180	
RT 9 BRIDGE	05/19/09	< 179	
RT 9 BRIDGE	05/26/09	< 182	
RT 9 BRIDGE	06/02/09	< 168	
RT 9 BRIDGE	06/08/09	< 156	
RT 9 BRIDGE	06/13/09	< 182	
RT 9 BRIDGE	06/15/09	< 181	
RT 9 BRIDGE	06/22/09	< 158	
RT 9 BRIDGE	06/26/09	< 184	
RT 9 BRIDGE	06/27/09	< 178	
RT 9 BRIDGE	06/28/09	< 177	
RT 9 BRIDGE	06/29/09	< 172	
RT 9 BRIDGE	06/30/09	< 179	
RT 9 BRIDGE	07/01/09	< 179	
RT 9 BRIDGE	07/02/09	< 182	
RT 9 BRIDGE	07/03/09	< 187	
RT 9 BRIDGE	07/04/09	< 118	
RT 9 BRIDGE	07/05/09	< 115	
RT 9 BRIDGE	07/06/09	< 115	

TABLE B-II.1 **CONCENTRATIONS OF TRITIUM AND STRONTIUM IN SURFACE WATER SAMPLES COLLECTED IN THE VICINITY OF OYSTER CREEK GENERATING STATION, 2009**

RESULTS IN UNITS OF PCI/LITER ± 2 SIGMA

SITE	COLLECTION DATE	H-3	SR-90
RT 9 BRIDGE	07/07/09	< 112	
RT 9 BRIDGE	07/08/09	< 125	
RT 9 BRIDGE	07/09/09	< 121	
RT 9 BRIDGE	07/10/09	< 110	
RT 9 BRIDGE	07/11/09	< 176	
RT 9 BRIDGE	07/12/09	< 173	
RT 9 BRIDGE	07/13/09	< 165	
RT 9 BRIDGE	07/14/09	< 160	
RT 9 BRIDGE	07/15/09	< 168	
RT 9 BRIDGE	07/16/09	< 170	
RT 9 BRIDGE	07/17/09	< 181	
RT 9 BRIDGE	07/18/09	< 178	
RT 9 BRIDGE	07/19/09	< 183	
RT 9 BRIDGE	07/20/09	< 134	
RT 9 BRIDGE	07/21/09	< 130	
RT 9 BRIDGE	07/22/09	< 165	
RT 9 BRIDGE	07/23/09	< 160	
RT 9 BRIDGE	07/24/09	< 161	
RT 9 BRIDGE	07/25/09	< 161	
RT 9 BRIDGE	07/26/09	< 168	
RT 9 BRIDGE	07/27/09	< 123	
RT 9 BRIDGE	07/28/09	< 159	
RT 9 BRIDGE	07/29/09	< 165	
RT 9 BRIDGE	07/30/09	< 171	
RT 9 BRIDGE	07/31/09	< 179	
RT 9 BRIDGE	08/01/09	< 198	
RT 9 BRIDGE	08/02/09	< 164	
RT 9 BRIDGE	08/03/09	< 164	
RT 9 BRIDGE	08/04/09	< 181	
RT 9 BRIDGE	08/05/09	< 171	
RT 9 BRIDGE	08/06/09	< 174	
RT 9 BRIDGE	08/07/09	< 170	
RT 9 BRIDGE	08/08/09	< 168	
RT 9 BRIDGE	08/09/09	< 169	
RT 9 BRIDGE	08/10/09	< 161	
RT 9 BRIDGE	08/11/09	< 162	
RT 9 BRIDGE	08/12/09	< 156	
RT 9 BRIDGE	08/13/09	< 159	
RT 9 BRIDGE	08/14/09	< 182	
RT 9 BRIDGE	08/15/09	< 185	
RT 9 BRIDGE	08/16/09	< 186	
RT 9 BRIDGE	08/17/09	< 171	
RT 9 BRIDGE	08/18/09	< 168	
RT 9 BRIDGE	08/19/09	< 167	
RT 9 BRIDGE	08/20/09	< 194	
RT 9 BRIDGE	08/21/09	< 193	

TABLE B-II.1 **CONCENTRATIONS OF TRITIUM AND STRONTIUM IN SURFACE WATER SAMPLES COLLECTED IN THE VICINITY OF OYSTER CREEK GENERATING STATION, 2009**

RESULTS IN UNITS OF PCI/LITER ± 2 SIGMA

SITE	COLLECTION DATE	H-3	SR-90
RT 9 BRIDGE	08/22/09	< 180	
RT 9 BRIDGE	08/23/09	< 174	
RT 9 BRIDGE	08/24/09	< 159	
RT 9 BRIDGE	08/25/09	< 177	
RT 9 BRIDGE	08/26/09	< 182	
RT 9 BRIDGE	08/27/09	< 170	
RT 9 BRIDGE	08/28/09	< 183	
RT 9 BRIDGE	08/29/09	< 192	
RT 9 BRIDGE	08/30/09	< 182	
RT 9 BRIDGE	08/31/09	< 195	
RT 9 BRIDGE	09/01/09	< 175	
RT 9 BRIDGE	09/02/09	< 170	
RT 9 BRIDGE	09/03/09	< 167	
RT 9 BRIDGE	09/04/09	< 194	
RT 9 BRIDGE	09/05/09	< 187	
RT 9 BRIDGE	09/06/09	< 193	
RT 9 BRIDGE	09/07/09	< 180	
RT 9 BRIDGE	09/08/09	< 178	
RT 9 BRIDGE	09/09/09	< 176	
RT 9 BRIDGE	09/10/09	< 169	
RT 9 BRIDGE	09/11/09	< 169	
RT 9 BRIDGE	09/12/09	< 169	
RT 9 BRIDGE	09/13/09	< 193	
RT 9 BRIDGE	09/14/09	< 194	
RT 9 BRIDGE	09/15/09	< 192	
RT 9 BRIDGE	09/16/09	< 162	
RT 9 BRIDGE	09/17/09	< 173	
RT 9 BRIDGE	09/18/09	< 164	
RT 9 BRIDGE	09/19/09	< 145	
RT 9 BRIDGE	09/20/09	< 129	
RT 9 BRIDGE	09/21/09	< 131	
RT 9 BRIDGE	09/22/09	< 194	
RT 9 BRIDGE	09/23/09	< 136	
RT 9 BRIDGE	09/24/09	< 137	
RT 9 BRIDGE	09/25/09	< 142	
RT 9 BRIDGE	09/26/09	< 181	
RT 9 BRIDGE	09/27/09	< 177	
RT 9 BRIDGE	09/28/09	< 163	
RT 9 BRIDGE	09/29/09	< 165	
RT 9 BRIDGE	09/30/09	< 167	
RT 9 BRIDGE	10/01/09	< 172	
RT 9 BRIDGE	10/02/09	< 181	
RT 9 BRIDGE	10/03/09	< 149	
RT 9 BRIDGE	10/04/09	< 144	
RT 9 BRIDGE	10/05/09	< 147	
RT 9 BRIDGE	10/06/09	< 145	

TABLE B-II.1 **CONCENTRATIONS OF TRITIUM AND STRONTIUM IN SURFACE WATER SAMPLES COLLECTED IN THE VICINITY OF OYSTER CREEK GENERATING STATION, 2009**

RESULTS IN UNITS OF PCI/LITER ± 2 SIGMA

SITE	COLLECTION DATE		H-3	SR-90
RT 9 BRIDGE	10/07/09		< 171	
RT 9 BRIDGE	10/08/09		< 168	
RT 9 BRIDGE	10/09/09		< 178	
RT 9 BRIDGE	10/10/09		< 180	
RT 9 BRIDGE	10/11/09		< 179	
RT 9 BRIDGE	10/12/09		< 176	
RT 9 BRIDGE	10/13/09		< 171	
RT 9 BRIDGE	10/14/09		< 172	
RT 9 BRIDGE	10/15/09		< 172	
RT 9 BRIDGE	10/16/09		< 169	
RT 9 BRIDGE	10/16/09		< 163	
RT 9 BRIDGE	10/17/09		< 168	
RT 9 BRIDGE	10/17/09		< 161	
RT 9 BRIDGE	10/18/09		< 168	
RT 9 BRIDGE	10/18/09		< 169	
RT 9 BRIDGE	10/19/09		< 169	
RT 9 BRIDGE	10/20/09		< 172	
RT 9 BRIDGE	10/21/09		< 161	
RT 9 BRIDGE	10/22/09		< 178	
RT 9 BRIDGE	10/23/09	ORIGINAL	< 189	
RT 9 BRIDGE	10/23/09	RERUN	< 189	
RT 9 BRIDGE	10/24/09		< 168	
RT 9 BRIDGE	10/25/09		< 179	
RT 9 BRIDGE	10/26/09		< 181	
RT 9 BRIDGE	10/27/09		< 179	
RT 9 BRIDGE	10/28/09		< 162	
RT 9 BRIDGE	10/29/09		< 165	
RT 9 BRIDGE	10/30/09		< 154	
RT 9 BRIDGE	10/31/09		< 177	
RT 9 BRIDGE	11/01/09		< 182	
RT 9 BRIDGE	11/02/09		< 183	
RT 9 BRIDGE	11/03/09		< 167	
RT 9 BRIDGE	11/04/09		< 161	
RT 9 BRIDGE	11/05/09		< 190	
RT 9 BRIDGE	11/06/09		< 186	
RT 9 BRIDGE	11/07/09		< 181	
RT 9 BRIDGE	11/08/09		< 182	
RT 9 BRIDGE	11/09/09		< 178	
RT 9 BRIDGE	11/10/09		< 181	
RT 9 BRIDGE	11/11/09		< 179	
RT 9 BRIDGE	11/12/09		< 174	
RT 9 BRIDGE	11/13/09		< 173	
RT 9 BRIDGE	11/14/09		< 169	
RT 9 BRIDGE	11/15/09		< 164	
RT 9 BRIDGE	11/16/09		< 157	
RT 9 BRIDGE	11/17/09		< 169	

TABLE B-II.1 **CONCENTRATIONS OF TRITIUM AND STRONTIUM IN SURFACE WATER SAMPLES COLLECTED IN THE VICINITY OF OYSTER CREEK GENERATING STATION, 2009**

RESULTS IN UNITS OF PCI/LITER ± 2 SIGMA

SITE	COLLECTION DATE	H-3	SR-90
RT 9 BRIDGE	11/18/09	< 162	
RT 9 BRIDGE	11/19/09	< 165	
RT 9 BRIDGE	11/20/09	< 162	
RT 9 BRIDGE	11/21/09	< 169	
RT 9 BRIDGE	11/22/09	< 170	
RT 9 BRIDGE	11/23/09	< 168	
RT 9 BRIDGE	11/24/09	< 163	
RT 9 BRIDGE	11/25/09	< 163	
RT 9 BRIDGE	11/26/09	< 190	
RT 9 BRIDGE	11/27/09	< 187	
RT 9 BRIDGE	11/28/09	< 192	
RT 9 BRIDGE	11/29/09	< 188	
RT 9 BRIDGE	11/30/09	< 158	
RT 9 BRIDGE	12/01/09	< 161	
RT 9 BRIDGE	12/02/09	< 186	
RT 9 BRIDGE	12/03/09	< 191	
RT 9 BRIDGE	12/04/09	< 183	
RT 9 BRIDGE	12/05/09	< 186	
RT 9 BRIDGE	12/06/09	< 162	
RT 9 BRIDGE	12/07/09	< 161	
RT 9 BRIDGE	12/08/09	< 164	
RT 9 BRIDGE	12/09/09	< 187	
RT 9 BRIDGE	12/10/09	< 158	
RT 9 BRIDGE	12/11/09	< 158	
RT 9 BRIDGE	12/12/09	< 156	
RT 9 BRIDGE	12/13/09	< 169	
RT 9 BRIDGE	12/14/09	< 171	
RT 9 BRIDGE	12/15/09	< 163	
RT 9 BRIDGE	12/16/09	< 165	
RT 9 BRIDGE	12/17/09	< 168	
RT 9 BRIDGE	12/18/09	< 169	
RT 9 BRIDGE	12/18/09	< 181	
RT 9 BRIDGE	12/19/09	< 169	
RT 9 BRIDGE	12/20/09	< 164	
RT 9 BRIDGE	12/21/09	< 163	
RT 9 BRIDGE	12/22/09	< 161	
RT 9 BRIDGE	12/23/09	< 162	
RT 9 BRIDGE	12/24/09	< 166	
RT 9 BRIDGE	12/25/09	< 166	
RT 9 BRIDGE	12/26/09	< 174	
RT 9 BRIDGE	12/27/09	< 171	
RT 9 BRIDGE	12/28/09	< 171	
RT 9 BRIDGE	12/29/09	< 170	
SW-1	03/11/09	< 181	
SW-1	10/02/09	< 176	< 0.3
SW-2	03/09/09	< 191	

TABLE B-II.1 **CONCENTRATIONS OF TRITIUM AND STRONTIUM IN SURFACE WATER SAMPLES COLLECTED IN THE VICINITY OF OYSTER CREEK GENERATING STATION, 2009**

RESULTS IN UNITS OF PCI/LITER ± 2 SIGMA

SITE	COLLECTION DATE		H-3	SR-90
SW-2	09/29/09	TBE	< 168	< 0.4
SW-2	09/29/09	EIML	< 154	< 0.6
SW-2	09/29/09	TBE	< 167	< 0.4
SW-3	03/10/09		< 186	
SW-3	09/29/09		< 176	< 0.6

TABLE B-II.2

CONCENTRATIONS OF GAMMA EMITTERS IN SURFACE WATER SAMPLES COLLECTED IN THE VICINITY OF OYSTER CREEK GENERATING STATION, 2009

RESULTS IN UNITS OF PCI/LITER ± 2 SIGMA

STC	COLLECTION PERIOD	Be-7	K-40	Mn-54	Co-58	Fe-59	Co-60	Zn-65	Nb-95	Zr-95	Cs-134	Cs-137	Ba-140	La-140
INTAKE	05/05/09	< 15	205 ± 21	< 1	< 2	< 4	< 1	< 3	< 2	< 3	< 1	< 1	< 31	< 10
INTAKE	05/12/09	< 20	212 ± 29	< 2	< 2	< 6	< 2	< 4	< 2	< 4	< 1	< 2	< 41	< 15
INTAKE	05/19/09	< 37	246 ± 52	< 3	< 4	< 9	< 4	< 7	< 4	< 7	< 3	< 4	< 39	< 12
INTAKE	05/26/09	< 49	260 ± 76	< 4	< 5	< 11	< 5	< 11	< 5	< 8	< 5	< 5	< 37	< 12
INTAKE	06/02/09	< 48	243 ± 80	< 5	< 5	< 12	< 5	< 12	< 5	< 10	< 5	< 5	< 26	< 8
INTAKE	06/08/09	< 11	239 ± 27	< 1	< 1	< 3	< 1	< 2	< 1	< 2	< 1	< 1	< 20	< 6
INTAKE	06/15/09	< 13	210 ± 21	< 1	< 1	< 3	< 1	< 3	< 2	< 3	< 1	< 1	< 19	< 6
INTAKE	06/22/09	< 18	337 ± 32	< 2	< 2	< 4	< 2	< 4	< 2	< 4	< 2	< 2	< 19	< 6
INTAKE	06/26/09	< 34	313 ± 57	< 4	< 4	< 8	< 3	< 8	< 4	< 7	< 3	< 3	< 32	< 11
INTAKE	06/27/09	< 31	168 ± 59	< 3	< 3	< 7	< 3	< 6	< 3	< 6	< 2	< 3	< 52	< 15
INTAKE	06/28/09	< 34	209 ± 87	< 3	< 3	< 9	< 3	< 7	< 4	< 7	< 3	< 3	< 43	< 14
INTAKE	06/29/09	< 29	254 ± 60	< 3	< 3	< 7	< 3	< 5	< 3	< 5	< 2	< 3	< 38	< 15
INTAKE	06/30/09	< 24	249 ± 68	< 2	< 3	< 7	< 3	< 5	< 3	< 5	< 2	< 2	< 32	< 11
INTAKE	07/01/09	< 32	338 ± 61	< 3	< 3	< 7	< 3	< 6	< 4	< 6	< 3	< 3	< 42	< 14
INTAKE	07/02/09	< 24	204 ± 68	< 2	< 3	< 7	< 3	< 5	< 3	< 5	< 2	< 2	< 31	< 12
INTAKE	07/03/09	< 26	248 ± 64	< 3	< 3	< 6	< 2	< 5	< 3	< 4	< 2	< 3	< 35	< 11
INTAKE	07/04/09	< 28	301 ± 65	< 2	< 3	< 7	< 3	< 5	< 3	< 6	< 2	< 3	< 38	< 13
INTAKE	07/05/09	< 28	245 ± 73	< 2	< 3	< 6	< 3	< 5	< 3	< 6	< 2	< 2	< 42	< 13
INTAKE	07/06/09	< 27	229 ± 65	< 2	< 3	< 6	< 2	< 4	< 3	< 5	< 2	< 2	< 38	< 12
INTAKE	07/07/09	< 25	290 ± 72	< 2	< 3	< 6	< 3	< 6	< 3	< 5	< 2	< 2	< 35	< 13
INTAKE	07/08/09	< 29	318 ± 75	< 3	< 3	< 7	< 3	< 5	< 3	< 5	< 3	< 3	< 44	< 11
INTAKE	07/09/09	< 32	258 ± 58	< 3	< 3	< 8	< 3	< 6	< 4	< 6	< 3	< 3	< 40	< 14
INTAKE	07/10/09	< 28	265 ± 77	< 3	< 3	< 7	< 3	< 5	< 3	< 5	< 2	< 3	< 34	< 10
INTAKE	07/11/09	< 26	250 ± 66	< 2	< 3	< 7	< 3	< 5	< 3	< 5	< 2	< 3	< 42	< 15
INTAKE	07/12/09	< 25	255 ± 79	< 2	< 2	< 6	< 2	< 5	< 3	< 5	< 2	< 2	< 38	< 14
INTAKE	07/13/09	< 26	196 ± 72	< 2	< 3	< 7	< 3	< 4	< 3	< 5	< 2	< 2	< 32	< 9
INTAKE	07/14/09	< 21	244 ± 54	< 2	< 2	< 5	< 2	< 4	< 2	< 4	< 2	< 2	< 26	< 9
INTAKE	07/15/09	< 25	275 ± 58	< 2	< 2	< 6	< 2	< 5	< 3	< 4	< 2	< 2	< 33	< 10
INTAKE	07/16/09	< 24	281 ± 60	< 3	< 3	< 6	< 2	< 5	< 3	< 5	< 2	< 2	< 27	< 8
INTAKE	07/17/09	< 43	308 ± 58	< 4	< 5	< 10	< 4	< 9	< 5	< 8	< 4	< 4	< 47	< 15
INTAKE	07/18/09	< 35	< 32	< 3	< 4	< 9	< 4	< 7	< 4	< 7	< 3	< 4	< 34	< 12
INTAKE	07/19/09	< 24	258 ± 37	< 2	< 3	< 7	< 2	< 5	< 3	< 5	< 2	< 2	< 30	< 10

