STATE OF CALIFORNIA

STATE WATER RESOURCES CONTROL BOARD

IN RE:

REQUIREMENT FOR TECHNICAL REPORTS PURSUANT TO CALIFORNIA WATER CODE SECTION 13267 ORDER – FORMER ALCOA WESLOCK FACILITY, 1334 SOUTH MAIN STREET, LOS ANGELES, CA (SITE CLEAN UP NO. 0552 AND SITE ID NO. 1843200)

NO. ___________

PETITION FOR REVIEW

Petitioner Alcoa Inc. and its related affiliates and interests submit this Petition for Review of the order letter dated June 3, 2009 that was issued by the California Regional Water Quality Control Board, Los Angeles Region (the “RWQCB”) and entitled “Requirement for Technical Reports Pursuant to California Water Code (CWC) Section 13267 Order - Former Alcoa Weslock Facility, 13344 South Main Street, Los Angeles, CA (Site Clean Up No. 0552 and Site ID No. 1843200)” (the “Order Letter”). The Order Letter makes nine findings regarding the former Weslock facility (the “Site”) and directs Petitioner to implement eleven required actions pursuant to Section 13267 of the California Water Code. This Petition for Review of the Order Letter is filed in accordance with Section 13320 of the California Water Code and Section 2050 of Title 23 of the California Code of Regulations, which requires Petitioner to set forth the following items of information.
1. Petitioner is Alcoa Inc., and its address is 201 Isabella Street, Pittsburgh PA, 15212-5858. Alcoa requests that all communications be directed through its counsel, as identified in the caption of this Petition.

2. Petitioner requests that the State Water Resources Control Board ("SWRCB") review the above-mentioned Order Letter (copy attached as Exhibit A).

3. The RWQCB issued the Order Letter dated June 3, 2009 under the authority of the Executive Officer. Because the deadline for submittal of this petition for review fell on a holiday weekend, this petition is timely filed on the next business day.

4. Petitioner has been performing investigation and remediation of environmental contamination at the Site for many years without the issuance of a Section 13267 Order Letter or similar formal directive. Moreover, Petitioner has been working closely with the RWQCB in recent months to provide additional information requested by the RWQCB. Some of that recent activity is noted in the Order Letter itself. Petitioner does not believe that issuance of the Order Letter is necessary or warranted in light of the long-standing cooperation shown by Petitioner without such an order. Furthermore, the Findings contain a number of statements that Petitioner believes are inaccurate or incomplete, as more fully described in the attached June 8, 2009 Response to the Order Letter (Exhibit B). In addition, while Petitioner is prepared and will agree to implement ten of the eleven Requirements listed in the Order Letter, Requirement 11, for submittal of a Remedial Action Plan ("RAP") to the RWQCB by July 30, 2009, is unreasonable and does not allow sufficient time to prepare the RAP, as further described in Exhibit B. Petitioner has requested an extension of the deadline for submittal of the RAP but has not yet received a response from the RWQCB.

5. Petitioner is aggrieved by the Order Letter because the Findings do not present a full and complete picture of the body of information that has been developed and submitted to the RWQCB regarding this Site and because the Requirements will result in unnecessary burden and expense to Petitioner. Petitioner will continue to attempt to work with the RWQCB in an effort to reach a mutually-agreeable resolution to these grievances. If those efforts are unsuccessful, Petitioner will submit to the SWRCB an amendment to this Petition that will include, inter alia,
statement of the manner in which Petitioner is additionally aggrieved by the Order Letter, as necessary.

6. Petitioner requests that the SWRCB set aside the Order Letter or direct the RWQCB to set aside that Order Letter in its entirety. Alternatively, Petitioner requests that the SWRCB modify the Order Letter consistent with the comments set forth in Petitioner’s Response to the Letter Order (Exhibit B).

7. Petitioner will submit to the SWRCB as an amendment to this Petition a complete statement of points and authorities in support of this Petition, as necessary.

8. A copy of this Petition for Review and the attached Exhibits A and B have been sent to the RWQCB, as well as to all individuals who received copies of the Order Letter.

9. Petitioner has discussed various issues relating to the Site with the RWQCB but did not have an opportunity to discuss the specific issues raised in this Petition with the RWQCB prior to the issuance of the Order Letter because Petitioner was not aware that the RWQCB was planning on issuing the Order Letter. Subsequent to receipt of the Order Letter, Petitioner has since raised the issues addressed in this Petition with the RWQCB and will continue to attempt to work cooperatively with the RWQCB in an effort to resolve the issues raised in this Petition.

Therefore, Petitioner asks that the SWRCB hold this Petition for Review in abeyance, while the Petitioner attempts to work cooperatively with the RWQCB to resolve these issues in a mutually-satisfactory manner. In the event that such efforts are unsuccessful, Petitioner will amend this Petition for Review, as necessary and inform the SWRCB of the need for active review of the Petition for Review.

For all the reasons stated herein, Petitioner requests that the State Water Resources Control Board set aside the Order Letter or direct the RWQCB to set aside that Order Letter or modify the Order Letter as discussed above.

DATED: July 6, 2009

FARELLA BRAUN + MARTEL LLP
By: John R. Epperson
Attorneys for Petitioner
ALCOA INC.
June 3, 2009

Mr. Ronald Morosky
Remediation Operations
Alcoa, Inc.
201 Isabella Street
Pittsburgh, PA 15212

CERTIFIED MAIL
RETURN RECEIPT REQUESTED
7008 0150 0003 7881 0992

REQUIREMENT FOR TECHNICAL REPORTS PURSUANT TO CALIFORNIA WATER CODE
(CWC) SECTION 13267 ORDER - FORMER ALCOA WESLOCK FACILITY, 13344 SOUTH
MAIN STREET, LOS ANGELES, CA (SITE CLEAN UP NO. 0552 AND SITE ID NO. 1843200)

Dear Mr. Morosky:

We have reviewed your Response to Regional Water Quality Control Board Information Request that was submitted on March 4, 2009. The document was submitted in response to questions we raised during a telephone conference call on January 6, 2009 between Regional Board staff and a representative of Alcoa, Inc. (Alcoa) and your consultants. We have also reviewed other site investigation, groundwater monitoring and remediation status reports on the former Alcoa Weslock facility (Site).

