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Via Certified Mail

October 1, 2013
In reply, refer to SHEA-114031

Allen Elliott
Santa Susana Field Laboratory
Program Director
NASA MSFC AS01, Building 4494
Huntsville, AL 35812

Dear Mr. Elliott:

Subject: Comments of The Boeing Company on the Draft Environmental Impact Statement for Proposed Demolition and Environmental Cleanup Activities at the Santa Susana Field Laboratory

The Boeing Company (Boeing) appreciates the opportunity to submit these comments on the Draft Environmental Impact Statement (DEIS) prepared by the National Aeronautics and Space Administration (NASA) pursuant to the National Environmental Policy Act (NEPA) for demolition and cleanup activities at the Santa Susana Field Laboratory (SSFL), located in Ventura County, California. Boeing owns portions of SSFL, and NASA, Boeing and the U.S. Department of Energy (DOE), are parties to a 2007 Consent Order with the California Department of Toxic Substances Control (DTSC) regarding the remediation of soil and groundwater contamination at SSFL. In 2010, NASA also entered into an Administrative Order on Consent (AOC) with DTSC for soil cleanup activities at SSFL, as did DOE.

Boeing supports NASA's efforts to proceed with cleanup activities at SSFL. NASA, Boeing and DOE have coordinated their efforts in investigating environmental conditions at SSFL over the past years, and Boeing looks forward to continuing to work cooperatively with NASA and DOE as cleanup activities at SSFL are implemented. SSFL cleanup activities will be considered in environmental documents prepared under NEPA, including this DEIS, as well as environmental documents prepared pursuant to the California Environmental Quality Act (CEQA). Specifically, the AOCs and 2007 Consent Order contemplate the preparation of a facility-wide Environmental Impact Report (EIR) by DTSC, and DTSC has recently commenced that CEQA process.

Boeing is the owner of property at SSFL and will be affected by NASA's proposed activities. Boeing's SSFL cleanup activities will be evaluated by DTSC under CEQA, and the environmental analyses performed by NASA to comply with NEPA will likely be considered by, but will not be controlling of, DTSC's CEQA analysis. Accordingly, Boeing respectfully submits these comments on the DEIS for NASA's consideration. Section I of this letter describes substantive issues on environmental analyses in the DEIS, while Section II identifies clarifications to specific statements in the text in the DEIS.

- I. The DEIS Should Consider the Following Additional Information in Compliance with NEPA
 - A. The DEIS Should Address How NASA's Proposed Project Will Address Compliance with NPDES Effluent Limits

Although the DEIS acknowledges Boeing's National Pollutant Discharge Elimination System (NPDES) permit in Section 3, Affected Environment (DEIS, p. 3-42), the analysis of water resources in Section 4 does not fully consider the requirements of the NPDES permit or include compliance with the NPDES permit in its discussion of identified Best Management Practices (BMPs). Although the permit is in Boeing's name only, it regulates discharges from both NASA's property and Boeing's property. The DEIS includes Water BMP-1, which requires the preparation of a Construction Storm Water Pollution Prevention Plan (SWPPP) and Erosion Control Plan (ECP), and on that basis, concludes that the impact to water quality is negligible. (DEIS, pp. 4-80 – 4-81.) The DEIS should evaluate the water quality impacts of the proposed project on NPDES permit compliance, and the BMPs should include specific measures that address compliance with the NPDES permit.

Boeing has performed substantial restoration work in the Northern Drainage, including work performed under the guidance of the SSFL Surface Water Expert Panel¹, to improve water quality and compliance with the NPDES permit. The restoration work follows cleanup activities performed with the oversight of DTSC and the Regional Water Quality Control Board, Los Angeles Region (RWQCB) and in accordance with direction provided by the U.S. Army Corp of Engineers (USCOE) and the California Department of Fish and Wildlife (CDFW). To date the restoration work includes extensive re-vegetation of the areas where soil has been removed with approximately 2,400 plants, the installation of irrigation systems and numerous riprap check structures, reinforcement of the drainage banks, and hydromulching at the end of every construction year. All of this work has been performed with the goal of improving sediment stabilization and permit compliance at Outfall 009.