TABLE B-II.2

CONCENTRATIONS OF GAMMA EMITTERS IN SURFACE WATER SAMPLES COLLECTED IN THE VICINITY OF OYSTER CREEK GENERATING STATION, 2009

RESULTS IN UNITS OF PCI/LITER ± 2 SIGMA

STC	COLLECTION PERIOD	Be-7	K-40	Mn-54	Co-58	Fe-59	Co-60	Zn-65	Nb-95	Zr-95	Cs-134	Cs-137	Ba-140	La-140
INTAKE	07/20/09	< 24	214 ± 36	< 2	< 2	< 6	< 2	< 5	< 3	< 4	< 2	< 2	< 29	< 9
INTAKE	07/21/09	< 22	242 ± 36	< 2	< 2	< 5	< 2	< 4	< 3	< 4	< 2	< 2	< 26	< 8
INTAKE	07/22/09	< 31	256 ± 54	< 3	< 3	< 8	< 4	< 6	< 4	< 6	< 2	< 3	< 40	< 14
INTAKE	07/23/09	< 33	239 ± 51	< 3	< 3	< 8	< 3	< 7	< 4	< 6	< 3	< 3	< 40	< 14
INTAKE	07/24/09	< 34	281 ± 55	< 3	< 4	< 8	< 3	< 7	< 4	< 7	< 3	< 3	< 41	< 13
INTAKE	07/25/09	< 22	283 ± 64	< 2	< 2	< 6	< 3	< 5	< 2	< 5	< 2	< 2	< 20	< 7
INTAKE	07/26/09	< 20	248 ± 52	< 2	< 2	< 5	< 2	< 4	< 2	< 4	< 2	< 2	< 19	< 5
INTAKE	07/27/09	< 27	221 ± 54	< 3	< 3	< 7	< 3	< 6	< 3	< 6	< 3	< 3	< 25	< 8
INTAKE	07/28/09	< 22	288 ± 72	< 3	< 3	< 6	< 3	< 6	< 3	< 5	< 2	< 3	< 19	< 6
INTAKE	07/29/09	< 39	360 ± 58	< 4	< 4	< 10	< 4	< 8	< 5	< 8	< 4	< 4	< 36	< 12
INTAKE	07/30/09	< 14	241 ± 40	< 1	< 1	< 4	< 1	< 2	< 2	< 3	< 1	< 1	< 50	< 15
INTAKE	07/31/09	< 13	257 ± 34	< 1	< 1	< 3	< 1	< 2	< 1	< 2	< 1	< 1	< 43	< 12
INTAKE	08/01/09	< 15	249 ± 51	< 1	< 1	< 4	< 1	< 2	< 1	< 3	< 1	< 1	< 47	< 15
INTAKE	08/02/09	< 20	284 ± 42	< 1	< 2	< 5	< 1	< 3	< 2	< 3	< 1	< 1	< 57	< 13
INTAKE	08/03/09	< 20	239 ± 41	< 1	< 2	< 4	< 1	< 3	< 2	< 3	< 1	< 2	< 49	< 12
INTAKE	08/04/09	< 12	232 ± 34	< 1	< 1	< 3	< 1	< 2	< 1	< 2	< 1	< 1	< 35	< 11
INTAKE	08/05/09	< 19	234 ± 35	< 2	< 2	< 5	< 2	< 4	< 2	< 4	< 1	< 2	< 41	< 13
INTAKE	08/06/09	< 15	241 ± 28	< 1	< 2	< 4	< 1	< 3	< 2	< 3	< 1	< 1	< 30	< 10
INTAKE	08/07/09	< 15	209 ± 27	< 1	< 1	< 4	< 1	< 2	< 2	< 3	< 1	< 1	< 27	< 8
INTAKE	08/08/09	< 17	260 ± 47	< 1	< 2	< 5	< 2	< 3	< 2	< 3	< 1	< 1	< 37	< 13
INTAKE	08/09/09	< 16	228 ± 43	< 1	< 2	< 4	< 1	< 3	< 2	< 3	< 1	< 1	< 29	< 8
INTAKE	08/10/09	< 24	243 ± 57	< 2	< 2	< 6	< 2	< 4	< 2	< 4	< 1	< 2	< 43	< 15
INTAKE	08/11/09	< 23	288 ± 59	< 2	< 2	< 6	< 2	< 4	< 2	< 4	< 2	< 2	< 39	< 13
INTAKE	08/12/09	< 20	313 ± 51	< 2	< 2	< 4	< 2	< 4	< 2	< 4	< 2	< 2	< 32	< 13
INTAKE	08/13/09	< 23	243 ± 50	< 2	< 3	< 6	< 2	< 4	< 2	< 4	< 2	< 2	< 44	< 13
INTAKE	08/14/09	< 17	226 ± 39	< 1	< 2	< 4	< 1	< 3	< 2	< 3	< 1	< 1	< 39	< 13
INTAKE	08/15/09	< 23	259 ± 57	< 2	< 2	< 6	< 2	< 4	< 3	< 4	< 2	< 2	< 51	< 14
INTAKE	08/16/09	< 24	225 ± 53	< 2	< 2	< 6	< 2	< 4	< 2	< 4	< 2	< 2	< 51	< 13
INTAKE	08/17/09	< 19	218 ± 39	< 1	< 2	< 5	< 1	< 3	< 2	< 4	< 1	< 1	< 38	< 11
INTAKE	08/18/09	< 22	255 ± 47	< 2	< 2	< 5	< 2	< 4	< 2	< 4	< 2	< 2	< 40	< 14
INTAKE	08/19/09	< 17	245 ± 44	< 1	< 2	< 4	< 1	< 3	< 2	< 3	< 1	< 2	< 37	< 9
INTAKE	08/20/09	< 26	280 ± 48	< 2	< 3	< 7	< 2	< 4	< 3	< 5	< 2	< 2	< 101	< 29

TABLE B-II.2

CONCENTRATIONS OF GAMMA EMITTERS IN SURFACE WATER SAMPLES COLLECTED IN THE VICINITY OF OYSTER CREEK GENERATING STATION, 2009

RESULTS IN UNITS OF PCI/LITER ± 2 SIGMA

STC	COLLECTION PERIOD	Be-7	K-40	Mn-54	Co-58	Fe-59	Co-60	Zn-65	Nb-95	Zr-95	Cs-134	Cs-137	Ba-140	La-140
INTAKE	08/21/09	< 29	326 ± 49	< 2	< 3	< 8	< 2	< 4	< 3	< 5	< 2	< 2	< 105	< 35
INTAKE	08/22/09	< 32	275 ± 54	< 2	< 3	< 9	< 2	< 5	< 3	< 6	< 2	< 2	< 122	< 31
INTAKE	08/23/09	< 25	261 ± 60	< 2	< 2	< 7	< 2	< 3	< 2	< 4	< 2	< 2	< 91	< 27
INTAKE	08/24/09	< 21	285 ± 56	< 1	< 2	< 5	< 2	< 3	< 2	< 4	< 1	< 1	< 77	< 25
INTAKE	08/25/09	< 23	227 ± 48	< 2	< 3	< 6	< 2	< 4	< 3	< 4	< 1	< 2	< 90	< 24
INTAKE	08/26/09	< 19	227 ± 50	< 1	< 2	< 5	< 1	< 3	< 2	< 3	< 1	< 1	< 58	< 14
INTAKE	08/27/09	< 17	266 ± 48	< 1	< 2	< 4	< 1	< 3	< 2	< 3	< 1	< 1	< 54	< 16
INTAKE	08/28/09	< 17	217 ± 46	< 1	< 2	< 5	< 2	< 2	< 1	< 3	< 1	< 1	< 39	< 13
INTAKE	08/29/09	< 12	258 ± 43	< 1	< 1	< 3	< 1	< 2	< 1	< 2	< 1	< 1	< 39	< 12
INTAKE	08/30/09	< 18	252 ± 52	< 2	< 2	< 4	< 1	< 3	< 2	< 3	< 1	< 1	< 59	< 16
INTAKE	08/31/09	< 17	257 ± 46	< 1	< 2	< 4	< 1	< 3	< 2	< 3	< 1	< 1	< 47	< 14
INTAKE	09/01/09	< 10	202 ± 30	< 1	< 1	< 2	< 1	< 1	< 1	< 2	< 1	< 1	< 29	< 8
INTAKE	09/02/09	< 12	205 ± 35	< 1	< 1	< 3	< 1	< 2	< 1	< 2	< 1	< 1	< 32	< 8
INTAKE	09/03/09	< 14	221 ± 42	< 1	< 1	< 3	< 1	< 2	< 2	< 3	< 1	< 1	< 38	< 14
INTAKE	09/04/09	< 15	210 ± 35	< 1	< 1	< 3	< 1	< 3	< 2	< 3	< 1	< 1	< 31	< 9
INTAKE	09/05/09	< 18	201 ± 35	< 1	< 2	< 4	< 1	< 3	< 2	< 3	< 1	< 2	< 32	< 9
INTAKE	09/06/09	< 23	267 ± 53	< 2	< 2	< 6	< 2	< 4	< 3	< 4	< 2	< 2	< 43	< 13
INTAKE	09/07/09	< 10	251 ± 38	< 1	< 1	< 3	< 1	< 2	< 1	< 2	< 1	< 1	< 25	< 6
INTAKE	09/08/09	< 10	144 ± 32	< 1	< 1	< 3	< 1	< 2	< 1	< 2	< 1	< 1	< 22	< 6
INTAKE	09/09/09	< 10	233 ± 33	< 1	< 1	< 3	< 1	< 2	< 1	< 2	< 1	< 1	< 22	< 7
INTAKE	09/10/09	< 19	223 ± 30	< 2	< 2	< 5	< 2	< 4	< 2	< 4	< 2	< 2	< 27	< 9
INTAKE	09/11/09	< 27	208 ± 42	< 3	< 3	< 8	< 3	< 5	< 3	< 6	< 2	< 3	< 38	< 13
INTAKE	09/12/09	< 26	183 ± 33	< 2	< 2	< 5	< 2	< 4	< 2	< 5	< 2	< 2	< 33	< 9
INTAKE	09/13/09	< 34	192 ± 49	< 3	< 4	< 9	< 4	< 7	< 4	< 7	< 3	< 4	< 40	< 12
INTAKE	09/14/09	< 32	218 ± 49	< 3	< 4	< 9	< 3	< 6	< 4	< 7	< 3	< 3	< 39	< 13
INTAKE	09/15/09	< 26	215 ± 43	< 3	< 3	< 7	< 2	< 5	< 3	< 5	< 2	< 3	< 31	< 11
INTAKE	09/16/09	< 21	234 ± 50	< 2	< 2	< 5	< 1	< 3	< 2	< 4	< 1	< 2	< 46	< 17
INTAKE	09/17/09	< 21	172 ± 54	< 2	< 2	< 5	< 2	< 4	< 2	< 4	< 1	< 1	< 49	< 13
INTAKE	09/18/09	< 18	269 ± 54	< 1	< 2	< 4	< 1	< 3	< 2	< 3	< 1	< 1	< 40	< 12
INTAKE	09/19/09	< 19	288 ± 52	< 2	< 2	< 5	< 2	< 3	< 2	< 3	< 1	< 2	< 44	< 14
INTAKE	09/20/09	< 18	232 ± 54	< 1	< 2	< 4	< 1	< 3	< 2	< 3	< 1	< 1	< 37	< 11
INTAKE	09/21/09	< 19	243 ± 52	< 1	< 2	< 4	< 1	< 4	< 2	< 3	< 1	< 2	< 38	< 11

TABLE B-II.2

CONCENTRATIONS OF GAMMA EMITTERS IN SURFACE WATER SAMPLES COLLECTED IN THE VICINITY OF OYSTER CREEK GENERATING STATION, 2009

