

Clean Water Act Requirements

Operations for AEP subsidiaries are subject to the CWA, which prohibits the discharge of pollutants into waters of the United States except pursuant to appropriate permits and regulates systems that withdraw surface water for use in power plants. In 2014, the Federal EPA issued a final rule setting forth standards for water withdrawals at existing power plants that is intended to reduce mortality of aquatic organisms pinned against a plant's cooling water intake screen (impingement) or entrained in the cooling water. The standards affect all plants withdrawing more than two million gallons of cooling water per day. A schedule for compliance with the standard is established by the permit agency and incorporated in NPDES permits.

In November 2015, the Federal EPA issued a final rule revising effluent limitation guidelines for electricity generating facilities. The rule established limits on FGD wastewater, fly ash and bottom ash transport water and flue gas mercury control wastewater to be imposed in NPDES permits as soon as possible after November 2018 and no later than December 2023. The Federal EPA further revised the rule in August 2020 for FGD wastewater and bottom ash transport water extending the compliance date to December 2025 and establishing additional options. In January 2020, the Federal EPA issued a final rule revising the scope of the "waters of the United States" subject to CWA regulation. See "Environmental Issues - Clean Water Act Regulations" section of Management's Discussion and Analysis of Financial Condition and Results of Operations included in the 2020 Annual Report for additional information.

Coal Ash Regulation

AEP's operations produce a number of different coal combustion by-products, including fly ash, bottom ash, gypsum and other materials. A rule by the Federal EPA regulates the disposal and beneficial re-use of coal combustion residuals, including fly ash and bottom ash generated at coal-fired electric generating units. The rule requires certain standards for location, groundwater monitoring and dam stability to be met at landfills and certain surface impoundments at operating facilities. If existing disposal facilities cannot meet these standards, they will be required to close. See "Environmental Issues - Coal Combustion Residual Rule" section of Management's Discussion and Analysis of Financial Condition and Results of Operations included in the 2020 Annual Report for additional information.

Clean Air Act Requirements

The CAA establishes a comprehensive program to protect and improve the nation's air quality and control mobile and stationary sources of air emissions. The major CAA programs affecting AEP's power plants are described below. The states implement and administer many of these programs and could impose additional or more stringent requirements.

The Acid Rain Program

The CAA includes a cap-and-trade emission reduction program for SO₂ emissions from power plants and requirements for power plants to reduce NO_x emissions through the use of available combustion controls, collectively called the Acid Rain Program. AEP continues to meet its obligations under the Acid Rain Program through the installation of controls, use of alternate fuels and participation in the emissions allowance markets.

National Ambient Air Quality Standards

The CAA requires the Federal EPA to review the available scientific data for criteria pollutants periodically and establish a concentration level in the ambient air for those substances that is adequate to protect the public health and welfare with an extra safety margin. The Federal EPA also can list additional pollutants and develop concentration levels for them. These concentration levels are known as NAAQS.