

Khatri, Paresh, Env. Health

From: Goloubow, Ron [Ron.Goloubow@lfr.com]
Sent: Wednesday, October 21, 2009 2:48 PM
To: Khatri, Paresh, Env. Health
Subject: FW: 1009 66th Ave. Oakland, CA - soil sample rationale
Attachments: 1009-66th Ave, Oakland, CA - PCB Sample Location Rational 10-19-2009.pdf; Figure 1-09155.00_F1.pdf; PCBs in soil rev 1.pdf

Ron Goloubow, P.G.
LFR Inc., an ARCADIS Company
510-596-9550 Direct Dial
510-501-1789 Cell
510-652-4906 Facsimile
ron.goloubow@lfr.com

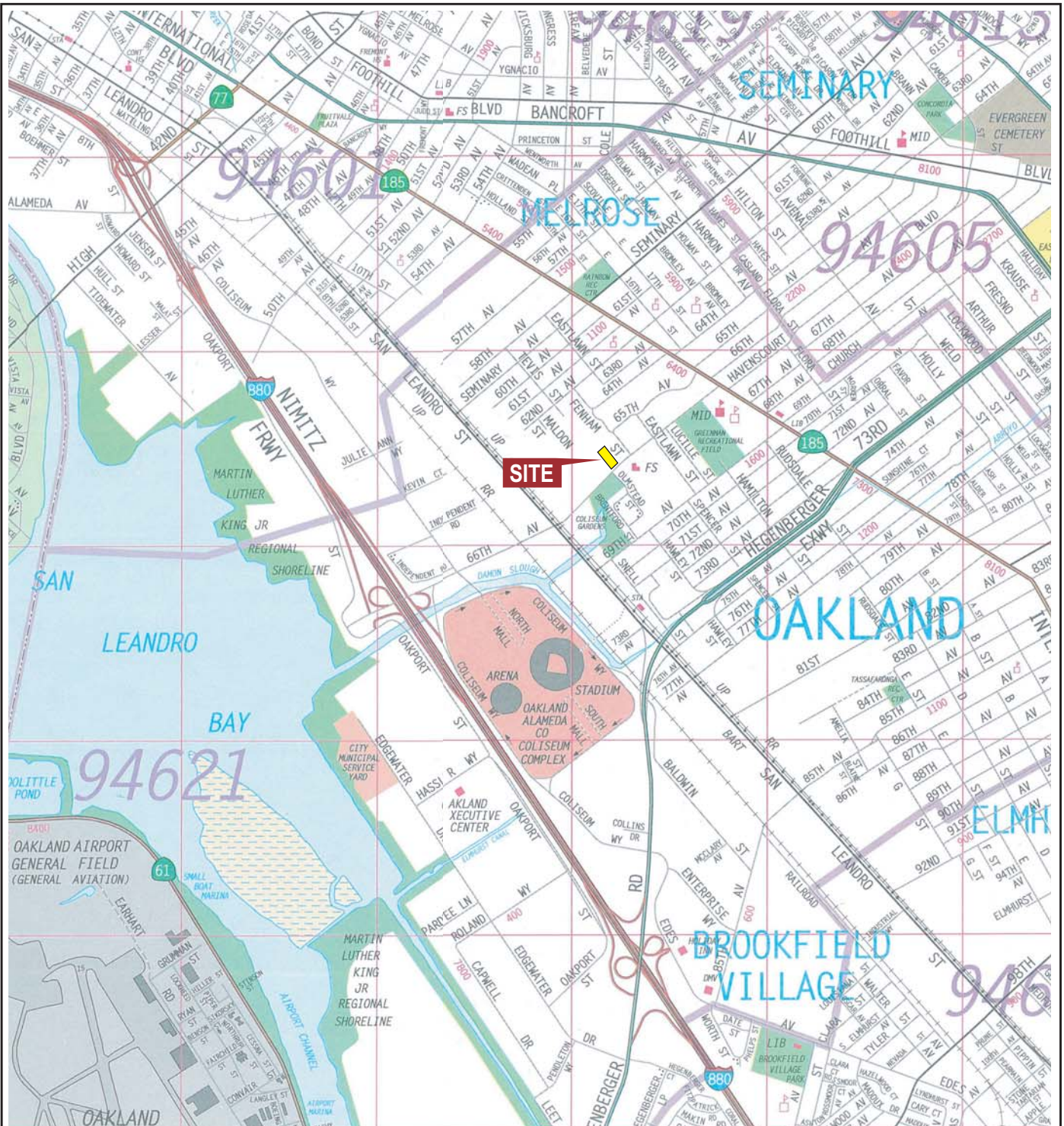
From: Goloubow, Ron
Sent: Tuesday, October 20, 2009 4:26 PM
To: Santos.Carmen@epamail.epa.gov; Wilson.Patrick@epamail.epa.gov
Cc: Charles Robitaille; Gibbs, Alan; Seyfried, Scott; Jones, Michael; Goloubow, Ron
Subject: 1009 66th Ave. Oakland, CA - soil sample rationale