RESULTS IN UNITS OF PCI/LITER ± 2 SIGMA

STC	COLLECTION PERIOD	Be-7	K-40	Mn-54	Co-58	Fe-59	Co-60	Zn-65	Nb-95	Zr-95	Cs-134	Cs-137	Ba-140	La-140
INTAKE	09/22/09	< 13	197 ± 38	< 1	< 1	< 3	< 1	< 2	< 1	< 2	< 1	< 1	< 23	< 7
INTAKE	09/23/09	< 17	218 ± 61	< 1	< 2	< 4	< 2	< 3	< 2	< 4	< 1	< 2	< 29	< 9
INTAKE	09/24/09	< 15	194 ± 47	< 1	< 1	< 3	< 1	< 3	< 2	< 2	< 1	< 1	< 20	< 6
INTAKE	09/25/09	< 16	294 ± 55	< 1	< 2	< 4	< 1	< 3	< 2	< 3	< 1	< 1	< 30	< 8
INTAKE	09/26/09	< 16	194 ± 49	< 1	< 2	< 3	< 1	< 3	< 2	< 3	< 1	< 1	< 24	< 8
INTAKE	09/27/09	< 13	257 ± 38	< 1	< 1	< 3	< 1	< 2	< 1	< 2	< 1	< 1	< 22	< 5
INTAKE	09/28/09	< 16	202 ± 39	< 1	< 1	< 5	< 1	< 2	< 2	< 3	< 1	< 1	< 91	< 26
INTAKE	09/29/09	< 14	169 ± 28	< 1	< 1	< 4	< 1	< 2	< 2	< 2	< 1	< 1	< 86	< 25
INTAKE	09/30/09	< 18	181 ± 37	< 1	< 1	< 4	< 1	< 2	< 2	< 3	< 1	< 1	< 92	< 31
INTAKE	10/01/09	< 18	251 ± 39	< 1	< 2	< 5	< 1	< 2	< 2	< 3	< 1	< 1	< 111	< 32
INTAKE	10/02/09	< 17	257 ± 37	< 1	< 1	< 4	< 1	< 2	< 2	< 3	< 1	< 1	< 102	< 29
INTAKE	10/03/09	< 13	263 ± 34	< 1	< 1	< 4	< 1	< 2	< 1	< 3	< 1	< 1	< 77	< 22
INTAKE	10/04/09	< 20	277 ± 36	< 1	< 2	< 6	< 1	< 2	< 2	< 3	< 1	< 1	< 179	< 57
INTAKE	10/05/09	< 28	269 ± 49	< 1	< 2	< 7	< 1	< 3	< 3	< 4	< 1	< 1	< 274	< 78
INTAKE	10/06/09	< 22	262 ± 39	< 1	< 2	< 6	< 1	< 2	< 2	< 4	< 1	< 1	< 202	< 67
INTAKE	10/07/09	< 18	279 ± 48	< 1	< 2	< 4	< 1	< 3	< 2	< 3	< 1	< 1	< 54	< 14
INTAKE	10/08/09	< 22	266 ± 59	< 2	< 2	< 6	< 2	< 3	< 2	< 4	< 1	< 2	< 60	< 16
INTAKE	10/09/09	< 20	243 ± 53	< 2	< 2	< 5	< 1	< 3	< 2	< 4	< 1	< 2	< 57	< 17
INTAKE	10/10/09	< 19	293 ± 46	< 1	< 2	< 5	< 1	< 3	< 2	< 3	< 1	< 1	< 89	< 27
INTAKE	10/11/09	< 14	281 ± 38	< 1	< 1	< 3	< 1	< 2	< 1	< 3	< 1	< 1	< 67	< 24
INTAKE	10/12/09	< 12	330 ± 35	< 1	< 1	< 3	< 1	< 2	< 1	< 2	< 1	< 1	< 61	< 18
INTAKE	10/13/09	< 14	259 ± 46	< 1	< 1	< 3	< 1	< 2	< 1	< 3	< 1	< 1	< 31	< 9
INTAKE	10/14/09	< 19	275 ± 61	< 1	< 2	< 4	< 2	< 3	< 2	< 3	< 1	< 2	< 43	< 16
INTAKE	10/15/09	< 21	257 ± 58	< 2	< 2	< 5	< 2	< 3	< 2	< 4	< 2	< 2	< 44	< 14
INTAKE	10/16/09	< 12	246 ± 33	< 1	< 1	< 3	< 1	< 2	< 1	< 2	< 1	< 1	< 40	< 11
INTAKE	10/16/09	< 15	246 ± 35	< 1	< 2	< 4	< 1	< 2	< 2	< 3	< 1	< 1	< 142	< 41
INTAKE	10/17/09	< 13	258 ± 36	< 1	< 1	< 3	< 1	< 2	< 1	< 2	< 1	< 1	< 42	< 9
INTAKE	10/17/09	< 27	260 ± 48	< 1	< 2	< 5	< 1	< 3	< 2	< 4	< 1	< 1	< 199	< 68
INTAKE	10/18/09	< 14	256 ± 36	< 1	< 1	< 3	< 1	< 2	< 1	< 3	< 1	< 1	< 40	< 12
INTAKE	10/18/09	< 19	271 ± 41	< 1	< 2	< 5	< 1	< 3	< 2	< 3	< 1	< 1	< 174	< 44
INTAKE	10/19/09	< 10	263 ± 28	< 1	< 1	< 3	< 1	< 1	< 1	< 2	< 1	< 1	< 38	< 13
INTAKE	10/20/09	< 17	250 ± 46	< 1	< 1	< 5	< 1	< 2	< 2	< 3	< 1	< 1	< 62	< 20

TABLE B-II.2

CONCENTRATIONS OF GAMMA EMITTERS IN SURFACE WATER SAMPLES COLLECTED IN THE VICINITY OF OYSTER CREEK GENERATING STATION, 2009

RESULTS IN UNITS OF PCI/LITER ± 2 SIGMA

STC	COLLECTION PERIOD	Be-7	K-40	Mn-54	Co-58	Fe-59	Co-60	Zn-65	Nb-95	Zr-95	Cs-134	Cs-137	Ba-140	La-140
INTAKE	10/21/09	< 13	278 ± 37	< 1	< 1	< 3	< 1	< 2	< 2	< 2	< 1	< 1	< 46	< 10
INTAKE	10/22/09	< 11	263 ± 28	< 1	< 1	< 2	< 1	< 1	< 1	< 2	< 1	< 1	< 29	< 10
INTAKE	10/23/09	< 11	266 ± 34	< 1	< 1	< 3	< 1	< 2	< 1	< 2	< 1	< 1	< 34	< 9
INTAKE	10/24/09	< 16	274 ± 50	< 1	< 2	< 4	< 2	< 3	< 2	< 3	< 1	< 1	< 48	< 14
INTAKE	10/25/09	< 22	259 ± 46	< 1	< 2	< 6	< 1	< 3	< 2	< 4	< 1	< 1	< 154	< 39
INTAKE	10/26/09	< 15	233 ± 35	< 1	< 1	< 4	< 1	< 2	< 2	< 3	< 1	< 1	< 104	< 32
INTAKE	10/27/09	< 14	259 ± 34	< 1	< 1	< 4	< 1	< 2	< 2	< 2	< 1	< 1	< 91	< 32
INTAKE	10/28/09	< 16	226 ± 35	< 1	< 1	< 3	< 1	< 2	< 1	< 3	< 1	< 1	< 42	< 11
INTAKE	10/29/09	< 16	236 ± 42	< 1	< 2	< 4	< 1	< 2	< 2	< 3	< 1	< 1	< 51	< 16
INTAKE	10/30/09	< 16	311 ± 42	< 1	< 2	< 4	< 1	< 3	< 2	< 3	< 1	< 1	< 54	< 16
INTAKE	10/31/09	< 17	269 ± 36	< 1	< 2	< 4	< 1	< 2	< 2	< 3	< 1	< 1	< 76	< 19
INTAKE	11/01/09	< 19	286 ± 41	< 1	< 2	< 5	< 1	< 3	< 2	< 4	< 1	< 1	< 93	< 28
INTAKE	11/02/09	< 13	211 ± 33	< 1	< 1	< 4	< 1	< 2	< 1	< 2	< 1	< 1	< 70	< 18
INTAKE	11/03/09	< 20	257 ± 38	< 1	< 2	< 6	< 1	< 2	< 2	< 3	< 1	< 1	< 238	< 69
INTAKE	11/04/09	< 14	315 ± 31	< 1	< 1	< 4	< 1	< 2	< 2	< 3	< 1	< 1	< 57	< 18
INTAKE	11/05/09	< 14	209 ± 35	< 1	< 1	< 4	< 1	< 2	< 1	< 2	< 1	< 1	< 52	< 14
INTAKE	11/06/09	< 17	271 ± 44	< 1	< 2	< 4	< 1	< 3	< 2	< 3	< 1	< 1	< 47	< 12
INTAKE	11/07/09	< 13	277 ± 36	< 1	< 1	< 3	< 1	< 2	< 1	< 2	< 1	< 1	< 29	< 10
INTAKE	11/08/09	< 24	301 ± 57	< 2	< 2	< 5	< 2	< 3	< 2	< 4	< 2	< 2	< 56	< 16
INTAKE	11/09/09	< 24	251 ± 46	< 1	< 2	< 5	< 1	< 3	< 2	< 4	< 1	< 2	< 148	< 22
INTAKE	11/10/09	< 11	203 ± 32	< 1	< 1	< 3	< 1	< 1	< 1	< 2	< 1	< 1	< 43	< 11
INTAKE	11/11/09	< 10	213 ± 30	< 1	< 1	< 3	< 1	< 2	< 1	< 2	< 1	< 1	< 32	< 12
INTAKE	11/12/09	< 15	194 ± 37	< 1	< 1	< 4	< 1	< 3	< 2	< 3	< 1	< 1	< 35	< 10
INTAKE	11/13/09	< 14	181 ± 43	< 1	< 1	< 3	< 1	< 2	< 2	< 2	< 1	< 1	< 34	< 8
INTAKE	11/14/09	< 9	238 ± 29	< 1	< 1	< 2	< 1	< 2	< 1	< 2	< 1	< 1	< 26	< 8
INTAKE	11/15/09	< 12	254 ± 29	< 1	< 1	< 3	< 1	< 2	< 1	< 2	< 1	< 1	< 47	< 16
INTAKE	11/16/09	< 11	214 ± 31	< 1	< 1	< 3	< 1	< 2	< 1	< 2	< 1	< 1	< 48	< 14
INTAKE	11/17/09	< 13	216 ± 31	< 1	< 1	< 3	< 1	< 2	< 1	< 2	< 1	< 1	< 47	< 15
INTAKE	11/18/09	< 19	211 ± 43	< 1	< 2	< 5	< 1	< 3	< 2	< 3	< 1	< 1	< 90	< 23
INTAKE	11/19/09	< 18	231 ± 47	< 1	< 2	< 5	< 1	< 3	< 2	< 3	< 1	< 1	< 76	< 32
INTAKE	11/20/09	< 14	230 ± 37	< 1	< 1	< 4	< 1	< 2	< 2	< 3	< 1	< 1	< 73	< 25
INTAKE	11/21/09	< 18	202 ± 52	< 1	< 2	< 5	< 1	< 3	< 2	< 3	< 1	< 1	< 64	< 21

TABLE B-II.2

CONCENTRATIONS OF GAMMA EMITTERS IN SURFACE WATER SAMPLES COLLECTED IN THE VICINITY OF OYSTER CREEK GENERATING STATION, 2009

RESULTS IN UNITS OF PCI/LITER ± 2 SIGMA

STC	COLLECTION PERIOD	Be-7	K-40	Mn-54	Co-58	Fe-59	Co-60	Zn-65	Nb-95	Zr-95	Cs-134	Cs-137	Ba-140	La-140
INTAKE	11/22/09	< 15	249 ± 39	< 1	< 1	< 4	< 1	< 2	< 2	< 2	< 1	< 1	< 46	< 14
INTAKE	11/23/09	< 12	238 ± 36	< 1	< 1	< 3	< 1	< 2	< 1	< 2	< 1	< 1	< 33	< 10
INTAKE	11/25/09	< 10	235 ± 27	< 1	< 1	< 2	< 1	< 1	< 1	< 2	< 1	< 1	< 26	< 8
INTAKE	11/26/09	< 18	204 ± 42	< 1	< 2	< 5	< 1	< 2	< 2	< 3	< 1	< 1	< 93	< 27
INTAKE	11/27/09	< 22	329 ± 45	< 1	< 2	< 5	< 1	< 3	< 2	< 3	< 1	< 1	< 99	< 28
INTAKE	11/28/09	< 20	285 ± 36	< 1	< 2	< 5	< 1	< 3	< 2	< 4	< 1	< 1	< 87	< 24
INTAKE	11/29/09	< 22	221 ± 51	< 2	< 2	< 6	< 2	< 3	< 2	< 3	< 1	< 1	< 145	< 46
INTAKE	11/30/09	< 20	266 ± 34	< 1	< 2	< 6	< 1	< 2	< 2	< 3	< 1	< 1	< 224	< 79
INTAKE	12/01/09	< 20	258 ± 37	< 1	< 2	< 4	< 1	< 2	< 2	< 3	< 1	< 1	< 240	< 46
INTAKE	12/02/09	< 17	223 ± 48	< 1	< 2	< 5	< 1	< 3	< 2	< 3	< 1	< 1	< 72	< 24
INTAKE	12/03/09	< 19	272 ± 50	< 1	< 2	< 5	< 1	< 2	< 2	< 3	< 1	< 1	< 82	< 29
INTAKE	12/04/09	< 21	437 ± 57	< 2	< 2	< 5	< 1	< 3	< 2	< 4	< 1	< 2	< 61	< 21
INTAKE	12/05/09	< 16	274 ± 42	< 1	< 1	< 4	< 1	< 2	< 2	< 3	< 1	< 1	< 37	< 12
INTAKE	12/06/09	< 12	230 ± 40	< 1	< 1	< 2	< 1	< 2	< 1	< 2	< 1	< 1	< 15	< 4
INTAKE	12/07/09	< 12	327 ± 41	< 1	< 1	< 2	< 1	< 2	< 1	< 2	< 1	< 1	< 17	< 5
INTAKE	12/08/09	< 11	300 ± 37	< 1	< 1	< 3	< 1	< 2	< 1	< 2	< 1	< 1	< 15	< 6
INTAKE	12/09/09	< 15	291 ± 40	< 1	< 1	< 4	< 1	< 2	< 2	< 3	< 1	< 1	< 63	< 19
INTAKE	12/10/09	< 13	215 ± 35	< 1	< 1	< 3	< 1	< 2	< 2	< 2	< 1	< 1	< 51	< 15
INTAKE	12/11/09	< 19	263 ± 53	< 1	< 2	< 6	< 2	< 3	< 2	< 4	< 1	< 1	< 79	< 18
INTAKE	12/12/09	< 20	267 ± 50	< 1	< 2	< 5	< 1	< 3	< 2	< 3	< 1	< 1	< 73	< 23
INTAKE	12/13/09	< 12	230 ± 28	< 1	< 1	< 3	< 1	< 2	< 1	< 2	< 1	< 1	< 62	< 19
INTAKE	12/14/09	< 16	304 ± 45	< 1	< 2	< 5	< 1	< 2	< 2	< 3	< 1	< 1	< 76	< 21
INTAKE	12/15/09	< 16	265 ± 41	< 1	< 2	< 4	< 1	< 2	< 2	< 3	< 1	< 1	< 67	< 19
INTAKE	12/16/09	< 15	238 ± 40	< 1	< 2	< 4	< 1	< 2	< 2	< 3	< 1	< 1	< 76	< 21
INTAKE	12/17/09	< 16	216 ± 40	< 1	< 1	< 5	< 1	< 2	< 2	< 3	< 1	< 1	< 78	< 22
INTAKE	12/18/09	< 23	210 ± 59	< 2	< 2	< 6	< 1	< 3	< 3	< 4	< 1	< 2	< 96	< 29
INTAKE	12/18/09	< 35	144 ± 58	< 3	< 4	< 9	< 4	< 8	< 4	< 7	< 3	< 3	< 34	< 12
INTAKE	12/19/09	< 17	207 ± 37	< 1	< 1	< 4	< 1	< 2	< 2	< 3	< 1	< 1	< 62	< 22
INTAKE	12/20/09	< 16	231 ± 38	< 1	< 1	< 4	< 1	< 2	< 1	< 3	< 1	< 1	< 60	< 14
INTAKE	12/21/09	< 12	212 ± 34	< 1	< 1	< 3	< 1	< 2	< 1	< 2	< 1	< 1	< 43	< 15
INTAKE	12/22/09	< 21	268 ± 54	< 2	< 2	< 5	< 1	< 3	< 2	< 4	< 1	< 1	< 65	< 18
INTAKE	12/23/09	< 18	180 ± 47	< 1	< 2	< 4	< 2	< 3	< 2	< 4	< 1	< 1	< 62	< 18

TABLE B-II.2

CONCENTRATIONS OF GAMMA EMITTERS IN SURFACE WATER SAMPLES COLLECTED IN THE VICINITY OF OYSTER CREEK GENERATING STATION, 2009

