



Department of Toxic Substances Control



Linda S. Adams
Secretary for
Environmental Protection

Maziar Movassaghi
Acting Director
700 Heinz Avenue
Berkeley, California 94710



Arnold Schwarzenegger
Governor

August 3, 2009

Cassandra Owens
Regional Water Quality Control Board
Los Angeles Region
320 West 4th Street, Suite 200
Los Angeles, California 90013

Interim Source Removal Action (ISRA), Soil Management Plan, Santa Susana Field Laboratory, Ventura County, California, dated July 2009

Dear Ms. Owens:

Staff from the Santa Susana Field Laboratory (SSFL) team of the Department of Toxic Substances Control (DTSC) reviewed the *Interim Source Removal Action Soil Management Plan (ISRA SMP)* submitted by the Boeing Company (Boeing). Attached is a review memorandum prepared for Mr. Jim Pappas dated August 3, 2009.

Our review identified the following three items requiring addition information or clarification.

- 1) The ISRA SMP proposes to backfill and re-contour ISRA excavation areas using soil generated from regrading areas adjacent to the excavations. This proposed regrading approach is atypical and will require chemical characterization of the adjacent soils used for backfill. The ISRA SMP should address chemical characterization and documentation of source of soil backfill.
- 2) The ISRA SMP indicates that soil for excavation backfill may also be used from onsite borrow sources or from RWQCB approved offsite borrow sources. The ISRA SMP should include a soil borrow source chemical characterization analyte list.
- 3) The proposed sampling frequency for waste characterization of excavated soils is not specifically described. The ISRA SMP should describe soil sampling and analysis frequency for radionuclides.

Ms. Cassandra Owens
August 3, 2009
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If you have any questions, please contact me at (510) 540-3955 or via email at BKing@dtsc.ca.gov.



Mr. Buck King, C.HG
Senior Engineering Geologist
Santa Susana Field Laboratory (SSFL) Project Team

cc: Mr. Thomas D. Gallacher
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Canoga Park, California 91304-1148

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Ms. Cassandra Owens
August 3, 2009
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Ms. Cassandra Owens
August 3, 2009
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Department of Toxic Substances Control



Linda S. Adams
Secretary for
Environmental Protection

Maziar Movassaghi, Acting Director
700 Heinz Avenue, Suite 200
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Arnold Schwarzenegger
Governor

To: Jim Pappas, P.E.
Senior Engineering Geologist
Northern California Permitting and Corrective Action Branch
Hazardous Waste Management Program

From: Buck King, C.H.G. *Buck King*
Senior Engineering Geologist
Geologic Services Branch

Date: August 3, 2009

Re: Interim Source Removal Action, Soil Management Plan

PCA: 22120

Site Code: 530033-48

MPC: 37

Staff from the Geological Service Unit (GSU) of the Geologic Services Branch of the Department of Toxic Substances Control (DTSC) reviewed the work plan titled *Interim Source Removal Action Soil Management Plan, Santa Susana Field Laboratory, Ventura County California (ISRA SMP)* dated July 2009.

Previous DTSC Comments on Final ISRA Work Plan

The ISRA SMP was reviewed for its responses to previous DTSC comments and concerns (DTSC Letter from Mr. Buck King to Ms. Cassandra Owens dated June 4, 2009) identified during review of the Final ISRA Work Plan dated May 1, 2009. The DTSC letter identified three issues in the Final ISRA Work Plan that should be addressed in the subsequent ISRA SMP. The DTSC June 4, 2009 comments are summarized in the ISRA SMP responsiveness discussion below. Boeing responded to DTSC comments in an *Addendum to Final Interim Source Removal Work Plan (ISRA WP Addendum)* dated June 19, 2009. The ISRA WP Addendum generally addressed the DTSC comments and indicated additional information would be included in the ISRA SMP.

ISRA SMP Responsiveness to Previous DTSC Comments

The ISRA SMP was reviewed for its technical content and responsiveness to previous DTSC comments.

Mr. Jim Pappas, P.E.
August 3, 2009
Page 2 of 3

In response to DTSC Comment 1 requesting additional information regarding radiologic screening and contingency waste management plans in the event unforeseen items or waste are encountered, the ISRA SMP was found to contain a discussion of the radionuclide screening process and soil management procedures. The ISRA SMP indicates that soil samples will be collected and analyzed for a designated suite of radionuclides for waste characterization purposes and includes Attachment A providing additional ISRA Waste radionuclide sampling information. The Attachment A indicates that in the event radionuclides are detected above background levels, the Department of Public Health and DTSC will be notified and the need for further waste evaluation or alternate waste disposition will be determined.

In response to DTSC Comment 2 requesting that the soil confirmation sampling description include a clear reference to use of sampling method EPA Method 5035 for analysis of VOCs in soil, the ISRA SMP was found to contain clear statements indicating use of EPA Method 5035 soil collection method for soil VOC analysis.

In response to DTSC Comment 3 requesting that the SMP describe soil stockpile photo ionization detector (PID) action levels used to fulfill the requirements for Ventura County Air Pollution Control District, the ISRA SMP was found to contain soil stockpile reactive organic compound (ROC) emissions monitoring information including the 50 parts per million (ppm) by volume PID criteria.

ISRA SMP Comments

SMP1. The ISRA SMP proposes to backfill and re-contour ISRA excavation areas using soil generated from regrading areas adjacent to the excavations. This proposed regrading approach is atypical and will require chemical characterization of the adjacent soils used for backfill. The ISRA SMP should address chemical characterization and documentation of source of soil backfill.

SMP2. The ISRA SMP indicates that soil for excavation backfill may also be used from onsite borrow sources or from RWQCB approved offsite borrow sources. The ISRA SMP should include a soil borrow source chemical characterization analyte list.

SMP3. The proposed sampling frequency for waste characterization of excavated soils is not specifically described. The ISRA SMP should describe soil sampling and analysis frequency for radionuclides.

Mr. Jim Pappas, P.E.
August 3, 2009
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General ISRA Project Comments

GC1. As stated in the letter from Jim Pappas to Cassandra Owens dated March 19, 2009, the purpose of the ISRA is cleanup of soil to prevent violations of RWQCB NPDES effluent limitations and that DTSC will not consider the removal to be SB 990 compliant unless, after DTSC completes its investigation of these areas, the affected areas are determined to meet SB 990 standards.

GC2. Boeing is responsible for managing and handling all hazardous wastes from this operation pursuant to Title 22 requirements. If Boeing, or the LA RWQCB have any questions or need assistance regarding the adequacy of the ISRA SMP description of characterization of radiological materials, they can contact Mr. James Thomas or Mr. Gary Butner of the Department of Public Health, Radiological Health Branch.

GC3. Until such time as the revised background study and SB 990 compliant risk-based screening levels are approved by DTSC, DTSC is not in a position to approve the placement of any on-site or offsite soil borrow materials. Therefore, although the placement of non-DTSC approved soil borrow material may be adequate for meeting NPDES requirements, whether this soil borrow material can meet SB 990 requirements will not be determined until the new background and Risk-Based Screening Levels are developed.

Conclusions

The GSU recommends that ISRA SMP be revised in response to the request for additional information described above regarding: (1) chemical characterization and documentation of source of adjacent soil used for backfill; (2) chemical characterization and documentation of source of onsite and offsite borrow soils used; and (3) soil sampling and analysis frequency for radionuclides.

If you have any questions or comments, please contact me at (510) 540-3955

Cc: File



California Regional Water Quality Control Board

Los Angeles Region



Linda S. Adams
Cal/EPA Secretary

320 W. 4th Street, Suite 200, Los Angeles, California 90013
Phone (213) 576-6600 FAX (213) 576-6640 - Internet Address: <http://www.waterboards.ca.gov/losangeles>

Arnold Schwarzenegger
Governor

August 11, 2009

Thomas Gallacher
The Boeing Company
5800 Woolsey Canyon Road, MC 055-T487
Canoga Park, CA 91304-1148

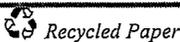
PRE-CERTIFICATION FOR INTERIM SOURCE REMOVAL ACTION (ISRA) - OUTFALLS 008 AND 009 WATERSHEDS, VENTURA COUNTY, CALIFORNIA (File No. 09-127)

We received your pre-certification notification on May 28, 2009 and additional information on June 29, 2009, for determination by this Regional Board that the subject project is pre-certified via the State Water Resources Control Board General Water Quality Certification Order of US Army Corps of Engineers Nationwide Permits dated May 11, 2007 (General Order). Based on our review of the submitted information, we find that your project is partially pre-certified.

The following specific ISRA areas (reference to the figures included in the pre-certification notification and to figures included in the Final ISRA Work Plan, dated 1 May 2009) are certified under the General Order:

- HVS-2A (Figure 3-2)
- HVS-2C (Figure 3-2)
- HVS-3 (Figure 3-2)
- HVS-1 (Figure 3-2)
- HVS-2B (Figure 3-2)
- DRG-1 (Figure 3-2)
- CYN-1 (Figure 3-2)
- PEA-ELV-1 (Figure 5-6) sub ISRA areas ELV-1C and ELV-1D only (as defined in the Final ISRA Work Plan in Figure 4.2)
- PEA-A2LF-3 (Figure 5-6) removal of sediment from culvert only (additional soil may be removed if soils are confirmed to be contaminated as defined in the Final ISRA Work Plan in Section 5.5)

California Environmental Protection Agency



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Thomas Gallacher
The Boeing Company

- 2 -

August 11, 2009

These areas will be excavated as described in the pre-certification notification and further detailed in the ISRA Final Work Plan Appendices C and D. All work is expected to be completed in 2009.

The additional areas included in the pre-certification notification are not certified under the General Order at this time. Boeing may submit new notifications for potential certification under the General Order at a later date upon further refinement of the limits of clean-up areas.

If you have any questions concerning this action, please contact Dr. LB Nye at (213) 576-6785 or lnye@waterboards.ca.gov.

Sincerely,



Tracy J. Egoscue
Executive Officer

cc:

Mr. Antal Szijj, US Army Corps of Engineers
Mr. Bill Orme, State Water Resources Control Board

California Environmental Protection Agency

 Recycled Paper

Our mission is to preserve and enhance the quality of California's water resources for the benefit of present and future generations.



California Regional Water Quality Control Board

Los Angeles Region



Linda S. Adams
Agency Secretary

320 W. 4th Street, Suite 200, Los Angeles, California 90013
Phone (213) 576-6600 FAX (213) 576-6640 - Internet Address: <http://www.waterboards.ca.gov/losangeles>

Arnold Schwarzenegger
Governor

August 13, 2009

Mr. Thomas D. Gallacher Director, SSFL – Environment, Health & Safety
The Boeing Company
Santa Susana Field Laboratory
5800 Woolsey Canyon Road
Canoga Park, CA 91304-1148

**COMMENTS ON SOIL MANAGEMENT PLAN FOR INTERIM SOURCE REMOVAL ACTION
SUBMITTED IN RESPONSE TO A CALIFORNIA WATER CODE SECTION 13304 ORDER –
THE BOEING COMPANY, SANTA SUSANA FIELD LABORATORY, CANOGA PARK, CA
(NPDES NO. CA0001309, CI NO. 6027, SCP NO. 1111, SITE ID NO. 2040109)**

Dear Mr. Gallacher:

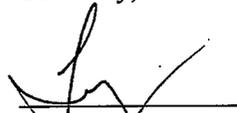
Los Angeles Regional Water Quality Control Board (Regional Board) staff have reviewed the July 10, 2009, *Soil Management Plan* (SMP) submitted in response to a California Water Code Section 13304 Order dated December 3, 2008.

The Boeing Company does not believe that radioactively contaminated soil will be encountered during excavation in the watersheds of Outfalls 008 and 009 as part of Interim Source Removal Actions. However, because of the history of nuclear research and known releases of radioactive material at the Santa Susana Field Laboratory the Regional Board requests that you provide additional information on the disposal of radioactively contaminated soil, if any is encountered.

The SMP indicates that contaminated soil may be disposed of at Antelope Valley, McKittrick, Buttonwillow, and Kettleman City landfills. It is the Regional Board's understanding that these facilities will not accept radioactively contaminated material, including soil with low levels of radiation contamination. Please inform the Regional Board regarding the disposal option in the event radioactive soil is encountered. In addition, the Regional Board received comments from the Department of Toxic Substances Control regarding the SMP (attached) and Ventura County (forwarded via e-mail).

Please provide the Regional Board with your responses to all comments no later than **August 18, 2009**. The responses may be made in an addendum to the SMP or as a modification of the SMP. **Please telephone Mr. Peter Raftery at (213) 576-6724 or email him at praftery@waterboards.ca.gov if you have any questions.**

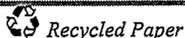
Sincerely,


Tracy J. Egoscue
Executive Officer

Attachment: DTSC comment letter dated August 3, 2009

cc list next page

California Environmental Protection Agency

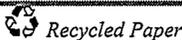


Our mission is to preserve and enhance the quality of California's water resources for the benefit of present and future generations.

cc: Honorable Alex Padilla, Senator 20th District
Honorable Fran Pavley, Senator, 23rd District
Honorable Tony Strickland, Senator 19th District
Assemblymember Bob Blumenfield, Assemblymember 40th District Assembly
Assemblymember Pedro Nava, Assemblymember 35th District
Assemblymember Audra Strickland, Assemblymember 37th District
Mr. Jarrod Degonia, c/o Assemblymember Cameron Smyth
Ms. Rondi Guthrie, c/o Assemblywoman Audra Strickland
Ms. Samantha Stevens, c/o Assemblymember Bob Blumenfield
Mr. Aron Miller, c/o Senator Fran Pavley
Ms. Linda Parks, Ventura County Board of Supervisors
Mr. Damon Wing, c/o Ms. Linda Parks, Ventura County Board of Supervisors
Mr. Gerard Abrams, Department of Toxic Substances Control, Sacramento
Mr. David Beckman, National Resources Defense Council
Ms. Lori Blair, Boeing
Mr. William Bowling
Mr. Michael Bubman, c/o Bell Creek Homeowners Association
Ms. Jeannie Chari
Mr. Paul Costa, Boeing
Mr. Craig Cooper, Environmental Protection Agency, Region 9
Mr. Daniel Cooper, Lawyers for Clean Water
Mr. David Cooper, Environmental Protection Agency, Region 9
Ms. Elizabeth Crawford
Ms. Nicole Doner, Ventura County Planning Division
Ms. Ginn Doose
Mr. Allen Elliott, National Aeronautics and Space Administration
Mr. John Farrow, M. R. Wolfe & Associates, P.C.
Ms. Merrilee Fellows, National Aeronautics and Space Administration
Mr. Tom Ford, Santa Monica Bay Keeper
Dr. Mark Gold, Heal the Bay
Mr. A. J. Greenstein
Mr. Matt Hagemann, Soil/Water/Air Protection Enterprise
Ms. Carol Henderson, Office Manager, Bell Canyon Homeowners Association
Mr. Dan Hirsch, Committee to Bridge the Gap
Ms. Heather L. Hoecherl Esq., Director of Science and Policy, Heal the Bay
Mr. Philip Isorena, State Water Resources Control Board, Division of Water Quality
Ms. Kirsten James, MESM, Staff Scientist, Heal the Bay
Ms. Stephanie Jennings, United States Department of Energy
Ms. Barbara Johnson, Susana Knolls Homeowners, Inc.
Dr. Michael Josselyn, WRA, Inc.
Mr. Thomas Johnson, ETEC Project Manager, United States Department of Energy
Ms. Teresa Jordan
Mr. Thomas Kelly, Environmental Protection Agency, Region 9, (WTR-5)
Dr. Jae Kim, Tetra Tech

cc list continues on next page

California Environmental Protection Agency



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Mr. Wayne Lee
Mr. Michael Levy, State Water Resources Control Board, Office of Chief Counsel
Mr. Michael Lopez, U.S. Department of Energy, Oakland
Mr. John Luker
Ms. Carissa Marsh, The Simi Valley Acorn
Ms. Marie Mason
Mr. Daniel Maccabee, Brandeis-Bardin Institute
Mr. Nicole Moutoux, Environmental Protection Agency, Region 9
Mr. Jerry Murphy, c/o Bell Creek Homeowners Association
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Mr. Mati Waiya, Wishtoyo Foundation
Mr. Jack M. Wallace
Ms. Christina Walsh
Ms. Marge Weems
Ms. Darla Weiss, Ventura County Watershed Protection District
Ms. Mary Wiesbrock
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Mr. Cybil Zeppieri
Mr. Lori Zinkan
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California Environmental Protection Agency



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City of Los Angeles, Bureau of Engineering, Wastewater Systems Engineering Division
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Department of Interior, U.S. Fish and Wildlife Service
Environmental Protection Agency, Region 9, Office of Radiation Programs
Environmental Protection Agency, Region 9, Permits Branch (WTR-5)
Friends of the Los Angeles River
Los Angeles and San Gabriel Rivers Watershed Council
Los Angeles County, Department of Health Services
Los Angeles County, Department of Public Works, Environmental Programs Division
Masry & Vititoe Law Offices
NOAA, National Marine Fisheries Service
Simi Valley Library
The Boeing Company Santa Susana Field Laboratory
U.S. Army Corps of Engineers
ULARA Watermaster
Ventura County Air Pollution Control District
Ventura County Environmental Health Division
Ventura County Public Works
Water Replenishment District of Southern California

California Environmental Protection Agency



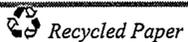
Mr. Thomas D. Gallacher
The Boeing Company

- 5 -

August 13, 2009

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California Environmental Protection Agency



Our mission is to preserve and enhance the quality of California's water resources for the benefit of present and future generations.

CERTIFIED MAIL
In reply refer to SHEA-108980

August 17, 2009

Regional Water Quality Control Board
Los Angeles Region
320 West 4th Street, Suite 200
Los Angeles, CA 90013

Attention: Su Han

Subject: Fugitive Dust Control Measures
Interim Source Removal Action (ISRA)
California Water Code Section 13304 Order
(NPDES NO. CA0001309, CI NO. 6027, SCP NO. 1111, Site ID No.
2040109)

Dear Ms. Han,

This letter is in response to your request on August 11, 2009 regarding dust control measures that will be implemented during the Interim Source Removal Action (ISRA) field work. The ISRA Soil Management Plan and the ISRA Health and Safety Plan both state that dust control measures will comply with Ventura County Air Pollution Control District (VCAPCD) Rule 55 "Fugitive Dust". A copy of VCAPCD Rule 55 is attached for your reference.

Rule 55 applies to any operation, disturbed surface area, or man-made condition that is capable of generating fugitive dust, including bulk material handling, earth-moving, construction, demolition, storage piles, unpaved roads, track-out, or off-field agricultural operations.

During the ISRA project, we are doing the following to control dust to comply with Rule 55.

General Requirements

1. Visible dust beyond the property line will be controlled by using water spray/mist to control fugitive dust emissions. This is a very effective method for control visible dust during the job and within the property boundaries. It should be noted that this is a standard practice for the industry and that most of the areas undergoing soil removal activities for the ISRA Program are well within Boeing or NASA property boundaries and are not immediately adjacent to other property owners.
2. Opacity will be controlled to less than 20 percent by using water spray/mists during bulk material handling, earth-moving, construction and demolition activities, and vehicle movement on unpaved roads. Contractors use buffalo water trucks to spray water that will suppress dust prior to the



mentioned activities. Storage piles that will be generated will be covered and anchored with "visqueen" plastic to prevent fugitive dust from occurring. In addition Boeing will contract with an observer certified by the California Air Resources Board or the U.S. EPA to periodically perform compliance audits to ensure this process is adequate.

