UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION IX
75 Hawthorne Street
San Francisco, CA 94105

Via U.S. Postal Service and Electronic Mail

February 4, 2014

Mr. William Adams
President of Pechiney Cast Plate Inc.
4700 Daybreak Parkway
South Jordan, Utah 84095

Re: Toxic Substances Control Act, Polychlorinated Biphenyls (PCBs) – PCB Cleanup, Former Pechiney Cast Plate Facility, Vernon, California – AMEC's Proposed Modifications to USEPA's Approvals

Dear Mr. Adams:

We thank AMEC and Rio Tinto's representatives for meeting with the U.S. Environmental Protection Agency Region 9 (USEPA) on January 23, 2014. In that meeting, AMEC and Rio Tinto provided USEPA with the status of the PCB cleanup at the former Pechiney Cast Plate facility in Vernon (Pechiney Site). In addition, potential changes to USEPA's PCB cleanup approvals were discussed.

In this letter, USEPA is modifying certain conditions in its PCB cleanup approvals under 40 CFR 761.61(c) dated July 2, 2010 (Approval #1) and July 1, 2011 (Approval #2). The modifications to these approvals are based on the above meeting, AMEC's January 24, 2014 e-mail message (attached)[1], the Approvals. These modifications are been made consistent with the requirements in 40 CFR 761.61(c).

A. Modifications to USEPA's July 2, 2010 Conditional Approval (Approval #1)

1. **AMEC Proposed Modification #2: PCB impacts identified during demolition.** For details, please read the attached January 24, 2014 e-mail message from AMEC to USEPA.

   USEPA Response. Conditions C.3.b, C.5.b, C.5.c, C.7.c, C.7.e, C.7.g, and C.7.h in Approval #1; and the conditions in Approval #2 respond to AMEC's request. The requirements in all the above conditions must also be satisfied when PCB contamination is encountered during underground demolition. Below, however, USEPA is modifying Condition C.7.c in Approval #1.

   USEPA's Modification to Condition C.7.c, Approval #1. USEPA is changing the 2-day (two-day) notification deadline (via phone call and e-mail message) in Condition C.7.c to seven (7) business days after AMEC completes removal of underground structures at individual remediation areas. The notification is for each individual area unless several areas are combined. Except for the revised

[1] AMEC's January 24, 2014 e-mail message (received at 12:32 PM) and addressed to Santos, Carmen (USEPA R9) proposed modifications to Approvals #1 and #2.

notification deadline and other changes made here, the trigger for the notification required in Condition C.7.c and the language in that condition remain the same. Condition C.7.c must be implemented as revised here.

2. **AMEC Proposed Modification #3: PCB impacted soils at depths below 15 feet.** For details, please read the attached January 24, 2014 e-mail message from AMEC to USEPA.

USEPA Modification to Approvals #1 and #2. The total PCB and Aroclor 1254 concentration in soils below 15 feet below ground surface (bgs [i.e., below native grade]) must be confirmed via collection and analysis of in-situ, discrete samples during underground demolition, if such data does not exist already. Soils below 15 feet bgs are defined here as Deep Soils.

Deep Soils verified to contain total PCBs above 23 mg/kg and/or Aroclor 1254 above 2.0 mg/kg (when Aroclor 1254 is the only Aroclor detected) shall be remediated to these cleanup levels, if feasible. Best efforts to remediate the Deep Soils (below 15 feet bgs) may not result in achievement of these cleanup levels. An *"Alternative"* is provided below to address those situations. That *Alternative* intends to account for a balance between environmental and human health benefits derived from removal of Deep Soils exceeding PCB cleanup levels and potential increases in air emissions and energy spent by excavation equipment used to remove those Deep Soils. In addition, landfill capacity should also be considered.

Alternative: Deep Soils (below 15 feet bgs) exceeding 23 mg/kg total PCBs and/or 2.0 mg/kg Aroclor 1254 (where Aroclor 1254 is the only detected Aroclor) before or after soil excavation and removal, may remain in place if:

(a) Up-to-date grading plans for the Pechiney property demonstrate the Deep Soils will not be disturbed during grading of the property, pre-construction, construction, post-construction, and/or post-redevelopment activities at the property;

(b) A physical underground warning barrier (UWB) that is effective for the long term is installed at the floor of the 5 to 15 feet bgs PCB-remediation interval for soils. The UWB will warn about the presence of Deep Soils beneath the UWB exceeding the cleanup levels for the 5 to 15 feet bgs remediation interval.

