

Committed to the environment

Progress Energy's responsible use and storage of coal-combustion products

COAL is one of our country's most plentiful and affordable energy sources. Coal-fired power plants supply about half of the electricity used by Progress Energy's customers in the Carolinas.

In the process of generating electricity, coal-fired plants also generate coal-combustion products. As part of our ongoing commitment to the environment, Progress Energy seeks to handle these products in the safest, most responsible manner possible, either through beneficial use or storage.

● What are coal-combustion products (CCPs)?

Coal-combustion products are created by burning coal to generate electricity or through the use of emission-control technologies. CCPs include **fly ash, bottom ash, synthetic gypsum** and **cenospheres**.

● Beneficial Use of CCPs

CCPs are beneficially used in a number of products, including cement, concrete, structural fill, road bases, paint, wallboard and bowling balls. Using CCPs in these products is beneficial to both the environment and industry.

Environmental impact

Using fly ash to make concrete replaces the need for other emission-causing products. For example, every ton of fly ash used in place of Portland cement eliminates approximately one ton of carbon dioxide emissions and 55 gallons of oil.

Using ash this way prevents more than 13 million tons of carbon dioxide emissions annually in the United States, the equivalent of taking 2.1 million cars off the road.*

High-performance products

Building products made with CCPs have proved to be even more durable and cost-effective than products made with natural materials. Synthetic gypsum is used to manufacture nearly 30 percent of all wallboard in the United States. Fly ash is a vital component in high-strength concrete used in skyscrapers, major highways and bridges.

Concrete used to build the new Raleigh Convention Center was manufactured using fly ash from a Progress Energy power plant, thereby significantly reducing carbon emissions and conserving natural resources.



*Source: Environmental Protection Agency

● Storage of CCPs

Progress Energy's systems for capturing and storing CCPs are regulated, permitted and designed to protect the environment. They fall into two categories:

1) Dry: CCPs can be stored in dry, above-ground facilities. These storage areas are lined and are typically built in cells. As cells are completed, they are covered with topsoil and grass.

2) Wet: CCPs can also be stored in ash ponds, which are part of our plants' waste-water treatment facilities. Progress Energy performs thorough and frequent inspections, including tests for water quality, structural integrity and environmental impact. An independent engineering firm inspects each of our ponds' dams annually and conducts an

in-depth assessment every five years. We share the results of these studies with the appropriate state agencies.

● Progress Energy: Committed to you and the environment

At Progress Energy, we are committed to clean, reliable, affordable power today and tomorrow.

To meet that commitment, we are pursuing a balanced energy strategy that combines the brightest thinking in energy efficiency, alternative energy and state-of-the-art power plants.

Our practices for CCP removal and storage are an important part of this long-term strategy for protecting the environment and meeting your community's energy needs today and far into the future.

● The future of CCPs

Progress Energy continuously seeks the best ways to store or use CCPs. The Environmental Protection Agency's goal is to beneficially use 50 percent of CCPs by 2011. This goal is supported by the CCP industry and Progress Energy.