3. Track-out from trucks onto public roads will be prevented by having outbound trucks that will be exporting bulk material remain on paved roads within Boeing. No soil build-up is generated on the tires of outbound truck. As a result, soil track out is prevented.

Specific Activity Requirement

1. During earth-moving activities visible dust will be minimized by using water spray/mist to control fugitive dust emissions.
2. For bulk material handling facility track-out prevention, Boeing will ensure that trucks that are exporting bulk materials on to public roads do not travel on unpaved roads while on the Boeing site. This will prevent soil from build-up on tires occurring. As a result, track-out from trucks will not occur.
3. During truck hauling, when bulk material (soil) is loaded onto outbound trucks, properly secured tarps to cover the entire surface area of the load, container-type enclosures, or other effective dust prevention control measures will be used.
4. If high winds conditions occur, defined in Rule 55 as on-site wind speeds exceeding 25 miles per hour for at least 5 minutes in an hour, operations will cease.

Should you have any questions, please do not hesitate to contact Ms. Lori Blair at (818) 466-8741.

Sincerely,



Thomas D. Gallacher
Director, Santa Susana Field Laboratory
Environment, Health and Safety

Attachment: VCAPCD Rule 55

Cc: Michael Villegas, VCAPCD
Cassandra Owens, RWQCB
Peter Raftery, RWQCB,
Samuel Unger, RWQCB
Buck King, DTSC
Ray Gutierrez, Ventura County
Jim Myers, Ventura County
Steve Slaten, NASA



VENTURA COUNTY AIR POLLUTION CONTROL DISTRICT

RULE 55 – FUGITIVE DUST

(Adopted 6/10/08)

A. Applicability

The provisions of this rule shall apply to any operation, disturbed surface area, or man-made condition capable of generating fugitive dust, including bulk material handling, earth-moving, construction, demolition, storage piles, unpaved roads, track-out, or off-field agricultural operations.

B. General Requirements – All Fugitive Dust Sources

1. **Visible Dust Beyond the Property Line:** No person shall cause or allow the emissions of fugitive dust from any applicable source such that the dust remains visible beyond the midpoint (width) of a public street or road adjacent to the property line of the emission source or beyond 50 feet from the property line if there is not an adjacent public street or road.
2. **Opacity:** No person shall cause or allow the emissions of fugitive dust from any applicable source such that the dust causes 20 percent opacity or greater during each observation and the total duration of such observations (not necessarily consecutive) is a cumulative 3 minutes or more in any one (1) hour. Only opacity readings from a single source shall be included in the cumulative total used to determine compliance.
3. **Track-Out**
 - a. No person shall allow track-out to extend 25 feet or more in length unless at least one of the following three control measures is utilized:
 - i. **Track-Out Area Improvement:** Pave or apply chemical stabilization at sufficient concentration and frequency to maintain a stabilized surface starting from the point of intersection with public paved surface, and extend for a centerline distance of at least 100 feet with an acceptable width to accommodate traffic ingress and egress from the site.
 - ii. **Track-Out Prevention:** Check and clean the undercarriage and wheels on all vehicles before leaving unpaved surface or install a properly functioning and well-maintained track-out control device(s) that prevents track-out of soil onto paved public roads.
 - iii. **Track-Out Removal:** Remove track-out from pavement as soon as possible but no later than one hour after it has been deposited on the paved road. If a street sweeper is used to remove any track-out, only

PM10-efficient street sweepers certified to meet South Coast AQMD Rule 1186 requirements shall be used. The make and model information and certification documentation of any sweeper used shall be made available upon request.

- b. Notwithstanding the preceding, all track-out shall be removed at the conclusion of each workday or evening shift subject to the same condition regarding PM-10 efficient street sweepers as outlined in Subsection B.3.a.iii. The use of blowers for removal of track-out is expressly prohibited under any circumstances.

C. Specific Activity Requirements

1. Earth-Moving: No person shall engage in earth-moving activities in a manner that creates visible dust emissions over 100 feet in length.
2. Bulk Material Handling Facilities Track-Out Prevention: No person shall conduct an active operation with a monthly import or export of 2,150 cubic yards or more of bulk material without utilizing at least one of the following measures at each vehicle egress from the site to a public paved road:
 - a. Install a pad consisting of washed gravel (minimum size: one inch) maintained in a clean condition to a depth of at least six inches and extending at least 30 feet wide and at least 50 feet long.
 - b. Pave the surface at least 100 feet long and at least 20 feet wide.
 - c. Utilize a wheel shaker/wheel spreading device, also known as a rumble grate, consisting of raised dividers (rails, pipe, or grates) at least 24 feet long and sufficient width to allow all wheels of vehicle traffic to travel over grate to remove bulk material from tires and vehicle undercarriages before vehicles exit the site.
 - d. Install and utilize a wheel washing system to remove bulk material from tires and vehicle undercarriages before vehicles exit the site.
 - e. Any other control measure or device that prevents track-out onto public paved roads.
3. Truck Hauling: No person (including facility or site operator) shall load or allow the loading of bulk materials or soil onto outbound trucks unless at least one of the following dust prevention techniques is utilized:

- a. Use properly secured tarps or cargo covering that covers the entire surface area of the load or use a container-type enclosure.
- b. Maintain a minimum of 6 inches of freeboard below the rim of the truck bed where the load touches the sides of the cargo area and insure that the peak of the load does not extend above any part of the upper edge of the cargo area.
- c. Water or otherwise treat the bulk material to minimize loss of material to wind or spillage.
- d. Other effective dust prevention control measures.

D. Exemptions

1. This rule shall not apply to:
 - a. On-field agricultural operations.
 - b. Off-field agricultural operations necessary to minimize adverse effects on agricultural or horticultural commodities caused during officially declared disasters or states of emergency.
 - c. Active operations conducted during emergency life-threatening situations, or in conjunction with any officially declared disaster or state of emergency.
 - d. Active operations conducted by essential service utilities to provide electricity, natural gas, telecommunication, water or sewer during periods of service outages or emergency disruptions.
 - e. Weed abatement operations provided that:
 - i. Mowing, cutting or other similar process is used which maintains weed stubble at least three inches above the soil, or
 - ii. Any disking or similar operation where effective dust emission prevention control measures are used.
 - f. Abrasive blasting operations meeting the requirements of Rule 74.1.
 - g. Unpaved service roads having traffic volume of 20 vehicle trips or fewer per day used by one or more public agencies for inspection of infrastructure and not used for construction or maintenance-related activity.

- h. Motion picture, television, or video production activities when dust emissions are required for visual effects. In order to obtain this exemption, the APCO must receive notification in writing at least 72 hours in advance of any such activity and no nuisance results from such activity.
 - i. Temporary earth coverings of public paved roadways where such coverings are approved by a local government agency for protection of the roadway, and where such roadway is closed to through traffic and visible roadway dust is removed within one day following cessation of activities.
 - j. Any paved road unless it has track-out or any publicly-owned unpaved road.
 - k. Demolition operations using blasting explosives, which have been permitted by the California Division of Industrial Safety.
 - l. The disturbance (i.e., disking, ripping, or scraping) of spreading ground lands in preparation for percolative groundwater recharge. Spreading ground lands are ponds, a system of ponds, or basins into which surface water is introduced for the purpose of allowing or enhancing the infiltration of water into underlying aquifers.
2. Frequently Traveled Private Unpaved Road Conditional Exemption: The requirements in Subsections B.1 (Visible Dust Beyond the Property Line) and B.2 (Opacity) shall not apply to fugitive dust from frequently traveled (more than 20 vehicles per day passing in either direction) unpaved private roads if the operator has covered them with a low silt content material such as recycled road base or gravel to a minimum of four inches; or has implemented all of the following control measures:
- a. Control Speed: Control speed to 15 miles per hour or less on unpaved roads through worker notification, signage, and any other necessary means.
 - b. Restrict Access: Restrict access to private unpaved roads currently used by the public either through signage or physical access restrictions.
 - c. Road Treatments: Treat unpaved and uncovered frequently traveled roads with water, mulch, or a non-toxic chemical dust suppressant that complies with all applicable air and water quality government standards. If treated, roads shall be treated in a manner that will avoid the sticking of mud to tires that will be carried onto paved public roads.
3. Lightly Traveled Unpaved Private Road Conditional Exemption: The requirements in Subsections B.1 (Visible Dust Beyond the Property Line) and B.2 (Opacity) shall not

apply to fugitive dust from lightly traveled unpaved private roads if the operator has implemented both of the following control measures:

- a. Control Speed: Control speed to 15 miles per hour or less on unpaved roads through worker notification, signage, and any other necessary means.
 - b. Restrict Access: Restrict access to private unpaved roads currently used by the public either through signage or physical access restrictions.
4. Storage Pile Conditional Exemption: The requirements in Subsections B.1 (Visible Dust Beyond the Property Line) and B.2 (Opacity) shall not apply to fugitive dust from storage piles if the operator has implemented at least one of the following control measures:
- a. Wind Sheltering: Enclose material in a three or four sided barrier equal to the height of the material.
 - b. Watering: Apply water at a sufficient quantity and frequency to prevent wind driven dust.
 - c. Chemical Stabilization: Apply a non-toxic dust suppressant that complies with all applicable air and water quality government standards at a sufficient quantity and frequency to prevent wind driven dust.
 - d. Covering: Install and anchor tarps, plastic, or other material to prevent wind driven dust.
5. High Wind Exemption: The requirements in Subsections B.1 (Visible Dust Beyond the Property Line), B.2 (Opacity), and C.1 (Earth-Moving) shall not apply to fugitive dust when on-site wind speed exceeds 25 miles per hour (mph) for at least 5 minutes in any one hour period as measured by an anemometer with a minimum resolution of 1.0 mph provided:
- a. Applicable control measures outlined in Table 1 have been implemented, and
 - b. Daily records of specific dust control measures have been maintained.
6. Track-out Exemption: The provisions of Subsection B.3 (Track-Out) shall not apply to on-road vehicles (trucks and passenger vehicles) associated with agricultural operations that have caused track-out due to excessively muddy conditions resulting from rainfall.

E. Recordkeeping Requirements

1. Bulk Material Handling Records: Any operator handling bulk materials and having an APCD Permit to Operate shall keep a monthly log, available upon request, containing or referencing the following information:
 - a. Operator name, location of operation, and dates of operation.
 - b. Amount (in yards) of bulk material imported or exported per month.
 - c. Diagram or map of all egress sites to a public paved road and description of corresponding track-out control measure, if required by this rule.

2. Frequently Traveled Unpaved Road Exemption Records: Any operator or owner of a private unpaved road claiming exemption from the requirements in Subsection B.1 (Visible Dust Beyond the Property Line) and Subsection B.2 (Opacity) shall keep the following records:
 - a. Operator name, location of operation, dates when road is open to travel.
 - b. List and diagram of unpaved private roads that have more than 20 vehicle trips per day with corresponding method and description of fugitive dust control. If an unpaved private road is being treated, then describe the method used to control speed and restrict access.

3. Storage Pile Exemption Records: Any owner or operator of a storage pile claiming the exemption from the requirements in Subsection B.1 (Visible Dust Beyond the Property Line) and Subsection B.2 (Opacity) shall keep the following records:
 - a. Operator name, location of operation, dates of operation
 - b. Description of control measure used to minimize fugitive dust including amount of material applied and frequency of application if watering or chemical suppressants are used.

4. High Wind Exemption Records: Any operator claiming the high wind exemption in Subsection D.5 shall keep daily records of specific dust control actions taken.

5. Track-Out Area Exemption Records: Any operator claiming an exemption from track-out area requirements in Subsection B.3.a shall keep the following records:
 - a. Operator name, location of operation, and dates of operations.
 - b. Description of control measure used in the improvement of the track-out area or control measure used to prevent track-out.

6. **Dust Suppressant Records:** Any person using dust suppressants shall keep the following records: Description of dust control measure; Location and extent of coverage; Date, amount, and frequency of application of dust suppressant; and Manufacturer's dust suppressant product information sheets.
7. Any recordkeeping required by this rule shall be made available to APCD compliance personnel upon request. Records shall be retained for a minimum of two years.

F. **Test Methods**

Compliance with the opacity limit in Subsection B.2 shall be determined using EPA Method 9 with the following modifications:

1. **Position:** Stand at least 16.5 feet from the plume(s) with the sun oriented in the 140° sector to your back. If feasible, make opacity observations so your line of sight is approximately perpendicular to the direction of plume travel. To the extent possible, position yourself to make opacity observations using a contrasting background.
2. **Field Records:** Note the following on a record sheet:
 - a. Description and location of activity generating emissions, and method of control used, if any.
 - b. Observer's name, certification data, and affiliation, and a sketch of the observer's position relative to the dust generating activity and the sun, including estimated distances and direction to the plume.
 - c. Time that reading began, approximate wind speed and direction, description of the sky condition (presence and color of clouds), color of the plume, and type of background.
3. **Observations:** For each reading, make the observation at the highest opacity in the dust plume starting at an elevation line 5 feet above the emission source. Do not look continuously at the source, but make momentary observations once every 15 seconds. Record each observation to the nearest 5 percent. Each reading represents a 15 second period. If multiple plumes exist, do not include more than one plume in the line of sight at one time.
4. **Compliance Determination:** If the observer records twelve (12) readings of 20 percent or greater during a one-hour period, the source is not in compliance and observations may stop. The 20 percent or greater opacity readings are not required to be consecutive.

5. Only observers certified by the California Air Resources Board, or the U.S. Environmental Protection Agency may determine compliance with opacity limits.

G. Violations

Failure to comply with any provision of this rule is a violation of this rule.

H. Definitions

1. "Active Operation": Any source capable of generating fugitive dust, including, but not limited to, bulk material handling, earth-moving activities, construction or demolition activities, or vehicular movement on unpaved surfaces.
2. "Bulk Material": Sand, gravel, aggregate material less than two inches in length or diameter, and other organic or inorganic particulate matter.
3. "Construction/Demolition Activities": Any on-site mechanical activities conducted in preparation of, or related to, the building, alteration, rehabilitation, demolition, or improvement of property, including, but not limited to, grading, excavating, loading, crushing, cutting, planing, or ground breaking.
4. "Disturbed Surface Area": This means a portion of the earth's surface which has been physically moved, uncovered, destabilized, or otherwise modified from its undisturbed natural soil condition, thereby increasing the potential for emission of fugitive dust. This definition excludes those areas which have:
 - a. Been restored to a natural state, such that the vegetative ground cover and soil characteristics are similar to adjacent or nearby natural conditions;
 - b. Been paved or otherwise covered by a permanent structure.
5. "Earth-Moving Activities": This means the use of any equipment for any activity where soil is being moved or uncovered, and shall include, but not be limited to the following: grading, earth cutting and filling operations, loading and unloading of dirt, adding to or removing from open storage piles, landfill operations, mining operations, and weed abatement operations.
6. "Frequently-Traveled Unpaved Private Road": For the purpose of defining the conditional exemption in Subsection D.2, any private unpaved road where the count of vehicles traveling in either direction on the road exceeds 20 in any 24 hour period.
7. "Fugitive Dust": Any solid particulate matter that becomes airborne, other than emitted from an exhaust stack, directly or indirectly as a result of the activities of any person(s).

8. "Lightly-Traveled Unpaved Private Road": For the purpose of defining the conditional exemption in Subsection D.3, any private unpaved road where the count of vehicles traveling in either direction on the road is 20 or less in any 24 hour period.
9. "Off-field Agricultural Operations": Any activities excluding those considered by this rule to be on-field agricultural operations.
10. "On-field Agricultural Operations": Activities, excluding travel on field access roads, conducted solely for the purpose of preparing land for the growing of agricultural or horticultural commodities, tree fruits, or raising of fowl or animals, such as:
 - a. Brush or timber clearing, grubbing, scraping, ground excavation, land leveling, grading, turning under stalks, disking or tilling.
 - b. Drying, pre-cleaning, handling, or storing of agricultural commodity material on the field where it was harvested.
 - c. Handling of fowl, or animal feed materials at sites where animals or fowl are raised.
 - d. Disturbing of cultivated land as a result of fallowing, seeding, planting, plowing, disking, fertilizing the soil, cultivating, irrigating, controlling weeds, thinning, heating, pruning, fumigating, spraying, dusting, or harvesting.
11. "Paved Road": A public or private improved street, highway, alley, public way, or easement that is covered by typical roadway materials including, but not limited to, asphalt paving or concrete. For this purpose of this rule, roads covered with recycled road base or gravel are not considered to be paved.
12. "PM-10 Efficient Street Sweeper": Any street sweeper certified by the South Coast AQMD to meet their Particulate Matter (10 microns and less) capture efficiency criteria outlined in SCAQMD Rule 1186 Appendix A.
13. "Source": A source includes all activities and operations that are located on contiguous property under common ownership or control, and includes associated facility-access and haul roads.
14. "Stabilized Surface": Any surface that has been treated, worked, or modified to increase soil stability in order to limit fugitive dust emissions. Methods used to stabilize surface include but are not limited to the following: watering, dust palliatives, vegetation, aggregates, and paving.
15. "Storage Pile": Any accumulation of bulk material or soil, which attains a height of three feet or more and a total surface area of 150 or more square feet.

16. "Track-Out": Any material that adheres to and agglomerates on the exterior surface or tires of motor vehicles, haul trucks, or mobile equipment that have been released onto a named, numbered, or lettered public paved road and can be removed by a PM-10 efficient street sweeper under normal operating conditions.

I. Compliance Schedule:

The requirements of this rule shall become effective on October 8, 2008.

J. Compliance Status

Compliance with this rule shall not guarantee that a person will be in compliance with any other district rule or state regulation, including but not limited to, Rule 50 (Opacity), Rule 51 (Nuisance), Health and Safety Code Section 41700 (Nuisance), or Health and Safety Code Section 41701 (Opacity).

Table 1
Control Measures Needed to Qualify for High Wind Exemption in Subsection D.5

FUGITIVE DUST SOURCE CATEGORY	CONTROL MEASURES
Earth-Moving	1. Cease all active operations; OR 2. Apply water to soil not more than 15 minutes prior to earth-moving activities.
Disturbed Surface Area	1. On the last day of active operations prior to any Sunday, 1-day holiday, or any other period when active operations will not occur for at least four consecutive days, apply water with a mixture of chemical stabilizer diluted to not less than 5 percent by volume of the chemical stabilizer or to chemical stabilizer manufacturer specifications; OR 2. Apply chemical stabilizers at least 30 minutes prior to the wind event; OR 3. Apply water to all unstabilized disturbed areas at least every 4 hours during the wind event. If there is any evidence of wind-driven dust, water frequency is increased until wind-driven dust is minimized; OR 4. Establish a vegetative ground cover within 21 days after active operations have ceased. Ground cover must be of sufficient density to expose less than 30 percent of unstabilized ground within 90 days of planting, and at all times thereafter.
Unpaved Roads	1. Apply chemical stabilizers prior to allowing traffic; OR 2. Apply water at least twice per hour during active operations; OR 3. Stop all vehicular traffic.
Open Storage Piles	1. Apply water at least twice per hour during the wind event; OR 2. Install temporary coverings.