On April 14, 2009, your consultant, WorleyParsons, made a presentation during a conference call meeting on the soil vapor extraction (SVE) system’s radius of influence determination. This determination was made before the start-up of the full scale operation of the SVE system in 2000 at the Site.

FINDINGS

Based on our review of the Response to Regional Water Quality Control Board Information Request, site investigation, remediation status and groundwater monitoring reports submitted to the Regional Board to date and the discussion(s) you had with Regional Board staff, we find that:

1. The figures in the Focused Remedial Investigation Report, submitted in September 1999, indicate that the extent of the volatile organic compounds (VOC) contamination in the soil was defined to 500 micrograms per kilogram (µg/kg). There was no justification provided for selecting this level of concentration to indicate the extent of contamination. Thus, the 500 µg/kg-contour was arbitrarily selected and was not based on soil screening levels (SSLs).

The full extent of the VOC contamination in the soil was not completely delineated before the implementation of the remedial action.

2. An SSL was not developed for total VOCs in accordance with the Regional Board’s Interim Site Assessment and Cleanup Guidebook (May 1996). Rather, SSLs were developed only for individual contaminants such as perchloroethylene (PCE), trichloroethene (TCE), 1,1-dichloroethene (1,1-DCE), cis-1,2-dichloroethene (cis-1,2-DCE), and 1,1,1-trichloroethane (1,1,1-TCA). However, the delineation of the extent of contamination was indicated for total VOCs in the figures presented.

3. As the soil borings indicate, the dominant soil types in the former degreaser and plating area (Proseal Department) are silt and silty sand in the upper 10 feet. The soil gas sample collected by MFG in 1993 from V-22, which was located just north of this area of concern (AOC), had PCE at a concentration of...

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Exhibit A
230 micrograms per liter (μg/L). However, the soil matrix samples collected from an adjacent soil boring, SB-19, had no PCE. Soil gas sampling is thus preferable to assess this AOC for VOCs.

4. Hexavalent chromium has been detected in the groundwater since groundwater monitoring began in 1998. As the most recent groundwater monitoring report indicates, the maximum concentration of hexavalent chromium was detected in MW-6 at a concentration of 220 μg/L. However, the source area has not been identified.

5. The total petroleum hydrocarbon (TPH) assessment was not conducted in accordance with the Regional Board’s *Interim Site Assessment and Cleanup Guidebook* (May 1996). The guidebook states that a TPH carbon-chain analysis be performed on the samples so that SSLs can be determined for each carbon chain range and used as cleanup levels. Moreover, the classification of the petroleum hydrocarbons encountered was not identified.

6. After the SVE system had been shut down, confirmation soil samples were collected in May and June 2005. However, most of the samples were collected from locations relatively closer to the SVE wells where the remediation system had the most pronounced effect. The maximum linear distance of the confirmation samples from the extraction wells in both the Former Degreaser Area and Former Oily Waste Water Area was approximately 37 feet.

Confirmation samples were not collected from locations close to the fringe of the SVE system radius of influence to evaluate the effectiveness of the remediation, at those locations where there is weaker vapor flow and vacuum.

7. Confirmation soil samples collected from the Former Oily Waste Water Area were analyzed for only VOCs. However, this AOC is known to be contaminated with TPH as well. Therefore, the effect the SVE system had on this AOC in reducing the concentration of TPH in the soil is not known.

8. Review of your *Soil Vapor Survey Investigation Report*, dated December 8, 2008, indicates that there are still VOC contaminants in the soil gas beneath the Former Degreaser and Solvent Storage Area and the Former Oily Waste Water Area. PCE was detected at maximum concentrations of 200 μg/L and 140 μg/L, respectively, in those AOCs. Other VOCs were also detected at significant concentrations.

A review of the SVE system operational data for the period from system start-up on April 25, 2000 until the system was shut down on November 14, 2002 indicates that:

8.1 An estimated VOC removal rate ranging from 0.04 pounds per day (lbs/day) to 1.6 lbs/day was maintained from July 12, 2001 to November 14, 2002 and approximately 139 lbs of VOCs were removed during this period.

8.2 When the system was shut down, between June 10, 2002 and October 21, 2002, a significant rebound (approximately 166.57%) occurred in the daily VOC removal rate from the original removal rate. Other significant rebounds in the daily VOC removal rate also occurred between July 12, 2001 to November 14, 2002 when the system was shut down on various occasions for shorter periods of time.
Based on the observations presented in Item Numbers 8.1 and 8.2, we do not concur with your conclusion that the system has reached asymptotic levels in its VOC removal rate and/or maintained the asymptotic level for one year. Moreover, the results of the most recent soil gas survey indicates the existence of VOC contaminants in the soil gas in areas where remediation was performed, which could still be a threat to human health and a continued source for groundwater contamination.

Successive groundwater monitoring conducted at the Site since 1998 indicated that there exists a VOC plume in the groundwater beneath the Site. Other contaminant plumes, such as for 1,4-dioxane and hexavalent chromium, have also been identified in the groundwater. 1,4-dioxane was detected at concentrations ranging from 0.61 μg/L to 410 μg/L and hexavalent chromium was detected at a maximum concentration of 220 μg/L.

The most recent groundwater monitoring report for the Site, dated November 25, 2008, indicates that PCE was detected at concentrations ranging from 21 μg/L to 1,400 μg/L. 1,1-DCE was also detected at a maximum concentration of 2,400 μg/L. Other VOCs, such as TCE and chloroform, were also detected at varying concentrations. However, remedial action has not yet been proposed to address groundwater pollution.

REQUIREMENTS

Pursuant to Section 13267 of the California Water Code (CWC), you are hereby directed to implement the following:

1. Contaminant-specific iso-concentration contour maps showing the pre-remediation lateral extent of the VOC and TPH contamination in the soil shall be prepared and submitted. The maps shall be prepared for selected depths, using triangulation method or any other acceptable method and shall have index contours of concentrations of VOCs. Drawing arbitrary contours on the maps without systematic use of data is not acceptable.

