

About 50 workers at Peach Bottom nuclear plant exposed to low levels of radiation

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Peach Bottom Atomic Power Station in Peach Bottom Township. (FILE)

York, PA -

Roughly 50 workers at Peach Bottom Atomic Power Station were exposed to low levels of radiation early Tuesday after a discharge of contaminated steam.

At 1 a.m. that morning, workers were loosening a two-inch vent on top of the Unit 2 reactor vessel head when a "puff" of radioactive steam escaped from a flange, said Neil Sheehan, a spokesman for the U.S. Nuclear Regulatory Commission.



Radiation monitoring alarms sounded as workers, dressed in bright yellow radiation-protection suits, hurried to close the vent. In total, the length of the release lasted about 2 minutes.

The reactor is offline for a planned refueling outage. About 2,000 contracted or outage workers at the plant will spend the next several weeks completing maintenance work and replacing nearly one-third of the reactor's fuel.

Initially, 51 of the 138 workers stationed in the area of the Unit 2 reactor vessel early Tuesday didn't clear the plant's radiation monitors, meaning that they still registered a higher dose of contamination, Sheehan said.

After a change of clothes and a shower, seven of the 51 workers no longer triggered the monitors.

Of the remaining workers, 27 had been exposed to more than 10 millirems of radiation and 17 registered a dose of less than 10 millirems. A millirem is a measure of radiation exposure.

One worker came back with a dose of 173 millirems- the highest level of exposure tied to the radioactive steam, Sheehan said.

"For that employee, follow-up monitoring shows that contamination levels have fallen off and, today, are almost at the level of being undetectable," said David Tillman, a Peach Bottom spokesman.

The occupational radiation exposure limit for nuclear industry workers is 5,000 millirems per year, Sheehan said.

The average American citizen is exposed to 610 millirems each year from natural and manmade sources, he said.

What happened?

On Tuesday morning, as workers disassembled the vent, a step in the process of refueling Unit 2, water levels inside the reactor were higher than expected, Sheehan said.

That fluid came in contact with a steam dryer attached to the inside of the reactor vessel head.

That head, or lid, crowns the vessel that contains the fuel.

When the reactor is operating, the dryer ensures that the generated steam contains no large drops of moisture as it's shipped to the non-nuclear side of the plant.

The water that touched the dryer flashed directly to steam - the same steam released in the direction of the workers.

"The workers who loosened the vent would not have expected the steam," Sheehan said.

After the release, workers left the area and air filtration systems cleared the area of all contamination, he said.

"Radiation monitors returned to normal within hours of the steam discharge and the area was cleaned and tested before employees returned to work," Tillman said.

He said the radiation was contained to the building and was never a threat to the public.

What's next?

In response, the NRC dispatched a senior health physicist to the plant to monitor the affected workers, Sheehan said.

The commission will investigate the release, including why the water level inside the reactor was higher than expected, he said.

"Our take is that Exelon reacted quickly and appropriately to the situation," Sheehan said. "They took the proper precautions."

Peach Bottom will run its own evaluation of what led to the release of the steam, Tillman said.

"Work experience and our commitment to safety were important factors early Tuesday morning as workers on the Unit 2 refuel floor responded quickly and effectively to a detectable level of airborne contamination," he said. "The discharge was small, brief and contained."

Six workers at or near the plant Wednesday declined to comment about the event.

[Read the full notification here.](#) Peach Bottom's notification is the last one on the list.