In certain situations, excavation and removal of Deep Soils may be necessary to facilitate sampling and removal, or sampling and capping of certain underground structures during underground demolition. In those instances, the UWB would be constructed at a depth deeper than 15 feet bgs and above the Deep Soils verified to exceed the cleanup levels for the 5 to 15 bgs remediation interval.

Regardless of its location, if the UWB is encountered during grading, construction, post-construction, and/or post-redevelopment, such activities must be halted and the soil management plan must be immediately activated and implemented;

(c) The soil management plan is immediately implemented to prevent: **(1)** mixing of Deep Soils with shallower soils containing PCB concentrations equal to or below (a) 3.5 mg/kg total PCBs and/or (0 to 5 feet bgs [native grade] remediation interval), (b) 23 mg/kg total PCBs (5 to 15 feet bgs remediation interval); and/or (c) 2.0 mg/kg Aroclor 1254 ([if no other Aroclors are present] 0 to 5 and 5 to 15 feet bgs remediation intervals); and **(2)** mixing of soils in the 0 to 5 feet bgs remediation interval with soils in the 5 to 15 feet bgs interval during grading, pre-construction, construction, post-construction and/or post-redevelopment activities at the property;

(d) The Deep Soils considered to be left in place are not collocated with soils containing solvents and/or petroleum hydrocarbons that may increase the mobility of PCBs due to co-solvency;

(e) A survey is conducted to document (1) the location and depth of final excavation floors and UWBs; and (2) total PCB and Aroclor 1254 concentrations in Deep Soils left in place below all UWBs and in left-in-place underground structures (as feasible), as well as, the location and depth of those Deep Soils.

(f) A restricted land use covenant is prepared, approved by USEPA, and recorded that contains among other things, information (text, figures, and tables) summarizing the location and construction details for all UWBs at the property; and location (coordinates) and total PCB residual concentration in Deep Soils below the UWBs, and left-in-place underground structures (as feasible).

Additional Requirements.

The UWB shall be constructed with concrete or cement slurry or other suitable material that allows a completion thickness of 6 inches for the UWB. The UWB shall be overlain by a colored (e.g., orange) mesh geotextile layer.

B. Modifications to USEPA's July 1, 2011 Conditional Approval (Approval #2)

1. **AMEC Proposed Modification #1: Condition A.1.a., Cleanup Level C-1, Approval #2.** AMEC requests that Cleanup Level C-1 for onsite concrete equal to 3.5 mg/kg total PCBs in Approval #2 be changed to less than or equal to 1 mg/kg total PCBs. The risk-based Cleanup Level C-1 allows the onsite reuse of onsite concrete containing PCBs at concentrations equal to or below 3.5 mg/kg total PCBs. The City of Vernon requested to Pechiney that a cleanup level equal to or less than 1 mg/kg total PCBs be implemented for reuse of onsite concrete.

USEPA Modification to Approvals #1 and #2. USEPA is changing PCB Cleanup Level C-1 in Condition A.1.a in Approval #2 to a concentration equal to or below 1 mg/kg total PCBs. If Aroclor 1254 is the only Aroclor detected in onsite concrete, the cleanup level is the same.

In reference to Approval #1, onsite concrete that meets the new cleanup level may be used onsite as excavation backfill material or to restore the property to pre-grading or pre-construction conditions. The location and depth range for concrete used onsite as backfill material shall be documented in similar fashion as for the UWBs. The 1 mg/kg cleanup level applies to any onsite concrete to be reused at any location within the property whether property subdivisions occur or not during transfer of the property or portions thereof. In addition, USEPA clarifies that in general context to risk-based PCB cleanups, 1 mg/kg total PCBs is not equivalent to an "unrestricted level."

Please call Carmen D. Santos at 415.972.3360 if you have any questions concerning the above modifications to Approvals #1 and #2.

On another related subject, we understand the City of Vernon intends to purchase the Pechiney property or a portion thereof. Future discussions with AMEC and Rio Tinto need to touch on the approach(es) to demonstrate compliance with the cleanup levels if the property is subdivided.

Finally, in addition to proposing modifications to the subject PCB cleanup Approvals, AMEC has proposed regular meetings with USEPA to go over data and site remediation issues as they arise. We welcome this approach and look forward to subsequent and fruitful meetings with AMEC and Rio Tinto.

