Nuclear Operating Company

South Texas Project Electric Generating Station P.O. Box 289 Wadsworth, Texas 77483

April 24, 2010
NOC-AE-10002550
File No.: G25
10 CFR 50.36b
STI: 32658363

U. S. Nuclear Regulatory Commission
Attention: Document Control Desk
One White Flint North
11555 Rockville Pike
Rockville, MD 20852-2738

South Texas Project
Units 1 and 2
Docket Nos. STN 50-498, STN 50-499
2009 Annual Environmental and Annual
Radiological Environmental Operating Reports

Pursuant to South Texas Project Unit 1 Operating License NPF-76 and Unit 2 Operating License NPF-80 Appendix B, Environmental Protection Plan (Non-radiological), and Technical Specification 6.9.1.3, the STP Nuclear Operating Company provides the attached 2009 Annual Environmental and Annual Radiological Environmental Operating Reports.

There are no commitments included in this report.

If there are any questions, please contact either Marilyn Kistler at (361) 972-8385 or myself at (361) 972-4394.

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Attachment: 2009 Annual Environmental and Annual Radiological Environmental Operating Reports

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Attachment

South Texas Project

Units 1 and 2

2009 Annual Environmental and Annual Radiological Environmental Operating Reports

2009

South Texas Project Electric Generating Station

Annual Environmental Operating Report

The 2009 Annual Environmental Operating Report for the South Texas Project Electric Generating Station combines in one report the requirements for the Annual Environmental Operating Report (Non-radiological) found in Appendix B to Facility Operating License Nos. NPF-76 and NPF-80 and the requirements for the Annual Radiological Environmental Operating Report found in Part A of the station's Offsite Dose Calculation Manual.

Graphics and artwork performed by Barbara Carnley

Photography performed by: Barbara Carnley, Gwen Finley, Gwenna Kelton, Gary Parkey, Breck Sacra, STP Corporate Communications, STP Green Team, and Paul Travis

Cover photo by: Steve Antonio

Completed
in accordance with
Technical Specifications
for
United States Nuclear Regulatory Commission
License Nos.
NPF-76 & NPF-80
April 2010

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2009
Annual Environmental
Operating Report

SOUTH TEXAS PROJECT ELECTRIC GENERATING STATION

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Photo courtesy of: Corporate Communications

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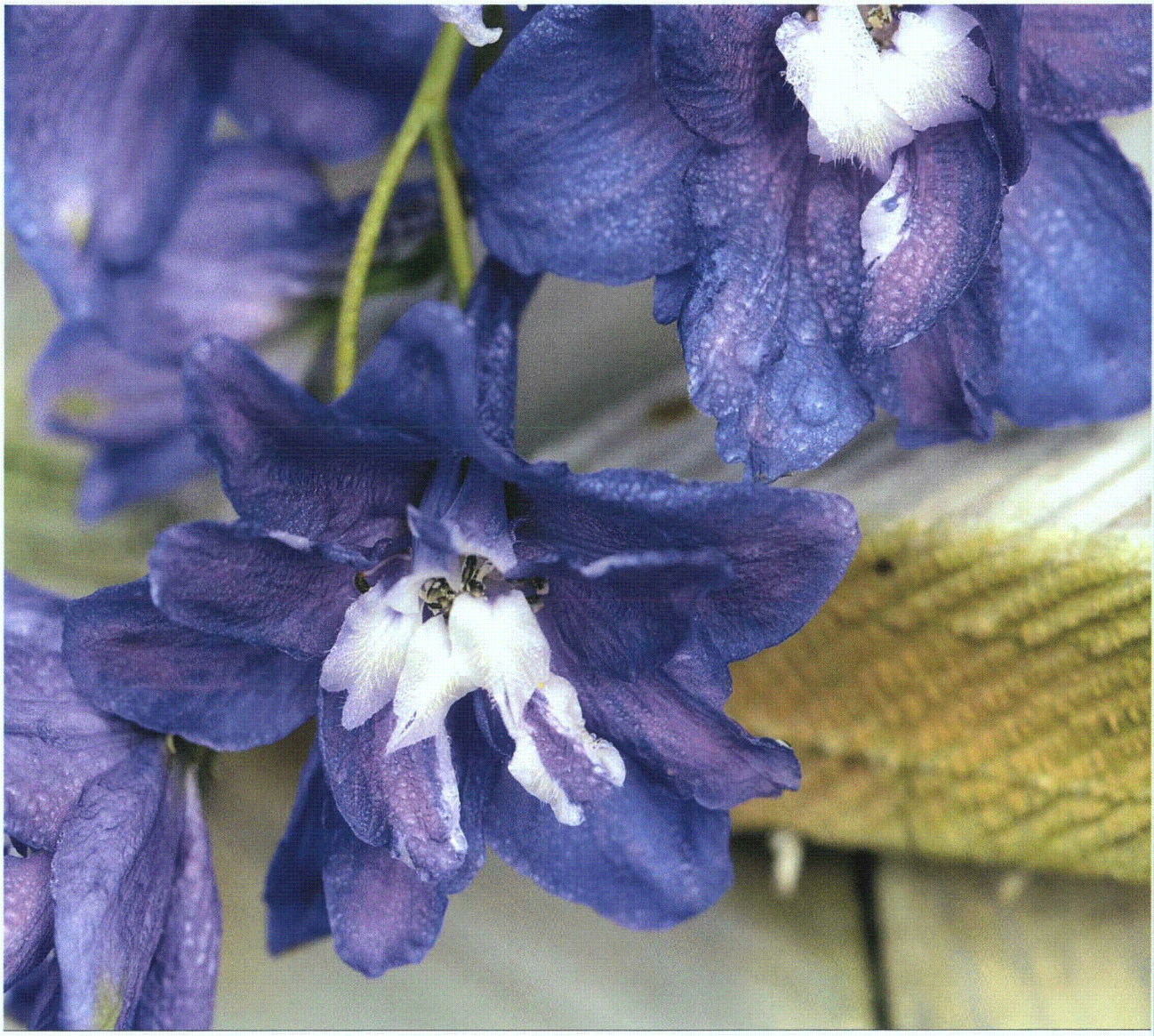


Photo By: Gwenna Kelton

Chapter 1

Executive Summary

The South Texas Project continues to operate with no adverse effect on the population or the environment. The exposure for people living in the area remains at less than one millirem per year. Environmental programs at the site monitor known and predictable relationships between the operation of the South Texas Project and the surrounding area. These monitoring programs verify that the operation of the South Texas Project has no impact offsite and is well within state and federal regulations and guidelines. These programs are verified by the State of Texas through collection and analysis of samples and placement of the State's thermoluminescent dosimeters and other onsite and offsite inspections.

This report describes the environmental monitoring programs, radiological and non-radiological, conducted at the South Texas Project during 2009. Included in this report are the Environmental Protection Plan Status, the results of the Radiological Environmental Monitoring Program, and the Land Use Census.

Non-radiological environmental monitoring is performed each year as part of the station's overall Environmental Protection Program which is intended to provide for protection of non-radiological environmental values during station operations. Non-radiological monitoring encompasses, as a minimum, water quality, air quality, waste generation and minimization, and local aquatic and terrestrial ecological conditions. In 2009, non-radiological monitoring by the station confirmed that the South Texas Project's efforts to honor and protect local environmental conditions were successful. The South Texas Project continued to be rated by the Texas Commission on Environmental Quality as a high performer in the area of environmental compliance, continued to provide high-quality habitat areas for a variety of flora and fauna, and continued to have no indications of negative non-radiological impacts to local environmental conditions.

Radiation and radioactivity in the environment are routinely monitored within a 15-mile radius of the South Texas Project. Sampling locations are selected using weather, land use, and water use information. Two types of sampling locations are used. The first type, control stations, are located in areas that are beyond measurable influence of the South Texas Project or any other nuclear facility. The sample results from these stations are used to explain radiation from sources other than the South Texas Project. Indicator stations are the second type of stations. The samples from these stations measure any radiation contributed to the environment by the South Texas Project. Indicator stations are located in areas close to the South Texas Project where any plant releases would be at the highest concentration.

Prior to initial operation of the South Texas Project, samples were collected and analyzed to determine the amount of radioactivity present in the area. These results are used as a "pre-operational baseline." Results from the indicator stations are compared to both current control sample results and the pre-operational baseline values to determine if changes in radioactivity levels are attributable to station operations or other causes such as previous nuclear weapons testing programs and natural variations.

Radioactivity levels in the South Texas Project's environment frequently fall below the minimum detection capabilities of the state-of-the-art scientific instruments. Samples with radiation levels that cannot be detected are below the Lower Limits of Detection. The United States Nuclear Regulatory Commission requires that equipment used for radiological monitoring must be able to detect specified minimum limits for certain types of samples. This ensures that radiation measurements are

sufficiently sensitive to detect small changes in the environment. The United States Nuclear Regulatory Commission also has a required reporting level. Licensed nuclear facilities must prepare a special report and increase their sampling if any measured radiation level is equal to or greater than this reporting level. No sample from the South Texas Project has ever reached or exceeded this reporting level.

Measurements made are divided into four categories or pathways based upon how the results may affect the public. Airborne, waterborne, ingestion, and direct radiation are the four pathways that are sampled. Each pathway is described below.

- The airborne pathway is sampled in areas around the South Texas Project by measuring radioactivity of iodine and particulate air filters. The 2009 airborne results were similar to pre-operational levels with only naturally occurring radioactive material unrelated to the operation of the South Texas Project detected.

- The waterborne pathway includes samples taken from surface water, ground water, and drinking water. Also included in this pathway are sediment samples taken from the Main Cooling Reservoir and the Colorado River. Tritium was the only man-made isotope consistently detected in water samples and was measured in the shallow aquifer, the Main Cooling Reservoir, ditches, and sloughs. The levels of tritium found were near or lower than the concentration of the Main Cooling Reservoir. Additional onsite wells have been sampled to map tritium migration. The average tritium level in the Main Cooling Reservoir increased slightly in 2009 compared to years past due to severe drought conditions and limited makeup to the reservoir during the first half of the year. Tritium levels remain well below United States Nuclear Regulatory Commission reporting limits and within United States Environmental Protection Agency drinking water standards. Previously detected plant-related isotopes (Co-60 and Co-58) were not detected in the reservoir sediment this year. Two samples had detectable Cs-137 which is present in the environment and was detected in preoperational concentrations. Offsite sediment samples continue to show no radioactivity from the South Texas Project. This indicates that the station produces no detectable effect offsite from this pathway.

- The ingestion pathway includes broadleaf vegetation, agricultural products, and food products. Naturally occurring isotopes were detected at average environmental levels in the samples. The data indicated that there were no man-made isotopes detected in these types of samples.

- The direct exposure pathway measures environmental radiation doses using thermoluminescent dosimeters. These results are consistent with the readings from previous years and continue to show no effect from plant operations.

The South Texas Project continues to operate with no negative effect on the population or the environment. The exposure for people living in the area is maintained at less than one millirem per year. Environmental programs at the site monitor known and predictable relationships between the operation of the South Texas Project and the surrounding area. These monitoring programs verify that the operation of the South Texas Project has no impact offsite and is well within state and federal regulations and guidelines. These programs are verified by the state of Texas through collection and analysis of samples, placement of the state's thermoluminescent dosimeters, and other onsite and offsite inspections.

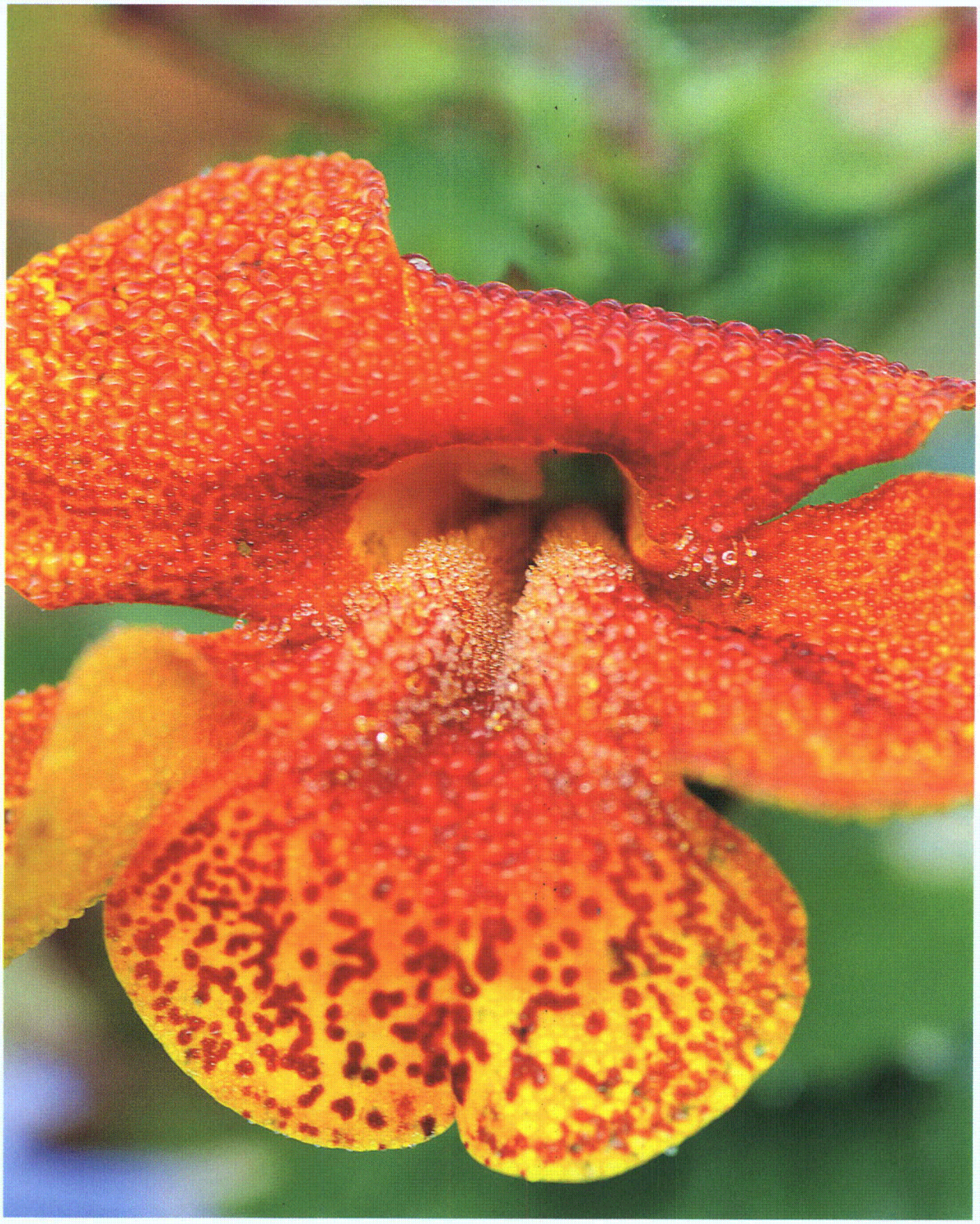


Photo By: Gwenna Kelton

Site and Area Description

Photo By: Gwenna Kelton

Chapter 2

Site and Area Description

The South Texas Project is located on 12,220 acres in Matagorda County, Texas, approximately 15 miles southwest of Bay City along the west bank of the Colorado River. The South Texas Project Electric Generating Station is owned by NRG Energy, Inc., Austin Energy, and CPS Energy as tenants in common. Houston Lighting & Power Company was the original project manager of the South Texas Project and was responsible for the engineering, design, licensing, construction, startup, and initial commercial operation of the two-unit facility. In 1997, the STP Nuclear Operating Company assumed operational control of the South Texas Project and responsibility for implementation of associated environmental programs.

The South Texas Project has two, 1,350-megawatt Westinghouse pressurized water reactors. Unit 1 received a low-power testing license on August 21, 1987, obtained initial criticality on March 8, 1988, and was declared commercially operational on August 25, 1988. Unit 2 received a low-power testing license on December 16, 1988, obtained initial criticality on March 12, 1989, and was declared commercially operational on June 19, 1989. The South Texas Project initiated project activities in 2008 to pursue renewal of the operating licenses for Units 1 and 2 from the United States Nuclear Regulatory Commission (NRC). This process will ensure that the plant's original design and current conditions and programs can allow the facility to continue operating safely beyond its original license deadline. The combined units produce enough electricity to serve more than two million homes and businesses throughout Texas. With nearly 1,200 baseline employees, the STP Nuclear Operating Company is the largest employer and source of revenue for Matagorda County.

Photo courtesy of: STP Corporate Communications

In September of 2007, NRG Energy, Inc., CPS Energy, and STP Nuclear Operating Company filed a Combined Construction and Operating License Application (COLA) with the United States Nuclear Regulatory Commission to build and operate two additional units, Units 3 and 4, at the South Texas Project. Subsequent revisions were filed in 2008 and 2009, to reflect a change to the engineering, procurement, and construction contractor for Units 3 and 4, name changes and other changes that included additional information, changes in response to recent rulemaking, minor editorial changes, etc. The proposed units will be built adjacent to Units 1 and 2 on existing station property. The facility's 12,220-acre site and 7,000-acre cooling reservoir were originally designed for four units. The proposed new units will produce 2,700 megawatts, provide enough energy to serve an additional two million homes and businesses, create an additional 800 - 1000 direct jobs, and provide other substantial local economic benefits. Nuclear energy provides long-term cost stability, promotes energy independence, and is our nation's largest source of carbon-free energy. As we work collectively to secure our state's long-term energy future, nuclear energy will continue to play an increasingly important role.

How the South Texas Project Works

Fossil-fueled and nuclear-powered steam generating plants operate on the same principle. Fuel is used to produce heat to convert water into high-pressure steam. The steam is directed through a turbine to turn a generator. In a fossil fuel plant, either coal, lignite, oil or natural gas is burned in a boiler to produce the heat. In a nuclear plant, the reactor replaces the boiler and the "fissioning" or splitting of uranium atoms inside the reactor produces the heat.

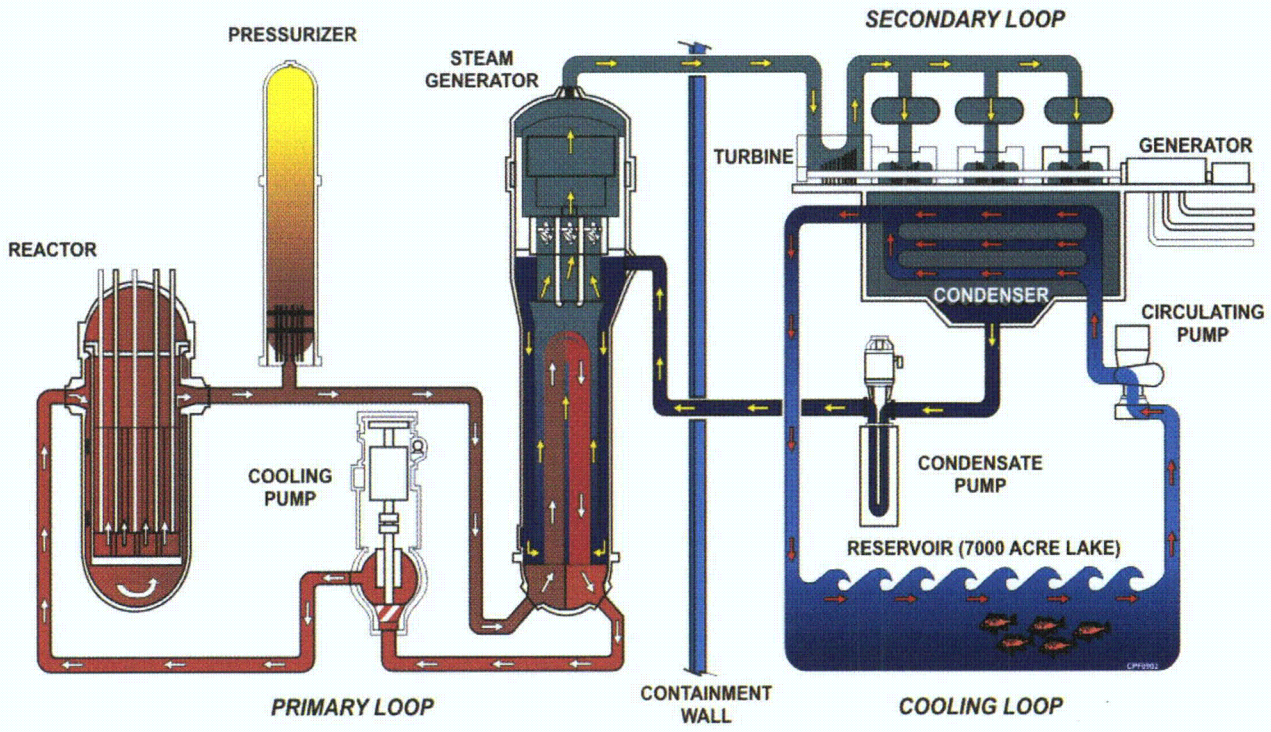


Figure 2-1

The fuel for a nuclear reactor is uranium. It is formed into cylindrical ceramic pellets, each about the size of the end of your little finger. One pellet has the energy potential of about a ton of coal. Millions of these pellets are stacked in fuel rods that are arranged into assemblies that make up the core of the reactor. The use of uranium allows us to conserve natural gas, oil and coal and to avoid the associated production of greenhouse gases.

The fission process and generation of usable heat begins in a nuclear reactor when control rods in the core are withdrawn. In pressurized water reactors, like those at the South Texas Project, the fuel rods heat water circulating in sealed, stainless steel piping that passes through large heat exchangers called steam generators. The water in the reactor is under pressure to prevent boiling. This is why the South Texas Project's Units 1 and 2 reactors are called "pressurized water reactors."

This hot, pressurized water heats a separate supply of water in the steam generators to produce steam that is directed through the blades of a turbine generator to produce electricity. The steam is then fed to a condenser where a separate supply of cooling water from the reservoir turns it back into water that is then pumped back to the steam generator for reuse. A diagram of the plant water systems is shown in Figure 2-1.

