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Sent Via Electronic Mail

December 08, 2023

Mr. Michael Bower
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DTSC CONDITIONAL APPROVAL OF THE FINAL REMOVAL ACTION WORKPLAN FOR THE AREA I BURN PIT, SANTA SUSANA FIELD LABORATORY, VENTURA COUNTY, CALIFORNIA

Dear Mr. Bower:

The Department of Toxic Substances Control (DTSC) and the California Department of Public Health (CDPH) have completed their review of the Final Removal Action Workplan (Final RAW) for the Area I Burn Pit (AIBP), dated August 18, 2023, and the revised Project Health, Safety and Environmental Plan, dated October 2023, presented as Appendix A of the Final RAW.

The RAW presents the remediation strategy and proposes removal action activities for specific areas within the Area I Burn Pit (Site) Resource Conservation and Recovery Act (RCRA) facility investigation (RFI) site within The Boeing Company (Boeing) Subarea 1B Southwest at the Santa Susana Field Laboratory (SSFL). The RAW was prepared by Jacobs, on behalf of Boeing, pursuant to the Imminent and Substantial Endangerment Determination and Consent Order, SSFL, Area I Burn Pit Area (2022 ISE Order) to prevent clear and imminent threats to ecological receptors. These threats to ecological health include toxicity of certain metals, polychlorinated biphenyls (PCBs), dioxins, pentachlorophenol, and trichloroethene (TCE), as well as radionuclides above background levels.

DTSC mailed out community updates to notify the public of the public input period for the Final RAW from October 10, 2023, to November 15, 2023. DTSC also conducted an online public meeting on November 9, 2023, to hear public input and answer questions.

All public input received during the public input period were reviewed by DTSC before DTSC considered approval of the Final RAW for implementation. For clarification purposes, DTSC has prepared general responses to the most frequently asked questions about the AIBP RAW. These general responses are included as an attachment to this letter.

Based on the public input DTSC has four additional requirements:

1. As stated in section 4.7.4 of the 2007 Consent Order for Corrective Action (and similarly in section 6.11 of the 2022 ISE Order), at the request of DTSC, Boeing shall provide or allow DTSC or its authorized representative to take split or duplicate samples of all samples collected. As indicated in the Final RAW, DTSC will be notified seven days in advance of field activities and sampling. DTSC requests additional notices at one and two days prior to confirmatory sampling so DTSC and California Department of Public Health (CDPH) can oversee sampling activities and collect split samples as desired. Any split samples collected will be submitted to and archived and/or analyzed at DTSC's and CDPH's environmental laboratories for chemical and radionuclide analysis, respectively.
2. It is stated in section 6.2 of the RAW that a general construction permit may also be required. Based on the proposed areas of disturbance, DTSC's understanding is that a general construction permit from the Regional Water Quality Control Board is required. Accordingly, additional best management practices and monitoring shall be implemented before, during, and after rain events.
3. DTSC requires that Boeing implement an additional stormwater control plan in the western portion of AIBP excavation area. This control will be designed by Boeing's Stormwater Expert Panel to ensure that all stormwater runoff from the western excavation area is captured and directed to Perimeter Pond for further treatment.
4. In section 1.4 of the Project Execution Plan (PEP), prepared by Innovative Construction Services (ICS), it is stated that ICS will prepare a Site-Specific Health and Safety Plan (SSHSP) for the Early Action Areas excavation work including additional requirement for work in the Radiological Control Areas (RCA) to ensure workers safety. Please submit the SSHSP and any additional information on RCA so that DTSC can review them prior to implementation of the RAW.

DTSC conditionally approves the Final RAW subject to the conditions listed above. The Final RAW may be implemented after the conditions above have been met and accepted by DTSC.

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If you have any questions please contact the Project Manager, Patrick Movlay at (818) 717-6542, or via email at Patrick.Movlay@dtsc.ca.gov.

Sincerely,



Steven Becker, P.G., Chief
Santa Susana Field Laboratory Branch
Site Mitigation and Restoration Program
Department of Toxic Substances Control

Attachment: DTSC General Response to AIBP FAQs

cc: (via email)

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Frequently Asked Questions on AIBP RAW

DTSC held a public input period for the Final RAW from October 10, 2023, to November 15, 2023. DTSC also conducted an online public meeting on November 9, 2023, to hear public input and answer questions. All public input received during the public input period were reviewed and considered by DTSC. The general responses below provide clarification for the most frequently asked questions about the AIBP RAW.

1. How does this interim cleanup at the Area I Burn Pit (AIBP) cleanup fit in with the final cleanup for all Boeing areas of responsibility?

DTSC determined that the Area I Burn Pit's (AIBP) unique and special circumstances require a timely response action to prevent clear and imminent threats to ecological receptors. These circumstances include the toxicity of certain metals (such as cadmium, mercury, molybdenum, nickel, and zinc), polychlorinated biphenyls (PCBs), dioxins, and pentachlorophenol, and trichloroethene (TCE) to ecological health, as well as the levels of radionuclides in certain soil samples in excess of Lookup Table Values (LUTVs).