The excavation identified in the DEIS for NASA's proposed project would remove or destroy many of the improvements in the Northern Drainage. The DEIS should consider the water quality impacts of eliminating the Northern Drainage improvements as well as compliance with the NPDES permit, both during the implementation of the proposed project and permanently.

- B. As Allowed For In the AOC, NASA Should Consider Alternatives with Different Cleanup Standards Based on Potential Impacts to Cultural Resources or Biological Resources

The DEIS states that the decision to not consider alternative cleanup standards is based on the NASA AOC and direction from the White House's Council on Environmental Quality (CEQ). (DEIS, pp. ES-1 – ES-3.) However, the AOC expressly identifies exceptions to the cleanup to background standard based on potential impacts to cultural resources and biological resources. (AOC, Attachment B, Final Agreement in Principle, p. 1.) Given the potentially significant impacts to both cultural resources and biological resources described in the DEIS, and pending consultations regarding both, NASA should consider

¹ The SSFL Surface Water Expert Panel members are: Michael K. Stenstrom, PhD, PE, BCEE; Robert Gearheart, PhD, PE; Jonathan Jones, PE, DWRE; Michael Josselyn, PhD, PWS; and Robert Pitt, PhD, PE, BCEE, DWRE. The Panel was formed in late 2007 and since then has been sharing their extensive expertise in stormwater management and ways to improve stormwater quality in the NPDES Outfall 008 and 009 watersheds.

whether alternatives with different cleanup standards may provide the same level of protection to human health and the environment while resulting in fewer impacts to these resources. With respect to cultural resources, the identification of SSFL as a Sacred Site by the Santa Ynez Band of Chumash Indians and the ongoing evaluation of SSFL as a Traditional Cultural Property (TCP) and Cultural Landscape warrant careful consideration of the extent to which excavation activities may be performed. In any case, to the extent that any Project activities and consultations for cultural resources (Sacred Site, TCP, Cultural Landscape or Site No. CA-VEN-1803) or biological resources affect Boeing property, Boeing looks forward to participating in those consultation proceedings.

Furthermore, in light of the fact that the DEIS identifies potentially significant environmental effects (both on a project and cumulative basis) that could not have been known when the AOC was executed (or when the CEQ issued its guidance letter in June 2012), and given NEPA's requirements regarding alternatives, it seems appropriate for NASA to now reconsider whether any other alternatives with different cleanup standards should be evaluated. Using a risk-based analysis, a similar level of protection to human health and environmental receptors may be achieved performing substantially less work, resulting in fewer impacts. For example, a soil remediation project (with equivalent protections) limited to areas of higher contaminant concentrations would in general be located on previously disturbed areas of the site. Project-related impacts to biological resources and the cultural landscape, and therefore the Sacred Site, would likely be substantially reduced as compared to the proposed action and determined to be potentially less than significant.

C. The DEIS Should Consider Potential Impacts Associated with Longer Durations and Impacts Resulting from the Concurrent Implementation of Soil and Groundwater Treatments

The DEIS appears to assume that the soil and groundwater remediation activities would be performed within the time frames discussed in the AOC and 2007 Consent Order, e.g., 2017, with demolition to occur prior to the commencement of the soil and groundwater activities. (See, e.g., DEIS, Table 2.2-5, Footnote a: "Assumes completion of cleanup and soil hauling by the end of 2017.") The DEIS also indicates that several of the soil treatment technologies could require more than 2 years to complete. (DEIS, Table 2.2-7.) Two of the groundwater treatment technologies – In situ Chemical Oxidation and In situ Enhanced Bioremediation – are listed in duration as "Months to Years." (DEIS, Table 2.2-8.) The SSFL Groundwater Expert Advisory Panel's² assessment is that these techniques could not be completed in months, but perhaps decades (SSFL Groundwater Advisory Panel, 2009). The DEIS should address the potential impacts resulting from the concurrent and perhaps extended implementation of soil and groundwater treatments, as well as the additional impacts of implementing these treatments, including the drilling of wells, the delivery of materials, energy requirements, and possibly, an assessment of water supply, as water is identified as needed for some of these treatments.

D. The DEIS Should Consider Transportation and Related Noise Impacts Utilizing Historic Site Data and Other Constraints

² The SSFL Groundwater Expert Advisory Panel consists of Drs. John Cherry, David McWhorter and Beth Parker. Since 1996, the Groundwater Expert Advisory Panel has been assisting in the characterization and remedial assessment of the fractured sandstone aquifer that underlies SSFL.

