Plunkett, Steven, Env. Health

From: Croteau, Darren [Darren.Croteau@amec.com]
Sent: Thursday, June 11, 2009 1:34 PM
To: Plunkett, Steven, Env. Health
Cc: Conti, Edward P; Sean Svendsen
Subject: Pacific Shops - June 10, 2009 Meeting Summary and Responses to ACEH letter dated March 19, 2009

Steven,

Thank you for the meeting on June 10, 2009 to discuss the Pacific Shops site in Alameda. Below is a summary of the meeting and responses to the Alameda County Environmental Health (ACEH) letter dated March 19, 2009, which responds to the *Work Plan for Investigation of Former UST #4* (AMEC, 2009).

June 10, 2009 Meeting Summary

The meeting was attended by:

- Steven Plunkett – Alameda County Environmental Health (ACEH)
- Donna Drogos – ACEH
- Svend Svendsen – Pacific Shops
- Sean Svendsen – Pacific Shops
- Ed Conti – AMEC Geomatrix
- Darren Croteau – AMEC Geomatrix

On June 10, 2009 ACEH, Pacific Shops, and AMEC Geomatrix discussed two active cases at the Pacific Shops site in Alameda, California; Fuel Leak Case No. RO0002951, and SLIC Case No. RO0002624.

Mr. Conti of AMEC Geomatrix began the meeting by reviewing the history of Case No. RO0002624, a SLIC case related to former photochemical operations at the site. Mr. Conti explained that Pacific Shops completed the sampling requested by ACEH in their February 15, 2007 letter. Based on the ACEH findings presented in the February 15, 2007 letter and the subsequent groundwater sample chemical analysis results, Mr. Conti reiterated Pacific Shops' request for case closure. Mr. Plunkett stated that Pacific Shops' request seemed consistent with the February 15, 2007 letter but he had not had time to review the case prior to the meeting because he received the agenda late in the day on June 9, 2009. Ms. Drogos and Mr. Plunkett indicated that Mr. Plunkett would review the case file and get back to us shortly.

Mr. Sean Svendsen stressed Pacific Shops' desire to put the matter behind them. He explained that he had purchased the property recently and inherited the SLIC case as well as the underground storage tanks. Pacific Shops has since spent a considerable amount of money to comply with the regulatory requirements. ..

Mr. Conti then provided a history of Fuel Leak Case No. RO0002951 and the ACEH March 19, 2009 letter which responded to the *Work Plan for Investigation of Former UST #4* (Work Plan). Following this introduction, Mr. Plunkett provided the rationale why soil sampling is requested by ACEH as part of the UST #4 investigation proposed in the Work Plan. Mr. Plunkett noted that an oily material was observed in the tank pit following removal of UST #2. Mr. Plunkett requested that soil samples be collected from the one boring planned between UST #2 and UST #4. It was agreed that soil samples from the other two planned borings are not necessary.

Mr. Conti noted that two groundwater samples were collected from the UST #4 excavation. The first sample was collected prior to purging the tank pit water and following rinsing the outside of the removed, tar-covered UST. This sample was determined to be unrepresentative of groundwater conditions in UST #4 and a second groundwater sample was collected following proper purging of the tank pit water. The target constituents were not detected in the sample collected following purging of the tank pit. Mr. Conti and Mr. Sean Svendsen both stated that it did not seem appropriate to require more groundwater sampling associated with UST #4. Ms. Drogos and Mr. Plunkett stated that the requested investigation including 3 borings and groundwater grab samples was not inappropriate, nor was it extensive.

The meeting continued with a discussion of the target analytes for the groundwater samples proposed in the Work Plan. Mr. Conti stated that the Work Plan proposed analysis for middle and heavier range total petroleum hydrocarbons (diesel and motor oil ranges). This was based on the sampling done in conjunction with the UST removals and on the reported

use of the tanks. Since there is no indication that these were gasoline tanks, Mr. Conti suggested that it may not be appropriate to include gasoline additives in the analytical suite. Mr. Plunkett and Ms. Drogos requested that we put our requests to modify the conditions of ACEH approval of the Work Plan in an email to Mr. Plunkett.