In addition to its safety systems, the South Texas Project has many built-in physical barriers that would prevent the release of radioactive materials in the unlikely event of an accident. The most visible ones are the 200-foot-tall, domed containment buildings with steel-reinforced concrete walls four feet thick. Inside each of these massive structures, two more concrete walls provide another 11 feet of shielding. The reactor vessel itself has steel walls six inches thick, and the fuel pellets inside it are sheathed in hardened metal tubes.

Nuclear energy has one of the lowest impacts on the environment. It's the most eco-efficient energy source because it produces the most electricity in relation to its minimal environmental impact. In 2008, the most recent year for which data is available, nuclear generation in the United States prevented 688.72 million metric tons of carbon dioxide, 2.65 million tons of sulfur dioxide, and 0.91 million tons of nitrogen oxide from entering the Earth's

2009 Earth Day

atmosphere.[1] Nuclear power plants generate more than 70 percent of all clean-air electricity in the United States and were responsible for 36 percent of the total voluntary greenhouse gas emissions reductions reported by United States companies in 2005.[2] Additional information on nuclear energy and the environment can be found on the website maintained by the Nuclear Energy Institute at http://www.nei.org.

The Plant Site

Sixty-five of the entire 12,220 acres at the South Texas Project are occupied by the two current power plants. Plant facilities include a 7,000-acre main cooling reservoir and a 47-acre essential cooling pond. Many smaller bodies of water onsite include wetlands, Kelly Lake, drainage ditches, sloughs, and depressions. Much of the land east of the cooling reservoir is leased for cattle grazing. Approximately 1,700 acres remain in a more natural state as a lowland habitat. A 110-acre wetland habitat area was established in 1996 on previously unused land located northeast of the power plants. The area surrounding the South Texas Project is characterized by coastal plain with farmland and pasture predominating. Local relief of the area is characterized by flat land, approximately 23 feet above sea level.

The Area

The economic base for this area primarily is agriculture-related. The chief agricultural crops in Matagorda County are livestock, grain sorghum, corn for grain, rice, cotton and hay. In addition to the agriculture industry, there is commercial fishing in the lower Colorado River, East and West Matagorda Bays, Intracoastal Waterway and the Gulf of Mexico. Currently shrimp, oysters, crab, and fin fish such as black drum are the predominant commercial fish in the county. Aquaculture farms continue to be developed in the area with the main crop being catfish.

Although the surrounding area is heavily cultivated, significant amounts of woodlands, thicket, brush, fields, marsh, and open water exist to support wildlife. The area lies in the southern region of the central flyway and is host to an abundance of migratory birds. The local estuary environments provide the necessary habitat for a variety of fish types to complete their life cycles. The area also affords opportunity for recreational hunting and fishing.

The South Texas Project is home to many species of animals. Inhabitants include American alligators, ospreys, and several hundred deer. In winter, literally hundreds of thousands of waterfowl, principally migratory geese as well as white pelicans and the common tern, have found that the plant's 7,000-acre cooling reservoir provides a good resting place during their migrations. Since 1997, a 15-mile diameter area that includes the South Texas Project has had, with one exception, the highest number of bird species nationwide in the National Audubon Society's Annual Christmas Bird Count.

The climate of the region is subtropical maritime, with continental influence. It is characterized by short, mild winters and long, hot and humid summers. Rainfall is usually abundant throughout the year with an annual average of approximately forty-two inches. The prevailing wind direction is from the south-southeast, shifting to north-northeast for short intervals during the winter months.

[1]Nuclear Energy Institute. *Emissions Avoided by the U.S. Nuclear Industry (1995- 2008).* http://www.nei.org/resourcesandstats/documentlibrary/protectingtheenvironment/graphicsandcharts/emmissionsavoidedbythe usnclearindustryyearly/, May 2009.

[2]Nuclear Energy Institute Fact Sheet. *Nuclear Energy and the Environment.* http//www.nei.org/keyissues/protectingtheenvironment/factsheets/nuclearenergyandtheenviroment/, September 2009

Photo By: Gary Parkey

Non-Radiological Introduction and Summary

Photo By: Gary Parkey

Chapter 3

Non-Radiological Environmental Introduction and Summary

Non-radiological environmental conditions and performance at the South Texas Project during 2009 remained satisfactory and demonstrated that the South Texas Project continued to operate in an environmentally responsible manner during the year. The South Texas Project achieved and maintained high standards of environmental performance and compliance throughout 2009.

The South Texas Project is committed to the production of electricity in a safe, reliable, and economical manner using nuclear energy. The station's programs, policies and business plan objectives also incorporate a commitment to environmental protection and sound environmental management. The dedication of station personnel who develop, implement, support, and monitor site environmental protection programs and compliance exemplify this commitment.

The station's commitment to sound environmental management is illustrated by the following environmental successes in 2009. These station successes were achieved while continuing to support development and submittal of the revised Combined Construction and Operating License Application and other activities for the proposed new units as well as supporting license renewal activities for the existing units as discussed in Chapter 2.

- ★ Continued classification as a high performer by the Texas Commission on Environmental Quality based on the station's above-average environmental compliance record in all areas considered, including water quality, waste management, and air quality compliance;
- ★ Continued station involvement in responsible management of regional and county water resources;
- ★ Achieved the lowest quantity of hazardous waste volume generated in a single year at the station since operations began;
- ★ Developed and submitted permit applications and plan updates to multiple regulatory agencies, including the U. S. Army Corps of Engineers, Texas

Photo By: Gary Parkey

Commission on Environmental Quality and the Texas General Land Office, associated with renewal of the station's wastewater discharge permit, water conservation measures and various maintenance and repair activities of existing station facilities; and,

- Instituted or enhanced several initiatives through the station's employee-led "Green Team" to promote green practices among employees at the site and in the community.

Everyone has a responsibility to protect the environment. Commitment to environmental responsibility is an integral component of the South Texas Project operating policy. This responsibility reaches further than mere compliance with laws and regulations to encompass the integration of sound environmental practices into our daily operational and business decisions. The people at the South Texas Project understand the need to balance economic, operational and environmental issues for the benefit of the station and the public. We recognize our responsibility to hold ourselves to the highest principles of environmental stewardship for station activities.

Photo By: Gwenna Kelton

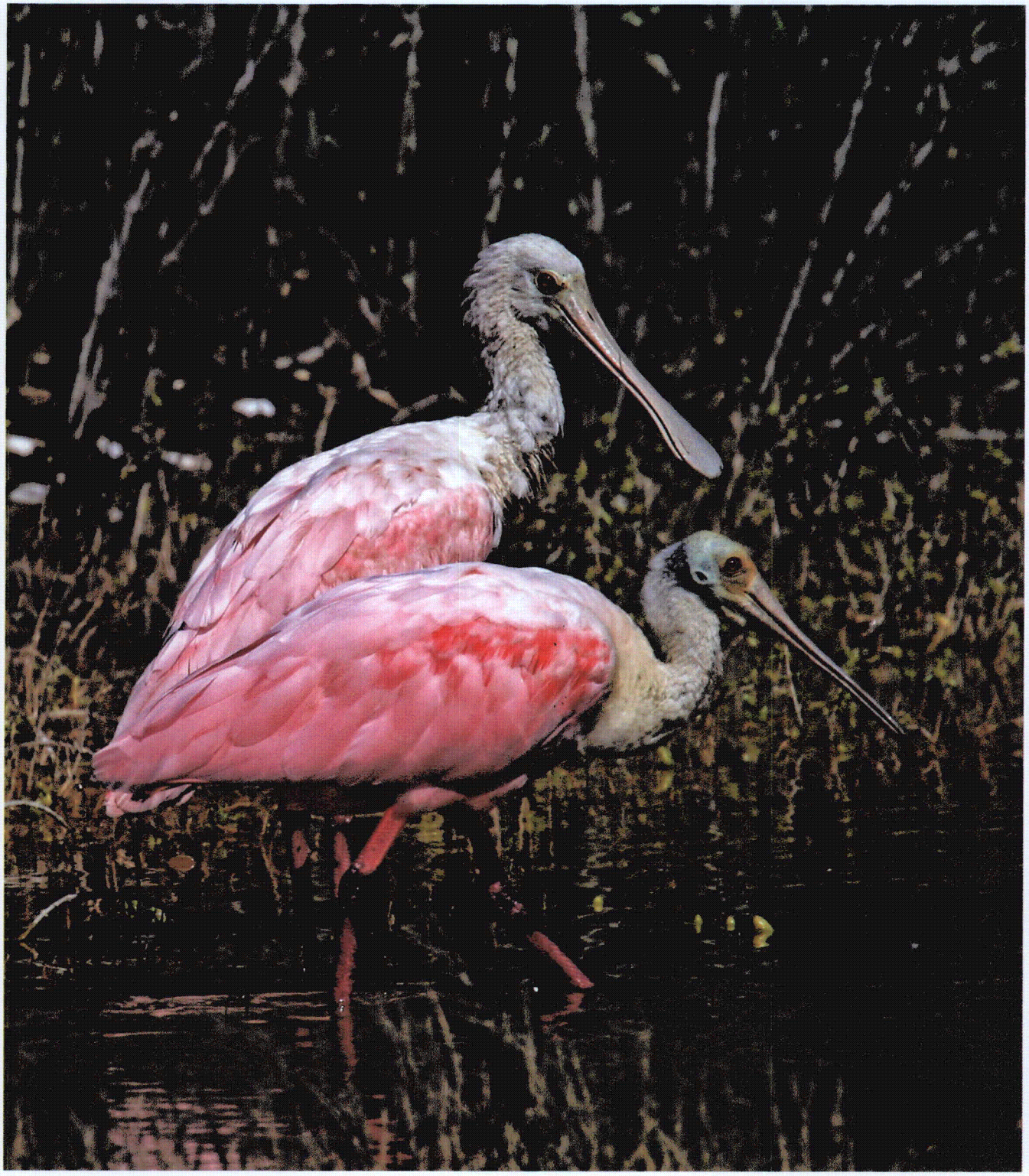


Photo By: Gary Parkey

Non-Radiological Environmental Operating Report

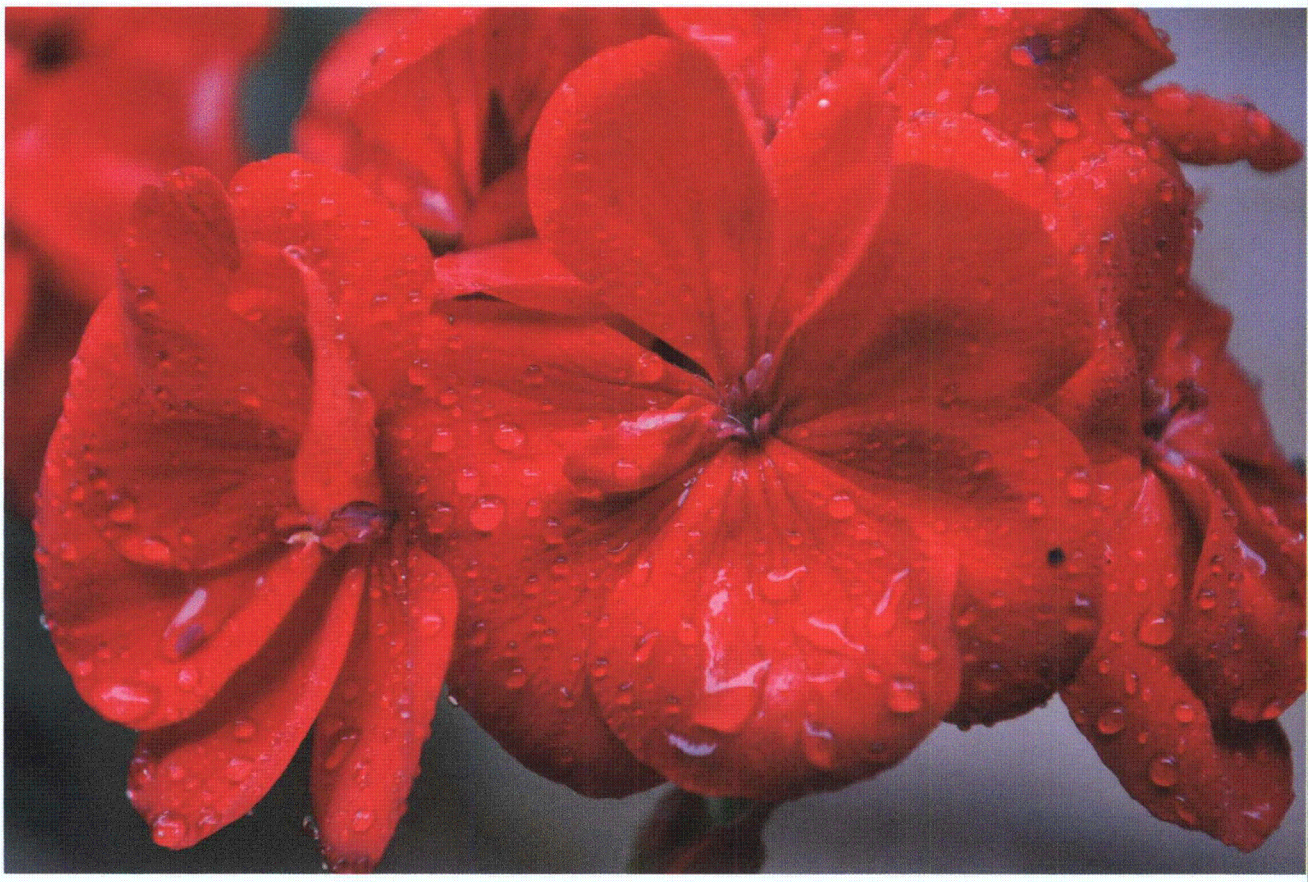


Photo By: Paul Travis

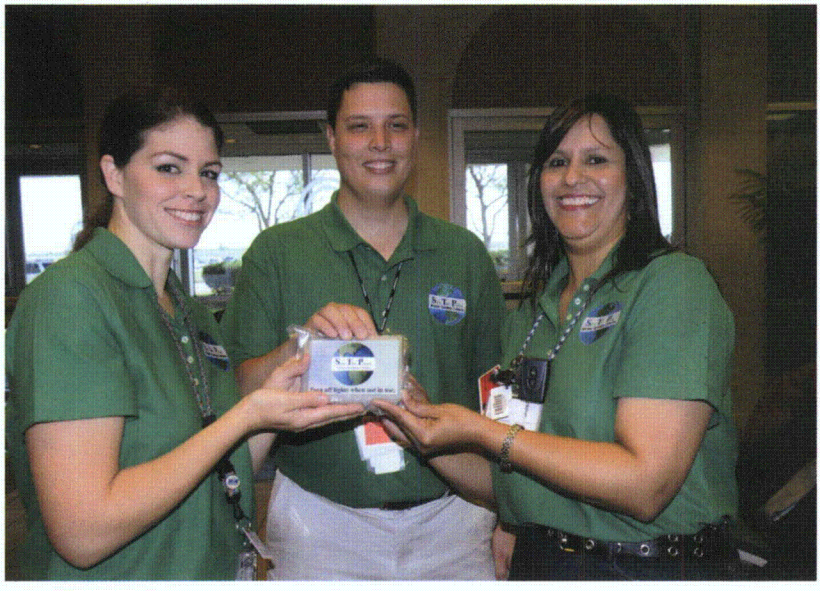
Chapter 4

ENVIRONMENTAL CONDITIONS

This section of the report describes the South Texas Project's non-radiological environmental program performance and environmental conditions from January 1 through December 31, 2009. The STP Nuclear Operating Company environmental staff closely monitors environmental conditions and performance at the South Texas Project. NRG Energy, Inc. provides support and technical assistance to the South Texas Project.

The Texas Commission on Environmental Quality classified the South Texas Project as a high performer in 2009 based on the station's above-average environmental compliance record. Facilities, such as the South Texas Project, are classified by the state as a high performer, average performer, or poor performer based on that facility's compliance history. The state's classification of the South Texas Project as a high performer was based on the station's environmental performance over the last five year period. In addition, the STP Nuclear Operating Company continued to participate in the Texas Commission on Environmental Quality CLEAN TEXAS program as a bronze-level member in 2009.

STP Green Team Volunteers



STP Green Team Volunteers

The South Texas Project, along with other local industries and organizations co-sponsored and participated in the annual Matagorda County Household Hazardous Waste Collection Day in the fall of 2009. STP Nuclear Operating Company formed an employee-led group, the STP Green Team, in 2008 to encourage and promote sustainable "green" initiatives and policies at the station and among employees. In 2009, the STP Green Team sponsored a variety of initiatives including, but not limited to, a "Turn Off

Lights" campaign to promote energy conservation, a program to promote carpooling among employees, acquisition of specialized collection bins to encourage recycling of plastics and aluminum, and a celebration of Earth Day 2009 that included collection of electronic waste for recycling, beautification of the wetland habitation and other site areas, and participation in community area cleanup projects. The station also continued to support various bird counts and surveys in 2009 sponsored by federal and state agencies and volunteer organizations such as the annual National Audubon Society Christmas Bird Count, the Great Texas Birding Classic, and the United States Fish and Wildlife Service Colonial Waterbird Survey.

AQUATIC AND ECOLOGICAL MONITORING

The location of the South Texas Project falls within the Texas Land Resource Area designation as coastal prairie and can be divided into two broad ecological areas based on topography, soils, and vegetation. The bottomland lowland habitat is a swampy, marshy area that provides an important habitat for birds and other wildlife and occupies approximately 1,700 acres of the site near the Colorado River. A spoil impoundment constructed in 1972 by the United States Army Corps of Engineers is included in this area. In addition, an award-winning 110-acre wetland habitat area that attracts a variety of bird groups and other wildlife was established in 1996 on previously unused land located northeast of the power plants. The remaining area of the site offers diverse habitats for mammals and several types of birds. The South Texas Project environmental staff regularly monitor the site's environs for changing conditions. Ecological conditions onsite in 2009 remained generally unchanged and satisfactory.

The South Texas Project is located on the state-sponsored Great Texas Coastal Birding Trail that spans the entire Texas Gulf Coast from Brownsville to the Louisiana border. Matagorda County, which includes the South Texas Project, consistently ranks at or near the top of the National Audubon Society's annual Christmas Bird Count for the number of species identified. Several bird species listed on the state and federal threatened or endangered species lists have been observed visiting the wetland habitat and elsewhere onsite. These include the bald eagle, peregrine falcon, wood stork, white-faced ibis, brown pelican and white-tailed hawk. Additional migratory and resident bird species such as a variety of ducks, geese, turkey and pelicans (both brown and white) have been observed during informal surveys of the site's diverse natural and man-made habitats. The summer of 2007 was the first year on record that brown pelicans were observed on site. Intensive bird

Photo By: Breck Sacra

nesting continues throughout the lowland habitat, particularly in a heron rookery around the perimeter of Kelly Lake. U. S. Fish and Wildlife Service biologists estimate that approximately one-third of Texas' breeding adult Gull-billed Tern population, considered to be in decline, nest on the internal dikes of the Main Cooling Reservoir at the South Texas Project. The South Texas Project continues to provide vital habitat for more than an estimated 125 different species of wintering and resident birds.

Photo By: Gwenna Kelton

The South Texas Project continues to monitor important wildlife species to detect population changes. Informal observations by station and NRG Energy, Inc. personnel continue to indicate that the site provides high-quality habitat in which a wide range of animals live. The site continues to attract extensive wildlife populations, offering a refuge for resident species as well as seasonal migrants. The lowland habitat located between the Colorado River and the east bank of the Main Cooling Reservoir offers a significant source of water year-round. These natural resource areas, in concert with numerous additional wetland and grassland areas, offer the key ingredients necessary to sustain the extensive wildlife population at the South Texas Project.

WATER QUALITY MANAGEMENT

Water is an essential component in electricity production, and all electric utilities must comply with extensive federal, state and local water regulations. These regulations govern virtually every aspect of business operations at the South Texas Project. Water usage, wastewater treatment onsite and certain maintenance and repair activities are regulated under the Safe Drinking Water Act, the Federal Clean Water Act, and the Texas Water Quality Act. Collectively, these acts provide for the safeguarding of public drinking water supplies and maintaining the integrity of state and federal waters. Regulating agencies that administer these requirements include the United States Army Corps of Engineers, the United States Environmental Protection Agency, the Texas Commission on Environmental Quality, the Texas General Land Office and the Lower Colorado River Authority.

The South Texas Project uses both surface water and groundwater for station purposes. Groundwater is pumped from deep aquifer wells to provide onsite drinking water for station personnel, to replenish the Essential Cooling Pond, and for other industrial purposes onsite. Consistent with the station's environmental principles encouraging efficient water usage and conservation, groundwater usage is carefully managed to conserve this important resource. Water from the Main Cooling Reservoir and the Essential Cooling Pond is used as cooling water for plant activities. Water from the Colorado River replenishes the Main Cooling Reservoir via

intermittent pumping periods. Surface water diverted to the Main Cooling Reservoir from the Colorado River accounted for almost 99 percent of the water used at the South Texas Project in 2009. Information regarding water use in Texas can be found on the website maintained by the Texas Water Development Board at http://www.twdb.state.tx.us/.

Most of the water used by the South Texas Project is needed to condense steam and provide cooling for plant generating systems. The majority of this water is drawn from and returned to the station's Main Cooling Reservoir. The Main Cooling Reservoir is a 7,000-acre, above grade, off-channel reservoir capable of impounding 202,600 acre-feet of water at its maximum level. Reservoir makeup water is withdrawn intermittently from the adjacent Colorado River. In addition, the Essential Cooling Pond, a 47-acre, below grade, off-channel reservoir that supplies water to cool crucial plant components is capable of impounding 388 acre-feet of water. Various water rights permits, contractual agreements, and compliance documents authorize the South Texas Project to maintain these reservoirs, impound water diverted from the Colorado River, and to circulate, divert, and use water from the reservoirs for industrial purposes to operate the plant. These permits also limit the rate of diversion from the Colorado River. Although sustained drought conditions upstream in the first half of 2009 initially limited pumping operations, beneficial rains brought relief later in the year allowing the diversion of 72,464 acre-feet from the Colorado River for Main Cooling Reservoir fill operations while preserving adequate freshwater flow conditions for downstream bay and estuarine ecosystems.