We look forward to continue to assist AMEC, Pechiney, and Rio Tinto during remediation of PCBs at the former Pechiney Cast Plate facility in Vernon, California. Thank you.

Sincerely,

for Jeff Scott, Director
Land Division

Enclosures (2)

Cc: Gerald Pepper, Rio Tinto
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Linda Conlan, AMEC
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Steve Armann, USEPA R9
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Carmen D. Santos, USEPA R9
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Santos, Carmen

From: Conlan, Linda [Linda.Conlan@amec.com]
Sent: Friday, January 24, 2014 12:32 PM
To: Santos, Carmen
Cc: Gerald Pepper (gerald.pepper@gmail.com); Hardcastle, Calvin
Subject: PCBs - Pechiney - Proposed Changes to the Conditional Approvals
Attachments: Pechiney_Soil Removal Area 5a_5b_5c.pdf

Importance: High

Hi Carmen,

Thank you for meeting with us yesterday regarding the ongoing work at the Pechiney site and the status of activities. As a follow-up to our discussion, we are proposing the following changes to USEPA Conditional Approvals under 40 CFR 761.61(c):

1) **Modification to Use of Restricted Fill (Section A.1.a – Cleanup Level C-1; July 1, 2011 Conditional Approval Letter).** This condition allows crushed concrete containing PCBs at concentrations greater than 1 mg/kg but less than 3.5 mg/kg as backfill material. This material was proposed as backfill for the 4a/4b soil excavation. Our proposed modification includes eliminating the use of restricted fill as backfill in the 4a/4b excavation. Instead, concrete containing PCBs at concentrations greater than 1 mg/kg (including concrete containing less than 3.5 mg/kg) will be transported off site for disposal at a permitted land disposal facility.

2) **PCB impacts indentified during Demolition**. Based on data collected by Alcoa and by AMEC as described in the application, several areas of PCB-impacted soil and concrete were identified and remediation associated with these impacts are in progress. However, as the demolition and soil removal work continues at the site, the extent of areas containing PCB-impacted soil and/or concrete that require removal and offsite disposal has expanded. The proposed modification to the approval is to apply a "blanket approval" to remediate the PCB-impacted soil and/or concrete as the work progresses; and such work would be conducted in accordance with the current approvals and remediation goals described in the Application and Approvals.

3) **PCB impacted soil at depths below 15 feet.** PCB-impacted soil at depths greater than 15 feet (below native grade) has been encountered in the soil removal area 5a/5b/5c areas (also referred to the Area C in our Application and the 2012 RAP). In this area, the existing concrete slab is about 4 feet above native site grade. The base of the deeper portion of the soil removal area (shown in blue on the attached figure) is currently at about 21 to 30 feet below the slab (or about 17 to 26 feet below native grade) depending on the location on the excavation floor. In the southern portion of the deeper excavation, soil containing PCBs at concentrations exceeding 23 mg/kg (actual measured concentration at this location is 73.6 mg/kg) is proposed to be left in place at an approximate depth of 26 feet below native grade. These site conditions are similar to the site conditions as specified in the Conditional Approval (refer to Section C.3.b.6; July 2, 2010 Conditional Approval letter and site grading plan) for the proposed 4a/4b soil removal area.

   The proposed modification to the Approval includes placing a physical barrier consisting of a minimum of 6 inches of concrete or cement slurry over the PCB-impacted soil at depth of greater than 15 feet below native grade. This modification will be applied to any areas where soil containing PCBs at concentrations greater than 23 mg/kg at depths greater than 15 feet below native grade with conditions consistent with the Approval for the proposed 4a/4b soil removal area. At this time, this modification is only expected to be applied to the 5a/5b/5c (Area C) excavation. For Area C, a cement-slurry in lieu of the concrete may be used based on worker safety

conditions which do not allow direct placement of concrete and pumping of cement-slurry may be required to place the cover. Based on the depth and location of the soil that will remain in place and the physical barrier, disturbance of the PCB-impacted soil at depths greater than 15 feet below native grade is not anticipated during future site grading.