RESULTS IN UNITS OF PCI/LITER ± 2 SIGMA

STC	COLLECTION PERIOD	Be-7	K-40	Mn-54	Co-58	Fe-59	Co-60	Zn-65	Nb-95	Zr-95	Cs-134	Cs-137	Ba-140	La-140
INTAKE	12/24/09	< 16	253 ± 40	< 1	< 1	< 4	< 1	< 2	< 1	< 3	< 1	< 1	< 59	< 14
INTAKE	12/25/09	< 14	182 ± 34	< 1	< 1	< 3	< 1	< 2	< 1	< 3	< 1	< 1	< 48	< 14
INTAKE	12/26/09	< 11	167 ± 33	< 1	< 1	< 3	< 1	< 2	< 1	< 2	< 1	< 1	< 38	< 11
INTAKE	12/27/09	< 19	176 ± 43	< 1	< 2	< 4	< 1	< 2	< 2	< 3	< 1	< 1	< 71	< 19
INTAKE	12/28/09	< 15	209 ± 47	< 1	< 2	< 4	< 1	< 3	< 2	< 2	< 1	< 1	< 50	< 14
INTAKE	12/29/09	< 15	187 ± 44	< 1	< 1	< 4	< 1	< 2	< 2	< 3	< 1	< 1	< 46	< 14
MAIN CONDENSER DISCHARGE (MCD)	05/05/09	< 16	207 ± 24	< 1	< 2	< 4	< 1	< 3	< 2	< 3	< 1	< 1	< 33	< 11
MAIN CONDENSER DISCHARGE (MCD)	05/12/09	< 19	329 ± 24	< 1	< 2	< 5	< 1	< 3	< 2	< 4	< 1	< 2	< 39	< 13
MAIN CONDENSER DISCHARGE (MCD)	05/19/09	< 35	221 ± 60	< 3	< 4	< 9	< 4	< 6	< 4	< 6	< 3	< 3	< 39	< 14
MAIN CONDENSER DISCHARGE (MCD)	05/26/09	< 48	345 ± 81	< 5	< 5	< 12	< 2	< 11	< 6	< 9	< 5	< 5	< 34	< 12
MAIN CONDENSER DISCHARGE (MCD)	06/02/09	< 45	274 ± 79	< 5	< 5	< 11	< 5	< 13	< 7	< 8	< 6	< 5	< 27	< 8
MAIN CONDENSER DISCHARGE (MCD)	06/08/09	< 17	242 ± 29	< 1	< 2	< 4	< 1	< 3	< 2	< 3	< 1	< 1	< 29	< 9
MAIN CONDENSER DISCHARGE (MCD)	06/15/09	< 17	240 ± 28	< 2	< 2	< 5	< 2	< 3	< 2	< 3	< 1	< 2	< 23	< 7
MAIN CONDENSER DISCHARGE (MCD)	06/22/09	< 16	244 ± 29	< 2	< 2	< 5	< 2	< 4	< 2	< 4	< 2	< 2	< 19	< 6
MAIN CONDENSER DISCHARGE (MCD)	06/26/09	< 32	226 ± 59	< 4	< 4	< 8	< 4	< 7	< 4	< 6	< 3	< 3	< 29	< 10
MAIN CONDENSER DISCHARGE (MCD)	06/27/09	< 27	268 ± 78	< 3	< 3	< 6	< 2	< 5	< 3	< 5	< 2	< 3	< 39	< 13
MAIN CONDENSER DISCHARGE (MCD)	06/28/09	< 25	218 ± 61	< 2	< 3	< 6	< 2	< 5	< 3	< 5	< 2	< 2	< 36	< 11
MAIN CONDENSER DISCHARGE (MCD)	06/29/09	< 29	< 73	< 3	< 3	< 8	< 3	< 6	< 3	< 6	< 3	< 3	< 43	< 13
MAIN CONDENSER DISCHARGE (MCD)	06/30/09	< 35	283 ± 59	< 3	< 4	< 10	< 3	< 7	< 4	< 7	< 3	< 3	< 48	< 14
MAIN CONDENSER DISCHARGE (MCD)	07/01/09	< 29	215 ± 62	< 3	< 3	< 7	< 3	< 6	< 3	< 6	< 2	< 3	< 40	< 15
MAIN CONDENSER DISCHARGE (MCD)	07/02/09	< 33	235 ± 53	< 3	< 3	< 8	< 3	< 6	< 4	< 6	< 3	< 3	< 49	< 14
MAIN CONDENSER DISCHARGE (MCD)	07/03/09	< 27	278 ± 46	< 3	< 3	< 7	< 3	< 5	< 3	< 5	< 2	< 3	< 41	< 15
MAIN CONDENSER DISCHARGE (MCD)	07/04/09	< 27	305 ± 60	< 3	< 3	< 8	< 2	< 5	< 3	< 5	< 2	< 2	< 42	< 11
MAIN CONDENSER DISCHARGE (MCD)	07/05/09	< 26	300 ± 61	< 2	< 3	< 7	< 3	< 5	< 3	< 5	< 2	< 2	< 36	< 11
MAIN CONDENSER DISCHARGE (MCD)	07/06/09	< 25	287 ± 67	< 2	< 3	< 7	< 3	< 5	< 3	< 5	< 2	< 3	< 37	< 15
MAIN CONDENSER DISCHARGE (MCD)	07/07/09	< 33	226 ± 71	< 3	< 3	< 9	< 3	< 6	< 4	< 6	< 3	< 3	< 45	< 12
MAIN CONDENSER DISCHARGE (MCD)	07/08/09	< 33	254 ± 47	< 3	< 3	< 8	< 3	< 6	< 4	< 6	< 3	< 3	< 47	< 15
MAIN CONDENSER DISCHARGE (MCD)	07/09/09	< 31	206 ± 72	< 3	< 3	< 7	< 3	< 6	< 3	< 6	< 2	< 3	< 35	< 13
MAIN CONDENSER DISCHARGE (MCD)	07/10/09	< 25	300 ± 62	< 2	< 3	< 6	< 2	< 5	< 3	< 5	< 2	< 2	< 29	< 8
MAIN CONDENSER DISCHARGE (MCD)	07/11/09	< 27	298 ± 71	< 2	< 3	< 7	< 2	< 5	< 3	< 5	< 2	< 3	< 42	< 14
MAIN CONDENSER DISCHARGE (MCD)	07/12/09	< 34	< 94	< 3	< 3	< 8	< 3	< 6	< 4	< 6	< 2	< 3	< 52	< 15
MAIN CONDENSER DISCHARGE (MCD)	07/13/09	< 27	< 24	< 3	< 3	< 7	< 3	< 6	< 3	< 5	< 2	< 3	< 33	< 13

TABLE B-II.2

CONCENTRATIONS OF GAMMA EMITTERS IN SURFACE WATER SAMPLES COLLECTED IN THE VICINITY OF OYSTER CREEK GENERATING STATION, 2009

RESULTS IN UNITS OF PCI/LITER ± 2 SIGMA

STC	COLLECTION PERIOD	Be-7	K-40	Mn-54	Co-58	Fe-59	Co-60	Zn-65	Nb-95	Zr-95	Cs-134	Cs-137	Ba-140	La-140
MAIN CONDENSER DISCHARGE (MCD)	07/14/09	< 28	301 ± 71	< 3	< 3	< 7	< 3	< 5	< 3	< 6	< 2	< 3	< 33	< 10
MAIN CONDENSER DISCHARGE (MCD)	07/15/09	< 29	228 ± 90	< 3	< 3	< 7	< 3	< 7	< 4	< 6	< 3	< 3	< 37	< 11
MAIN CONDENSER DISCHARGE (MCD)	07/16/09	< 30	295 ± 78	< 3	< 3	< 8	< 3	< 6	< 4	< 6	< 3	< 3	< 39	< 11
MAIN CONDENSER DISCHARGE (MCD)	07/17/09	< 28	228 ± 68	< 2	< 3	< 7	< 3	< 6	< 3	< 5	< 2	< 3	< 30	< 10
MAIN CONDENSER DISCHARGE (MCD)	07/18/09	< 28	237 ± 80	< 3	< 3	< 7	< 3	< 6	< 3	< 6	< 3	< 3	< 31	< 9
MAIN CONDENSER DISCHARGE (MCD)	07/19/09	< 28	231 ± 51	< 3	< 3	< 7	< 3	< 5	< 3	< 5	< 2	< 3	< 35	< 11
MAIN CONDENSER DISCHARGE (MCD)	07/20/09	< 28	173 ± 51	< 2	< 3	< 7	< 3	< 5	< 3	< 6	< 2	< 3	< 34	< 10
MAIN CONDENSER DISCHARGE (MCD)	07/21/09	< 27	230 ± 39	< 2	< 3	< 7	< 2	< 5	< 3	< 5	< 2	< 2	< 34	< 11
MAIN CONDENSER DISCHARGE (MCD)	07/22/09	< 30	215 ± 62	< 3	< 4	< 9	< 3	< 6	< 4	< 7	< 3	< 3	< 39	< 13
MAIN CONDENSER DISCHARGE (MCD)	07/23/09	< 33	269 ± 49	< 3	< 4	< 8	< 3	< 7	< 4	< 6	< 3	< 3	< 40	< 12
MAIN CONDENSER DISCHARGE (MCD)	07/24/09	< 25	236 ± 38	< 2	< 3	< 6	< 2	< 5	< 3	< 5	< 2	< 2	< 29	< 9
MAIN CONDENSER DISCHARGE (MCD)	07/25/09	< 20	289 ± 64	< 2	< 3	< 6	< 2	< 5	< 3	< 4	< 2	< 2	< 22	< 7
MAIN CONDENSER DISCHARGE (MCD)	07/26/09	< 23	252 ± 45	< 2	< 3	< 6	< 2	< 5	< 3	< 5	< 2	< 2	< 22	< 8
MAIN CONDENSER DISCHARGE (MCD)	07/27/09	< 22	242 ± 46	< 2	< 3	< 6	< 3	< 5	< 3	< 5	< 2	< 2	< 21	< 7
MAIN CONDENSER DISCHARGE (MCD)	07/28/09	< 24	293 ± 67	< 3	< 2	< 6	< 2	< 5	< 3	< 5	< 2	< 3	< 19	< 5
MAIN CONDENSER DISCHARGE (MCD)	07/29/09	< 31	307 ± 58	< 3	< 3	< 8	< 4	< 7	< 4	< 6	< 3	< 3	< 25	< 8
MAIN CONDENSER DISCHARGE (MCD)	07/30/09	< 11	238 ± 32	< 1	< 1	< 3	< 1	< 2	< 1	< 2	< 1	< 1	< 38	< 11
MAIN CONDENSER DISCHARGE (MCD)	07/31/09	< 14	256 ± 44	< 1	< 1	< 3	< 1	< 2	< 2	< 3	< 1	< 1	< 55	< 15
MAIN CONDENSER DISCHARGE (MCD)	08/01/09	< 14	313 ± 49	< 1	< 2	< 4	< 1	< 3	< 1	< 3	< 1	< 1	< 52	< 15
MAIN CONDENSER DISCHARGE (MCD)	08/02/09	< 17	245 ± 47	< 1	< 2	< 4	< 1	< 2	< 2	< 3	< 1	< 1	< 50	< 13
MAIN CONDENSER DISCHARGE (MCD)	08/03/09	< 19	289 ± 44	< 1	< 2	< 5	< 1	< 3	< 2	< 4	< 1	< 1	< 50	< 14
MAIN CONDENSER DISCHARGE (MCD)	08/04/09	< 10	395 ± 24	< 1	< 1	< 2	< 1	< 2	< 1	< 2	< 1	< 1	< 28	< 8
MAIN CONDENSER DISCHARGE (MCD)	08/05/09	< 18	221 ± 37	< 2	< 2	< 5	< 2	< 4	< 2	< 4	< 1	< 2	< 39	< 14
MAIN CONDENSER DISCHARGE (MCD)	08/06/09	< 18	195 ± 32	< 1	< 2	< 5	< 1	< 3	< 2	< 3	< 1	< 1	< 37	< 11
MAIN CONDENSER DISCHARGE (MCD)	08/07/09	< 12	244 ± 30	< 1	< 1	< 3	< 1	< 2	< 1	< 2	< 1	< 1	< 22	< 7
MAIN CONDENSER DISCHARGE (MCD)	08/08/09	< 20	206 ± 50	< 1	< 2	< 4	< 1	< 3	< 2	< 3	< 1	< 1	< 41	< 8
MAIN CONDENSER DISCHARGE (MCD)	08/09/09	< 18	243 ± 43	< 1	< 2	< 4	< 1	< 3	< 2	< 3	< 1	< 2	< 38	< 10
MAIN CONDENSER DISCHARGE (MCD)	08/10/09	< 19	271 ± 55	< 2	< 2	< 5	< 2	< 3	< 2	< 4	< 1	< 2	< 35	< 11
MAIN CONDENSER DISCHARGE (MCD)	08/11/09	< 17	278 ± 49	< 1	< 2	< 4	< 1	< 3	< 2	< 3	< 1	< 2	< 31	< 9
MAIN CONDENSER DISCHARGE (MCD)	08/12/09	< 18	265 ± 38	< 1	< 2	< 4	< 1	< 3	< 2	< 3	< 1	< 1	< 32	< 11
MAIN CONDENSER DISCHARGE (MCD)	08/13/09	< 22	217 ± 58	< 2	< 3	< 6	< 2	< 4	< 3	< 4	< 2	< 2	< 47	< 13
MAIN CONDENSER DISCHARGE (MCD)	08/14/09	< 23	218 ± 46	< 2	< 2	< 5	< 2	< 4	< 2	< 4	< 1	< 2	< 48	< 13

TABLE B-II.2

CONCENTRATIONS OF GAMMA EMITTERS IN SURFACE WATER SAMPLES COLLECTED IN THE VICINITY OF OYSTER CREEK GENERATING STATION, 2009

RESULTS IN UNITS OF PCI/LITER ± 2 SIGMA

STC	COLLECTION PERIOD	Be-7	K-40	Mn-54	Co-58	Fe-59	Co-60	Zn-65	Nb-95	Zr-95	Cs-134	Cs-137	Ba-140	La-140
MAIN CONDENSER DISCHARGE (MCD)	08/15/09	< 23	287 ± 58	< 2	< 2	< 5	< 2	< 4	< 2	< 4	< 2	< 2	< 46	< 15
MAIN CONDENSER DISCHARGE (MCD)	08/16/09	< 26	433 ± 48	< 2	< 2	< 6	< 2	< 4	< 3	< 5	< 2	< 2	< 52	< 12
MAIN CONDENSER DISCHARGE (MCD)	08/17/09	< 23	237 ± 52	< 2	< 2	< 5	< 2	< 4	< 2	< 4	< 2	< 2	< 46	< 14
MAIN CONDENSER DISCHARGE (MCD)	08/18/09	< 23	246 ± 56	< 2	< 2	< 6	< 2	< 4	< 2	< 4	< 2	< 2	< 46	< 13
MAIN CONDENSER DISCHARGE (MCD)	08/19/09	< 18	304 ± 46	< 2	< 2	< 4	< 2	< 3	< 2	< 4	< 1	< 1	< 38	< 10
MAIN CONDENSER DISCHARGE (MCD)	08/20/09	< 26	234 ± 43	< 2	< 2	< 6	< 1	< 3	< 3	< 4	< 1	< 2	< 99	< 24
MAIN CONDENSER DISCHARGE (MCD)	08/21/09	< 34	289 ± 64	< 2	< 4	< 8	< 2	< 5	< 4	< 7	< 2	< 2	< 137	< 41
MAIN CONDENSER DISCHARGE (MCD)	08/22/09	< 33	293 ± 55	< 2	< 3	< 9	< 2	< 5	< 3	< 5	< 2	< 2	< 140	< 42
MAIN CONDENSER DISCHARGE (MCD)	08/23/09	< 17	263 ± 49	< 1	< 2	< 5	< 1	< 3	< 2	< 3	< 1	< 1	< 67	< 19
MAIN CONDENSER DISCHARGE (MCD)	08/24/09	< 18	240 ± 35	< 1	< 2	< 5	< 1	< 3	< 2	< 3	< 1	< 1	< 70	< 22
MAIN CONDENSER DISCHARGE (MCD)	08/25/09	< 25	154 ± 45	< 2	< 3	< 7	< 2	< 4	< 3	< 5	< 2	< 2	< 94	< 34
MAIN CONDENSER DISCHARGE (MCD)	08/26/09	< 14	280 ± 47	< 1	< 1	< 3	< 1	< 2	< 2	< 3	< 1	< 1	< 37	< 14
MAIN CONDENSER DISCHARGE (MCD)	08/27/09	< 22	228 ± 54	< 1	< 2	< 4	< 1	< 3	< 2	< 4	< 1	< 2	< 50	< 13
MAIN CONDENSER DISCHARGE (MCD)	08/28/09	< 16	254 ± 46	< 1	< 1	< 4	< 1	< 2	< 1	< 2	< 1	< 1	< 41	< 11
MAIN CONDENSER DISCHARGE (MCD)	08/29/09	< 13	233 ± 46	< 1	< 2	< 4	< 1	< 2	< 2	< 3	< 1	< 1	< 43	< 12
MAIN CONDENSER DISCHARGE (MCD)	08/30/09	< 23	260 ± 58	< 2	< 2	< 7	< 2	< 3	< 2	< 4	< 1	< 2	< 56	< 18
MAIN CONDENSER DISCHARGE (MCD)	08/31/09	< 23	260 ± 58	< 2	< 2	< 7	< 2	< 3	< 2	< 4	< 1	< 2	< 53	< 17
MAIN CONDENSER DISCHARGE (MCD)	09/01/09	< 15	241 ± 41	< 1	< 1	< 4	< 1	< 2	< 2	< 3	< 1	< 1	< 44	< 12
MAIN CONDENSER DISCHARGE (MCD)	09/02/09	< 12	266 ± 35	< 1	< 1	< 3	< 1	< 2	< 1	< 2	< 1	< 1	< 31	< 10
MAIN CONDENSER DISCHARGE (MCD)	09/03/09	< 14	200 ± 41	< 1	< 1	< 4	< 1	< 2	< 2	< 3	< 1	< 1	< 45	< 12
MAIN CONDENSER DISCHARGE (MCD)	09/04/09	< 18	255 ± 42	< 2	< 2	< 5	< 1	< 3	< 2	< 4	< 1	< 1	< 37	< 12
MAIN CONDENSER DISCHARGE (MCD)	09/05/09	< 20	258 ± 45	< 2	< 2	< 5	< 2	< 3	< 2	< 4	< 2	< 2	< 38	< 11
MAIN CONDENSER DISCHARGE (MCD)	09/06/09	< 23	229 ± 49	< 2	< 2	< 5	< 2	< 4	< 3	< 4	< 2	< 2	< 40	< 13
MAIN CONDENSER DISCHARGE (MCD)	09/07/09	< 12	189 ± 34	< 1	< 1	< 3	< 1	< 2	< 1	< 2	< 1	< 1	< 25	< 7
MAIN CONDENSER DISCHARGE (MCD)	09/08/09	< 14	248 ± 39	< 1	< 1	< 3	< 1	< 2	< 1	< 3	< 1	< 1	< 28	< 8
MAIN CONDENSER DISCHARGE (MCD)	09/09/09	< 10	230 ± 34	< 1	< 1	< 3	< 1	< 2	< 1	< 2	< 1	< 1	< 19	< 6
MAIN CONDENSER DISCHARGE (MCD)	09/10/09	< 28	214 ± 40	< 2	< 3	< 7	< 3	< 5	< 3	< 5	< 2	< 2	< 41	< 13
MAIN CONDENSER DISCHARGE (MCD)	09/11/09	< 26	193 ± 43	< 2	< 3	< 7	< 2	< 5	< 3	< 5	< 2	< 2	< 37	< 11
MAIN CONDENSER DISCHARGE (MCD)	09/12/09	< 30	193 ± 49	< 3	< 3	< 8	< 3	< 6	< 3	< 6	< 2	< 3	< 42	< 14
MAIN CONDENSER DISCHARGE (MCD)	09/13/09	< 33	215 ± 49	< 3	< 4	< 8	< 3	< 6	< 4	< 6	< 3	< 3	< 38	< 12
MAIN CONDENSER DISCHARGE (MCD)	09/14/09	< 30	190 ± 44	< 3	< 4	< 8	< 3	< 6	< 4	< 6	< 3	< 3	< 38	< 12
MAIN CONDENSER DISCHARGE (MCD)	09/15/09	< 35	148 ± 41	< 3	< 3	< 8	< 3	< 6	< 4	< 6	< 3	< 3	< 40	< 11

