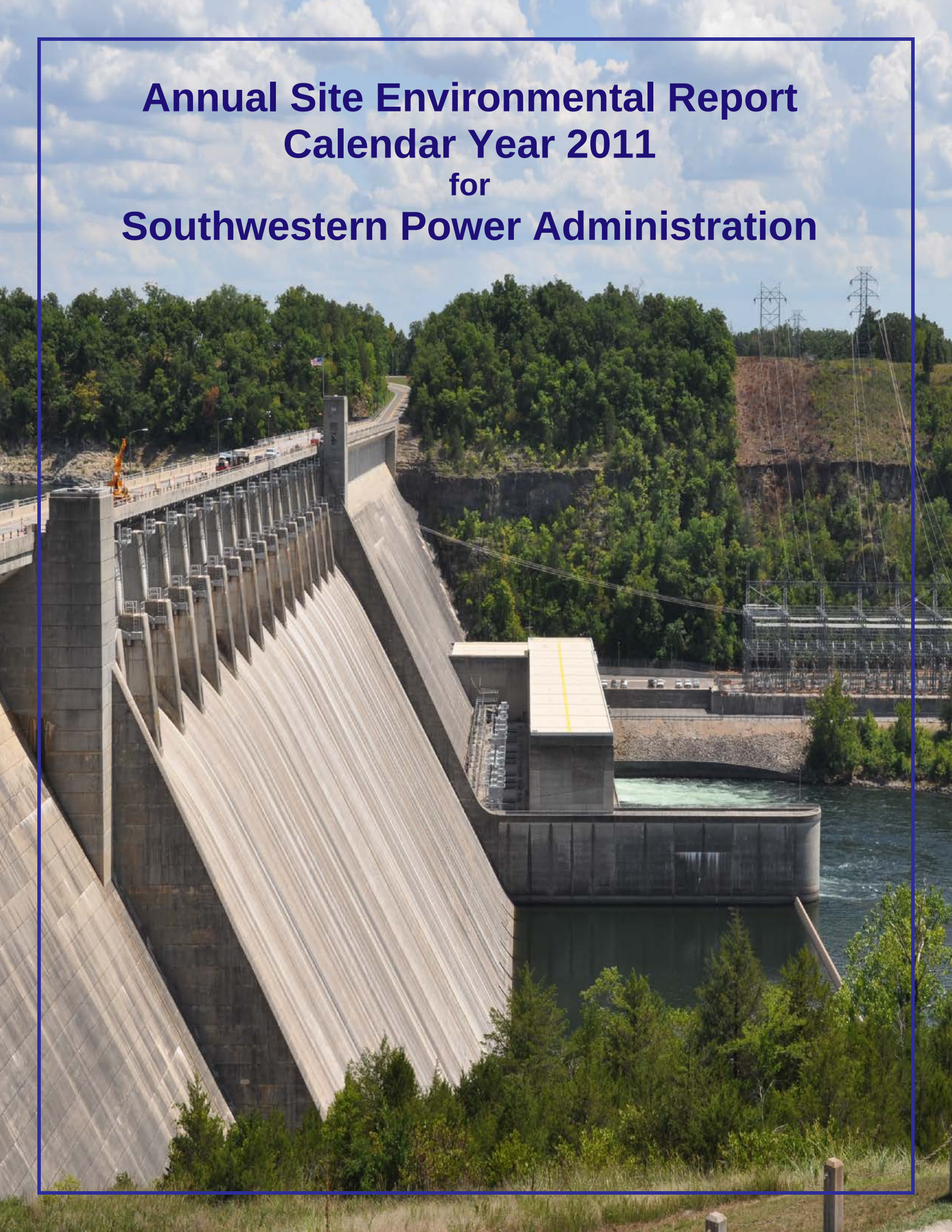
Annual Site Environmental Report
Calendar Year 2011
for
Southwestern Power Administration



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EXECUTIVE SUMMARY

This report provides a synopsis of Southwestern Power Administration's (Southwestern) effectiveness in managing its operations in an environmentally responsible manner. The Office of Corporate Facilities maintains responsibility for development, oversight, management, and operation of Southwestern environmental programs. Senior management at Southwestern has taken actions to increase environmental awareness and integrate elements of the Environmental Management System throughout the organization.

Each of Southwestern's electrical substation/switchyards has either a Spill Prevention Control and Countermeasure (SPCC) Plan or an Emergency Spill Plan, as applicable, that identifies measures to prevent oil spills from occurring and/or harming the environment. The SPCC program plays an important role in spill prevention due to the presence of large amounts of electrical insulation oil being present in some substation facilities and their relative proximity to waters of the United States. In 2010, the plans were completely redone to conform to the recently updated 40 Code of Federal Regulations (CFR) Part 112 regulations. They describe enhanced emergency response procedures, spill control, and spill notification procedures. All of Southwestern's oil-handling employees received spill response training as per SPCC regulatory requirements. Southwestern reported one oil spill at the Springfield, Missouri substation in 2011. The spill was reported per regulatory procedures and cleaned up with no lasting impact to the surrounding environment.