Carmen - The attached provides the rationale for the proposed soil and concrete sample locations to be collected for polychlorinated biphenyls (PCBs) analysis at the subject Site. I will follow up with you Wednesday October 21, 2009 in the early afternoon to find out what progress the EPA has made regarding the review of the "conceptual" sampling plan for this project. If you have any questions regarding this letter or the project in general, please do not hesitate to contact me at 510-596-9550.

Thanks Ron.

Ron Goloubow, P.G.
Senior Associate Geologist
LFR Inc., an ARCADIS Company
1900 Powell Street, 12th Floor
Emeryville, CA 94608-1827
510-596-9550 Direct Dial
510-501-1789 Cell
510-652-4500 Main Number
510-652-4906 Facsimile
ron.goloubow@lfr.com
Visit us at www.lfr.com

NOTICE: This e-mail and any files transmitted with it are the property of ARCADIS U.S., Inc. and its affiliates. All rights, including without limitation copyright, are reserved. The proprietary information contained in this e-mail message, and any files transmitted with it, is intended for the use of the recipient(s) named above. If the reader of this e-mail is not the intended recipient, you are hereby notified that you have received this e-mail in error and that any review, distribution or copying of this e-mail or any files transmitted with it is strictly prohibited. If you have received this e-mail in error, please notify the sender immediately and delete the original message and any files transmitted. The unauthorized use of this e-mail or any files transmitted with it is prohibited and disclaimed by ARCADIS U.S., Inc. and its affiliates. Nothing herein is intended to constitute the offering or performance of services where otherwise restricted by law.