In 2006, the South Texas Project and the Lower Colorado River Authority finalized an amended water rights contract for a secure water supply source to support reliable long-term operation of the station while providing flexibility to the Lower Colorado River Authority for supplying the source water. The agreement also assists the Lower Colorado River Authority to plan its future water supply strategies to help meet water demands identified in the Senate Bill 1 regional water planning process discussed later in this report. Station operations were modified accordingly in 2006 and continue to support the amended agreement and mutually-developed water delivery plan.

Existing federal and state water quality standards are implemented and enforced through the Texas Pollutant Discharge Elimination System (TPDES) permit program to restore and maintain the state's waters. Under this permit program, the South Texas Project monitors, records, and reports the types and quantities of pollutants from wastewater discharges to ensure that we meet or exceed the stringent levels set in the permit. A monthly monitoring report is submitted to the Texas Commission on Environmental Quality for wastewater discharges. In 2009, the South Texas Project applied for a renewal of this wastewater discharge permit. Reports identifying ground and surface water use are submitted annually to the Texas Water Development Board. Reports of diversion and consumptive use are submitted to the Texas Commission on Environmental Quality. An annual groundwater use report is also submitted to the Coastal Plains Groundwater Conservation District.

Wastewater generated at the South Texas Project is processed and discharged to the onsite Main Cooling Reservoir to be re-used by the station as cooling water for plant systems. No water was discharged from the reservoir in 2009. The station continued its outstanding wastewater discharge compliance performance record in 2009. Station conditions did not require site aquatic

monitoring studies be conducted in 2009, nor were any additional studies required by the United States Environmental Protection Agency or the State of Texas either by way of station discharge permits or otherwise. Wastewater discharges met state and federal water quality standards demonstrating a 100 percent compliance record for the year while conserving and maximizing efficient water usage at the station.

In addition to the wastewater discharge permit program, the Federal Clean Water Act, as amended, requires permits for storm water discharges associated with industrial activity. The South Texas Project Storm Water Pollution Prevention Plan ensures that potential pollution sources at the site are evaluated and that appropriate measures are selected and implemented to prevent or control the discharge of pollutants in storm water runoff. This plan is a working document that is revised whenever there is a change in design, construction, operation, or maintenance that has a significant effect on the potential for the discharge of pollutants from the station. The station filed a Notice of Intent for coverage under the Multi-Sector General Permit and the Storm Water Pollution Prevention Plan was modified accordingly in 2006.

Following a severe drought in 1996, the Texas Legislature recognized the need to address a wide range of state water resource management issues. In 1997, the Texas Senate drafted legislation known as Senate Bill 1 to address these issues and to develop a comprehensive state water policy. Towards this end, this legislation required that the Texas Water Development Board create a statewide water plan that emphasizes regional planning. Sixteen planning regions were created, each tasked to prepare a regional plan for the orderly development, management and conservation of water resources. The South Texas Project was chosen to represent the electric generating utility interest for the water-planning region that encompasses the lower Colorado River Basin. Plans subsequently submitted by each planning region were incorporated into a State Water Plan in the year 2001 and again in 2006. However, water resource planning is a continuous process and the Regional and State water plans must be updated every five years. In 2009, the regional water planning group for the lower Colorado River Basin completed preparation of the *Initially Prepared Plan* for the Lower Colorado Regional Water Planning Area for subsequent review and integration into the next statewide water plan update. This regional plan includes water demand projections, water supply analyses, water management and conservation strategies covering the 2010 to 2060 time period for the lower Colorado River Basin. The South Texas Project continues to actively

Photo courtesy of: STP Corporate Communications

participate in the Lower Colorado Regional Water Planning Group to identify strategies to meet future water supply demand projections for the region and update the existing plan accordingly. Additional information regarding regional water planning in Texas can be found on the website maintained by the Texas Water Development Board at http://www.twdb.state.tx.us/.

Senate Bill 1 also required groundwater conservation districts to develop groundwater management plans with estimates on the availability of groundwater in the district, details of how the district would manage groundwater, and management goals for the district. The water planning and management provisions were further clarified in 2001 with the enactment of Senate Bill 2. Accordingly, the Coastal Plains Groundwater Conservation District encompassing Matagorda County was confirmed by local election in late 2001. The purpose of the District is to "...manage and protect the groundwater resources of the District." The South Texas Project was actively involved in providing review and comment on the Coastal Plains Groundwater Conservation district rules prior to their initial adoption and continues to participate in the review process associated with proposed rule changes. In 2005, the South Texas Project registered the station's onsite groundwater wells with the District and renewed the operating permit with the District in 2008. The station continues to monitor onsite groundwater usage according to the requirements of the District's rules.

In 1999, the South Texas Project developed, submitted and implemented an initial station Water Conservation Plan in accordance with state water use regulations. The purpose of the station's Water Conservation Plan is to identify and establish principles, practices, and standards to effectively conserve and efficiently use available water supplies and provide historical and projected average industrial water demand. Implementation of water conservation measures resulted in a reduction in groundwater usage in 2009 to the lowest usage in the last 15 years of operation in spite of sustained drought conditions in the first half of the year as discussed earlier in this section. The station revised, updated, and re-submitted the plan to the state in 2009.

The South Texas Project personnel understand that the water resources of the state are a critical natural resource requiring careful management and conservation to preserve water quality and availability. Accordingly, the station continues to explore and support efforts focusing on the efficient use of water resources and reduction of water waste.

2009 STP Earth Day Volunteers

AIR QUALITY MANAGEMENT

Air emission sources at the South Texas Project fall under the scope of air pollution regulations promulgated under the Texas Clean Air Act and the Federal Clean Air Act and the numerous associated amendments. The purpose of these regulations is to protect air resources from pollution by controlling or abating air pollution and emissions. The South Texas Project uses small amounts of fossil fuel for backup and emergency equipment. Regulated emission sources at the South Texas Project include a fossil-fuel boiler, emergency diesel generators, fire-fighting training, and other minor maintenance equipment and activities.

The South Texas Project has one fossil fuel-fired auxiliary steam boiler available to furnish steam for plant use when steam is not available from the nuclear steam supply system. In addition to the auxiliary steam boiler, a number of fossil-fueled diesel generators are located onsite. These diesels are designed to provide emergency power to various plant systems or buildings in the event of a loss of power. This equipment is not normally needed for daily operations and the station does not use it to produce electricity for distribution. Routine maintenance runs are conducted to ensure availability if needed and for equipment maintenance. Two minor deviations from station air permit requirements regarding late notice of onsite fire extingisher training and visible emissions from a small, emergency diesel generator during maintenance were reported to the Texas Commission on Environmental Quality in 2009. No impact to the environment resulted from these events and corrective actions were promptly implemented upon discovery. No further actions were required by the state.

Photo By: Gwenna Kelton

Unlike conventional electrical generating stations, nuclear power plants do not burn fossil fuel for production of electricity. Therefore, the South Texas Project produces virtually no greenhouse gases or other air pollutants that are the typical by-products of industrial production processes. The use of emissions-free nuclear power is a significant contributor to the preservation of our community's clean air resources.

NON-RADIOACTIVE WASTE MANAGEMENT

2009 STP Earth Day Participant

Solid waste management procedures for hazardous and non-hazardous wastes generated at the South Texas Project ensure that wastes are properly dispositioned in accordance with applicable federal, state, and local environmental and health regulations. By regulatory definition, solid waste includes solid, semi-solid, liquid, and gaseous waste material. The Texas Commission on Environmental Quality, which administers the Texas Solid Waste Disposal Act and also the federal Resource Conservation and Recovery Act program, is the primary agency regulating non-radioactive wastes generated at the South Texas Project. The Texas Commission on Environmental Quality regulates the collection, handling, storage, and disposal of solid wastes, including hazardous wastes. The transportation of waste materials is regulated by the United States Department of Transportation.

The South Texas Project is classified as a small quantity generator of industrial solid wastes. Texas Commission on Environmental Quality regulations require that industrial solid wastes generated at the South Texas Project be identified to the Commission. These are listed in the Texas Commission on Environmental Quality Notice of Registration for the South Texas Project. The registration is revised whenever there is a change in waste management practices at the site. Hazardous waste and Class I non-hazardous waste handling and disposal activities are summarized and documented in a waste summary report for the South Texas Project that is submitted annually to the Texas Commission on Environmental Quality.

Hazardous waste accumulation at the South Texas Project in 2009 was limited to a maximum holding period of 180 days. The Resource Conservation and Recovery Act and Texas Solid Waste Disposal Act also requires the use of proper storage and shipping containers, labels,

Photo By: Barbara Carnley

manifests, reports, personnel training, a spill control plan, and an accident contingency plan. Plant personnel routinely inspect areas throughout the site to ensure wastes are not stored or accumulated inappropriately.

Station policies and regulations encourage the recycling, recovery, or re-use of waste when possible to reduce the amount of waste generated or disposed of in landfills. Waste generated from heat exchanger cleaning activities in 2009 was shipped for biological treatment. Approximately 53 percent, or more than half, of the industrial non-radioactive waste generated in 2009 at the South Texas Project was recycled or processed for re-use. (Reference Figure 4-1) The South Texas Project ships waste oil, grease, electrohydraulic fluid, adhesives, liquid paint, and solvent for fuel blending and thermal energy recovery. Used oil, diesel fuels, and used oil filters are sent to a recycling vendor for re-processing. Lead-acid batteries are returned, when possible, to the original manufacturer for recycling or are shipped to a registered battery recycler, thereby reducing the volume of hazardous waste that might otherwise be generated. Non-hazardous blast grit was also shipped for recycle in 2009. A site paper recycling program results in the collection of several tons of paper each year. In 2009, the station collected approximately 40 tons of paper for recycling. Every ton of paper recycled saves approximately 17 trees, 7,000 gallons of water, and enough energy to power the average home for six months[1]. In addition, approximately 55 tons of scrap metal were also removed from the station for recycle in 2009.

[1]Texas Commission on Environmental Quality. http://www.takecareoftexas.org/around-the-office/, February 2009.

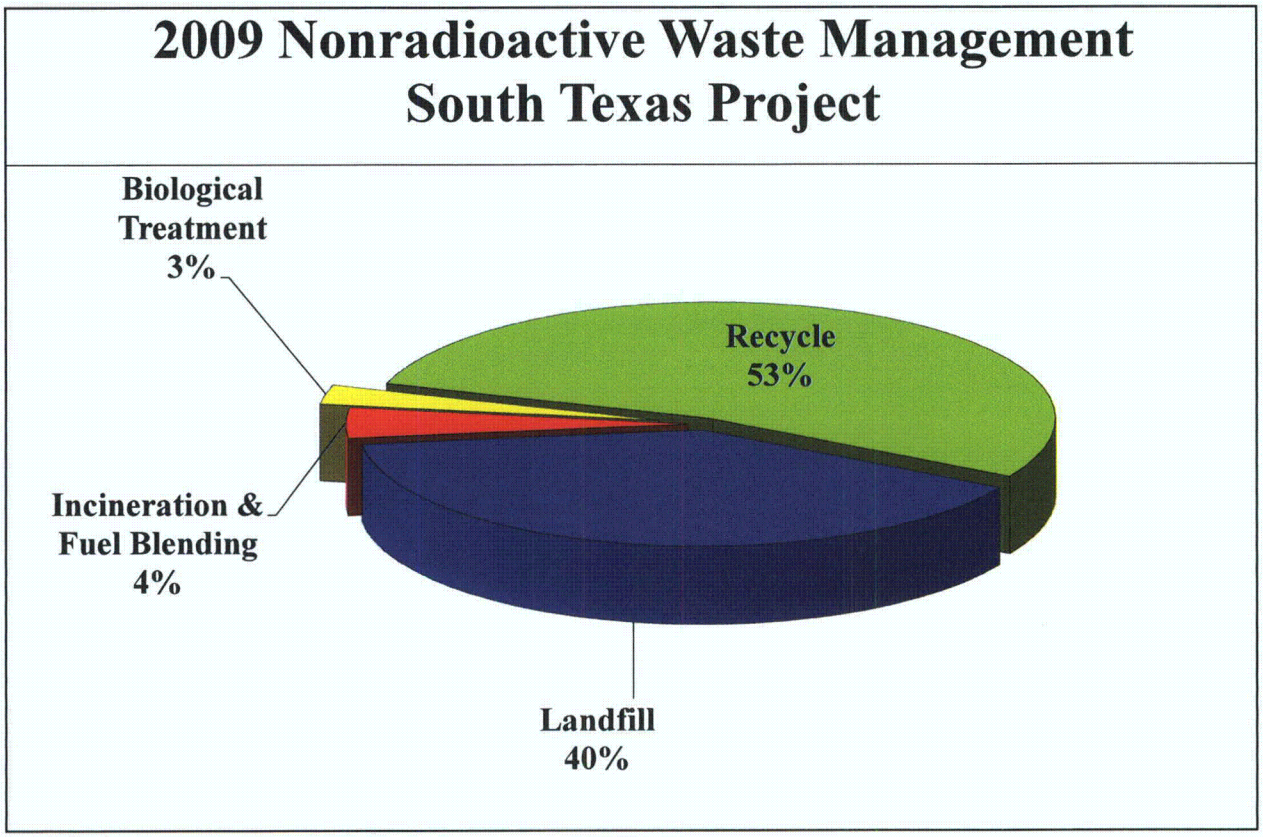


Figure 4-1

Recycling efforts in 2009 also included approximately 1,800 wooden pallets and approximately 3 tons of printer cartridges returned for recycling. Aluminum and plastics collected at the station from employees for recycling more than doubled in 2009. The station continues to explore new areas where recycling may be expanded or initiated.

The South Texas Project discontinued onsite beneficial land application activities in 2007 in preparation for future siting of Units 3 and 4 and opted to allow the associated permit to expire in 2008. Final closure of this site through the Texas Commission on Environmental Quality was completed in 2009.

Non-radioactive solid waste that cannot be shipped for recycling is shipped for disposal. Municipal-type trash is transported to an offsite landfill. Successful waste minimization and source reduction efforts by employees have allowed the South Texas Project to remain classified as a small-quantity generator since 2004. In 2009, the station generated the least quantity of hazardous waste in the history of the station to date. Hazardous waste accounts for only a small portion of the waste generated at the South Texas Project; however, minimization and reduction of hazardous waste generation where feasible remains an important goal at the station. (Reference Figures 4-2 and 4-3)

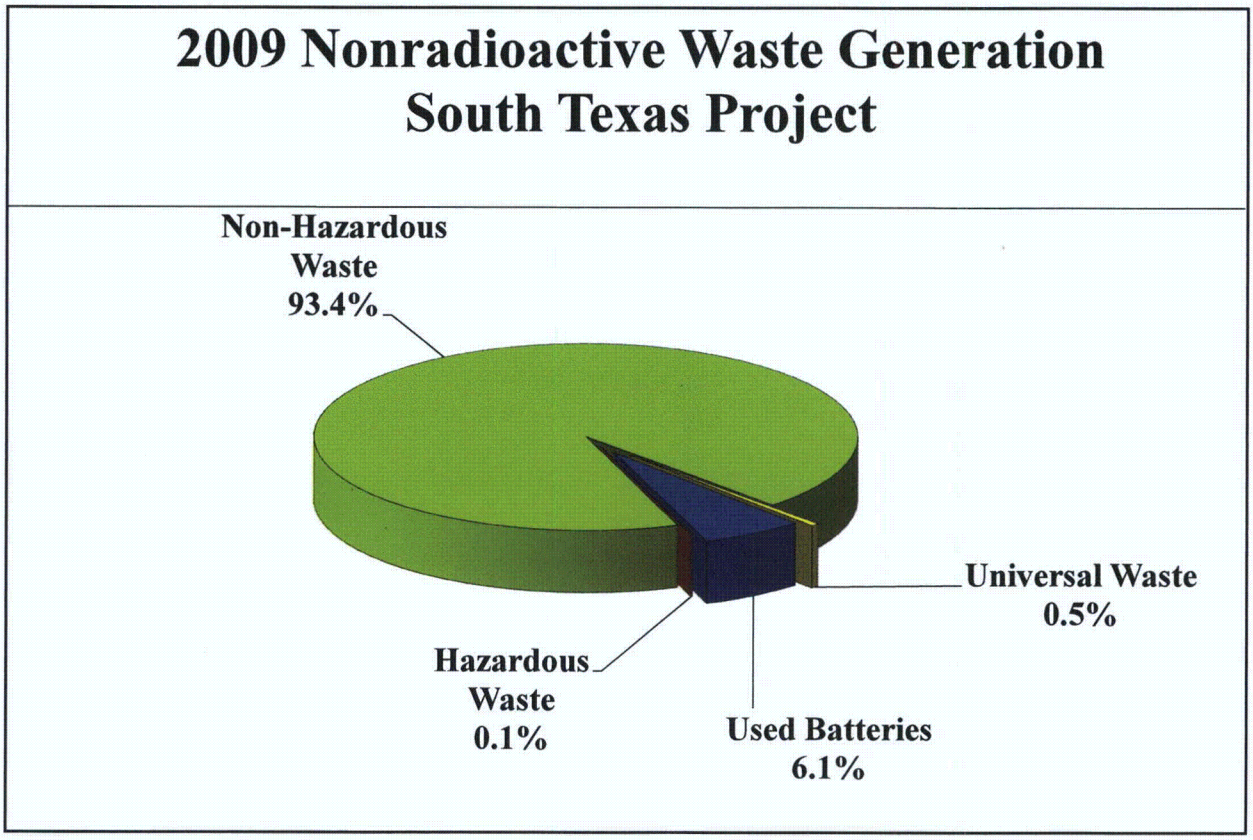


Figure 4-2

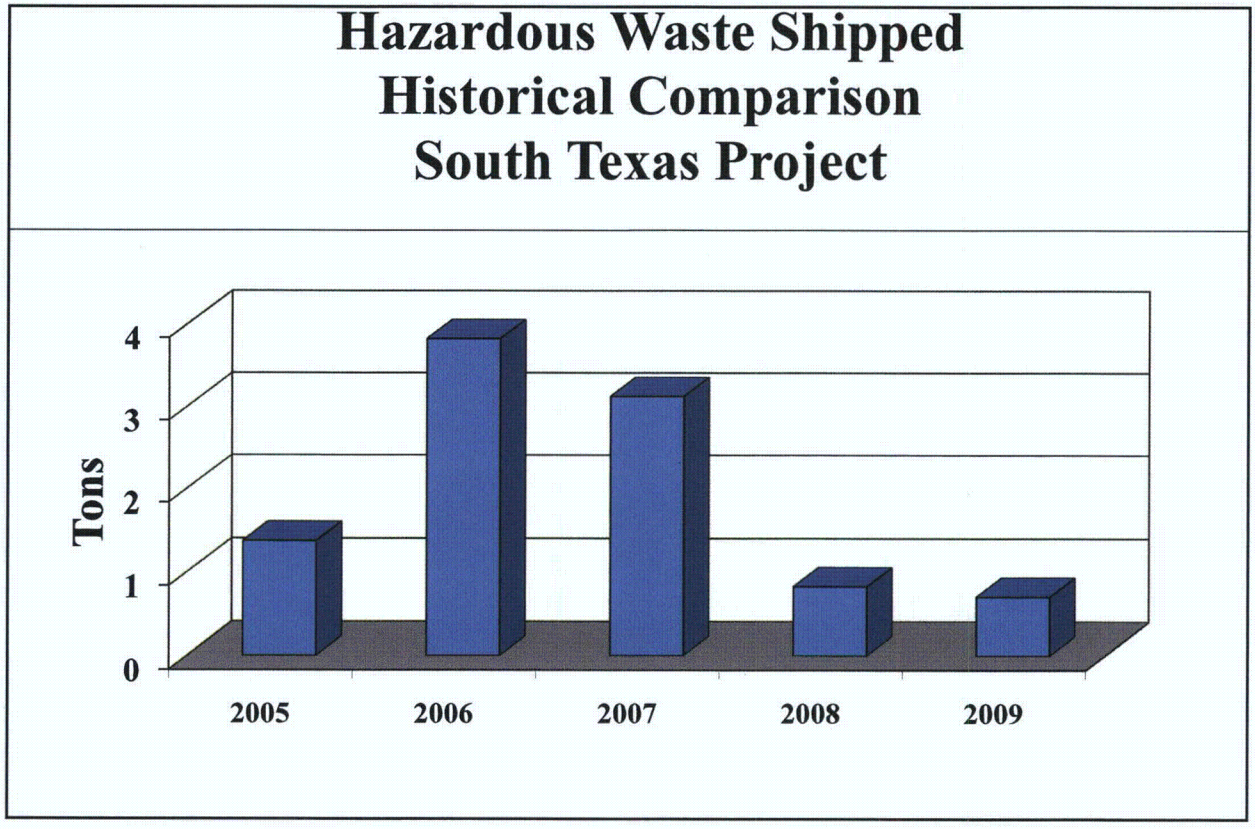


Figure 4-3

CHEMICAL CONTROL AND MANAGEMENT

The station's *Integrated Spill Contingency Plan for the South Texas Project Electric Generating Station*, updated and re-certified in 2009, consolidates multiple federal and state requirements into one plan. The plan is implemented through standard site operating procedures and guidelines. The South Texas Project uses standard operating procedures, policies, and programs to minimize the generation of waste materials, control chemical usage and prevent spills. The South Texas Project also evaluates chemicals and products proposed for use which could come in contact with plant components. Site procedures address the evaluation, storage, use, spill control, and disposal requirements of chemicals. These guidelines assist in reducing waste generation, ensure proper packaging for disposal and mitigate the consequences of inadvertent spillage.

The South Texas Project emphasizes awareness training for spill prevention and maintains station readiness to respond should a spill occur. Spill response team members receive annual refresher training in hazardous material incident response. No significant or consequential spills occurred in 2009.

STP Volunteers at 2009 Matagorda County Household Hazardous Waste Collection Day

ENVIRONMENTAL PROTECTION PLAN STATUS

The South Texas Project's Environmental Protection Plan was issued in March of 1989 to provide for the protection of non-radiological environmental values during operation of the South Texas Project. This report reviews Environmental Protection Plan non-compliances identified by the plant in 2009 and the associated corrective actions taken to prevent their recurrence. Potential nonconformities are promptly addressed, as identified, to maintain operations in an environmentally acceptable manner. The station uses its Corrective Action Program to document these conditions and track corrective actions to completion. Internal assessments, reviews and inspections are also used to document plant compliance.

