W. H. Sammis Plant

Located in Stratton, Ohio, the site covers 187 acres along the Ohio River between East Liverpool and Steubenville.

Facts At A Glance

- W. H. Sammis is FirstEnergy's largest coal-fired power plant in Ohio.
- Seven coal-fired units and five oil-fired peaking units produce 2,233 megawatts (MW) of electricity.
- Four coal-fired units, each with 180 MW capacity, came online between 1959-1962; Unit 5 came online in 1967 and generates 300 MW; Unit 6 came online in 1969 and generates 600 MW; Unit 7 came online in 1971 and generates 600 MW; five oil-fired peaking units came online in 1972 and generate 13 MW.
- The plant uses an average of 18,000 tons of coal daily for an annual average of 6.6 million tons.
- A 45-day supply of coal is maintained at the plant, in a stockpile covering more than ten acres.
- The plant employs 410 people.
- Paying more than $5.5 million annually in property taxes, FirstEnergy is the largest taxpayer in Jefferson County, Ohio.

ENVIRONMENTAL MEASURES

- The plant burns low and medium sulfur eastern coals.
- Between 1980 and 1984, a $426 million air quality control system was installed – at the time, the largest, most expensive environmental retrofit in North America.
- Due to severe space limitations – a foothill behind and the Ohio River in front – this environmental equipment was placed in front of the plant on a deck that was constructed over four lanes of Ohio State Route 7. The specially designed deck is more than three football fields long and contains 3,000 tons of steel reinforcing rod, enough to run from Ohio to California.
- Units 1-4 each use "baghouse" technology to remove more than 99% of the particulates from plant emissions. Using the same principle as a vacuum cleaner, flue gas traveling at a rate of 750,000 cubic feet per second passes through 3,744 Teflon-coated fiberglass fabric filters, each one measuring 12 inches in diameter and 34 feet long. End to end, there are 25 miles of bags per baghouse, which provide the same cleaning power as 350,000 home vacuum cleaners. The bags are cleaned by periodically reversing the air flow, causing trapped dust to fall into a hopper.
- Units 5-7 use electrostatic precipitators, designed to clean more than 6.5 million cubic feet of flue gas per minute by removing over 99% of the particulates. The gases pass between five fields of 57 electrically-grounded plates to which the electrically charged dust is attracted. The collecting surface area of the plates in each precipitator is equal to the surface area of eight football fields.
- The plant is undergoing a $1.8 billion state-of-the-art upgrade of the air quality control systems. Flue gas scrubbers will be installed on all seven coal units and will remove in excess of 95% of the sulfur dioxide. New nitrogen oxide control equipment will remove up to 90% on nitrogen oxide from the flue gases. A new 850-foot stack also will be built.