Statement of

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“The State of Mercury Regulation, Science and Technology”

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Good morning Mr. Chairman and committee members. My name is Guy Pipitone and I am the Senior Vice President, Operations Strategy & Development for FirstEnergy, which is a diversified energy company headquartered in Akron, Ohio.

I have been with the company for more than 30 years, with the majority of my career spent on the power plant side of our operations. I appreciate the opportunity to testify before this subcommittee regarding the current state of mercury technology here in the United States.

We believe that one promising mercury removal technology is the Electro-Catalytic Oxidation, or ECO technology, a multi-pollutant control system developed by Powerspan, a New Hampshire-based energy technology company. FirstEnergy has a 25-percent ownership interest in Powerspan, and I have served on its board of directors since 1998.

Another major supporter of ECO has been the Ohio Coal Development Office, a program of the Ohio Air Quality Development Authority. It has contributed more than $5.5 million to the project.

Powerspan has been operating an ECO demonstration system for the past three years at FirstEnergy's R. E. Burger Plant, located along the Ohio River near Shadyside, Ohio. Through this demonstration, ECO has proven to be effective in reducing

SO_2, mercury, acid gases, fine particulate matter, and nitrogen oxides.

The process works by sending an electrical charge into the proprietary ECO reactor that oxidizes pollutants, including mercury. Next, an ammonia scrubber is used to capture the oxidized gaseous pollutants and SO_2. The byproduct from the ECO process then passes through a highly efficient carbon filter to remove all of the mercury before it is crystallized into ammonium sulfate fertilizer, which is a marketable end product. Annually, this filter, with the captured mercury, has to be sent to a permitted hazardous waste facility. This is ECO's only waste. In other words, this process creates a useful fertilizer rather than more landfills.

Test results have shown ECO's mercury removal rate to average about 83 percent. However, with additional design and engineering refinements, a 90-percent removal rate may be achievable. By comparison, FirstEnergy's Bruce Mansfield Plant in Shippingport, Pennsylvania was one of the first power plants in the world to be built with scrubbers as original equipment. Our testing indicates that about 85 percent of the mercury is removed by its selective catalytic reduction and scrubber systems.

Since the ECO unit began operating at Burger in 2004, a number of coals and coal blends have been burned in the units

supplying the flue gas to the ECO unit. The fuels ranged from 100-percent high-sulfur eastern bituminous coal, to blends with up to 80-percent low-sulfur Powder River Basin western coal.

The testing indicates that as long as some eastern coal is included in the mix, the mercury will be oxidized and can be mostly removed by ECO. Laboratory testing also shows that burning 100-percent Powder River Basin coal only nets about a 50- to 65-percent mercury removal rate through ECO. This is probably because western coal has a high percentage of elemental mercury and is low in chlorine. It is chlorine that combines with the elemental mercury to produce an oxidized form that is easier to remove in the ECO process.

Throughout the testing process, the Electric Power Research Institute has monitored ECO's results. This includes testing of pollutant removal, audits of analyzer readings, fertilizer sampling, and a reliability study, which concluded that ECO is as reliable as a conventional wet flue gas scrubber system.

While we are long-time supporters of ECO, we know that it has its limitations, as do all pollution control technologies. For example, some power plants might not have the physical space to accommodate an ECO unit and its associated fertilizer plant.

Along with ECO's multi-pollutant removal capabilities, Powerspan also is developing a carbon capture process –

known as ECO_2 – that can be added to the existing ECO unit. The goal of this first-of-a-kind project is to capture power plant CO_2, transport it to an 8,000-foot test well that was drilled at the Burger Plant earlier this year, and then sequester it underground. These activities are part of FirstEnergy's participation in a multi-year regional carbon sequestration research program sponsored by the U.S. Department of Energy to determine if CO_2 can be stored deep underground in suitable rock formations.