Southwestern does not have, and has not had, ongoing monitoring or surveillance programs concerning any hazardous substance. Individual project monitoring for asbestos concerns in maintenance or construction projects have indicated asbestos fiber releases well below the permissible exposure limit and final cleanup clearance criteria. Southwestern accomplished minor substation/switchyard construction, numerous radio tower construction projects, and a maintenance office addition during 2011 without adverse impacts to the environment and in conformance with all environmental permitting and sustainable design requirements.

Field crews perform bi-monthly environmental site inspections as part of routine maintenance activities. Southwestern's environmental staff performs a system-wide Environmental Functional Appraisal annually. During 2011, these annual environmental appraisal reports and recommendations were provided to Southwestern's senior management for review to ensure corrective action completion. There were no significant or reportable findings identified during the review. In general accordance with the Presidential Executive Order 13587 regarding mandates for an open and more transparent government, Southwestern publicly publishes National Environmental Policy Act (NEPA) documentation as well as other general environmental information and reports on the Southwestern website, www.swpa.gov/environment.aspx.

INTRODUCTION

Southwestern was established in 1943 by the Secretary of the Interior as a Federal Agency that today operates within the Department of Energy (DOE) as authorized by Section 5 of the Flood Control Act of 1944.

As one of four Power Marketing Administrations in the United States, Southwestern markets hydroelectric power in Arkansas, Kansas, Louisiana, Missouri, Oklahoma, and Texas from 24 U.S. Army Corps of Engineers (ACOE) multipurpose dams, with a generating capacity of approximately 2,174 megawatts, which include: Beaver Dam, Blakely Mountain Dam, Broken Bow Dam, Bull Shoals Dam, Clarence Cannon Dam, Dardanelle Lock and Dam, DeGray Dam, Denison Dam, Eufaula Dam, Fort Gibson Dam, Greers Ferry Dam, Harry S. Truman Dam, Keystone Dam, Narrows Dam, Norfork Dam, Ozark Lock and Dam, Robert D. Willis Dam, Robert S. Kerr Lock and Dam, Sam Rayburn Dam, Stockton Dam, Table Rock Dam, Tenkiller Ferry Dam, Webbers Falls Lock and Dam, and Whitney Dam.

By law, Southwestern's power is marketed and delivered primarily to public bodies and rural electric cooperatives. Southwestern has over one hundred such "preference" customers, and these entities ultimately serve over nine million end-use customers.

Southwestern operates and maintains 1,380 miles of high-voltage transmission lines, substations/switchyards, and a communications system that includes microwave, VHF radio, and state-of-the-art fiber optics. Staff members work from offices located in Gore, Oklahoma; Jonesboro, Arkansas; Springfield, Missouri; and Tulsa, Oklahoma. Around-the-clock power scheduling and dispatching are conducted by staff in the Springfield Operations Center.

Southwestern's mission is to market and reliably deliver Federal hydroelectric power with preference to public bodies and cooperatives. This is accomplished by maximizing the use of Federal assets to repay the Federal investment and participating with other water resource users in an effort to balance their diverse interests with power needs within broad parameters set by the ACOE, and implementing public policy.

In Fiscal Year (FY) 2011, Southwestern marketed and delivered approximately 4.1 billion kilowatt hours of hydropower from the 24 Federal hydroelectric projects in its marketing region. The agency's annual revenue of $170 million was used to pay the cost of operating and maintaining the generation and transmission facilities and to repay principal and interest on the Federal investment. In FY2011, Southwestern's hydropower generation generated enough renewable energy to save the Nation the equivalent of an estimated 1.9 million tons of coal, 38.1 billion cubic feet of gas, or 6.2 million barrels of fuel oil, and prevented the emission of greenhouse gases equivalent to 3.3 million tons of carbon dioxide, 9.7 thousand tons of sulfur dioxide, and 4.4 thousand tons of nitrogen oxides.

Southwestern's environmental responsibility goes beyond renewable energy. Southwestern works with Federal, state, and local agencies to ensure that concerns about water quality and quantity are adequately addressed, and coordinates with other public and private entities to minimize hydropower impacts to fish and bird populations and their habitats.

