



FutureGen
Frequently Asked Questions—Environment
June 8, 2011

E1: Project documents say the nitrogen oxide, sulfur dioxide, particulate matter and mercury are removed at the power plant. Exactly where do they go? How much remains in the CO₂?

A1: The new oxy-combustion process will take nitrogen oxide, sulfur dioxide, particulate matter and mercury emissions to near-zero levels. Real-time monitoring of the CO₂ stream before it exits the plant will automatically shut-down the pipeline if the CO₂ composition does not stay within acceptable limits. Sulfur is converted to gypsum, which has beneficial agricultural use or may be utilized in wallboard manufacture. Particulate matter will be captured, stabilized and safely stored in a permitted landfill. Mercury is taken to a safe disposal facility.

E2: What about micro-fissures and leaching of the CO₂ through those?

A2: The CO₂ is stored more than three quarters of a mile below the surface with many layers of rock above it, including an impermeable caprock. Similar formations have held oil and gas in place for hundreds of millions of years with no upward migration. Further, the injection of CO₂ will occur at a rate well below any pressure that would cause micro-fissures in the formation.

E3: How does the FutureGen Alliance intend to monitor stored CO₂?

A3: Sophisticated modeling will combine our strong knowledge of geologic data with real-time CO₂ monitoring at sample wells to continuously monitor and predict CO₂ movement. If there is any deviation from our plan, the project will be required to make adjustments to the injection strategy or cease operations.