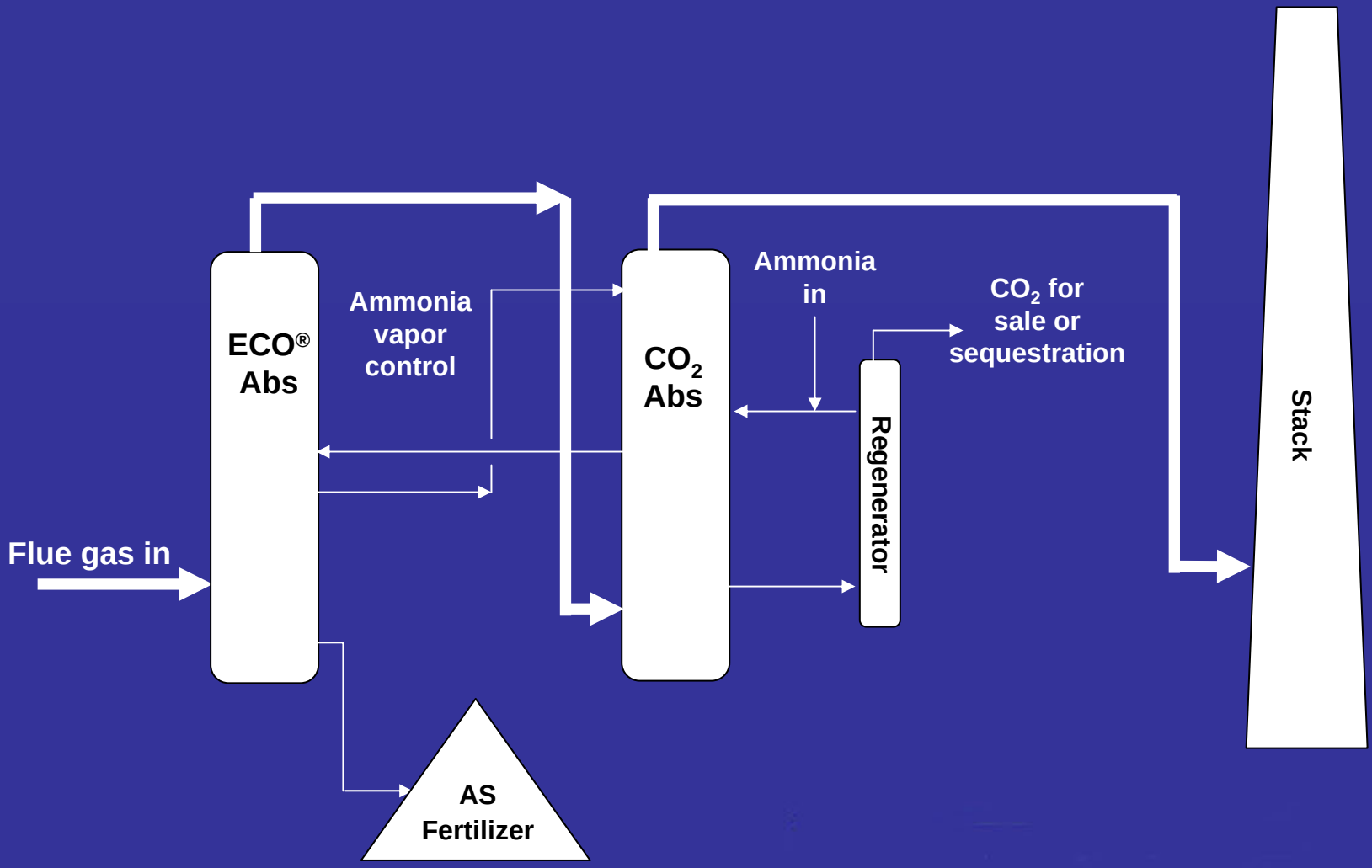
The ECO_2 pilot program is scheduled to begin by the end of this year, or early 2008. The projects will provide an opportunity to test an integrated CO_2 capture, handling and transportation, and injection system at our Burger Plant, which may be the first to demonstrate both CO_2 capture and sequestration at a conventional coal-fired power plant.

These all are issues I am sure this committee will debate and discuss at length. I will conclude my remarks by saying we have determined ECO to be a viable alternative compared with other technologies.

Thank you for the opportunity to talk about FirstEnergy's experience with ECO. I'd be pleased to answer your questions at this time.

POWERSPAN

Integrated ECO®-ECO_2 Installation



Powerspan ECO_2 Technology Update

Powerspan has been working to develop the ECO_2 CO_2 capture process in its New Hampshire laboratory. The ECO_2 process is designed to work in conjunction with the ECO multi-pollutant control process. After the incoming flue gas has nearly all of the SO_2, NOx, mercury and fine particulate removed in the ECO system, it is sent to the ECO_2 absorber vessel. ECO_2 uses an ammonium carbonate reagent absorber and regenerator system to capture CO_2 in the power plant flue gas stream, strip off the CO_2 for final cleanup, compress and sell or sequester the CO_2 and send the reagent back into the ECO system. No additional reagent is used in ECO_2 than is already used in the ECO system.

Laboratory results have shown that ECO_2 can capture up to 90% CO_2 in the flue gas stream. Measurement techniques have been developed to confirm these results. The process is continuing to be refined to develop design information for a 1 MW ECO_2 pilot unit at FirstEnergy's Burger Power Station, where a 30 MW demonstration of the ECO system has been in operation for about 3 years. The ECO_2 pilot is scheduled to be added by the end of 2007, or early 2008. It is scheduled to operate at least through 2008, capturing approximately 20 tons per day of CO_2.

The captured CO_2 is to be permanently sequestered in an on-site well recently drilled to a 8,000-foot depth at the Burger Power Station as part of the Midwest Regional Carbon Sequestration Project. This may be the first project to capture and sequester power plant CO_2 in the world.

Morgan Jones 5/16/2007