MAP SOURCE:
 © Copyright 1995, Thomas Bros. Map®
 ALAMEDA COUNTY
 2002 Edition

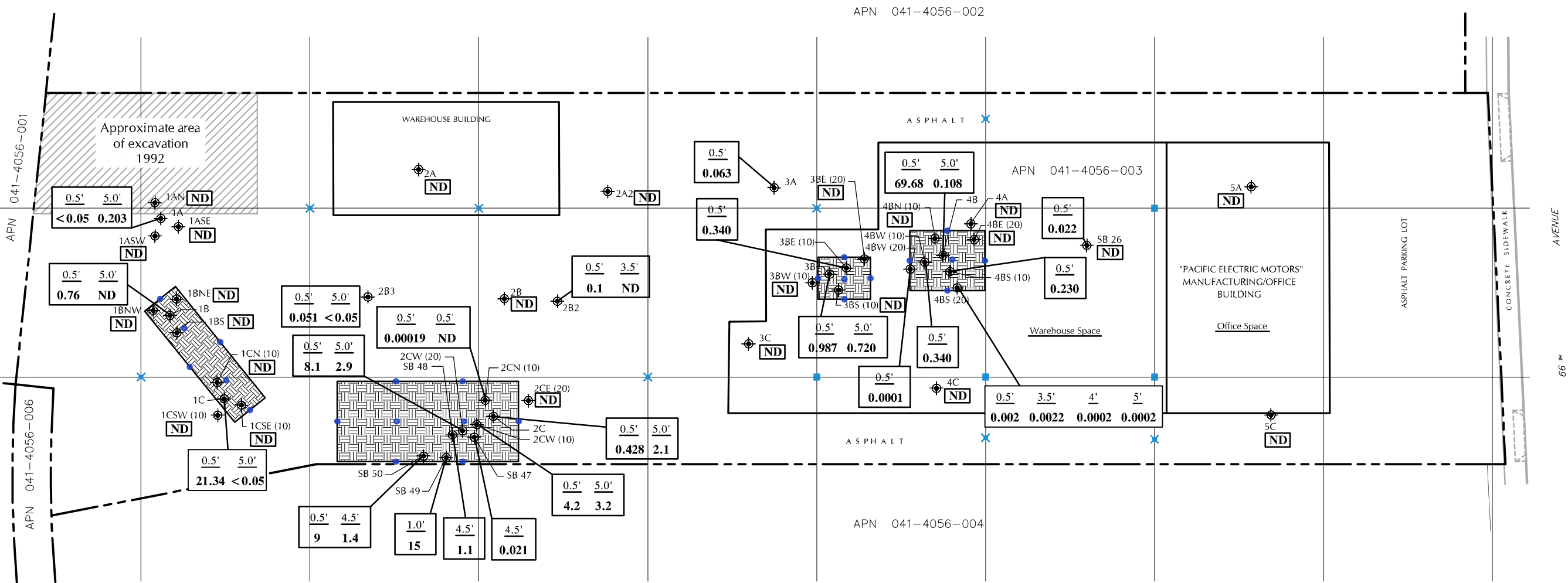


Site Vicinity

Proposed Charter School Site
 1009 66th Avenue, Oakland, California

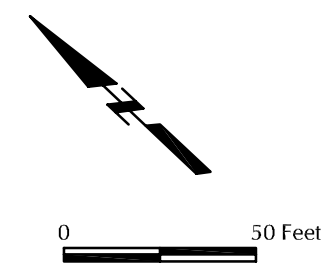


Figure 1



SET CROSS 13.70 103

- EXPLANATION:**
- 1B Soil sample location
 - Proposed soil and concrete sample location based on a 75'x75' grid spacing (4 locations)
 - Proposed confirmation soil sample based on a 30'x30' grid spacing
 - ✕ Proposed soil sample location based on a 75'x75' grid spacing (9 locations)
 - - - Property line
 - [Hatched Box] Proposed excavation of PCB-affected soil
 - 4.5' Depth in feet
 - 1.1 Concentration in mg/kg
 - ND - Not detected at or above laboratory reporting limits



PCBs Detected in Soil
0 to 5 Feet Below Ground Surface

1009 66TH Avenue, Oakland, California

LFR an **ARCADIS** company

October 19, 2009

003-09155-02-002
sent via email only

Ms. Carmen Santos
U.S. Environmental Protection Agency Region 9
75 Hawthorne Street
San Francisco, CA 94105

Subject: 1009 66th Avenue, Oakland, California Soil and Concrete Sample Location Rational

On behalf of Aspire Public Schools (Aspire) LFR Inc., an Arcadis Company (LFR) has prepared this letter to provide the rationale for the proposed soil and concrete sample locations to be collected for polychlorinated biphenyls (PCBs) analysis at the former Pacific Electric Motors Site located at 1009 66th Avenue, Oakland, California (“the Site”; Figures 1 and 2). This letter has been prepared in response to the email from the U.S. Environmental Protection Agency (U.S. EPA) to LFR on October 13, 2009 and the telephone conference call on October 19, 2009 between representatives of the U.S. EPA and LFR.

Background

As a result of the communication between LFR and the U.S. EPA, it is our understanding that the U.S. EPA is requesting the collection of additional soil and concrete samples at the Site. To comply with this request, LFR prepared a map of the Site illustrating the locations and analytical results of the soil samples previously collected at the Site, the proposed areas of excavation for PCB-affected soil, and the proposed locations of additional soil and concrete samples to be collected (Figure 2).

As we have discussed, the locations of the soil samples previously collected on the Site were selected based on previous site usage. In addition, if soil samples contained elevated concentrations of PCBs, a “step-out” sample was collected approximately 10 feet from the original soil sample location. This work resulted in the collection of soil samples from approximately 47 locations at the Site. The current proposal is to add 13 more sample locations for a total of 60 locations. This sample distribution will result in approximately one soil sample location for every 1,815 square feet of land across the Site. This frequency does not include the proposed confirmation soil samples to be collected from the proposed areas of excavation. The proposed sample locations as well as the locations and analytical data for soil samples previously collected on Site are illustrated on Figure 2.