This report also reviews non-routine reports submitted by plant personnel and any activities that involved a potentially significant unreviewed environmental question. A proposed change, test or experiment is considered to present an unreviewed environmental question if it concerns:

1) A matter that may result in a significant increase in any adverse environmental impact previously evaluated in the Final Environmental Statement related to the Operation of South Texas Project, Units 1 and 2 (Docket Nos. 50-498 and 50-499), environmental impact appraisals, or in any decisions of the Atomic Safety and Licensing Board; or,

Photo By: Gary Parkey

2) A significant change in effluents or power level; or,

3) A matter not previously reviewed and evaluated in the documents specified in (1) above, that may have a significant adverse environmental impact.

No unreviewed environmental questions were identified in 2009.

Events that require reports to federal, state or local agencies other than the Nuclear Regulatory Commission are reported in accordance with the applicable reporting requirements. The Nuclear Regulatory Commission is provided with a copy of any such report at the time it is submitted to the cognizant agency. If a non-routine event occurs and a report is not required by another agency, then a 30-day report to the Nuclear Regulatory Commission is required by the Environmental Protection Plan. No such 30-day or other non-routine report of this type was required in 2009.

2009 STP Earth Day Volunteers

Photo By: Gary Parkey

Radiological Introduction and Summary

Photo By: Gwen Finley

Chapter 5

Radiological Environmental Introduction and Summary

The Radiological Environmental Monitoring Program is designed to evaluate the radiological impact of the South Texas Project on the environment by collecting and analyzing samples for low levels of radioactivity. Measurements of samples from the different pathways indicate that there is no effect offsite from the operation of the power plants.

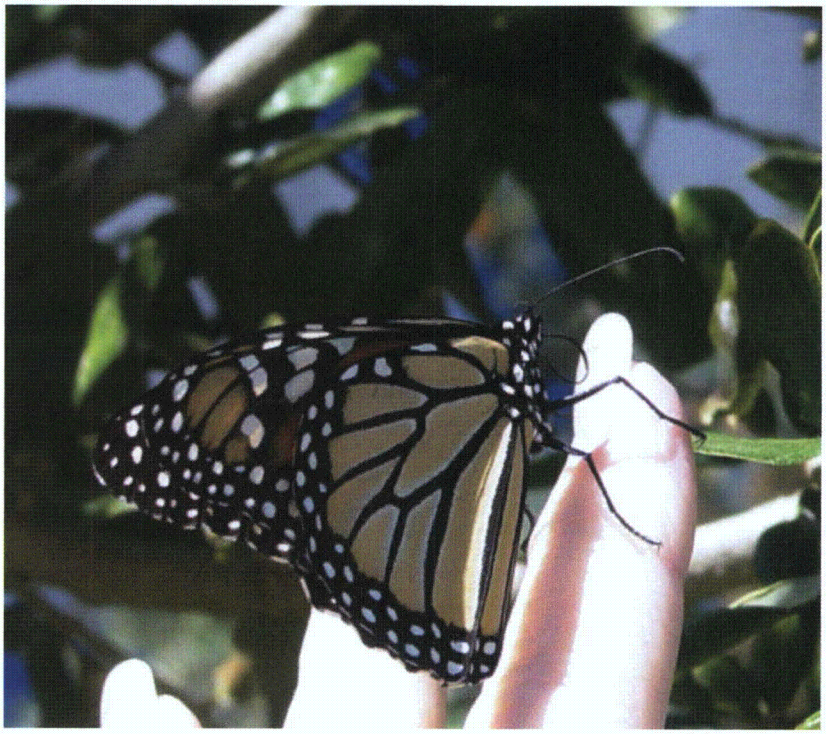


Photo By: Barbara Carnley

Only natural radioactive material has been identified in air samples in 2009. The measurements of direct radiation onsite and offsite indicate no dose limites were exceeded. Samples of fish and meat collected and analyzed show no plant-related isotopes are present. Water samples from the onsite drinking water supply from the deep aquifer and offsite sampling stations on the Colorado River show only natural background radioactivity.

Tritium is a radioactive isotope of hydrogen that is produced in the reactor and cannot be removed from effluents released to the Main Cooling Reservoir because it is a part of the water molecule. Due to the design of the Main Cooling Reservoir the presence of tritium in various sloughs and ditches onsite, and the shallow aquifer was expected. Tritium has been detected in these types of samples and the concentrations remain below the Environmental Protection Agency (EPA) drinking water limits.

Photo By: Barbara Carnley

In 2005, several nuclear plants discovered tritium in groundwater on site at levels exceeding the EPA drinking water limits, mainly near underground process or effluent pipes. To determine if this were the case at the South Texas

Photo By: Gwen Finley

Project, test wells near underground process and effluent pipes were sampled and analyzed for tritium. Although some results were positive, all results were below the EPA drinking water limits.

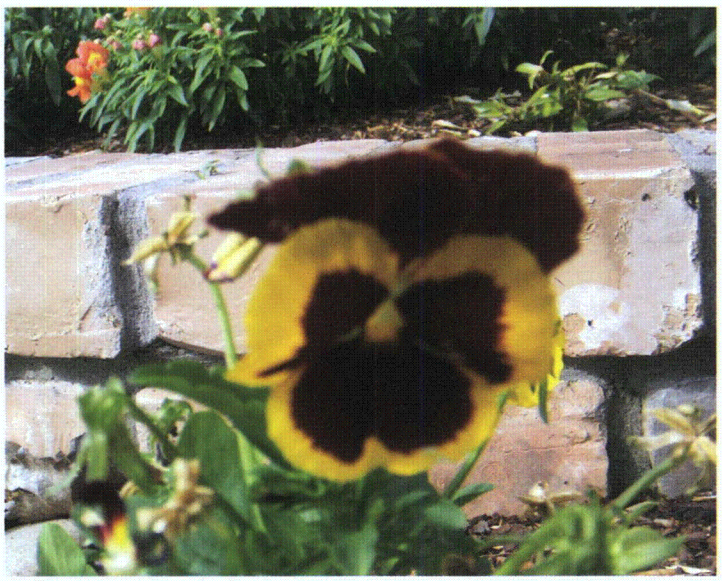


Photo By: Barbara Carnley

A sampling program was developed to monitor the tritium in the immediate area around the nuclear plants for long term trending. Wells are sampled quarterly, annually, and once every five years, depending on location and the amount of tritium present. The tritium concentration remained below the EPA drinking water limits in 2009.

Analysis of the data collected from the implementation of the Radiological Environmental Monitoring Program indicates that the operation of the South Texas Project has no offsite radiological impact.

Photo By: Gwen Finley

Radiological Environmental Operating Report

Photo By: Gary Parkey

Chapter 6

PROGRAM DESCRIPTION

The South Texas Project initiated a comprehensive pre-operational Radiological Environmental Monitoring Program in July 1985. That program terminated on March 7, 1988, when the operational program was implemented. The pre-operational monitoring program data forms the baseline against which operational changes are measured.

An analysis of the environmental pathways require that samples be taken from water, air, and land environments. These samples are obtained to evaluate potential radiation exposure. Sample types are based on established pathways and experience gained at other nuclear facilities. Sample locations were determined after considering site meteorology, site hydrology, local demography, and land use. Sampling locations are further evaluated and modified according to field and analysis experience. Table 1 at the end of this section lists the required sampling locations and frequency of collection. Additional discretionary samples were also collected.

Sampling locations consist of indicator and control stations. Indicator stations are locations on or off the site that may be influenced by plant discharges during plant operation. Control stations are located beyond the measurable influence of the South Texas Project or any other nuclear facility. Although most samples analyzed are accompanied by a control sample, it should be noted that this practice is not always possible or meaningful with all sample types. Fluctuations in the concentration of radionuclides and direct radiation exposure at indicator stations are evaluated in relation to historical data and against the control stations. Indicator stations are compared with characteristics identified during the pre-operational program to monitor for radiological effects from plant operation.

Two sample identification methods are used in the program. Figures 6-1 and 6-2 are maps that identify permanent sample stations. Descriptions of sample stations shown on Figure 6-1 and 6-2 are found in Table 2. Table 2 also includes additional sampling locations and media types that may be used for additional information. Figure 6-3 illustrates zones that may be used instead of permanent numbered sample stations.

NEI GROUNDWATER PROTECTION INITIATIVE

Nuclear industry events involving tritium prompted the station to sample groundwater in the shallow aquifer near the nuclear plants in 2005. Some samples indicated the presence of tritium at concentrations below the EPA drinking water limits of 20,000 pCi/kg.

In 2007, the Nuclear Energy Institute established a standard for monitoring and reporting radioactive isotopes in groundwater titled "NEI Groudwater Protection Initiative", NEI 07-07. The station implemented the recommendations of this industry standard and has broadened the groundwater monitoring program to include samples collected near the nuclear plants. Some of the positive results of this broadened monitoring program likely reflect tritium known to be associated with the Main Cooling Reservoir. Others appear to be the result of discharges to the ground involving water previously considered non-radioactive, since only trace quantities of gamma emitting isotopes were present.

DESIGNATED SAMPLE LOCATIONS

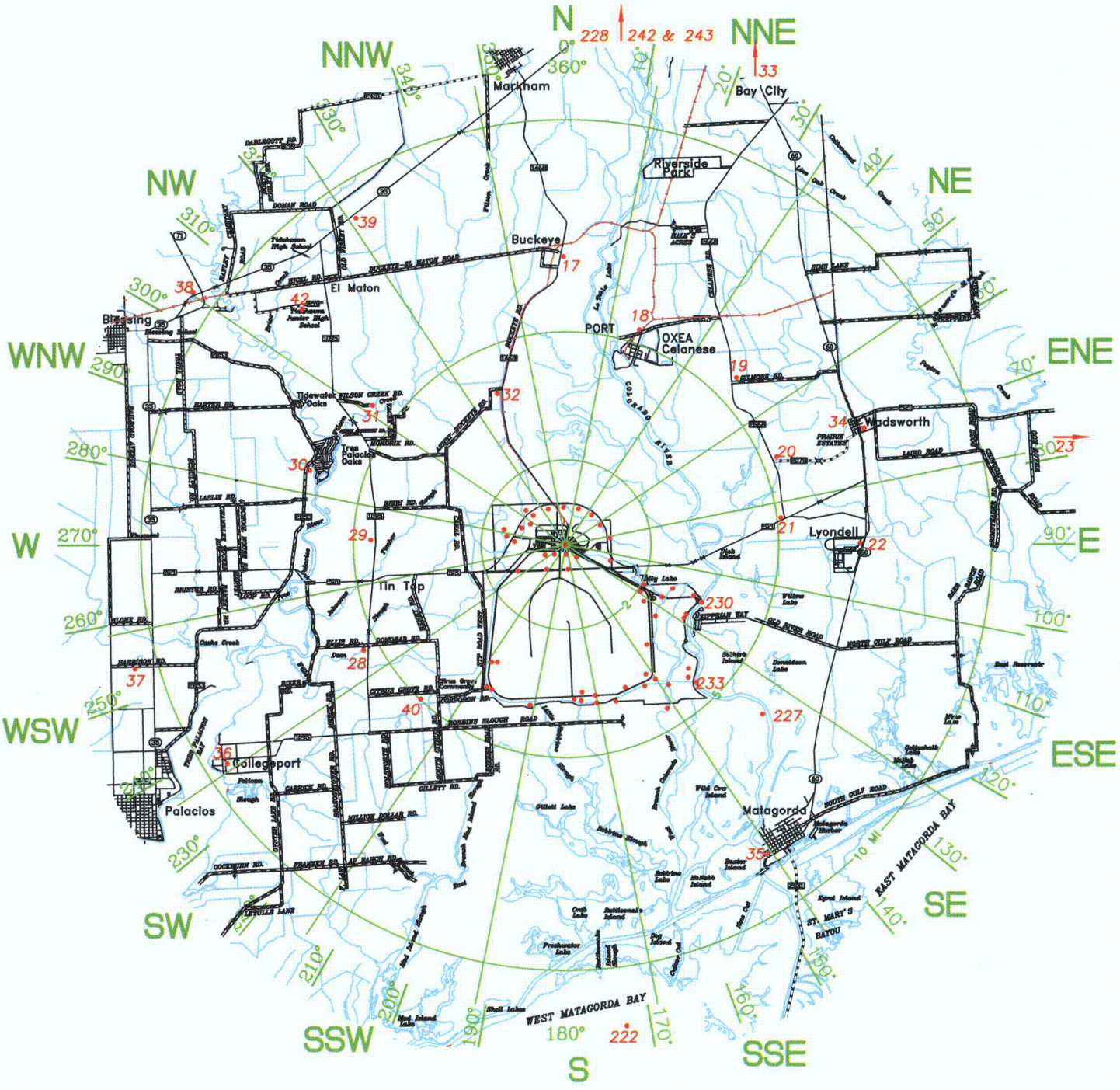


Figure 6-1

REMP ON SITE SAMPLE LOCATION

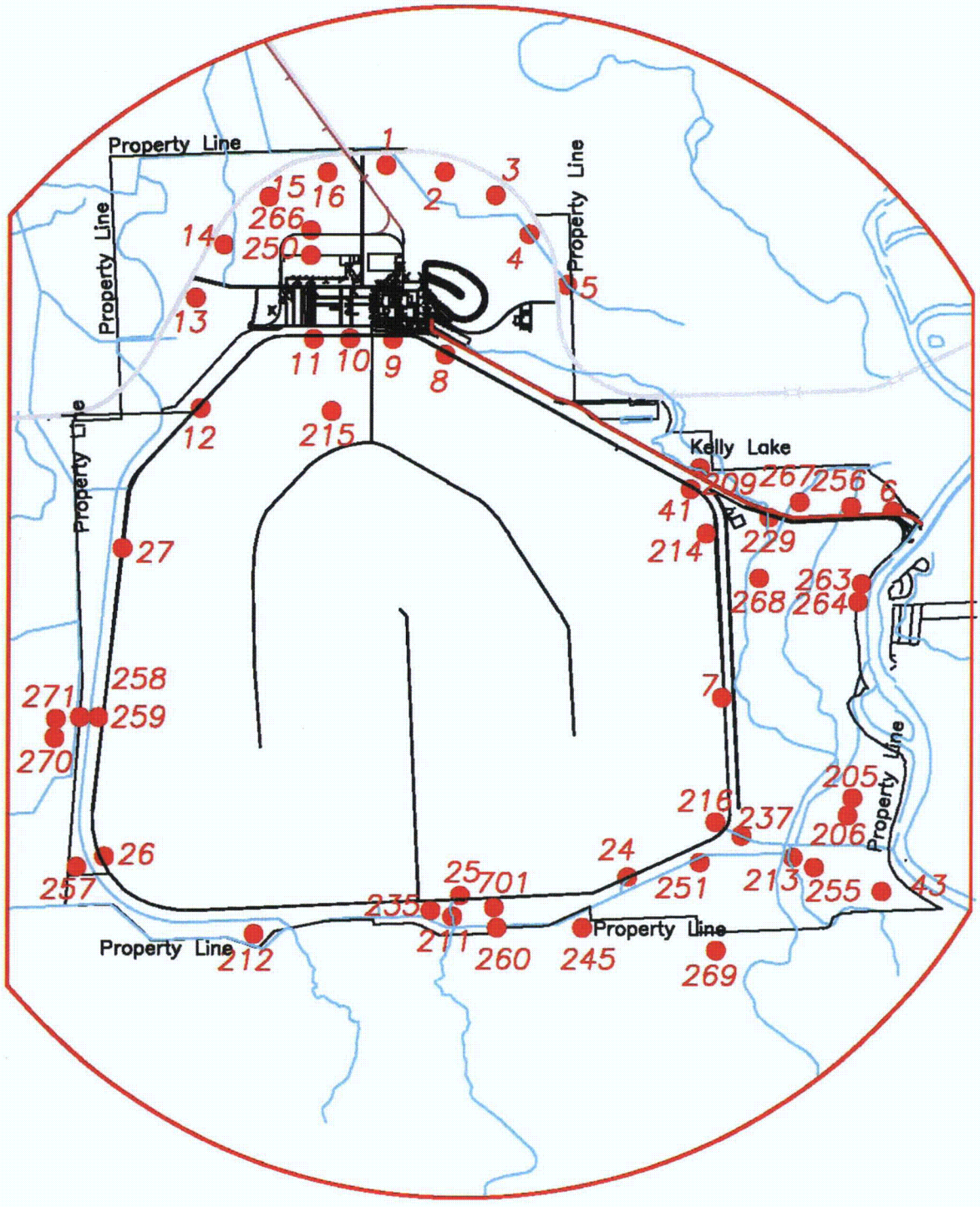
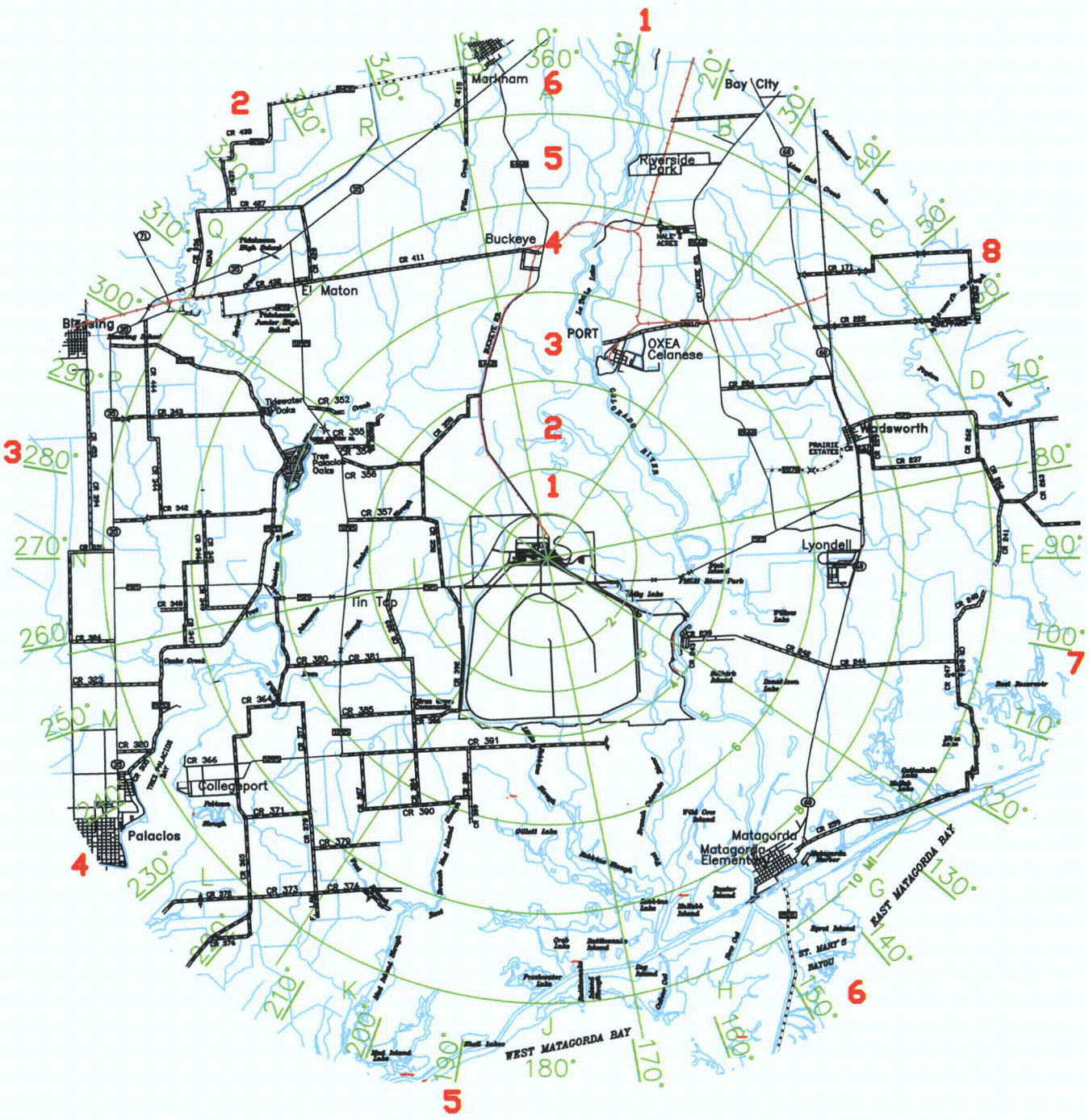


Figure 6-2

ZONE LOCATION MAP



The zone station is determined in the following manner:

* The first character of the station number "Z" to identify it as a zone station.
* The second character is the direction coordinate number 1-8.
* The third character is the distance from the site number 1-6.

Figure 6-3

Wells near the nuclear plants have been sampled quarterly, annually or once every five years depending on the concentration of tritium and the location of the wells. Two of the wells sampled quarterly are between the two units where a pipe was broken and repaired several years ago. The concentration of one well has increased over the course of 2009 from approximately 2,000 pCi/kg to 2,860 pCi/kg but remains significantly below EPA limits. The second well has decreased from approximately 15,000 pCi/kg to 2,200 pCi/kg since 2006. Four wells that had little or no detectable tritium are sampled annually to determine if there is movement of the tritium in the protected area. Three wells continue to have no detectable tritium, while the fourth tested positive at very low levels (900 pCi/kg). This well is located on the south east side of the protected area and is close enough to be influenced by the Main Cooling Reservoir. During 2008, three additional wells were installed in the protected area near Unit 1 on the east side. This was suggested during a hydrology study due to the direction of flow of the shallow aquifer and the lack of appropriate wells to sample on the east side of the plants. The samples collected from these wells continue to indicate no detectable tritium. Several additional wells are monitored at least once every five years. In 2009, one of the wells west of the Unit One Turbine Generator Building tested positive for tritium, increasing from 500 pCi/kg in 2005 to 3200 pCi/kg in 2009. Several potential causes have been identified and are currently under investigation. This is still a small fraction of the EPA drinking water limits.