BUILDING A BETTER WORLD

MEMORANDUM

TO: Art Lenox/Lori Blair, Boeing
Allen Elliott/Steve Slaten, NASA

DATE: August 17, 2009

CC: Rick Lainhart, ACOE
Bill McElroy, CH2M HILL

REF: 1891614

FROM: Dixie Hambrick/Alex Fischl, MWH

SUBJECT: Response to DTSC Comments on ISRA Soil Management Plan; Addendum to ISRA Soil Management Plan

This memorandum provides responses to the Department of Toxic Substance Control (DTSC) comments on the Interim Source Removal Action (ISRA) Soil Management Plan (SMP). The ISRA SMP was one of the supplemental plans prepared by MWH on behalf of The Boeing Company (Boeing) and the National Aeronautics and Space Administration (NASA) pursuant to a California Water Code Section 13304 Cleanup and Abatement Order (CAO) issued by the Los Angeles RWQCB dated December 3, 2008 (RWQCB, 2008).

This memorandum was prepared to respond to DTSC comments on the SMP (Attachment 1), and serves as an addendum to that plan for implementation of ISRA activities. Comments from the DTSC on the SMP are reproduced below in their entirety, and responses are provided below each comment. Response to other review comments made by RWQCB (C. Owens and T. Egoscue) regarding radiological sampling for waste characterization and radiological soil management protocols, have been provided in separate memos (each dated August 17, 2009).

DTSC Comment #1: The ISRA SMP proposes to backfill and re-contour ISRA excavation areas using soil generated from re-grading areas adjacent to the excavations. This proposed regrading approach is atypical and will require chemical characterization of the adjacent soils used for backfill. The ISRA SMP should address chemical characterization and documentation of source of soil backfill.

Response: Generalized areas considered likely for re-use as local backfill or re-contouring sources for 2009 ISRA excavation areas in Outfall 008 are shown in figures provided in

Attachment 2. These figures depict refined ISRA Areas based on final data gap sampling results, generalized areas of the extent of soil disturbance or local soil borrow areas near the proposed excavation areas, and associated sampling locations. Sampling data are summarized for the Outfall 008 ISRA Areas and surrounding soils in tables included in Attachment 2. The soil disturbance or borrow extents shown on these figures are generalized based on currently planned excavation boundaries and may change during field implementation based on confirmation sampling results. As discussed during a teleconference with the RWQCB and DTSC on August 11 and during the onsite meeting August 13, these adjacent disturbance and local borrow areas in Outfall 008 are consistent with typical sections included in the grading plans provided to Ventura County in the Outfall 008 Grading Permit Application package. All final excavation areas, soil disturbance, and/or borrow areas will be reported in the final ISRA implementation report and as required for other project close-out needs.

As shown on the figures in Attachment 2, sampling has been performed to characterize soils near excavation areas planned for backfill or re-contouring, and these sample results are provided in the tables of Attachment 2, and were previously provided to RWQCB and DTSC for review on July 29/30, 2009. As discussed with the RWQCB and DTSC during the above-referenced teleconference and onsite meeting, soils being re-used for backfill or re-contouring purposes will be characterized for potential ISRA COCs and associated RCRA risk drivers prior to re-use. Soil characterization and soil disturbance areas will be carefully documented and reported in the ISRA Implementation Report, as well in future RFI/RI reports.

Similar figures are not provided for NASA Outfall 009 ISRA locations since backfill in those areas is not anticipated. Restoration at the NASA ISRA sites will be determined following completion of excavation activities, and as warranted based on discussions with the RWQCB and DTSC.

DTSC Comment #2: The ISRA SMP indicates that soil for excavation backfill may also be used from onsite borrow sources or from RWQCB approved offsite borrow sources. The ISRA SMP should include a soil borrow source chemical characterization analyte list.

Response: The SMP was written to allow for future use of an offsite or onsite borrow source if approved by DTSC; for 2009 ISRA Area implementation, only local borrow soils (adjacent to the excavation areas) will be used. In the future, if an offsite soil borrow source is used for backfill of

ISRA areas, then soils from the borrow area will be analyzed for the chemicals and radionuclides specified on Attachment 3 using the laboratory methods indicated. These criteria were established using DTSC clean fill import criteria, modified to include specific SSFL contaminants (e.g.; perchlorate) and current SSFL soil background levels. If an onsite SSFL soil borrow source is identified for use for ISRA backfill, then DTSC will be asked to approve the sampling suite and analytical results prior to use for onsite backfill.

DTSC Comment #3: The proposed sampling frequency for waste characterization of excavated soils is not specifically described. The ISRA SMP should describe soil sampling and analysis frequency for radionuclides.

Response: As described in Attachment A of the ISRA SMP, the samples used in determining the non-hazardous/hazardous waste classification of soils designated for offsite disposal are also being subjected to the identified radiological analyses. Samples collected for chemical waste characterization have been and will be analyzed for the radionuclides specified in Attachment A of the SMP, including gamma spectroscopy, strontium-90 and tritium. The laboratory gamma spectroscopy library shall include the following contaminants-of-concern as a minimum: Na-22, K-40, Mn-54, Co-60, Cs-134, Cs-137, Eu-152, Eu-154, Th-228, Th-232, U-235, U-238 and Am-241. Any detection of any gamma emitting radionuclides in the library shall also be reported.

Waste characterization sampling is being conducted according to the following procedure:

Title 22, Section 66261.20 of the California Code of Regulations specifies that sampling and sample management of wastes "*...shall be in accord with the sampling planning, methodology... specified in chapter nine of 'Test Methods for Evaluating Solid Waste, Physical/Chemical Methods,' SW-846...*" Accordingly, this is the foundation of ISRA waste characterization sampling. It should be noted that SW-846 does not prescribe sampling frequencies. Rather, it requires a sufficient number of samples to achieve a valid and reliable estimate of the prospective waste's average characteristics relative to applicable regulatory limits. SW-846 provides a formula that may be based upon "limited analytical studies" for the purpose of estimating the appropriate number of samples for characterizing a waste.

As ISRA soil is being characterized *in situ*, the limited analytical studies provision referred to above has been implemented for each planned excavation footprint. The analytical results of the ensuing random sampling were then evaluated to determine:

- 1) Whether additional samples are required consistent with the SW-846 formula, in which case additional random sampling will be conducted.
- 2) Whether any individual sample exhibits a constituent of concern at or above a regulatory threshold, which will result in the determination that the waste is hazardous.
- 3) Whether the mean of significantly present constituents of concern have an upper confidence interval at the 80% probability level that equals or exceeds a regulatory threshold, which will result in the determination that the waste is hazardous.
- 4) Whether any individual sample exhibits a constituent of concern at a concentration requiring TCLP and/or STLC WET leachate analysis, which will result in performance of the required analysis.

The number of randomly identified sample collection locations identified for each of the excavation areas was determined based on results of existing relevant analytical data, historical land usage, and size and topography of the planned excavation area. Waste characterization samples collected prior to August 14, 2009 are identified in Attachment 4; final waste characterization sampling will be documented in the ISRA Implementation Report.

Attachment 1:

DTSC, 2009. Letter from B. King, DTSC to C. Owens, RWQCB, regarding interim Source Removal Action (ISRA), Soil Management Plan, Santa Susana Field Laboratory, Ventura County, California, dated July 2009. August 3.

Attachment 2:

Outfall 008 Refined ISRA Area Figures 1 through 7 and Sampling Results Table

Attachment 3:

Import Fill Criteria, ISRA Project

Attachment 4:

2009 ISRA Area Waste Characterization Summary (August 14, 2009)



Linda S. Adams
Secretary for
Environmental Protection

Department of Toxic Substances Control

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Arnold Schwarzenegger
Governor

August 3, 2009

Cassandra Owens
Regional Water Quality Control Board
Los Angeles Region
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Interim Source Removal Action (ISRA), Soil Management Plan, Santa Susana Field Laboratory, Ventura County, California, dated July 2009

Dear Ms. Owens:

Staff from the Santa Susana Field Laboratory (SSFL) team of the Department of Toxic Substances Control (DTSC) reviewed the *Interim Source Removal Action Soil Management Plan (ISRA SMP)* submitted by the Boeing Company (Boeing). Attached is a review memorandum prepared for Mr. Jim Pappas dated August 3, 2009.

Our review identified the following three items requiring addition information or clarification.

- 1) The ISRA SMP proposes to backfill and re-contour ISRA excavation areas using soil generated from regrading areas adjacent to the excavations. This proposed regrading approach is atypical and will require chemical characterization of the adjacent soils used for backfill. The ISRA SMP should address chemical characterization and documentation of source of soil backfill.
- 2) The ISRA SMP indicates that soil for excavation backfill may also be used from onsite borrow sources or from RWQCB approved offsite borrow sources. The ISRA SMP should include a soil borrow source chemical characterization analyte list.
- 3) The proposed sampling frequency for waste characterization of excavated soils is not specifically described. The ISRA SMP should describe soil sampling and analysis frequency for radionuclides.

Ms. Cassandra Owens
August 3, 2009
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If you have any questions, please contact me at (510) 540-3955 or via email at BKing@dtsc.ca.gov.



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August 3, 2009
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Secretary for
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Governor

To: Jim Pappas, P.E.
Senior Engineering Geologist
Northern California Permitting and Corrective Action Branch
Hazardous Waste Management Program

From: Buck King, C.H.G. *Buck King*
Senior Engineering Geologist
Geologic Services Branch

Date: August 3, 2009

Re: Interim Source Removal Action, Soil Management Plan

PCA: 22120

Site Code: 530033-48

MPC: 37

Staff from the Geological Service Unit (GSU) of the Geologic Services Branch of the Department of Toxic Substances Control (DTSC) reviewed the work plan titled *Interim Source Removal Action Soil Management Plan, Santa Susana Field Laboratory, Ventura County California (ISRA SMP)* dated July 2009.

Previous DTSC Comments on Final ISRA Work Plan

The ISRA SMP was reviewed for its responses to previous DTSC comments and concerns (DTSC Letter from Mr. Buck King to Ms. Cassandra Owens dated June 4, 2009) identified during review of the Final ISRA Work Plan dated May 1, 2009. The DTSC letter identified three issues in the Final ISRA Work Plan that should be addressed in the subsequent ISRA SMP. The DTSC June 4, 2009 comments are summarized in the ISRA SMP responsiveness discussion below. Boeing responded to DTSC comments in an *Addendum to Final Interim Source Removal Work Plan (ISRA WP Addendum)* dated June 19, 2009. The ISRA WP Addendum generally addressed the DTSC comments and indicated additional information would be included in the ISRA SMP.

ISRA SMP Responsiveness to Previous DTSC Comments

The ISRA SMP was reviewed for its technical content and responsiveness to previous DTSC comments.

Mr. Jim Pappas, P.E.
August 3, 2009
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In response to DTSC Comment 1 requesting additional information regarding radiologic screening and contingency waste management plans in the event unforeseen items or waste are encountered, the ISRA SMP was found to contain a discussion of the radionuclide screening process and soil management procedures. The ISRA SMP indicates that soil samples will be collected and analyzed for a designated suite of radionuclides for waste characterization purposes and includes Attachment A providing additional ISRA Waste radionuclide sampling information. The Attachment A indicates that in the event radionuclides are detected above background levels, the Department of Public Health and DTSC will be notified and the need for further waste evaluation or alternate waste disposition will be determined.

In response to DTSC Comment 2 requesting that the soil confirmation sampling description include a clear reference to use of sampling method EPA Method 5035 for analysis of VOCs in soil, the ISRA SMP was found to contain clear statements indicating use of EPA Method 5035 soil collection method for soil VOC analysis.

In response to DTSC Comment 3 requesting that the SMP describe soil stockpile photo ionization detector (PID) action levels used to fulfill the requirements for Ventura County Air Pollution Control District, the ISRA SMP was found to contain soil stockpile reactive organic compound (ROC) emissions monitoring information including the 50 parts per million (ppm) by volume PID criteria.

ISRA SMP Comments

SMP1. The ISRA SMP proposes to backfill and re-contour ISRA excavation areas using soil generated from regrading areas adjacent to the excavations. This proposed regrading approach is atypical and will require chemical characterization of the adjacent soils used for backfill. The ISRA SMP should address chemical characterization and documentation of source of soil backfill.

SMP2. The ISRA SMP indicates that soil for excavation backfill may also be used from onsite borrow sources or from RWQCB approved offsite borrow sources. The ISRA SMP should include a soil borrow source chemical characterization analyte list.

SMP3. The proposed sampling frequency for waste characterization of excavated soils is not specifically described. The ISRA SMP should describe soil sampling and analysis frequency for radionuclides.

Mr. Jim Pappas, P.E.
August 3, 2009
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General ISRA Project Comments

GC1. As stated in the letter from Jim Pappas to Cassandra Owens dated March 19, 2009, the purpose of the ISRA is cleanup of soil to prevent violations of RWQCB NPDES effluent limitations and that DTSC will not consider the removal to be SB 990 compliant unless, after DTSC completes its investigation of these areas, the affected areas are determined to meet SB 990 standards.

GC2. Boeing is responsible for managing and handling all hazardous wastes from this operation pursuant to Title 22 requirements. If Boeing, or the LA RWQCB have any questions or need assistance regarding the adequacy of the ISRA SMP description of characterization of radiological materials, they can contact Mr. James Thomas or Mr. Gary Butner of the Department of Public Health, Radiological Health Branch.

GC3. Until such time as the revised background study and SB 990 compliant risk-based screening levels are approved by DTSC, DTSC is not in a position to approve the placement of any on-site or offsite soil borrow materials. Therefore, although the placement of non-DTSC approved soil borrow material may be adequate for meeting NPDES requirements, whether this soil borrow material can meet SB 990 requirements will not be determined until the new background and Risk-Based Screening Levels are developed.

Conclusions

The GSU recommends that ISRA SMP be revised in response to the request for additional information described above regarding: (1) chemical characterization and documentation of source of adjacent soil used for backfill; (2) chemical characterization and documentation of source of onsite and offsite borrow soils used; and (3) soil sampling and analysis frequency for radionuclides.

If you have any questions or comments, please contact me at (510) 540-3955

Cc: File

Table 3-1 - Revised
Outfall 008 Data Gap and Waste Characterization Sample Results
 (Page 1 of 4)

Sample ID	Sample Date	Sample Depth	Results in mg/kg																	Dioxins / TCDD TEQ (pg/g)	Radionuclides
			Antimony	Arsenic	Barium	Beryllium	Cadmium	Chromium	Cobalt	Copper	Lead	Mercury	Molybdenum	Nickel	Selenium	Silver	Thallium	Vanadium	Zinc		
CNBS0128S001	25-Feb-09	0 - 0.5	--	--	--	--	0.21 J	--	--	9.3	16.8	--	--	--	--	--	--	52.6	0.6815	--	
CNBS0129S001	25-Feb-09	0 - 0.5	--	--	--	--	0.18 J	--	--	8.3	10.8	--	--	--	--	--	--	49.7	--	--	
CNBS0130S001	25-Feb-09	0 - 0.5	--	--	--	--	0.17 J	--	--	7.9	12.4	--	--	--	--	--	--	48.2	--	--	
CNBS0131S001	9-Apr-09	0 - 0.5	--	--	--	--	--	--	--	9.29	35.1	--	--	--	--	--	--	--	1.03	--	
CNBS0132S001	25-Feb-09	0 - 0.2	--	--	--	--	--	--	--	--	2.1	--	--	--	--	--	--	--	--	--	
CNBS0133S001	25-Feb-09	0 - 0.2	--	--	--	--	--	--	--	--	5.2	--	--	--	--	--	--	--	--	--	
CNBS0134S001	25-Feb-09	0 - 0.2	--	--	--	--	--	--	--	--	6.4	--	--	--	--	--	--	--	--	--	
HZBS0062S001	24-Feb-09	0 - 0.5	--	--	--	--	--	--	--	12.3	13.3	--	--	--	--	--	--	--	4.33	--	
HZBS0063S001	24-Feb-09	0 - 0.5	--	--	--	--	--	--	--	--	25.7	--	--	--	--	--	--	--	--	--	
HZBS0064S001	24-Feb-09	0 - 0.5	--	--	--	--	--	--	--	--	11.7	--	--	--	--	--	--	--	1.94	--	
HZBS0065S001	24-Feb-09	0 - 0.5	--	--	--	--	--	--	--	--	13.1	--	--	--	--	--	--	--	0.718	--	
HZBS0066S001	--	--	Sample Not Collected (Bedrock)																		
HZBS0067D001	24-Feb-09	0 - 0.5	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	0.157	--	
HZBS0067S001	24-Feb-09	0 - 0.5	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	0.104	--	
HZBS0068S001	25-Feb-09	0 - 0.5	--	--	--	--	0.4	--	--	--	11.7	--	--	--	--	--	--	67.9	--	--	
HZBS0069S001	25-Feb-09	0 - 0.2	--	--	--	--	0.13 J	--	--	6.32	6.7	--	--	--	--	--	--	47.9	0.323	--	
HZBS0070S001	24-Feb-09	0 - 0.5	--	--	--	--	0.22 J	--	--	--	13.2	--	--	--	--	--	--	51.3	1.94	--	
HZBS0071S001	25-Feb-09	0 - 0.5	--	--	--	--	0.4	--	--	--	9.4	--	--	--	--	--	--	45.6	--	--	
HZBS0071S001SP	25-Feb-09	0 - 0.5	--	--	--	--	0.38	--	--	--	11	--	--	--	--	--	--	45 J	--	--	
HZBS0072S001	25-Feb-09	0 - 0.5	--	--	--	--	0.096 J	--	--	--	7.2	--	--	--	--	--	--	54.1	--	--	
HZBS0073S001	24-Feb-09	0 - 0.5	--	--	--	--	--	--	--	--	8.3	--	--	--	--	--	--	--	0.175	--	
HZBS0073S002	20-Mar-09	1.9 - 2.4	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	0.19	--	
HZBS0074S001	25-Feb-09	0 - 0.5	--	--	--	--	--	--	--	--	8.9	--	--	--	--	--	--	--	--	--	
HZBS0075S001	25-Feb-09	0 - 0.5	Sample Not Analyzed																		
HZBS0076S001	25-Feb-09	0 - 0.5	--	--	--	--	--	--	--	--	11.1	--	--	--	--	--	--	--	--	--	
HZBS0077S001	25-Feb-09	0 - 0.5	--	--	--	--	--	--	--	--	13.9	--	--	--	--	--	--	--	0.337	--	
HZBS0078S001	25-Feb-09	0 - 0.5	--	--	--	--	--	--	--	--	53.6	--	--	--	--	--	--	--	--	--	
HZBS0079S001	24-Feb-09	0 - 0.5	--	--	--	--	--	--	--	--	16.2	--	--	--	--	--	--	--	0.231	--	
HZBS0079S002	20-Mar-09	1.5 - 2.0	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	0.012	--	
HZBS0080S001	25-Feb-09	0 - 0.5	--	--	--	--	--	--	--	0.404	23.2	--	--	--	--	--	--	--	0.259	--	
HZBS0081S001	25-Feb-09	0 - 0.5	--	--	--	--	--	--	--	14.6 J	12.4	--	--	--	--	--	--	--	0.164	--	
HZBS0082S001	25-Feb-09	0 - 0.5	--	--	--	--	--	--	--	<0.328 U	25.5	--	--	--	--	--	--	--	0.399	--	
HZBS0082S002	25-Feb-09	3.2 - 3.7	--	--	--	--	--	--	--	7.34 J	6.53	--	--	--	--	--	--	--	0.024	--	
HZBS0083S001	25-Feb-09	0 - 0.5	--	--	--	--	--	--	--	7.06 J	30.5	--	--	--	--	--	--	--	0.843	--	
HZBS0084S001	25-Feb-09	0 - 0.5	--	--	--	--	--	--	--	1.32	15	--	--	--	--	--	--	--	0.275	--	
HZBS0085S001	25-Feb-09	0 - 0.5	--	4	--	--	0.37	--	--	26.2	28.9	--	--	--	--	--	--	--	2.96	--	
HZBS0085S001SP	25-Feb-09	0 - 0.5	--	5.4	--	--	0.48	--	--	17 J	42	--	--	--	--	--	--	--	--	--	
HZBS0086S001	24-Feb-09	0 - 0.5	--	4.5	--	--	0.4	--	--	15.9 J	9.8	--	--	--	--	--	--	--	--	--	
HZBS0087S001	24-Feb-09	0 - 0.5	--	4.8	--	--	0.39	--	--	16.9 J	9.6	--	--	--	--	--	--	--	--	--	
HZBS0088D001	24-Feb-09	0 - 0.5	--	5.4	--	--	0.41	--	--	15.3 J	12.7	--	--	--	--	--	--	77.5	--	--	
HZBS0088S001	24-Feb-09	0 - 0.5	--	4.2	--	--	0.36	--	--	13.9 J	11.1	--	--	--	--	--	--	71.7	--	--	
HZBS0089S001	24-Feb-09	0 - 0.5	--	--	--	--	--	--	--	--	14.9	--	--	--	--	--	--	--	1.41	--	
HZBS0090S001	24-Feb-09	0 - 0.5	--	--	--	--	--	--	--	--	7.6	--	--	--	--	--	--	57.9	0.0604	--	
HZBS0090S001SP	24-Feb-09	0 - 0.5	--	--	--	--	--	--	--	--	7.4	--	--	--	--	--	--	60	0.173	--	
HZBS0091S001	24-Feb-09	0 - 0.3	--	--	--	--	--	--	--	--	8	--	--	--	--	--	--	--	6.68	--	
HZBS0092S001	25-Feb-09	0 - 0.5	--	2.1	--	--	0.21 J	--	--	6.1	21	--	--	--	--	--	--	--	--	--	
HZBS0093S001	24-Feb-09	0 - 0.5	--	4.4	--	--	0.38	--	--	15.3 J	9.8	--	--	--	--	--	--	--	--	--	
HZBS0094S001	24-Feb-09	0 - 0.5	--	4.7	--	--	0.32	--	--	14.8 J	9.5	--	--	--	--	--	--	--	0.524	--	
HZBS0095S001	24-Feb-09	0 - 0.5	--	4.3	--	--	0.39	--	--	14.8 J	9.8	--	--	--	--	--	--	--	--	--	
HZBS0096S001	25-Feb-09	0 - 0.5	Sample Not Analyzed																		
HZBS0097S001	25-Feb-09	0 - 0.5	--	--	--	--	--	--	--	--	13.9	--	--	--	--	--	--	--	--	--	
HZBS0098S001	20-Mar-09	0 - 0.5	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	1.97	--	