Additional sampling is in progress pursuant to Section 2.3 [Soil Verification Sampling (PCBs) in the July 2010 Concrete and Soil Sampling and Analysis Plan (SAP)]. But because the Area C soil excavation is becoming unstable, backfill of Area C is expected to occur during the week of January 27, 2014. Based on the results of the verification samples, the area of the excavation where PCBs in soil may be left in place at a depth of 15 feet below native grade will be covered with a minimum of 6 inches cement slurry or concrete, which will be overlain with an orange mesh geotextile layer. The base of the excavation and concrete layer will be surveyed to document the depth and location of this feature. The remainder of the excavation will be backfilled with crushed concrete (defined as unrestricted site fill material).

Please let us know if the above proposed changes are approved.

Thank you,
Linda

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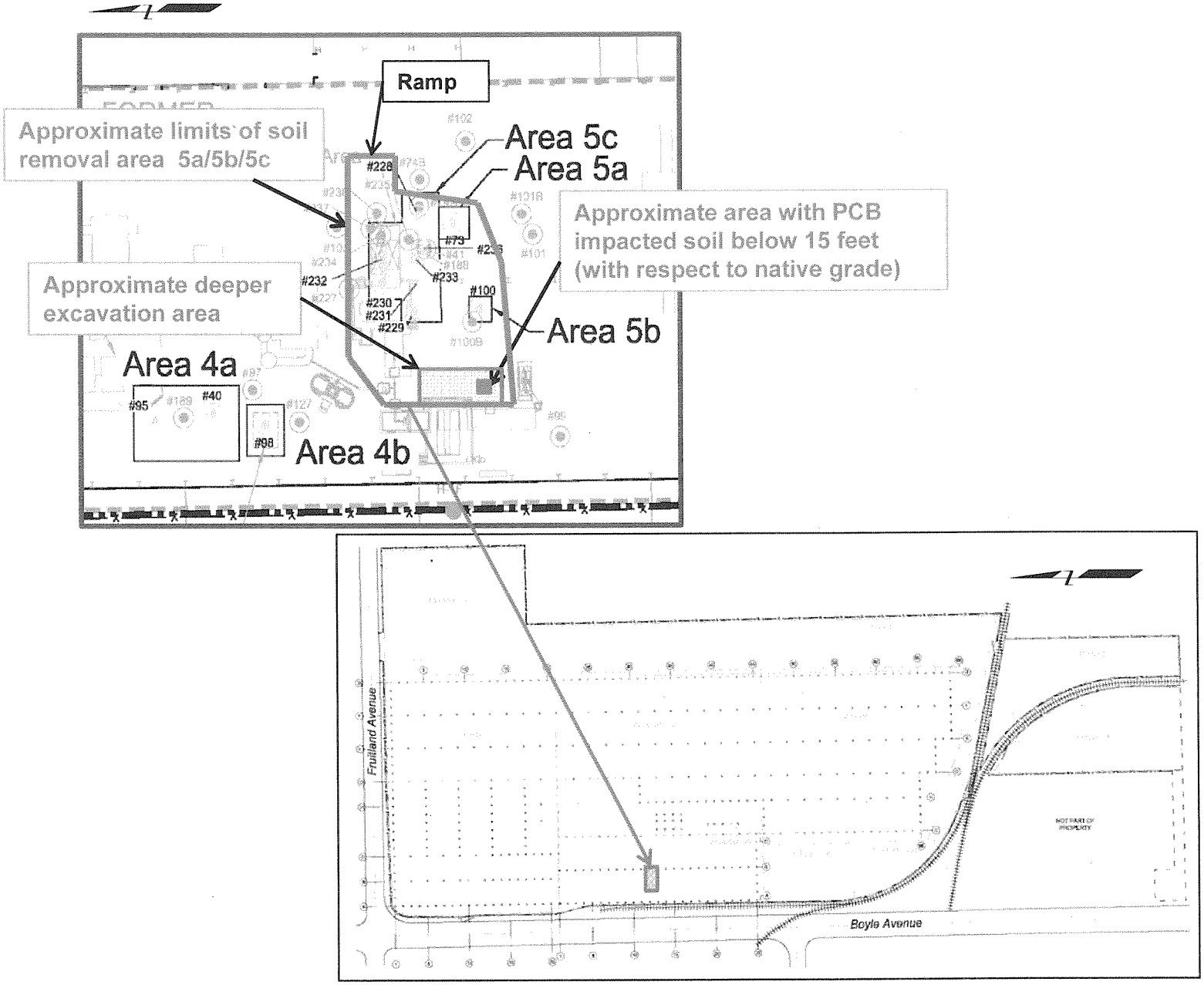

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