Soil Sampling Rationale

To determine the proposed sample locations, a grid comprised of 75-foot spacing was laid over the 2.5 acre Site. The parking area and the portion of the building that was used as office space (located closest to 66th Avenue) is not included on this grid sampling. The 75-foot spacing was selected so that two transects would run east west across the long axis of the Site; 75-foot transects were then placed to establish the grid pattern. This approach is similar to grid requirements provided in 40 CFR 761 Subpart N, but it accommodates for a larger grid spacing to account for the size of the area being sampled. At grid node locations that did not have an existing soil sample within approximately 25 feet of the node, the collection of a soil sample approximately 0.5 to 1.0 feet below ground surface (bgs) is proposed. To further assess soil quality at the Site, three soil samples have been added to the driveways that run along the sides of the former warehouse buildings.

Through the course of the discussions between representatives LFR and the U.S. EPA, it was clear that the former air compressor that was used at the Site, and the sanitary and storm sewer lines could be a source of PCBs in soil at the Site. The air compressor is currently located outside the warehouse building along the south side of the building. To assess soil quality at this location, LFR is proposing to collect two additional soil samples in close proximity to the compressor. In addition, LFR is proposing to collect soil samples adjacent to the sanitary and storm sewer pipelines that are to be abandoned as part of the redevelopment of the Site. The sampling plan along the sewer lines will be to collect one soil sample for every 50 feet of sewer line from approximately 1 to 2 feet below the pipelines.

Based on the size of the Site, the locations of the existing analytical data for soil samples previously collected at the Site for PCB analysis, and the locations of the proposed soil samples, LFR believes that the shallow soil quality (and concrete) will be adequately characterized for the presence of PCBs. LFR will propose additional areas of soil excavation should PCBs be detected above the site specific clean up goal of 0.39 milligrams per kilogram (mg/kg) through the course of the additional soil sampling that is proposed.

Details such as the soil sample collection methods and laboratory analyses will be provided in a work plan that will be prepared in accordance with the self-implementing procedures for cleanup and disposal of PCB remediation (40 CFR 761.61(a)).

We here at LFR appreciate the time you have provided reviewing this project and appreciate your continued accelerated response on this rationale and work plan that will be transmitted to the EPA by the end of this week. If you have any questions regarding this letter or the project in general, please do not hesitate to contact me at 510-596-9550.

Sincerely,



Ron Goloubow, P.G.
Senior Associate Geologist

Attachments - Figure 1 and 2

cc: Mr. Charles Robitaille – Aspire Public Schools

Khatri, Paresh, Env. Health

From: Goloubow, Ron [Ron.Goloubow@lfr.com]
Sent: Wednesday, October 21, 2009 2:48 PM
To: Khatri, Paresh, Env. Health
Subject: FW: PCBs at Aspire Property (66th Avenue, Oakland, CA)

Importance: High

Ron Goloubow, P.G.
LFR Inc., an ARCADIS Company
510-596-9550 Direct Dial
510-501-1789 Cell
510-652-4906 Facsimile
ron.goloubow@lfr.com

From: Santos.Carmen@epamail.epa.gov [mailto:Santos.Carmen@epamail.epa.gov]
Sent: Tuesday, October 13, 2009 3:10 PM
To: Goloubow, Ron
Cc: Wilson.Patrick@epamail.epa.gov; Santos.Carmen@epamail.epa.gov
Subject: PCBs at Aspire Property (66th Avenue, Oakland, CA)
Importance: High

Dear Ron Goloubow:

Thank you for making contact with USEPA Region 9 (USEPA) to determine if the Toxic Substances Control Act (TSCA) regulations for polychlorinated biphenyls (PCBs) in 40 CFR Part 761 (the "PCB Regulations") apply to the Aspire property (site) on 66th Avenue (between East 14th Street and San Leandro Street) in Oakland. You work with LFR who is Aspire's consultant. Aspire plans to build a school (middle / high school combined) at its property. PCBs are present in soils at the site among other contaminants.