Table 3-1 - Revised
Outfall 008 Data Gap and Waste Characterization Sample Results
 (Page 2 of 4)

Sample ID	Sample Date	Sample Depth	Results in mg/kg																	Dioxins / TCDD TEQ (pg/g)	Radionuclides
			Antimony	Arsenic	Barium	Beryllium	Cadmium	Chromium	Cobalt	Copper	Lead	Mercury	Molybdenum	Nickel	Selenium	Silver	Thallium	Vanadium	Zinc		
HZBS0098S002	20-Mar-09	1 - 1.5	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	0.054	--
HZBS0099S001	20-Mar-09	0 - 0.5	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	97.5	--
HZBS0100S001	20-Mar-09	0 - 0.5	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	0.183	--
HZBS0101S001	20-Mar-09	0 - 0.5	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	0.346	--
HZBS0102S001	20-Mar-09	0 - 0.3	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	0.075	--
HZBS0103S001	20-Mar-09	0 - 0.5	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	0.263	--
HZBS0104S001	20-Mar-09	0 - 0.5	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	3.31	--
HZBS0105S001	9-Apr-09	0 - 0.5	--	--	--	--	--	--	--	44.5 P	--	--	--	--	--	--	--	--	--	5.32	--
HZBS0106S001	9-Apr-09	0 - 0.5	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	0.0358	--
HZBS0106S002	9-Apr-09	3.5 - 4	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	0.00648	--
HZBS0107D001	9-Apr-09	0 - 0.5	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	6.85	--
HZBS0107S001	9-Apr-09	0 - 0.5	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	7.35	--
HZBS0108S001	9-Apr-09	0 - 0.5																			Sample Not Analyzed
HZBS0109S001	1-Jun-09	0 - 0.5	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	0.972	--
HZBS0110S001	1-Jun-09	0 - 0.5	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	5.04	--
HZBS0111S001	1-Jun-09	0 - 0.5	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	1.62	--
HZBS0112S001	1-Jun-09	0 - 0.5	--	--	--	--	--	--	--	8.07 P	--	--	--	--	--	--	--	--	--	2.14	--
HZBS0113S001	1-Jun-09	0 - 0.5																			Sample Not Analyzed
HZBS0114S001	1-Jun-09	0 - 0.5																			Sample Not Analyzed
HZBS0115S001	1-Jun-09	0 - 0.5	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	3.43	--
HZBS0116S001	1-Jun-09	0 - 0.5																			Sample Not Collected (Bedrock)
HZBS0117S001	1-Jun-09	0 - 0.5																			Sample Not Analyzed
HZBS0118S001	1-Jun-09	0 - 0.5	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	0.588	--
HZBS0119S001	1-Jun-09	0 - 0.5																			Sample Not Analyzed
HZBS0120S001	1-Jun-09	0 - 0.5	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	0.851	--
HZBS0121S001	1-Jun-09	0 - 0.5																			Sample Not Analyzed
HZBS0122S001	--	--																			Sample Not Collected (Bedrock)
HZBS0123D001	1-Jun-09	0 - 0.5	--	--	--	--	--	--	--	11.1 P	16.3 P	--	--	--	--	--	--	--	--	0.178	--
HZBS0123S001	1-Jun-09	0 - 0.5	--	--	--	--	--	--	--	11.5 P	17 P	--	--	--	--	--	--	--	--	0.197	--
HZBS0124S001	1-Jun-09	0 - 0.5	--	--	--	--	--	--	--	8.91 J	12.7	--	--	--	--	--	--	--	--	0.162	--
HZBS0124S001SP	1-Jun-09	0 - 0.5	--	--	--	--	--	--	--	8.1	12	--	--	--	--	--	--	--	--	0.120	--
HZBS0125S001	30-Jun-09	0 - 0.5																			Sample Not Analyzed
HZBS0126S001	30-Jun-09	0 - 0.5																			Sample Not Analyzed
HZBS0127S001	30-Jun-09	0 - 0.5	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	10.6	--
HZBS0128S001	30-Jun-09	0 - 0.5	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	6.28	--
HZBS0129S001	14-Jul-09	0 - 0.5	--	--	--	--	--	--	--	10.1 P	--	--	--	--	--	--	--	--	--	--	--
HZBS0130S001	14-Jul-09	0 - 0.5	--	--	--	--	--	--	--	9.12 P	--	--	--	--	--	--	--	--	--	--	--
HZBS0131S001	14-Jul-09	0 - 0.5	--	--	--	--	--	--	--	39.3 P	--	--	--	--	--	--	--	--	--	--	--
HZBS0132S001	14-Jul-09	0 - 0.5	--	--	--	--	--	--	--	33.7 P	--	--	--	--	--	--	--	--	--	--	--
HZBS0133S001	14-Jul-09	0 - 0.5	--	--	--	--	--	--	--	40.7 P	--	--	--	--	--	--	--	--	--	--	--
HZBS0134S001	14-Jul-09	0 - 0.5	--	--	--	--	--	--	--	48.6 P	--	--	--	--	--	--	--	--	--	--	--
HZBS0135S001	14-Jul-09	0 - 0.5	--	--	--	--	--	--	--	12.8 P	--	--	--	--	--	--	--	--	--	--	--
HZBS0136S001	14-Jul-09	0 - 0.5	--	--	--	--	--	--	--	12.0 P	--	--	--	--	--	--	--	--	--	--	--
HZBS0137S001	14-Jul-09	0 - 0.5	--	--	--	--	--	--	--	15.7 P	--	--	--	--	--	--	--	--	--	--	--
HZBS0138S001	14-Jul-09	0 - 0.5	--	--	--	--	--	--	--	51.4 P	--	--	--	--	--	--	--	--	--	--	--
HZBS0139S001	14-Jul-09	0 - 0.5	--	--	--	--	--	--	--	19.9 P	--	--	--	--	--	--	--	--	--	--	--
HZBS0140S001	14-Jul-09	0 - 0.5	--	--	--	--	--	--	--	16.5 P	--	--	--	--	--	--	--	--	--	--	--
HZBS0141S001	14-Jul-09	0 - 0.5	--	--	--	--	--	--	--	21.1 P	--	--	--	--	--	--	--	--	--	--	--
HZBS0142S001	14-Jul-09	0 - 0.5	--	--	--	--	--	--	--	18.0 P	--	--	--	--	--	--	--	--	--	--	--
HZBS0143S001	14-Jul-09	0 - 0.5	--	--	--	--	--	--	--	33.9 P	--	--	--	--	--	--	--	--	--	--	--
HZBS0144S001	14-Jul-09	0 - 0.5	--	7.89 P	--	--	--	0.172 P	--	16.0 P	9.20 P	--	--	--	--	--	--	--	--	--	--
HZBS0145S001	14-Jul-09	0 - 0.5	--	--	--	--	--	0.492 P	--	--	17.3 P	--	--	--	--	--	--	65.1 P	--	--	--

Table 3-1 - Revised
Outfall 008 Data Gap and Waste Characterization Sample Results
 (Page 3 of 4)

Sample ID	Sample Date	Sample Depth	Results in mg/kg																	Dioxins / TCDD TEQ (pg/g)	Radionuclides		
			Antimony	Arsenic	Barium	Beryllium	Cadmium	Chromium	Cobalt	Copper	Lead	Mercury	Molybdenum	Nickel	Selenium	Silver	Thallium	Vanadium	Zinc				
HZBS0146S001	15-Jul-09	0 - 0.5	--	3.74 P	--	--	0.28 P	--	--	12.5 P	8.54 P	--	--	--	--	--	--	--	--	--	--	--	
HZBS0147S001	15-Jul-09	0 - 0.5	--	3.67 P	--	--	0.319 P	--	--	16.0 P	7.75 P	--	--	--	--	--	--	--	--	--	--	--	
HZBS0147S002	15-Jul-09	3.5 - 4.0	Sample Not Analyzed																				
HZBS0148S001	15-Jul-09	0 - 0.5	--	3.59 P	--	--	0.321 P	--	--	17.2 P	8.19 P	--	--	--	--	--	--	--	--	--	--	--	
HZBS0148S002	15-Jul-09	3.5 - 4.0	Sample Not Analyzed																				
HZBS0149S001	15-Jul-09	0 - 0.5	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	X	--
HZBS0150S001	15-Jul-09	0 - 0.5	--	--	--	--	--	--	--	--	15.9 P	--	--	--	--	--	--	--	--	--	--	--	--
HZBS0151S001	21-Jul-09	0 - 0.5	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	X	--
ISWC0001S001	1-Jul-09	--	<10 P	5.6 P	67 P	0.62 P	<0.5 P	17 P	4.6 P	7.7 P	4.3 P	0.0081 P	0.73 P	11 P	<2 P	<1 P	<10 P	27 P	42 P	--	--	X	--
ISWC0002S001	1-Jul-09	--	<10 P	7.4 P	67 P	0.66 P	<0.5 P	18 P	5 P	8 P	5.6 P	0.008 P	0.65 P	12 P	<2 P	<1 P	<10 P	29 P	43 P	--	--	X	--
ISWC0003S001	1-Jul-09	--	<10 P	7.1 P	72 P	0.83 P	<0.5 P	18 P	4.9 P	8.3 P	6.7 P	0.011 P	0.95 P	13 P	<2 P	<1 P	<10 P	29 P	45 P	--	--	X	--
ISWC0004S001	1-Jul-09	--	<10 P	5.6 P	56 P	0.94 P	0.29 P	16 P	4.4 P	8 P	8.6 P	0.011 P	0.65 P	11 P	<2 P	<1 P	<10 P	24 P	53 P	--	--	X	--
ISWC0005S001	1-Jul-09	--	<10 P	<2 P	120 P	0.96 P	0.2 P	4.7 P	5 P	7.8 P	3 P	0.037 P	0.36 P	5 P	1.1 P	<1 P	<10 P	26 P	53 P	--	--	X	--
ISWC0006S001	1-Jul-09	--	<10 P	4.8 P	92 P	1.2 P	<0.5 P	11 P	4.5 P	9.3 P	6.3 P	0.012 P	0.58 P	8 P	<2 P	<1 P	<10 P	26 P	53 P	--	--	X	--
ISWC0007S001*	1-Jul-09	--	<10 P	5.7 P	64 P	0.7 P	<0.5 P	17 P	4.5 P	7.5 P	4.4 P	0.0084 P	0.9 P	12 P	<2 P	<1 P	<10 P	26 P	47 P	--	--	--	--
ISWC0008S001*	1-Jul-09	--	<10 P	6.9 P	74 P	1.9 P	0.39 P	19 P	4.9 P	9.5 P	8.7 P	0.019 P	0.92 P	13 P	<2 P	<1 P	<10 P	31 P	57 P	--	--	--	--
ISWC0009S001	1-Jul-09	--	<10 P	4.6 P	66 P	0.55 P	0.45 P	13 P	4.4 P	180 P	25 P	0.05 P	0.86 P	9.9 P	<2 P	1 P	<10 P	23 P	66 P	--	--	X	--
ISWC0010S001	1-Jul-09	--	<10 P	4.3 P	51 P	0.54 P	<0.5 P	12 P	3.5 P	6.8 P	10 P	0.011 P	0.56 P	8.7 P	<2 P	<1 P	<10 P	21 P	58 P	--	--	X	--
ISWC0011S001	1-Jul-09	--	<10 P	4.9 P	53 P	0.55 P	1.8 P	14 P	4.1 P	9.7 P	10 P	0.014 P	0.58 P	9.2 P	<2 P	<1 P	<10 P	23 P	87 P	--	--	X	--
ISWC0012S001	1-Jul-09	--	<10 P	3.8 P	59 P	0.56 P	<0.5 P	12 P	3.7 P	7 P	9.4 P	0.014 P	0.63 P	8.2 P	<2 P	<1 P	<10 P	21 P	44 P	--	--	X	--
ISWC0013S001	1-Jul-09	--	<10 P	4.3 P	48 P	0.57 P	<0.5 P	16 P	3.4 P	6.8 P	8.9 P	0.0072 P	0.53 P	8.9 P	<2 P	<1 P	<10 P	24 P	100 P	--	--	X	--
ISWC0014S001	1-Jul-09	--	<10 P	3.6 P	47 P	0.44 P	<0.5 P	11 P	3.3 P	8.4 P	12 P	0.016 P	0.54 P	7.4 P	<2 P	<1 P	<10 P	19 P	67 P	--	--	X	--
ISWC0015S001	1-Jul-09	--	<10 P	5.9 P	54 P	0.45 P	<0.5 P	12 P	3.7 P	29 P	20 P	0.013 P	0.69 P	8.5 P	1.5 P	<1 P	<10 P	21 P	78 P	--	--	X	--
ISWC0016S001	1-Jul-09	--	<10 P	4.8 P	51 P	0.58 P	0.25 P	16 P	4.1 P	10 P	14 P	0.013 P	0.74 P	8.9 P	<2 P	<1 P	<10 P	25 P	82 P	--	--	X	--
ISWC0017S001*	1-Jul-09	--	<10 P	3.9 P	47 P	0.58 P	<0.5 P	13 P	3.3 P	6.3 P	8.6 P	0.013 P	0.77 P	7.7 P	<2 P	<1 P	<10 P	24 P	39 P	--	--	--	--
ISWC0018S001*	1-Jul-09	--	<20 P	13 P	68 P	0.96 P	<1 P	27 P	8 P	23 P	24 P	0.018 P	1.4 P	19 P	<4 P	<2 P	<20 P	45 P	73 P	--	--	--	--
ISWC0019S001	1-Jul-09	--	<10 P	3.7 P	45 P	0.64 P	<0.5 P	12 P	3.3 P	5.6 P	4.2 P	0.012 P	0.76 P	6.9 P	<2 P	<1 P	<10 P	23 P	37 P	--	--	X	--
ISWC0020S001	1-Jul-09	--	<10 P	3.8 P	120 P	0.72 P	<0.5 P	13 P	6.4 P	7.6 P	7.2 P	0.01 P	0.82 P	8.3 P	<2 P	<1 P	<10 P	23 P	43 P	--	--	X	--
ISWC0021S001*	1-Jul-09	--	<10 P	4.4 P	49 P	0.55 P	<0.5 P	16 P	4 P	5.3 P	4.9 P	0.015 P	0.72 P	7.9 P	<2 P	<1 P	<10 P	26 P	30 P	--	--	--	--
ISWC0022S001*	1-Jul-09	--	<10 P	4.2 P	55 P	0.62 P	<0.5 P	15 P	3.8 P	6.2 P	5.1 P	0.017 P	0.69 P	8.8 P	<2 P	<1 P	<10 P	26 P	35 P	--	--	--	--
ISWC0023S001	1-Jul-09	--	<10 P	4.1 P	100 P	0.53 P	<0.5 P	14 P	3.4 P	8.3 P	16 P	0.013 P	0.91 P	9.1 P	<2 P	<1 P	<10 P	24 P	52 P	--	--	X	--
ISWC0024S001	1-Jul-09	--	<10 P	4.5 P	49 P	0.63 P	<0.5 P	15 P	3.3 P	6.2 P	4.3 P	0.0089 P	0.67 P	8.1 P	<2 P	<1 P	<10 P	26 P	40 P	--	--	X	--
ISWC0025S001*	1-Jul-09	--	<10 P	3 P	88 P	0.49 P	<0.5 P	12 P	4.9 P	11 P	11 P	0.016 P	0.83 P	8.4 P	<2 P	<1 P	<10 P	28 P	54 P	--	--	--	--
ISWC0026S001*	1-Jul-09	--	<10 P	4 P	60 P	0.55 P	<0.5 P	11 P	4.3 P	7.8 P	10 P	0.014 P	0.71 P	8.1 P	<2 P	2.3 P	<10 P	21 P	38 P	--	--	--	--
ISWC0027S001*	1-Jul-09	--	<10 P	4 P	62 P	0.64 P	<0.5 P	13 P	4.2 P	8.3 P	33 P	0.019 P	0.73 P	9.7 P	<2 P	<1 P	<10 P	24 P	39 P	--	--	--	--
ISWC0028S001	1-Jul-09	--	<10 P	4.2 P	59 P	0.63 P	<0.5 P	12 P	4.1 P	8.9 P	30 P	0.02 P	0.82 P	9.1 P	<2 P	<1 P	0.81 P	23 P	38 P	--	--	X	--
ISWC0029S001*	1-Jul-09	--	<10 P	3.9 P	45 P	0.64 P	<0.5 P	12 P	3.7 P	4.2 P	4.2 P	0.011 P	0.57 P	5.8 P	<2 P	<1 P	0.99 P	21 P	34 P	--	--	--	--
ISWC0030S001*	1-Jul-09	--	<10 P	3.4 P	38 P	0.43 P	<0.5 P	11 P	2.6 P	5.2 P	5.8 P	0.0087 P	0.66 P	6.5 P	<2 P	<1 P	0.8 P	18 P	35 P	--	--	--	--
ISWC0031S001*	1-Jul-09	--	<10 P	3.8 P	48 P	0.55 P	<0.5 P	14 P	3.9 P	5.5 P	5.4 P	0.012 P	0.6 P	7.9 P	<2 P	<1 P	0.95 P	22 P	41 P	--	--	--	--
ISWC0032S001*	1-Jul-09	--	<10 P	3.6 P	77 P	0.66 P	<0.5 P	13 P	4 P	7.1 P	5.2 P	0.014 P	0.72 P	9.9 P	<2 P	<1 P	<10 P	22 P	37 P	--	--	--	--
ISWC0033S001*	1-Jul-09	--	<10 P	4.3 P	74 P	0.64 P	<0.5 P	23 P	7.1 P	13 P	6.9 P	0.0066 P	0.83 P	14 P	<2 P	<1 P	<10 P	40 P	57 P	--	--	--	--
ISWC0034S001*	1-Jul-09	--	<10 P	5.2 P	79 P	0.68 P	<0.5 P	23 P	7.5 P	14 P	7.4 P	0.0095 P	0.99 P	15 P	<2 P	<1 P	1.1 P	40 P	60 P	--	--	--	--
ISWC0035S001*	1-Jul-09	--	<10 P	4.3 P	76 P	0.65 P	<0.5 P	23 P	7.6 P	13 P	6.7 P	0.008 P	0.8 P	15 P	<2 P	<1 P	<10 P	41 P	60 P	--	--	--	--
ISWC0036S001*	1-Jul-09	--	<10 P	4.3 P	76 P	0.65 P	<0.5 P	24 P	7.6 P	13 P	6.5 P	0.008 P	0.75 P	15 P	<2 P	<1 P	<10 P	39 P	60 P	--	--	--	--
ISWC0037S001*	1-Jul-09	--	<10 P	4.2 P	80 P	0.7 P	<0.5 P	26 P	7.9 P	14 P	8.1 P	0.0079 P	0.74 P	16 P	<2 P	<1 P	<10 P	45 P	65 P	--	--	--	--
ISWC0038S001*	1-Jul-09	--	<10 P	3.5 P	38 P	0.58 P	<0.5 P	14 P	4 P	4.6 P	3.6 P	0.0063 P	0.6 P	8 P	<2 P	<1 P	<10 P	19 P	31 P	--	--	--	--
ISWC0039S001*	1-Jul-09	--	<10 P	6.7 P	56 P	0.67 P	<0.5 P	18 P	5.6 P	13 P	11 P	0.021 P	0.82 P	12 P	<2 P	<1 P	<10 P	29 P	57 P	--	--	--	--
ISWC0040S001*	1-Jul-09	--	<10 P	5.9 P	44 P	0.75 P	<0.5 P	17 P	6.3 P	8.2 P	6.7 P	0.025 P	0.63 P	9.5 P	<2 P	<1 P	<10 P	27 P	39 P	--	--	--	--
ISWC0041S001	1-Jul-09	--	<10 P	4.4 P	77 P	0.5 P	<0.5 P	16 P	6 P	16 P	3.8 P	0.0088 P	0.86 P	12 P	<2 P	<1 P	1.1 P	29 P	42 P	--	--	X	--
ISWC0042S001	1-Jul-09	--	<10 P	4.4 P	56 P	0.52 P	<0.5 P	16 P	5.5 P	8.3 P	3.9 P	0.01 P	0.56 P	12 P	<2 P	<1 P	1.3 P	29 P	40 P	--	--	X	--
ISWC0043S001	1-Jul-09	--	<10 P	5.8 P	53 P	0.49 P	<0.5 P	17 P	4.8 P	9.7 P	3.6 P	<0.033 P	0.73 P	13 P	<2 P	<1 P	0.95 P	27 P	44 P	--	--	X	--
ISWC0044S001	1-Jul-09	--	<10 P	4.9 P	49 P	0.51 P	<0.5 P	16 P	5 P	7.8 P	3.9 P	0.012 P	0.6 P	12 P	<2 P	<1 P	1.1 P	27 P	39 P	--	--	X	--
ISWC0045S001	1-Jul-09	--	<10 P	4.6 P	43 P	0.5 P	<0.5 P	12 P	5.5 P	6.4 P	7.8 P	0.0085 P	0.64 P	10 P	<2 P	<1 P	1.2 P	19 P	35 P	--	--	X	--

