Ventilation System Sampling Results

Air sampling results before and after the High Efficiency Particulate Air (HEPA) filters at WIPP are available here. Station A samples air before the filters and Station B samples air after passing through the filters. These samples were analyzed following the detection of airborne radioactivity on February 14, 2014. They are not environmental samples, and are not representative of the public or worker breathing zone air samples. They do provide assurance that the HEPA filter system functioned at the time of the underground release, and continues to function during ongoing recovery efforts.

The values shown in the updated tables of sampling the air in the exhaust system at WIPP are derived from the same data presented in earlier posts to this web site. The tables have been updated to make it easier to read and understand. They also add laboratory analyses of samples that were previously only available as screening data. The laboratory analyses are more accurate and sensitive than screening analyses.

The reported results are a mixture of preliminary field estimates and subsequent laboratory analyses. Preliminary field estimates, sometimes called screening results are not broken down to identify isotopic make-up, i.e. how much is plutonium and americium. Both screening and laboratory values are shown as count rates, which provide a relative indication of the amount of airborne radioactive particulate in the ventilation system. The values are in decays per minute (dpm).

Screening results allow technicians to verify the levels present without having to wait a week or more for detailed laboratory isotopic separations. Unfortunately the screening methodology is not nearly as sensitive as the laboratory analyses and results vary significantly at low levels.

The sample results are consistent with results reported by the Carlsbad Environmental Monitoring and Research Center (http://www.cemrc.org/). It should be noted that CEMRC analyzed the samples using a laboratory technique which allowed them to report results by isotope (i.e. americium and plutonium).