   The maps shall be prepared for the major contaminants, such as PCE, TCB and 1,1-DCE, and show the extent of contamination delineated to cleanup levels, i.e. SSLs.

2. If an SSL is developed for an individual contaminant, the SSL exceedence zone shall be shown on iso-concentration contour maps for each contaminant for which the SSL is developed. However, if the SSL exceedence zone is to be shown on the maps for total VOCs, an SSL for total VOCs shall be developed first for total VOCs. The Regional Board's Interim Site Assessment and Cleanup Guidebook (May 1996) describes the steps to be followed in order to develop an SSL for total VOCs when multiple VOCs are detected in the soil.

3. A separate map showing the radius of influence (ROI) of each SVE well and trench superimposed on the contaminant-specific iso-concentration contour map shall be prepared to show whether the area of influence of the SVE system had covered the full lateral extent of the VOC contamination in the soil.

4. The former degreaser and plating area (Proseal Department) shall be assessed for VOCs by installing shallow and deep soil vapor probes. This AOC is located relatively far away from the area of influence of the SVE system; the soil types are dominated by silt and silty sand and VOCs were not assessed in the soil gas during the previous site investigations.

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5. The source area for hexavalent chromium that has been detected in the groundwater must be identified. Additional site assessment is thus needed in potential areas of concern.

6. Additional confirmation soil samples shall be collected from locations along the fringe of the ROI for the SVE system in the Former Degreaser Area and Former Oily Waste Water Area for VOC analysis. In addition, samples shall also be collected close to the SVE wells and trenches in the Oily Waste Water Area for TPH analysis by the United States Environmental Protection Agency (USEPA) Method 8015M.

7. If TPH is detected in the confirmation soil samples above the SSLs, the extent of the contamination shall be defined in an additional site assessment. Confirmation soil analytical results shall also be screened against derived SSLs based on the guidelines in the Regional Board's Interim Site Assessment and Cleanup Guidebook (May 1996).

8. You shall resume the operation of the SVE system to continue the removal of VOCs from the soil beneath the Former Degreaser and Solvent Storage Area and the Former Oily Waste Water Area.

Propose other remediation techniques for use in conjunction with the SVE system, such as air sparging: (i) to mobilize the residual VOCs in the soil, (ii) to significantly reduce the size of the existing VOC plumes in the soil gas and (iii) to enhance the performance of the SVE system. Performance-based criteria shall be proposed for review and approval for determining asymptotic level of VOC mass removal rate and system shutdown.

9. In order to accomplish Item Numbers 4 through 8, a work plan shall be prepared and submitted to the Regional Board by July 30, 2009.

10. Item Numbers 1 through 3 are also due to the Regional Board by July 30, 2009.

11. A Remedial Action Plan (RAP) shall be prepared to remediate the groundwater contaminated with VOCs, 1,4-dioxane and hexavalent chromium. The RAP is due to the Regional Board by July 30, 2009.

A detailed description shall be provided in the RAP on the different remedial alternatives considered and justification concerning the selected remedial solution. You shall also outline your expected goals and/or expectations about the long-term effectiveness of the proposed remedial method. The cleanup goals for the groundwater remediation shall be USEPA's or California Department of Public Health's Maximum Contaminant Levels (MCLs) for drinking water, whichever is more stringent.

All final reports shall be developed following the attached Guidelines for Report Submittals (March 1991, Revised June 1993). In addition, your final report shall be submitted as a hardcopy and in electronic Adobe® "pdf" format. One hardcopy and one electronic copy of each final report shall be submitted.

The California Business and Professions Code, Sections 6735, 7835, and 7835.1 require that engineering and geologic evaluations and judgments be performed by, or under the direction of, a registered professional. Please refer to the State Water Resources Control Board Resolution No. 92-49, Policies and Procedures for Investigation and Cleanup and Abatement of Discharges under California Water Code Section 13304 (amended on April 21, 1994 and October 2, 1996). Therefore, all work must be performed by
or under the direction of a California professional geologist, a California registered certified specialty geologist or a California registered civil engineer with at least five years hydrogeologic experience. A statement is required in the report that an appropriately registered professional actually supervised or personally conducted all the work associated with the project. The documents must also bear a stamp reflecting the registered professional’s credentialed specialty and an expiration date of the relevant license.

Pursuant to Section 13267(b) of the California Water Code (CWC), you are hereby directed to submit these required technical reports (Item Numbers 1 through 3, 9 and 11) to this Regional Board by July 30, 2009. Furthermore, pursuant to Section 13268 (b)(1) of the CWC, failure to submit the required documents may result in the imposition of civil liability penalties by the Regional Board of up to $1,000 per day for each day the documents are not received after July 30, 2009, and without further warning.

We believe that the burdens, including costs, of these reports bear a reasonable relationship to the need for the reports and the benefits to be obtained from the reports. If you disagree and have information about the burden, including costs, of complying with these requirements, provide such information in writing to Mr. Bizuayehu Ayele within ten days of the date of this letter so that we may reconsider the requirements.

Any person aggrieved by this action of the Regional Water Board may petition the State Water Board to review the action in accordance with Water Code section 13320 and California Code of Regulations, title 23, sections 2050 and following. The State Water Board must receive the petition by 5:00 p.m., 30 days after the date of this Order, except that if the thirtieth day following the date of this Order falls on a Saturday, Sunday, or state holiday, the petition must be received by the State Water Board by 5:00 p.m. on the next business day. Copies of the law and regulations applicable to filing petitions may be found on the Internet at:

http://www.waterboards.ca.gov/public_notices/petitions/water_quality

or will be provided upon request.

If you have any questions regarding this matter, please contact Mr. Bizuayehu Ayele at (213) 576-6747 or Mr. Dixon Oriola at (213) 576-6803.