Table 3-1 - Revised
Outfall 008 Data Gap and Waste Characterization Sample Results
 (Page 4 of 4)

Sample ID	Sample Date	Sample Depth	Results in mg/kg																	Dioxins / TCDD TEQ (pg/g)	Radionuclides
			Antimony	Arsenic	Barium	Beryllium	Cadmium	Chromium	Cobalt	Copper	Lead	Mercury	Molybdenum	Nickel	Selenium	Silver	Thallium	Vanadium	Zinc		
ISWC0046S001	1-Jul-09	--	<10 P	5.4 P	70 P	0.65 P	<0.5 P	15 P	4.9 P	7.6 P	17 P	0.018 P	0.88 P	12 P	<2 P	<1 P	<10 P	26 P	49 P	--	X
ISWC0047S001	1-Jul-09	--	<10 P	6 P	49 P	0.68 P	<0.5 P	14 P	4.2 P	4.9 P	4.9 P	0.026 P	0.88 P	10 P	<2 P	<1 P	<10 P	25 P	36 P	--	X
ISWC0048S001	1-Jul-09	--	<10 P	5.6 P	45 P	0.51 P	<0.5 P	14 P	4.1 P	7.8 P	5.6 P	0.012 P	0.8 P	10 P	<2 P	<1 P	1.2 P	22 P	260 P	--	X
2005 Background Comparison Concentrat			8.7	15	140	1.1	1	36.8	21	29	34	0.09	5.3	29	0.655	0.79	0.46	62	110	0.87	--

Notes:

Sample Exceeds the 2005 Background Comparison Concentration (MWH, 2005)

J - Result is estimated

mg/kg - milligrams per kilogram

P - Preliminary data, data has not been validated

pg/g - picograms per gram

TCDD TEQ - tetrachlorobenzo-p-dioxin toxic equivalent (normalized to 2,3,7,8-TCDD)

X - result pending

"--" - not analyzed

* - Sample location is outside excavation area and therefore sample ID to be from waste characterization sample ID changed to RFI sample ID.

Dioxins / TCDD TEQ - A sum of 17 dioxin / furan congener results adjusted for toxicity. The TEQ is calculated by multiplying the result of each congener by its respective World Health Organization's (WHO's) toxic equivalency factor (TEF), which is based on the relative potency of the congener to cause a toxic response relative to 2,3,7,8-TCDD. TCDD TEQ values do not include laboratory data not quantified (DNQ) as specified in the NPDES permit.

Radiological analysis includes gamma spectroscopy (Na-22, K-40, Mn-54, Co-60, Cs-134, Cs-137, Eu-152, Eu-154, Th-228, Th-232, U-235, U-238 and Am-241), strontium-90, and tritium

ATTACHMENT 3
CRITERIA FOR IMPORT FILL
ISRA SOIL MANAGEMENT PLAN RESPONSE TO COMMENTS / ADDENDUM
(Page 1 of 2)

<i>Compounds</i>	<i>Analytical Method</i>	<i>Screening Criteria</i>
VOCs	EPA 8260	Non-detectable ^(a)
SVOCs	EPA 8270C	Non-detectable ^(a)
PAHs/NDMA	EPA 8270C SIM	Non-detectable ^(a)
PCBs	EPA 8082	Non-detectable ^(a)
Pesticides	EPA 8081	Non-detectable ^(a)
Perchlorate ^(b)	EPA 314M	Non-detectable ^(a)
Energetics	EPA 8330A	Non-detectable ^(a)
Anions	EPA 300.0	Non-detectable ^(a)
Fluoride	EPA 300.0	6.7 mg/kg
Ammonia-N	EPA 350.3	Non-detectable ^(a)
Petroleum Hydrocarbons: C ₄ - C ₁₂	EPA 8015M	10 mg/kg
Petroleum Hydrocarbons: C ₈ - C ₃₀	EPA 8015M	100 mg/kg
Petroleum Hydrocarbons: C ₃₀ - C ₄₀	EPA 8015B	100 mg/kg

<i>Metals</i>	<i>Analytical Method</i>	<i>SSFL Background Value/Screening Criteria (mg/kg) ^(c)</i>	<i>Southern California Background (mg/kg) ^(d)</i>
Aluminum	EPA 6010/6020B	20,000	106,000
Antimony	EPA 6010/6020B	8.7	1.95
Arsenic	EPA 6010/6020B	15	11
Barium	EPA 6010/6020B	140	1,400
Beryllium	EPA 6010/6020B	1.1	2.7
Boron	EPA 6010/6020B	9.7	74
Cadmium	EPA 6010/6020B	1	1.7
Calcium	EPA 6010/6020B	NA	45,577
Chromium Total	EPA 6010/6020B	37	1,579
Cobalt	EPA 6010/6020B	21	46.9
Copper	EPA 6010/6020B	29	96.4
Iron	EPA 6010/6020B	28,000	87,000
Lead	EPA 6010/6020B	34	97.1
Lithium	EPA 6010/6020B	37	90
Manganese	EPA 6010/6020B	495	1,687
Mercury	EPA 7471A	0.09	0.9
Molybdenum	EPA 6010/6020B	5.3	9.6
Nickel	EPA 6010/6020B	29	509
Phosphorous	EPA 6010/6020B	NA	97.1
Potassium	EPA 6010/6020B	6,400	30,000
Selenium	EPA 6010/6020B	0.655	0.43
Silver	EPA 6010/6020B	0.79	8.3
Sodium	EPA 6010/6020B	110	73,400
Strontium	EPA 6010/6020B	NA	271
Tin	EPA 6010/6020B	NA	2.44
Titanium	EPA 6010/6020B	NA	12,890
Thallium	EPA 6010/6020B	0.46	1.1
Vanadium	EPA 6010/6020B	62	288
Zinc	EPA 6010/6020B	110	236
Zirconium	EPA 6010/6020B	8.6	610

ATTACHMENT 3
CRITERIA FOR IMPORT FILL
ISRA SOIL MANAGEMENT PLAN RESPONSE TO COMMENTS / ADDENDUM
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<i>Dioxins/Furans</i>	<i>Analytical Method</i>	<i>SSFL Background Value/Screening Criteria (ng/kg) ^(c)</i>
1,2,3,4,6,7,8-Heptachlorodibenzo-p-dioxin	EPA 8290/1613	13
1,2,3,4,6,7,8-Heptachlorodibenzofuran	EPA 8290/1613	2.5
1,2,3,4,7,8,9-Heptachlorodibenzofuran	EPA 8290/1613	0.19
1,2,3,4,7,8-Hexachlorodibenzo-p-dioxin	EPA 8290/1613	0.34
1,2,3,4,7,8-Hexachlorodibenzofuran	EPA 8290/1613	0.73
1,2,3,6,7,8-Hexachlorodibenzo-p-dioxin	EPA 8290/1613	0.95
1,2,3,6,7,8-Hexachlorodibenzofuran	EPA 8290/1613	0.3
1,2,3,7,8,9-Hexachlorodibenzo-p-dioxin	EPA 8290/1613	1.1
1,2,3,7,8,9-Hexachlorodibenzofuran	EPA 8290/1613	0.43
1,2,3,7,8-Pentachlorodibenzo-p-dioxin	EPA 8290/1613	0.18
1,2,3,7,8-Pentachlorodibenzofuran	EPA 8290/1613	0.59
2,3,4,6,7,8-Hexachlorodibenzofuran	EPA 8290/1613	0.45
2,3,4,7,8-Pentachlorodibenzofuran	EPA 8290/1613	0.64
2,3,7,8-Tetrachlorodibenzo-p-dioxin	EPA 8290/1613	0.5
2,3,7,8-Tetrachlorodibenzofuran	EPA 8290/1613	1.80
Octachlorodibenzo-p-dioxin	EPA 8290/1613	140
Octachlorodibenzofuran	EPA 8290/1613	8.1

<i>Radionuclides</i>	<i>Analytical Method</i>	<i>MDA (pCi/g)</i>
Gamma emitters ^(e)	Gamma Spec, HASL 300	0.213 (Cs-137)
Strontium-90	Modified EPA 905.0	0.13
Tritium	Modified EPA 906.0	0.3

Notes:

- (a) Low detections of laboratory contaminants possible and will be evaluated on a case by case basis. Detection limits will be targeted by the laboratory as specified in the analytical method.
- (b) Perchlorate analysis performed on soil water extract according to RFI protocols to achieve lower reporting limits.
- (c) SSFL site-specific soil background concentrations approved by DTSC in site Standardized Risk Assessment Methodology Work Plan (MWH, 2005). Southern California regional background values provided for reference. As noted in ISRA Work Plan, chemical and radiological background studies by DTSC and EPA ongoing.
- (d) Kearney Study, 1996 (maximum value).
- (e) Gamma spectroscopy library shall include as a minimum: Na-22, K-40, Mn-54, Co-60, Cs-134, Cs-137, Eu-152, Eu-154, Th-228, Th-232, U-235, U-238, Am-241. All other radionuclides in library shall be reported if detected.

Acronyms:

- | | |
|--|---|
| ENTS - Engineered Natural Treatment System | PAH - polycyclic aromatic hydrocarbon |
| EPA - Environmental Protection Agency | PCB - polychlorinated biphenyl |
| HASL - Health and Safety Laboratory | RCRA - Resource Conservation and Recovery Act |
| mg/kg - milogram per kilogram | RFI - RCRA Facility Investigation |
| MDA - minimum detectable activity | SVOC - semi-volatile organic compound |
| NA - not applicable | ug/L - micrograms per liter |
| NDMA - N-nitrosodimethylamine | VOC - volatile organic compound |

ATTACHMENT 4
WASTE CHARACTERIZATION SAMPLES
ISRA SOIL MANAGEMENT PLAN RESPONSE TO COMMENTS / ADDENDUM
 (Page 1 of 2)

Object ID	Radionuclides *	CAM 17 Metals (6010B/7471A)	VOCs (8260B)	SVOCs (8270C)	PCBs (8082)	96-Hour Acute Aquatic Toxicity LC50
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CYN-1

ISWC0041	X	X				
ISWC0042	X	X				
ISWC0094	X	X				
ISWC0095	X	X				

DRG-1

ISWC0045	X	X				
ISWC0046	X	X				
ISWC0047	X	X				
ISWC0048	X	X				

HVS-1

ISWC0001	X	X				
ISWC0002	X	X				
ISWC0003	X	X				
ISWC0004	X	X				
ISWC0005	X	X				
ISWC0006	X	X				

HVS-2A

ISWC0028	X	X				
ISWC0077	X	X				
ISWC0078	X	X				
ISWC0079	X	X				
ISWC0080	X	X				
ISWC0081	X	X				
ISWC0082	X	X				
ISWC0083	X	X				

HVS-2B-1

ISWC0084	X	X				
ISWC0085	X	X				

HVS-2B-2

ISWC0086	X	X				
ISWC0087	X	X				
ISWC0088	X	X				
ISWC0089	X	X				

HVS-2C

ISWC0019	X	X				
ISWC0020	X	X				
ISWC0023	X	X				
ISWC0024	X	X				

HVS-3

ISWC0009	X	X				
ISWC0010	X	X				
ISWC0011	X	X				
ISWC0012	X	X				
ISWC0013	X	X				

ATTACHMENT 4
WASTE CHARACTERIZATION SAMPLES
ISRA SOIL MANAGEMENT PLAN RESPONSE TO COMMENTS / ADDENDUM
 (Page 2 of 2)

Object ID	Radionuclides *	CAM 17 Metals (6010B/7471A)	VOCs (8260B)	SVOCs (8270C)	PCBs (8082)	96-Hour Acute Aquatic Toxicity LC50
ISWC0014	X	X				
ISWC0015	X	X				
ISWC0016	X	X				

HVS-4

ISWC0090	X	X				
ISWC0091	X	X				
ISWC0092	X	X				
ISWC0093	X	X				

ELV-1C

ISWC0049	X	X		X	X	
ISWC0050	X	X		X	X	
ISWC0051	X	X		X	X	
ISWC0052	X	X		X	X	X
ISWC0053	X	X		X	X	
ISWC0054	X	X		X	X	
ISWC0055	X	X		X	X	
ISWC0056	X	X		X	X	
ISWC0057	X	X		X	X	
ISWC0058	X	X		X	X	
ISWC0059	X	X		X	X	
ISWC0060	X	X		X	X	

ELV-1D

ISWC0061	X	X	X	X		
ISWC0062	X	X	X	X		
ISWC0063	X	X	X	X		X
ISWC0064	X	X	X	X		
ISWC0065	X	X	X	X		
ISWC0066	X	X	X	X		X
ISWC0067	X	X	X	X		
ISWC0068	X	X	X	X		
ISWC0069	X	X	X	X		X
ISWC0070	X	X	X	X		
ISWC0071	X	X	X	X		
ISWC0072	X	X	X	X		
ISWC0073	X	X	X	X		
ISWC0074	X	X	X	X		X
ISWC0075	X	X	X	X		
ISWC0076	X	X	X	X		

Notes:

* Radionuclide analysis included gamma spectroscopy, strontium-90 and tritium. The laboratory gamma spectroscopy library shall also include the following contaminants-of-concern as a minimum: Na-22, K-40, Mn-54, Co-60, Cs-134, Cs-137, Eu-152, Eu-154, Th-228, Th-232, U-235, U-238 and Am-241. Any detection of any gamma emitting radionuclides in the library was

Due to time constraints, not all waste characterization samples shown on Attachment 2 Figures.



BUILDING A BETTER WORLD

MEMORANDUM

TO: Art Lenox/Lori Blair, Boeing
Allen Elliott/Steve Slaten, NASA

DATE: August 17, 2009

CC: Rick Lainhart, ACOE
Bill McElroy, CH2M HILL

REF: 1891614

FROM: Dixie Hambrick/Alex Fischl, MWH

SUBJECT: Response to RWQCB Comments on ISRA Soil Management Plan; Addendum for
ISRA Soil Management Plan and Transportation Plan - Protocol for Handling
Radioactive Materials during ISRA Project

This memorandum provides a response to Regional Water Quality Control Board (RWQCB) comments regarding radiological soil management protocols made on the Interim Source Removal Action (ISRA) Soil Management Plan (SMP) (Attachment 1). This memorandum also serves as an addendum to the ISRA SMP and Transportation Plan prepared to support ISRA activities since it addresses additional soil management and transportation actions required if elevated radionuclide measurements are detected in soils planned for ISRA action.

