



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
WASHINGTON, D.C. 20460

OFFICE OF
ENFORCEMENT AND
COMPLIANCE ASSURANCE

**Salt River Project Agriculture Improvement and Power District
Settlement Information Sheet**

Overview

On August 12, 2008, the U.S. Environmental Protection Agency (EPA) and the Department of Justice announced a major Clean Air Act (CAA) New Source Review (NSR) settlement agreement with Salt River Project Agricultural Improvement and Power District (SRP) to resolve CAA violations at the Coronado Generating Station, a coal-fired power plant in St. Johns, Arizona.

Under the settlement, SRP will spend over \$400 million between now and June 2014, to install state-of-the-art pollution control technology for the reduction of sulfur dioxide (SO₂) and nitrogen oxides (NO_x). SRP has also agreed to install two particulate matter (PM) continuous emission monitoring systems (CEMS) to continuously measure the PM concentration in the emissions from the two units subject to the settlement.

Upon full implementation, the settlement will reduce NO_x and SO₂ emissions by more than 21,000 tons per year as measured from the plant's 2007 emissions. The use of selective catalytic reduction (SCR) and other combustion controls will reduce annual NO_x emissions by 6,789 tons. The use of flue gas desulfurization (FGD) will reduce annual SO₂ emissions by 14,303 tons. SRP will also pay a \$950,000 civil penalty and expend \$4 million to implement and complete three environmental projects.

The Defendant

SRP is a political subdivision of the State of Arizona, headquartered in Phoenix, Arizona. SRP provides generation, transmission, and distribution services to about 920,000 homes and businesses in central Arizona. In addition to Coronado Generating Station, which it owns and operates, SRP has an ownership interest in four other coal-fired power plants in the western United States (Navajo Generating Station located in Arizona, Craig and Hayden Generating Stations located in Colorado, and Four Corners Generating Station located in New Mexico).

Power Plants Enforcement Effort

The Department of Justice, at EPA's request, has filed lawsuits against several coal-fired electric utilities for alleged violations of the Clean Air Act. This series of cases seeks to bring the power plant industry into full compliance with the NSR and Prevention of Significant Deterioration

(PSD) requirements of the Clean Air Act. This settlement with SRP represents the fifteenth judicial settlement under the power plants enforcement effort. EPA has reached similar settlements with American Electric Power, East Kentucky Power Cooperative, Nevada Power Company, Alabama Power, Minnkota Power Cooperative and Square Butte Power Cooperative, First Energy (Ohio Edison Company, W.H. Sammis Power Station), Illinois Power Company and Dynegy Midwest Generation, Southern Carolina Public Service Authority (Santee Cooper), Southern Indiana Gas and Electric Company Culley Station, Wisconsin Electric Power Company, Virginia Electric Power Company, Alcoa, Inc. (Rockdale, TX facility), PSEG Fossil, and Tampa Electric Company.

Clean Air Act Violations

The United States alleges that SRP violated the Clean Air Act by undertaking construction activities that constituted “major modifications” at Coronado Generating Station’s two coal-fired electric generating units, designated as Units 1 and 2, without first undergoing PSD review, obtaining required permits, and installing Best Available Control Technology to reduce air pollution. The United States also alleges that SRP failed to include the PSD requirements in its Title V operating permit for the plant.

Environmental Benefits

- **Harmful Pollutants Addressed by this Settlement.**
 - **NO_x:** Nitrogen Oxides cause a variety of health problems and adverse environmental impacts, such as ground-level ozone, acid rain, PM, global warming, water quality deterioration, and visual impairment. Nitrogen oxides play a major role, with volatile organic chemicals, in the atmospheric reactions that produce ozone.
 - **SO₂:** High concentrations of sulfur dioxide affect breathing and may aggravate existing respiratory and cardiovascular disease. Sensitive populations include asthmatics, individuals with bronchitis or emphysema, children, and the elderly. Sulfur dioxide is also a primary contributor to acid deposition, or acid rain.
 - **PM:** Health effects of PM include increased hospital admissions and emergency room visits, increased respiratory symptoms and disease, decreased lung function, and alterations in lung tissue and structure and in respiratory tract defense mechanisms and premature death. PM also is the major cause of reduced visibility in many parts of the nation.
- **NO_x Emission Controls and Emission Limitations.**
 - This settlement requires SRP to install selective catalytic reduction (SCR) technology at one of the units and low NO_x burners at both of the units. This is the first SCR retrofit of an existing coal-fired electric generating unit in the eleven-state western region of the continental United States (including, Arizona, California, Colorado, Idaho, Montana, Nevada, New Mexico, Oregon, Utah, Washington, and Wyoming).