With the implementation of interim measures and other work at SSFL, including significant soil excavation, Boeing has gained substantial experience with respect to the transportation effects and community concerns related to such work. For example, waste disposal facilities may limit the number of trucks that are allowed at the facility in any single day and may have limitations imposed in their regulatory permits on the annual volume of soil that they may accept. Any such restriction should be considered in evaluating both project-related and cumulative impacts. Boeing's experience with respect to the truck trips is that the maximum safe load weight is 45,000 pounds per truck, and given the weight of soil, 16-18 cubic yards is a more accurate estimate of soil that may be transported by a single truck. Also, the DEIS concludes that the transportation impacts may be reduced by updating Boeing's existing Construction Transportation Control Plan (CTCP) and coordinating with Boeing and DOE. (DEIS, p. 4-73, Mitigation Measure-1.) Although construction transportation control plans have been prepared for prior work at SSFL, Boeing is not aware of any approved update to those plans, and in any case, those plans applied to narrowly defined interim activities and would likely require substantial modifications to address the anticipated construction traffic for the proposed project as well as Boeing's and DOE's projects.

The DEIS should address potential transportation impacts (project and cumulative) based on current policies from the relevant jurisdictions, including the City of Los Angeles, Department of Transportation, Traffic Study Policies and Procedures (May 2012). (Ventura County's policies may be found in its Initial Study Guidelines, Section 27a(1), Transportation & Circulation – Roads and Highways – Level of Service (LOS), and Los Angeles County's policies may be found in its Traffic Impact Analysis Report Guidelines.) These jurisdictions also identify roadway capacities that are likely more representative of local conditions than capacities identified by Florida's Department of Transportation. Moreover, most if not all of these transportation policies require some analysis of peak hour trips on the arterial roadways, in addition to an analysis of Average Daily Trips (ADT). Perhaps NASA has conducted this transportation analysis, but the DEIS does not include a traffic study or report that describes these issues in greater detail.

Similarly, NASA should consider using the noise thresholds of the applicable jurisdictions to evaluate the noise from proposed project, including trucks on arterials roadways, e.g., Ventura County Construction Noise Threshold Criteria (2010) (not the 1974 Los Angeles Ordinance). (DEIS, p. 4-141.) The DEIS states: "The added heavy truck traffic from demolition and environmental cleanup activities would result in a 3-dBA change in noise levels along the designated haul routes at a distance of 100 ft. For perspective, changes in noise levels of 3 dBA are barely perceptible to the human ear." (DEIS, p. 4-140.) The DEIS does not provide a noise study or report to substantiate this conclusion, and from Boeing's experience, this conclusion may present concerns within neighboring communities. The DEIS concludes that the noise impact is negligible, negative, local and short-term. Given the truck operations which will continue on a daily basis for at least four years and probably longer, as explained above, the potential noise impact may not be "negligible" or "short-term."

E. The DEIS May Understate Potential Environmental Impacts From Excavation of 500,000 CY on 105 Acres

The DEIS acknowledges that impacts to native vegetation communities are "significant, negative, local [and] long-term." (DEIS, Table 4.4-1, p. 4-47.) The DEIS states: "Once the soil was removed, the existing micro-system might never be restored. It can take years for native species to reestablish in disturbed

areas, and the species composition would be different from what was originally there, despite reseeding with approved native plant seeds.” (DEIS, p. 4-35.) Biology BMP-1 and -2 indicate that the significant impact to native vegetation communities can be reduced to a short-term impact (it should be noted that this conclusion is not consistent with the conclusion in Table 4.4-1), but the BMPs are not sufficiently described to demonstrate that the restoration would be successful, and appear to be inconsistent with the DEIS statements above on p. 4-35. The DEIS also indicates that the “Overall Impacts” with respect to biological resources will depend on consultation with the US Fish and Wildlife Service (USFWS), USACE and RWQCB (Table 4.4-1, p. 4-52), but this significant impact to vegetation communities is not dependent on those consultations. (See Biology-2d and 2g, Table 4.4-1.)