COMPLIANCE SUMMARY

Southwestern conducted its operations and maintenance activities during the year with few environmental impacts or issues. The following major environmental statutes and Executive Orders impacting Southwestern are discussed below:

Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA)

This Act, referred to as Superfund, was designed to help ensure cleanup of inactive hazardous waste sites. CERCLA provided authorization for EPA to respond to and remedy polluted sites. Southwestern had no CERCLA involvement in 2011. To deter involvement as a CERCLA potentially responsible party, Southwestern contracts with only approved equipment disposal facilities for the disposal and recycling of lead-based paint, poly chlorinated biphenyl (PCB) contaminated equipment, oil, and various equipment carcasses, and other environmentally sensitive items which may have hazardous constituents. Prior to disposal, Southwestern, through due diligence audits, thoroughly evaluates the disposal facility to ensure it is in full compliance with all environmental disposal regulations.

Superfund Amendments and Reauthorization Act (SARA)

This Act revised and extended CERCLA. The SARA Title III amendments contain requirements for the Emergency Planning and Community Right-to-Know Act (EPCRA). EPCRA encourages and supports emergency planning efforts at the state and local levels. Additionally, it provides public and local governments with information concerning potential chemical hazards present in their communities by requiring facilities to disclose hazardous substances they use or store. As in years past, Southwestern did not surpass the regulatory threshold for the Tier I and II reporting and notification requirements and does not expect it will have to do so unless significant changes in operational design or the change in technology dictates the implementation of new hazardous substances within the agency.

Executive Order 12856, "Federal Compliance with Right-to-Know Laws and Pollution Prevention Requirements", SARA Title III, Emergency Reporting and Community Right-to-Know Act

The following Summary compliance information is provided as requested:

EPCRA 302-303: Planning Notification	Yes [ ] No [ ] Not Required [x]
EPCRA 304: EHS Release Notification	Yes [ ] No [ ] Not Required [x]
EPCRA 311-312: MSDS/Chemical Inventory	Yes [ ] No [ ] Not Required [x]
EPCRA 313: TRI Reporting	Yes [ ] No [ ] Not Required [x]

Sections 302-303: These Sections are intended to ensure state and local communities are prepared to respond to potential chemical accidents. Southwestern does not store or use extremely hazardous substances (EHS) in amounts equal to or exceeding threshold planning quantities (TPQ). Therefore, Southwestern is exempt from EPCRA emergency planning requirements.

Section 304: This Section designates criteria under which facilities must report the release of certain substances to the environment. The reportable quantity (RQ) for each of the substances is listed in either: a) a list of extremely hazardous substances; or b) a list of CERCLA hazardous substances. Since Southwestern did not release any of the substances in amounts exceeding the RQ, Southwestern is exempt from reporting to any State Emergency Response Commissions and Local Emergency Planning Committees.

Sections 311-312: These Sections are designed to provide the public with information on hazardous chemicals in their communities by establishing certain reporting requirements. These requirements promote community awareness and facilitate emergency planning. However, Southwestern is exempt from these reporting requirements because during 2011 it did not have onsite, for any one day: a) 10,000 lbs of hazardous chemicals; or b) the lesser of 500 lbs or the TPQ for EHS. Therefore, Southwestern is exempt from Tier I and Tier II reporting requirements.

Section 313: This Section is intended to inform public and government officials about routine releases of toxic chemicals to the environment. Southwestern is exempt from submitting a Toxic Chemical Release Inventory Form (Form R) to EPA and designated state officials because in 2011, Southwestern: a) did not manufacture more than 25,000 lbs of a listed toxic chemical; or b) process more than 25,000 lbs of a listed toxic chemical; or c) otherwise use more than 10,000 lbs of a listed toxic chemical.

Resource Conservation and Recovery Act (RCRA)

RCRA defines and regulates non-hazardous and hazardous solid wastes. Non-hazardous wastes include municipal solid waste, industrial non-hazardous wastes, commercial non-hazardous wastes, universal waste, and some semi-solid and liquid wastes. These solid wastes also include special wastes such as infectious wastes, construction wastes, household wastes, and oil and gas

wastes. Hazardous wastes are defined as listed wastes in 40 CFR Part 261 and wastes that exhibit characteristics of reactivity, ignitability, corrosivity, or toxicity. RCRA, later amended by the Hazardous and Solid Waste Amendments (HSWA), regulates hazardous waste operations by establishing standards for hazardous waste generation, transportation, treatment, storage, or disposal. Southwestern, agency-wide, disposed of 1.7 metric tons of RCRA waste during 2011.

Southwestern maintains an Environmental Protection Program which functions in conjunction with the Environmental Management System (EMS) to help ensure compliance with RCRA and HSWA regulations. These programs were established and implemented to minimize the volume and toxicity of wastes; monitor the collection, transportation, processing and disposal of solid wastes; encourage recycling; assure the safety, health, and welfare of the public; and prevent pollution of the air, land, and water. Southwestern continues to improve its identification, characterization, quantification, and reporting of RCRA wastes streams.

