ADEQ and EPA Issue Permits for Carbon Sequestration Injection Project Beneath APS Power Plant In Joseph City

Pilot project first of its kind in the Southwest

PHOENIX (March 25, 2009) – The Arizona Department of Environmental Quality and U.S. Environmental Protection Agency have issued permits authorizing the West Coast Regional Carbon Sequestration Partnership (WESTCARB) to inject 2,000 tons of carbon dioxide into an underground saline formation in Joseph City, west of Holbrook.

The carbon dioxide injection will occur on Arizona Public Service Company’s Cholla Power Plant property in Navajo County at a depth of about 3,500 feet. The WESTCARB injection project is sponsored by APS and Lawrence Berkeley National Laboratory, with funding from the Department of Energy.

"The short-term pilot project meets our national requirements to protect underground sources of drinking water," said Alexis Strauss, director of the Water Division for the EPA’s Pacific Southwest region. “EPA and WESTCARB will evaluate this experiment to better understand how geologic sequestration can help the United States reduce atmospheric emissions of greenhouse gases.”

In addition, ADEQ issued a temporary one-year Aquifer Protection Permit (APP), which requires the project to meet Arizona aquifer water-quality standards and to use the best available technology to protect the aquifer from pollutants. The below-surface formation will confine the carbon dioxide and keep it from permeating upward.

“We are pleased to join with the EPA and WESTCARB by issuing our temporary permit,” said Patrick J. Cunningham, ADEQ’s acting director. “This temporary permit is protective of groundwater in Northern Arizona.”

Geologic carbon sequestration refers to the “capture” of carbon dioxide and its long-term storage in underground geologic formations, removing it from the atmosphere. Carbon dioxide can be captured by modifying industrial plants to remove the gas from process or exhaust emissions before their release.
In addition to being regulated under Arizona’s Aquifer Protection Permit program, injection wells are regulated under the Safe Drinking Water Act’s Underground Injection Control (UIC) program, which EPA administers in Arizona. The UIC program is responsible for regulating the permitting, construction, operation, and safe closure of injection wells that place fluids underground for storage, enhanced oil and gas recovery, or disposal. The program ensures safe construction and operation of injection wells to prevent contamination of underground drinking water resources.

For more information on the EPA’s Office of Water, please visit: www.epa.gov/region09/water