The DEIS fails to adequately address either the intrinsic impact of destroying 105 acres of property, or the collective or holistic impact of the excavation (at times down to bedrock), including impacts to the ecosystem as a whole, erosion, impacts to native vegetation and wildlife (including sensitive and listed species), impacts on hydrology and water quality, dramatic modifications to the terrain, and unknown impacts to cultural resources. Based on the soil excavation performed by Boeing at SSFL to date, Boeing understands the very substantial challenges involved in successfully reestablishing native vegetation communities, stabilizing the soil and managing the hydrology of the disturbed area. The DEIS should evaluate the significant and long-term impacts resulting from the excavation of 500,000 cubic yards of soil (or even 320,000 cubic yards) that cannot be fully mitigated.

F. To the Extent NASA’s Proposed Project Extends Into SSFL Areas Beyond the Boundaries of the Federal Property Administered by NASA, the DEIS Should Consider Alternative Cleanup Processes and Standards

The proposed project includes treatment or remediation areas that are outside of NASA’s Area I and Area II. (DEIS, Figures 2.2-2, 2.2-3 and 2.2-4.) The DEIS utilizes the AOC’s cleanup to background standard to evaluate cleanup activities for the entirety of the project, including areas beyond NASA boundaries that are governed by the 2007 Consent Order. The 2007 Consent Order applies a risk-based methodology consistent with California law applied to other remediation sites. While Boeing appreciates NASA’s obligations under the AOC both with respect to the cleanup standard and the requirement to remediate contiguous contamination if it has migrated beyond NASA’s property, the DEIS should also evaluate the risk-based process to be applied under the 2007 Consent Order in evaluating remediation activities beyond NASA boundaries. Boeing looks forward to coordinating with NASA regarding cleanup activities at SSFL in a manner that allows NASA and Boeing to meet their respective commitments

G. Cumulative Impacts

The DEIS acknowledges that the cumulative impacts of the NASA, DOE and Boeing projects with respect to many resources areas are more severe than those identified solely for NASA’s project. (DEIS, Table 4.13-2, pp. 4-166 – 4-167.) More specifically, with respect to the potential negative impacts, the changes are as follows:

- a. Soils: Minor to Moderate
- b. Cultural Resources: Pending Consultation to Significant
- c. Biological Resources: Pending Consultation to Significant
- d. Transportation: Minor to Significant

- e. Water Resources: Negligible to Moderate
- f. Health and Safety: Negligible to Moderate
- g. Noise: Negligible to Minor
- h. Hazardous Waste: Minor to Moderate

NEPA requires the consideration of mitigation measures for potentially adverse impacts, including the proposed project’s contribution to cumulative impacts. The DEIS should provide more information regarding the analysis of cumulative impacts and potential mitigation measures.

A thorough analysis of cumulative impacts is particularly important because all of these projects relate to the cleanup activities at SSFL. Although Boeing appreciates NASA’s focus on the SSFL areas which it administers in defining the proposed project, and much of Boeing’s work may not require federal action, the DTSC is preparing in compliance with CEQA a Facility-wide EIR for the entire SSFL, which will encompass the activities of all three entities. NASA should ensure that the environmental effects of the demolition and cleanup activities at SSFL are evaluated comprehensively either as the proposed project or as cumulative impacts.

II. Specific Clarifications to Text of DEIS

The following Table notes those locations in the DEIS where Boeing suggests that the current text, tables and figures be updated. In some instances, Boeing has identified factual errors and in others, the need for additional explanation.

Page No.	Section	Comments
ES-6	ES-5.0 Summary of Environmental Consequences	Table ES-2 Summary of Impacts for the Proposed Demolition and Environmental Cleanup at NASA’s Santa Susana Field Laboratory Table ES-2 includes a category of “beneficial impacts.” It is not clear why biology is listed in this category given the significant impact to biological resources noted in the same table.
ES-7,8	ES-5.1.4 Traffic and Transportation	The DEIS states: “The potential for even one accident involving a child is significant and unacceptable.” Yet, the impacts to the safety of children that would be expected because of an increased exposure to truck traffic are deemed to be “moderate, negative, local and short-term.” The potential for one accident is not an adopted threshold typically used in health and safety analysis in environmental documents. This section should be clarified.
ES-16	ES-9.0 Required Permits, Licenses, and	The list of permits, licenses, and approvals that are likely to be required for the Proposed Action does not include DTSC’s approval of the Record of Decision (ROD), the California Environmental Quality Act (CEQA) process, or the Streambed Alteration Agreement, issued by the California