Federal Facilities Compliance Act (FFCA)

The FFCA includes explicit authority for the Administrator of the EPA to commence administrative enforcement actions against any department, agency, or instrumentality of the executive, legislative, or judicial branch of the Federal government that is in violation of requirements under RCRA. The FFCA also allows states to assess fines against Federal facilities for RCRA violations. Southwestern continued to remain in compliance with RCRA regulations during 2011.

National Environmental Policy Act

NEPA of 1969 was enacted by Congress to establish a framework for environmental review of actions carried out by the Federal government. NEPA imposes certain responsibilities on the Federal government including an obligation to assure a safe and healthful environment free from degradation and to achieve a wide range of beneficial uses without risk to health or safety. NEPA was enacted for two principal purposes: to force Federal agencies to carefully consider significant environmental impacts arising from projects under agency jurisdiction and to establish a procedure by which members of the public are afforded an opportunity for meaningful participation in the agency's consideration of the proposed action. Agencies must prepare, to varying degrees depending on project actions, documentation regarding these considerations and provide

recommendations for Federal actions that may significantly affect the environment. NEPA documentation includes categorical exclusions (CX), Environmental Assessments (EA), Records of Decisions, Finding of No Significant Impact (FONSI), and Environmental Impact Statements (EIS).

Southwestern did not engage in an EIS during 2011. Southwestern continues to prepare an EA on behalf of the Department of Agriculture. The intent of the EA is to amend a United States Department of Agriculture Forest Service *Special Use Permit* which would allow herbicide use within a 26 mile section along Southwestern's transmission line 3001 easement and within the White Oak Radio Station. The project area for this EA is located in Arkansas within the Ozark-St. Francis National Forest. Southwestern maintained compliance, during 2011, with 10 CFR Part 1021 NEPA review requirements. Nine NEPA CX process reviews were conducted. The CXs executed are paraphrased from 10 CFR Part 1021, Appendix B, Subpart D and include project activities for:

- Installation of equipment for personnel safety and health
- Siting, construction or modification of support structures within or contiguous to an already developed area
- Transfer, lease, disposition or acquisition of interests in uncontaminated permanent or temporary structures, equipment therein, and only land that is necessary for use of the transferred structures and equipment, for residential, commercial, or industrial uses
- Additions or modifications to electric power transmission facilities that would not affect the environment beyond the previously developed area
- Siting, construction, and operation of microwave and radio communication towers and associated facilities, if the towers and associated facilities would not be an an area of great visual value
- Construction of electric power lines approximately 10 miles in length or less, not integrating major new sources
- Storm water runoff control

Clean Air Act (CAA)

The CAA was promulgated "to protect and enhance the quality of the Nation's air resources so as to promote public health and welfare and the productive capacity of its population." The Environmental Protection Agency (EPA) is required to set National Ambient Air Quality Standards that define clean air levels. The EPA set standards for six "criteria" pollutants: carbon monoxide, lead, ozone, nitrogen oxides, sulfur dioxide, and particulate matter. The EPA also established New Source Performance Standards, National Emission Standards for Hazardous Air Pollutants (NESHAPs), and standards for mobile sources. Air quality standards are achieved by the states through State Implementation Plans (SIPs). The SIPs establish emission limits and compliance schedules for pollution sources.

Southwestern has facilities in four states: Missouri, Arkansas, Texas, and Oklahoma. In all states, the air pollution control regulations and individual pollutant levels apply to each facility separately, not to Southwestern operations as a whole. None of Southwestern's facilities are located in non-attainment areas. Based on the regulations and possible emission sources, Southwestern has determined, after reviewing applicable regulations and SIPs, that its facilities are de minimus and therefore not required to permit, monitor, or report air emissions at this time.

Southwestern's Asbestos Management Program (AMP) governs its compliance with potential asbestos fiber release. Southwestern's AMP is in agreement with both NESHAPs and Occupational Safety and Health Administration (OSHA) asbestos regulations. The AMP requires that exposure assessments, including personal and area air monitoring, be conducted for all OSHA Class III and IV work activities performed by trained maintenance personnel, unless Southwestern can provide evidence that a work activity would have fiber releases below the permissible exposure limit of 0.1 fibers/cubic centimeter. Records of exposure assessments are retained by the area office Administrative Officers. Applicable maintenance employees receive Class III or IV Annual Asbestos Awareness training. Those employees who are involved in activities in which disturbance occurs receive Class II, III, and IV as applicable. Southwestern contracts out most Class I and II asbestos work activities.