Tritium has been monitored in the shallow aquifer since 1997 on the south side of the Main Cooling Reservoir. This was predicted by models used when licensing the site, and validated with additional studies for the proposed Units 3 & 4. A site conceptual model developed in 2008 to implement the Groundwater Protection Initiative validated the original predictions of the site hydrology. The models predicted that the tritium would be at the highest concentration in the shallow aquifer on the southeast side of the Main Cooling Reservoir. This prediction has shown to be true with the positive results from station #251 and station #235 which have been sampled for several years and are discussed later in this report. To enhance the database, shallow aquifer wells onsite were added to the environmental program in 2007. Two aditional wells were installed in 2008 and the results are discussed later in this report.

During 2009, there were two events of water leaking onto the ground at STP. First, approximately fifty gallons of water from a neutralization basin was spilled onto the soil due to a leak in a hose joint. The second event was from a flange in the steam generator blowdown demineralizer leaking and overflowing a truck bay sump. Approximately two gallons reached the soil. These leaks were promptly identified, stopped, and evaluated under site programs and procedures. No plant-related gamma emitting nuclides were detected and tritium levels were below EPA drinking water limits in both events. Information is recorded in the Corrective Action Program database. The evaluations revealed that there was no release to an unidentified pathway, no radioactive material was released offsite, and there was no impact to drinking water or the health and safety of the public.

ANALYSIS OF RESULTS AND TRENDS

Environmental samples from areas surrounding the South Texas Project continue to indicate no significant radiological effects from plant operation. Analytical values from offsite indicator sample stations continue to trend with the control stations. Onsite indicator samples continued to increase or decrease in measured values at their expected rates.

Average quarterly beta activity from three onsite indicator stations and a single control station for air particulate samples have been compared historically from 1988 through 2009 (see Figure 6-4). The average of the onsite indicators trends closely with the offsite control values. The comparison illustrates that plant operations are not having an impact on air particulate activity even at the Sensitive Indicator Stations (#1, #15, and #16). These stations are located near the plant downwind from the plant, based on the prevailing wind direction. The beta activity measured in the air particulate samples is from natural radioactive material. Gamma analysis is performed on quarterly composites of the air particulate samples to determine if any activity is from the South Texas Project. The gamma analysis revealed the presence of only natural radioactivity.

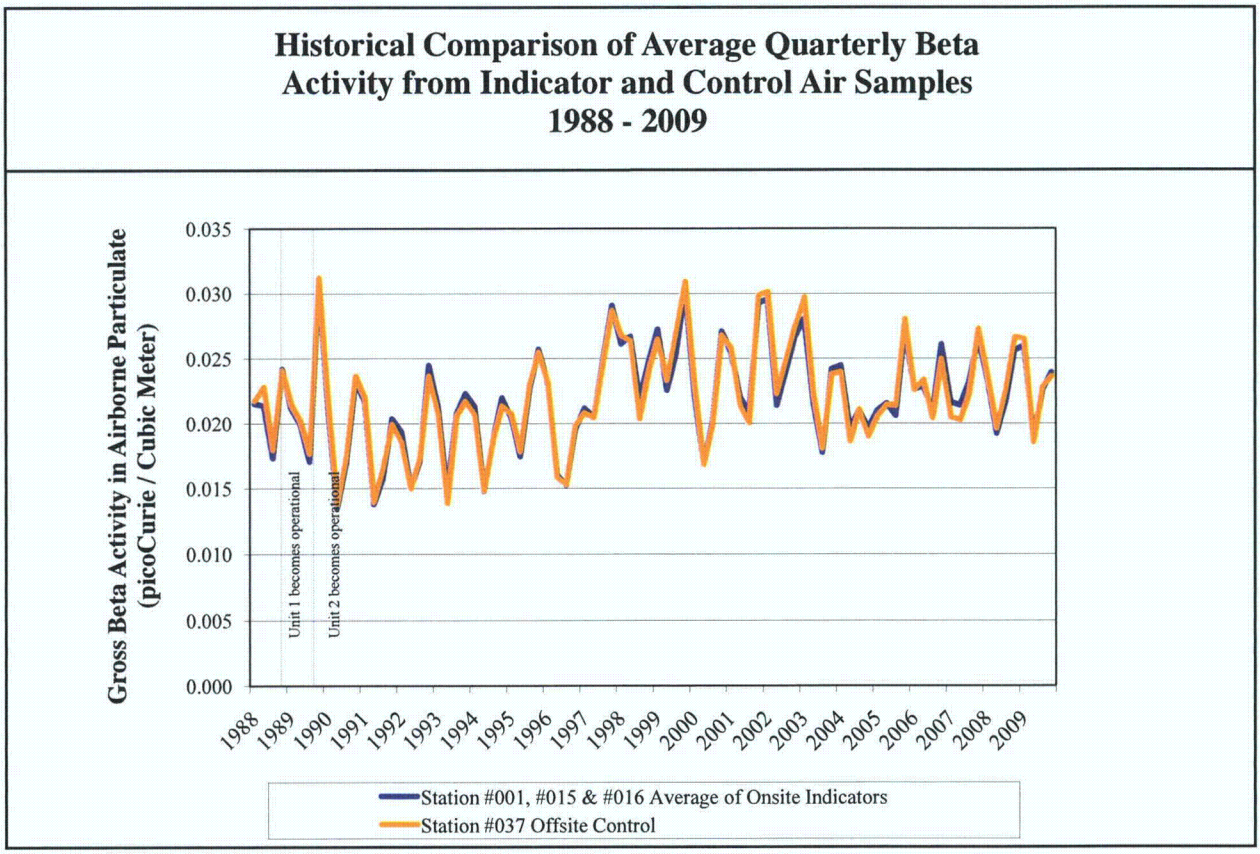


Figure 6-4

Direct gamma radiation is monitored in the environment by thermoluminescent dosimeters located at 40 sites. The natural direct gamma radiation varies according to location because of differences in the natural radioactive materials in the soil, its moisture content, and the vegetation cover. Figure 6-5 compares the amount of direct gamma radiation measured at the plant since the fourth quarter of 1985 for three different types of stations. The Control Stations are greater than 10 miles from the site and are in the direction of the least prevailing winds (Stations #23 and #37). The Sensitive Indicator Stations are in the directions that the wind blows most often and are one mile from the power plants on Farm-to-Market Road 521 (Stations #1, #15, and #16). The Indicator Stations are the remainder of the required stations. The values plotted are the averages for all of the stations according to type. Figure 6-5 indicates changing conditions in the area of the individual stations. The average of the Control Stations is higher than the other stations because station #23 is in an area that has a slightly higher natural background radiation, probably due to the soil composition. The trends of Figure 6-5 clearly show that the power plants are not adding to the direct radiation in the environment.

Bottom sediment samples are taken from the Main Cooling Reservoir each year. Figure 6-6 shows the positive results from two plant-produced radioactive materials, Cobalt-58 and Cobalt-60. The Cobalt-58 and Cobalt-60 inventory in the reservoir has decreased since 1992 because of equipment installed to reduce radioactive effluents and radioactive decay. The amount of Cobalt-58 has decreased below levels that can be reliably detected. In fact, no Cobalt-58 or Cobalt-60 has been detected in the reservoir bottom sediment samples since 2006. Figure 6-7 demonstrates the calculated decline in the total amount of Cobalt-60 in the reservoir.

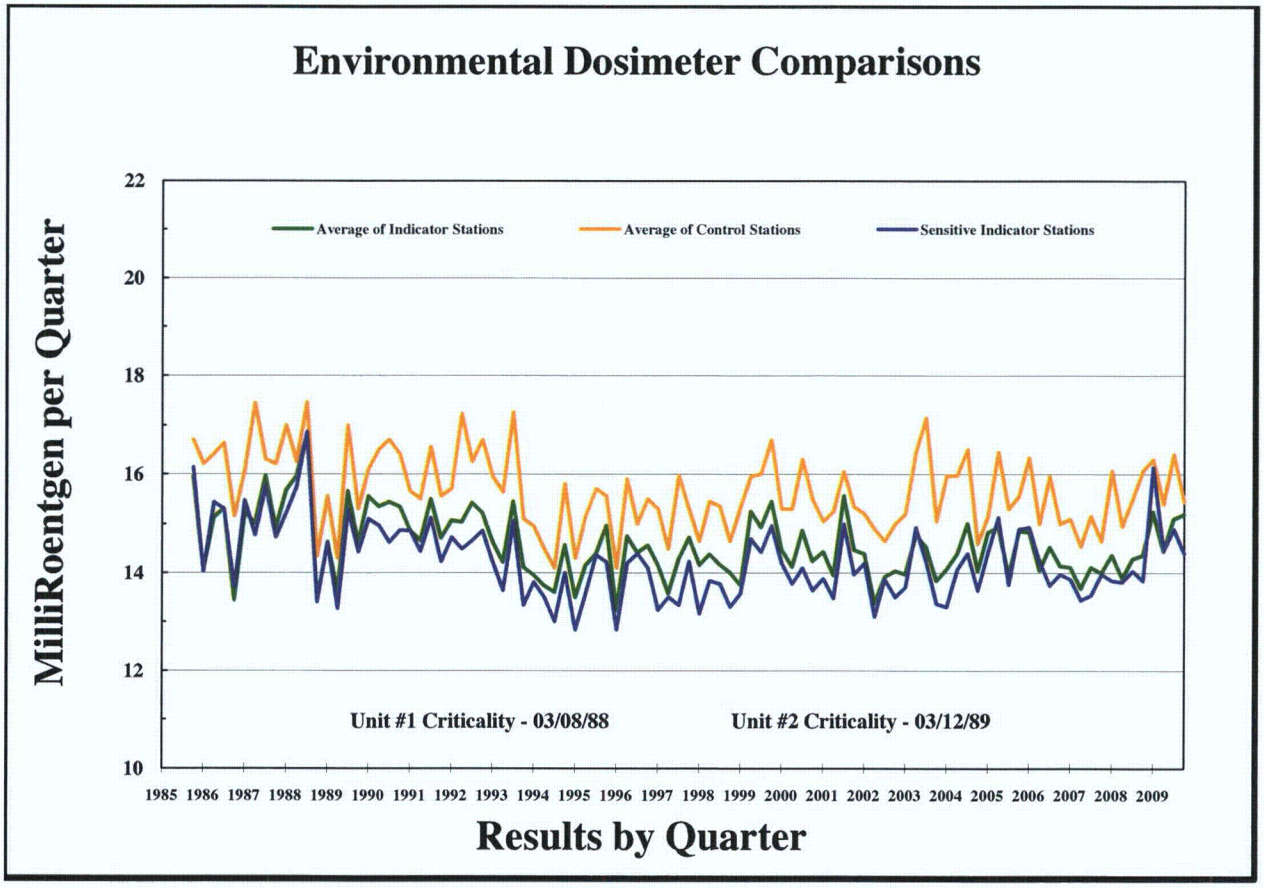


Figure 6-5

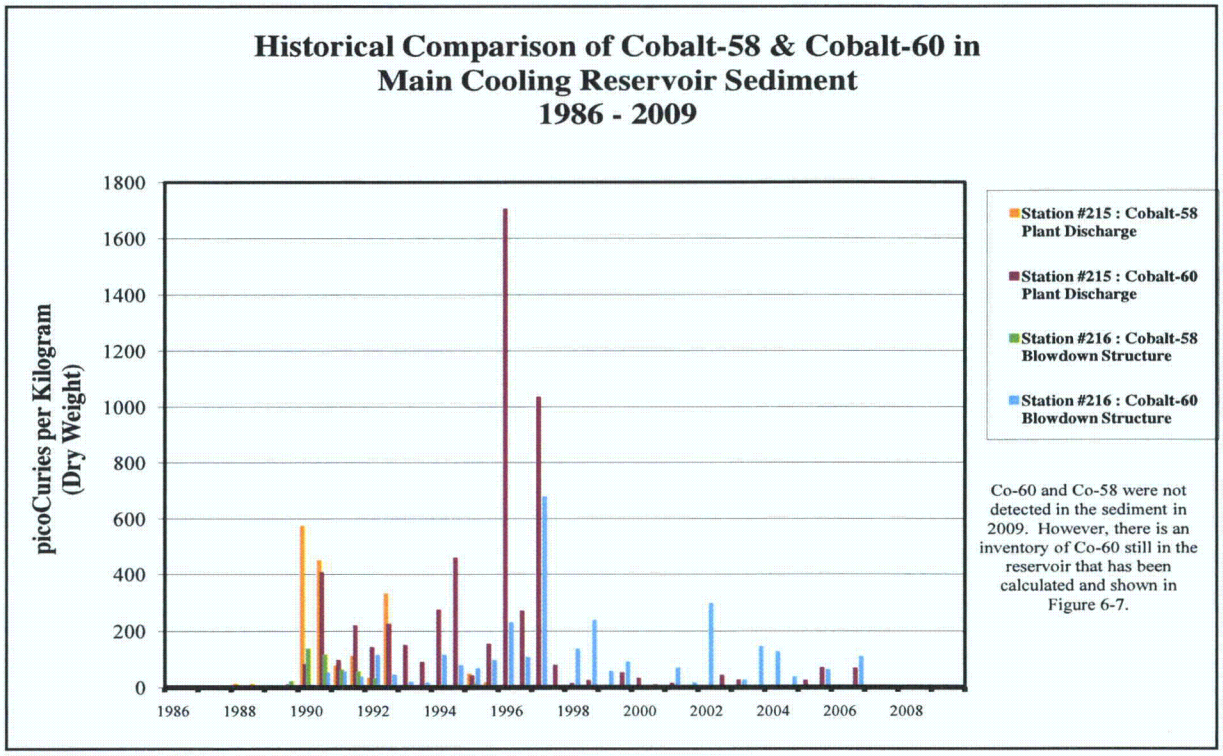


Figure 6-6

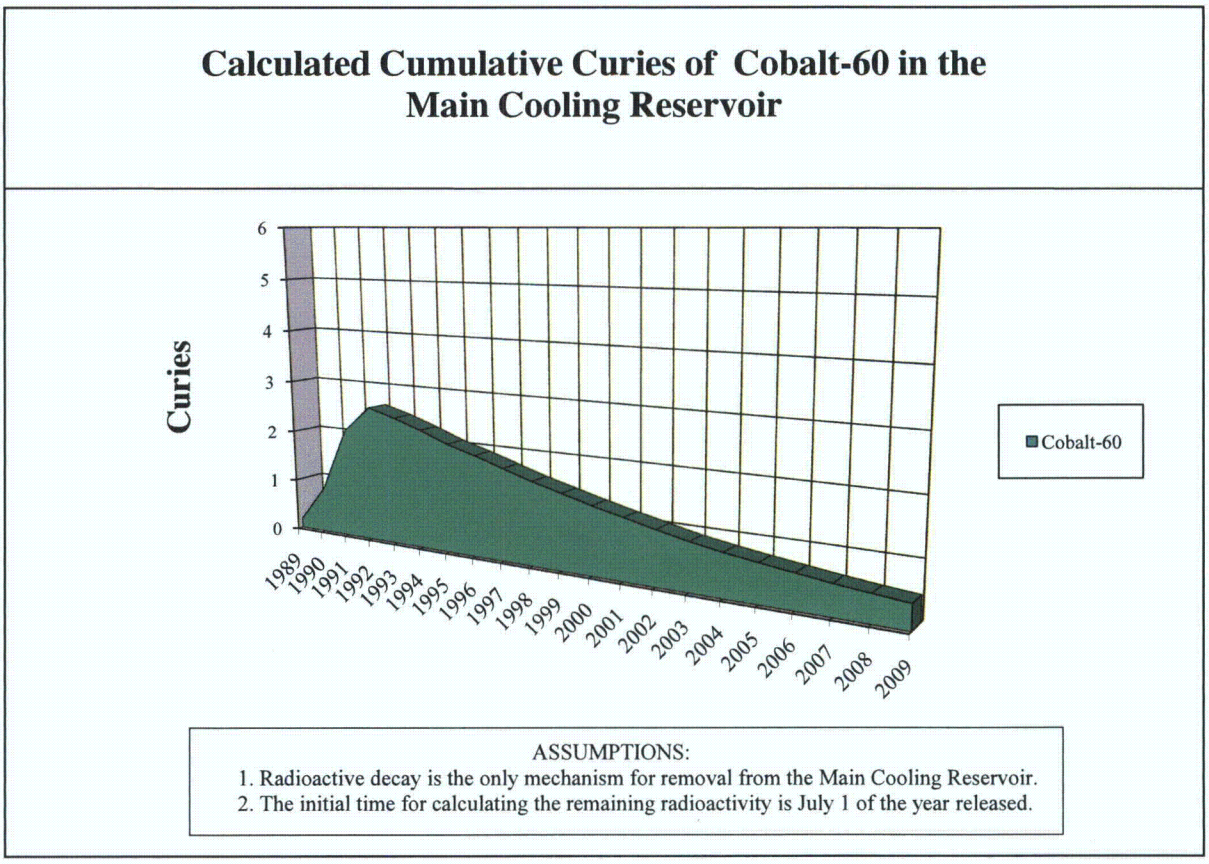


Figure 6-7

Cesium-137 was measured in one of the Main Cooling Reservoir bottom sediment samples. However, Cesium-137 was present in the environment before the operation of the South Texas Project, and the sample concentrations were approximately equal to pre-operational values. The Cesium-137 measured in the Main Cooling Reservoir does not suggest an increase due to plant operation.

Tritium is a radioactive isotope of hydrogen and is produced during plant operation. Tritium produced in the reactors is a part of the water molecule. Wastewater is treated to remove impurities before release, but tritium cannot be removed because it is chemically part of the water molecule. Some of the tritium is released into the atmosphere, and the remainder is released into the Main Cooling Reservoir. The tritium escapes from the Main Cooling Reservoir by evaporation, movement into the shallow aquifer, and by percolation from the relief wells that are a part of the dike's stabilization system. Figure 6-8 shows the amount of tritium released to the Main Cooling Reservoir each year and the amount present during the last quarter of each year. This indicates that almost half of the tritium is removed from the reservoir annually. Rainwater was collected and analyzed during 2009 to determine if the tritium remained in the local area. Tritium was not found in any site boundary rainwater samples.

The concentration of tritium in the Main Cooling Reservoir increased in 2009, with limited rainfall and makeup from the river caused by the drought in 2008 and the first half of 2009.

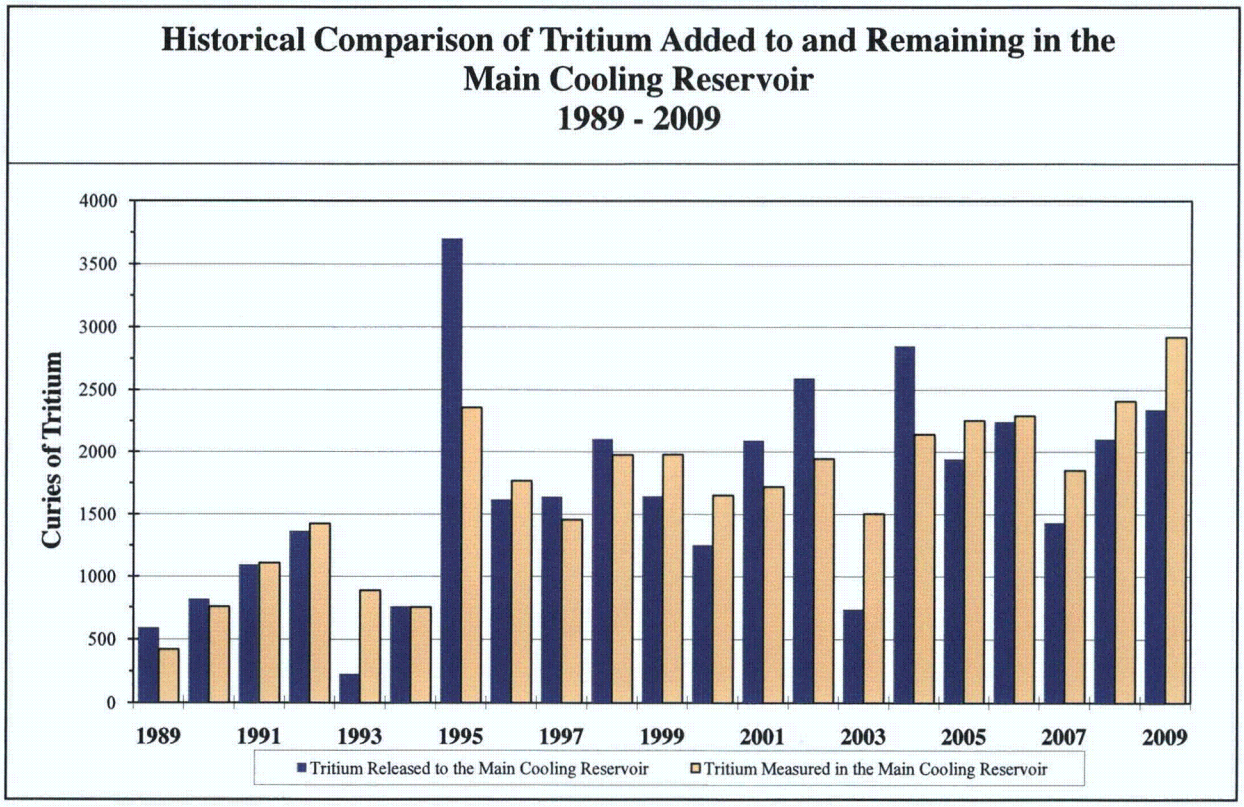


Figure 6-8

The rainfall and river makeup normally reduces the concentration of tritium in the Main Cooling Reservoir and the shallow aquifer surrounding it. The effect of the reduced rainfall has resulted in higher concentrations in the shallow aquifer wells and surface waters across the site. Slightly increased tritium released from the plant during normal operations to the Main Cooling Reservoir may have also contributed. Tritium enters the sloughs and ditches of the site as runoff from the relief wells that surround the reservoir. In 2009 tritium levels decreased in the relief wells as shown in Figure 6-9. Relief well at Station #238 was sampled until a more dependable relief well at Station #701 was identified. The tritium concentration in eight surface water sample points for 1988 through 2009 is shown in Figure 6-10. The specific sample point locations can be found in Table 2. Tritium levels in the onsite sloughs and ditches vary due to the concentration in the reservoir and the amount of rainfall received. The average tritium concentration in the relief wells, sloughs and ditches should never equal that of the reservoir because it is diluted as it migrates through the dike relief well system and by rainwater. In total, four of twelve required surface water samples tested positive for tritium as well as twenty non-required samples, all less than the EPA drinking water limits.