Page No.	Section	Comments
	Approvals	Department of Fish and Wildlife (CDFW).
1-7	1.1.4 Property Administration and Commitments	<p>For completeness, the DEIS should include a description of the 2010 Administrative Order on Consent (AOC) between the Department of Energy (DOE) and the California Department of Toxic Substances (DTSC).</p> <p>The DEIS states: "Stormwater from NASA-administered property exits SSFL through one of these outfalls." It should be noted that there are three other outfalls on the NASA-administered property.</p>
2-12	2.2.1.4 Waste Disposal and Recycling	<p>Table 2.2-2 Proposed Demolition Hauling</p> <p>The information regarding "Equipment for Resale" in Table 2.2-2 appears to either misstates the amount at 8,134 tons or misstates the truck trips at 20.</p>
2-15	2.2.2.2 Preliminary Remediation Areas	<p>Figure 2.2-2 Proposed Soil Remediation Area Under the Proposed Action</p> <p>This Figure does not include the drainage leading to Silvernale Pond and/or Silvernale Pond (outside of Area II) that may be subject to cleanup by NASA.</p>
2-18	2.2.2.3 Soil Cleanup Technologies	Kettleman Hills Landfill, located in Kettleman City, California is identified as a landfill for possible offsite disposal of excavated soil. This landfill currently does not accept waste from the Santa Susana Field Laboratory.
2-27, 29	2.2.3 Proposed Groundwater Remedial Activities	<p>Figure 2.2-4 Areas of Impacted Groundwater—NASA—Santa Susana Field Laboratory</p> <p>The description of area of impacted groundwater (AIG)-9 in the text of the DEIS is not consistent with what is depicted on Figure 2.2-4.</p>
2-31, 32	2.2.3.2 Groundwater Cleanup Technologies	<p>Table 2.2-8 Comparison of Groundwater Remediation Technologies</p> <p>The text of the DEIS and Table 2.2-8 provide that utilization of in situ chemical oxidation or in situ enhanced bioremediation to remediate the groundwater will take "months to years." The SSFL Groundwater Expert Advisory Panel's assessment is that these techniques would likely take decades to complete the remediation.</p>
2-36	2.4.1.4 Comparison of	Table 2.4-2 Alternative Comparison of Offsite Waste Type

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	Alternatives	Kettleman Hills Landfill located in Kettleman City, California is included in Table 2.4-2 as a location for disposal of hazardous waste from the soil cleanup. This landfill currently does not accept waste from the Santa Susana Field Laboratory.
2-42	2.5 Resources Eliminated from Further Consideration	Table 2.5-1: Resources Eliminated from Further Consideration Reclaimed Water System Infrastructure: Although eliminated as a resource for further consideration because it is currently inactive, NASA may want to consider keeping it place to support treatment technologies that may utilize reclaimed water.
3-1 to 3-11	3.2 Site Infrastructure and Utilities	There does not appear to be a discussion in the DEIS of impacts to the utilities and infrastructure identified in this Section.
3-4	3.2.2.3 Sewer System	The description of the use of the Area III Sewage Treatment Plant (STP) (STP-3) is in error. STP-3 has been demolished.
3-16	3.3.3.3 Archaeological Resources	Boeing appreciates the information included in the DEIS regarding Site No. CA-VEN-1803 (Lithic Scatter), located north of Area II on Boeing property.
3-23	3.4.3.1 Sensitive Plant Species	Although no Brauton's milkvetch (a federal endangered species) was found on NASA-administered property, it was found on the adjacent Boeing property. Whether the NASA-administered property presents a suitable habitat for the species is not addressed.
3-35, 37	3.4.5.1 Wetland Delineation	The DEIS identifies the Propellant Loading Facility (PLF) Drainage and Drainage A-1 as riverine wetlands and SW-2 Pond as a palustrine wetland. In its February 12, 2013 letter to NASA, USACOE provided its determination that the PLF and A-1 drainages were not riverine wetlands and that the SW-2 Pond was an intrastate isolated water not regulated by USACOE.
3-47	3.8.2.1 Radioactive Waste	The following statement should be deleted: "Boeing and the California Department of Public Health currently are responsible for verifying radiological cleanup procedures and activities." It is unclear what portion(s) of the SSFL this sentence is intended to address, and USEPA and DOE have responsibility for verifying radiological cleanup procedures and activities.