Southwestern first became regulated under the final Mandatory Greenhouse Gas (GHG) Reporting Rules defined in 40 CFR Part 98 Subpart DD for reporting year 2011. The rules require that owners and operators of electric power system facilities, with a total nameplate capacity that exceeds 17,820 pounds of Sulphur Hexafluoride (SF_6), must report emissions of SF_6. Southwestern utilizes SF_6, a GHG agent, as an insulation gas within its gas circuit breakers throughout its substations/switchyards. An Air Applicability Determination was performed to determine applicability to the rule. Southwestern calculated 14,815 pounds system-wide name plate capacity of SF_6 containing equipment. Therefore, Southwestern is not required to report 2011 SF_6 emissions through EPA's Greenhouse Gas Reporting Tool. However, the emissions data was still calculated and reported through DOE reporting mechanisms to help track and achieve appropriate DOE mandated GHG reduction targets in conjunction with the requirements cited in Executive Orders (EO) 13423 and 13514. Since Southwestern began tracking SF_6 emissions in 2009, and after the implementation an aggressive repair and replacement program for leaking and aging SF_6 containing equipment, emissions have been reduced by nearly 60% equating to a reduction in over 1.5 million pounds of carbon dioxide emission equivalents.

Clean Water Act (CWA)/Safe Drinking Water Act (SDWA)

The CWA regulates the discharge of pollutants into waters of the United States from any point source including industrial facilities and sewage treatment facilities. The CWA also regulates storm water runoff from certain industrial sources, requires reporting and cleanup of oil and hazardous substance spills in waters of the United States, protects waters of the United States, requires a permit to adversely affect wetlands, and requires spill prevention plans for sites that store oil and other petroleum products. The EPA established a requirement to have a National Pollutant Discharge Elimination System (NPDES) permit for the discharge of storm water from facilities with point sources.

The SDWA requires EPA to establish primary drinking water standards for any contaminants that may have an adverse effect on public health. As a result, EPA developed primary drinking water maximum contaminant levels (MCLs) and secondary MCLs. Southwestern utilizes city water at its manned facilities and rural water at many of its unmanned electrical substation control building facilities. Southwestern has several continuously unoccupied electrical substation control buildings with non-potable wells which are routinely maintained and inspected to protect the integrity of the groundwater system. During 2011, Southwestern maintained compliance with both the SDWA and CWA.

As part of a Preliminary Assessment/Site Investigation study conducted in 1993, it was determined that a full-scale groundwater monitoring program is not required to meet the objectives of Southwestern's Groundwater Protection Management Program. However, Southwestern will continue to identify existing and potential sources of groundwater contamination. Should any information indicate that any Southwestern activities might adversely affect the groundwater, Southwestern will implement a site-specific groundwater monitoring program.

As mentioned before, the NPDES is the primary mechanism used by EPA to manage point source discharges. NPDES permits are required for the discharge

of pollutants from certain point sources, which are categorized North American Industry Classification System codes, into waters of the United States.

The majority of Southwestern substation/switchyard facilities have not been required to apply for NPDES permits because Southwestern's activities do not involve industrial operations as defined in the 40 CFR Part 122, and because oil is enclosed in electrical equipment and does not come into direct contact with storm water. The state of Missouri views secondary containment structures surrounding electrical power transformers, such as oil/water separators, as wastewater treatment devices and requires such facilities to obtain a Missouri NPDES general operating permit. Those Southwestern Facilities requiring NPDES permits have obtained the general operating permits and maintain the oil/water separators in accordance with their permit provisions. Annual NPDES monitoring reports are required for the sites with NPDES permits. Additionally, throughout 2011, Southwestern operated under an NPDES permit to discharge storm water associated with construction activities at its Bennington and Achilles Radio Tower Sites located in Bryan County, Oklahoma.

Toxic Substances Control Act (TSCA)

The TSCA regulations prohibit the manufacture, processing, and distribution of PCB in commerce, except as exempted by EPA. The EPA, through the TSCA regulations, also regulates the use, labeling, and disposal of PCBs. Some states, such as Arkansas, regulate PCB disposal and handling through their state RCRA Programs. The TSCA regulations also prescribe requirements for Southwestern's radon, lead-based paint, and asbestos concerns.

Southwestern has an ongoing initiative to reduce PCB concentrations in its testable electrical equipment to <50 parts per million (ppm). All high voltage oil-circuit breakers and associated bushings are scheduled to be replaced incrementally with gas-circuit breakers by 2016. All oil-circuit breakers have tested < 50 ppm PCB content. Some of the bushings attached to these oil-circuit breakers are assumed to contain > 50 ppm PCB, but are not testable until the end of their useful life. Southwestern has no known equipment that contains 500 ppm or greater PCB concentration of oil. Southwestern disposes of PCB-contaminated equipment within 30 days of removal from service or when it has been declared excess to Southwestern's needs unless the item has been designated as spare piece of equipment. PCB-contaminated equipment stored past 30 days from the initial out-of-service date is stored in one of Southwestern's two approved PCB Storage Facilities. Southwestern's disposal facility audit criteria are used to evaluate and select an

appropriate and qualified facility (or facilities) to accept Southwestern's PCB-contaminated electrical equipment or mineral oil. These disposal requirements limit Southwestern's long-term risk, promote environmental stewardship, promote the recycle/reuse of products when possible, and facilitate disposal requirements at reasonable costs. Southwestern disposed of 12.6 metric tons of TSCA regulated waste in 2011.

