

# Clearing the Air

## Facts about emission reductions at the Asheville Plant

- ▶ Environmental responsibility is a core value of Progress Energy. Our company is committed to excellence in our environmental practices and performance.
- ▶ The Asheville Plant is an industry leader in implementing new technologies to control emissions.
- ▶ As part of the 2002 North Carolina Clean Smokestacks Act, Progress Energy will invest \$190 million to reduce emissions from the Asheville Plant.
- ▶ By 2009, the Asheville Plant will reduce nitrogen oxides (NO<sub>x</sub>) by 93 percent, compared to 1996 levels. The plant will reduce sulfur dioxides (SO<sub>2</sub>) by 93 percent, compared to 2001 emissions.
- ▶ The N.C. Department of Environment and Natural Resources estimates that pollution controls installed for SO<sub>2</sub> will also decrease statewide mercury emissions by 65 percent.
- ▶ The most visible change at the Asheville Plant is the construction of flue gas desulfurization units – or scrubbers.
- ▶ Construction on the scrubber project began in 2003. The first scrubber began operating in 2005 and the second in 2006.



- ▶ Part of the installation process involved the construction of a 328-foot-tall stack.
- ▶ As coal is burned in a power plant, it emits flue gas. Scrubbers work by taking the flue gas and passing it through a tower in which a water and limestone mixture is sprayed. The SO<sub>2</sub> in the flue gas reacts with the limestone to produce gypsum, a useful additive to concrete or for the production of wallboard. The remaining water vapor rises from the stack.
- ▶ The visibility of the water vapor depends on weather conditions – the more humid it is, the more visible the vapor.
- ▶ While the water vapor rising from the new stack at the Asheville Plant is more visible than in previous years, the clouds it forms represent a breakthrough in clean air for the region.
- ▶ In addition, the plant installed a selective catalytic reduction unit (SCR) in 2006, and a second SCR is planned for 2007. SCRs remove nitrogen oxides (NO<sub>x</sub>).
- ▶ When all the improvements are complete, the Asheville Plant will be among the cleanest coal-burning power plants in the country.