Included in RWQCB comments on the SMP are comments made by DTSC on the SMP. A response to DTSC comments have been prepared separately, in a memo dated August 17, 2009, which also amends the ISRA SMP. The DTSC responses have been published separately since response to RWQCB comments amends both the ISRA SMP and the Transportation Plan.

Background

In 2007 the Department of Toxic Substances Control (DTSC) required that if Boeing chooses to ship hazardous and/or non-hazardous soils and debris offsite for the Northern Drainage cleanup project, then Boeing must demonstrate the waste does not contain "radioactive material that is not exempt from regulation and licensing or is not expressly authorized for disposal under the Radiation Control Law." For the ISRA project, a similar requirement was presumed to apply, so the procedures developed and approved by DTSC for the Northern Drainage cleanup project have been included for the ISRA project.

ISRA Waste Characterization Sampling for Radionuclides

As per the ISRA Waste Sampling for Radionuclides (Attachment A - ISRA SMP), all of the chemical samples taken for waste disposal characterization shall be split for potential analyses for gamma spectroscopy, strontium-90 and tritium, using an offsite laboratory. Radiological analyses shall be conducted only if the results of chemical analyses determine that offsite disposal is necessary. As specified in the Final ISRA Work Plan (MWH 2009), excavation with offsite disposal is the remedial alternative selected for the 2009 ISRA Areas. Remedial alternatives for remaining ISRA Areas will be documented in an addendum to the ISRA Work Plan.

Handling of Materials with Elevated Radionuclides

The Department of Public Health (DPH) and the DTSC will be notified if wastes are determined to contain radionuclides above background. The need for radiological controls, further waste evaluation and waste disposition shall be determined in consultation with the DPH and DTSC. Depending on the level of contamination, radiological controls could include, but not be limited to, radiation safety training for field personnel, assignment of personnel radiation dosimetry, posting of "Radiation Caution" signs and barriers, and implementation of contamination controls for personnel and equipment. If Boeing (in consultation with DPH and DTSC) determines, by dose assessment, that the waste can be classified as "decommissioned materials" as defined in Executive Order D-62-02 (attached), then the waste may be sent to a Class 1 or Class 2 landfill. If DPH and DTSC determine that the waste should be classified as low-level radioactive waste (LLRW), then the waste will be disposed of at a low-level radioactive waste disposal facility (e.g. EnergySolutions in Clive, Utah). Export approval would be sought from the Southwestern LLRW Commission.



BUILDING A BETTER WORLD

MEMORANDUM

TO: Art Lenox/Lori Blair, Boeing
Allen Elliott/Steve Slaten, NASA

DATE: August 17, 2009

CC: Rick Lainhart, ACOE
Bill McElroy, CH2M HILL

REF: 1891614

FROM: Dixie Hambrick/Alex Fischl, MWH

SUBJECT: Response to RWQCB Comments on ISRA Supplemental Information and Plans

This memorandum provides responses to Regional Water Quality Control Board (RWQCB) review of Interim Source Removal Action (ISRA) supplemental information and plans, including the Health and Safety Plan (HASP), Transportation Plan, Soil Management Plan (SMP), and Radiological Investigation Summary for Outfalls 008 and 009. The supplemental information and plans were prepared by MWH on behalf of The Boeing Company (Boeing) and the National Aeronautics and Space Administration (NASA) pursuant to a California Water Code Section 13304 Cleanup and Abatement Order (CAO) issued by the Los Angeles RWQCB dated December 3, 2008 (RWQCB, 2008).

This memorandum was prepared to respond to RWQCB comments provided in an email dated on July 14, 2009 (Attachment 1). Comments from the RWQCB email on the supplemental information and plans are reproduced below in their entirety, and responses are provided below each comment. The RWQCB and Department of Toxic Substances Control (DTSC) have also provided separate comment review letters for the SMP and Storm Water Pollution Prevention Plan (SWPPP). A revised SWPPP has been prepared to address RWQCB comments on that document. A response to other RWQCB and DTSC comments on the SMP are being responded to in separate memos, each dated August 17, 2009.

1) HEALTH AND SAFETY PLAN

RWQCB Comment #1: *Table 1, Occupational Health Exposure and Toxicological Properties for Contaminants of Occupational Health Concern, does not include TCDD.*

Response: Dioxin was not included since there is no Permissible Exposure Limit (PEL) established by NIOSH. Dioxin is a general term that describes a group of hundreds of chemicals, of which the most toxic compound is 2,3,7,8-tetrachlorodibenzo-p-dioxin (TCDD). Generally, the toxicity of other dioxins is measured in relation to TCDD. Dioxin can be formed by burning chlorine-based chemical compounds with hydrocarbons. Dioxin is found in all media, including air, soil, sediment, and water. The highest levels are typically found in soil and sediment, while very low levels are typically found in water and air. Short-term exposure to high levels of dioxin may result in skin lesions and patchy darkening of skin, and altered liver function. Long-term exposure is linked to impairment of the immune system, the developing nervous system, the endocrine system, and reproductive functions. Based on human epidemiology data, dioxin is categorized as a “known human carcinogen”; however, TCDD does not affect genetic material and there is a level of exposure below which cancer risk would be negligible. Based on sample results of *in situ* soils, the exposure level for workers is expected to be low.

RWQCB Comment #2: *One concern raised previously is that the site description is incomplete. The discussion does not include historical activities in the area, or previous clean-ups, or interim measures completed in the area.*

Response: A comprehensive site history is included in the Preliminary and Final ISRA Work Plans. Since these plans were intended to supplement the Work Plans, a comprehensive site history was deemed duplicative and unnecessary for each supplemental plan.

2) TRANSPORTATION PLAN

RWQCB Comment #1: *Again, the site history is not comprehensive. That information will provide the basis for formulating how the waste material is prepared for moving, dust control measure, covering if required, and decontamination protocols required.*

Response: The primary basis for determining how waste material is handled is the soil sample analytical results. Sampling analytical suites were based on site history, chemical use, and previous sampling results in the area. Based on comprehensive sampling results, the chemical

concentrations in removed soil is the basis for formulating how the waste material is prepared for moving, dust control measures, whether covering is required, and decontamination protocols.

3) SOIL MANAGEMENT PLAN, ATTACHMENT 1 - ISRA WASTE SAMPLING FOR RADIONUCLIDES

RWQCB Comment #1: *Paragraph 2, statement 1, Why is potential analyses specified for waste disposal characterization. I thought that discussions indicated that samples of the waste material would be analyzed.*

Response: "Potential" in this case refers to the fact that "[r]adiological analyses shall be conducted only if the results of chemical analyses determine that off-site disposal is necessary." The ISRA Waste Sampling for Radionuclides was written for sampling soils that may or may not be planned for offsite disposal. For the 2009 ISRA Phase I soil removal, all soils are planned for offsite disposal, so yes, all waste characterization soil samples will be analyzed for radionuclides.

RWQCB Comment #2: *Third paragraph, statement 3, indicates that DPH and DTSC would be notified if wastes are determined to contain radionuclides above background. Is the background the numbers that were developed during the previous investigations? How do these numbers relate to the regional numbers?*

Response: As referenced in Attachment 1, "ISRA Waste Sampling for Radionuclides", radionuclide background data from the following report will be used:

McLaren/Hart, "Additional Soil and Water Sampling at the Brandeis-Bardin Institute and Santa Monica Mountains Conservancy." January 19, 1995. Table 20.
<http://www.ete.energy.gov/Health-and-Safety/Documents/BrandeisBardin/AddSoilandWaterSamp.pdf>

This project included involvement/oversight/approval by the USEPA, DTSC, DHS, and local community members including the Committee Bridge the Gap. These data represent local background established for that study. The same report cites literature background for the U.S. (in Table 20). In all cases, the data measured locally by McLaren/Hart is significantly lower than the U.S. background data. Also, as described in the ISRA Final Work Plan, a radiological

background study for the SSFL is currently being conducted by USEPA, and once those values are finalized, they will be used for the ISRA project.

4) SSFL RADIOLOGICAL INVESTIGATION SUMMARY

RWQCB Comment #1: *Since there is no data in Outfall 008, is a survey required? If not, why not?*

Response: Previous cleanup actions and investigations in the Outfall 008 area did not require radiological surveys, as there was no documented history of radiological testing in Outfall 008. However, in 2007 the DTSC required that if Boeing chooses to ship hazardous and/or non-hazardous soils and debris offsite to the Chemical Waste Management - Kettleman Hills Hazardous Waste Facility (Kettleman) for the Northern Drainage cleanup project, then Boeing must demonstrate the waste does not contain “radioactive material that is not exempt from regulation and licensing or is not expressly authorized for disposal under the Radiation Control Law.” For the ISRA project, a similar requirement was presumed to apply, so the procedures developed and approved by DTSC for the Northern Drainage cleanup project were included for the ISRA project. Any soil or debris with radioactive levels above measureable background will be shipped for offsite disposal to EnergySolutions (Tooele County, UT).

RWQCB Comment #2: *What is the 95th percentile of the measured background concentrations referred to on page 2 of 5 under the Brandeis/Bardin Institute/Santa Monica Mountains Conservancy Project (1992-1994).*

Response: The 95th percentile was 600 pCi/L. Tritium analyses conducted on soil moisture during the 1992 study exceeded the 95th percentile of the measured background (552 pCi/L) in 7 of 118 soil/sediment samples.

RWQCB Comment #3: *What is the measured background for tritium in soil? What is the background concentration published for this region?*

Response: Two types of tritium data have been collected: tritium reported in “wet units” of pCi/L soil moisture and tritium reported in “dry units” of pCi/g soil. For the 1992 Brandeis-Bardin

MEMORANDUM



study, the measured background for tritium was 552 pCi/L. The local background is reported in dry units, which is 0.3 pCi/g.

Attachment 1 – email from Cassandra Owens, RWQCB, to Lori Blair, Boeing, regarding review of ISRA supplemental information. July 14, 2009.

Dixie Hambrick

From: Blair, Lori N [lori.n.blair@boeing.com]
Sent: Tuesday, July 14, 2009 1:11 PM
To: Slaten, Steven W. (HQ-RC000); Bill.McElroy@CH2M.com; richard.s.lainhart@usace.army.mil
Cc: Dixie Hambrick; Alexander Fischl; Lenox, Arthur J
Subject: RWQCB comments/questions on various plans

Below is a copy of the email we just received from Cassandra Owens from the RWQCB. MWH will prepare draft responses for everyone's review by the beginning of next week.

Thanks! - Lori

-----Original Message-----

From: Cassandra Owens [mailto:Cowens@waterboards.ca.gov]
Sent: Tuesday, July 14, 2009 8:33 AM
To: Blair, Lori N
Cc: Peter Raftery
Subject: Santa Susana Field Laboratory ISRA Related Issues

Hi Lori,

I briefly looked at some of the plans that have been sent over. I have a couple of questions:

Health and Safety Plan

1. Table 1, Occupational Health Exposure and Toxicological Properties for Contaminants of Occupational Health Concern, does not include TCDD.
2. One concern raised previously is that the site description is incomplete. The discussion does not include historical activities in the area, or previous clean-ups, or interim measures completed in the area.

Transportation Plan

1. Again, the site history is not comprehensive. That information will provide the basis for formulating how the waste material is prepared for moving, dust control measure, covering if required, and decontamination protocols required.

SSFL Radiological Investigation

1. Since there is no data in Outfall 008, is a survey required? If not, why not?
2. What is the 95th percentile of the measured background concentrations referred to on page 2 of 5 under the Brandeis/Bardin Institute/Santa Monica Mountains Conservancy Project (1992-1994).

What is the measure background for tritium in soil? What is the background concentration published for this region?

Attachment 1 ISRA Waste Sampling for Radionuclides

1. Paragraph 2, statement 1, Why is potential analyses specified for waste disposal characterization. I thought that discussions indicated that samples of the the waste material would be analyzed.

2. Third paragraph, statement 3,. indicates that DPH and DTSC would be notified if wastes are determined to contain radionuclides above background. Is the background the numbers that were developed during the previous investigations. How doe these numbers relate to the regional numbers?

Just a few general thoughts on what I looked at.

Thanks
Cassandra

Cassandra D. Owens
Unit Chief, Industrial Permitting Unit (NPDES) Los Angeles Regional Water Quality Control Board 320 West 4th Street, Suite 200 Los Angeles, CA 90013 Phone (213) 576-6750
cowens@waterboards.ca.gov

The Boeing Company
Santa Susana Field Laboratory
5800 Woolsey Canyon Road
Canoga Park, CA 91304-1148

Electronic Mail and Fed-Ex

August 24, 2009
In reply refer to SHEA-109014

Los Angeles Regional Water Quality Control Board
320 W. 4th Street, Suite 200
Los Angeles, CA 90013



Attention: Ms. Tracy Egoscue

Subject: Outfall 008 Archeological Assessment, Interim Source Removal Action (ISRA) in Response to a California Water Code Section 13304 Order, The Boeing Company, Santa Susana Field Laboratory, Canoga Park, CA (NPDES NO. CA0001309, CI NO. 6027, SCP NO. 1111, SITE ID NO. 2040109)

Dear Ms. Egoscue:

W and S Consultants performed an archeological assessment in the vicinity of the 2009 Interim Source Removal Action (ISRA) Areas within the Outfall 008 watershed on behalf of Boeing. The assessment involved a background records search, which was conducted by staff of the California State University, Fullerton, Archaeological Information Center (AIC), and a field survey. The background records search did not identify any archaeological sites in the vicinity of the 2009 ISRA Areas. After reviewing the records search results, a field survey was performed in July 2009. No archaeological sites were observed during the field survey.

As a result of the archeological assessment, W and S Consultants concluded that the 2009 ISRA within the Outfall 008 watershed does not have the potential to result in adverse impacts to cultural resources. Prior to implementing ISRAs on Boeing Property within the Outfall 009 watershed, an archeological assessment in the vicinity of the ISRA Areas will be performed.

If you have any questions, please contact me at 818-466-8778, or Lori Blair at 818-466-8741. Thank you for your attention to these materials.

Sincerely,

A handwritten signature in blue ink that reads "Thomas D. Gallacher".

Mr. Thomas D. Gallacher
Director, Environment, Health and Safety
Santa Susana Field Laboratory

cc: Cassandra Owens, RWQCB
Peter Raftery, RWQCB
Buck King, DTSC



COUNTY OF VENTURA

Resource Management Agency

Planning Division

800 South Victoria Avenue
Ventura, CA 93009

(805) 654-2488, 477-7168 FAX

Date Issued: 08/24/2009

TREE PERMIT AD09-0086

Project Description:

Remove (1) Harardous Oak Tree per Dan Klemann.

Approval Level: Ministerial Counter Checked

ASSESSOR PARCEL NO: 685-0-051-120

Parent Permit: CUP-248

Site Address: 5800 WOOLSEY CANYON RD VECO

APPLICANT:

BOEING NORTH AMERICA

Address

100 N RIVERSIDE
CHICAGO IL

60606-1596
Telephone 214-346-4328

PROPERTY OWNER:

BOEING NORTH AMERICA

Address

100 N RIVERSIDE
CHICAGO IL

60606-1596
Telephone

Arborist Report: YES

Arborist Name:

Phone:

Sq. Inches of off-sets required: 0

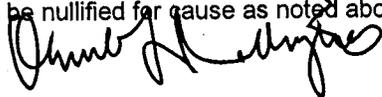
See reverse for Conditions.

CONDITIONS:

1: Must comply with all the conditions attached.

BY SIGNING BELOW I CERTIFY THE FOLLOWING:

- I am the owner of the subject property.
- I am the authorized agent of the property owner and have his/her permission to obtain this permit.
- I have noted on the attached plot plan all of the following attributes: existing and proposed structures, Protected Trees (Oaks, Sycamores, and any 30+” dia. trees), marshes, wetlands, streams, rivers, landslides, edges and toes of slopes, abandoned or active oil wells, septic systems and leach fields.
- The information provided in this Tree Permit and attached plot/site plans, floor plans and elevations are full, true and correct.
- I have reviewed, read and understand the terms, notes and conditions of this permit and as depicted in related attachments, and agree to abide by them and all other provisions of the Ventura County Zoning Ordinance. I further understand that the permit can be nullified for cause as noted above.



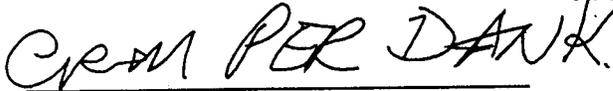
Owner / Applicant Signature

FOR OFFICIAL USE ONLY

The project as described above in Conditions and depicted on the attached plot plan is hereby approved.

ISSUED BY:

APPROVAL DATE: 08/24/2009



Signature

FEES:

Total Fees: \$100.00

Attachments: Plot plan showing locations of trees to remain & ones altered/removed.



COUNTY OF VENTURA

Resource Management Agency

Planning Division

800 South Victoria Avenue, L1740
Ventura, CA 93009

(805) 654-2488

RECEIPT NUMBER:PLR09-1064

TRANSACTION DATE: 08/24/2009 ISSUED BY: MENDOZC
TRANSACTION AMOUNT: 100.00 DISTRICT: PLAN
NOTATION: MWH AMERICAS, INC. APPLICANT
OWNER: BOEING NORTH AMERICA
ADDRESS: 5800 WOOLSEY CANYON RD VECO
PARCEL: 6850051120
RELATED PERMIT#: AD09-0086
DESCRIPTION: Remove (1) Harardous Oak Tree per Dan Klemann.

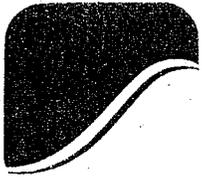
PAYMENT INFORMATION

Type	Method	Description	Amount
Payment	Cash		100.00

CHECK
CHECK NO:

CREDIT CARD
TYPE:
AUTHORIZATION NO:
EXPIRATION DATE:

Item#	Description	Account Code	Tot Fee	Paid	Prv. Pmts	Cur. Pmts
5320	Tree Permit	9482AF	100.00	100.00	.00	100.00



PACIFIC HORTICULTURE

DIVISION OF DELTA-PACIFIC HORTICULTURE, INC.

LANDSCAPE AND AGRONOMY CONSULTANTS

August 19, 2009

MWH Americas, Inc.
618 Michillinda Avenue, Suite 200
Arcadia, California 91007

Site Data:

Assessor Parcel No. 685-0-0511-120
Parent Permit No. CUP248
Property Owner: Boeing North America
100 Riverside
Chicago, IL.

Attention: Ben Steward

Subject: Oak Tree Report for Outfall 8, Santa Susana Field Laboratory Site, Boeing Property

Ben:

Based on my site review on Tuesday, August 18, 2009 at Outfall 8 a contamination remediation area, there are two (2) *Quercus agrifolia* (Coast Live Oak) which one small tree (No. HVS-1) with a 4" dbh) requires removal and one (No. HVS- 2A) is to be preserved and protected. This latter tree contains a large rock out cropping which is not being removed. Therefore, the contaminated soil to be vacuumed will be the outer protected zone and the area adjacent to the trunk will be hand excavated. The removed soil shall be a depth to not exceed 2'0". No tree structure or root damage is anticipated. The tree will be protected with fencing 5' outside the canopy drip line and may require a portion to be removed for the hand excavations. The project ISA Certified Arborist is required to be present for monitoring during any of the work within the protected zone.

