



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

JUN 7 2010

OFFICE OF
WATER

MEMORANDUM

SUBJECT: National Pollutant Discharge Elimination System (NPDES) Permitting of Wastewater Discharges from Flue Gas Desulfurization (FGD) and Coal Combustion Residuals (CCR) Impoundments at Steam Electric Power Plants

FROM: James A. Hanlon, Director
Office of Wastewater Management

TO: Water Division Directors, Regions 1 – 10

The purpose of this memorandum is to provide you with interim guidance to assist National Pollutant Discharge Elimination System (NPDES) permitting authorities establish appropriate permit requirements for wastewater discharges from Flue Gas Desulfurization (FGD) systems and coal combustion residual (CCR) impoundments at Steam Electric Power Plants.

In October 2009, the Environmental Protection Agency (EPA) completed a study of wastewater discharges from the steam electric power generating industry. EPA's Office of Water evaluated wastewater characteristics and treatment technologies, focusing to a large extent on wastewater from flue gas desulfurization (FGD) air pollution control systems and CCR impoundments because these sources comprise a significant fraction of the pollutants discharged by steam electric power plants.¹ Based on this study, EPA decided to begin a rulemaking to address pollutants and wastestreams not covered by existing Effluent Limitations Guidelines (40 CFR Part 423).² EPA expects to complete this rulemaking and promulgate revised effluent guidelines in late 2013. The attached technology-based permitting guidance (Attachment A) provides State and EPA permitting authorities with information on how to establish technology-based effluent limits for flue gas desulfurization (FGD) wastewater at steam electric facilities in NPDES permits issued between now and the effective date of revised effluent guidelines.

¹ U.S. EPA. *Steam Electric Power Generating Point Source Category: Final Detailed Study Report* (EPA 821-R-09-008). October 2009. Available at <http://epa.gov/waterscience/guide/steam/finalreport.pdf>.

² The Steam Electric Power Generating effluent limitations guidelines and standards (referred to in this report as "effluent guidelines") apply to a subset of the electric power industry, namely those plants "primarily engaged in the generation of electricity for distribution and sale which results primarily from a process utilizing fossil-type fuel (coal, oil, or gas) or nuclear fuel in conjunction with a thermal cycle employing the steam water system as the thermodynamic medium." The effluent guidelines are codified in the Code of Federal Regulations (CFR) at Title 40, Part 423 (40 CFR Part 423).

In December 2008, an impoundment failure released 5.4 million cubic yards of coal ash at the Tennessee Valley Authority's (TVA) Kingston Fossil Plant in Tennessee and a subsequent release at TVA's Widow Creek Fossil Plant in Alabama brought CCR storage and disposal into the national spotlight. These spills, as well as others that have occurred, highlight an area that has received little attention in the NPDES program and made us aware of the need to better protect water quality and human health from impoundment discharges. In response to the TVA spills, we also examined existing discharges from impoundments that manage CCRs and found that they have a potential to impact water quality. Many NPDES permits do not fully address water quality impacts of the discharges, and some pollutants of concern are not required to be reported in current permit applications. A detailed description of the reasonable potential analysis and development of limits necessary to ensure compliance with applicable water quality standards is an important component of all NPDES permit Fact Sheets. While a detailed and well documented reasonable potential analysis helps to demonstrate that permits are consistent with the requirements of State and Federal law, it also makes the permitting process transparent to the regulated community and the public. The attached water quality permitting guidance (Attachment B) is intended to assist State and EPA permitting authorities to better address water quality impacts associated with discharges from impoundments that manage CCRs.

The establishment of appropriate NPDES permitting requirements for these discharges is an important effort to better protect the environment and human health. You should work with authorized state programs to encourage them to utilize this guidance in their permit decision making process. In cases where State permitting authorities do not consider the attached guidance in developing permit conditions, you should work with the States to make appropriate changes. After working with States you should consider using objection authorities in cases where permits do not address appropriate technology-based or water quality-based permit limits to address FGD or CCR discharges consistent with 40 CFR 122.44. In accordance with the principles of good guidance, the public can provide comments to EPA for the Agency's benefit and consideration.

If you have questions concerning this memorandum or the permit language, please contact Linda Boornazian, Director of the Water Permits Division, at 202-564-0221 or have your staff contact Scott Wilson of the Industrial Permit Branch at 202-564-6087 or Wilson.js@epa.gov.

cc: NPDES Branch Chiefs Regions 1 – 10

Attachments