Tritium was identified in the shallow (ten to thirty feet deep) aquifer test well at Station #235, approximately seventy-five yards south of the reservoir dike base during 1999. In 2009, the concentration of the well at Station #235 was higher than average but steady. Figure 6-11 indicates that the higher than average tritium concentration is similar to previous values

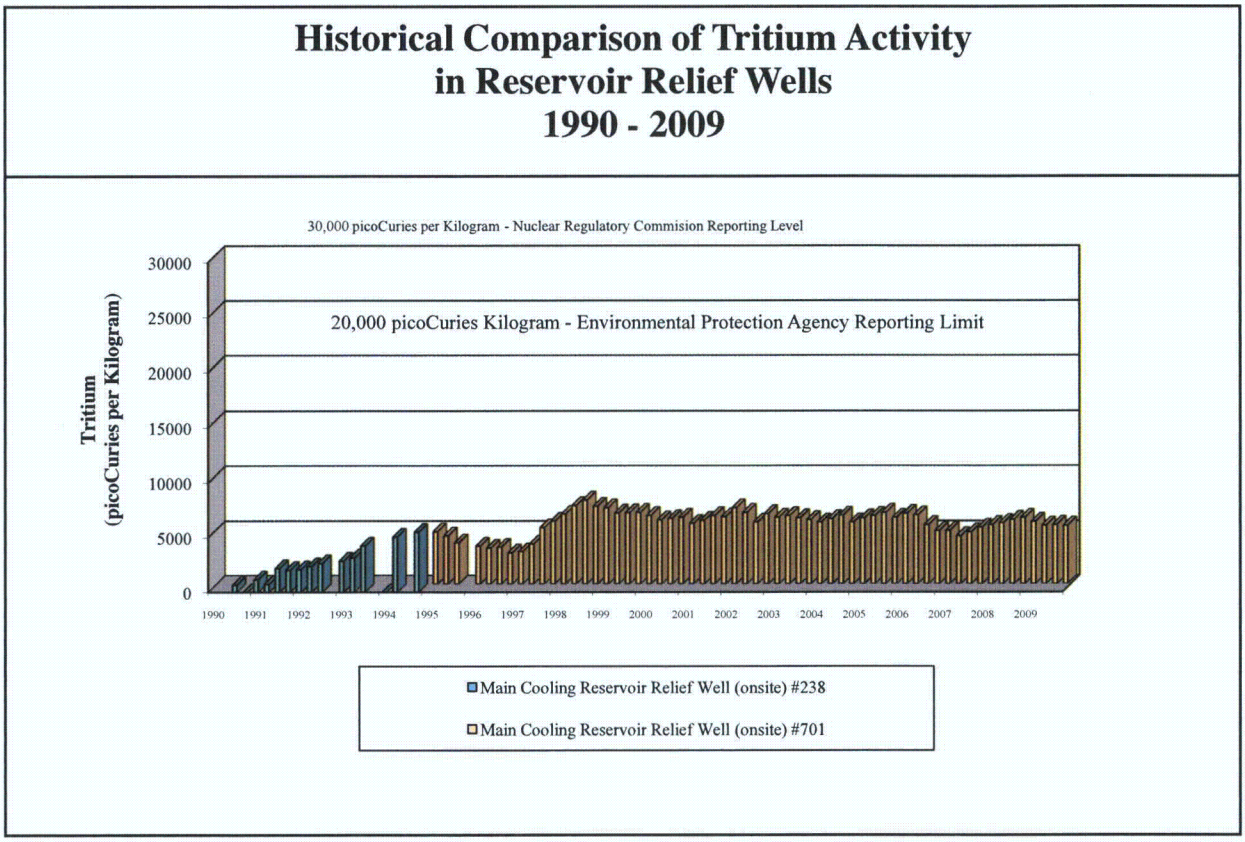


Figure 6-9

Historical Comparison of Tritium Activity in Surface Water 1988 - 2009

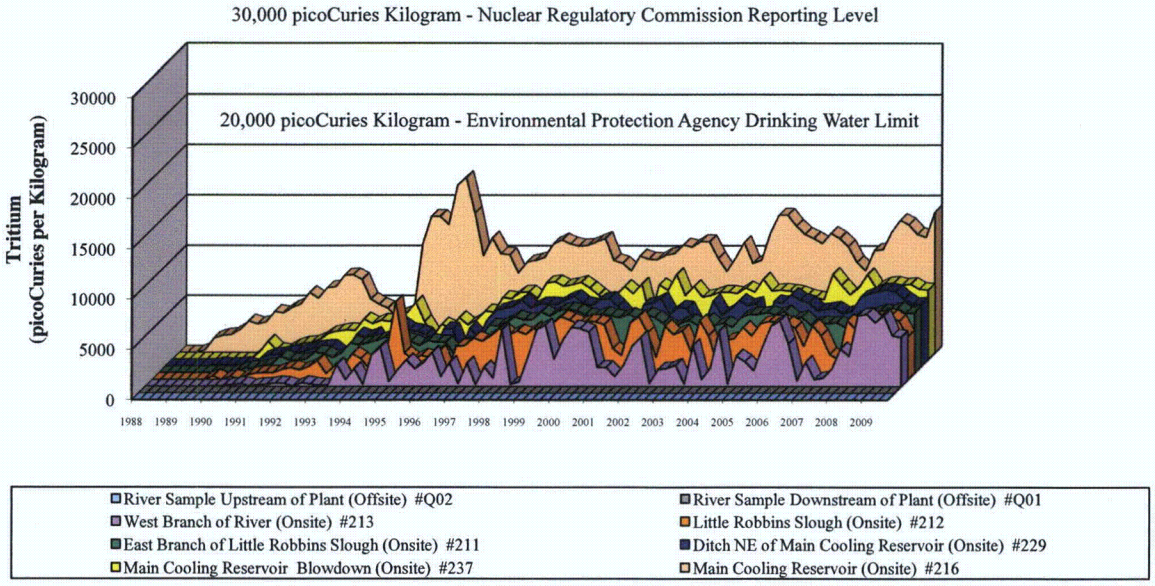


Figure 6-10

Historical Comparison of Tritium Activity in Shallow Aquifer Ground Water 1997 - 2009

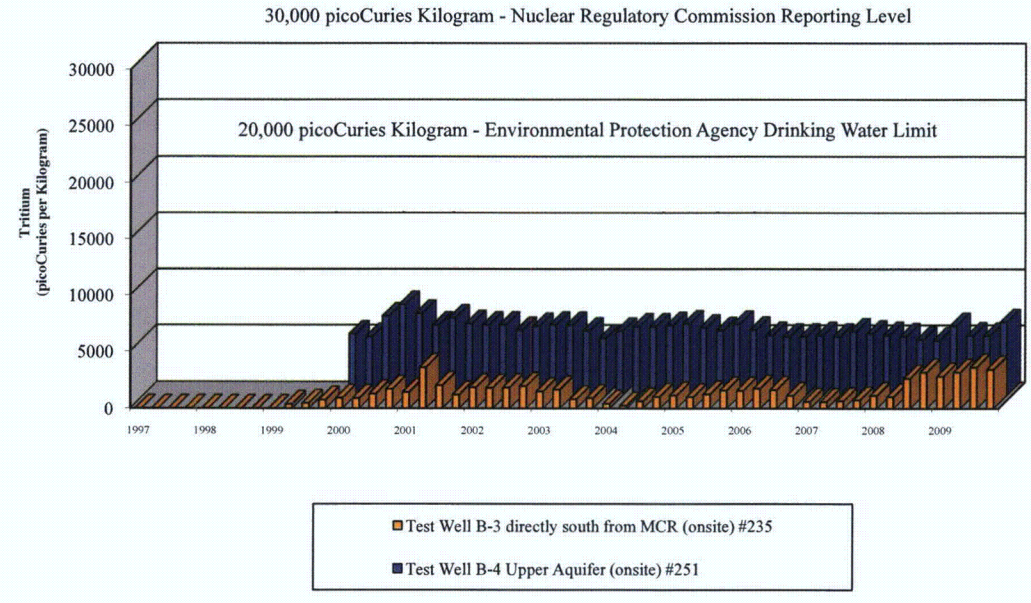


Figure 6-11

measured in 2001. In 2009, samples were collected from the shallow aquifer well at Station #251 southeast of the Main Cooling Reservoir. Samples have been collected quarterly and the tritium levels have remained near that of the relief wells. The results of the analysis from these two shallow aquifer wells are shown in Figure 6-11. Wells at Stations #258 and #259 on the west side of the site have been sampled since 2006. Wells at Stations #270 and #271 were installed during the last quarter of 2008. The results are shown in Figure 6-12. Tritium levels were generally increasing in 2009 with a peak of 2,800 pCi/kg, most likely due to the drought conditions and low Main Cooling Reservoir water levels, but remained well below the EPA drinking water limits (20,000 pCi/kg).

A private landowner south of the Main Cooling Reservoir donated water samples from two water wells. The sample stations are #245 and #269. The wells had no detectable tritium. The concentrations are consistent with the original model for the site and confirm there is no negative impact to the health and safety of the public or the environment.

The drinking water onsite is pumped from deep aquifer wells and is tested quarterly to verify tritium is not present. No water from the reservoir, shallow aquifers or other surface water is used for drinking water. The maximum dose that any individual can receive from tritium in surface water is less than one millirem in a year. This is insignificant compared to the approximate 620 mrem the public receives a year from natural radioactivity in the environment and the radiation received from medical procedures. The current reservoir concentration is less than fifty percent of the Nuclear Regulatory Commision Reporting Level.

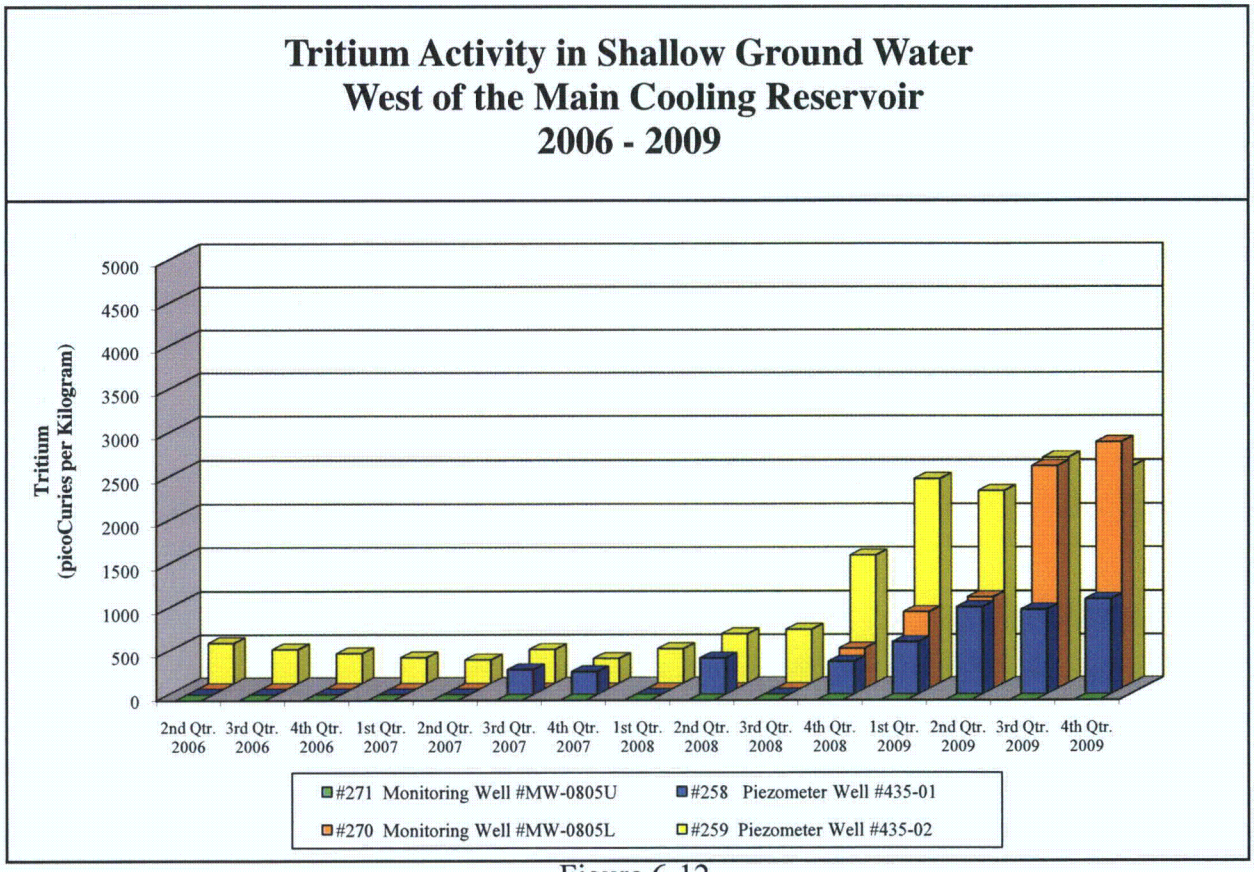


Figure 6-12

In preparation for the construction of Units 3 and 4, nine geological test wells were installed within 200 yards of the reservoir dike on the north side. These wells were sampled as they were installed and seven of the nine wells had tritium at a fraction of the concentration of the reservoir. This was expected due to their close proximity to the Main Cooling Reservoir.

Other samples are collected and analyzed in addition to those required by our licensing documents or internal procedures. These samples are obtained to give additional assurance that the public and the environment are protected from any adverse effects from the plant. These samples include pasture grass, sediment samples, rain water, shallow aquifer well water, water from various ditches and sloughs onsite, and air samples near communities or other areas of interest. The results of these analyses indicate that there is no radiological effect on the environment by plant operation.

LAND USE CENSUS

The Annual Land Use Census is performed to determine if any changes have occurred in the location of residents and the use of the land within five miles of the South Texas Project generating units. The information is used to determine whether any changes are needed in the Radiological Environmental Monitoring Program. The census is performed by contacting area residents and local government agencies that provide the information. The results of the survey indicated that no changes were required. In addition, a survey is performed to verify the nearest residents within five miles of the South Texas Project generating units in each of 16 sectors. There were no changes this year in the nearest residents within 5 miles. The nine sectors that have residents within five miles and the distance to the nearest residence in each sector are listed below.

Sector	Distance (miles)	Location
ENE	4.5	CR 232 (Ryman Rd.)
ESE	3.5	Selkirk Island
SE	3.5	Selkirk Island
SW	4.5	CR 386 (Corporon Rd.)
WSW	2.5	FM 521
W	4.5	FM 1095
WNW	4.5	CR 356 (Ashby-Buckeye Road)
NW	4.5	CR 354 (Mondrik Road)
NNW	3.5	Runnells Ranch – FM 1468
N	3.5	Runnells Ranch – FM 1468

The following items of interest were noted during the census:

- ✯ Colorado River water from below the Bay City Dam has not been used to irrigate crops.
- ✯ There were no identified commercial vegetable farms located within the five mile zone.
- ✯ No commercial dairy operates within Matagorda County, and there is no source of milk within the five mile zone.
- ✯ Two commercial fish farms continue to operate. One is two miles west of the plant near FM 521, and the second is five miles southwest of the plant at the intersection of Robbins Slough Road and South Citrus Road. The water supply for the ponds is not affected by the operations of the STP power plants.
- ✯ Broadleaf vegetation samples are collected at the site boundary in the three downwind sectors and at a control location instead of a garden census. The broadleaf vegetation samples taken also satisfy the collection requirement when milk samples are not available.

Photo By: Gwenna Kelton

QUALITY ASSURANCE

Quality assurance encompasses planned and systematic actions to ensure that an item or facility will perform satisfactorily. Reviews, surveillance, and audits have determined that the programs, procedures and personnel are adequate and perform satisfactorily.

Quality audits and independent technical reviews help to determine areas that need attention and re-evaluation. Areas that need attention are addressed in accordance with the station's Corrective Action Program.

The measurement capabilities of the Radiological Laboratory are demonstrated by participating in inter-laboratory measurement assurance programs. These programs provide samples that are similar in matrix and size to those measured for the Radiological Environmental Monitoring Program.

Figure 6-13 summarizes the results of these inter-comparison programs. In addition, approximately ten percent of the analyses made are quality control samples that consist of duplicate, split, and blind samples.

Radiochemical measurements must meet sensitivity requirements at the Lower Level of Detection for environmental samples and any deviation is discussed on the following page.

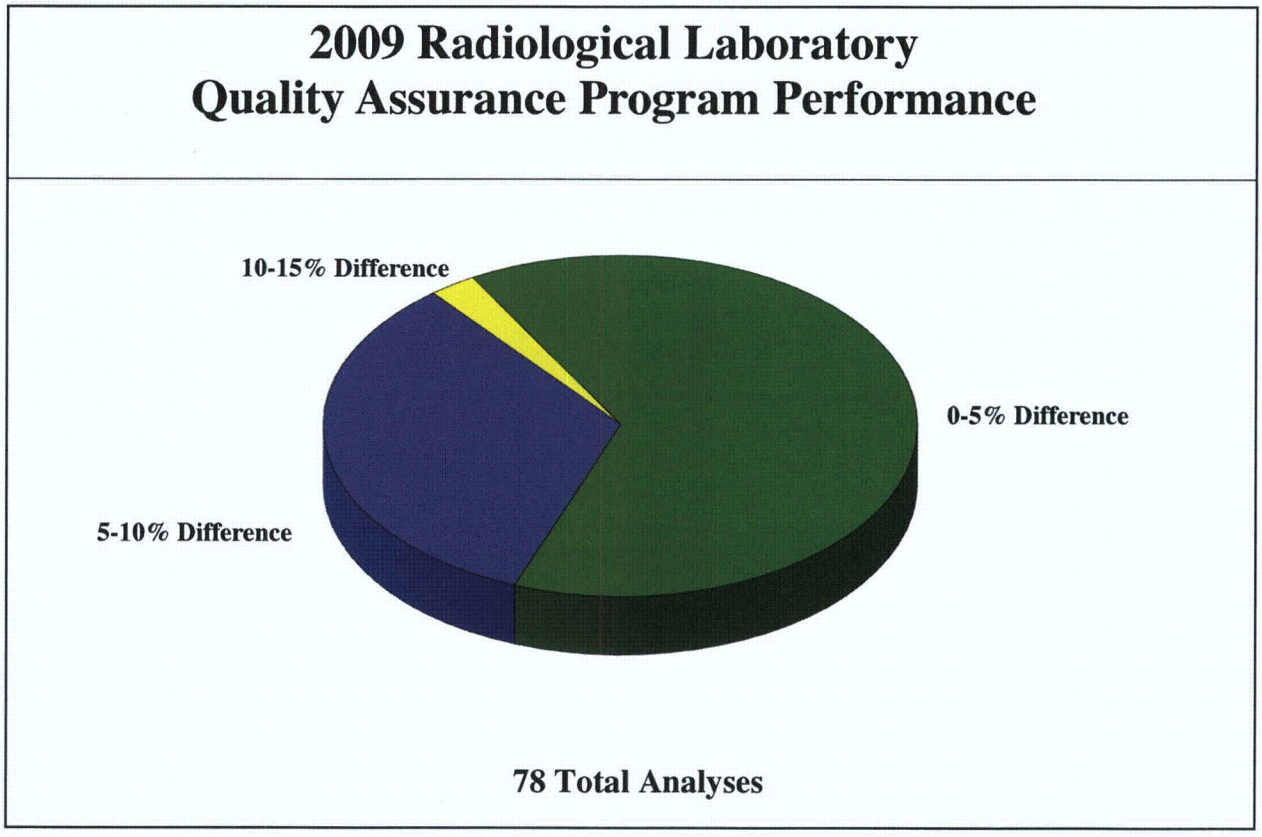


Figure 6-13

PROGRAM DEVIATIONS

Deviations from the sampling program must be acknowledged and explained in this report. During 2009 the following samples were not collected or were unacceptable for analysis:

- ✯ Six out of thirty-six required broadleaf vegetation samples were not collected due to seasonal unavailability in January and February.

- ✯ Nine out of two hundred and sixty air samples were not continuously collected for the full time interval due to power failures. Eight of the samples met the Lower Limit of Detection requirements and are included in Table 3.

The minimum Radiological Environmental Monitoring Program is presented in Table 1. The table is organized by exposure pathway. Specific requirements like location, sampling method, collection frequency, and analyses are given for each pathway.

Photo By: Gary Parkey

TABLE 1
Radiological Environmental Monitoring Program

EXPOSURE: **DIRECT RADIATION** 40 TOTAL
SAMPLING STATIONS

Sample Media, Number, Approximate Location and Distance of Sample Stations from Containment.	Routine Sampling Mode	Sampling and Collection Frequency	Analysis Type	Minimum Analysis Frequency
Exposure Media: TLD 16- Located in all 16 meteorological sectors, 0.2* to 4 miles. 16- Located in all 16 meteorological sectors, 2 to 7 miles. 6- Located in special interest areas (e.g. school, population centers), within 14 miles. 2- Control stations located in areas of minimal wind direction (WSW,ENE), 10-16 miles.	Continuously	Quarterly	Gamma dose	Quarterly

* The inner ring of stations in the southern sectors are located within 1 mile because of the Main Cooling Reservoir

EXPOSURE: **AIRBORNE** 5 TOTAL
SAMPLING STATIONS

Sample Media, Number, Approximate Location, and Distance of Sample Stations from Containment.	Routine Sampling Mode	Nominal Collection Frequency	Analysis Type	Minimum Analysis Frequency
Charcoal and Particulate Filters 3- Located at the exclusion zone, N, NNW, NW Sectors, 1 mile. 1- Located in Bay City, 14 miles. 1- Control Station, located in a minimal wind direction (WSW), 10 miles.	Continuous sampler operations	Weekly or more frequently if required by dust loading	Radioiodine Canister: I-131 Particulate Sampler: Gross Beta Activity Gamma-Isotopic of composite (by location)	Weekly Following filter change Quarterly

EXPOSURE: **WATERBORNE** 13 TOTAL
SAMPLING STATIONS

Sample Media, Number And Approximate Location of Sample Stations	Routine Sampling Mode	Nominal Collection Frequency	Analysis Type	Minimum Analysis Frequency
Surface				
1- Located in MCR at the MCR blowdown structure.	Composite sample over a 1 month period (grab if not available)	Monthly	Gamma-Isotopic	Monthly
1- Located above the site on the Colorado River not influenced by plant discharge (control).			Tritium	Quarterly Composite
1- Located downstream from blow down entrance into the Colorado River.				
Ground				
5- Located in wells used to monitor tritium migration in the shallow aquifer.	Grab	Quarterly	Gamma-Isotopic & Tritium	Quarterly

EXPOSURE: **WATERBORNE** (CONTINUED)

Sample Media, Number And Approximate Location of Sample Stations	Routine Sampling Mode	Nominal Collection Frequency	Analysis Type	Minimum Analysis Frequency
Drinking Water				
1- Located on site. *	Grab	Monthly	Gross Beta & Gamma-Isotopic	Monthly
1- Located at a control station.			Tritium	Quarterly Composites
Sediment	Grab	Semiannually	Gamma-Isotopic	Semiannually
1- Located above the site on the Colorado River, not influenced by plant discharge.				
1- Located downstream from blowdown entrance into the Colorado River.				
1- Located in MCR.				