Appraised value for the tree removal No. HVS-1: \$608.00

The appraised value was determined utilizing the trunk formula method. The calculations were completed from the Council of Tree and Landscape Appraisers Guide for Plant Appraisal, 9th edition and the Western Chapter International Society of Arboriculture Species Classification and Group Assignment, a regional supplement to the CTLA guide.

Oak Tree Report for Outfall 8, Santa Susan Field Laboratory, Boeing Site.
August 19, 2009

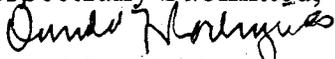
pp 2

A Tree location and Numbering map, Photographs and Horticulture Tree Evaluations are enclosed.

This report is prepared per the protocol requirements of the County of Ventura Planning Division for submittal of an Oak tree permit for the work described herein.

Should you have any questions or should you require additional information, do not hesitate to call me direct.

Respectfully Submitted,



Donald F. Rodrigues
Horticulture Consultant
ISA Certified Arborist 272

cc: Christopher Dunn, Padre Associates

HORTICULTURE TREE EVALUATIONS

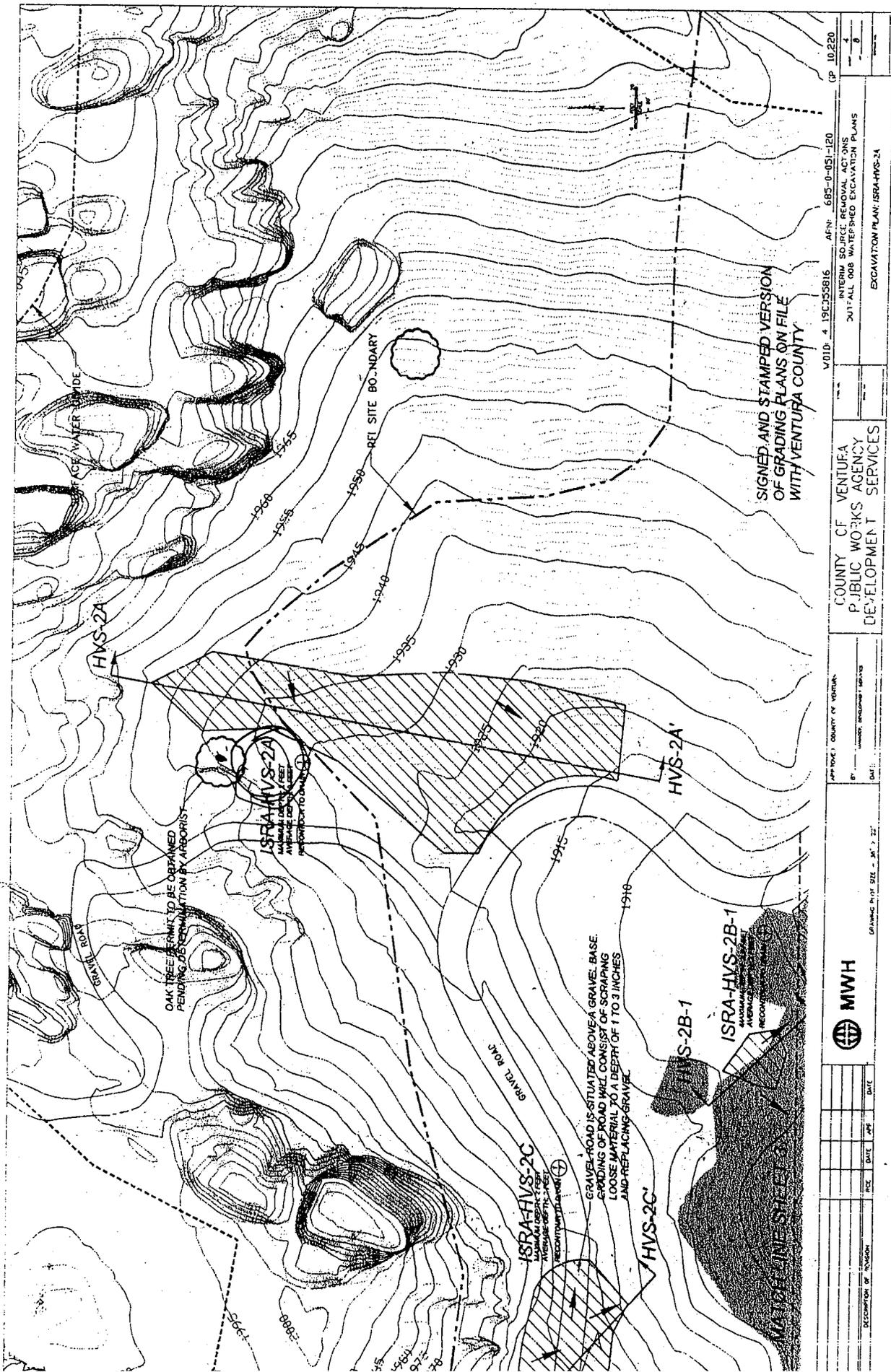
FIELD SURVEY DATA

Inspection Note: The following information was observed on the date (s) indicated herein and should only be considered to be valid at the time of field inspection.

PACIFIC HORTICULTURE CONSULTANTS

**SITE MAP, TREE LOCATIONS AND FIELD
SPECIMEN NUMBERING SYSTEM**

PACIFIC HORTICULTURE CONSULTANTS



SIGNED AND STAMPED VERSION
OF GRADING PLANS ON FILE
WITH VENTURA COUNTY

V010 - 4 19C055816 AFN 685-0-051-120 INTERIM SOURCE: REMOVAL ACTIONS 2017-ALL 008 WATERSHED EXCAVATION PLANS EXCAVATION PLAN: ISRA-HVS-2A	COUNTY OF VENTURA PUBLIC WORKS AGENCY DEVELOPMENT SERVICES	APPROVAL COUNTY OF VENTURA DATE: _____	DRAWING BY: MWH - JAC - JAC DATE: _____	DECISION OF INSURANCE REC. DATE: _____ APP. DATE: _____	(P 10.220)
---	--	---	--	---	------------

OAK TREE LOCATION AND NUMBERING MAP
Oak Tree No. HVS-2A

The demolition/tree removal/tree alteration [SELECT AS APPROPRIATE] activities that are permitted pursuant to Zoning Clearance/Tree Permit [SELECT AS APPROPRIATE] Case No. [INSERT CASE NUMBER] shall comply with all applicable requirements and enactments of Federal, State, and County authorities, including, but not limited to:

- The 2007 Consent Order for Corrective Action Regarding Clean Up of the Santa Susana Field Laboratory (Executed by and between the Department of Toxic Substances Control, Boeing Company, National Aeronautic and Space Administration, and U.S. Department of Energy);
- The Interim Source Removal Action ("ISRA") from the Los Angeles Regional Water Quality Control Board (December 2008);
- The Boeing Company's May 2009 Final Work Plan (which includes a Storm Water Pollution Prevention Plan) in response to the ISRA;
- Any and all Streambed Alteration Agreements ("SAA") issued to the Boeing Company by the California Department of Fish and Game; and,
- National Pollution Discharge Elimination System ("NPDES") Permit No. CA0001309, which was issued to Boeing as Waste Discharge Requirement ("WDR") Order No. R4-2007-0055.

Site Address

5800 Wadsway Road



DEPARTMENT OF THE ARMY

Corps of Engineers, Ventura Field Office
2151 Alessandro Drive, Suite 110
Ventura, CA 93001

August 25, 2009

REPLY TO
ATTENTION OF:

Office of the Chief
Regulatory Division

DEPARTMENT OF THE ARMY NATIONWIDE PERMIT AUTHORIZATION

Thomas Gallacher
The Boeing Company
5800 Woolsey Canyon Road, MC 055-T487
Canoga Park, CA 91304-1148

Dear Mr. Gallacher:

This is in reply to your application (File No. SPL-2009-00412-AJS) dated May 22, 2009 and subsequent submittals, for a Department of the Army Permit to discharge fill into waters of the U.S., in association with the Boeing SSFL Interim Source Removal Action (ISRA). The proposed includes removal of contaminated sediments within the "Outfall 008" and "Outfall 009" sub-watersheds at the Santa Susana Field Lab in Ventura County California.

The majority of the sites identified in your application are outside the geographic scope of the Corps' regulatory jurisdiction under Section 404 of the Clean Water Act. This includes the following locations: HVS-1, HVS-2A, HVS-2B, HVS-2C, HVS-3, CYN-1, PEA-A1LF-1, PEA-A1LF-2, PEA-IEL-1, PEA-ELV-1, PEA-A2LF-2, PEA-A2LF-3, and PEA-LOX-2. Activities pursuant to the ISRA at these locations do not require Corps authorization to proceed, provided the limits of surface disturbance as described in your application and accompanying drawings are adhered to. The remaining locations within the Outfall 009 sub-watershed (PEA-AP/STP-1, PEA-A2LF-1, PEA-LOX-1, PEA-LOX-3, and PEA-B1-1) are within the Corps' geographic jurisdiction and will require authorization for any ISRA activities involving a discharge of fill material. At this time we are unable to authorize ISRA work at these locations pending a refined scope of work. Within the Outfall 008 sub-watershed one location, DRG-1 is within the Corps geographic jurisdiction.

Based on the information you have provided, the Corps of Engineers has determined that your proposed activity at the DRG-1 location complies with the enclosed terms and conditions of Nationwide Permit No. 38, *Cleanup of Hazardous and Toxic Waste*, as described in enclosure 1.

Specifically, you are authorized to excavate contaminated soils and a stable channel configuration within a maximum of 0.1 acre of waters of the U.S. Temporary installation of hay bales or similar erosion control measures may also be installed upon removal of contaminated sediments.

This letter of verification is valid through August 24, 2011. All nationwide permits expire on March 18, 2012. It is incumbent upon you to remain informed of changes to the nationwide permits. If the Corps of Engineers modifies, reissues, or revokes any nationwide permit at an earlier date, we will issue a public notice announcing the changes.

A nationwide permit does not grant any property rights or exclusive privileges. Also, it does not authorize any injury to the property or rights of others or authorize interference with any existing or proposed Federal project. Furthermore, it does not obviate the need to obtain other Federal, state, or local authorizations required by law.

Thank you for participating in our regulatory program. If you have any questions, please contact me at 805-585-2147 or via e-mail at Antal.J.Szijj@usace.army.mil.

Sincerely,



Antal Szijj
Senior Project Manager
North Coast Branch

Enclosure

cf: Glenn Jaffe, MWH



LOS ANGELES DISTRICT
U.S. ARMY CORPS OF ENGINEERS

CERTIFICATION OF COMPLIANCE WITH
DEPARTMENT OF THE ARMY NATIONWIDE PERMIT

Permit Number: *SPL-2009-00412-AJS*
Name of Permittee: *Thomas Gallacher, The Boeing Company*
Date of Issuance: *August 25, 2009*

Upon completion of the activity authorized by this permit and any mitigation required by the permit, sign this certification and return it to the following address:

U.S Army Corps of Engineers
Regulatory Division
ATTN: CESPL-RG-SPL-2009-00412-AJS
Ventura Field Office
2151 Alessandro Drive, Suite 110
Ventura, CA 93001

Please note that your permitted activity is subject to a compliance inspection by an Army Corps of Engineers representative. If you fail to comply with this nationwide permit you may be subject to permit suspension, modification, or revocation procedures as contained in 33 CFR 330.5 or enforcement procedures such as those contained in 33 CFR 326.4 and 326.5.

I hereby certify that the work authorized by the above referenced permit has been completed in accordance with the terms and conditions of the said permit, and required mitigation was completed in accordance with the permit condition(s).

Signature of Permittee

Date

The Boeing Company
Santa Susana Field Laboratory
5800 Woolsey Canyon Road
Canoga Park, CA 91304-1148

Certified Mail

August 31, 2009
In reply refer to SHEA-109032

Los Angeles Regional Water Quality Control Board
320 W. 4th Street, Suite 200
Los Angeles, CA 90013

Attention: Ms. Tracy Egoscue

Subject: Response to RWQCB Comments on Storm Water Pollution Prevention Plan for Interim Source Removal Action (ISRA) Submitted in Response to a California Water Code Section 13304 Order, The Boeing Company, Santa Susana Field Laboratory, Canoga Park, CA (NPDES NO. CA0001309, CI NO. 6027, SCP NO. 1111, SITE ID NO. 2040109)

Dear Ms. Egoscue:

The Boeing Company (Boeing) hereby provides the attached document which responds to the July 30, 2009 Los Angeles Regional Water Quality Control Board's (RWQCB) comments to the Stormwater Pollution Prevention Plan (SWPPP) prepared to support Interim Source Removal Action (ISRA) activities at the Santa Susana Field Laboratory, Ventura County, California (Attachment 1). A revised SWPPP was prepared that incorporates changes requested by the RWQCB, and was provided to you on August 17, 2009. This response to comments provides additional information on how each comment was addressed in the revised SWPPP, and clarifies items discussed with RWQCB staff during a teleconference held on August 27, 2009. Also, Appendix A of the revised SWPPP, the Notice of Intent (NOI), was mistakenly not included in the revised SWPPP and therefore, is provided as Attachment 2 of this letter.

Boeing understands this document addresses the questions and/or concerns noted by the RWQCB and DTSC; if you have any questions or require anything further, please contact Lori Blair at 818-466-8741. Boeing will consider this response and the revised SWPPP acceptable for project implementation if no further questions or requirements are indicated by the RWQCB staff. Thank you for your attention to these materials.

Sincerely,



Thomas D. Gallacher
Director, Santa Susana Field Laboratory
Environment, Health and Safety

LB:bjc



Ms. T. Egoscue, RWQCB (SHEA-109032)

August 31, 2009

Page 2

Attachment:

1. Response to RWQCB Comments on ISRA Stormwater Pollution Prevention Plan
2. SWPPP Appendix A, Notice of Intent (NOI)

cc: Ms. Cassandra Owens, RWQCB – All attachments
Mr. Peter Raftery, RWQCB – All attachments
Mr. Buck King, DTSC – All attachments
Mr. Jim Myers, Ventura County – All attachments





BUILDING A BETTER WORLD

MEMORANDUM

TO: Art Lenox/Lori Blair, Boeing
Allen Elliott/Steve Slaten, NASA

DATE: August 31, 2009

CC: Rick Lainhart, ACOE
Bill McElroy, CH2M HILL

REF: 1891614

FROM: Dixie Hambrick/Alex Fischl, MWH

SUBJECT: Response to RWQCB Comments on ISRA Storm Water Pollution Prevention Plan

This memorandum provides responses to the Regional Water Quality Control Board (RWQCB) comments on the Interim Source Removal Action (ISRA) Storm Water Pollution Prevention Plan (SWPPP). The ISRA SWPPP was one of the supplemental plans prepared by MWH on behalf of The Boeing Company (Boeing) and the National Aeronautics and Space Administration (NASA) pursuant to a California Water Code Section 13304 Cleanup and Abatement Order (CAO) issued by the Los Angeles Regional Water Quality Control Board (RWQCB) dated December 3, 2008 (RWQCB, 2008). This memorandum was prepared by MWH on behalf of Boeing and NASA to respond to RWQCB comments on the SWPPP (Attachment 1 to this memorandum). Comments from the RWQCB on the SWPPP are reproduced below in their entirety, and responses are provided below each comment. A revised SWPPP that incorporates the changes indicated in the response to comments provided below has also been prepared. The revised SWPPP, dated August 14, 2009, was previously hand delivered to the RWQCB on August 17, 2009.

RWQCB SWPPP COMMENTS (Dated July 30, 2009)

RWQCB Comment #1: *The SWPPP was not signed and was not certified as required by Section C.10 of General Permit No. CAS000002 (Order No. 99-08-DWQ) for storm water discharges associated with construction activities.*

Response: Comment noted. The revised SWPPP includes all signatures and certifications; see *Page 100-1, Section 100.1 and Page 100-2, Section 100.2.*

RWQCB Comment #2: *Page 300-1, Where are outfalls 008 and 009 on the figures?*

Response: Comment noted. SWPPP figures have been revised to include Outfalls 008 and 009.

RWQCB Comment #3: *Pollutants:*

1) *Page 300-1, States pollutant benchmark exceedances at:*

- *Outfall 008 – to be lead*
- *Outfall 009 – to be copper, lead, dioxins, pH, oil and grease*

2) *Page 500-1, Section 500.3.1, cadmium, copper, lead, and mercury are listed at pollutant sources*

3) *Page 600-2, Section 600.5.1, second bullet states:*

- *Outfall 008 and – Outfall 009 areas have soil with cadmium, copper, lead, mercury, and dioxins.*

4) *Figure 5 indicates: detection of lead, copper, and dioxins in the subsurface soil.*

Please clarify discrepancies in items 1 – 4 above.

Response: Comment noted. SWPPP text on *Page 300-1, Section 300-1* has been revised to clarify these exceedances refer to surface water results.

SWPPP text on *Page 500-1, Section 500.3.1* has been revised to clarify that metals including cadmium, copper, lead, and mercury in soils within the Outfall 009 watershed, and copper and lead in soil within the Outfall 008 watershed are potential ISRA constituents of concern (COCs) in soil that have the potential to contribute pollutants to storm water runoff.

SWPPP text on *Page 600-2, Section 600.5.1*, has been revised to explain that ISRA Outfall 008 COCs exceeding background comparison concentration in soil are copper, lead, and dioxins, and Outfall 009 COCs exceeding background comparison concentration in soil are cadmium, copper, lead, mercury and dioxins, and these COCs are potential sources of non-visible pollutants to storm water discharges from the project sites.

SWPPP Figure 5 has been revised to identify potential ISRA COCs including lead, copper, and dioxins that exceed the background comparison concentrations in soil within the proposed Happy Valley Area (Outfall 008 watershed). SWPPP Figure 7 has been revised to identify

potential ISRA COCs including cadmium, copper, lead, mercury and dioxins that exceed the background comparison concentrations in soil within the proposed ELV Area (Outfall 009 watershed).

RWQCB Comment #4: *Page 300-2, Section 300.4:*

- 1) *Rainy season starts October 1st not October 15th.*

Response: Comment noted. SWPPP text on *Page 300-2, Section 300.4* has been revised.

- 2) *Best Management Practices (BMPs) should be implemented prior to land disturbance, and maintained during construction.*

Response: Comment noted. Below is a clarification of the SWPPP text on *Page 300-2, Section 300.4*. Implementation of non-stormwater and waste management BMPs began on 8/11/09, prior to excavation or other land disturbance activity. Installation of these BMPs for an ISRA area will be completed prior to any excavation in that area. Stormwater BMPs, including soil stabilization and sediment control, will be implemented at the start of the rainy season (10/1/09) and maintained throughout the rainy season (4/15/10). Non-stormwater and waste management BMPs will continue to be maintained following the rainy season and throughout the year, as necessary, even though excavation and land disturbance activities in the area may be complete.

- 3) *BMPs should be in place during construction regardless if it is or is not rainy season.*

Response: Comment noted. Below is a clarification of the SWPPP text on *Page 300-2, Section 300.4*. Non-stormwater and waste management BMPs will be implemented prior to excavation or other land disturbance activities and maintained following the rainy season and throughout the year, as necessary, even though excavation and land disturbance activities in the area may be complete.