Federal agencies are required by the Indoor Radon Abatement Section of TSCA to conduct studies of radon levels in Federal buildings. Radon is an odorless, invisible radioactive gaseous element formed in the decay of radium. Radium occurs naturally in the air, water, and soil. The Springfield Maintenance Facility has had previous instances of levels above the recommended concentrations. Engineering and administrative control measures have been implemented which significantly reduced the level of exposure to employees. Southwestern regularly conducts radon sampling at this location to ensure that exposure levels remain below the allowable permissible exposure limit for employee safety.

Federal Insecticide, Fungicide, and Rodenticide Act (FIFRA)

FIFRA directs EPA to register pesticides to ensure that, when used according to label instructions, they will not present unreasonable risks to human health or the environment. Pesticides include insecticides, anti-foulants, fungicides, rodenticides, disinfectants, and plant growth regulators. Depending on pesticide properties and use patterns, pesticides can leach through soils and contaminate groundwater. This is especially true where the water table is close to the surface, and/or soils are highly permeable.

Southwestern has managed these concerns through conservative means. Southwestern contracts pest management needs at its maintenance facilities through local vendors. Guidance for the use of herbicides at substation/switchyards, pole yards, microwave/radio sites, and along the transmission line rights-of-way is managed according to Southwestern's Vegetation Management EA and subsequent FONSI, which was signed on April 28, 1995, by Forrest E. Reeves, Acting Administrator, at Southwestern's headquarters in Tulsa, Oklahoma. The EA/FONSI is reviewed periodically for continued effectiveness and conformance with environmental requirements. State-licensed personnel accomplish all vegetation right-of-way herbicide spraying. Only FONSI approved herbicides are utilized.

Endangered Species Act (ESA)

The ESA was established to protect aquatic and land animals, as well as plant species that are likely to become endangered in the foreseeable future (threatened) or are in danger of extinction (endangered). Federal agencies are required to ensure that any of their associated actions do not adversely impact threatened or endangered (T&E) species. If listed species may be affected, then

the agency must consult with the United States Fish and Wildlife Service (USFWS) or National Marine Fisheries Wildlife Service, whichever is appropriate. During FY2011, Southwestern reported to Congress an expenditure of $457,373 for seven Federally listed Threatened and Endangered Species that included the gray bat, pearlymussel, Curtis pearlymussel, American burying beetle, pondberry, and the least tern.

Southwestern has had few projects that would be impacted by this Act. A complete T&E species update survey was conducted for the system-wide Vegetation Management Environmental Assessment in recent years, as well as a review and update for approved chemicals for use in vegetation control which occurs as needed. All maintenance and engineering construction projects, as well as real property transfers, are evaluated for potential adverse impacts to known T&E species. Southwestern has cooperated with the ACOE and the USFWS to manage releases from Keystone, Eufaula, and Denison dams for the protection of the endangered interior least tern, a migratory shore bird that nests on sand bars and islands in the rivers downstream from those projects. The ACOE biological assessment resulted in a “may effect” determination that was confirmed in the USFWS’ biological opinion (BO) issued in June 2005. The ACOE and Southwestern operated those projects in accordance with the measures prescribed in the 2005 BO to the extent possible. In February 2011, the ACOE reinitiated section 7 ESA consultation with the USFWS to revise some incorrect assumptions made in the 2005 BO. Without a formal BO in place, ACOE and Southwestern had to closely coordinate operations during the 2011 nesting season to avoid flooding tern nests, or unauthorized “take.” A generation restriction was imposed at Eufaula which caused Southwestern to make significant and costly energy purchases. In the development of a new biological assessment, the ACOE and Southwestern are emphasizing the construction of habitat, rather than operational changes, as the most reasonable and cost-effective measure to improving nesting success. Construction and enhancement of island habitat is estimated to cost multiple millions of dollars, a portion of which may be assigned to hydropower purpose for repayment. Southwestern worked with the Tulsa District ACOE in 2010 to provide funding for a new habitat island in the Arkansas River, which was built in March 2011." There were no adverse impacts identified for direct Southwestern actions to any other known T&E species during 2011.

