

Nowell, Keith, Env. Health

From: Nowell, Keith, Env. Health
Sent: Friday, November 06, 2015 3:22 PM
To: 'Ron Elvidge'
Cc: 'Gary Bates'; 'Patrick Ellwood'; 'dcs@youngdahl.net'; 'Paul King'; Roe, Dilan, Env. Health
Subject: Work Plan Review, ACEH case file RO2981 and GeoTracker Global ID T10000000416, Red Hanger Kleaners, 6235-6239 College Ave., Oakland

Dear Mr. Elvidge,

Alameda County Environmental Health (ACEH) staff has reviewed the case file for the above-referenced site and the recently submitted document entitled *Soil Gas Investigation Work Plan* (WP) prepared by P&D Environmental, Inc. The WP is dated October 16, 2015 and was received by our office on October 28, 2015. The WP recommends the installation of eight permanent soil gas wells to a depth of seven feet below the ground surface (bgs), six permanent soil gas wells to a depth of 17 feet bgs, and one sub-slab vapor pin. Thank you for the work plan and the continuing work at the site.

Based on ACEH staff review of the referenced document and of the case file, we generally concur with the proposed scope of work. The proposed scope of work may be implemented provided that the modifications requested in the technical comments below are addressed and incorporated during the field implementation. Submittal of a revised Work Plan is not required unless an alternate scope of work outside that described in the Work Plan and technical comments below is proposed.

TECHNICAL COMMENTS

- 1. Sand Pack-** The Department of Toxic Substances Control (DTSC) July 2015 document entitled *Advisory- Active Soil Gas Investigations* (Advisory) states for soil gas wells deeper than 15 feet, a tremie pipe should be used to avoid bridging or segregation during placement of the sand pack and annular seal. The WP does indicate a tremie pipe will be used for the constructing the deeper, 17 feet, soil gas wells. Therefore, ACEH requests incorporating a tremie pipe for sand and seal placement in accordance with the Advisory.
- 2. Well Seal-** The description of the well seal, consisting of a hydrated bentonite slurry, is not in agreement with the Advisory, which calls for emplacing at least six inches of dry granular bentonite on top of each sand pack. ACEH requests placement of at least six inches of dry granular bentonite on top of each sand pack in accordance with the Advisory.

The proposed soil gas wells are described as permanent wells. However, the WP does not discuss the length of time the soil gas wells are anticipated to be in service. Bentonite-only annular seals are discouraged for long-term use as bentonite annular seals in the vadose zone desiccate readily and will not rehydrate once damaged. The Advisory states that, for wells that will be sampled for less than one year, the annular seal can be hydrated bentonite or other materials, as appropriate. However, for wells that will be used for longer than one year, the annular seal should be neat cement with bentonite. If the service life of the soil gas wells is not known, ACEH requests that an annular seal consisting of neat cement with bentonite be used.

- 3. Well Depth-** As stated above, six permanent soil gas wells are proposed to be advanced to a depth of 17 feet bgs. Previous investigations conducted at the site have document depths to water in the 21-foot bgs range for soil bores located outside the building footprint. However, groundwater in soil bores SB1 and SB6, advanced within the building footprint, was reported at approximately 16 feet bgs. The deepest soil gas samples should be collected near the capillary fringe, not in or below the capillary fringe. Soil gas wells or probes should not be installed too close to the water table as low flow conditions might be encountered due to the high moisture content in the capillary fringe. The proposed soil bore SG9-17 is located within the building footprint. ACEH requests the depth to water

be evaluated in each soil bore prior to soil gas well installation, and that the depth of each well be adjusted to a shallower depth if it is determined to be warranted.

- 4. Geotracker Compliance-** The permanent soil gas wells and the sub-slab vapor pin meet the definition of permanent sampling points as defined in Title 23, California Code of Regulations (CCRs). A permanent sampling point is defined as a point that is sampled for more than a 30-day period. Hence, in addition to the submittal of the bore logs and laboratory analysis data, the locations of the permanent soil gas wells and the sub-slab vapor pin are required to be surveyed and the X, Y and Z coordinates uploaded to the State Water Resources Control Board (SWRCB) GeoTracker website.

TECHNICAL REPORT REQUEST

Please upload technical reports to the ACEH ftp site (Attention: Keith Nowell), and to the State Water Resources Control Board's Geotracker website, in accordance with the following specified file naming convention and schedule:

- **January 5, 2016- Soil Gas Investigation Report** (file name: RO0002981_SWI_R_yyyy-mm-dd)

These reports are being requested pursuant to California Health and Safety Code Section 25296.10. 23 CCR Sections 2652 through 2654, and 2721 through 2728 outline the responsibilities of a responsible party in response to an unauthorized release from a petroleum UST system, and require your compliance with this request.

Online case files are available for review at the following website: <http://www.acgov.org/aceh/index.htm>. If your email address does not appear on the cover page of this notification, ACEH is requesting you provide your email address so that we can correspond with you quickly and efficiently regarding your case.

Thank you for your cooperation. ACEH looks forward to working with you and your consultants to advance the case toward closure. Should you have any questions regarding this correspondence or your case, please call me at (510) 567-6764 or send an electronic mail message at keith.nowell@acgov.org

Regards,
Keith Nowell

Keith Nowell PG, CHG
Hazardous Materials Specialist
Alameda County Environmental Health
1131 Harbor Bay Parkway
Alameda, CA 94502-6540
phone: 510 / 567 - 6764
fax: 510 / 337 - 9335
email: keith.nowell@acgov.org

PDF copies of case files can be reviewed/downloaded at:

<http://www.acgov.org/aceh/lop/ust.htm>