Sincerely,

Tracy J. Egoscue
Executive Officer


cc: Mr. Michael Tietze, WorleyParsons
    Mr. Wade Major, WorleyParsons
    Mr. Bobby Ahn, James West, Inc.
    Mr. Mark Leymaster, Leymaster Environmental

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.
GUIDELINES FOR REPORT SUBMITTALS

March 1991
Revised June 1993

Robert P. Ghirelli, D. Env.
Executive Officer
Regional Water Quality Control Board,
Los Angeles Region

T. A. Tidemanson
Director
Los Angeles County
Department of Public Works
VI: SITE ASSESSMENT PLAN

A workplan must be submitted and approved prior to conducting any site assessment work; the Responsible Party shall modify the workplan, as necessary, at the direction of the LOP, pursuant to Article 11, Section 2722, Subsections C and D, of the California UST Regulations, January 1992. The workplan must describe all activities to be undertaken and appropriate protocols to be used.

A. Site Information

- Name and address of the site and the Responsible Party
- Summary of site history relative to all contamination in question
- Name and phone number of the appropriate contact person

B. Facility Map: include the following where applicable

- Site Map
  - Locations of all tanks (past and present), associated piping, chemical and waste-storage and processing areas, transfer/drain lines, and dispensing areas
  - Locations of man-made surface/subsurface structures (buildings, sewers, utilities, etc.)
  - Locations of proposed borings/sampling points/wells
  - Locations of all samples taken in the tank excavation
  - Location of any previous site assessment
  - Scale, north arrow, legend; and date
  - Name and address of facility

- Vicinity Map
  - Site boundaries and adjacent streets
  - Adjacent properties
  - North arrow and legend
  - Name and address of facility
  - Appropriate references

C. Number of Borings

- Generally, a minimum number of borings is required for each tank or tank cluster as indicated below, plus one boring through the center of each tank pit or area of highest contamination:
  - Three borings around each single tank
  - Four borings around a double or triple tank cluster
  - Determined by the LOP Project Engineer for tank clusters or pits with more than three tanks
VII. SITE ASSESSMENT PLAN

D. Geology and Hydrogeology

- Describe soil lithology and any bedrock formations, as best known (cite reference)
  - Obtain appropriate samples from the vadose and/or saturated zones for material property testing, as warranted
- Indicate both the current depth to shallowest groundwater and the historic high groundwater level (cite reference)
  - If LAC DPW Hydraulic/Water Conservation Division records are used, indicate the depth of the well and screening interval
  - If possible, referenced wells should be within one-quarter mile of the site
- Where groundwater is impacted or potentially impacted, additional geologic and hydrogeologic information will be required (See Site Assessment Reports Section)
- Utilize specific information for any proposed aquifer test, including justification for type of test and analytical method utilized, spacing of observation wells, duration of pumping, depth of pump intake, etc. (See Aquifer Tests, Appendix F)
- At least one boring should be continuously cored and logged completely through the zone of highest suspected contamination
  - All sites with "barrier" horizons or significant lithologic variability must have sufficient continuously cored and logged borings
  - All water-saturated zones should be continuously cored and logged in a sufficient number of monitoring well borings to describe the saturated medium

E. Boring Locations

- The following procedures may be utilized for screening purposes only to determine boring locations during site assessment:
  - Soil gas survey
  - BAT probes
  - Cone penetrometer
  - Hydropunch
  - Previous monitoring well/soil samples

F. Vadose Zone Plume Definition

- Specify the number, location, and depth of the proposed borings
- For vertical definition (when depth to water is known and water is not impacted or potentially impacted), obtain and analyze samples five and 15 feet below known or suspected contamination, unless a competent clay is encountered (for definition of a competent clay, see Glossary)
- For horizontal definition, borings should "step out" into clean soil/water and encircle the contamination
- The final step out borings should be analyzed at five-foot intervals beginning at the same depth as the deepest non-detect sample, from the previous step out borings; that is, above the known contamination plume (determined by laboratory results)
VI. SITE ASSESSMENT PLAN

G. Groundwater Plume Definition

- Specify the number, location, depth, screening interval, and design of proposed monitoring wells
- For horizontal definition, borings should "step out" into non-contaminated (non-detect) groundwater and encircle the contamination
- Propose specific sampling methods to vertically define chlorinated solvents, halogenated hydrocarbons, and other "sinkers" to a competent clay bed (barrier horizon) or to the bottom of the water-saturated zone (for definition of a competent clay, See Glossary)

H. Groundwater

- Accomplish the following when the depth to existing or historical high groundwater level has not been demonstrated on-site and the potential impact to groundwater resources cannot be evaluated
  - Complete a boring to groundwater or complete a boring which penetrates to a minimum depth of 25 feet below the deepest detectable contamination and is sampled and analyzed at five-foot intervals
    - All five samples below the deepest contamination must be nondetect
    - A vapor well and vapor sampling may be required when borings terminate in coarse-grained soils
  - If groundwater has been, or is potentially impacted (contaminated vapor or soil within 25 feet of the existing or historical high-groundwater level), a minimum of three monitoring wells must be installed in order to initiate groundwater assessment
    - If one of these wells is not directly down gradient of the contamination source and/or vadose plume, a fourth well must be constructed down gradient (See Well Construction, Appendix E)

I. Free Product

- Free product removal reports shall be submitted within 45 days of confirmation of free product on the site and prepared in compliance with Article 5 of the State Underground Tank Regulations
  - If free product is encountered, product recovery must begin immediately and occur as frequently as possible
    - Submit a time schedule of product removal and quarterly recovery reports
    - A continuous product recovery system must be installed if the quantity of product and the soil type allow for it

J. Sampling

- Provide a sampling and analysis plan which includes the locations and number of samples to be obtained and analyzed
  - Samples must be taken at a minimum of five-foot vertical intervals, and at changes in soil lithology, and at areas of obvious contamination

County of Los Angeles, Department of Public Works, UST Local Oversight Program: “Guidelines for Report Submittals,” June 1993
VI. SITE ASSESSMENT PLAN

- Continuous coring is required where low-permeability horizons or frequent lithologic changes are encountered and in water-saturated zones.
- An FID/PID may only be used to indicate the presence of contamination.
  - Samples must be analyzed in the laboratory to determine a level of contamination or to confirm the absence (non-detect) of contamination.
  - Provide field procedures to be used for the operation of the FID/PID (See Sampling Procedures, Appendix C).
- Sampling and analysis should be conducted to determine the distribution, concentration, and presence or absence of the various phases of hydrocarbons and/or solvents within the vadose zone and saturated zone(s).
  - Describe the standard sampling and handling protocol (See Sampling Procedures, Appendix C).
  - Identify procedures used to prevent cross contamination.
  - Any modifications to the standard protocol must be approved by the LOP Project Engineer.