* No municipal water systems are affected by STP. This sample taken from deep aquifer supplying drinking water to employees while at work.

EXPOSURE: **INGESTION** 7 TOTAL
SAMPLING STATIONS

Sample Media, Number And Approximate Location of Sample Stations	Routine Sampling Mode	Nominal Collection Frequency	Analysis Type	Minimum Analysis Frequency
Milk				
*	Grab	Semi-monthly when animals are on pasture; monthly at other times.	Gamma-Isotopic And Low Level I-131	Semi-monthly when animals are on pasture; monthly at other times.
Broadleaf Vegetation**				
2- Located at the exclusion zone, N, NW, or NNW sectors.	Grab	Monthly during growing season (When available)	Gamma-Isotopic	As collected
1- Located in a minimal wind direction.				

* Limited source of sample in vicinity of the South Texas Project. (Attempts will be made to obtain samples when available.)

** Three different kinds of broadleaf vegetation are to be collected over the growing season, not each collection period.

EXPOSURE: **INGESTION** (continued)

Sample Media, Number And Approximate Location of Sample Stations	Routine Sampling Mode	Nominal Collection Frequency	Analysis Type	Minimum Analysis Frequency
Fish and Invertebrates (edible portions)				
1- Representing commercially or recreational important species in vicinity of STP that maybe influenced by plant operation.	Grab	Sample semi-annually	Gamma-Isotopic on edible portions	As collected
1- Same or analogous species in area not influenced by STP.				
1- Same or analogous species in the MCR.	Grab	At time of harvest	Gamma-Isotopic Analysis in edible portion	As collected
Agricultural Products				
*				
Domestic Meat	Grab	Annually	Gamma-Isotopic	As collected
1- Represents domestic stock fed on crops grown exclusively within 10 miles of the plant.				

* No sample stations have been identified in the vicinity of the site. Presently no agricultural land is irrigated by water into which liquid plant wastes will be discharged. Agricultural products will be considered if these conditions change.

TABLE 2
SAMPLE MEDIA AND LOCATION DESCRIPTIONS

MEDIA CODE	STATION CODE	VECTOR (Approximate)	LOCATION DESCRIPTION
DR AI AP VB VP SO	001	1 mile N	FM 521
DR	002	1 mile NNE	FM 521
DR	003	1 mile NE	FM 521
DR	004	1 mile ENE	FM 521
DR	005	1 mile E	FM 521
DR AI AP SO	006	3.5 miles ESE	Site near Reservoir Makeup Pumping Facility
DR	007	3.5 miles SE	MCR Dike
DR	008	0.25 mile SSE	MCR Dike
DR	009	0.25 mile S	MCR Dike
DR	010	0.25 mile SSW	MCR Dike
DR	011	0.5 mile SW	MCR Dike
DR	012	1.5 mile WSW	MCR Dike
DR	013	1.5 mile W	FM 521
DR	014	1.5 mile WNW	FM 521
DR AI AP VB SO VP	015	1 mile NW	FM 521
DR AI AP VB SO VP	016	1 mile NNW	FM 521
DR	017	6.5 miles N	Buckeye - FM 1468
DR AI AP SO	018	5.5 miles NNE	OXEA Corp. - FM 3057
DR	019	5.5 miles NE	FM 2668

MCR-STP Main Cooling Reservoir
STP- South Texas Project
Media codes typed in bold satisfy collection requirement described in Table 1.

* Control Station

TABLE 2
SAMPLE MEDIA AND LOCATION DESCRIPTIONS

MEDIA CODE	STATION CODE	VECTOR (Approximate)	LOCATION DESCRIPTION
DR	020	5 miles ENE	FM 2668 & FM 2078
DR	021	5 miles E	FM 521 & FM 2668
DR	022	7 miles E	Equistar Chemical Plant
DR	023 *	16 miles ENE	Intersection of FM 521 and FM 2540
DR	024	4 miles SSE	MCR Dike
DR	025	4 miles S	MCR Dike
DR	026	4 miles SSW	MCR Dike
DR	027	2.5 miles SW	MCR Dike
DR	028	5 miles WSW	FM 1095 & Ellis Road
DR SO	029	4.5 miles W	FM 1095
DR	030	6 miles WNW	Tres Palacios Oaks, FM 2853
DR	031	5.5 miles NW	Wilson Creek Road
DR	032	3.5 miles NNW	FM 1468
DR AI AP SO	033	14 miles NNE	Microwave Tower at end of Kilowatt Road in Bay City
DR	034	7.5 miles ENE	Wadsworth Water Supply Pump Station
DR AI AP SO	035	8.5 miles SSE	Matagorda
DR	036	9 miles WSW	College Port
DR AI AP VB VP SO	037*	10 miles WSW	Palacios AEP Substation
DR	038	10.5 miles NW	AEP Substation on TX 71 near Blessing

MCR-STP Main Cooling Reservoir
STP- South Texas Project
Media codes typed in bold satisfy collection requirement described in Table 1.

* Control Station

TABLE 2
SAMPLE MEDIA AND LOCATION DESCRIPTIONS

MEDIA CODE	STATION CODE	VECTOR (Approximate)	LOCATION DESCRIPTION
DR AI AP SO	039	9 miles NW	TX 35 under High Voltage Power lines near Tidehaven High School
DR	040	4.5 miles SW	Citrus Grove
DR	041	2.0 miles ESE	MCR Dike
DR	042	8.5 miles NW	FM 459 at Tidehaven Intermediate School
DR	043	4.5 miles SE	Site boundary at blowdown outlet
WG	205	4.0 miles SE	Piezometer Well #446A, 40' deep
WG	206	4.0 miles SE	Piezometer Well #446, 78' deep
WS	209	2 miles ESE	Kelly Lake
WD	210	On Site	Approved drinking water supply from STP
WS S1	211	3.5 miles S	Site, E. Branch Little Robbins Slough
WS S1	212	4 miles S	Little Robbins Slough
WS S1	213	4 miles SE	West Branch Colorado River
F (1,2, or 3) CC	214	2.5 miles SE	MCR at Makeup Water Discharge
S2	215	0.5 mile SW	MCR at Circulating Water Discharge
WS S2	216	3.5 miles SSE	MCR at blowdown structure
F (1, 2, or 3) CC CS OY	222	>10 miles	West Matagorda Bay
WS S(1 or 2)	227	5-6 miles SE	West bank of Colorado River downstream of STP across from channel marker #22
WD	228*	14 miles NNE	Le Tulle Park public water supply
WS S1	229	2.3 miles ESE	Drainage ditch north of the reservoir that empties into Colorado River upstream of the reservoir makeup pumping facility
S(1 or 2)	230	3.5 miles ESE	Colorado River at point where drainage ditch (#229) empties into it

MCR-STP Main Cooling Reservoir
STP- South Texas Project
Media codes typed in bold satisfy collection requirement described in Table 1.

* Control Station

TABLE 2
SAMPLE MEDIA AND LOCATION DESCRIPTIONS

MEDIA CODE	STATION CODE	VECTOR (Approximate)	LOCATION DESCRIPTION
S(1 or 2) WS	233	4.5 miles SE	Colorado River where MCR blowdown discharge channel empties into it.
WG	235	3.8 miles S	Well B-3 directly south from MCR
B8	236	N/A	STP Protected Area
WS	237	3.7 miles SSE	Blowdown discharge channel from MCR
S(1 or 2) WS	242*	>10 miles N	Colorado River where it intersects Highway 35
WS	243*	>10 miles N	Colorado River upstream of Bay City Dam at the Lower Colorado River Authority pumping station
WG	245	4.5 miles SSE	Water well approximately 60' deep located on private property about 0.5 miles south of MCR
WS	247	<1 mile E	Essential Cooling Pond
F(1,2, or 3)	249*	N/A	Control sample purchased from a local retailer
SO	250	0.75 miles NW	Sewage sludge land farming area
WG	251	4.0 miles SSE	Test Well B-4, upper aquifer
WG	255	4.2 miles SE	Piezometer Well # 415 110' deep
WG	256	2.8 miles ESE	Piezometer Well # 417 100' deep
WG	257	3.9 miles SSW	Piezometer Well # 421-02, 80' deep 1.1 miles down STP Road from Well # 258 approximately 20' inside east fence (site boundary)
WG	258	2.9 miles SW	Piezometer Well # 435-01, 1.5 miles down STP Road from HWY 521 along east fence (site boundary)
WG	259	2.9 miles SW	Piezometer Well # 435-02, 1.5 miles down STP Road from HWY 521 20' east of fence (site boundary)
WG	260	3.7 miles S	Piezometer Well # 437, 74' deep
WG	263	3.2 miles ESE	Piezometer Well # 447, 104' deep

MCR-STP Main Cooling Reservoir
STP- South Texas Project
Media codes typed in bold satisfy collection requirement described in Table 1.

* Control Station

TABLE 2
SAMPLE MEDIA AND LOCATION DESCRIPTIONS

MEDIA CODE	STATION CODE	VECTOR (Approximate)	LOCATION DESCRIPTION
WG	264	3.2 miles ESE	Piezometer Well # 447A , 46' deep
WG	266	0.68 miles NW	Piezometer Well # 602A, 40' deep
WG	267	2.7 miles ESE	Windmill north of Heavy Haul Road
WG	268	3.0 miles SE	Windmill west of MCR
WG	269	4.2 miles SSE	Windmill south of STP owner contolled area on private land
WG	270	2.9 miles SW	Monitoring Well # MW-0805L, depth 49'
WG	271	2.9 miles SW	Monitoring Well # MW-0805U, depth 33'
F(1, 2, or 3) CC S2	300	S	STP Main Cooling Reservoir
WW	701	4 miles S	MCR Relief Well # 440
WS	Q01	N/A	Quarterly composite of station #227 and/or alternate #233
WS	Q02	N/A	Quarterly composite of station #243 and/or alternate #242

MCR-STP Main Cooling Reservoir
STP- South Texas Project
Media codes typed in bold satisfy collection requirement described in Table 1.

* Control Station

Photo By: Gwenna Kelton

2009 Radiological Environmental Monitoring Program Analysis Summary

An analysis summary for all of the required samples is given in Table 3. The table has been formatted to resemble a United States Nuclear Regulatory Commission industry standard. Modifications have been made for the sole purpose of reading ease. Only positive values are given in this table.

Media type is printed at the top left of each table, and the units of measurement are printed at the top right. The first column lists the type of radioactivity or specific radionuclide for which each sample was analyzed. The second column gives the total number of analyses performed and the total number of non-routine analyses for each indicated nuclide. (A non-routine measurement is a sample whose measured activity is greater than the reporting levels for Radioactivity Concentrations in Environmental Samples.) The "LOWER LIMIT OF DETECTION" column lists the normal measurement sensitivities achieved which were more sensitive than specified by the Nuclear Regulatory Commission.

A set of statistical parameters is listed for each radionuclide in the remaining columns. The parameters contain information from the indicator locations, the location having the highest annual mean, and information from the control stations. Some sample types do not have control stations. When this is the case, "no samples" is listed in the control location column. For each of these groups of data, the following is calculated:

- The mean value of positive real values.
- The number of positive real measurements / the total number of analyses.
- The lowest and highest values for the analysis.

The data placed in the table are from the samples listed in Table 1. Additional thermoluminescent dosimeters were utilized each quarter for quality purposes. The minimum samples required by Table 1 were supplemented in 2009 by four surface water samples, two additional ground water samples, one drinking water sample, four rainwater samples, and three sediment samples from the Main Cooling Reservoir. Fish and vegetation samples vary in number according to availability but also exceeded the minimum number required by Table 1.

TABLE 3

2009 RADIOLOGICAL ENVIRONMENTAL MONITORING PROGRAM ANALYSIS SUMMARY

Medium: Direct Radiation — Units: MilliRoentgen/Standard Quarter

ANALYSIS TYPE	TOTAL ANALYSES /NONROUTINE MEASUREMENTS	LOWER LIMIT OF DETECTION	INDICATOR LOCATIONS MEAN * RANGE	LOCATION WITH HIGHEST ANNUAL MEAN LOCATION INFORMATION	LOCATION WITH HIGHEST ANNUAL MEAN MEAN * RANGE	CONTROL LOCATIONS MEAN * RANGE
Gamma	175/ 0	---	1.5E+01 (167/ 167) (1.2E+01 - 2.5E+01)	1 mile W (#013)	1.9E+01 (4 / 4) (1.8E+01 - 2.0E+01)	1.6E+01 (8 / 8) (1.4E+01 - 1.8E+01)

* Number of positive measurements / total measurements at specified locations.

TABLE 3

2009 RADIOLOGICAL ENVIRONMENTAL MONITORING PROGRAM ANALYSIS SUMMARY

Medium: Airborne Particulate & Radioiodine — Units: PicoCuries per Cubic Meter

ANALYSIS TYPE	TOTAL ANALYSES /NONROUTINE MEASUREMENTS	LOWER LIMIT OF DETECTION	INDICATOR LOCATIONS MEAN * RANGE	LOCATION WITH HIGHEST ANNUAL MEAN LOCATION INFORMATION	LOCATION WITH HIGHEST ANNUAL MEAN MEAN * RANGE	CONTROL LOCATIONS MEAN * RANGE
Gross Beta	259/ 0	1.4E-03	2.3E-02 (207 / 207) (6.8E-03 - 4.3E-02)	1 mile NNW (#016)	2.3E-02 (52 / 52) (8.6E-03 - 3.9E-02)	2.3E-02 (52 / 52) (9.1E-03 - 4.1E-02)
Iodine-131	259/ 0	1.7E-02	--- (0 / 207)	---	---	--- (0 / 52)
Cesium-134	20/ 0	5.4E-04	--- (0 / 16)	---	---	--- (0 / 4)
Cesium-137	20/ 0	5.2E-04	--- (0 / 16)	---	---	--- (0 / 4)
Manganese-54	20/ 0	5.7E-04	--- (0 / 16)	---	---	--- (0 / 4)
Iron-59	20/ 0	2.3E-03	--- (0 / 16)	---	---	--- (0 / 4)
Cobalt-58	20/ 0	8.5E-04	--- (0 / 16)	---	---	--- (0 / 4)
Cobalt-60	20/ 0	5.3E-04	--- (0 / 16)	---	---	--- (0 / 4)
Zinc-65	20/ 0	1.3E-03	--- (0 / 16)	---	---	--- (0 / 4)
Zirconium-95	20/ 0	1.6E-03	--- (0 / 16)	---	---	--- (0 / 4)
Niobium-95	20/ 0	8.6E-04	--- (0 / 16)	---	---	--- (0 / 4)
Lanthanum-140 Barium-140	20/ 0	7.7E-03	--- (0 / 16)	---	---	--- (0 / 4)

* Number of positive measurements / total measurements at specified locations.

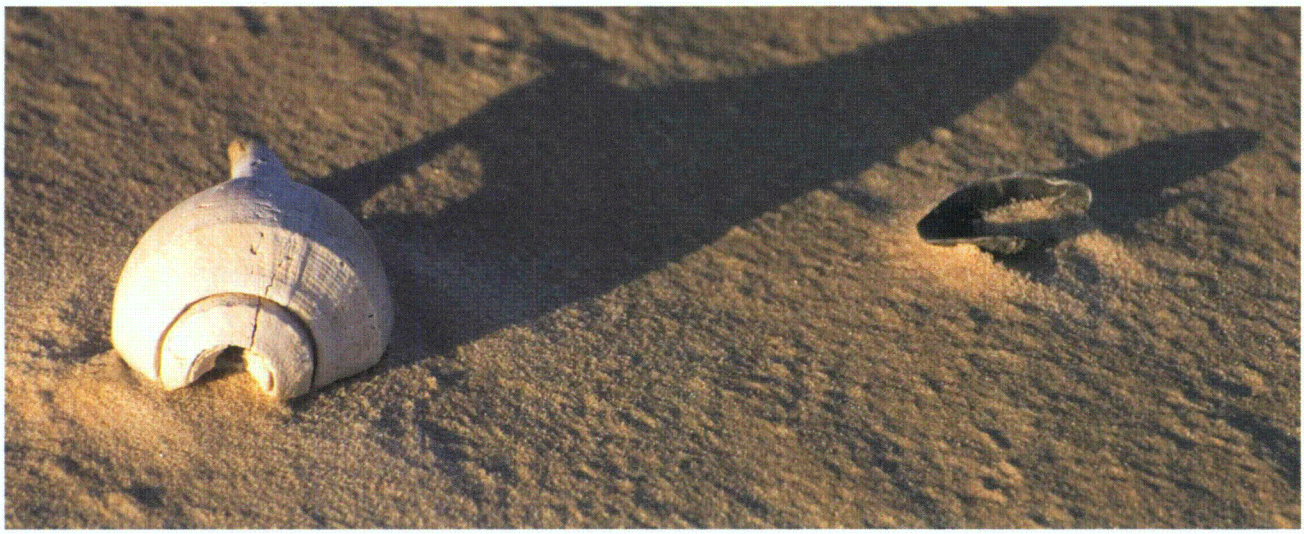


Photo courtesy of: Corporate Communications

TABLE 3

2009 RADIOLOGICAL ENVIRONMENTAL MONITORING PROGRAM ANALYSIS SUMMARY

Medium: Surface Water — Units: PicoCuries per Kilogram

ANALYSIS TYPE	TOTAL ANALYSES /NONROUTINE MEASUREMENTS	LOWER LIMIT OF DETECTION	INDICATOR LOCATIONS MEAN * RANGE	LOCATION WITH HIGHEST ANNUAL MEAN LOCATION INFORMATION	LOCATION WITH HIGHEST ANNUAL MEAN MEAN * RANGE	CONTROL LOCATIONS MEAN * RANGE
Hydrogen-3	12/ 0	2.5E+02	1.3E+04 (4/ 8) (1.2E+04 - 1.4E+04)	3 miles SSE (#216)	1.3E+04 (4/ 4) (1.2E+04 - 1.4E+04)	--- (0/ 4)
Iodine-131	40/ 0	6.2E+00	--- (0/ 26)	---	---	--- (0/ 14)
Cesium-134	40/ 0	2.2E+00	--- (0/ 26)	---	---	--- (0/ 14)
Cesium-137	40/ 0	2.3E+00	--- (0/ 26)	---	---	--- (0/ 14)
Manganese-54	40/ 0	2.2E+00	--- (0/ 26)	---	---	--- (0/ 14)
Iron-59	40/ 0	5.1E+00	--- (0/ 26)	---	---	--- (0/ 14)
Cobalt-58	40/ 0	2.4E+00	--- (0/ 26)	---	---	--- (0/ 14)
Cobalt-60	40/ 0	2.3E+00	--- (0/ 26)	---	---	--- (0/ 14)
Zinc-65	40/ 0	4.6E+00	--- (0/ 26)	---	---	--- (0/ 14)
Zirconium-95	40/ 0	4.2E+00	--- (0/ 26)	---	---	--- (0/ 14)
Niobium-95	40/ 0	2.4E+00	--- (0/ 26)	---	---	--- (0/ 14)
Lanthanum-140 Barium-140	40/ 0	5.1E+00	--- (0/ 26)	---	---	--- (0/ 14)

* Number of positive measurements / total measurements at specified locations.

TABLE 3

2009 RADIOLOGICAL ENVIRONMENTAL MONITORING PROGRAM ANALYSIS SUMMARY

Medium: Ground Water *(On site test well)* — Units: PicoCuries per Kilogram

ANALYSIS TYPE	TOTAL ANALYSES /NONROUTINE MEASUREMENTS	LOWER LIMIT OF DETECTION	INDICATOR LOCATIONS MEAN * RANGE	LOCATION WITH HIGHEST ANNUAL MEAN LOCATION INFORMATION	LOCATION WITH HIGHEST ANNUAL MEAN MEAN * RANGE	CONTROL LOCATIONS MEAN * RANGE
Hydrogen-3	22/ 0	2.5E+02	3.9E+03 (14/ 22) (2.2E+03 - 6.4E+03)	4.0 miles SSE (#251)	5.8E+03 (5/ 5) (5.2E+03 - 6.4E+03)	no samples
Iodine-131	22/ 0	5.1E+00	--- (0/ 22)	---	---	no samples
Cesium-134	22/ 0	2.8E+00	--- (0/ 22)	---	---	no samples
Cesium-137	22/ 0	2.8E+00	--- (0/ 22)	---	---	no samples
Manganese-54	22/ 0	2.6E+00	--- (0/ 22)	---	---	no samples
Iron-59	22/ 0	5.3E+00	--- (0/ 22)	---	---	no samples
Cobalt-58	22/ 0	2.7E+00	--- (0/ 22)	---	---	no samples
Cobalt-60	22/ 0	2.7E+00	--- (0/ 22)	---	---	no samples
Zinc-65	22/ 0	5.9E+00	--- (0/ 22)	---	---	no samples
Zirconium-95	22/ 0	4.7E+00	--- (0/ 22)	---	---	no samples
Niobium-95	22/ 0	2.8E+00	--- (0/ 22)	---	---	no samples
Lanthanum-140 Barium-140	22/ 0	4.3E+00	--- (0/ 22)	---	---	no samples

* Number of positive measurements / total measurements at specified locations.

