

Utilities Continue Dangerous Practice

GE, Siemens, Pratt & Whitney to Recommend Power Plants Avoid Using Natural Gas to Clear Debris From Fuel Lines

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Power companies have continued to perform a dangerous procedure using combustible gas to clean piping at newly built power plants even though the practice caused a massive blast on Feb. 7 at a plant under construction in Middletown, Conn., that killed six workers and injured dozens more.

That may change, though, in light of an accident report issued this week by the U.S. Chemical Safety Board that concluded, in effect, that the widely used practice should be abolished.

A procedure called a "gas blow" involves pushing natural gas, at high velocity, through fuel pipes to rid them of rust, dust and welding debris. The gas is vented to the atmosphere, posing a risk of combustion.

In response to the safety board findings and recommendations, equipment makers General Electric Co., Siemens AG and Pratt & Whitney said, in interviews, they will tell their customers to substitute compressed air or nitrogen for natural gas, as the scouring agent.

American Electric Power, the nation's largest utility by geographic area, performed the procedure at its new plant in Shreveport, La., in the days following the Connecticut explosion, but a senior executive said Thursday that was almost certainly the last time it will do so in light of the safety board's findings and its own analysis.

"I can't justify why we've done it this way, for years," said Bill Sigmon, senior vice president of engineering projects and field services at AEP, in Columbus, Ohio. He said he now believes it's impossible to make the procedure completely safe.

Another utility, Basin Electric Power Cooperative in Bismarck, N.D., conducted a "gas blow" at its new plant near Culbertson, Mont., in late April. A spokesman said the utility will reconsider the practice when its next plant is completed in 2012.

In a report issued Monday, the safety board urged the industry to halt the practice and warned "catastrophic consequences" could result from its continuation.

"Just because you don't have an explosion doesn't mean the practice was safe," said Donald Holmstrom, lead investigator for the safety board. "It's a low probability, high-consequence risk people are taking."

The safety board called on the federal Occupational Safety and Health Administration and National Fire Protection Association to prohibit the venting of explosive gas near workers. Both said they are considering action.

General Electric said it will advocate more forcefully against "gas blows," which it long has regarded as a "last resort," and created a new policy that will prohibit GE employees from being present if customers elect to clean pipes with flammable gas.

Siemens said it never has recommended use of flammable gas as a cleansing agent and pledged to make the danger better understood.

Pratt & Whitney, a unit of United Technologies Corp., commended the safety board's "significant work" in raising awareness of the danger.

The response of turbine makers is significant because they can influence industry practices. Dozens of gas-fired power plants are expected to be built in coming years and the three companies furnish the vast majority of gas turbines expected to be delivered to utilities.

Gas turbine makers typically require customers to purge fuel lines of debris before they will warranty the turbines they have sold. Turbines contain thousands of tiny, spinning blades that can be damaged if struck by debris. The Connecticut plant, for example, was a Siemens customer.

In its probe, the Chemical Safety Board found similar power plant explosions—in 2003 at a Calpine Corp. plant in Fairfield, Calif., in 2001 at a FirstEnergy Corp. plant in Lorrain, Ohio, neither of which caused injuries, and in 1999 at a Ford Motor Co. assembly plant powerhouse that killed six people.

The safety board said far more people were working inside the power generation building at the Connecticut plant being built by Kleen Energy Systems LLC than were needed for pipe cleaning. Some left when they smelled gas. The morning of the Kleen Energy accident, 15 separate "gas blows" were conducted. The safety board didn't determine the source of ignition but said metal debris being blown through pipes could have produced the decisive spark.