K. Laboratory Analysis

- All laboratory analyses must be proposed according to Laboratory Requirements, Appendix D.
VII. SITE ASSESSMENT REPORTS

A Site Assessment Plan must be submitted and approved prior to conducting any site assessment. Describe all assessment activities conducted. Address and justify any and all deviations from the Site Assessment Plan.

A. Site Information

- Name and address of the site and Responsible Party
- Summary of site history related to the contamination
- Characterize past and present business activities
- Describe the surrounding community
- Describe the storage, handling, usage, and disposal procedures for all chemicals on-site
- Give dates of the completion of buildings and asphalt paving where possible
- Indicate any proposed future uses of the area relative to the contamination

B. Facility Map: include the following where applicable

- Site Map
  - Locations of all tanks (past and present), associated piping, chemical and waste storage and processing areas, transfer/drain lines, and dispensing areas
  - Locations of man-made surface/subsurface structures (buildings, sewers, utilities, etc.)
  - Locations of completed boring/sampling points/wells
  - Locations of all samples taken in the tank excavation
  - Location of any previous site assessment
  - Scale, north arrow, legend, and date
  - Name and address of facility
- Vicinity Map
  - Site boundaries and adjacent streets
  - Adjacent properties
  - North arrow and legend
  - Name and address of facility
  - Appropriate references

C. Geology

- Describe the lithology and structure of soil and bedrock encountered during assessment
- Determine soil and contaminant properties which affect mobility of vapor, water, and contaminants in the vadose zone, capillary fringe, and saturated zone(s)
- Identify any unique site features which may influence movement of contaminants or groundwater
  - Natural - faults, fractures, joints, soil horizons, bedrock materials, weathered zones, isolated lenses, fill materials, anisotropic sediments, buried channels, lateral clay barriers, channel bars, buried stream banks, pinch-outs, etc.
  - Artificial - sewer and other utility lines, footings, piles, wall backfills, etc.
- Provide stratigraphic interpretation between borings and/or pit excavations
VII. SITE ASSESSMENT REPORTS

D. Hydrogeology

- Regional setting (cite references)
  - Historic high groundwater level
  - Recharge/discharge areas and flow patterns
  - Groundwater basins and their geometry
  - Depositional basins and stratigraphy (formations; members; and lithology)
  - Surficial deposits
  - Aquifer system(s) and their hydraulic gradient(s)
  - Regional map depicting appropriate items from above

- Site specific setting (cite references)
  - Groundwater features
    - Vadose zone including perched water zones
    - Saturated zones and the capillary fringe
    - Potentiometric surface
    - Aquifers, aquicludes, and aquitards with lithologic descriptions
    - Recharge sources and discharge areas
    - Review of local well records and nearby sites under investigation
    - Hydraulic conductivity, gradient, pressure, velocity, etc. (a minimum of three wells required)

- Aquifer characterization when groundwater is contaminated
  - Lithologic units within the saturated zone must be reported from a sufficient number of continuously cored and logged borings
  - Provide results of material property testing from appropriate samples
  - Provide results of appropriate aquifer tests to characterize the aquifer/aquitard/aquifuge system (See Aquifer Tests, Appendix F)
  - Determine the lithologic unit(s) that the majority of the groundwater flows through
  - Calculate groundwater velocity and utilize this data to estimate the extent of plume
  - Determine the vertical and horizontal components of the groundwater flow within the aquifer
    by utilizing nested or clustered wells, as warranted
  - Determine if the groundwater flow occurs down gradient or cross gradient as caused by pressure changes within the aquifer
  - Local uses and pumpage of groundwater and their affect on the groundwater elevations, flow direction, and velocity.
  - Local uses of groundwater
  - Nearby wells that may affect or be affected by the subject contamination
E. Boring Logs

Provide complete and legible boring logs. Include the following information:

- Description of earth materials (use USCS)
- Lithographic column (graphical log) with a legend
- Sample localities at depth
- Depth to confined and/or unconfined groundwater and the potentiometric surface
- Depths in feet and termination depth
- Penetration in blows per foot (including hammer weight)
- Percent recovery of sample in coarse grained soils
- Surface elevation in feet
- Project name, boring number, drilling date, and scale
- Full name of the field geologist/engineer
- Type of equipment used for drilling, sampling, and field screening
- Field meter screening readings (See Sample Screening, Appendix C)
- If the boring is converted to a well, provide details of the well construction (See Well Construction, Appendix D)
- Angle (vertical or slant)
- Diameter of boring
- Abandonment material

F. Sampling

- Describe procedures used for obtaining samples (See Sampling Procedures; Appendix C)

G. Chain-of-Custody

- Dates and times of sampling and receiving
- Sample ID correlating to field ID and laboratory ID
- Signatures of personnel relinquishing and receiving sample
- Analysis methods requested
- Nature of sample (solid/liquid/vapor)
- Size and type of container (e.g., 2" x 6" brass sleeve, 500 ml plastic jar, tedlar bag, etc.)

H. Laboratory Results

- Laboratory data must be reported using the Los Angeles Regional Water Quality Control Board's Laboratory Report Forms (See Laboratory Requirements, Appendix D)
- Tabulate results with sample identification number, laboratory analysis results, depth of sample, and detection limits

I. Soil and Water

- Soil generated during the drilling of borings and water produced from development or purging activities must be adequately contained on-site
- The materials must be manifested and transported to a permitted disposal location within 90 days if they are found to be hazardous

County of Los Angeles, Department of Public Works, UST Local Oversight Program; "Guidelines for Report Submittals," June 1993
J. Plume Illustration

- Depict the extent of the liquid-phase, adsorbed-phase, vapor-phase, and dissolved-phase contaminant plumes, as necessary.
  - Plan view of the site, drawn to scale, including but not limited to:
    - USTs, connecting pipes, dispersed islands, buildings, and unique site features.
    - Utility lines (e.g., water, gas, electric, sewer lines, etc.).
    - Isocon lines illustrating the extent of the plume(s) for TPH, benzene, and all other contaminants (the isocons on the plan and section views must correspond).
    - Trace of section lines, constituent concentrations, and legend (views at different depths may be required to illustrate the distribution of contamination with depth and/or horizontal changes in lithology, e.g., channel gravel traversing marsh slabs).
  - Geologic cross-sections, drawn to scale, including but not limited to:
    - Interpretation between all borings/wells and excavations; include stratigraphy and structure, groundwater elevations (high, low, and current) and unique site features.
    - Isocon lines illustrating the extent of the plume(s) for TPH, benzene, and all other contaminants (the isocons on the plan and section views must correspond).
    - Direction of section lines, scale, and legend.
    - At least one cross-section in the down gradient and cross gradient direction if groundwater is contaminated.

