



Department of Toxic Substances Control



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SANTA SUSANA FIELD LABORATORY MONTHLY STATUS REPORT DECEMBER 2011

This monthly update is to inform the community of Santa Susana Field Laboratory (SSFL) investigation and cleanup activities under DTSC's oversight that have occurred between November 22, 2011 and December 21, 2011 and to identify activities that are expected to occur in the next 30 days.

Activities Completed:

Soil Investigations:

DOE

The Area IV radiological soil sampling effort is being conducted by the US EPA. The US EPA approached the investigation by splitting the Area IV investigation into historical site assessment areas (HSAs). The chemical soil sampling efforts follow the same HSA designations.

US Department of Energy (DOE) Area IV co-located soil sampling for chemical contaminants are divided into three phases and specified in the Administrative Order on Consent (AOC):

- Phase 1 - co-located sampling for chemical analysis at all the US EPA Phase 1 radiological sampling locations in Area IV.
- Phase 2 sampling is identified as random sampling locations, and
- Phase 3 sampling is identified for step-out sampling to define the extent of contamination.

In consideration of budget constraints and in coordination with DTSC and DOE, the US EPA will implement the Phase 3 efforts following the Phase 1 work. Because of the nature of the step-out sampling not all the US EPA Phase 3 locations will need to be sampled for chemical contaminants, and chemical step-out locations may be required where no radiological sampling is needed. The rationale and selection of sampling

Soil Investigations: (continued)

locations are provided during individual HSA technical roundtable meeting presentations and discussions with community stakeholders. Below is a summary of the Phase 1 efforts. Phase 3 activities are anticipated to begin in early 2012.

HSA-5C

- All field work completed
- All chemical analytical data received and validated.
- Technical Memorandum summarizing analytical results issued (available on DOE and DTSC web sites).

Sediment Drainage Sampling

- All field work completed
- All chemical analytical data received and validated.
- Technical Memorandum summarizing analytical results in progress and will be submitted soon.

HSA-5B

- All field work completed
- All chemical analytical data received and validated.
- Technical Memorandum summarizing analytical results in progress and will be submitted soon.

HSA-5A

- All field work completed
- All chemical analytical data received and validated.
- Technical Memorandum summarizing analytical results in progress and will be submitted soon.

HSA-8N

- All field work completed
- All chemical analytical data received and validated.

HSA-5D North

- All field work completed
- All chemical analytical data received with 95% of the data validated.

HSA-6

- Surface sampling is complete.
- Subsurface sampling is 99% complete.
- 97% of the chemical analytical data received with 50% of the data validated.

Soil Investigations: (continued)

HSA-7

- All field work completed
- 65% of analytical data received with validation in progress

HSA-3

- All field work completed
- 90% of analytical data received with validation in progress.

HSA-5D South

- All field work completed
- 60% of the analytical data received with validation in progress

HSA-8 South

- All field work completed.
- 95% of analytical data received with validation in progress

NASA

- Sampling at the Building 204 area of Subgroup 2 (Ash Pile/Building 515 Sewage Treatment Plant, Building 204, Storable Propellant Area, and Skyline Road Area) was approved by DTSC to accommodate coordination with EPA staff occupying the building. The sampling was performed November 28 through 30, 2011.
- On December 8, 2011, DTSC and NASA hosted a community stakeholder technical roundtable at SSFL to present the NASA Subgroup 3 (Alfa and Bravo Test Stands) data gap Field Sampling Plan (FSP), discuss comments and conducted a site tour. Comments can be provided on the FSP until January 6, 2012.
- Community comments were received during the presentation and site visits, and DTSC will provide responses after the January 6, 2012 comment due date.

Public Outreach:

- On December 14, 2011, DTSC and DOE hosted a technical roundtable at SSFL to present and discuss the planning and strategy for future chemical soil sampling for the upcoming Phase 3 (Chemical Data Gap Investigation) effort.

Groundwater Investigations:

- On December 21, 2011, DTSC issued comments on the draft Site-Wide Remedial Investigation Report (December 2009). DTSC is requiring additional characterization on release locations and further information on the fate and transport model.

Chemical Background Study:

- The chemical background samples have gone through preliminary analysis and are under data validation review.

Feasibility Study: In DTSC review.

Treatability Studies:

- DTSC approved proceeding with the four groundwater laboratory treatability studies:
 - Vapor Extraction/Sparging
 - Chemical Oxidation
 - Thermal Treatments
 - Bio augmentation/Stimulation

Building Demolition:

- Installed erosion controls at Component Test Laboratory (CTL)-III, Group 1B.
- Installed erosion controls at Groundwater Treatment Systems, Areas I, II, and III.