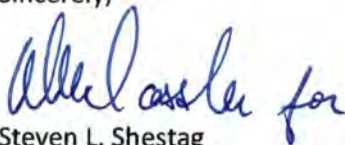
Page No.	Section	Comments
3-48	3.8.2.3 Sampling of Contaminated Areas	<p>The DEIS states: "For investigation and reporting purposes, the contaminated sites at SSFL are considered by geographic locale and similar historical use (referred to as RI groups) rather than by ownership. An RI group could have contaminated sites that are owned and operated by NASA or Boeing."</p> <p>For accuracy, the second sentence above should be revised to read: "An RI group could have contaminated sites that may have been owned and/or operated by NASA, Boeing or DOE."</p>
4-81	4.6.2 Best Management Practices	<p>The DEIS states: "The combined effect of demolition and remediation activities on the potential to increase surface water and groundwater pollution would be minor, given the regulatory controls in place to protect water quality and the assumption that NASA would adhere to these requirements."</p> <p>It is unclear why the DEIS describes NASA's adherence to water quality regulatory controls as an assumption.</p>
4-156	4.13 Cumulative Impacts	<p>The DEIS states that 140,000 cubic yards of soil will be excavated by Boeing as part of the remediation of the Boeing property. Boeing is continuing to refine its soil volume excavation estimates.</p>
4-157	4.13.1 Cumulative Activities	<p>The DEIS states: "No new residential developments have been proposed immediately surrounding or within a 1-mile radius of SSFL." It further states: "Consequently, new residential development is not discussed further in this cumulative analysis."</p> <p>There are two proposed residential developments in close proximity to SSFL: the Runkle Canyon residential development and the Dayton Canyon residential development.</p>
4-161	4.13.2.4	<p>Table 4.13-1 Cumulative Truck Hauling Estimates of NASA, DOE, and Boeing Activities</p> <p>Although this Table appears to include the volume of soil generated by NASA on a yearly basis over a 2 year period (247,585 cubic yards), the volume shown for Boeing (140,000 cubic yards) is the total amount estimated in the DEIS to be removed by Boeing during its soil remediation activities. (See DEIS, p. 4-156.)</p>
4-169	4.14.3	<p>The DEIS acknowledges that soil characterization is ongoing and that</p>

Page No.	Section	Comments
	Incomplete and Unavailable Information	estimated volumes may increase. Although the DEIS considers that as much as 500,000 cubic yards of soil may be excavated, there is no discussion of an "upper limit" in acknowledgment of the ongoing characterization work, which may be appropriate.
4-169	4.15 Required Permits, Licenses, and Approvals	The list of permits, licenses, and approvals that are likely to be required for the Proposed Action does not include DTSC's approval of the Record of Decision (ROD), the California Environmental Quality Act (CEQA) process, and the Streambed Alteration Agreement, issued by the California Department of Fish and Wildlife (CDFW).
5-4	5.4.3 Other Agency Coordination	<p>The final sentence in the paragraph describing an August 25, 2011 meeting states: "The site visit concluded with Director Raphael describing her understanding of the SSFL cleanup, the two Administrative Orders on Consent (AOCs) with both NASA and Boeing: and her planned approach, foreseen challenges, and ultimate goals."</p> <p>The two AOCS are with NASA and DOE.</p>

Again, Boeing appreciates the opportunity to submit these comments to NASA. Given that Boeing is in the process of defining the scope of its SSFL activities and any associated environmental effects in support of the CEQA process, Boeing may have additional concerns regarding NASA's evaluation of environmental effects under NEPA as described in this DEIS. We look forward to continuing to work cooperatively to ensure consistency in the environmental analyses for the cleanup activities at SSFL.

Should you have any questions regarding our comments or wish to discuss them, please contact David Dassler of my staff at (818) 466-8733.

Sincerely,



Steven L. Shestag
Director, Enterprise Remediation
Environment, Health & Safety