

## WIPP RADIATION LEAK February 21, 2014

SRIC has carefully followed information about the radiation leak from the Waste Isolation Pilot Plant (WIPP) that was first identified at approximately 11:30 pm on Friday, February 14, 2014. The leak triggered the HEPA filtration system so that the ventilated air would be filtered before it was released into the environment through the exhaust shaft. We have been actively asking questions and gathering additional information about the contamination event, and have responded to numerous requests for information from the public and media.

### What we know with some confidence

1. Apparently, one or more of the 258 contact-handled waste containers underground in Room 7 and Panel 7 released radioactive and toxic chemicals. The release spread contaminants through more than 3,000 feet of tunnels, up the exhaust shaft (2,150 feet), into the environment, and to the air monitoring Station #107, approximately 3,000 feet northwest of the exhaust shaft. Thus, the release covered a distance of at least a mile and a half.
2. The Station #107 filter was removed on Sunday morning, February 16 at approximately 9:40 am. The Carlsbad Environmental Monitoring and Research Center (CEMRC) laboratory analyzed the filter and on Wednesday, February 19 reported that it found 0.64 becquerels (Bq) per cubic meter of air of Americium-241 and 0.046 Bq per cubic meter of air of Plutonium 239+240. Those measurements were consistent with waste in the WIPP underground.
3. CEMRC has received 10 filters from the Station A (exhaust shaft sample prior to HEPA filtration) on Tuesday, February 18. That same day a filter was collected from air monitoring Station #106, about 325 feet north of the Station B exhaust port. Several filters were received from Station B (exhaust shaft sample after the HEPA filtration system) in the evening on February 19. CEMRC expects to have initial results from those filters in from two to five days after receiving them.
4. As of mid-day on Thursday, February 20, WIPP Manager Jose Franco reported some amounts of radiation were continuously registered in the continuous air monitors for Panel 7, but that the amounts were three orders of magnitude lower than the highest levels of 4.4 million disintegrations per minute.
5. No workers were underground when the radiation leak was detected and none of been underground since that time. As of February 20, the expectation is that it will be two to three more weeks before anyone goes underground to investigate the release. In the meantime, plans are being developed for the underground recovery effort and to determine the extent of the above ground contamination.

### What we do not know (among many other things)

1. What caused the release.
2. What was the nature of the release that allowed some contaminants to travel more than a mile and a half.

3. What radionuclides in what amounts and what toxic chemicals in what amounts have been released.
4. What contaminants were released into the environment before the HEPA filtration system was triggered.
5. What contaminants in what amounts have been captured by the HEPA filters.
6. What contaminants in what amounts have not been captured by the HEPA filters.
7. Where all the contaminants that were not captured are, whether inside the WIPP boundary or outside the site area.
8. Whether the amount of the release and the location of all of the containments can be determined.
9. When radiation levels in the WIPP underground air will return to pre-release levels.
10. The amounts of contamination in the WIPP underground.
11. What underground decontamination will be done.
12. What amount of exposure to radiation and toxic chemicals the first workers going underground will receive.
13. What amount of exposure to radiation and toxic chemicals workers going underground will receive in the future.
14. What amount of exposure that workers on the surface have received.
15. What amount of exposure that workers on the surface will receive in the future.
16. What surface decontamination will be done.
17. What changes in the WIPP operation, monitoring, and safety culture will be implemented.