

Responses to Southwest Research and Information Center 700-C Ventilation Fan Restart

1. Release on the surface of unfiltered contaminated air is not described or analyzed in the most recent National Environmental Policy Act (NEPA) documents, including the Supplement Analysis (SA) 10 and 11 regarding ventilation. In what NEPA document has DOE described and analyzed the proposed action of restarting the 700-C fan for tests and ongoing operation, the environmental and human health impacts, and the alternatives to that proposed action?

The potential environmental impacts of unfiltered contaminated air released from the underground ventilation system have been evaluated and are described in Chapter 5 (WIPP Disposal Operations) of the *Waste Isolation Pilot Plant Disposal Phase Final Supplemental Environmental Impact Statement* (1997 SEIS-II), Volume I, dated September 1997.

2. What comparative cost analysis was done for restarting the 700-C fan, including ongoing operations with other options to continue operating WIPP with no use of the 700-C fan?

The use of 700-C Fan until SSCVS goes into operation and long-lead procurement of low/no emissions equipment can be completed, is determined to be a low-cost, high effectiveness option that can be implemented in a timely manner. There are no options that will provide comparable health and safety benefits in similar timeframe and cost associated with the 700-C restart.

In order to address air quality issues in the underground, it necessitates an increase in air flow or a reduction in the source of emissions. WIPP is implementing actions on both fronts through SSCVS and replacement of “dirty” diesel equipment with lower emitting diesel equipment (i.e., Tier IV equipment) and electric equipment when feasible. WIPP has begun receiving Tier IV equipment as well as electric equipment. However, it will be several years before the entire underground fleet can be replaced. Additionally, WIPP has incrementally increased the airflow in the underground by adding the Interim Ventilation System (IVS) to the existing filtered air system. Any other increases in air flow to the underground will require the design, procurement and installation of new fans and filtration systems.

Please refer to the posted document, Rationale for Considering Restart and Temporary Use of 700-C Ventilation System for additional information.

3. What analysis has been done of the amounts and doses that would result in a new radiation release similar to that of February 2014 during the tests or operation of the 700-C fan? Please provide the documentation. If no such analysis has been done, please explain why not.

Please refer to the “Estimated Release White Paper” posted on the 700-C web page.

4. The CRESP Report is dated May 28, 2020, which is before the Critical Applications Alliance contract was terminated. The mitigation described in the Report included “switchover to filtered ventilation in 2022.” at 4. Is it correct that documents that CRESP reviewed did not evaluate the releases of operations for longer than that period of time? What evaluations have been done before or since the CRESP Report of potential releases from the longer term use of the 700-C fan? Please provide such documentation.

CRESP analysis was not sensitive to duration of 700-C operation. On the contrary, CRESP raised the question of justifying the 700-C restart effort if 700-C would have a short operational window with resultant minimal benefit to the workers. Any delays in SSCVS completion add to the window of benefit of 700-C operation further justifying the restart effort.

5. Are the meteorological conditions described during the Town Hall and in the NWP white paper dated August 2020 required for the 4-hour test? Does DOE agree that such meteorological conditions could not be ensured during the 5-day balancing test or the ongoing operation of the fan? If so, how will the results of the 4-hour test inform the sampling plan for the balancing test and ongoing operation? What will be the sampling plan for the balancing test and ongoing operation?

Required meteorological conditions for the 4-hour test are defined in the Radiological Sampling Plan available on the 700-C web page. DOE agrees that such meteorological conditions could not be reasonably assured over a continuous 5-day period at the WIPP site. These specified conditions ensure that the array of sampling and monitoring equipment remain consistently downwind only during the 4-hour test. The 4-hour test is intended to validate NWP's calculations that shows that 700-C operation does not release radionuclides that will have consequence to the public, the environment, and WIPP workers and remains well below any regulatory thresholds. It is not anticipated that the 5-day balancing test and, if approved, subsequent operation of 700-C will have any meteorological constraints. Further, the type of sampling, the location of sampling points and frequency of sample collection for the "5-day balancing run" will be informed by the data of the 4-hour test. There will be routine sampling and monitoring of any 700-C operations. As the 4-hour testing will be used to inform subsequent sampling and monitoring, DOE has completed development of the sampling and monitoring plan for the "5-day balancing run" or any subsequent operation of the 700-C fan. DOE will post the sampling and monitoring plan for the "5-day balancing run" on the WIPP Website prior to conducting the balancing run.

6. What comparative analysis has been done of actual radiation exposures and doses of surface workers at WIPP over the past two fiscal years and potential exposures from the 700-C fan releases and radiation doses to workers at the Radioactive Waste Management Complex at the Idaho National Laboratory? Please provide any such documentation.

No comparative analysis of WIPP workers and RWMC workers at Idaho has been performed at WIPP.