K. Conclusions and Recommendations

- Specifically discuss and describe the various phases, distribution, and concentration of hydrocarbon contamination and its relationship to the medium in which it occurs (soil and/or water in the vadose zone, capillary fringe, and saturated zone).
- Recommend additional site assessment or remediation.
- Justify why it is believed the plume is defined (refer to borings and samples).

L. References

- Reference all reports, including previous consultants reports, prepared for the site, and any publications cited in the text.
VIII. REMEDIAL ACTION PLAN

A workplan must be submitted and approved prior to conducting any site remediation work; the Responsible Party shall modify the workplan, as necessary, at the direction of the LOP, pursuant to Article 11, Section 2722, Subsection B, of the California UST Regulations, January 1992. The workplan must incorporate all comments from the LOP Project Engineer and describe all activities to be undertaken. Be advised that the failure of a particular approach to mitigate a site does not relieve the responsible party of the obligation to take additional action to mitigate the site to the satisfaction of the regulatory agencies.

A. Site Information

- Name and addresses of site and Responsible Party
- Summary of site history relative to contamination
- Describe surrounding community
- Indicate any proposed future uses of the area relative to the contamination

B. Facility Map (site plan): include the following where applicable

- Site Map
  - Locations of all tanks (past and present), associated piping, chemical and waste storage and processing areas, transfer/drain lines, and dispensing areas
  - Locations of man-made surface/subsurface structures (buildings, sewers, utilities, etc.)
  - Locations of completed borings/sampling points/wells
  - Locations of all samples taken in tank excavation
  - Locations of any previous site assessment
  - Location of proposed excavation
  - Locations of proposed treatment cells
  - Locations of proposed wells (monitoring, observation, and extraction)
  - Scale, north arrow, legend, and date
  - Name and address of facility

- Vicinity Map
  - Site boundaries and adjacent streets
  - Adjacent properties
  - North arrow and legend
  - Name and address of facility
  - Appropriate references

C. Contaminant Information

- Tabulate the contaminant levels and indicate their type (include any stockpile sample results)
- Show the plume configuration in plan view and in cross-section
- Estimate volume of the contaminated soil and/or groundwater

D. Geology and Hydrogeology

- Provide an overview of the geologic and hydrogeologic setting (See Site Assessment Report Section)
E. Justification

- Use: appropriate laboratory and field tests, case studies, or manufacturers' manuals to justify applicability and selection of the proposed remediation method.
- Use pilot studies, vent tests, or aquifer tests to demonstrate the effectiveness of the proposed remediation system.
- Provide calculations for the remedial system's design (include references).
  - Indicate values used for all parameters (calculated and assumed) utilized in the system's design.
  - Include data from vent/aquifer tests previously performed and discuss procedures of each test.

F. Disposition of Treated Soil/Water

- Indicate the intended disposition of the treated soil or water.
- Obtain permission from the LOP Engineer prior to backfilling.

G. Sampling Plan

- Provide a plan which includes the location and number of samples to be taken.
- Describe sampling and handling procedures (See Sampling Procedures, Appendix C).
- Discuss plan for verifying when remediation is complete.
- All laboratory analyses must be performed according to Laboratory Requirements, Appendix D.

H. Estimated Cleanup Timeline: Include the following where applicable

- Permitting
- System Design and Installation
- Remediation

I. Quarterly Progress Reports

- Quarterly Progress Reports must be submitted if remediation is expected to take longer than three months (See Quarterly Progress Reports Section)

J. General Requirements

The Los Angeles County Department of Public Works does not approve or disapprove the use of any non-conventional technology. Achieving appropriate clean-up levels is the responsibility of the Responsible Party, thus, the choice of remedial technology utilized at a site is primarily at their discretion. Other remedial technologies than those listed below are available and may be appropriate for use at a site.

- Groundwater Remediation
  - Appropriate aquifer tests must have been completed in order to justify the remedial system
  - Submit a hydrologic model of the pumping system
    - Include artificial recharge if on-site reinjection/disposal is utilized
    - Include plan and section views of the cones of depression and predicted flow paths
VIII: REMEDIAL ACTION PLAN

Evaluate effect of overlapping cones of depression, variable aquifer characteristics, and distribution of contamination, etc., on the remediation system.

Estimate and justify the duration of remedial pumping action.

Submit a monitoring plan that will demonstrate the effectiveness of the system during remediation (e.g., confirmation of cone of depression, sustainable pumping rates, and the reduction of contaminant levels).