The Imminent and Substantial Endangerment (ISE) Order for the AIBP is an interim action for specific areas within the AIBP (referred to as Early Action Areas). These Early Action Areas pose an imminent threat to the ecological receptors that need immediate removal action prior to the final cleanup. DTSC will continue to enforce the conditions of the 2007 Consent Order and the 2022 DTSC-Boeing Settlement Agreement to ensure that cleanup is being completed as expeditiously as possible, following federal, state, and local laws and regulations, and in a manner that is protective of human health and the environment. Additional remedial activities are planned in the future at the Area I Burn Pit as part of the sitewide RCRA Corrective Action Program for SSFL under oversight by DTSC. These remedial actions (which will consider and address the potential risks to humans using the site) will be conducted in compliance with the 2007 Consent Order, as amended by the 2022 DTSC-Boeing Settlement Agreement.

2. What are the objectives for this interim time-critical removal action?

There are three objectives for this interim time critical removal action. The first objective is to remove soil that has radionuclide concentrations in excess of the Look Up Table Values (LUTVs) to a depth of 1 foot greater than each exceedance and up to a maximum depth of 10 feet or bedrock refusal. The second objective is to remove soil within corrective measures study (CMS) areas as necessary for chemicals of concern in soil to a concentration below ecological

risk-based screening levels. Based on previous ecological risk assessments, the maximum depth of exposure of any ecological receptor is considered to be 6 feet below ground surface (bgs) for the exposure of burrowing mammals. The final objective is to remove soil between 6 inches and 2 feet underneath all areas covered by the geotextile fabric as necessary to stabilize the site until the final cleanup is completed under the 2007 Consent Order and the 2022 Settlement Agreement. The depth of excavation below the geotextile covered areas may be increased beyond the 2 feet bgs if needed to address ecological risk or radionuclides above LUTVs or the background threshold value (BTV) for radium-226. Confirmation samples will be collected at the base of each excavation area to confirm soil remedial goals are achieved.

This is not a final cleanup for the AIBP. The rest of the AIBP, including contaminants not addressed as part of this interim time critical removal, will be addressed as part of the final cleanup for the Boeing areas of responsibility pursuant to the 2007 Consent Order and the 2022 Settlement Agreement. As part of the final cleanup for SSFL, including the AIBP, DTSC will require Boeing to conduct a cleanup that will be protective of human health and the environment in accordance with DTSC's regulatory framework.

3. Why isn't this activity subject to the California Environmental Quality Act (CEQA) process?

This cleanup activity is exempt from CEQA because it qualifies as an emergency project.

4. What is the soil remedial goal for Radium-226?

Boeing is cleaning up radionuclides to background in its areas of responsibility. As indicated in section 5.0 of the Project Execution Plan, Soil Excavation and Disposal, accompanying the RAW, excavated soils with concentrations of Radium-226 above naturally occurring radioactive material (based on the background threshold value (BTV) of 1.82 picocuries per gram) set by the US EPA during US EPA's SSFL Radiological Background Study will be transported and disposed of outside of California.

5. Why is a maximum excavation depth of 6 feet below ground surface (bgs) proposed to address chemicals of ecological concern (COECs) that present potential risk to ecological receptors?

The depth of 6 feet excavation for ecological receptor for this interim cleanup is based on an ecological risk assessment (ERA) and broader site cleanup process that use a lines of evidence approach. The lines of evidence approach allows for the integration and balancing of multiple pieces of evidence regarding chemical

fate and transport, the possible impacts of chemical contamination versus impacts from remediation (i.e., habitat degradation or loss), and the challenges, likelihood, and timeline for a successful restoration. The 0-6 ft soil depth range was determined and agreed upon as a result of the September 2005 Standardized Risk Assessment Methodology (SRAM) Work Plan and the first ERAs conducted in 2006-2008. This depth range is also used widely on sites across the state of California, including USEPA-led Superfund Sites.

As noted in DTSC's Ecological Note 1-Depth of Burrow for Burrowing Mammals (EcoNote 1), it is common practice to limit ERAs to surface soils only, which is where most industrial chemical deposition and wildlife exposure generally occurs for soil. The table in EcoNote 1 provides a representative list of different types of burrowing animals and includes some special status species. The depth of the ecological risk assessment is not set based on the depth that a deer mouse might dig a burrow but is instead based on a reasonable depth set from looking at multiple species; it also was not set based on the maximum burrowing depth of any one species. The parameters set in guidance are designed to cover a reasonable encompassing range of possibilities for wildlife species that inhabit an area, not all possibilities nor unique maximums.

6. Where will excavated soil be disposed?

Based on the results of waste profiling and classification, the generated waste will be transported to an appropriate offsite disposal facility. Final determination of the facility selected for disposal will be based on approval from the disposal facility. No waste will be transported and disposed of at any Treatment Storage Disposal Facilities in the city of Simi Valley. Nonhazardous waste will be transported to a facility licensed to accept non-hazardous waste. Material classified as hazardous waste will be transported to a facility licensed to accept hazardous waste, such as Clean Harbors Buttonwillow Landfill. Material characterized with radioactivity greater than the Lookup Table Values (LUTVs) will be transported to a facility licensed to accept radioactive materials at the concentrations identified, such as Waste Control Specialists; Energy Solutions Clive, UT; US Ecology Beatty, NV; or US Ecology, Grandview, ID. (Note that Slide 21 (Soil Transportation and Disposal) of the slide deck for the November 9, 2023 public meeting contained a typographical error. The US Ecology facility was listed as being located in Grandview, UT. The correct location is Grandview, ID.)