

Coal Pollution Controls Are Being Strengthened

By Sally Maxwell, Managing Editor

The Oklahoma Department of Environmental Quality (DEQ) said last week that any newly-built coal-fired generation plant in Oklahoma must be "pristine."

Monty Elder, DEQ spokesman, said state regulations require that "Any emissions that come out of a plant have to be at least on the level that would not make the present air quality polluted. It can not affect the pristine environment" of that area. "They have to meet the most pristine regulations."

The DEQ Web site lists Sequoyah County as one of the cleanest counties in the state.

Because of state regulations, the DEQ permits sought by Tenaska Inc. of Omaha, Neb., will require the plant return the elements used - air and water - to the surroundings as "pristine" as they were when taken in for use.

Any emissions from the plant, Elder said, must be controlled by the highest state of the art technology at the time of permitting and plant construction.

Particulate matter, Elder explained, must be so small that it cannot be seen by the naked eye. Water must be cleaned and cooled before it is returned to the environment.

The Oklahoma Water Resources Board will also require coal-fired generation plants to obtain permits to protect the water source.

"Air quality comes first then the water quality permit and the land-protection permit," Elder added.

"And all these permits will have to be published and a DEQ public meeting must be held," Elder said. "It takes a long time to get these permits. It will take a minimum of a year.

"State statues require that any plant meet certain limits, but not zero limits," Elders said. "It depends on where the plant is. The cleaner things are, the less the plant can emit."

The area included in the permits is 50 square miles around the plant, Elder added.

The power-plant operator must also do a computer modeling, showing how emissions will be taken in and released. "The company does the modeling and DEQ has to agree with it," Elder said.

Elder said Oklahoma has six coal-fired plants, and each new plant built must meet the newer regulations.

The four pollutants which cause the most concern are sulfur dioxide, which, according to the U.S. Department of Energy (DOE) cause acid rain; mercury which is a neurotoxin that attacks the nerves most especially in young and unborn children; carbon dioxide, believed to be the cause of global warming, and nitrogen oxide which causes smog.

According to the DOE, President George W. Bush's Clear Skies Initiative and the Environmental Protection Agency (EPA) plan to reduce these pollutants over the next few years, even though many disagree with the projects, and claim they are not aggressive enough.

According to the plan sulfur dioxide emissions would be cut by 73 percent, from current emissions of 11 million tons to a cap of 4.5 million tons in 2010, and three million tons in 2018.

Nitrogen oxide emissions would be reduced by 67 percent from current emissions of five million tons to a cap of 2.1 million tons in 2008, and to 1.7 million tons in 2018.

Mercury emissions - never before regulated as a power plant pollutant - would be cut by 69 percent, from current emissions of 48 tons to a cap of 26 tons in 2010 and 15 tons in 2018.

On March 5 the EPA issued the Clean Air Mercury Rule to permanently cap and reduce mercury emissions from coal-fired power plants.

The DOE Office of Fossil Energy is developing a portfolio of environmental control technologies and a knowledge base of scientific data and regulatory analyses that can provide power plant operators with...solutions needed to meet the...Clear Skies Initiative, Clean Air Interstate Rule and Clean Air Mercury Rule at the lowest possible cost to ratepayers.

As part of that plan, DOE is conducting mercury control technology testing at 12 coal-fired generation plants throughout the country. The DOE Web site says, "The goal is to have these technologies ready for commercial demonstration by 2010."

Coal-fired generation plants built after the regulations went into effect must incorporate the latest pollution control technology available.

It is hoped that the mercury control technologies will achieve at least 90 percent mercury removal with a cost reduction of 50 percent or more.

The Clean Air Act also sets standards for improved particulate capture devices, and to recycle carbon and other power plant waste products that must otherwise be disposed of.

For information on these programs visit the agency's Web sites at www.fossil.energy.gov.