Department of Toxic Substances Control

5796 Corporate Avenue
Cypress, California 90630

Alan C. Lloyd, Ph.D.
Agency Secretary
Cal/EPA

Arnold Schwarzenegge
Governor

June 23, 2005

Mr. Matthew F. Letany, Director
Environmental Safety and Health
Wyle Laboratories
128 Maryland Street
El Segundo, California 90245-4115

DRAFT PRESUMPTIVE REMOVAL ACTION WORKPLAN FOR SOIL GAS AT THE NORTHWEST AREA, WYLE LABORATORIES, NORCO, CALIFORNIA

Dear Mr. Letany:

The Department of Toxic Substances Control (DTSC) has reviewed the Draft Presumptive Removal Action Workplan (RAW), submitted by Environ, dated June 10, 2005 and received on June 13, 2005. The RAW presents background information identifies and evaluates removal action alternatives and proposes a removal action for contaminated soil gas near the northwest boundary of the site.

Based on its review, DTSC has identified discrepancies in the RAW that require clarification and/or modification. Enclosed is a set of comments from DTSC's project team identifying these discrepancies. Please revise the RAW according to enclosed comments and submit the revised document by July 8, 2005.

If you have any questions, please contact Mr. Juan Osornio, Project Manager, at (714) 484-5498 or me at (714) 484-5368.

Sincerely,

Shahir Haddad, P.E.
Unit Chief
Cypress Branch
School Property Evaluation and Cleanup Division

Enclosure

cc: See next page

cc: Mr. Drexel L. Smith
Technical Support Services
Wyle Laboratories
128 Maryland Street
El Segundo, California 90245

Mr. Wayne Brody, Esq.
Vice President and General Counsel
Arrow Electronics, Inc.
50 Marcus Drive
Melville, New York, 11747

Ms. Judith M. Praitis
Attorney
Sidley Austin Brown & Wood
555 West Fifth Street
Los Angeles, California 90013-1007

Ms. Carol Serlin
Principal
ENVIRON
2010 Main Street, Suite 900
Irvine, California 92614-7215

Mr. Peter J. Murphy
Senior Geologist
Kennedy/Jenks
2151 Michelson Drive, Suite 100
Irvine, California 92612-1311

cc: See next page

cc: Ms. Dawn Richmond SFD-9-1
EPA
75 Hawthorne Street
San Francisco, California 94105

Mr. Kamron Saremi, P.E.
Associate Water Resources Control Engineer
RWQCB-Santa Ana Region
3737 Main Street, Suite 500
Riverside, California 92501-3339

Ms. Marilyn Underwood
Staff Toxicologist
Environmental Health Investigation Branch
1515 Clay Street, Suite 1700
Oakland, California 94612

Mr. David Jones
AQAC Supervisor
AQMD
21865 Copley Drive
Diamond Bar, California 91765

DTSC COMMENTS
DRAFT PRESUMPTIVE REMOVAL ACTION WORKPLAN FOR SOIL GAS AT THE NORTHWEST AREA WYLE LABORATORIES NORCO, CALIFORNIA

The following DTSC staff reviewed and provided comments herein to the Draft Removal Action Workplan (RAW). Original comments from the Geological Services Unit (GSU) are available for review in DTSC project files.

Amit Pathak, P.E.
Hazardous Substances Engineer
Schools Unit-Cypress Office
Department of Toxic Substances Control
5796 Corporate Avenue
Cypress, California 90630
(714) 484-5468
apathak@dtsc.ca.gov

GENERAL COMMENTS

1. SVE (Soil Vapor Extraction) operation proposed in the RAW is contingent upon groundwater depth in the northwest area. Since all of the SVE wells screens are planned below 10 ft. bgs, the groundwater depth has to recede to at least 15 ft. below ground surface (bgs) before the SVE can be operational. The drop in groundwater levels may take longer than expected in which case implementation of SVE system may be delayed.

   Since DTSC requires that the remedial action objective(s) stated in the RAW be achieved, SVE wells should be installed at shallower depth (less than proposed 15 feet) so that operations of the proposed SVE system can be expedited. As water levels recede, Wyle may propose to install additional deeper SVE wells in the future. For the shallow SVE wells, Wyle may evaluate shallow horizontal and/or vertical SVE wells.

2. The RAW should include contingency in case SVE system cannot be implemented because of high groundwater levels. The contingency may include modification/expansion of the proposed SVE and/or application of other technology. If SVE cannot be implemented, it may be necessary to conduct indoor air quality sampling in the homes to evaluate exposure from indoor air and the need for increased ventilation via HVAC system.

3. Wyle plans to install nine SVE (Soil Vapor Extraction) wells. However, design parameters such as radius of influence (ROI), flow versus applied vacuum data for optimizing the system are unknown.

It is difficult to understand how the wells are configured in the absence of radius of influence information. The radius of influence data along with the flow versus applied vacuum data should be collected initially with one extraction well so that the SVE well network can be appropriately configured.

4. The SVE wells installed will be 10 ft bgs (below ground surface). However, the geological formation below 10 ft bgs may consists of decomposed granite bedrock and competent granite bedrock that will have low air permeability limiting the effectiveness of the SVE. If possible, all the extraction wells should be placed in alluvial fan deposits instead of decomposed granite bedrock and competent granite bedrock to optimize the SVE.

5. The RAW should elaborate on SVE design and should include:

   - Process Flow Diagram (PFD) with sampling points;
   - Equipment Specifications for major components such as blower/vacuum pump, carbon adsorption vessels etc.

6. The RAW should include Operation and Maintenance (O&M) plan. The O&M plan should also include the procedure for regular continuous SVE operation, rebound measuring, SVE operation in pulse mode and SVE closure criteria.

7. The RAW anticipates O&M (Operation and Maintenance) cost for one year only. However, the O&M duration depends on achieving cleanup goals and efficiency of the SVE system. The RAW should define the cleanup goal for each COC (chemical of concern). The O&M cost should be included at least for three years.

8. The RAW O&M should also include frequent indoor air monitoring from the affected residences to verify the mitigation of the exposure risk.

SPECIFIC COMMENTS

1. Section 7.3.3.

   This section should clearly state how groundwater level fluctuations affect the installation/operation of the SVE system.

   The piping between the SVE wells and SVE system will be a standard 2" diameter PVC. The pipe diameter appears small. Please verify the pipe diameter for the system flow and vacuum requirement.

2. Attachment D3

   Section 2.1 mentions SVE casing of 2-inch diameter. However, the Figure shows 4-inch diameter casing. Clarify the diameter of the well casing.

Ronald Okuda, R.G.
Staff Geologist
Geological Services Unit-Cypress Office
Department of Toxic Substances Control
5796 Corporate Avenue
Cypress, California 90630
(714) 484-5408
rokuda@dtsc.ca.gov

GENERAL COMMENTS

1. As the groundwater table recedes, water will still be trapped in the soil interstitial pore spaces and an initial higher vacuum may be necessary to open up the porosity. Care should be taken not to create a short circuit of the vacuum to the surface atmosphere.

   Some of the proposed extraction well locations appear to be located under concrete driveways and other impermeable soil covers. The screen depth of probes in those locations could be shallower to avoid being installed in saturated soils. In those locations where there are no surface coverings, the work plan should address potential short circuiting.

2. If the residents are excessively watering their vegetation, especially around the house foundation, the water may fill the pore spaces in the soil, blocking air flow in the subsurface. This should be considered during design and placement of the soil vapor extraction probes.