

Companies trying to prevent PV water pollution

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The [Arizona](#) American Water Co. and Motorola Inc. are taking steps to ensure that a January incident at a treatment plant where TCE was released into the water supply will never happen again.

On Jan. 15, a malfunction occurred at the plant near Miller Road and McDonald Drive in Scottsdale that resulted in a three-day ban on using water. The ban affected nearly 5,000 Arizona American customers in Paradise Valley and Scottsdale.

Arizona American owns and runs the 10-year-old facility. It was designed and built by the North Indian Bend Wash Participating Cos

The companies, Motorola, Siemens Corp. and SmithKline Beecham Corp., were identified as the source of the TCE contamination decades ago and are [responsible](#) for the cost of operating and maintaining the plant as part of a federally mandated Superfund cleanup site. TCE is an industrial solvent that is suspected of causing cancer.

Both Motorola, identified as the main source of the TCE, and Arizona American hired outside consultants to investigate what happened in January. The [Environmental Protection Agency](#) and the Arizona Department of Environmental Quality must review the reports.

A malfunctioning blower on one of three air stripping towers used to remove TCE from the water was cited as the source of the problem, allowing untreated water from a well known as PCX-1 to flow into Arizona American's public water supply. A trio of alarms failed to alert operators to the problem.

The report for Motorola cites operator error as the cause of the problem, while the one for Arizona American concluded that the treatment facility's systems and components were not designed or operated in an optimal manner.

The Motorola investigation, conducted by Tennessee-based Environ International Corp., notes that when the system was tested in automatic mode, it properly shut down.

According to the report, the plant operator reported that when he left the plant around 2 p.m. Jan. 15, the blower was still running. But the report concludes that the operator manually shut off the blower to Tower 3 where forced air is used to strip the water of TCE. The PCX-1 well, however, apparently was not assigned to Tower 3 so it would not have received a command to stop and shut down.

"The AAWC operator did not manually shut down well PCX-1 nor confirm that it stopped after turning off the blower," according to Environ's report.

But Phoenix-based Brown and Caldwell, which did the investigation for Arizona American, could not determine why the blower shut down, outlining at least three possibilities.

It did note that someone could have shut down Blower 3 by accident, via a computer screen that uses graphics to represent pipes, pumps, blowers and other equipment. The screen does not indicate prominently which blower it is controlling. Shutting down the blower in that way would allow the rest of the system to run without the blower and no alarms sounding.

In a letter submitted with the report, Arizona American president Paul Townsley said the evidence does not reveal how the blower shut down for Tower 3, while leaving the PCX-1 well pumping. He added that the evidence does show that the alarm, monitoring and other systems clearly failed.

Arizona American has physically disconnected its system from the PCX-1 well and no longer uses the water. Motorola has taken over pumping of the well to keep the groundwater plume of TCE in the North Indian Bend Wash Aquifer from migrating. The treated water now empties into the Arizona Canal.

Staffing also has been beefed up and modifications and improvements are being made to the plant's system's and operation.

"The bottom line on all of this is that we are committed, and, I have stated publicly from the beginning, that we want to make sure that the PCX-1 well does not affect our drinking water in the future," Townsley told the Scottsdale Republic.

Townsley said Motorola is responsible for funding any changes that need to be made to the plant, but it cannot do it without the water company's involvement.

"What will likely happen is we will meet with the regulators and with Motorola and come up with a plan of action based upon what they may wish us to do in addition to what we're already doing," Townsley said.