TABLE B-II.2

CONCENTRATIONS OF GAMMA EMITTERS IN SURFACE WATER SAMPLES COLLECTED IN THE VICINITY OF OYSTER CREEK GENERATING STATION, 2009

RESULTS IN UNITS OF PCI/LITER ± 2 SIGMA

STC	COLLECTION PERIOD	Be-7	K-40	Mn-54	Co-58	Fe-59	Co-60	Zn-65	Nb-95	Zr-95	Cs-134	Cs-137	Ba-140	La-140
MAIN CONDENSER DISCHARGE (MCD)	09/16/09	< 21	173 ± 54	< 2	< 2	< 5	< 2	< 4	< 2	< 4	< 1	< 1	< 52	< 13
MAIN CONDENSER DISCHARGE (MCD)	09/17/09	< 14	254 ± 43	< 1	< 1	< 4	< 1	< 3	< 2	< 3	< 1	< 1	< 35	< 12
MAIN CONDENSER DISCHARGE (MCD)	09/18/09	< 14	283 ± 40	< 1	< 2	< 3	< 1	< 2	< 2	< 3	< 1	< 1	< 34	< 10
MAIN CONDENSER DISCHARGE (MCD)	09/19/09	< 18	271 ± 59	< 2	< 2	< 5	< 1	< 3	< 2	< 3	< 2	< 2	< 44	< 8
MAIN CONDENSER DISCHARGE (MCD)	09/20/09	< 14	238 ± 43	< 1	< 1	< 3	< 1	< 2	< 2	< 3	< 1	< 1	< 27	< 8
MAIN CONDENSER DISCHARGE (MCD)	09/21/09	< 18	267 ± 55	< 2	< 2	< 4	< 1	< 3	< 2	< 3	< 1	< 2	< 34	< 9
MAIN CONDENSER DISCHARGE (MCD)	09/22/09	< 15	195 ± 45	< 1	< 1	< 4	< 1	< 2	< 1	< 3	< 1	< 1	< 27	< 9
MAIN CONDENSER DISCHARGE (MCD)	09/23/09	< 16	251 ± 49	< 1	< 1	< 4	< 1	< 2	< 1	< 3	< 1	< 1	< 25	< 8
MAIN CONDENSER DISCHARGE (MCD)	09/24/09	< 12	244 ± 35	< 1	< 1	< 3	< 1	< 2	< 1	< 2	< 1	< 1	< 18	< 5
MAIN CONDENSER DISCHARGE (MCD)	09/25/09	< 11	204 ± 33	< 1	< 1	< 3	< 1	< 2	< 1	< 2	< 1	< 1	< 18	< 6
MAIN CONDENSER DISCHARGE (MCD)	09/26/09	< 15	178 ± 53	< 1	< 2	< 4	< 1	< 3	< 2	< 3	< 1	< 1	< 29	< 8
MAIN CONDENSER DISCHARGE (MCD)	09/27/09	< 13	208 ± 43	< 1	< 1	< 3	< 1	< 2	< 1	< 2	< 1	< 1	< 22	< 7
MAIN CONDENSER DISCHARGE (MCD)	09/28/09	< 12	206 ± 29	< 1	< 1	< 3	< 1	< 2	< 1	< 2	< 1	< 1	< 62	< 24
MAIN CONDENSER DISCHARGE (MCD)	09/29/09	< 19	214 ± 46	< 1	< 2	< 5	< 2	< 2	< 2	< 3	< 1	< 1	< 98	< 32
MAIN CONDENSER DISCHARGE (MCD)	09/30/09	< 22	146 ± 44	< 1	< 2	< 5	< 1	< 3	< 2	< 3	< 1	< 1	< 134	< 36
MAIN CONDENSER DISCHARGE (MCD)	10/01/09	< 11	256 ± 27	< 1	< 1	< 3	< 1	< 2	< 1	< 2	< 1	< 1	< 64	< 22
MAIN CONDENSER DISCHARGE (MCD)	10/02/09	< 16	236 ± 33	< 1	< 1	< 4	< 1	< 2	< 2	< 3	< 1	< 1	< 95	< 30
MAIN CONDENSER DISCHARGE (MCD)	10/03/09	< 15	192 ± 31	< 1	< 1	< 4	< 1	< 2	< 1	< 2	< 1	< 1	< 93	< 23
MAIN CONDENSER DISCHARGE (MCD)	10/04/09	< 16	248 ± 31	< 1	< 1	< 4	< 1	< 2	< 2	< 2	< 1	< 1	< 157	< 47
MAIN CONDENSER DISCHARGE (MCD)	10/05/09	< 25	335 ± 45	< 1	< 2	< 6	< 1	< 3	< 2	< 4	< 1	< 1	< 228	< 59
MAIN CONDENSER DISCHARGE (MCD)	10/06/09	< 21	300 ± 44	< 1	< 2	< 5	< 1	< 2	< 2	< 4	< 1	< 1	< 190	< 63
MAIN CONDENSER DISCHARGE (MCD)	10/07/09	< 17	226 ± 49	< 1	< 2	< 4	< 1	< 2	< 2	< 3	< 1	< 1	< 43	< 14
MAIN CONDENSER DISCHARGE (MCD)	10/08/09	< 17	219 ± 46	< 1	< 2	< 4	< 1	< 2	< 2	< 3	< 1	< 1	< 46	< 13
MAIN CONDENSER DISCHARGE (MCD)	10/09/09	< 22	265 ± 58	< 1	< 2	< 5	< 2	< 3	< 2	< 4	< 1	< 2	< 53	< 16
MAIN CONDENSER DISCHARGE (MCD)	10/10/09	< 17	263 ± 38	< 1	< 1	< 4	< 1	< 2	< 2	< 3	< 1	< 1	< 86	< 28
MAIN CONDENSER DISCHARGE (MCD)	10/11/09	< 16	317 ± 39	< 1	< 2	< 4	< 1	< 2	< 2	< 3	< 1	< 1	< 74	< 20
MAIN CONDENSER DISCHARGE (MCD)	10/12/09	< 13	222 ± 33	< 1	< 1	< 3	< 1	< 2	< 1	< 2	< 1	< 1	< 60	< 18
MAIN CONDENSER DISCHARGE (MCD)	10/13/09	< 19	267 ± 63	< 1	< 2	< 5	< 2	< 4	< 2	< 4	< 1	< 2	< 48	< 15
MAIN CONDENSER DISCHARGE (MCD)	10/14/09	< 17	320 ± 45	< 1	< 2	< 4	< 1	< 3	< 2	< 3	< 1	< 1	< 34	< 12
MAIN CONDENSER DISCHARGE (MCD)	10/15/09	< 19	265 ± 54	< 1	< 2	< 4	< 2	< 3	< 2	< 3	< 1	< 1	< 35	< 9
MAIN CONDENSER DISCHARGE (MCD)	10/16/09	< 10	247 ± 28	< 1	< 1	< 3	< 1	< 2	< 1	< 2	< 1	< 1	< 37	< 11
MAIN CONDENSER DISCHARGE (MCD)	10/16/09	< 14	211 ± 28	< 1	< 1	< 3	< 1	< 2	< 1	< 2	< 1	< 1	< 121	< 45

TABLE B-II.2

CONCENTRATIONS OF GAMMA EMITTERS IN SURFACE WATER SAMPLES COLLECTED IN THE VICINITY OF OYSTER CREEK GENERATING STATION, 2009

RESULTS IN UNITS OF PCI/LITER ± 2 SIGMA

STC	COLLECTION PERIOD	Be-7	K-40	Mn-54	Co-58	Fe-59	Co-60	Zn-65	Nb-95	Zr-95	Cs-134	Cs-137	Ba-140	La-140
MAIN CONDENSER DISCHARGE (MCD)	10/17/09	< 12	272 ± 32	< 1	< 1	< 3	< 1	< 2	< 1	< 2	< 1	< 1	< 34	< 10
MAIN CONDENSER DISCHARGE (MCD)	10/17/09	< 22	243 ± 45	< 1	< 2	< 6	< 1	< 3	< 2	< 3	< 1	< 1	< 202	< 61
MAIN CONDENSER DISCHARGE (MCD)	10/18/09	< 10	218 ± 29	< 1	< 1	< 3	< 1	< 1	< 1	< 2	< 1	< 1	< 32	< 10
MAIN CONDENSER DISCHARGE (MCD)	10/18/09	< 24	273 ± 45	< 1	< 2	< 7	< 1	< 3	< 2	< 4	< 1	< 1	< 179	< 48
MAIN CONDENSER DISCHARGE (MCD)	10/19/09	< 15	253 ± 34	< 1	< 1	< 4	< 1	< 2	< 1	< 3	< 1	< 1	< 56	< 15
MAIN CONDENSER DISCHARGE (MCD)	10/20/09	< 16	226 ± 38	< 1	< 1	< 3	< 1	< 2	< 2	< 3	< 1	< 1	< 49	< 18
MAIN CONDENSER DISCHARGE (MCD)	10/21/09	< 11	280 ± 32	< 1	< 1	< 3	< 1	< 2	< 1	< 2	< 1	< 1	< 48	< 13
MAIN CONDENSER DISCHARGE (MCD)	10/22/09	< 14	282 ± 37	< 1	< 1	< 3	< 1	< 2	< 1	< 2	< 1	< 1	< 34	< 10
MAIN CONDENSER DISCHARGE (MCD)	10/23/09	< 11	265 ± 34	< 1	< 1	< 2	< 1	< 2	< 1	< 2	< 1	< 1	< 31	< 8
MAIN CONDENSER DISCHARGE (MCD)	10/24/09	< 16	271 ± 39	< 1	< 2	< 4	< 1	< 2	< 2	< 3	< 1	< 1	< 46	< 12
MAIN CONDENSER DISCHARGE (MCD)	10/25/09	< 20	237 ± 39	< 1	< 2	< 5	< 1	< 2	< 2	< 3	< 1	< 1	< 127	< 34
MAIN CONDENSER DISCHARGE (MCD)	10/26/09	< 18	267 ± 36	< 1	< 2	< 5	< 1	< 3	< 2	< 3	< 1	< 1	< 131	< 39
MAIN CONDENSER DISCHARGE (MCD)	10/27/09	< 20	254 ± 40	< 1	< 1	< 5	< 1	< 2	< 2	< 3	< 1	< 1	< 122	< 32
MAIN CONDENSER DISCHARGE (MCD)	10/28/09	< 16	246 ± 49	< 1	< 1	< 4	< 1	< 2	< 2	< 3	< 1	< 1	< 49	< 12
MAIN CONDENSER DISCHARGE (MCD)	10/29/09	< 17	260 ± 44	< 1	< 1	< 4	< 1	< 2	< 2	< 3	< 1	< 1	< 51	< 12
MAIN CONDENSER DISCHARGE (MCD)	10/30/09	< 13	231 ± 33	< 1	< 1	< 4	< 1	< 2	< 1	< 2	< 1	< 1	< 54	< 20
MAIN CONDENSER DISCHARGE (MCD)	10/31/09	< 15	287 ± 37	< 1	< 1	< 4	< 1	< 2	< 2	< 3	< 1	< 1	< 78	< 22
MAIN CONDENSER DISCHARGE (MCD)	11/01/09	< 11	235 ± 27	< 1	< 1	< 3	< 1	< 1	< 1	< 2	< 1	< 1	< 58	< 17
MAIN CONDENSER DISCHARGE (MCD)	11/02/09	< 16	247 ± 35	< 1	< 2	< 4	< 1	< 2	< 2	< 3	< 1	< 1	< 74	< 26
MAIN CONDENSER DISCHARGE (MCD)	11/03/09	< 16	314 ± 43	< 1	< 1	< 4	< 1	< 2	< 2	< 3	< 1	< 1	< 55	< 18
MAIN CONDENSER DISCHARGE (MCD)	11/04/09	< 13	272 ± 39	< 1	< 1	< 3	< 1	< 2	< 1	< 2	< 1	< 1	< 50	< 19
MAIN CONDENSER DISCHARGE (MCD)	11/05/09	< 13	234 ± 33	< 1	< 1	< 3	< 1	< 2	< 1	< 2	< 1	< 1	< 50	< 12
MAIN CONDENSER DISCHARGE (MCD)	11/06/09	< 15	283 ± 41	< 1	< 2	< 3	< 1	< 3	< 2	< 2	< 1	< 1	< 37	< 9
MAIN CONDENSER DISCHARGE (MCD)	11/07/09	< 16	269 ± 43	< 1	< 1	< 4	< 1	< 2	< 2	< 3	< 1	< 1	< 39	< 8
MAIN CONDENSER DISCHARGE (MCD)	11/08/09	< 18	279 ± 57	< 2	< 2	< 4	< 2	< 3	< 2	< 4	< 1	< 1	< 59	< 16
MAIN CONDENSER DISCHARGE (MCD)	11/09/09	< 13	205 ± 39	< 1	< 1	< 3	< 1	< 2	< 1	< 2	< 1	< 1	< 48	< 15
MAIN CONDENSER DISCHARGE (MCD)	11/10/09	< 14	244 ± 34	< 1	< 1	< 4	< 1	< 2	< 1	< 2	< 1	< 1	< 50	< 16
MAIN CONDENSER DISCHARGE (MCD)	11/11/09	< 12	201 ± 32	< 1	< 1	< 3	< 1	< 2	< 1	< 3	< 1	< 1	< 46	< 14
MAIN CONDENSER DISCHARGE (MCD)	11/12/09	< 19	402 ± 60	< 2	< 2	< 4	< 2	< 2	< 2	< 3	< 1	< 2	< 44	< 11
MAIN CONDENSER DISCHARGE (MCD)	11/13/09	< 15	215 ± 39	< 1	< 1	< 3	< 1	< 2	< 2	< 3	< 1	< 1	< 30	< 9
MAIN CONDENSER DISCHARGE (MCD)	11/14/09	< 14	100 ± 32	< 1	< 1	< 3	< 1	< 2	< 1	< 3	< 1	< 1	< 57	< 19
MAIN CONDENSER DISCHARGE (MCD)	11/15/09	< 12	268 ± 34	< 1	< 1	< 3	< 1	< 2	< 1	< 2	< 1	< 1	< 50	< 13