We believe that TSCA requirements apply to the cleanup of PCBs at the site based on the information we have reviewed in the LFR /Arcadis July 9, 2009 revised Corrective Action Plan (CAP). Section 4.1.1 of the CAP states that "[d]ocumented releases of hazardous materials at the Site include petroleum hydrocarbon compounds (from the former UST) and PCBs (presumably from their manufacture and service of transformers and other electrical equipment components)." We clarify that although soil sampling / analysis data presented in the CAP show PCBs mostly at concentrations below 50 mg/kg (ppm) and one hot spot at 69.68 ppm PCBs, releases from at least Pacific Electric Motors (PEM) resulted in the PCB contamination at the site. Soils with PCB concentrations up to 45,470 ppm were excavated by PEM under the oversight of Alameda County Department of Environmental Health (ACDEH). Based on the CAP, Pacific Electric Motors operations involved manufacturing and servicing of transformers and other electrical equipment components. TSCA requirements apply at the site. Therefore, this message provides guidance on PCB cleanup options available under TSCA and some recommendations.

Based on the CAP (LFR / Arcadis) and as a prelude to the recommendations that we are making later in this message, we include below a brief summary of site operations and ownership.

- Pacific Electric Motors (PEM) occupied the site from 1949 to 2001.
- PEM constructed the two buildings that currently occupy the site: the Manufacturing / Office Building and the Warehouse.
- At the site, PEM was involved with manufacturing of specialty magnets, power supplies, and components; and repairing of transformers, motors, generators and magnets.
- In about 1975, PEM installed at the site a 2, 000-gallon gasoline underground storage tank.

- PEM may have stored vehicle lubricants and oil for vehicle maintenance.
- Among others, waste water discharges in the past included air compressor condensate.
- Highest documented concentration of PCBs in soils at the former PEM site is 45,470 mg/kg.
- Mo Dad Properties acquired the site in 2001; and the on-site buildings were occupied by Bay Area Powder Coatings.
Bay Area Coatings declared bankruptcy.
- Landeros Iron Works subleased the property from Bay Area Coatings and vacated the site in 2008.
- The site is currently vacant and the original structures still remain.

In addition to the above, we understand that in 1992 and 1993, PEM conducted soil investigations as required by ACDEH. Approximately, 400 cubic yards of soil that contained up to 45,470 mg/kg PCBs as Aroclor 1260 were excavated and disposed offsite. ACDEH had required PEM to meet a 1 mg/kg PCB level in soils as the excavation remedial goal. ACDEH issued a "No Further Action" letter to PEM after completion of the soil removal activities.

Current PCB Contamination

Based on the data presented in the CAP, PCB-contaminated soils are still present at the site: samples taken of the Northern Area have PCBs below 50 ppm (ranging from not detected to 21.34 ppm PCBs) and samples taken in the Southern Area show PCBs above 50 ppm (samples range from not detected to one sample at 69.68 ppm PCBs). The CAP does not provide the basis for the areas at the site that were investigated for PCBs and LFR believes the investigated areas were targeted based on the operations conducted at the site.

Lacking additional information on the site, it is uncertain if previous soil investigations for PCBs identified all potential PCB source areas (based on PEM and others that occupied the site) and if such investigations involved the entire 2.5-acre site. For example, it is uncertain if historic and most recent soil investigations included a PCB assessment in the area of the steam-cleaning sump where the water was found to contain traces of PCBs (CAP, Section 2.1.2). If the sump is still present at the site, is it made of concrete and if it is, have bulk concrete samples been collected from the concrete, and soil samples collected beneath and in proximity to the sump?

Discharges of "air compressor condensate" occurred at the site and these discharges may have contained PCBs depending on the age and type of compressor used and the oil contained in the compressor. Releases of oil from transformers and other electrical equipment potentially containing PCBs also occurred at the site. In addition, several types of oils were stored at the site some of which were used for vehicle maintenance. A possibility exists that some of these oils may have been hydraulic fluids (PCBs were also added to hydraulic oils in the past) or other oils (potentially containing PCBs) used to service other equipment on site like air compressors. Aroclor 1260, which is associated with transformer oils, hydraulic fluids, and other applications, was detected in soils at the site.

Section 8.1.1 (Site Management) of the "Implementation Plan" (Section 8.0) of the CAP states that building materials will be removed from the site and reference is made to materials such as lead-based paint and asbestos containing material (such as transite [asbestos concrete] pipes. We understand that building structures existing at the site are made of metal (on concrete slab) and will be demolished before construction of the school. We also understand that PEM constructed these buildings in the late 1940s.