Following the chemical analysis discussion, we discussed the depth of the soil borings proposed in the Work Plan and the depths of soil samples to be collected from the boring located between former UST #2 and former UST #4. Mr. Plunkett requested that the borings be advanced to 15 feet below ground surface. Mr. Plunkett also requested that a soil sample be collected from the bottom of the boring. In addition, Mr. Plunkett requested that soil samples be collected from other depth intervals in the boring where field indications of potential contamination are noted during drilling, if any,

Mr. Conti then asked why ACEH did not approve our plan to filter groundwater samples prior to analysis for extractable range hydrocarbons. Mr. Conti provided a rationale for why filtering is appropriate and described sorbing of petroleum hydrocarbons to soil particles. Filtering can remove some of these particles. Mr. Plunkett noted that he did not have experience with filtering prior to analysis for petroleum hydrocarbons and said that he would ask other case workers at ACEH whether they had experience with it. Mr. Plunkett will let us know if such filtering has been accepted by ACEH on other cases. Mr. Croteau gave Mr. Plunkett an article regarding TPH analyses and filtering prior to analysis. Mr. Plunkett asked for an electronic copy of the article. The electronic copy of the article was provided to Mr. Plunkett on June 10, 2009.

Responses to ACEH March 19, 2009 Letter

Presented below are the ACEH comments presented in their March 19, 2009 Letter in *italics* and Pacific Shops responses in **bold.**

1. Soil Boring Installation and Location. *To evaluate the extent of dissolved phase contamination AMEC has proposed the installation of three soil borings adjacent to the former UST pit, and AMEC recommends the installation of soil borings to a depth of two feet below first encountered groundwater. ACEH generally concurs with the proposed soil boring locations; however, ACEH requests that soil borings be completed to a depth of at least 15 feet below ground surface and a minimum of two soil samples analyzed from each boring, one soil sample collected at the capillary fringe and one soil sample collected from the total depth of the soil boring. In addition, soil samples should be analyzed at changes in lithology and from intervals where obvious odor, staining, or elevated PID readings are encountered. Since soil sampling completed during the tank removal did not analyze for lead scavengers, BTEX, or fuel oxygenates, groundwater samples shall be analyzed for TPHd, BTEX, MTBE, TAME, TBA, DIPE, EDB, and EPC. Please present results from the groundwater sampling in the report requested below.*

   The borings will be completed to 15 feet below ground surface. As agreed in the June 10, 2009 meeting, soil samples will be collected from the proposed boring between former UST#2 and former UST#4. Soil samples will be collected from depth intervals above first encountered groundwater in the boring where field indications of potential contamination are noted during drilling, if any. In addition, one soil sample will be collected from the bottom of the boring.

   The *Removal of Underground Storage Tanks* report (Treadwell & Rollo, May 2007) stated that former UST#2 and former UST#4 were believed to have contained boiler oil. Therefore, we request that the samples for the investigation proposed in the Work Plan be analyzed for petroleum hydrocarbons in the diesel and motor oil ranges.

   ACEH requested that samples be additionally analyzed for BTEX, MTBE, TAME, TBA, DIPE, EDB, and EPC. It should be noted that these analyses were performed during the UST #2 tank removal activities conducted in 2007. None of these constituents were detected at that time. In addition, there is no indication that either UST contained gasoline. Therefore, we request that these additional analyses, which are gasoline lead scavengers and oxygenates not be included in the target analyte list for the soil samples.

2. Grab Groundwater Sampling. *AMEC proposes to collect grab groundwater samples from each of the soil borings using silica gel cleanup and filtering groundwater with a 7 micron glass filter. ACEH concurs with the use of silica gel cleanup for groundwater samples, but we do not concur with the recommendation to filter groundwater samples prior to the collection of groundwater samples. Since grab groundwater samples collected from the tank pit were not analyzed for lead scavengers, BTEX, or fuel oxygenates, groundwater samples shall be analyzed for TPHd, BTEX, MTBE, TAME, TBA, DIPE, EDB, and EPC. Please present results from the groundwater sampling in the report requested below.*

The purpose of the groundwater sampling is to evaluate the occurrence of dissolved petroleum hydrocarbons in groundwater. As mentioned in the meeting held on June 10, 2009, filtering of grab groundwater samples prior to analysis of middle carbon range or heavier petroleum hydrocarbons can be beneficial as it removes some bias of these TPH analyses by reducing particulates in the groundwater sample along with the petroleum hydrocarbons that may be sorbed to those particulates. AMEC Geomatrix has successfully used filtering prior to TPH analysis on projects with other agencies, including the Regional Water Board, and we request that you allow filtering on grab groundwater samples collected as part of the Work Plan.

Additionally, in regards to chemical analyses for groundwater samples, since the product previously contained in the USTs was believed to be boiler oil, we request that the grab groundwater samples be analyzed for constituents commensurate with the uses of the USTs (middle and heavier carbon range petroleum hydrocarbons), as proposed in the Work Plan. The additional analytes requested by ACEH are gasoline lead scavengers and oxygenates; however, there is no indication that either UST contained gasoline. We therefore request approval to analyze the groundwater samples for total petroleum hydrocarbons (TPH) in the diesel and motor oil ranges.

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