TABLE B-II.2

CONCENTRATIONS OF GAMMA EMITTERS IN SURFACE WATER SAMPLES COLLECTED IN THE VICINITY OF OYSTER CREEK GENERATING STATION, 2009

RESULTS IN UNITS OF PCI/LITER ± 2 SIGMA

STC	COLLECTION PERIOD	Be-7	K-40	Mn-54	Co-58	Fe-59	Co-60	Zn-65	Nb-95	Zr-95	Cs-134	Cs-137	Ba-140	La-140
MAIN CONDENSER DISCHARGE (MCD)	11/16/09	< 11	264 ± 31	< 1	< 1	< 3	< 1	< 2	< 1	< 2	< 1	< 1	< 44	< 14
MAIN CONDENSER DISCHARGE (MCD)	11/17/09	< 15	221 ± 39	< 1	< 2	< 4	< 1	< 2	< 2	< 2	< 1	< 1	< 64	< 16
MAIN CONDENSER DISCHARGE (MCD)	11/18/09	< 17	221 ± 34	< 1	< 2	< 5	< 1	< 2	< 2	< 3	< 1	< 1	< 79	< 27
MAIN CONDENSER DISCHARGE (MCD)	11/19/09	< 15	248 ± 38	< 1	< 1	< 4	< 1	< 2	< 2	< 2	< 1	< 1	< 72	< 20
MAIN CONDENSER DISCHARGE (MCD)	11/20/09	< 19	250 ± 46	< 1	< 2	< 5	< 1	< 3	< 2	< 3	< 1	< 1	< 87	< 26
MAIN CONDENSER DISCHARGE (MCD)	11/21/09	< 18	239 ± 40	< 1	< 1	< 4	< 1	< 3	< 2	< 3	< 1	< 1	< 57	< 17
MAIN CONDENSER DISCHARGE (MCD)	11/22/09	< 18	264 ± 44	< 1	< 2	< 4	< 1	< 2	< 2	< 3	< 1	< 1	< 56	< 14
MAIN CONDENSER DISCHARGE (MCD)	11/23/09	< 19	236 ± 49	< 1	< 2	< 4	< 1	< 3	< 2	< 3	< 1	< 1	< 55	< 20
MAIN CONDENSER DISCHARGE (MCD)	11/24/09	< 12	246 ± 34	< 1	< 1	< 3	< 1	< 2	< 1	< 2	< 1	< 1	< 32	< 10
MAIN CONDENSER DISCHARGE (MCD)	11/25/09	< 14	192 ± 40	< 1	< 1	< 3	< 1	< 2	< 1	< 2	< 1	< 1	< 39	< 12
MAIN CONDENSER DISCHARGE (MCD)	11/26/09	< 19	200 ± 48	< 1	< 2	< 5	< 1	< 3	< 2	< 3	< 1	< 1	< 88	< 26
MAIN CONDENSER DISCHARGE (MCD)	11/27/09	< 20	252 ± 42	< 1	< 2	< 5	< 1	< 3	< 2	< 3	< 1	< 1	< 85	< 26
MAIN CONDENSER DISCHARGE (MCD)	11/28/09	< 19	232 ± 45	< 1	< 2	< 6	< 1	< 3	< 2	< 3	< 1	< 1	< 130	< 40
MAIN CONDENSER DISCHARGE (MCD)	11/29/09	< 24	213 ± 45	< 1	< 2	< 6	< 2	< 3	< 2	< 4	< 1	< 1	< 137	< 35
MAIN CONDENSER DISCHARGE (MCD)	11/30/09	< 20	241 ± 40	< 1	< 2	< 5	< 1	< 2	< 2	< 3	< 1	< 1	< 259	< 84
MAIN CONDENSER DISCHARGE (MCD)	12/01/09	< 21	239 ± 37	< 1	< 2	< 5	< 1	< 2	< 2	< 3	< 1	< 1	< 245	< 70
MAIN CONDENSER DISCHARGE (MCD)	12/02/09	< 18	235 ± 43	< 1	< 2	< 4	< 1	< 2	< 2	< 3	< 1	< 1	< 71	< 22
MAIN CONDENSER DISCHARGE (MCD)	12/03/09	< 12	264 ± 31	< 1	< 1	< 4	< 1	< 2	< 1	< 2	< 1	< 1	< 72	< 20
MAIN CONDENSER DISCHARGE (MCD)	12/04/09	< 15	253 ± 44	< 1	< 1	< 4	< 1	< 2	< 2	< 3	< 1	< 1	< 39	< 14
MAIN CONDENSER DISCHARGE (MCD)	12/05/09	< 12	230 ± 39	< 1	< 1	< 3	< 1	< 2	< 1	< 2	< 1	< 1	< 38	< 12
MAIN CONDENSER DISCHARGE (MCD)	12/06/09	< 11	253 ± 45	< 1	< 1	< 3	< 1	< 2	< 1	< 2	< 1	< 1	< 17	< 6
MAIN CONDENSER DISCHARGE (MCD)	12/07/09	< 13	277 ± 47	< 1	< 1	< 3	< 1	< 2	< 1	< 2	< 1	< 1	< 18	< 6
MAIN CONDENSER DISCHARGE (MCD)	12/08/09	< 11	240 ± 34	< 1	< 1	< 2	< 1	< 2	< 1	< 2	< 1	< 1	< 16	< 5
MAIN CONDENSER DISCHARGE (MCD)	12/09/09	< 21	225 ± 47	< 1	< 2	< 6	< 1	< 3	< 2	< 4	< 1	< 1	< 94	< 23
MAIN CONDENSER DISCHARGE (MCD)	12/10/09	< 19	236 ± 46	< 1	< 2	< 5	< 2	< 3	< 2	< 3	< 1	< 1	< 80	< 21
MAIN CONDENSER DISCHARGE (MCD)	12/11/09	< 17	239 ± 45	< 1	< 2	< 5	< 1	< 3	< 2	< 4	< 1	< 1	< 69	< 16
MAIN CONDENSER DISCHARGE (MCD)	12/12/09	< 17	267 ± 45	< 1	< 1	< 4	< 1	< 2	< 2	< 3	< 1	< 1	< 64	< 18
MAIN CONDENSER DISCHARGE (MCD)	12/13/09	< 18	221 ± 39	< 1	< 2	< 4	< 1	< 2	< 2	< 3	< 1	< 1	< 85	< 28
MAIN CONDENSER DISCHARGE (MCD)	12/14/09	< 14	266 ± 37	< 1	< 1	< 4	< 1	< 3	< 2	< 3	< 1	< 1	< 70	< 23
MAIN CONDENSER DISCHARGE (MCD)	12/15/09	< 10	240 ± 27	< 1	< 1	< 3	< 1	< 2	< 1	< 2	< 1	< 1	< 50	< 16
MAIN CONDENSER DISCHARGE (MCD)	12/16/09	< 15	236 ± 41	< 1	< 2	< 3	< 1	< 2	< 2	< 2	< 1	< 1	< 73	< 25
MAIN CONDENSER DISCHARGE (MCD)	12/17/09	< 14	260 ± 35	< 1	< 1	< 4	< 1	< 2	< 2	< 3	< 1	< 1	< 66	< 22

TABLE B-II.2

CONCENTRATIONS OF GAMMA EMITTERS IN SURFACE WATER SAMPLES COLLECTED IN THE VICINITY OF OYSTER CREEK GENERATING STATION, 2009

RESULTS IN UNITS OF PCI/LITER ± 2 SIGMA

STC	COLLECTION PERIOD	Be-7	K-40	Mn-54	Co-58	Fe-59	Co-60	Zn-65	Nb-95	Zr-95	Cs-134	Cs-137	Ba-140	La-140
MAIN CONDENSER DISCHARGE (MCD)	12/18/09	< 16	225 ± 43	< 1	< 2	< 4	< 1	< 3	< 2	< 3	< 1	< 1	< 78	< 22
MAIN CONDENSER DISCHARGE (MCD)	12/18/09	< 31	198 ± 48	< 3	< 3	< 8	< 3	< 7	< 4	< 6	< 3	< 3	< 32	< 11
MAIN CONDENSER DISCHARGE (MCD)	12/19/09	< 17	263 ± 38	< 1	< 2	< 4	< 1	< 2	< 2	< 3	< 1	< 1	< 67	< 22
MAIN CONDENSER DISCHARGE (MCD)	12/20/09	< 18	464 ± 43	< 1	< 1	< 4	< 1	< 2	< 2	< 3	< 1	< 1	< 70	< 20
MAIN CONDENSER DISCHARGE (MCD)	12/21/09	< 13	267 ± 37	< 1	< 1	< 3	< 1	< 2	< 1	< 2	< 1	< 1	< 51	< 16
MAIN CONDENSER DISCHARGE (MCD)	12/22/09	< 23	275 ± 69	< 2	< 2	< 6	< 2	< 4	< 3	< 4	< 2	< 2	< 86	< 27
MAIN CONDENSER DISCHARGE (MCD)	12/23/09	< 19	170 ± 51	< 1	< 2	< 4	< 1	< 3	< 2	< 4	< 1	< 1	< 63	< 14
MAIN CONDENSER DISCHARGE (MCD)	12/24/09	< 14	241 ± 41	< 1	< 2	< 3	< 1	< 2	< 2	< 2	< 1	< 1	< 45	< 16
MAIN CONDENSER DISCHARGE (MCD)	12/25/09	< 15	219 ± 36	< 1	< 2	< 4	< 1	< 2	< 2	< 3	< 1	< 1	< 52	< 14
MAIN CONDENSER DISCHARGE (MCD)	12/26/09	< 11	188 ± 37	< 1	< 1	< 3	< 1	< 2	< 1	< 2	< 1	< 1	< 39	< 10
MAIN CONDENSER DISCHARGE (MCD)	12/27/09	< 15	198 ± 41	< 1	< 2	< 4	< 1	< 2	< 2	< 3	< 1	< 1	< 53	< 19
MAIN CONDENSER DISCHARGE (MCD)	12/28/09	< 15	195 ± 43	< 1	< 1	< 3	< 1	< 2	< 1	< 2	< 1	< 1	< 50	< 17
MAIN CONDENSER DISCHARGE (MCD)	12/29/09	< 16	185 ± 42	< 1	< 1	< 4	< 1	< 2	< 2	< 3	< 1	< 1	< 43	< 16
RT 9 BRIDGE	05/05/09	< 14	211 ± 20	< 1	< 1	< 4	< 1	< 2	< 2	< 3	< 1	< 1	< 29	< 10
RT 9 BRIDGE	05/12/09	< 15	226 ± 26	< 1	< 1	< 3	< 1	< 2	< 1	< 3	< 1	< 1	< 28	< 8
RT 9 BRIDGE	05/19/09	< 53	178 ± 78	< 4	< 4	< 10	< 4	< 8	< 5	< 8	< 3	< 4	< 55	< 13
RT 9 BRIDGE	05/26/09	< 42	206 ± 59	< 4	< 4	< 11	< 4	< 9	< 5	< 7	< 4	< 4	< 34	< 13
RT 9 BRIDGE	06/02/09	< 41	236 ± 84	< 6	< 4	< 11	< 5	< 12	< 5	< 10	< 5	< 6	< 23	< 7
RT 9 BRIDGE	06/08/09	< 15	222 ± 25	< 1	< 2	< 4	< 1	< 2	< 2	< 3	< 1	< 1	< 26	< 7
RT 9 BRIDGE	06/15/09	< 17	184 ± 25	< 1	< 2	< 4	< 1	< 3	< 2	< 3	< 1	< 2	< 23	< 7
RT 9 BRIDGE	06/22/09	< 16	189 ± 31	< 2	< 2	< 5	< 2	< 4	< 2	< 4	< 2	< 2	< 18	< 6
RT 9 BRIDGE	06/26/09	< 32	244 ± 55	< 3	< 4	< 8	< 3	< 7	< 4	< 6	< 3	< 3	< 33	< 9
RT 9 BRIDGE	06/27/09	< 28	209 ± 63	< 2	< 3	< 6	< 3	< 5	< 3	< 5	< 2	< 2	< 38	< 12
RT 9 BRIDGE	06/28/09	< 24	208 ± 66	< 3	< 3	< 7	< 2	< 5	< 3	< 6	< 2	< 2	< 39	< 8
RT 9 BRIDGE	06/29/09	< 31	271 ± 54	< 3	< 3	< 8	< 3	< 6	< 3	< 6	< 3	< 3	< 42	< 14
RT 9 BRIDGE	06/30/09	< 35	326 ± 77	< 3	< 4	< 8	< 3	< 7	< 4	< 6	< 3	< 3	< 49	< 15
RT 9 BRIDGE	07/01/09	< 31	273 ± 74	< 2	< 3	< 7	< 2	< 5	< 3	< 6	< 3	< 3	< 43	< 12
RT 9 BRIDGE	07/02/09	< 31	218 ± 75	< 3	< 3	< 7	< 3	< 6	< 3	< 6	< 2	< 3	< 43	< 14
RT 9 BRIDGE	07/03/09	< 27	241 ± 42	< 3	< 3	< 7	< 2	< 5	< 3	< 5	< 2	< 2	< 39	< 13
RT 9 BRIDGE	07/04/09	< 33	241 ± 75	< 3	< 4	< 7	< 3	< 5	< 3	< 6	< 2	< 3	< 45	< 14
RT 9 BRIDGE	07/05/09	< 29	202 ± 75	< 3	< 3	< 8	< 3	< 6	< 3	< 5	< 2	< 3	< 43	< 12
RT 9 BRIDGE	07/06/09	< 23	294 ± 57	< 2	< 2	< 6	< 2	< 5	< 3	< 5	< 2	< 2	< 34	< 13

TABLE B-II.2

CONCENTRATIONS OF GAMMA EMITTERS IN SURFACE WATER SAMPLES COLLECTED IN THE VICINITY OF OYSTER CREEK GENERATING STATION, 2009

