

Boeing Santa Susana Field Laboratory
Status Report - September 15, 2009
Interim Source Removal Action (ISRA) Outfalls 008 and 009
NPDES CA0001309, CI-6027

On August 26, 2009, Regional Board issued its initial update on the ISRA activities ongoing in the watersheds of Outfall 008 and 009 at the Boeing Santa Susana Field Laboratory. This is the second update.

Due to the removal of vegetation in the targeted ISRA areas located within the watershed of Outfall 008 two features were identified: (1) a soil collapse feature (sink hole) located in the southeast corner of HVS-2A and (2) a hatch or cover located in HVS-3. Regional Board and California Department of Toxic Substances Control (DTSC) staff are working together to characterize these features and determine the appropriate path forward. The area of the hatch has been isolated and additional investigatory work will be completed in the area. The soil collapse feature, which is 18 feet by 10 feet with a depth of approximately 4 feet, was also isolated and four samples were collected. Inside the soil collapse feature is a pipe with a diameter of approximately 2 inches which is covered in mastic tape. A sample collected near the pipe had elevated concentrations of polychlorinated biphenyls (PCBs). Samples were also collected of the material covering the pipe. The samples of the material covering the pipe had elevated concentrations of asbestos and PCBs. The PCBs in soil appear to be from the pipeline covering. On September 9, 2009, trenching was completed to determine the extent of the soil collapse feature. The soil collapse feature was likely the result of an action several years ago when plant material was placed in a shallow trench and covered with uncompacted or poorly compacted fill. The pipe that is in the soil collapse feature extends out of the feature for about 100 feet due north. The work plan will be amended to include removal of the pipe and excavation of the soil and debris with elevated concentrations of PCBs as well as the soil with elevated concentrations of lead which was the targeted contaminant for planned excavation activities in this area.

Excavation activities continue in the watershed of Outfall 008. In Outfall 008, there are nine (9) areas targeted for removal of soil. The first area excavated was DRG-1 which is located less than 1,000 feet upstream of the monitoring location. Excavation of this area was completed and the confirmation samples were collected on Wednesday, August 26, 2009. Confirmation samples collected for DRG-1 yielded results for dioxins (2,3,7,8-TCDD and the 17 congeners) that were below the target concentration of 3 pg/g with a maximum TEQ of 0.482 pg/g.

Planned excavation work at HVS-2B-1, an ISRA target area located within the Outfall 008 watershed was completed on August 28, 2009 and on September 1, 2009, confirmation samples were collected. Regional Board staff was on site to observe sampling and to collect split samples. On September 3, 2009, staff was onsite to collect splits of confirmation samples at HVS-2B-2. The confirmation samples from HVS-2B-1 yielded elevated concentrations of lead and copper in the samples submitted for analysis by the Regional Board and in the samples collected by Boeing contractors. Consequently, on September 15, 2009, Regional Board staff was on site to observe the excavation of additional soil from the HVS-2B-1 area and to collect confirmation samples after the soil had been removed. Confirmation analytical results for the samples collected at HVS-2B-2 are pending.

Currently, excavation operations are ongoing at HVS-2A and HVS-2C, two of the nine ISRA targeted areas in the watershed of Outfall 008. The targeted constituent in these areas is lead.

The work plan estimates removal of approximately 3,000 cubic yards of soil and 1,600 cubic yards have been removed thus far.

Shipping of the collected excavated soil was initiated on September 3, 2009. Approximately 80 truckloads of material have been transported to Antelope Valley Waste Management in Palmdale. The soils are wrapped in plastic and the truck beds are tarped prior to shipment.

Waste characterization efforts are ongoing at the two areas targeted at Outfall 009. Soil samples were collected from ELV-1C and ELV-1D. In addition to the chemical analysis, thirty six samples were collected and analyzed for radionuclides including cesium-137, strontium-90, tritium, and gamma emitting radionuclides. Eight of the samples yielded elevated concentrations of cesium-137, relative to the background levels of radionuclides in soil as reported in the 1995 McLaren/Hart report entitled "Additional Soil and Water Sampling at the Brandeis-Bardin Institute and Santa Monica Mountains Conservancy." All other soil samples analyzed for radionuclides including strontium-90 and tritium, were either non-detect or comparable to background values. Confirmation samples collected at the eight locations that previously had elevated cesium-137 concentrations, yielded elevated concentrations at five of the eight locations. A statistical analysis of the resulted in the conclusion that the cesium-137 concentrations detected exceeded local background.

These two areas were targeted for soil removal because of elevated concentrations of dioxins at ELV- 1C and metals including cadmium, copper, lead, mercury and dioxins at ELV-1D. The ISRA work plan provides a protocol for handling excavated soil with elevated concentrations of radionuclides, if encountered during the ISRA activities. After determining that the analytical results showing elevated concentrations were accurate a conference call was scheduled to discuss the results and the path forward with representatives from the Regional Board, DTSC, California Department of Public Health (CDPH), Boeing, and National Aeronautics and Space Administration (NASA). As a result of the discussion, a letter was issued by Boeing on September 11, 2009, which included data and a request for CDPH to review the data and confirm that the soil meets the permit requirements of Class 1 and 2 landfills in the State of California, and that disposal of the soil would not pose a threat to public health. The letter also states that "Neither Boeing nor NASA will initiate excavation of the material until CDPH, DTSC and the RWQCB approve the path forward." The Regional Board is awaiting a response from CDPH.