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San Jose, CA 95118
Phone: (408) 264-7723
Fax: (408) 264-2435

March 20, 1992
0320ssry
69013.08

Mr. Scott Seery
Alameda County Health Care Services Agency
Department of Environmental Health
Hazardous Materials Division
80 Swan Way, Room 200
Oakland, CA 94621

Subject: Letter dated January 30, 1992 from Alameda County Health Care Services Agency to Mr. Chuck Carmel of ARCO, concerning ARCO Station 2152, 22141 Center Street, Castro Valley, California.

Dear Mr. Seery:

We appreciate your review of the following documents we prepared concerning the subject site: Letter Report, Quarterly Groundwater Monitoring, Third Quarter 1991 (October 18, 1991); Work Plan for Additional Subsurface Investigation and Design of Vapor Extraction System (October 22, 1991), and Permit Application for Authority to Construct and Permit to Operate a Vapor Extraction System (December 9, 1991). We also appreciate your approval of the Work Plan. The Bay Area Air Quality Management District (BAAQMD) has issued the permit to construct the vapor extraction system at the site. On February 12 and 13, 1992, the borings B-19 and B-20, which were proposed in the above-referenced work plan, were drilled and sampled. Both borings contained nondetectable concentrations of gasoline hydrocarbons from top to bottom, therefore vapor extraction wells were not installed in them. BAAQMD revisions are being incorporated into the draft Plans and Specifications, and we are currently in the process of preparing permit applications for submission to the local Building and Fire Departments. In the interim, we would be glad to address and clarify several points discussed in the above-mentioned letter to Mr. Carmel.

Your conditions for acceptance and approval of our Work Plan are both reasonable and well taken. We agree that it is well-known that the effectiveness of soil vapor extraction varies from site to site and is dependent on many factors, including permeability, soil stratigraphy, and possible "short-circuiting" of air flow through more permeable materials in close proximity to the hydrocarbon-affected soils. We assure you that we have considered

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ARCO Station 2152, Castro Valley, California

March 20, 1992
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Why is it then that the projected zones of influence surrounding ex. well is not present. Short-circuiting does not seem to be a factor!

what we have found regarding these site variables in our analyses. However, several facts which cannot be neglected in our evaluation of this site also present themselves: 1) the hydrocarbon-affected soils are in close proximity to the pea-gravel tank pit because that was the location of their origin; 2) the majority of the hydrocarbon-affected soils are not highly permeable; 3) the soil stratigraphy beneath the site in the areas of concern is not homogeneous; and 4) a suitable radius of influence cannot be imposed on the areas of concern using an extraction well with a slotted portion less than approximately 7 feet in length. In our opinion, the above limitations combine to necessitate the present well locations and constructions.

*yes
yes
yes
yes... than why is this being proposed?*

The possible effects of preferential air flow through the tank pit backfill or other more permeable soils cannot be avoided in this case, nor can they, or the long-term effectiveness of the vapor-extraction system, be fully evaluated during a short-term test. However, possible "short-circuiting" can be controlled or minimized, and the effectiveness of the system maximized, through selective operation of the well system once it is running and being monitored. Short circuiting of air through the tankpit backfill may be advantageous at this site since air would be moving vertically across the most contaminated soils immediately beneath the tank complex. We agree that it is standard practice to monitor remediation treatments for effectiveness and modify or supplement them as necessary to ensure acceptable performance, and we intend to follow these standard practices, including verification borings, as iterated in our October 22, 1991 Work Plan. As previously stated, the presently-designed vapor extraction system is an interim solution, especially since the full extent of the hydrocarbon-affected area remains to be delineated. We expect that some modifications and additions (possibly including more extraction wells) may be necessary during the life of the system; however, we do not envision employing a host of other remediation schemes at this site. As always, we will seek your approval through addenda to our original Work Plan before proceeding with additional work.

*How?
?*

We also wish to clarify the confusion surrounding plates contained in our October 22, 1991 Work Plan. Regrettably, a paragraph (second from top, page 11) was inadvertently included in the Work Plan (probably as a remnant from a draft copy of the BAAQMD Permit application). This paragraph makes reference to plates which, as you pointed out, were not a part of the Work Plan. If you will refer to the Table of Contents and the text of the Work Plan, all plates which should be included in the Work Plan are listed and referenced. We believe that you received all plates listed there (1 through 11) in your copy of the Work Plan. If you have any further questions concerning these plates, please let us know.

This is correct

You also correctly state that the description of activated carbon and other technical details were not included in the Work Plan or ARCO letter, but were included in the RESNA



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ARCO Station 2152, Castro Valley, California

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BAAQMD permit application. These equipment specifications were not intended to be included in the work plan, only in the permit applications. Again, if you have further questions regarding these items, please let us know so that we can address them.