RESULTS IN UNITS OF PCI/LITER ± 2 SIGMA

STC	COLLECTION PERIOD	Be-7	K-40	Mn-54	Co-58	Fe-59	Co-60	Zn-65	Nb-95	Zr-95	Cs-134	Cs-137	Ba-140	La-140
RT 9 BRIDGE	07/07/09	< 30	365 ± 66	< 2	< 3	< 7	< 3	< 5	< 3	< 6	< 2	< 2	< 42	< 11
RT 9 BRIDGE	07/08/09	< 24	230 ± 53	< 2	< 3	< 6	< 2	< 4	< 3	< 5	< 2	< 2	< 38	< 10
RT 9 BRIDGE	07/09/09	< 25	240 ± 71	< 3	< 3	< 5	< 2	< 5	< 3	< 5	< 2	< 3	< 32	< 8
RT 9 BRIDGE	07/10/09	< 29	245 ± 79	< 3	< 3	< 7	< 3	< 6	< 3	< 5	< 2	< 2	< 37	< 8
RT 9 BRIDGE	07/11/09	< 31	759 ± 70	< 3	< 3	< 7	< 2	< 5	< 3	< 6	< 2	< 3	< 48	< 15
RT 9 BRIDGE	07/12/09	< 29	93 ± 60	< 3	< 3	< 8	< 4	< 5	< 3	< 5	< 3	< 3	< 41	< 14
RT 9 BRIDGE	07/13/09	< 22	< 21	< 2	< 2	< 5	< 3	< 4	< 2	< 4	< 2	< 2	< 26	< 9
RT 9 BRIDGE	07/14/09	< 21	111 ± 60	< 2	< 2	< 6	< 2	< 5	< 3	< 5	< 2	< 2	< 27	< 9
RT 9 BRIDGE	07/15/09	< 25	255 ± 70	< 2	< 3	< 7	< 3	< 5	< 3	< 5	< 2	< 3	< 31	< 10
RT 9 BRIDGE	07/16/09	< 27	243 ± 72	< 3	< 3	< 6	< 3	< 5	< 3	< 5	< 3	< 3	< 29	< 9
RT 9 BRIDGE	07/17/09	< 35	253 ± 81	< 3	< 4	< 8	< 4	< 6	< 3	< 6	< 3	< 3	< 35	< 13
RT 9 BRIDGE	07/18/09	< 29	251 ± 70	< 3	< 3	< 6	< 3	< 5	< 3	< 6	< 3	< 3	< 28	< 9
RT 9 BRIDGE	07/19/09	< 19	236 ± 31	< 2	< 2	< 5	< 2	< 4	< 2	< 4	< 2	< 2	< 25	< 8
RT 9 BRIDGE	07/20/09	< 22	243 ± 39	< 2	< 2	< 6	< 2	< 4	< 3	< 4	< 2	< 2	< 27	< 9
RT 9 BRIDGE	07/21/09	< 39	236 ± 57	< 3	< 4	< 10	< 3	< 8	< 4	< 8	< 3	< 3	< 50	< 15
RT 9 BRIDGE	07/22/09	< 32	240 ± 45	< 3	< 4	< 8	< 3	< 6	< 4	< 6	< 3	< 3	< 39	< 14
RT 9 BRIDGE	07/23/09	< 30	195 ± 51	< 3	< 3	< 8	< 3	< 5	< 3	< 6	< 3	< 3	< 37	< 11
RT 9 BRIDGE	07/24/09	< 40	228 ± 60	< 4	< 4	< 10	< 4	< 8	< 5	< 7	< 4	< 4	< 48	< 14
RT 9 BRIDGE	07/25/09	< 22	227 ± 69	< 2	< 3	< 6	< 3	< 5	< 3	< 5	< 2	< 2	< 21	< 6
RT 9 BRIDGE	07/26/09	< 26	207 ± 50	< 2	< 3	< 6	< 2	< 5	< 3	< 5	< 2	< 3	< 25	< 7
RT 9 BRIDGE	07/27/09	< 21	238 ± 36	< 2	< 2	< 5	< 2	< 4	< 2	< 4	< 2	< 2	< 19	< 6
RT 9 BRIDGE	07/28/09	< 27	340 ± 76	< 3	< 3	< 6	< 3	< 6	< 3	< 6	< 2	< 3	< 19	< 6
RT 9 BRIDGE	07/29/09	< 39	306 ± 70	< 4	< 4	< 9	< 4	< 9	< 5	< 8	< 4	< 4	< 32	< 10
RT 9 BRIDGE	07/30/09	< 14	276 ± 41	< 1	< 1	< 4	< 1	< 2	< 1	< 2	< 1	< 1	< 48	< 15
RT 9 BRIDGE	07/31/09	< 17	248 ± 54	< 1	< 2	< 5	< 1	< 3	< 2	< 3	< 1	< 1	< 59	< 14
RT 9 BRIDGE	08/01/09	< 13	255 ± 38	< 1	< 1	< 3	< 1	< 2	< 1	< 3	< 1	< 1	< 44	< 13
RT 9 BRIDGE	08/02/09	< 15	284 ± 45	< 1	< 2	< 4	< 1	< 3	< 2	< 3	< 1	< 1	< 50	< 14
RT 9 BRIDGE	08/03/09	< 18	490 ± 33	< 1	< 2	< 4	< 1	< 3	< 2	< 3	< 1	< 1	< 52	< 14
RT 9 BRIDGE	08/04/09	< 12	242 ± 39	< 1	< 1	< 3	< 1	< 2	< 1	< 2	< 1	< 1	< 34	< 10
RT 9 BRIDGE	08/05/09	< 16	245 ± 34	< 1	< 2	< 5	< 2	< 3	< 2	< 3	< 1	< 1	< 33	< 12
RT 9 BRIDGE	08/06/09	< 18	261 ± 34	< 1	< 2	< 5	< 1	< 3	< 2	< 3	< 1	< 1	< 35	< 11
RT 9 BRIDGE	08/07/09	< 20	469 ± 26	< 2	< 2	< 5	< 2	< 3	< 2	< 4	< 1	< 2	< 37	< 12

TABLE B-II.2

CONCENTRATIONS OF GAMMA EMITTERS IN SURFACE WATER SAMPLES COLLECTED IN THE VICINITY OF OYSTER CREEK GENERATING STATION, 2009

RESULTS IN UNITS OF PCI/LITER ± 2 SIGMA

STC	COLLECTION PERIOD	Be-7	K-40	Mn-54	Co-58	Fe-59	Co-60	Zn-65	Nb-95	Zr-95	Cs-134	Cs-137	Ba-140	La-140
RT 9 BRIDGE	08/08/09	< 18	247 ± 48	< 2	< 2	< 4	< 1	< 3	< 2	< 3	< 1	< 2	< 35	< 12
RT 9 BRIDGE	08/09/09	< 18	289 ± 45	< 2	< 2	< 4	< 1	< 3	< 2	< 3	< 1	< 1	< 30	< 10
RT 9 BRIDGE	08/10/09	< 17	299 ± 62	< 2	< 2	< 5	< 1	< 3	< 2	< 4	< 1	< 1	< 38	< 15
RT 9 BRIDGE	08/11/09	< 20	222 ± 57	< 2	< 2	< 5	< 2	< 4	< 2	< 3	< 1	< 2	< 37	< 12
RT 9 BRIDGE	08/12/09	< 17	289 ± 51	< 1	< 2	< 5	< 2	< 3	< 2	< 3	< 1	< 1	< 31	< 10
RT 9 BRIDGE	08/13/09	< 23	282 ± 52	< 2	< 2	< 6	< 3	< 4	< 2	< 4	< 2	< 2	< 39	< 13
RT 9 BRIDGE	08/14/09	< 23	223 ± 49	< 2	< 2	< 6	< 2	< 4	< 3	< 4	< 2	< 2	< 54	< 13
RT 9 BRIDGE	08/15/09	< 19	192 ± 40	< 1	< 2	< 4	< 1	< 3	< 2	< 4	< 1	< 2	< 38	< 12
RT 9 BRIDGE	08/16/09	< 20	244 ± 48	< 2	< 2	< 5	< 2	< 3	< 2	< 4	< 2	< 2	< 41	< 9
RT 9 BRIDGE	08/17/09	< 23	274 ± 53	< 2	< 2	< 5	< 2	< 3	< 2	< 4	< 2	< 2	< 43	< 15
RT 9 BRIDGE	08/18/09	< 24	315 ± 54	< 2	< 2	< 6	< 2	< 4	< 2	< 4	< 2	< 2	< 46	< 11
RT 9 BRIDGE	08/19/09	< 25	542 ± 47	< 2	< 2	< 6	< 2	< 4	< 3	< 4	< 2	< 2	< 44	< 13
RT 9 BRIDGE	08/20/09	< 29	251 ± 46	< 2	< 3	< 7	< 1	< 4	< 3	< 5	< 2	< 2	< 112	< 42
RT 9 BRIDGE	08/21/09	< 22	247 ± 43	< 2	< 2	< 6	< 2	< 4	< 3	< 4	< 1	< 2	< 85	< 28
RT 9 BRIDGE	08/22/09	< 28	228 ± 47	< 2	< 2	< 8	< 2	< 4	< 3	< 5	< 2	< 2	< 109	< 31
RT 9 BRIDGE	08/23/09	< 21	305 ± 54	< 1	< 2	< 5	< 1	< 3	< 2	< 4	< 1	< 1	< 88	< 23
RT 9 BRIDGE	08/24/09	< 18	305 ± 48	< 1	< 2	< 5	< 1	< 3	< 2	< 4	< 1	< 1	< 68	< 18
RT 9 BRIDGE	08/25/09	< 21	247 ± 41	< 2	< 2	< 6	< 2	< 3	< 2	< 4	< 1	< 2	< 77	< 23
RT 9 BRIDGE	08/26/09	< 17	217 ± 40	< 1	< 2	< 3	< 1	< 2	< 2	< 3	< 1	< 1	< 47	< 13
RT 9 BRIDGE	08/27/09	< 14	244 ± 38	< 1	< 1	< 4	< 1	< 2	< 2	< 2	< 1	< 1	< 39	< 13
RT 9 BRIDGE	08/28/09	< 18	238 ± 61	< 1	< 2	< 5	< 1	< 3	< 2	< 3	< 1	< 1	< 51	< 14
RT 9 BRIDGE	08/29/09	< 16	227 ± 48	< 1	< 1	< 4	< 2	< 3	< 2	< 3	< 1	< 1	< 43	< 16
RT 9 BRIDGE	08/30/09	< 16	272 ± 48	< 1	< 2	< 4	< 1	< 3	< 2	< 3	< 1	< 1	< 53	< 13
RT 9 BRIDGE	08/31/09	< 17	259 ± 44	< 1	< 2	< 4	< 2	< 3	< 2	< 3	< 1	< 2	< 42	< 17
RT 9 BRIDGE	09/01/09	< 15	200 ± 46	< 1	< 1	< 4	< 1	< 2	< 2	< 3	< 1	< 1	< 44	< 12
RT 9 BRIDGE	09/02/09	< 15	265 ± 45	< 1	< 1	< 4	< 1	< 2	< 2	< 3	< 1	< 1	< 39	< 12
RT 9 BRIDGE	09/03/09	< 19	187 ± 57	< 1	< 2	< 3	< 1	< 2	< 2	< 3	< 1	< 1	< 48	< 14
RT 9 BRIDGE	09/04/09	< 18	225 ± 42	< 2	< 2	< 5	< 2	< 3	< 2	< 4	< 1	< 2	< 37	< 13
RT 9 BRIDGE	09/05/09	< 16	237 ± 36	< 1	< 2	< 3	< 1	< 3	< 2	< 3	< 1	< 1	< 34	< 10
RT 9 BRIDGE	09/06/09	< 21	253 ± 44	< 2	< 2	< 5	< 2	< 4	< 2	< 4	< 2	< 2	< 38	< 14
RT 9 BRIDGE	09/07/09	< 17	213 ± 43	< 1	< 2	< 4	< 1	< 2	< 2	< 3	< 1	< 1	< 37	< 12
RT 9 BRIDGE	09/08/09	< 13	243 ± 37	< 1	< 1	< 4	< 1	< 2	< 1	< 2	< 1	< 1	< 26	< 9

TABLE B-II.2

CONCENTRATIONS OF GAMMA EMITTERS IN SURFACE WATER SAMPLES COLLECTED IN THE VICINITY OF OYSTER CREEK GENERATING STATION, 2009

RESULTS IN UNITS OF PCI/LITER ± 2 SIGMA

STC	COLLECTION PERIOD	Be-7	K-40	Mn-54	Co-58	Fe-59	Co-60	Zn-65	Nb-95	Zr-95	Cs-134	Cs-137	Ba-140	La-140
RT 9 BRIDGE	09/09/09	< 12	240 ± 41	< 1	< 1	< 4	< 1	< 2	< 1	< 3	< 1	< 1	< 23	< 8
RT 9 BRIDGE	09/10/09	< 29	214 ± 42	< 3	< 3	< 7	< 2	< 5	< 3	< 6	< 2	< 3	< 42	< 12
RT 9 BRIDGE	09/11/09	< 23	129 ± 34	< 2	< 2	< 6	< 2	< 4	< 3	< 4	< 2	< 2	< 31	< 11
RT 9 BRIDGE	09/12/09	< 25	86 ± 32	< 2	< 3	< 6	< 2	< 4	< 3	< 5	< 2	< 2	< 33	< 10
RT 9 BRIDGE	09/13/09	< 38	229 ± 52	< 3	< 4	< 9	< 3	< 7	< 4	< 7	< 3	< 4	< 48	< 12
RT 9 BRIDGE	09/14/09	< 28	234 ± 43	< 3	< 3	< 8	< 3	< 6	< 3	< 6	< 2	< 3	< 35	< 12
RT 9 BRIDGE	09/15/09	< 31	187 ± 49	< 3	< 3	< 7	< 2	< 6	< 3	< 6	< 3	< 3	< 36	< 10
RT 9 BRIDGE	09/16/09	< 23	266 ± 63	< 1	< 2	< 5	< 1	< 3	< 2	< 3	< 1	< 1	< 44	< 15
RT 9 BRIDGE	09/17/09	< 18	187 ± 58	< 1	< 2	< 6	< 2	< 3	< 2	< 3	< 1	< 1	< 45	< 14
RT 9 BRIDGE	09/18/09	< 18	307 ± 53	< 1	< 2	< 5	< 2	< 3	< 2	< 3	< 1	< 1	< 42	< 14
RT 9 BRIDGE	09/19/09	< 17	201 ± 50	< 1	< 2	< 5	< 2	< 3	< 2	< 3	< 1	< 1	< 33	< 12
RT 9 BRIDGE	09/20/09	< 18	259 ± 48	< 1	< 2	< 4	< 2	< 3	< 2	< 3	< 1	< 1	< 29	< 11
RT 9 BRIDGE	09/21/09	< 16	253 ± 45	< 1	< 1	< 4	< 1	< 3	< 2	< 3	< 1	< 1	< 25	< 8
RT 9 BRIDGE	09/22/09	< 21	212 ± 59	< 2	< 2	< 4	< 2	< 3	< 2	< 3	< 1	< 2	< 35	< 8
RT 9 BRIDGE	09/23/09	< 18	255 ± 51	< 1	< 2	< 4	< 2	< 3	< 2	< 3	< 1	< 2	< 27	< 8
RT 9 BRIDGE	09/24/09	< 17	231 ± 56	< 1	< 2	< 5	< 2	< 3	< 2	< 3	< 1	< 2	< 29	< 9
RT 9 BRIDGE	09/25/09	< 14	270 ± 46	< 1	< 1	< 3	< 1	< 3	< 1	< 3	< 1	< 1	< 20	< 6
RT 9 BRIDGE	09/26/09	< 13	263 ± 42	< 1	< 1	< 3	< 1	< 2	< 2	< 2	< 1	< 1	< 28	< 6
RT 9 BRIDGE	09/27/09	< 15	199 ± 47	< 1	< 1	< 4	< 1	< 2	< 2	< 3	< 1	< 1	< 24	< 7
RT 9 BRIDGE	09/28/09	< 13	190 ± 32	< 1	< 1	< 4	< 1	< 2	< 2	< 2	< 1	< 1	< 72	< 25
RT 9 BRIDGE	09/29/09	< 19	174 ± 40	< 1	< 2	< 5	< 1	< 2	< 2	< 3	< 1	< 1	< 114	< 35
RT 9 BRIDGE	09/30/09	< 19	215 ± 48	< 1	< 2	< 5	< 1	< 2	< 2	< 3	< 1	< 1	< 121	< 32
RT 9 BRIDGE	10/01/09	< 20	227 ± 40	< 1	< 2	< 5	< 1	< 2	< 2	< 3	< 1	< 1	< 120	< 30
RT 9 BRIDGE	10/02/09	< 15	255 ± 34	< 1	< 1	< 3	< 1	< 2	< 1	< 3	< 1	< 1	< 89	< 28
RT 9 BRIDGE	10/03/09	< 27	283 ± 40	< 2	< 3	< 9	< 2	< 4	< 3	< 5	< 1	< 2	< 171	< 70
RT 9 BRIDGE	10/04/09	< 20	230 ± 34	< 1	< 2	< 5	< 1	< 2	< 2	< 3	< 1	< 1	< 195	< 64
RT 9 BRIDGE	10/05/09	< 21	228 ± 43	< 1	< 2	< 6	< 1	< 2	< 2	< 4	< 1	< 1	< 204	< 73
RT 9 BRIDGE	10/06/09	< 44	263 ± 70	< 2	< 4	< 12	< 2	< 5	< 5	< 8	< 2	< 2	< 392	< 149
RT 9 BRIDGE	10/07/09	< 15	223 ± 36	< 1	< 1	< 3	< 1	< 2	< 2	< 3	< 1	< 1	< 39	< 11
RT 9 BRIDGE	10/08/09	< 16	248 ± 45	< 1	< 1	< 4	< 1	< 2	< 2	< 3	< 1	< 1	< 40	< 14
RT 9 BRIDGE	10/09/09	< 16	244 ± 46	< 1	< 2	< 4	< 1	< 3	< 2	< 3	< 1	< 1	< 39	< 12
RT 9 BRIDGE	10/10/09	< 15	265 ± 36	< 1	< 1	< 4	< 1	< 2	< 1	< 3	< 1	< 1	< 70	< 20

TABLE B-II.2

CONCENTRATIONS OF GAMMA EMITTERS IN SURFACE WATER SAMPLES COLLECTED IN THE VICINITY OF OYSTER CREEK GENERATING STATION, 2009