TABLE 3

2009 RADIOLOGICAL ENVIRONMENTAL MONITORING PROGRAM ANALYSIS SUMMARY

Medium: Drinking Water — Units: PicoCuries per Kilogram

ANALYSIS TYPE	TOTAL ANALYSES /NONROUTINE MEASUREMENTS	LOWER LIMIT OF DETECTION	INDICATOR LOCATIONS MEAN * RANGE	LOCATION WITH HIGHEST ANNUAL MEAN LOCATION INFORMATION	LOCATION WITH HIGHEST ANNUAL MEAN MEAN * RANGE	CONTROL LOCATIONS MEAN * RANGE
Gross Beta	25/ 0	1.2E-01	2.4E+00 (13 / 13) (1.5E+00 - 2.9E+00)	14 miles NNE (#228)	2.6E+00 (12 / 12) (8.3E-01 - 4.2E+00)	2.6E+00 (12 / 12) (8.3E-01 - 4.2E+00)
Hydrogen-3	8/ 0	2.5E+02	--- (0 / 4)	---	---	--- (0 / 4)
Iodine-131	25/ 0	4.8E+00	--- (0 / 13)	---	---	--- (0 / 12)
Cesium-134	25/ 0	2.8E+00	--- (0 / 13)	---	---	--- (0 / 12)
Cesium-137	25/ 0	2.8E+00	--- (0 / 13)	---	---	--- (0 / 12)
Manganese-54	25/ 0	2.6E+00	--- (0 / 13)	---	---	--- (0 / 12)
Iron-59	25/ 0	5.2E+00	--- (0 / 13)	---	---	--- (0 / 12)
Cobalt-58	25/ 0	2.7E+00	--- (0 / 13)	---	---	--- (0 / 12)
Cobalt-60	25/ 0	2.6E+00	--- (0 / 13)	---	---	--- (0 / 12)
Zinc-65	25/ 0	6.0E+00	--- (0 / 13)	---	---	--- (0 / 12)
Zirconium-95	25/ 0	4.7E+00	--- (0 / 13)	---	---	--- (0 / 12)
Niobium-95	25/ 0	2.7E+00	--- (0 / 13)	---	---	--- (0 / 12)
Lanthanum-140 Barium-140	25/ 0	4.2E+00	--- (0 / 13)	---	---	--- (0 / 12)

* Number of positive measurements / total measurements at specified locations.

TABLE 3

2009 RADIOLOGICAL ENVIRONMENTAL MONITORING PROGRAM ANALYSIS SUMMARY

Medium: Rain Water — Units: PicoCuries per Kilogram

ANALYSIS TYPE	TOTAL ANALYSES /NONROUTINE MEASUREMENTS	LOWER LIMIT OF DETECTION	INDICATOR LOCATIONS MEAN * RANGE	LOCATION WITH HIGHEST ANNUAL MEAN LOCATION INFORMATION	LOCATION WITH HIGHEST ANNUAL MEAN MEAN * RANGE	CONTROL LOCATIONS MEAN * RANGE
Hydrogen-3	4/ 0	2.5E+02		---	---	no samples
Iodine-131	4/ 0	4.0E+00		---	---	no samples
Cesium-134	4/ 0	2.6E+00		---	---	no samples
Cesium-137	4/ 0	2.7E+00		---	---	no samples
Manganese-54	4/ 0	2.5E+00		---	---	no samples
Iron-59	4/ 0	5.3E+00		---	---	no samples
Cobalt-58	4/ 0	2.5E+00		---	---	no samples
Cobalt-60	4/ 0	2.9E+00		---	---	no samples
Zinc-65	4/ 0	5.5E+00		---	---	no samples
Zirconium-95	4/ 0	4.5E+00		---	---	no samples
Niobium-95	4/ 0	2.6E+00		---	---	no samples
Lanthanum-140 Barium-140	4/ 0	4.4E+00		---	---	no samples

* Number of positive measurements / total measurements at specified locations.

TABLE 3

2009 RADIOLOGICAL ENVIRONMENTAL MONITORING PROGRAM ANALYSIS SUMMARY

Medium: Sediment-Shoreline — Units: PicoCuries per Kilogram dry weight

ANALYSIS TYPE	TOTAL ANALYSES /NONROUTINE MEASUREMENTS	LOWER LIMIT OF DETECTION	INDICATOR LOCATIONS MEAN * RANGE	LOCATION WITH HIGHEST ANNUAL MEAN LOCATION INFORMATION	LOCATION WITH HIGHEST ANNUAL MEAN MEAN * RANGE	CONTROL LOCATIONS MEAN * RANGE
Cesium-134	4/ 0	3.0E+01	--- (0/ 2)	---	---	--- (0/ 2)
Cesium-137	4/ 0	3.1E+01	--- (0/ 2)	---	---	--- (0/ 2)
Manganese-54	4/ 0	3.1E+01	--- (0/ 2)	---	---	--- (0/ 2)
Iron-59	4/ 0	9.9E+01	--- (0/ 2)	---	---	--- (0/ 2)
Cobalt-58	4/ 0	3.7E+01	--- (0/ 2)	---	---	--- (0/ 2)
Cobalt-60	4/ 0	3.1E+01	--- (0/ 2)	---	---	--- (0/ 2)
Zinc-65	4/ 0	8.1E+01	--- (0/ 2)	---	---	--- (0/ 2)
Zirconium-95	4/ 0	7.2E+01	--- (0/ 2)	---	---	--- (0/ 2)
Niobium-95	4/ 0	4.6E+01	--- (0/ 2)	---	---	--- (0/ 2)
Lanthanum-140 Barium-140	4/ 0	2.9E+02	--- (0/ 2)	---	---	--- (0/ 2)

* Number of positive measurements / total measurements at specified locations.

TABLE 3

2009 RADIOLOGICAL ENVIRONMENTAL MONITORING PROGRAM ANALYSIS SUMMARY

Medium: Sediment-Bottom — Units: PicoCuries per Kilogram dry weight

ANALYSIS TYPE	TOTAL ANALYSES /NONROUTINE MEASUREMENTS	LOWER LIMIT OF DETECTION	INDICATOR LOCATIONS MEAN * RANGE	LOCATION WITH HIGHEST ANNUAL MEAN LOCATION INFORMATION	LOCATION WITH HIGHEST ANNUAL MEAN MEAN * RANGE	CONTROL LOCATIONS MEAN * RANGE
Cesium-134	5/ 0	3.2E+01	--- (0/ 5)	---	---	no samples
Cesium-137	5/ 0	3.1E+01	4.9E+01 (2/ 5) (4.0E+01 - 5.9E+01)	3 miles SSE (#216)	4.9E+01 (2/ 3) (4.0E+01 - 5.9E+01)	no samples
Manganese-54	5/ 0	3.3E+01	--- (0/ 5)	---	---	no samples
Iron-59	5/ 0	1.2E+02	--- (0/ 5)	---	---	no samples
Cobalt-58	5/ 0	4.0E+01	--- (0/ 5)	---	---	no samples
Cobalt-60	5/ 0	3.4E+01	--- (0/ 5)	---	---	no samples
Zinc-65	5/ 0	9.0E+01	--- (0/ 5)	---	---	no samples
Zirconium-95	5/ 0	8.6E+01	--- (0/ 5)	---	---	no samples
Niobium-95	5/ 0	5.3E+01	--- (0/ 5)	---	---	no samples
Lanthanum-140 Barium-140	5/ 0	4.5E+02	--- (0/ 5)	---	---	no samples

* Number of positive measurements / total measurements at specified locations.

TABLE 3

2009 RADIOLOGICAL ENVIRONMENTAL MONITORING PROGRAM ANALYSIS SUMMARY

Medium: Banana Leaves — Units: PicoCuries per Kilogram wet weight

ANALYSIS TYPE	TOTAL ANALYSES /NONROUTINE MEASUREMENTS	LOWER LIMIT OF DETECTION	INDICATOR LOCATIONS MEAN * RANGE	LOCATION WITH HIGHEST ANNUAL MEAN LOCATION INFORMATION	LOCATION WITH HIGHEST ANNUAL MEAN MEAN * RANGE	CONTROL LOCATIONS MEAN * RANGE
Iodine-131	18/ 0	2.1E+01	--- (0/ 12)	---	---	--- (0/ 6)
Cesium-134	18/ 0	2.6E+00	--- (0/ 12)	---	---	--- (0/ 6)
Cesium-137	18/ 0	2.9E+00	--- (0/ 12)	---	---	--- (0/ 6)
Manganese-54	18/ 0	3.2E+00	--- (0/ 12)	---	---	--- (0/ 6)
Iron-59	18/ 0	1.1E+01	--- (0/ 12)	---	---	--- (0/ 6)
Cobalt-58	18/ 0	3.6E+00	--- (0/ 12)	---	---	--- (0/ 6)
Cobalt-60	18/ 0	3.6E+00	--- (0/ 12)	---	---	--- (0/ 6)
Zinc-65	18/ 0	9.5E+00	--- (0/ 12)	---	---	--- (0/ 6)
Zirconium-95	18/ 0	6.4E+00	--- (0/ 12)	---	---	--- (0/ 6)
Niobium-95	18/ 0	3.6E+00	--- (0/ 12)	---	---	--- (0/ 6)
Lanthanum-140 Barium-140	18/ 0	8.5E+00	--- (0/ 12)	---	---	--- (0/ 6)

* Number of positive measurements / total measurements at specified locations.

TABLE 3

2009 RADIOLOGICAL ENVIRONMENTAL MONITORING PROGRAM ANALYSIS SUMMARY

Medium: Cana Leaves — Units: PicoCuries per Kilogram wet weight

ANALYSIS TYPE	TOTAL ANALYSES /NONROUTINE MEASUREMENTS	LOWER LIMIT OF DETECTION	INDICATOR LOCATIONS MEAN * RANGE	LOCATION WITH HIGHEST ANNUAL MEAN LOCATION INFORMATION	LOCATION WITH HIGHEST ANNUAL MEAN MEAN * RANGE	CONTROL LOCATIONS MEAN * RANGE
Iodine-131	7/ 0	2.2E+01	--- (0/ 5)	---	---	--- (0/ 2)
Cesium-134	7/ 0	4.1E+00	--- (0/ 5)	---	---	--- (0/ 2)
Cesium-137	7/ 0	4.6E+00	--- (0/ 5)	---	---	--- (0/ 2)
Manganese-54	7/ 0	4.8E+00	--- (0/ 5)	---	---	--- (0/ 2)
Iron-59	7/ 0	1.5E+01	--- (0/ 5)	---	---	--- (0/ 2)
Cobalt-58	7/ 0	5.2E+00	--- (0/ 5)	---	---	--- (0/ 2)
Cobalt-60	7/ 0	5.5E+00	--- (0/ 5)	---	---	--- (0/ 2)
Zinc-65	7/ 0	1.4E+01	--- (0/ 5)	---	---	--- (0/ 2)
Zirconium-95	7/ 0	9.1E+00	--- (0/ 5)	---	---	--- (0/ 2)
Niobium-95	7/ 0	5.1E+00	--- (0/ 5)	---	---	--- (0/ 2)
Lanthanum-140 Barium-140	7/ 0	8.2E+00	--- (0/ 5)	---	---	--- (0/ 2)

* Number of positive measurements / total measurements at specified locations.

TABLE 3

2009 RADIOLOGICAL ENVIRONMENTAL MONITORING PROGRAM ANALYSIS SUMMARY

Medium: Collard Greens — Units: PicoCuries per Kilogram wet weight

ANALYSIS TYPE	TOTAL ANALYSES /NONROUTINE MEASUREMENTS	LOWER LIMIT OF DETECTION	INDICATOR LOCATIONS MEAN * RANGE	LOCATION WITH HIGHEST ANNUAL MEAN LOCATION INFORMATION	LOCATION WITH HIGHEST ANNUAL MEAN MEAN * RANGE	CONTROL LOCATIONS MEAN * RANGE
Iodine-131	6/ 0	1.3E+01	--- (0/ 4)	---	---	--- (0/ 2)
Cesium-134	6/ 0	2.2E+00	--- (0/ 4)	---	---	--- (0/ 2)
Cesium-137	6/ 0	2.4E+00	--- (0/ 4)	---	---	--- (0/ 2)
Manganese-54	6/ 0	2.6E+00	--- (0/ 4)	---	---	--- (0/ 2)
Iron-59	6/ 0	9.1E+00	--- (0/ 4)	---	---	--- (0/ 2)
Cobalt-58	6/ 0	2.9E+00	--- (0/ 4)	---	---	--- (0/ 2)
Cobalt-60	6/ 0	3.3E+00	--- (0/ 4)	---	---	--- (0/ 2)
Zinc-65	6/ 0	7.8E+00	--- (0/ 4)	---	---	--- (0/ 2)
Zirconium-95	6/ 0	5.2E+00	--- (0/ 4)	---	---	--- (0/ 2)
Niobium-95	6/ 0	2.9E+00	--- (0/ 4)	---	---	--- (0/ 2)
Lanthanum-140 Barium-140	6/ 0	5.7E+00	--- (0/ 4)	---	---	--- (0/ 2)

* Number of positive measurements / total measurements at specified locations.

TABLE 3

2009 RADIOLOGICAL ENVIRONMENTAL MONITORING PROGRAM ANALYSIS SUMMARY

Medium: Fish - Piscivorous — Units: PicoCuries per Kilogram wet weight

ANALYSIS TYPE	TOTAL ANALYSES /NONROUTINE MEASUREMENTS	LOWER LIMIT OF DETECTION	INDICATOR LOCATIONS MEAN * RANGE	LOCATION WITH HIGHEST ANNUAL MEAN LOCATION INFORMATION	LOCATION WITH HIGHEST ANNUAL MEAN MEAN * RANGE	CONTROL LOCATIONS MEAN * RANGE
Cesium-134	10/ 0	3.7E+01	--- (0/ 9)	---	---	--- (0/ 1)
Cesium-137	10/ 0	3.8E+01	--- (0/ 9)	---	---	--- (0/ 1)
Manganese-54	10/ 0	3.5E+01	--- (0/ 9)	---	---	--- (0/ 1)
Iron-59	10/ 0	8.0E+01	--- (0/ 9)	---	---	--- (0/ 1)
Cobalt-58	10/ 0	3.6E+01	--- (0/ 9)	---	---	--- (0/ 1)
Cobalt-60	10/ 0	3.8E+01	--- (0/ 9)	---	---	--- (0/ 1)
Zinc-65	10/ 0	7.9E+01	--- (0/ 9)	---	---	--- (0/ 1)
Zirconium-95	10/ 0	6.6E+01	--- (0/ 9)	---	---	--- (0/ 1)
Niobium-95	10/ 0	3.7E+01	--- (0/ 9)	---	---	--- (0/ 1)
Lanthanum-140 Barium-140	10/ 0	7.9E+01	--- (0/ 9)	---	---	--- (0/ 1)

* Number of positive measurements / total measurements at specified locations.

TABLE 3

2009 RADIOLOGICAL ENVIRONMENTAL MONITORING PROGRAM ANALYSIS SUMMARY

Medium: Fish - Crustacean & Insect Feeders — Units: PicoCuries per Kilogram wet weight

ANALYSIS TYPE	TOTAL ANALYSES /NONROUTINE MEASUREMENTS	LOWER LIMIT OF DETECTION	INDICATOR LOCATIONS MEAN * RANGE	LOCATION WITH HIGHEST ANNUAL MEAN LOCATION INFORMATION	LOCATION WITH HIGHEST ANNUAL MEAN MEAN * RANGE	CONTROL LOCATIONS MEAN * RANGE
Cesium-134	10/ 0	3.7E+01	--- (0/ 9)	---	---	--- (0/ 1)
Cesium-137	10/ 0	3.8E+01	--- (0/ 9)	---	---	--- (0/ 1)
Manganese-54	10/ 0	3.5E+01	--- (0/ 9)	---	---	--- (0/ 1)
Iron-59	10/ 0	8.0E+01	--- (0/ 9)	---	---	--- (0/ 1)
Cobalt-58	10/ 0	3.6E+01	--- (0/ 9)	---	---	--- (0/ 1)
Cobalt-60	10/ 0	3.8E+01	--- (0/ 9)	---	---	--- (0/ 1)
Zinc-65	10/ 0	7.9E+01	--- (0/ 9)	---	---	--- (0/ 1)
Zirconium-95	10/ 0	6.6E+01	--- (0/ 9)	---	---	--- (0/ 1)
Niobium-95	10/ 0	3.7E+01	--- (0/ 9)	---	---	--- (0/ 1)
Lanthanum-140 Barium-140	10/ 0	7.9E+01	--- (0/ 9)	---	---	--- (0/ 1)

* Number of positive measurements / total measurements at specified locations.

TABLE 3

2009 RADIOLOGICAL ENVIRONMENTAL MONITORING PROGRAM ANALYSIS SUMMARY

Medium: Crustacean Shrimp — Units: PicoCuries per Kilogram wet weight

ANALYSIS TYPE	TOTAL ANALYSES /NONROUTINE MEASUREMENTS	LOWER LIMIT OF DETECTION	INDICATOR LOCATIONS MEAN * RANGE	LOCATION WITH HIGHEST ANNUAL MEAN LOCATION INFORMATION	LOCATION WITH HIGHEST ANNUAL MEAN MEAN * RANGE	CONTROL LOCATIONS MEAN * RANGE
Cesium-134	4/ 0	3.5E+01	--- (0/ 2)	---	---	--- (0/ 2)
Cesium-137	4/ 0	3.7E+01	--- (0/ 2)	---	---	--- (0/ 2)
Manganese-54	4/ 0	3.4E+01	--- (0/ 2)	---	---	--- (0/ 2)
Iron-59	4/ 0	8.1E+01	--- (0/ 2)	---	---	--- (0/ 2)
Cobalt-58	4/ 0	3.5E+01	--- (0/ 2)	---	---	--- (0/ 2)
Cobalt-60	4/ 0	3.8E+01	--- (0/ 2)	---	---	--- (0/ 2)
Zinc-65	4/ 0	7.8E+01	--- (0/ 2)	---	---	--- (0/ 2)
Zirconium-95	4/ 0	6.4E+01	--- (0/ 2)	---	---	--- (0/ 2)
Niobium-95	4/ 0	3.5E+01	--- (0/ 2)	---	---	--- (0/ 2)
Lanthanum-140 Barium-140	4/ 0	9.1E+01	--- (0/ 2)	---	---	--- (0/ 2)

* Number of positive measurements / total measurements at specified locations.

TABLE 3

2009 RADIOLOGICAL ENVIRONMENTAL MONITORING PROGRAM ANALYSIS SUMMARY

Medium: Crustacean Shrimp — Units: PicoCuries per Kilogram wet weight

ANALYSIS TYPE	TOTAL ANALYSES /NONROUTINE MEASUREMENTS	LOWER LIMIT OF DETECTION	INDICATOR LOCATIONS MEAN * RANGE	LOCATION WITH HIGHEST ANNUAL MEAN LOCATION INFORMATION	LOCATION WITH HIGHEST ANNUAL MEAN MEAN * RANGE	CONTROL LOCATIONS MEAN * RANGE
Cesium-134	4/ 0	3.5E+01	--- (0/ 2)	---	---	--- (0/ 2)
Cesium-137	4/ 0	3.7E+01	--- (0/ 2)	---	---	--- (0/ 2)
Manganese-54	4/ 0	3.4E+01	--- (0/ 2)	---	---	--- (0/ 2)
Iron-59	4/ 0	8.1E+01	--- (0/ 2)	---	---	--- (0/ 2)
Cobalt-58	4/ 0	3.5E+01	--- (0/ 2)	---	---	--- (0/ 2)
Cobalt-60	4/ 0	3.8E+01	--- (0/ 2)	---	---	--- (0/ 2)
Zinc-65	4/ 0	7.8E+01	--- (0/ 2)	---	---	--- (0/ 2)
Zirconium-95	4/ 0	6.4E+01	--- (0/ 2)	---	---	--- (0/ 2)
Niobium-95	4/ 0	3.5E+01	--- (0/ 2)	---	---	--- (0/ 2)
Lanthanum-140 Barium-140	4/ 0	9.1E+01	--- (0/ 2)	---	---	--- (0/ 2)

* Number of positive measurements / total measurements at specified locations.

TABLE 3

2009 RADIOLOGICAL ENVIRONMENTAL MONITORING PROGRAM ANALYSIS SUMMARY

Medium: Beef Meat — Units: PicoCuries per Kilogram wet weight

ANALYSIS TYPE	TOTAL ANALYSES /NONROUTINE MEASUREMENTS	LOWER LIMIT OF DETECTION	INDICATOR LOCATIONS MEAN * RANGE	LOCATION WITH HIGHEST ANNUAL MEAN LOCATION INFORMATION	LOCATION WITH HIGHEST ANNUAL MEAN MEAN * RANGE	CONTROL LOCATIONS MEAN * RANGE
Cesium-134	2/ 0	3.4E+01	no samples	---	---	--- (0/ 2)
Cesium-137	2/ 0	3.5E+01	no samples	---	---	--- (0/ 2)
Manganese-54	2/ 0	3.6E+01	no samples	---	---	--- (0/ 2)
Iron-59	2/ 0	9.3E+01	no samples	---	---	--- (0/ 2)
Cobalt-58	2/ 0	4.1E+01	no samples	---	---	--- (0/ 2)
Cobalt-60	2/ 0	3.7E+01	no samples	---	---	--- (0/ 2)
Zinc-65	2/ 0	8.5E+01	no samples	---	---	--- (0/ 2)
Zirconium-95	2/ 0	6.8E+01	no samples	---	---	--- (0/ 2)
Niobium-95	2/ 0	3.8E+01	no samples	---	---	--- (0/ 2)
Lanthanum-140 Barium-140	2/ 0	1.3E+02	no samples	---	---	--- (0/ 2)

* Number of positive measurements / total measurements at specified locations.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