Air Stripping

- Indicate the packed tower's specifications/dimensions
- Address design parameters such as temperature, pressure, air-to-water ratio, surface area available for mass transfer, flow rate, and size and type of packing
- Submit monitoring and sampling plan for influent and effluent waste
- Identify equipment to control and monitor emissions of mist and volatile organic compounds (VOCs) into the atmosphere
- Provide detailed scaled drawings and schematic of the system layout
- Include any supplemental treatment such as carbon adsorption

Carbon Adsorption

- Include carbon specifications such as type (Virgin or regenerated), amount, and dimensions
- Address design parameters such as optimal empty bed contact time (EBCT), breakthrough characteristics, flow rate, and temperature
- Identify system characteristics such as single-stage or multi-stage filters, and upflow or downflow of liquid
- Submit monitoring and sampling plan for influent and effluent waste
- Submit detailed scaled drawings and schematic of the system layout
- Include any supplemental treatment such as bioremediation

Air Sparging

- Submit a description of the method, including all assumptions and interpretations, used to analyze data from the pilot test
- Submit all field data, calculations, graphs, etc., used to determine the radius of influence, the adequate sparge pressure of each well, and the estimated lateral versus vertical movement of the sparged air through the aquifer
- Justify the proposed number and location of observation wells
- Submit the results of permeability test(s) for the finest grained soil from a continuous cored boring (in most cases, the soil permeability must be greater than 10⁻³ cm/sec to be acceptable)
- Identify any confining layers or fine grained lens which may cause increased lateral migration of volatilized contaminants
- Remove all free product to at least a sheen prior to performing any sparging
- A vapor extraction system must be used in conjunction with the air sparging system to extract all volatilized contaminants
- Design a system to contain the groundwater contaminant plume, considering both the gradient/velocity of the groundwater and the increased contaminant movement from the added pressure of the sparging system

County of Los Angeles, Department of Public Works, UST Local Oversight Program: Guidelines for Report Submissions, June 1993
VIII. REMEDIAL ACTION PLAN

- Free Product Recovery
  - Free product removal reports shall be submitted within 65 days of confirmation and prepared in compliance with Article 8 of the State Underground Tank Regulations
  - One of two permissible recovery systems should be used when conditions allow
  - Remove free product prior to pumping dissolved product or conducting aquifer tests
  - Estimate amount and thickness of the free product present (discuss method used, both theoretical and empirical)
  - Product must be properly manifested and disposed

- Soil Remediation

  Excavation and Disposal
  - Excavation should follow Excavation Procedures, Appendix B
  - Hazardous and non-hazardous waste must be sampled, analyzed, and appropriately manifested for disposal
  - Discuss backfilling procedures including the amount of time the pit will be left open and the source of backfill material

  Thermal Treatment Units (TTU) for petroleum contaminated soils
  - Excavation should follow Excavation Procedures, Appendix B
  - Submit description and specifications of the TTU
  - Indicate the operating temperature parameters
  - Estimate the soil residence time and feed rate

- Enhanced Bioremediation (In Situ)

  - Review of the physical, chemical, and biological properties for each contaminant
  - Soil toxicity study, if applicable
  - Monitoring plan format
  - Demonstration of the bioculture's efficiency (case histories, manufacturers' brochures, independent studies, etc.)
  - Name and type of bioculture and its effect on the native environment (specify whether the biocultures are used as inoculum)
  - Laboratory verification process and results
  - Mechanisms for introducing nutrients, biocultures, aeration, and moisture
  - Determining nutrient mobilization
  - Description of the method of bioremediation with drawings and details, (e.g., biological aeration processes, oxygen pathway, method of mixing and tilling, etc.)
  - Excavation should follow Excavation Procedures, Appendix B
  - Describe the method of containment used in treatment cells
  - Submit a scaled-plat plan showing the treatment area, number of treatment cells, average thickness of the soil per cell, and dimensions
  - Irrigation and drainage plan for the entire treatment area

- Submit confirmation-sampling plan
VIII. REMEDIAL ACTION PLAN

- Vapor Extraction System (VES)
  - Wells should be installed following Well Construction, Appendix B.
  - For sites with variable lithology/soil permeability, relate the vadose-well screening to the soil lithology and ensure that lower permeable areas obtain adequate extraction pressure.
  - Submit a schematic of the VES and a detailed drawing/description of all monitoring wells, vapor extraction and injection wells, and their associated piping.
  - For above-ground treatment, include a complete description and a drawing of the treatment cells.
  - Submit a description of the method, including all assumptions and interpretations used to analyze data from the pilot test.
  - Submit all field data, calculations, graphs, etc., used to determine the radius of influence of each well and provide justification for the location and number of proposed wells.
  - Submit a monitoring and sampling plan to measure the influent soil gas concentrations.
  - Submit pump specifications.
  - Document any computer programs used by including a description of the program, the limitations, and the input and output data requirements (list all assumptions/interpretations used in the analysis).
  - Submit confirmation sampling plan.
EXHIBIT B
June 8, 2009

Mr. Bizu Ayele
California Regional Water Quality Control Board
Los Angeles Region
320 West 4th Street, Suite 200
Los Angeles, California 90013

Subject: Response to Regional Water Quality Control Board 13267 Order Letter
Dated June 3, 2009
Former Alcoa/TRE Weslock Facility; 13344 South Main Street, Los Angeles, CA
Site Clean-up No. 0552; Site ID No. 1843

Dear Mr. Ayele:

Alcoa Inc. (Alcoa) is in receipt of the above-referenced correspondence from the Regional Water Quality Control Board (RWQCB). We acknowledge your level of effort to review historical investigation and remediation information from the more than 35 documents that have been submitted to the RWQCB since 1993 and as recently summarized and compiled in the March 2009 Response to RWQCB Information Request, prepared by WorleyParsons.

In accordance with provisions specified in the RWQCB June 3 correspondence, this letter is being provided by Alcoa within the 10-day allotted time period to present information pertinent to the reasonable relationship between the burdens of meeting these requirements and the need for or benefits to be obtained, for reconsideration of certain RWQCB Findings and Requirements. Alcoa reserves the right to petition the State Water Board for review of the Findings and Requirements in this Section 13267 Order if necessary, but hopes to work cooperatively with the RWQCB to have the Order reconsidered to eliminate the need for such a petition.

1. June 5, 2009 submittal of the Spring 2009 Groundwater Monitoring Report, prepared by WorleyParsons: Groundwater monitoring data presented in this report indicate consistent decreasing concentration trends for volatile organic compounds (VOCs) at all well locations except one, and mixed decreasing and increasing trends for hexavalent chromium and 1,4-dioxane. Shallow and deep wells at the downgradient property line and all other deep wells continue to show little to no impact of these constituents, indicating negligible downward and off-site migration. The RWQCB should review and consider these recent data for the inclusion in the Findings section.