In the closing comments of your January 30 letter, you state that to your best recollection, the only calls you received regarding this case were from ARCO, not RESNA. It appears that there may be some misunderstanding regarding this matter. Our records show that I phoned your office and spoke to you on October 22, 1991 to inform you that the Work Plan was being delivered that day. Our records also show that I phoned your office on December 10, 1991 and left a message because you were not in. In addition, after the Work Plan was delivered, monthly written site status update letters were submitted to you at your office address on November 15 and December 9, 1991, and January 10, 1992. The December and January letters specifically stated that we were awaiting your agency's approval of our Work Plan. Additionally, a letter dated January 8, 1992 was sent to you at your office address to request review of the work plan. All these letters were sent via certified mail. Because we had received no response from you, we sent the January 23, 1992 letter of notification of intent to proceed with the work described in our work plan. We are doing our best to stay on schedule and keep you informed. We want to do everything we can to facilitate our communication with you.

Sincerely,
RESNA



Joel Coffman
Project Geologist

Attachments: Referenced status reports and letters

cc: Chuck Carmel, ARCO Products Company
 Chris Winsor, ARCO Products Company
 Eddy So, RWQCB
 J.P. Meck, ARCO Legal Dept.

However, these
descriptions were
requested up-
front from
BAAQMD
The work plan
request was
made!
ok... so
an attempt
to contact
me once
I don't have
a record of
it. Did I call
back and leave
a message?
not pertinent
to issue

3315 Almaden Expressway, Suite 34
San Jose, CA 95118
Phone: (408) 264-7723
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January 10, 1992
0108SSEE.2152
61026.01

Mr. Scott Seery
Alameda County Health Care Services Agency
Department of Environmental Health
80 Swan Way, Room 200
Oakland, California 94624

Subject: Site Status Update for ARCO Station 2152, 22141 Center Street, Castro Valley, California.

Dear Mr. Seery:

This letter provides an update on investigation and remedial activities conducted for the above-referenced site. This update covers site activities performed during December 1991, and site activities anticipated for the month of January 1992.

Status of Previous Months Activities:

December 10, 1991: Submitted Authority-to-Construct/Permit-to-Operate Application to BAAQMD to allow for installation of the proposed vapor extraction system.

December 27, 1991: Performed monthly monitoring of groundwater monitoring wells to determine depth-to-water in each well.

Anticipated Work to be performed in the Next Month:

- o Groundwater monitoring will continue.
- o Initiate bid package preparation to install the proposed vapor-extraction system upon Alameda County Health Care Services Agency (ACHCSA) approval.

If you have any questions or comments regarding this letter, please call us at (408) 264-7723.

Sincerely,
RESNA

Barbara Sieminski
Staff Geologist

Joel Coffman
Project Geologist

ORIGINAL

December 9, 1991
1210SSEE.2152
61026.01

Mr. Scott Seery
Alameda County Health Care Services Agency
Department of Environmental Health
80 Swan Way, Room 200
Oakland, CA 94624

Subject: Site Status Update for ARCO Station 2152, 22141 Center Street, Castro Valley, California.

Dear Mr. Seery:

This letter provides an update on investigation and remedial activities conducted for the above-referenced site. This update covers site activities performed during November 1991, and site activities anticipated for the month of December 1991.

Status of Previous Months Activities:

November 13, 1991: Performed monthly monitoring of groundwater monitoring wells to determine depth-to water in each well.

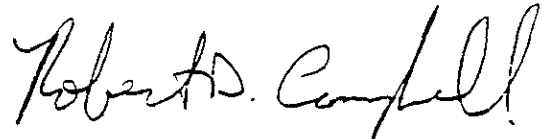
Anticipated Work to be performed in the Next Month:

- o Continue groundwater monitoring and sampling program for this site.
- o Submit to BAAQMD a completed Authority-to-Construct/Permit-to-Operate Application to allow for installation of the proposed vapor extraction system.
- o Initiate bid package preparation to install the proposed vapor-extraction system.
- o Upon approval by Alameda County Health Control Services Agency (ACHCSA) of October 21, 1991 Work Plan, will proceed with work.

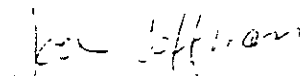
- o Submit Completed Plans and Specifications to the City of Castro Valley Building, Planning, and Fire Departments to secure a building permit prior to installation of the proposed vapor abatement system.

If you have any questions or comments regarding this letter, please call us at (408) 264-7723.

Sincerely,
RESNA



Robert D. Campbell
Staff Geologist



Joel Coffman
Project Geologist