RWQCB Comment #5: *Page 300-3, Section 300.5, first part:*

- 1) *Should be revised to read: **The Storm Water Pollution Prevention Plan Manager (SWPPM)**. A SWPPP should be prepared for the project first and then someone should*

manage the plan. Please make the necessary acronym changes throughout the document.

Response: Comment noted. SWPPP text has been revised to incorporate the acronym change throughout the document. However, the California Stormwater Quality Association (CASQA) construction SWPPP guidelines identify the primary responsible person for the implementation, maintenance, inspection and amendments to the approved SWPPP as a Storm Water Pollution Prevention Manager (SWPPM).

- 2) *Please clarify if Mr. Ben Stewart, the SWPPM will be available at the construction site during all working hours. If not, please specify the name of the person responsible for the SWPPP/BMPs who will be at the construction site.*

Response: SWPPP text on Page 300-3, Section 300.5 has been revised to identify Jim Hickle as the SWPPM. The SWPPM and a copy of the approved SWPPP will be available at the construction site during all working hours throughout the duration of the project.

- 3) *Ninth line from the top, typo: "The SWPPM..." should be SWPPP.*

Response: Comment noted. SWPPP text on Page 300-3, Section 300.5 has been revised.

RWQCB Comment #6: Page 500-2, Section 500.3.4

- 1) *No. 2: "...to remaining active and non active areas..." It is not clear if the active refers to disturbed areas and if non active refers to undisturbed areas. If an area has been disturbed and becomes temporarily inactive, it must still have effective BMPs.*

Response: Comment noted. SWPPP text on Page 500-2, Section 500.3.4 has been revised to state that soil stabilization practices on active and non active disturbed areas will have effective BMPs for erosion control. If an area becomes temporarily inactive, erosion control methods will be applied.

- 2) *No. 4: Similar comment. Do the non-active areas mean previously disturbed, not at all disturbed, or will be disturbed in the future? If the area has been previously disturbed, It should be stabilized immediately and not "14 days after the cessation of activities."*

Response: Comment noted. SWPPP text on *Page 500-2, Section 500.3.4* has been revised to state that erosion control methods at active and non active disturbed areas will be stabilized immediately and reapplied, as necessary, to maintain effectiveness.

- 3) *No. 6: All disturbed areas must be stabilized immediately upon completion. Again, the permit requirement should be implemented year around and not only “during the rainy season.”*

Response: Soil stabilization is a stormwater BMP and, therefore, will be implemented and maintained during the rainy season. Construction BMPs will be implemented and maintained throughout the year

RWQCB Comment #7: Page 500-6, Section 500.3.9, WM-5 Solid Waste Management

- 1) *Third and fourth dashed lines: These dashed lines may be combined in order to explain the type of dumpsters used at the site.*

Response: Comment noted. SWPPP text on *Page 500-7* has been revised by combining the third and fourth dashed lines of *Section 500.3.9*.

RWQCB Comment #8: Page 500-7

- 1) *Fourth dashed line: Please explain when the solid waste will be removed from the site.*

Response: Comment noted. SWPPP text on *Page 500-7, Section 500.3.9* has been revised to state that solid waste will be removed by dump truck and disposed of offsite by the Boeing solid waste contractors on an as needed basis or at the end of field activities.

- 2) *WM-6 Hazardous Waste Management, last dashed line: How will the “accumulative rainwater that has (been) mixed with hazardous waste” be disposed?*

Response: Comment noted. SWPPP text on *page 500-7, Section 500.3.9* has been revised to state that in the event that accumulated rainwater is mixed with hazardous wastes, the rainwater will be sampled and analysed for the specific waste characterization requirements and disposed of properly as stated in the previously submitted *Soil Management Plan* by MWH dated July 2009.

RWQCB Comment #9: Page 500-8.

Please note that portable toilets should be placed on the secondary containment.

Response: The CASQA Stormwater Best Management Practice Handbook section WM-9 Sanitary/Septic Waste Management does not require secondary containment for temporary sanitary facilities. Temporary sanitary facilities will be placed on an impervious surface if available at the project site, and will be cleaned and serviced on a weekly basis.

RWQCB Comment #10: Page 500-8, and Page 600.1, Section 600.1, Site Inspections

- 1) *Please clarify if the contractor will be the same as the SWPPPM as stated on Page 300-3, Section 300.5, 1st paragraph. The General Permit requires that the person(s) responsible for SWPPP implementation, including inspection, shall be named with their responsibility clearly stated.*

Response: Comment noted. SWPPP text on Page 600.1, Section 600.1 has been revised to identify the individuals who will be conducting the inspections. The SWPPPM will oversee the SWPPP inspectors or conduct the SWPPP inspections themselves, as needed.

- 2) *After each storm event inspection should be done regardless of any runoff from the site due to the storm event.*

Response: Comment noted. To clarify, SWPPP inspections will be conducted after each rain event regardless if the rain event causes runoff from the construction site. A rain event is defined in the NPDES Permit as 0.1 inch of rain during a 24-hour period.

RWQCB Comment #11: Appendix L

The inspection check list shall include, at a minimum, items (a) through (f) of Section A.11 of the General Permit. Also, the check list should clearly indicate if the inspection was done before, during, or after the rain event.

Response: Comment noted. SWPPP Appendix J, the Storm Water Quality Construction Site Inspection Checklist, has been revised to include items (a) through (f) of Section A.11 of the General Permit, including check boxes to clearly indicate when the inspection was completed.

Attachment 1 - Letter from Tracy Egoscue, RWQCB, to T. Gallagher, Boeing regarding Comments on Storm Water Pollution prevention Plan for interim Source Removal Action Submitted in Response to A California Water Code Section 13304 Order – The Boeing Company, Santa Susana Field Laboratory, Canoga Park, CA (NPDES No. CA0001309, CI No. 6027, SCP No. 1111, Site ID No. 2040109). July 30, 2009.



California Regional Water Quality Control Board

Los Angeles Region



Linda S. Adams
Agency Secretary

320 W. 4th Street, Suite 200, Los Angeles, California 90013
Phone (213) 576-6600 FAX (213) 576-6640 - Internet Address: <http://www.waterboards.ca.gov/losangeles>

Arnold Schwarzenegger
Governor

July 30, 2009

Attachment 1
Response to RWQCB SWPPP Comments

Mr. Thomas D. Gallacher
Director, SSFL – Environment, Health & Safety
The Boeing Company
Santa Susana Field Laboratory
5800 Woolsey Canyon Road
Canoga Park, CA 91304-1148

COMMENTS ON STORM WATER POLLUTION PREVENTION PLAN FOR INTERIM SOURCE REMOVAL ACTION SUBMITTED IN RESPONSE TO A CALIFORNIA WATER CODE SECTION 13304 ORDER – THE BOEING COMPANY, SANTA SUSANA FIELD LABORATORY, CANOGA PARK, CA (NPDES NO. CA0001309, CI NO. 6027, SCP NO. 1111, SITE ID NO. 2040109)

Dear Mr. Gallacher:

Los Angeles Regional Water Quality Control Board (Regional Board) storm water and remediation staff have reviewed the June 17, 2009, *Storm Water Pollution Prevention Plan (SWPPP)* submitted in response to a California Water Code Section 13304 Order dated December 3, 2008. The SWPPP, prepared for you by MWH Americas, Inc., was received by the Regional Board on June 22, 2009.

Regional Board staff have the following comments:

- I. The SWPPP was not signed and was not certified as required by Section C. 10 of General Permit No. CAS000002 (Order No. 99-08-DWQ) for storm water discharges associated with construction activities.
- II. Page 300-1, Where are outfalls 008 and 009 on the figures?
- III. Pollutants:
 1. Page 300-1, States pollutants benchmark exceedances at:
 - Outfall 008 – to be lead
 - Outfall 009 – to be copper, lead, dioxins, pH, oil and grease
 2. Page 500-1, Section 500.3.1, cadmium, copper, lead, and mercury are listed as pollutant sources,
 3. Page 600-2, Section 600.5.1, second bullet states:
 - Outfall 008 and – Outfall 009 areas have soil with cadmium, copper, lead, mercury and dioxins.
 4. Figure 5 indicates: detection of lead, copper, and dioxins in the subsurface soil.

California Environmental Protection Agency



Our mission is to preserve and enhance the quality of California's water resources for the benefit of present and future generations.

Please clarify the discrepancies in items 1-4 above.

IV. Page 300-2, Section 300.4:

1. Rainy season starts October 1st not October 15th.
2. Best Management Practices (BMPs) should be implemented prior to land disturbance, and maintained during construction.
3. BMPs should be in place during construction regardless if it is or is not rainy season.

V. Page 300-3, Section 300.5, first part:

1. Should be revised to read: **The Storm Water Pollution Prevention Plan Manager (SWPPPM)**. A SWPPP should be prepared for the project first and then someone should manage the plan. Please make the necessary acronym changes throughout the document.
2. Please clarify if Mr. Ben Stewart, the SWPPPM will be available at the construction site during all working hours. If not, please specify the name of the person responsible for the SWPPP/BMPs who will be at the construction site.
3. Ninth line from the top, typo: "The SWPPM ..." should be SWPPP.

VI. Page 500-2, Section 500.3.4

1. No. 2: "...to remaining active and non active areas..." It is not clear if the active refers to disturbed areas and if non active refers to undisturbed areas. If an area has been disturbed and becomes temporarily inactive, it must still have effective BMPs.
2. No. 4: Similar comment. Do the non-active areas mean previously disturbed, not at all disturbed, or will be disturbed in the future? If the area has been previously disturbed, it should be stabilized immediately and not "14 days after the cessation of activities."
3. No. 6: All disturbed areas must be stabilized immediately upon completion. Again, the permit requirement should be implemented year around and not only "during the rainy season."

VII. Page 500-6, Section 500.3.9, WM-5 Solid Waste Management

1. Third and fourth dashed lines: These dashed lines may be combined in order to explain the type of dumpsters used at the site.

VIII. Page 500-7

1. Fourth dashed line: Please explain when the solid waste will be removed from the site.
2. WM-6 Hazardous Waste Management, last dashed line: How will the "accumulative rainwater that has (been) mixed with hazardous waste" be disposed?

IX. Page 500-8

Please note that portable toilets should be placed on the secondary containment.

X. Page 500-8, and Page 600-1, Section 600.1, Site Inspections

1. Please clarify if the contractor will be the same as the SWPPPM as stated on Page 300-3, Section 300.5, 1st paragraph. The General Permit requires that person(s) responsible for SWPPP implementation, including inspection, shall be named with their responsibility clearly stated.
2. After each storm event inspection should be done regardless of any runoff from the site due to the storm event.

XI. Appendix L

The inspection check list shall include, at a minimum, items (a) through (f) of Section A.11 of the General Permit. Also, the check list should clearly indicate if the inspection was done before, during, or after the rain event.

Please telephone Mr. Peter Raftery at (213) 576-6724 or email him at praftery@waterboards.ca.gov if you have any questions.

Sincerely,


Tracy J. Egoscue
Executive Officer

cc: Honorable Alex Padilla, Senator 20th District
Honorable Fran Pavley, Senator, 23rd District
Honorable Tony Strickland, Senator 19th District
Assemblymember Bob Blumenfield, Assemblymember 40th District Assembly
Assemblymember Pedro Nava, Assemblymember 35th District
Assemblymember Audra Strickland, Assemblymember 37th District

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California Environmental Protection Agency



cc list continued

Mr. Jarrod Degonia, c/o Assemblymember Cameron Smyth
Ms. Rondi Guthrie, c/o Assemblywoman Audra Strickland
Ms. Samantha Stevens, c/o Assemblymember Bob Blumenfield
Mr. Aron Miller, c/o Senator Fran Pavley
Ms. Linda Parks, Ventura County Board of Supervisors
Mr. Damon Wing, c/o Ms. Linda Parks, Ventura County Board of Supervisors
Mr. Gerard Abrams, Department of Toxic Substances Control, Sacramento
Mr. David Beckman, National Resources Defense Council
Ms. Lori Blair, Boeing
Mr. William Bowling
Mr. Michael Bubman, c/o Bell Creek Homeowners Association
Ms. Jeannie Chari
Mr. Paul Costa, Boeing
Mr. Craig Cooper, Environmental Protection Agency, Region 9
Mr. Daniel Cooper, Lawyers for Clean Water
Mr. David Cooper, Environmental Protection Agency, Region 9
Ms. Elizabeth Crawford
Ms. Nicole Doner, Ventura County Planning Division
Ms. Ginn Doose
Mr. Allen Elliott, National Aeronautics and Space Administration
Mr. John Farrow, M. R. Wolfe & Associates, P.C.
Ms. Merrilee Fellows, National Aeronautics and Space Administration
Mr. Tom Ford, Santa Monica Bay Keeper
Dr. Mark Gold, Heal the Bay
Mr. A. J. Greenstein
Mr. Matt Hagemann, Soil/Water/Air Protection Enterprise
Ms. Carol Henderson, Office Manager, Bell Canyon Homeowners Association
Mr. Dan Hirsch, Committee to Bridge the Gap
Ms. Heather L. Hoecherl Esq., Director of Science and Policy, Heal the Bay
Mr. Philip Isorena, State Water Resources Control Board, Division of Water Quality
Ms. Kirsten James, MESM, Staff Scientist, Heal the Bay
Ms. Stephanie Jennings, United States Department of Energy
Ms. Barbara Johnson, Susana Knolls Homeowners, Inc.
Dr. Michael Josselyn, WRA, Inc.
Mr. Thomas Johnson, ETEC Project Manager, United States Department of Energy
Ms. Teresa Jordan
Mr. Thomas Kelly, Environmental Protection Agency, Region 9, (WTR-5)
Dr. Jae Kim, Tetra Tech
Mr. Buck King Department of Toxic Substances Control, Sacramento
Ms. Bonnie Klea
Mr. Wayne Lee
Mr. Michael Levy, State Water Resources Control Board, Office of Chief Counsel

cc list continues on next page

California Environmental Protection Agency



cc list continued

Mr. Michael Lopez, U.S. Department of Energy, Oakland
Mr. John Luker
Ms. Carissa Marsh, The Simi Valley Acorn
Ms. Marie Mason
Mr. Daniel Maccabee, Brandeis-Bardin Institute
Mr. Nicole Moutoux, Environmental Protection Agency, Region 9
Mr. Jerry Murphy, c/o Bell Creek Homeowners Association
Mr. Jim Pappas, Department of Toxic Substances Control, Sacramento
Mr. William Paznokas, Department Of Fish and Game, Region 5
Mr. Sheldon Plotkin, Southern California Federation of Scientists'
Ms. Bunny Raskin
Mr. Norm Riley, Department of Toxic, Substances Control, Sacramento
Ms. Chris Rowe
Ms. Sharon Rubalcava, Weston, Benshoof, Rochefort, Rubalcava, MacCuish, LLP
Ms. Darlene Ruiz, Hunter Ruiz Research, Consulting and Advocacy
Mr. Adam Salkin
Mr. Mathew Sanders, Paul, Hastings, Janofsky & Walker LLP
Ms. Lorraine Scott
Mr. Joseph Smith, Department of Toxic Substances Control, Office of Legal Counsel
Sacramento
Dr. Michael Stenstrom, SSFL Stormwater Expert Panel
Ms. Rebecca Tadesse, Branch Chief of Materials Decommissioning, U.S. Nuclear Regulatory
Commission
Ms. Stephanie Trotter, State Water Resources Control Board
Mr. Rick Verguitz, Water & Environmental Resources Section, Ventura County Watershed
Protection District
Mr. Mati Waiya, Wishtoyo Foundation
Mr. Jack M. Wallace
Ms. Christina Walsh
Ms. Marge Weems
Ms. Darla Weiss, Ventura County Watershed Protection District
Ms. Mary Wiesbrock
Dr. Daniel Wiseman, West Hills Neighborhood Council-Santa Monica Mountains Area
Committee
Mr. Anthony Zepeda
Mr. Cybil Zeppieri
Mr. Lori Zinkan
Ms. Elizabeth Zlotnik
California Coastal Commission, South Coast District
California State University, Northridge
City Manager, City of Simi Valley
City of Los Angeles, Bureau of Engineering, Wastewater Systems Engineering Division

cc list continues on next page

California Environmental Protection Agency



Mr. Thomas D. Gallacher
The Boeing Company

- 6 -

July 30, 2009

Attachment 1
Response to RWQCB SWPPP Comments

cc list continued

Department of Health Services, Public Water Supply Branch
Department of Interior, U.S. Fish and Wildlife Service
Environmental Protection Agency, Region 9, Office of Radiation Programs
Environmental Protection Agency, Region 9, Permits Branch (WTR-5)
Friends of the Los Angeles River
Los Angeles and San Gabriel Rivers Watershed Council
Los Angeles County, Department of Health Services
Los Angeles County, Department of Public Works, Environmental Programs Division
Masry & Vittoe Law Offices
NOAA, National Marine Fisheries Service
Simi Valley Library
The Boeing Company Santa Susana Field Laboratory
U.S. Army Corps of Engineers
ULARA Watermaster
Ventura County Air Pollution Control District
Ventura County Environmental Health Division
Ventura County Public Works
Water Replenishment District of Southern California

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California Environmental Protection Agency



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State Water Resources Control Board



Linda S. Adams
Secretary for
Environmental
Protection

Division of Water Quality
1001 I Street o Sacramento, California 95814 o (916) 341-5536
Mailing Address: P.O. Box 1977 o Sacramento, California o 95812-1977
FAX (916) 341-5543 o Internet Address: <http://www.waterboards.ca.gov>
Email Address: stormwater@waterboards.ca.gov

Arnold Schwarzenegger
Governor

Approved Date: 07/21/2009

Paul Costa
Boeing Co
5800 Woosley Canyon Rd MC T 487
Canoga Park, CA 91304

RECEIPT OF YOUR NOTICE OF INTENT (NOI)

The State Water Resources Control Board (State Water Board) has received and processed your NOI to comply with the terms of the General Permit for Storm Water Discharges Associated with Construction Activity. Accordingly, you are required to comply with the permit requirements.

The Waste Discharger Identification (WDID) number is: **4 19C355816** .
Please use this number in any future communications regarding this permit.

SITE DESCRIPTION

OWNER: Boeing Co
DEVELOPER: Boeing Co
SITE INFORMATION: Interim Source Removal Action ISRA Project
SITE LOCATION: 5800 Woosley Canyon Rd Canoga Park, CA 91304
COUNTY: Los Angeles
TOTAL DISTRUBED ACRES: 1.8
START DATE: 07/27/2009
COMPLETION DATE: 10/21/2009

When construction is complete or ownership is transferred, **dischargers are required to submit a Notice of Termination (NOT)** to the local Regional Water Board. All State and local requirements must be met in accordance with Special Provision No. 7 of the General Permit. If you do not submit a NOT when construction activity is completed you will continue and are responsible to pay the annual fee invoiced each July.

If you have any questions regarding permit requirements, please contact your Regional Water Board at **(213) 576-6600**. Please visit the storm water web page at www.waterboards.ca.gov/stormwtr/index.html to obtain an NOT and other storm water related information and forms.

Sincerely,

Storm Water Section
Division of Water Quality

California Environmental Protection Agency