Alternatives for PCB Cleanup

Based on the limited information that we have reviewed, cleanup of the site and demolition activities will involve the need to properly dispose of PCB remediation wastes (including bulk PCB remediation waste such as soils) and PCB bulk product wastes. The terms PCB remediation waste and PCB bulk product waste are defined in the PCB Regulations at 40 C.F.R. 761.3.

Section 761.61 maps out the requirements of the PCB Regulations for cleanup and disposal of PCB remediation wastes while section 761.62 sets out the requirements for disposal of PCB bulk product waste. Self-implementing procedures for cleanup and disposal of PCB remediation wastes can be found at 40 CFR 761.61(a) and the procedure for a risk-based disposal approval is found at 40 CFR 761.61(c). The http://www.access.gpo.gov/nara/cfr/waisidx_08/40cfr761_08.html link will take you to the PCB regulations in the electronic Code of Federal Regulations after you paste it in your web browser. PCB remediation waste and PCB bulk product waste are defined in 40 CFR 761.3.

Adequate characterization of the site is required for the self-implementing procedure. See 40 C.F.R. 761.61(a)(2). The self-implementing procedures set out in section 761.61(a) may **not** be used to clean up surface or ground waters;

sediments in marine and freshwater ecosystems; sewers or sewage treatment systems; any private or public drinking water sources or distribution systems; grazing lands; or vegetable gardens. See 40 CFR 761.61(a)(1).

Therefore, the site characterization in the notification submitted to USEPA should clearly explain what has been contaminated by PCBs and all reasonably foreseeable uses of the property given its proposed use as a school. For example, many schools in California have installed vegetable gardens as part of their educational curriculums and therefore the potential for asphalt or concrete being removed for a vegetable garden at some time in the future should be evaluated. The change in the use of the Aspire site is relevant to the required cleanup level and the procedures which apply. USEPA has the authority to require cleanup of a site, or portions of it, to more stringent cleanup levels than are otherwise required by the self-implementing procedures, based on the proximity to areas such as schools. See 40 CFR 761.61(a)(4)(vi).

The risk based option authorized by section 761.61(c) of the PCB Regulations requires a risk evaluation for on-site cleanup and disposal of PCB remediation waste in addition to the notification and certification requirements specified in subsection 761.61(a)(3). The risk based disposal option is used by parties when they want to cleanup a site, collect samples, or dispose of PCB remediation waste in a manner different than prescribed in section 761.61(a) or when the self-implementing procedures are not applicable.

Under both PCB cleanup options, a Notification and Certification must be submitted to USEPA in accordance with subsection 761.61(a)(3) of the PCB Regulations and this notification involves characterizing the site adequately. The certification required in subsection 761.61(a)(3) should include all of the information specified by that provision and a certification meeting all the requirements of sections 761.3 (defining certification) and 761.61(a)(3)(i)(E) of the PCB Regulations. For cleanups where the self-implementing procedure is allowable and the option being pursued, USEPA will respond in writing (approving of the self-implementing cleanup, disapproving of the self-implementing cleanup, or requiring additional information) within 30 calendar days. USEPA has no mandated time frame to approve a risk-based application for a PCB cleanup. Cleanup and verification of a cleanup conducted under the PCB self-implementing cleanup option must be conducted in accordance with all the applicable requirements in 761.61(a), including 761.61(a)(6).

PCB contaminated soils at the site that will be disposed offsite are PCB bulk remediation waste. Disposal of these soils should be based on as found (in situ) PCB concentrations, not on the concentration of the soil after it has been excavated and placed in a pile.

Other PCB remediation wastes expected to be generated as part of the cleanup include concrete surfaces at the site contaminated with PCBs, personal protective equipment, cleanup wastes, and liquids. Disposal requirements for these wastes are in 40 CFR 761.61(a)(5). In addition, decontamination of sampling and equipment and disposal of decontamination residues should be conducted in accordance with 40 CFR 761.79 (c), (d), (e), (f), and (g).

The CAP contains a good portion of the information required in the Notification and Certification which must be submitted to USEPA for either the self-implementing or risk based PCB cleanup options, but USEPA needs more detailed information. See below.

The extent of PCB contamination has to be clearly discussed as well as any information concerning PCB sources at the site. The extent of contamination is not clear to USEPA so the site investigation uncertainties mentioned earlier in this message should be addressed in the cleanup plan. The cleanup plan should present PCB analysis data as total PCBs and speciated Aroclors (e.g., Aroclor 1242, Aroclor 1260).