The SCR will be installed and continuously operated beginning June 1, 2014. The low-NO_x burners will be installed and continuously operated beginning June 1, 2009, for one unit and June 1, 2011, for the second unit. SRP will operate the SCR to achieve a 30-day rolling average NO_x emission rate of 0.080 lb/mmBTU. The plant is subject to a 7,300 ton rolling annual limitation on NO_x emissions. The controls and tonnage limitation will result in the removal of at least 6,789 tons of NO_x per year.

- **SO₂ Emission Controls and Emission Limitations.**

- The settlement requires SRP to install flue gas desulfurization (FGD) technology at both units. An FGD on one of the units will be installed and continuously operated beginning January 1, 2012. An FGD on the second unit will be installed and continuously operated beginning January 1, 2013. SRP will operate each FGD to achieve a unit-specific emission rate of 0.080 lb/mmBTU or 95% removal efficiency, on a 30-day rolling average. The controls will result in the removal of at least 14,303 tons of SO₂ per year.

- **PM Emission Limitations & PM CEMS**

- SRP already has electrostatic precipitators (ESPs) for controlling PM emissions at both units. The settlement requires SRP to optimize its ESPs to maximize PM emission reductions. SRP will operate the ESPs to achieve an emission rate of 0.030 lb/mmBTU, a significant reduction from its existing permitted emission rate of 0.10 lb/mmBTU. SRP will perform annual PM stack tests to demonstrate compliance with the PM emission rate. The settlement also requires SRP to install and operate two PM continuous emission monitoring systems (CEMS). The first PM CEMS will be installed by January 1, 2012, and the second by January 1, 2013.

Civil Penalties and Environmental Projects

SRP will pay a civil penalty of \$950,000 and implement and complete three environmental projects. The three projects include the Clean Diesel School Bus Retrofit Project, Solar Photovoltaic Project, and Woodstove Changeout Project.

- To implement the Clean Diesel School Bus Retrofit Project, SRP will spend no less than \$1.25 million to retrofit in-service public school bus diesel engines with emission control equipment designed to reduce emissions of particulates and/or ozone precursors. This project will involve public school bus fleets located in the Phoenix metropolitan area. SRP will retrofit the public school buses by December 31, 2010, and pay to maintain the retrofit equipment through December 31, 2015.
- To implement the Solar Photovoltaic Project, SRP will spend no less than \$2.0 million to install conventional fixed flat panel solar photovoltaics on school buildings in Arizona and to fund the maintenance of the panels for a minimum of

10 years. This project will involve two public school districts in the vicinity of Coronado Generating Station and at least two public school districts in the Phoenix metropolitan area. SRP must complete the installations by December 31, 2010.

- To implement the Woodstove Changeout Project, SRP will spend no less than \$750,000 to reduce fine particle pollution and hazardous air pollutants by replacing pre-1988 wood stoves with EPA-certified wood-stoves and/or cleaner burning, more energy-efficient hearth appliances (e.g., wood pellet, gas, or propane) (“Wood Stove Changeout Project”). SRP will partner with either a state, local, or tribal air pollution control agency or a third-party non-profit to implement this project in Arizona near Coronado Generating Station such as St. Johns, Springerville, Edgar, or Show Low. As part of the project, SRP will provide information to residential homeowners regarding clean-burning alternatives to pre-1988 wood stoves and incentives through rebates, discounts, and in some instances, actual replacement of pre-1988 wood stoves to encourage residential homeowners to replace their old, higher polluting and less energy efficient wood stoves with cleaner burning, more energy efficient hearth appliances. SRP must complete the project by December 31, 2011.