RESULTS IN UNITS OF PCI/LITER ± 2 SIGMA

STC	COLLECTION PERIOD	Be-7	K-40	Mn-54	Co-58	Fe-59	Co-60	Zn-65	Nb-95	Zr-95	Cs-134	Cs-137	Ba-140	La-140
RT 9 BRIDGE	10/11/09	< 14	268 ± 34	< 1	< 1	< 3	< 1	< 2	< 1	< 2	< 1	< 1	< 65	< 22
RT 9 BRIDGE	10/12/09	< 14	265 ± 34	< 1	< 1	< 3	< 1	< 2	< 1	< 2	< 1	< 1	< 62	< 19
RT 9 BRIDGE	10/13/09	< 15	256 ± 37	< 1	< 1	< 4	< 1	< 2	< 2	< 3	< 1	< 1	< 35	< 9
RT 9 BRIDGE	10/14/09	< 24	262 ± 66	< 2	< 2	< 5	< 2	< 4	< 3	< 5	< 2	< 2	< 46	< 16
RT 9 BRIDGE	10/15/09	< 16	269 ± 51	< 1	< 2	< 4	< 1	< 3	< 2	< 3	< 1	< 1	< 36	< 11
RT 9 BRIDGE	10/16/09	< 14	198 ± 36	< 1	< 1	< 4	< 1	< 2	< 1	< 3	< 1	< 1	< 47	< 14
RT 9 BRIDGE	10/16/09	< 25	233 ± 43	< 1	< 2	< 7	< 1	< 3	< 2	< 4	< 1	< 1	< 223	< 70
RT 9 BRIDGE	10/17/09	< 11	173 ± 33	< 1	< 1	< 2	< 0	< 2	< 1	< 2	< 1	< 1	< 29	< 9
RT 9 BRIDGE	10/17/09	< 34	240 ± 51	< 1	< 3	< 11	< 2	< 4	< 4	< 6	< 1	< 1	< 781	< 243
RT 9 BRIDGE	10/18/09	< 10	166 ± 30	< 1	< 1	< 2	< 1	< 2	< 1	< 2	< 1	< 1	< 30	< 9
RT 9 BRIDGE	10/18/09	< 19	208 ± 39	< 1	< 2	< 5	< 1	< 2	< 2	< 3	< 1	< 1	< 168	< 39
RT 9 BRIDGE	10/19/09	< 16	188 ± 39	< 1	< 1	< 4	< 1	< 2	< 1	< 3	< 1	< 1	< 58	< 20
RT 9 BRIDGE	10/20/09	< 14	286 ± 35	< 1	< 1	< 4	< 1	< 2	< 1	< 3	< 1	< 1	< 42	< 12
RT 9 BRIDGE	10/21/09	< 17	253 ± 43	< 1	< 2	< 4	< 1	< 2	< 2	< 3	< 1	< 1	< 57	< 16
RT 9 BRIDGE	10/22/09	< 15	287 ± 42	< 1	< 1	< 4	< 1	< 2	< 2	< 2	< 1	< 1	< 43	< 14
RT 9 BRIDGE	10/23/09	< 14	262 ± 37	< 1	< 1	< 3	< 1	< 2	< 1	< 3	< 1	< 1	< 42	< 11
RT 9 BRIDGE	10/24/09	< 14	299 ± 37	< 1	< 1	< 4	< 1	< 2	< 1	< 2	< 1	< 1	< 38	< 12
RT 9 BRIDGE	10/25/09	< 16	229 ± 32	< 1	< 1	< 5	< 1	< 2	< 1	< 3	< 1	< 1	< 113	< 34
RT 9 BRIDGE	10/26/09	< 16	228 ± 33	< 1	< 2	< 4	< 1	< 2	< 2	< 3	< 1	< 1	< 110	< 25
RT 9 BRIDGE	10/27/09	< 22	402 ± 48	< 1	< 2	< 7	< 1	< 3	< 2	< 4	< 1	< 1	< 143	< 51
RT 9 BRIDGE	10/28/09	< 13	97 ± 31	< 1	< 1	< 3	< 1	< 2	< 1	< 2	< 1	< 1	< 33	< 8
RT 9 BRIDGE	10/29/09	< 19	140 ± 41	< 1	< 2	< 4	< 1	< 2	< 2	< 3	< 1	< 1	< 52	< 14
RT 9 BRIDGE	10/30/09	< 15	248 ± 42	< 1	< 1	< 4	< 1	< 2	< 2	< 3	< 1	< 1	< 44	< 10
RT 9 BRIDGE	10/31/09	< 17	299 ± 39	< 1	< 1	< 4	< 1	< 2	< 2	< 2	< 1	< 1	< 86	< 21
RT 9 BRIDGE	11/01/09	< 17	195 ± 38	< 1	< 2	< 5	< 1	< 2	< 2	< 3	< 1	< 1	< 80	< 22
RT 9 BRIDGE	11/02/09	< 12	203 ± 32	< 1	< 1	< 3	< 1	< 2	< 1	< 2	< 1	< 1	< 66	< 18
RT 9 BRIDGE	11/03/09	< 13	214 ± 37	< 1	< 1	< 4	< 1	< 2	< 2	< 2	< 1	< 1	< 56	< 13
RT 9 BRIDGE	11/04/09	< 15	267 ± 39	< 1	< 1	< 4	< 1	< 2	< 2	< 3	< 1	< 1	< 60	< 19
RT 9 BRIDGE	11/05/09	< 17	223 ± 37	< 1	< 2	< 5	< 1	< 3	< 2	< 3	< 1	< 1	< 64	< 23
RT 9 BRIDGE	11/06/09	< 14	293 ± 39	< 1	< 1	< 3	< 1	< 2	< 1	< 3	< 1	< 1	< 36	< 9
RT 9 BRIDGE	11/07/09	< 15	290 ± 44	< 1	< 1	< 4	< 1	< 2	< 2	< 3	< 1	< 1	< 44	< 11
RT 9 BRIDGE	11/08/09	< 15	253 ± 37	< 1	< 1	< 3	< 1	< 2	< 1	< 3	< 1	< 1	< 32	< 12

TABLE B-II.2

CONCENTRATIONS OF GAMMA EMITTERS IN SURFACE WATER SAMPLES COLLECTED IN THE VICINITY OF OYSTER CREEK GENERATING STATION, 2009

RESULTS IN UNITS OF PCI/LITER ± 2 SIGMA

STC	COLLECTION PERIOD	Be-7	K-40	Mn-54	Co-58	Fe-59	Co-60	Zn-65	Nb-95	Zr-95	Cs-134	Cs-137	Ba-140	La-140
RT 9 BRIDGE	11/09/09	< 12	178 ± 34	< 1	< 1	< 3	< 1	< 2	< 1	< 2	< 1	< 1	< 45	< 12
RT 9 BRIDGE	11/10/09	< 12	260 ± 32	< 1	< 1	< 3	< 1	< 2	< 1	< 2	< 1	< 1	< 42	< 13
RT 9 BRIDGE	11/11/09	< 10	238 ± 29	< 1	< 1	< 2	< 1	< 1	< 1	< 2	< 1	< 1	< 35	< 13
RT 9 BRIDGE	11/12/09	< 17	213 ± 43	< 1	< 2	< 4	< 1	< 3	< 2	< 3	< 1	< 1	< 39	< 10
RT 9 BRIDGE	11/13/09	< 17	116 ± 37	< 1	< 2	< 4	< 1	< 3	< 2	< 3	< 1	< 1	< 38	< 11
RT 9 BRIDGE	11/14/09	< 16	142 ± 41	< 1	< 2	< 4	< 1	< 2	< 2	< 3	< 1	< 1	< 38	< 13
RT 9 BRIDGE	11/15/09	< 15	132 ± 33	< 1	< 1	< 3	< 1	< 2	< 2	< 2	< 1	< 1	< 56	< 15
RT 9 BRIDGE	11/16/09	< 15	233 ± 37	< 1	< 1	< 4	< 1	< 2	< 1	< 3	< 1	< 1	< 58	< 16
RT 9 BRIDGE	11/17/09	< 18	209 ± 40	< 1	< 1	< 5	< 1	< 3	< 2	< 3	< 1	< 1	< 76	< 16
RT 9 BRIDGE	11/18/09	< 34	199 ± 77	< 2	< 3	< 8	< 1	< 4	< 3	< 5	< 2	< 2	< 165	< 52
RT 9 BRIDGE	11/19/09	< 18	251 ± 39	< 1	< 2	< 4	< 1	< 2	< 2	< 3	< 1	< 1	< 87	< 23
RT 9 BRIDGE	11/20/09	< 17	409 ± 43	< 1	< 2	< 5	< 1	< 2	< 2	< 4	< 1	< 1	< 95	< 33
RT 9 BRIDGE	11/21/09	< 15	202 ± 38	< 1	< 2	< 4	< 1	< 2	< 2	< 3	< 1	< 1	< 52	< 18
RT 9 BRIDGE	11/22/09	< 14	246 ± 37	< 1	< 1	< 4	< 1	< 2	< 1	< 2	< 1	< 1	< 41	< 11
RT 9 BRIDGE	11/23/09	< 17	253 ± 49	< 1	< 2	< 5	< 1	< 2	< 2	< 3	< 1	< 2	< 57	< 20
RT 9 BRIDGE	11/24/09	< 13	250 ± 36	< 1	< 1	< 3	< 1	< 2	< 1	< 2	< 1	< 1	< 39	< 10
RT 9 BRIDGE	11/25/09	< 13	207 ± 38	< 1	< 1	< 3	< 1	< 2	< 1	< 2	< 1	< 1	< 35	< 10
RT 9 BRIDGE	11/26/09	< 17	225 ± 40	< 1	< 2	< 5	< 1	< 2	< 2	< 3	< 1	< 1	< 87	< 29
RT 9 BRIDGE	11/27/09	< 15	266 ± 39	< 1	< 1	< 4	< 1	< 2	< 2	< 3	< 1	< 1	< 66	< 18
RT 9 BRIDGE	11/28/09	< 20	197 ± 48	< 1	< 2	< 5	< 1	< 3	< 2	< 4	< 1	< 1	< 131	< 46
RT 9 BRIDGE	11/29/09	< 19	250 ± 45	< 1	< 2	< 4	< 1	< 3	< 2	< 3	< 1	< 1	< 118	< 37
RT 9 BRIDGE	11/30/09	< 24	241 ± 36	< 1	< 2	< 6	< 1	< 2	< 2	< 3	< 1	< 1	< 284	< 79
RT 9 BRIDGE	12/01/09	< 19	249 ± 35	< 1	< 2	< 5	< 1	< 2	< 2	< 3	< 1	< 1	< 221	< 57
RT 9 BRIDGE	12/02/09	< 23	264 ± 46	< 1	< 2	< 4	< 1	< 3	< 2	< 3	< 1	< 2	< 77	< 22
RT 9 BRIDGE	12/03/09	< 20	175 ± 43	< 1	< 2	< 4	< 1	< 2	< 2	< 3	< 1	< 1	< 88	< 23
RT 9 BRIDGE	12/04/09	< 13	192 ± 37	< 1	< 1	< 3	< 1	< 2	< 1	< 2	< 1	< 1	< 38	< 10
RT 9 BRIDGE	12/05/09	< 15	158 ± 46	< 1	< 1	< 4	< 1	< 2	< 2	< 3	< 1	< 1	< 52	< 15
RT 9 BRIDGE	12/06/09	< 10	191 ± 31	< 1	< 1	< 3	< 1	< 2	< 1	< 2	< 1	< 1	< 16	< 5
RT 9 BRIDGE	12/07/09	< 11	262 ± 34	< 1	< 1	< 3	< 1	< 2	< 1	< 2	< 1	< 1	< 16	< 6
RT 9 BRIDGE	12/08/09	< 9	224 ± 30	< 1	< 1	< 2	< 1	< 2	< 1	< 1	< 1	< 1	< 13	< 4
RT 9 BRIDGE	12/09/09	< 15	148 ± 36	< 1	< 1	< 4	< 1	< 2	< 2	< 3	< 1	< 1	< 63	< 18
RT 9 BRIDGE	12/10/09	< 19	182 ± 51	< 1	< 2	< 5	< 1	< 3	< 2	< 4	< 1	< 2	< 82	< 18

TABLE B-II.2

CONCENTRATIONS OF GAMMA EMITTERS IN SURFACE WATER SAMPLES COLLECTED IN THE VICINITY OF OYSTER CREEK GENERATING STATION, 2009

RESULTS IN UNITS OF PCI/LITER ± 2 SIGMA

STC	COLLECTION PERIOD	Be-7	K-40	Mn-54	Co-58	Fe-59	Co-60	Zn-65	Nb-95	Zr-95	Cs-134	Cs-137	Ba-140	La-140
RT 9 BRIDGE	12/11/09	< 20	207 ± 47	< 1	< 2	< 4	< 1	< 2	< 2	< 3	< 1	< 1	< 77	< 17
RT 9 BRIDGE	12/12/09	< 19	205 ± 47	< 1	< 2	< 4	< 1	< 3	< 2	< 3	< 1	< 1	< 78	< 17
RT 9 BRIDGE	12/13/09	< 17	229 ± 46	< 1	< 2	< 4	< 1	< 2	< 2	< 3	< 1	< 1	< 77	< 33
RT 9 BRIDGE	12/14/09	< 17	194 ± 38	< 1	< 1	< 4	< 1	< 2	< 2	< 2	< 1	< 1	< 80	< 19
RT 9 BRIDGE	12/15/09	< 13	222 ± 37	< 1	< 1	< 3	< 1	< 2	< 1	< 3	< 1	< 1	< 60	< 15
RT 9 BRIDGE	12/16/09	< 15	220 ± 34	< 1	< 1	< 4	< 1	< 2	< 1	< 3	< 1	< 1	< 74	< 22
RT 9 BRIDGE	12/17/09	< 15	196 ± 38	< 1	< 1	< 4	< 1	< 2	< 1	< 2	< 1	< 1	< 66	< 17
RT 9 BRIDGE	12/18/09	< 28	229 ± 71	< 2	< 2	< 7	< 2	< 4	< 3	< 5	< 2	< 2	< 125	< 31
RT 9 BRIDGE	12/18/09	< 44	326 ± 65	< 4	< 5	< 11	< 4	< 9	< 6	< 9	< 4	< 4	< 46	< 13
RT 9 BRIDGE	12/19/09	< 16	167 ± 40	< 1	< 2	< 4	< 1	< 2	< 2	< 3	< 1	< 1	< 74	< 21
RT 9 BRIDGE	12/20/09	< 16	159 ± 36	< 1	< 1	< 3	< 1	< 2	< 1	< 3	< 1	< 1	< 63	< 20
RT 9 BRIDGE	12/21/09	< 14	272 ± 39	< 1	< 1	< 3	< 1	< 2	< 1	< 3	< 1	< 1	< 55	< 17
RT 9 BRIDGE	12/22/09	< 22	262 ± 59	< 2	< 2	< 5	< 2	< 3	< 2	< 3	< 1	< 2	< 72	< 24
RT 9 BRIDGE	12/23/09	< 23	209 ± 60	< 2	< 2	< 7	< 2	< 3	< 2	< 5	< 2	< 2	< 78	< 23
RT 9 BRIDGE	12/24/09	< 14	178 ± 34	< 1	< 1	< 4	< 1	< 2	< 1	< 3	< 1	< 1	< 49	< 15
RT 9 BRIDGE	12/25/09	< 13	213 ± 37	< 1	< 1	< 4	< 1	< 2	< 1	< 2	< 1	< 1	< 46	< 13
RT 9 BRIDGE	12/26/09	< 16	90 ± 38	< 1	< 2	< 4	< 1	< 2	< 1	< 3	< 1	< 1	< 53	< 15
RT 9 BRIDGE	12/27/09	< 19	111 ± 45	< 1	< 1	< 5	< 1	< 3	< 2	< 3	< 1	< 1	< 54	< 15
RT 9 BRIDGE	12/28/09	< 17	110 ± 45	< 1	< 1	< 3	< 1	< 2	< 2	< 3	< 1	< 1	< 55	< 16
RT 9 BRIDGE	12/29/09	< 12	196 ± 38	< 1	< 1	< 3	< 1	< 2	< 1	< 2	< 1	< 1	< 37	< 10
SW-1	10/02/09	< 34	242 ± 82	< 5	< 5	< 10	< 5	< 9	< 5	< 8	< 4	< 5	< 24	< 8
SW-2	09/29/09 TBE	< 29	244 ± 51	< 3	< 3	< 7	< 4	< 6	< 4	< 7	< 3	< 4	< 18	< 5
SW-2	09/29/09 TBE	< 44	204 ± 76	< 4	< 4	< 9	< 5	< 9	< 5	< 9	< 5	< 4	< 27	< 9
SW-2	09/29/09 EIML	< 27	209 ± 57	< 2	< 4	< 6	< 3	< 5	< 3	< 5	< 2	< 2	< 22	< 4
SW-3	09/29/09	< 43	< 104	< 5	< 5	< 10	< 5	< 9	< 5	< 8	< 4	< 5	< 25	< 8