Interim Source Removal Actions: (Note: ISRA activities are conducted under the authority of the Los Angeles Regional Water Quality Control Board (LA-RWQCB))

- DTSC participated in project status meetings on November 30 and December 14 held once every two weeks.
- On December 9, DTSC reviewed and approved soil excavation plan for AP/STP-1C1 and additional excavation at AP/STP- 1E2. Waste characterization radionuclide sample results for AP/STP-1B contained a single elevated reporting limit for Uranium-235 (< 0.131 pCi/g) that exceeded the EPA draft Background Threshold Value of (0.130 pCi/g) and was judged to be inadequate for supporting determination of non-restricted waste disposal. Excavation of AP/STP-1B ISRA area is being postponed until additional sampling and analysis is conducted to resolve the elevated Uranium-235 reporting limit issue.

Permits: No new updates:

Risk Assessment: No new updates.

Activities Proposed for the Next 30 Days:

Soil Investigations:

DOE

- Continue off-site debris survey work
- Area IV co-located sampling efforts for HSA-6 and HSA-7 – continue co-located sampling for chemical analysis with the US EPA radiological sampling locations.

NASA

- DTSC anticipates approving Field Sampling Plan (FSP)-2 for implementation.
- NASA plans to begin full FSP-2 soil and soil gas sampling in early January, 2012. Some remaining FSP-1 soil gas sampling and will also be conducted at this time, and FSP-3 sampling may commence in mid to late-January (pending completion and approval of FSP-3).
- In late-January 2012 (tentative date, January 26, 2012), NASA and DTSC will host a community stakeholder technical roundtable at SSFL to present the NASA Subgroup 4 (Liquid Oxygen (LOX) plant, Area 2 Landfill and Expendable Launch Vehicle (ELV) area) data gap Field Sampling Plan (FSP), discuss comments and conducted a site tour.

Chemical Background Study:

- DTSC will continue to oversee and work with its contractor on the laboratory analytical and data validation efforts. DTSC anticipates having the validated data available to present to the community stakeholders in late March 2012, and a draft chemical background report available for public comment in May 2012.

Groundwater Investigations:

- Fault Characterization: DTSC is reviewing well design for well RD-103. The draft technical memorandum for the Burro Flats Fault is in development. The State Historical and Preservation Office (SHPO) is reviewing proposed trenching activities at former sodium disposal facility (FSDF) structures.
- Groundwater samples to be collected from existing wells for new analytes during first quarter 2012.
- The 2011 annual report is being prepared.

Groundwater Interim Measures:

- Pumping at WS-9A and is anticipated to start the first week of January 2012. Pumping at WS-9A stopped due to problems at the treatment plant. Modifications are being made to the treatment plant.
- The technical memorandum on the hydraulic response to pumping WS-9A is being developed for submittal to DTSC.
- DTSC is working on the CEQA document for the Groundwater Interim Measures effort that includes installation of eight source zone groundwater wells.

Treatability Studies:

- DTSC anticipates Boeing will submit addenda and for the draft Bedrock Vapor Extraction Work Plan and In-situ Chemical Oxidation Work Plan for review.
- DOE will be holding technical presentations and discussions on treatability studies in late January 2012.

Building Demolition: *No new updates*

Interim Source Removal Actions: *(Note: ISRA activities are conducted under the authority of the Los Angeles Regional Water Quality Control Board (LA-RWQCB))*

- DTSC will continue to participate in ISRA bi-weekly project meetings. NASA will postpone soil removal at ELV ISRA areas until excavation at AP/STP. DTSC will continue to evaluate waste characterization radionuclide chemistry results.
- SSFL facility will conduct ISRA performance monitoring and Best Management Practices subarea monitoring inspections and sampling in Outfall 008/009 watersheds, as necessitated by rain events.

Permits: *No new update:*

Risk Assessment:

- The AOC's for DOE and NASA do not require a risk assessment. This information is provided and relevant to the Boeing activities.

Risk Based Screening Levels (RBSL):

- DTSC anticipates receiving the human health based RBSLs from Boeing's consultant in January 2012. DTSC is reviewing the ecological RBSLs.

Public Outreach:

- The next Public Participation Workgroup meeting is scheduled from 6-8:30 pm, January 25, 2012 at the DTSC Chatsworth office.
- DTSC will continue to provide monthly updates regarding the progress of the site investigation and cleanup process to the community.