Southwestern and the USFWS Oklahoma Ecological Services Office continue to operate under an Oklahoma Programmatic Biological Opinion, which enables the ability to expedite, minimize, or simplify the Section 7 ESA consultation protocol for selected proposed activities within Oklahoma. The American burying beetle was identified as the primary Federally Endangered species of concern for Southwestern’s Oklahoma project activities. Southwestern will continue to work

closely with the USFWS in Oklahoma to preserve American Burying Beetle habitat and to minimize adverse effects to the sensitive species. During 2011, Southwestern participated in two construction projects which were processed through the procedures defined in the Oklahoma Programmatic Biological Opinion. The projects were deemed to have "no more than a 1 percent chance of impacting an individual American burying beetle."

National Historic Preservation Act

All Federal agencies, including Southwestern, have responsibilities under the National Historic Preservation Act (NHPA) of 1966. Under Section 106 of the Act, all Federal agencies will take cultural resources into account during agency project planning. The intent is to ensure that agency actions do not inadvertently disturb or destroy significant cultural resources. Cultural resources can include, but are not limited to, prehistoric and historic archaeological materials and sites located on or below the ground surface, historic structures (buildings, sites, structures, or objects) that are more than 50 years old, cultural and natural places, and sacred objects important to a group or groups of Native Americans. A compliance process was established by the President's Advisory Council on Historic Preservation (36 CFR 800) that, if followed, ensures compliance with provisions of the Act. The Act and the regulations do not mandate an outcome, only that an agency considers the effects its actions may have on significant resources.

Under Section 110 of the Act, each agency is required to develop and carry out a systematic program to inventory all cultural resources on lands which they own, and nominate to the National Register of Historic Places any properties that meet the eligibility requirements. Southwestern has previously completed a Section 110, *National Register of Historic Places Evaluation for Electrical Stations and Maintenance Facilities within Southwestern Power Administration* for the three primary states in which Southwestern conducts its activities. Southwestern has a streamlined cultural resources review process for many routine Agency actions. There are three Programmatic Agreements that enable a revised Section 106 review process for Southwestern. The Programmatic Agreements are required to be reviewed/reapproved every five years.

In accordance with the cultural resource Programmatic Agreements for each state stakeholder, these documents were submitted to the Arkansas, Oklahoma, and Missouri State Historic Preservation Offices, their state Archeological Survey Offices, and applicable Federal Indian Tribes/Nations. None of Southwestern's buildings, associated structures, or transmission lines were found to be eligible

for listing in the NRHP. No additional cultural resource investigations were recommended for any of the facilities, except for archeological monitoring of deep disturbances at several Southwestern facilities during future project activities.

Executive Order 11988, "Floodplain Management"

Southwestern has had few projects that would have been impacted by Executive Order 11988. However, a few Southwestern facilities and structures are located in or near floodplain areas. All maintenance and engineering construction projects, as well as real property transfers, are evaluated for potential adverse impacts to floodplain areas. There were no adverse impacts to any known floodplain areas during 2011.

Executive Order 11990, "Protection of Wetlands"

Executive Order 11990 directs Federal agencies to avoid, to the extent possible, adversely impacting wetlands. This includes adverse impacts associated with the destruction or modification of wetlands, or the support (direct or indirect) of new construction in wetlands when practical alternatives exist. The EPA and ACOE have joint administrative duties for Federal wetlands regulations. The discharge of dredges and fill materials into waters of the United States including some wetlands, are regulated through a permit program largely administered by the ACOE. Numerous state and local governments have enacted regulations for the protection of wetlands.

Southwestern has had few projects that would be impacted by Executive Order 11990. However, a few Southwestern facilities and structures are located in or near wetland areas. All maintenance and engineering construction projects, as well as real property transfers, are evaluated for potential adverse impacts to wetland areas. There were no adverse impacts identified to any known wetland areas in Southwestern’s system during 2011.

Radiological Information

Southwestern has no radiological source emissions and, therefore, has no radiological information to provide for this report.

Non-Radiological Information

Southwestern is exempt from any non-radiological monitoring or compliance requirements in addition to those already discussed.

Groundwater Monitoring and Protection

Southwestern does not have an ongoing groundwater monitoring program. The objectives of Southwestern's Groundwater Protection Management Program for groundwater monitoring are: a) identify existing and potential sources of groundwater contamination, and b) establish guidelines for implementing groundwater monitoring.

Historical and current site information concerning potential groundwater contamination sources indicates that active groundwater monitoring is not warranted at this time. However, should Southwestern become aware of any information that would indicate groundwater could be adversely affected by Southwestern's activities, or if a major spill occurs and groundwater contamination is probable, then Southwestern would implement a site-specific groundwater monitoring program at that facility. The site-specific program would consist of monitoring well siting and installation, groundwater sampling, and reporting.

Quality Assurance

Southwestern's Quality Assurance Program provides Headquarters and field units the capability to assure quality data is obtained during Southwestern's environmental monitoring activities. Southwestern conducts paper audits of its contracted analytical laboratory services to help ensure certifications are current. Southwestern ensures contracted analytical laboratories participate in inter-laboratory crosscheck programs.