2. The significance of the 500 ug/kg total VOC concentration contour was originally presented in the 1999 Site Characterization Report and was not arbitrarily selected. As used in the figures contained in the 2000 Focused Remedial Investigation this contour interval was not intended to represent the limits of VOC delineation or sampling in soil. The extent of each VOC constituent of concern in soil at concentrations above their respective Soil Screening Level (SSL) was identified in the Response to RWQCB Information Request, dated March 3, 2009.

Exhibit B
3. The 1993 soil gas sample referenced in Item 3 of the Findings was collected by Geraghty & Miller, not MFG. Subsequent site characterization was conducted pursuant to work plans approved by the RWQCB.

4. The TPH carbon chain classification report was included in Appendix G of the Response to RWQCB Information Request, dated March 3, 2009.

5. Confirmation soil samples were obtained in VOC source areas near (soil vapor extraction) SVE wells and in areas remote from extraction wells to represent a cross section of conditions within the remediation area. This approach was approved by the RWQCB. Soil vapor samples were collected approximately 80 feet from the nearest extraction wells. During the 2008 Soil Vapor Survey, soil vapor samples were collected from a broad area across the site, including beyond the area of impact and beyond the identified ROI of the SVE system.

6. The RWQCB has opined that the full areal extent of site-related constituents was not completely delineated in soil prior to or after SVE remediation. Furthermore, the RWQCB states that the source area for hexavalent chromium has not been identified nor has the classification of petroleum hydrocarbons been determined. To address these issues Alcoa is being directed to conduct additional characterization of site soil and groundwater. Concurrently, Alcoa is also being directed to resume operation of the SVE remediation system and to prepare a Remedial Action Plan (RAP) to address VOCs, 1,4-dioxane and hexavalent chromium in groundwater. A common deadline of less than 60 days (July 30, 2009) has been stipulated by the RWQCB for submittals detailing the additional characterization and remediation efforts noted. It is our opinion that the requirement to submit any remediation work plan or RAP in such a short time frame is impractical. Furthermore, the short time frame will mean that the RAP will provide reduced benefit and at an increased cost, making the relationship between the benefits and the costs unreasonable. Due to the stipulated requirement for additional site characterization, any such plan cannot possibly be of sufficient detail and quality if prepared and submitted by July 30, before the additional site characterization work has been performed. Alternatively, Alcoa strongly recommends the following approach to properly implement the requirements listed in the RWQCB June 3 correspondence:

- Alcoa will prepare and submit a document to address required items 1, 2 and 3 in the RWQCB June 3 correspondence. Alcoa will also prepare/submit a characterization work plan to address items 4, 5, 6 and 7 to fill remaining data gaps and to establish site-specific soil and groundwater remediation criteria. This document and work plan shall both be submitted by July 30, 2009. Implementation can occur on a fast-track basis, assuming no problems with facility access. The goal of the characterization work plan will be to complete the site conceptual model and identify those areas of the site that require further remedial action.

- Upon RWQCB approval of the characterization work plan and concurrent with its implementation, Alcoa will assess the current condition of the SVE system and determine what additional components are needed to optimize its performance in compliance with South Coast Air Quality Management District (SCAQMD) permit conditions. Some equipment upgrades and pilot-testing of the system may be performed as needed during this time period.

- Within eight months of RWQCB approval of the characterization work plan, Alcoa shall prepare and submit a RAP. The site conceptual model will be presented along with soil and groundwater clean-up criteria. It is currently envisioned that the SVE
system may be a necessary and integral part of the overall remedial approach; if utilized, the RAP will include a discussion of SVE system operation and what criteria will need to be met to allow for its subsequent shutdown. The RAP will also address other remedial alternatives, long-term effectiveness, etc. as required.

We trust that this alternative approach satisfies the concerns of the RWQCB regarding current site conditions and presents a realistic path towards site closure. Please contact me at 412-553-1859 after you have had an opportunity to review this alternative approach so that we can discuss any questions or comments you have and whether the June 3, 2009 Section 13267 Order can be reconsidered in time to eliminate the need for Alcoa to file a petition for review.

Sincerely,

Ronald M. Morosky
Site Manager

cc: Bobby Ahn, James West, Inc.
    Mike Tietze, WorleyParsons
July 6, 2009

Via E-Mail jbashaw@waterboards.ca.gov

State Water Resources Control Board  
Office of Chief Counsel  
Jeannette L. Bashaw, Legal Analyst  
P.O. Box 100  
Sacramento, CA 95812-0100

Re: Requirement for Technical Reports Pursuant to California Water Code Section 13267 Order – Former Alcoa Weslock Facility, 13344 South Main Street, Los Angeles, CA (Site Clean UP No. 0552 and Site ID No. 1843200)

Petition for Review of Section 13267 Order Letter

Dear Ms. Bashaw:

The enclosed Petition for Review is submitted on behalf of Alcoa Inc. ("Petitioner"). The Petition for Review seeks review of the request for information entitled "Requirement for Technical Reports Pursuant to California Water Code Section 13267 Order – Former Alcoa Weslock Facility, 13344 South Main Street, Los Angeles, CA (Site Clean UP No. 0552 and Site ID No. 1843200)." That document is dated June 3, 2009 and since the deadline for filing this petition fell on a holiday weekend, this Petition for Review is timely filed on the following business day.

At this time, this Petition for Review is submitted as a protective filing to ensure compliance with the deadlines for filing petitions for review imposed by the California Water Code and the State Water Resources Control Board’s regulations. However, Petitioner intends to work cooperatively with the Regional Board and other recipients in an effort to reach a mutually-satisfactory resolution by which Petitioner continues its on-going work at the site.
State Water Resources Control Board
July 6, 2009
Page 2

Accordingly, Petitioner respectfully requests that the State Water Resources Control Board file the enclosed Petition for Review and hold this matter in abeyance. If it becomes necessary, Petitioner will submit as amendments to this Petition all additional necessary information.

Sincerely,

[Signature]

John R. Epperson

Enclosure

cc: (Via U.S. Mail w/encl.)

LARWQCB Executive Officer Tracy J. Egoscue
Michael Tietze, WorleyParsons
Wade Major, WorleyParsons
Bobby Ahn, James West, Inc.
Mark Leymaster, Loymaster Environmental