Recommendations

We recommend the following:

- The characterization of the Aspire site still contains data gaps and uncertainties. Some of these uncertainties were described earlier in this message. As required by 40 CFR 761.61(a)(2), characterize the Aspire site in more detail to provide USEPA with adequate information concerning the nature of the contamination, including: (a) kinds of materials contaminated; (b) a summary of the procedures used to sample contaminated and adjacent areas and a table or cleanup site map showing PCB concentrations measured in all pre-cleanup characterization samples. The summary must include sample collection and analysis dates. USEPA will require more detailed information including additional characterization sampling - see below. (c) The location and extent of the identified contaminated area, including topographic maps with sample collection sites cross referenced to the sample identification numbers in the data summary. (d) A cleanup plan for the site, including schedule, disposal technology, and approach. This plan should contain options and contingencies to be used if unanticipated higher

concentrations or wider distributions of PCB remediation waste are found or other obstacles force changes in the cleanup approach.

- Utilize Subpart N of the PCB Regulations, which sets out a method for collecting new site characterization data, for assessing the sufficiency of existing site characterization data.
- Utilize Subpart O to verify that cleanup levels have been met after characterization and cleanup have been conducted.
- Utilizing appropriate procedures as specified in the PCB Regulations, collect additional soil data at the Aspire site to determine if PCBs are present in other areas (e.g., steam cleaning sump) of the site. Additional soil samples should be collected in areas where PCBs may be a co-contaminant and in areas where PCB samples were not collected and TPH is or may be present and enhancing the solubility of PCBs in soils.
- Provide adequate information to characterize whether the PCBs at the Aspire site have migrated to groundwater (such as ground water samples).
- The July 9, 2009 revised CAP includes the ACDEH PCB cleanup level of 0.39 ppm for soils. The self implementing PCB cleanup regulations in 40 CFR 761.61(a)(4) requires a PCB cleanup level for high occupancy areas equal to or below 1 ppm without further restrictions, but USEPA has the authority to impose more stringent requirements if needed due to considerations such as proximity to a school. In some circumstances a cleanup goal lower than the level set by ACDEH might be appropriate. EPA has not yet made a determination regarding the appropriate cleanup level in this instance. If made available to USEPA, we will review the calculations and basis used in developing the 0.39 ppm PCB cleanup goal in the CAP. Whatever cleanup goal is ultimately adopted as the cleanup level for the TSCA cleanup, the owner of the property would be required to meet the cleanup level adopted for the TSCA cleanup.
- PCB bulk product waste: We believe that PCB bulk product waste will be generated during demolition of the structures at the site. Although a specific approval from USEPA is not necessary for removal and disposal of PCB bulk product waste, we recommend that the LFR / Arcadis PCB cleanup plan also include a section on removal and disposal of PCB bulk product waste. Given the age of the structures, we recommend a survey be done on these structure to determine PCB products that may be involved. For example the metal walls of the buildings may be made of metal siding that may be coated with a PCB coating like Galbestos. If manufactured with this coating the metal walls of the building would be a PCB bulk product waste.

I hope the above information is useful in preparing a PCB cleanup plan that meets TSCA requirements. Please call me if you have any questions concerning this message.

Sincerely,

Carmen D. Santos
Project Manager
RCRA Corrective Action Office
Waste Management Division
USEPA Region 9
Voice: 415.972.3360
Facsimile: 415.947.3553

NOTICE: This e-mail and any files transmitted with it are the property of ARCADIS U.S., Inc. and its affiliates. All rights, including without limitation copyright, are reserved. The proprietary information contained in this e-mail message, and any files transmitted with it, is intended for the use of the recipient(s) named above. If the reader of this e-mail is not the intended recipient, you are hereby notified that you have received this e-mail in error and that any review, distribution or copying of this e-mail or any files transmitted with it is strictly prohibited. If you have received this e-mail in error, please notify the sender immediately and delete the original message and any files transmitted. The unauthorized use of this e-mail or any files transmitted with it is prohibited and disclaimed by ARCADIS U.S., Inc. and its affiliates. Nothing herein is intended to constitute the offering or performance of services where otherwise restricted by law.