SUSTAINABILITY

In conjunction with the DOE Order 436.1, Departmental Sustainability, Southwestern has established several sustainability Objectives and Targets which are implemented, maintained, and monitored through the Environmental Management System, Objectives and Targets program. The sustainability Targets and Objectives and their respective annual progress during 2011 can be viewed on the following link: http://www.swpa.gov/environment.aspx

Conservation and Competing Uses of Water

Southwestern, along with other competing water user groups, depends on water to meet its contractual obligations to its customers. Some of the competing uses include municipal water supply, hydroelectric power, fish and wildlife, tourism, navigation, flood control, irrigation, swimming, and boating. Although water is a renewable resource, water is dependent upon nature. It varies in its amount and timing. And now more than ever there are demands upon the earth's water. Southwestern dedicates significant effort in coordinating operating activities with groups such as the ACOE, state game, fish and wildlife agencies, organized recreational groups, and other water user groups to find ways to accommodate each user's needs and still meet electrical generation requirements. Making the best use of water resources requires understanding of each user's specific needs. In the years and generations to come, Southwestern desires not only to continue to serve its customers with America's cleanest source of renewable energy, but also to work cooperatively with the competing users to conserve the natural resources. As part of this effort, Southwestern proudly participates in local community educational events to help educate students and water resource users about the benefits of using water to generate electrical power.

SUMMARY OF ENVIRONMENTAL PERMITS

Gore, Oklahoma, Maintenance Unit Geographical Area

- RCRA Conditionally Exempt Small Quantity Generator
- EPA ID# OK2891632463
- PCB Activity Database ID# OK2891632463
- NPDES Storm Water Construction Permit #OKR1011498
- NPDES Storm Water construction Permit #OKR1011639

Springfield, Missouri, Maintenance Unit Geographical Area

- RCRA Conditionally Exempt Small Quantity Generator
- EPA ID# MO8891632467
- PCB Activity Database ID# MO8891632467
- Permit #MO-G140036, Missouri Dept. of Natural Resources
  NPDES Discharge Permit, Table Rock Substation Oil/Water Separator
- Permit #MO-G140037, Missouri Dept. of Natural Resources
  NPDES Discharge Permit, Nixa Substation Oil/Water Separator

Jonesboro, Arkansas, Maintenance Unit Geographical Area

- RCRA Conditionally Exempt Small Quantity Generator
- EPA ID# AR0143120681
- Permit #MO-G140032, Missouri Dept. of Natural Resources
  NPDES Discharge Permit, New Madrid Substation Oil/Water Separator
- Permit #MO-G140033, Missouri Dept. of Natural Resources
  NPDES Discharge Permit, Kennett Substation Oil/Water Separator

ENVIRONMENTAL MANAGEMENT SYSTEM

Southwestern's Environmental Management System (EMS) outlines a systematic process that guides Southwestern activities to ensure implementation of environmental requirements and to encourage the achievement of continuous improvement. Southwestern's EMS Policy states, "Southwestern will strive for excellence in the protection of the environment by conducting operations in a manner that meets DOE guidelines and applicable Federal, state and local environmental regulations, and other requirements to which the agency subscribes. Southwestern will strive for continual improvement and pollution prevention. The ISO Standard 14001:2004 will be used as a guide." The EMS Policy and Manual are endorsed by senior management. EMS Aspects and Impacts have been identified for all agency activities and are reviewed annually. Legal and other requirements are compiled in a matrix. Southwestern identified Objectives and Targets to achieve and to meet the commitments of the Environmental Policy. Federal employee position descriptions include job specific responsibilities to ensure Southwestern's operations are carried out consistent within the guidelines and objectives of the EMS. Annual EMS and job specific environmental training has been included in the agency training plan. Communication from external parties or stakeholders is documented in an electronic journal. Annual audits and management reviews are scheduled to ensure continual improvement. On October 20-23, 2008, a formal audit of the EMS was conducted by a qualified party outside the control or scope of the EMS. All findings were addressed and a formal "Declaration of Fully Implemented EMS" was issued by the Administrator of Southwestern. Southwestern plans to conduct another formal audit of its EMS program in 2012. The progress of Southwestern's implementation of the EMS was reported in a Fedcenter DOE annual report in which Southwestern achieved a "Green" score which is the equivalent to meeting all DOE EMS implementation requirements. International Standards Organization (ISO) 14001 awareness training was provided to all Federal and contract employees with a focus on the standard that specifies the requirements for an EMS and that highlights new Objectives and Targets that the agency has initiated.

Southwestern continues to make noticeable and positive progress towards the EMS Objectives and Targets. Click here to view the 2011 Southwestern Power Administration EMS Objectives and Targets Achievements matrix. Southwestern's EMS remains in full conformance with ISO 14001 standards.