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## Los Angeles Regional Water Quality Control Board

July 19, 2021

Douglas C. Good  
Trustee of the Good Family Trust  
c/o 2420 Amsler Street, Torrance  
17676 Santa Cristobal Street  
Fountain Valley, California 92708

Certified Mail  
Return Receipt Requested  
**Claim No. 7021 0350 0001 7987 4635**

**SUBJECT: SECOND ACCESS REQUEST TO INVESTIGATE AND ASSESS VAPOR INTRUSION POTENTIAL PURSUANT TO CALIFORNIA WATER CODE SECTION 13267 ORDER**

**SITE: SKYPARK COMMERCIAL PROPERTIES (ASSESSOR PARCEL NO. 7377-006-906), 24701 – 24777 CRENSHAW BOULEVARD AND 2530, 2540, AND 2600 SKYPARK DRIVE, TORRANCE, CALIFORNIA (SCP NO. 1499)**

Dear Mr. Good:

Under the direction of the California Regional Water Quality Control Board (Los Angeles Water Board), Hi-Shear Corporation (Hi-Shear; one of the Responsible Parties) is conducting an environmental investigation at the site located at 24751, 24777, 24707, 24747, and 24701 Crenshaw Boulevard and 2530, 2540, and 2600 Skypark Drive in Torrance, California (the Site). The goal of the investigation is to investigate and assess the vapor intrusion potential of the soil vapor and groundwater plumes that have migrated off-Site to adjacent properties. Data obtained from the investigation will be used to evaluate and implement viable cleanup alternatives in order to protect human health and the environment in the area.

In a directive letter dated June 1, 2020, Los Angeles Water Board staff conditionally approved a vapor intrusion response plan (VIRP) and directed Hi-Shear to further investigate and assess vapor intrusion potential at properties east of Crenshaw Boulevard. To implement the VIRP, it is necessary for Hi-Shear to gain limited access to your property located at 2420 Amsler Street in Torrance, California to install and sample sub-slab vapor probes, soil vapor probes, or collect samples in the crawl space below the building, depending on the property, to determine if the property has been impacted by the contamination.

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LAWRENCE YEE, CHAIR | RENEE PURDY, EXECUTIVE OFFICER

It is our understanding that Hi-Shear and their attorney have contacted you in an effort to work out an agreement to allow access to your property and complete the required site assessment, yet have not been successful to obtain the site access agreement. In a letter dated May 17, 2021 (copy attached), Los Angeles Water Board staff requested your assistance in granting Hi-Shear access to your property to implement the vapor intrusion potential investigation and assessment but have not received a response.

Contaminated soil vapor and groundwater moving beneath the subject site and/or your property and contaminating additional soil and groundwater is considered an active discharge for purpose of the California Water Code (CWC). Thus, the required vapor intrusion potential investigation and assessment is necessary for the protection of the environment and public health.

In order for Hi-Shear and their consultant, Genesis Engineering & Redevelopment (Genesis), to complete the requested investigation in a timely manner, the Los Angeles Water Board is requesting that you work cooperatively with them, consider their requests, and allow access onto the referenced property to conduct the required off-Site vapor intrusion potential investigation and assessment. Should access be further delayed or denied, the Los Angeles Water Board may require the owners or operators, at their own cost, to investigate and cleanup the soil vapor and groundwater contamination beneath their property at 2420 Amsler Street in Torrance, pursuant to Water Code sections 13267 and 13304.

Please notify this Los Angeles Water Board and Genesis in writing of your decision no later than **August 19, 2021**. Genesis may be contacted at the following address:

Stephen J. Van der Hoven, Ph.D., P.G.  
Vice President  
Genesis Engineering & Redevelopment, Inc.  
115 South School Street, Suite 8  
Lodi, California 95240  
Phone: (209) 599-2004  
Email: [svanderhoven@gercorp.com](mailto:svanderhoven@gercorp.com)

The Los Angeles Water Board staff are available to meet with you, Hi-Shear and Genesis to work out all the necessary details to ensure the completion of the required soil vapor investigation.

We thank you in advance for your prompt attention to this matter and look forward to working with you on gaining access to conduct the investigation and assessment of vapor intrusion potential at your property. If you have any questions regarding this letter, please contact Mr. Kevin Lin at (213) 576-6781 or via email at [kevin.lin@waterboards.ca.gov](mailto:kevin.lin@waterboards.ca.gov) or Ms. Jillian Ly, Unit IV Chief, at (213) 576-6664 or via email at [jillian.ly@waterboards.ca.gov](mailto:jillian.ly@waterboards.ca.gov).

Mr. Douglas C. Good  
Trustee of the Good Family Trust

- 3 -

July 19, 2021  
SCP No. 1499

Sincerely,

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Renee Purdy  
Executive Officer

Attachment:

1. Los Angeles Water Board Access Request to Investigate and Assess Vapor Intrusion Potential, dated May 17, 2021

cc:

Thomas Schmidt ([tpjschmidt@gmail.com](mailto:tpjschmidt@gmail.com))  
Jeff Poole ([jpoole@hamricklaw.com](mailto:jpoole@hamricklaw.com))  
David L. Evans ([dlevans@hamricklaw.com](mailto:dlevans@hamricklaw.com))  
Allyson Balcolm ([abalcolm@hamricklaw.com](mailto:abalcolm@hamricklaw.com))  
Steve Van der Hoven ([svanderhoven@gercorp.com](mailto:svanderhoven@gercorp.com))  
Christopher Hammond ([chammond@gercorp.com](mailto:chammond@gercorp.com))  
Janet Good ([janetsgood@hotmail.com](mailto:janetsgood@hotmail.com))



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## Los Angeles Regional Water Quality Control Board

May 17, 2021

Douglas C. Good  
Trustee of the Good Family Trust  
c/o 2420 Amsler Street, Torrance  
17676 Santa Cristobal Street  
Fountain Valley, California 92708

Certified Mail  
Return Receipt Requested  
**Claim No. 7021 0350 0001 7987 3096**

**SUBJECT: ACCESS REQUEST TO INVESTIGATE AND ASSESS VAPOR INTRUSION POTENTIAL PURSUANT TO CALIFORNIA WATER CODE SECTION 13267 ORDER**

**SITE: HI-SHEAR, 2600 SKYPARK DRIVE, TORRANCE, CALIFORNIA (SCP NO. 0218, SITE ID NO. 2042300)**

Dear Mr. Good:

The California Regional Water Quality Control Board (Regional Water Board), Los Angeles Region, is the public agency with primary responsibility for the protection of ground and surface water quality for all beneficial uses within major portions of Los Angeles and Ventura counties. The Regional Water Board has directed Hi-Shear Corporation (Hi-Shear) to conduct an investigation at 2600 Skypark Drive in Torrance, California. One of the environmental issues associated with the subject site is the presence of soil vapor and groundwater contamination that has migrated offsite and east of Crenshaw Boulevard. Through its regulatory authority, the Regional Water Board has directed Hi-Shear to investigate and assess the vapor intrusion potential of the offsite soil vapor and groundwater plumes.

The Regional Water Board conditionally approved a vapor intrusion response plan on June 1, 2020 (see attachment 1), which requires Hi-Shear to further investigate and assess vapor intrusion potential at properties east of Crenshaw Boulevard. Residential and commercial properties were identified and were requested to provide access to Hi-Shear to install and sample sub-slab vapor probes 5 feet below the ground surface (ft-bgs), soil vapor probes, or collect samples in the crawl space below the building, depending on the property. The results of this sampling effort will determine the next steps in the investigation, which may include resampling, confirmation sampling or indoor air sampling at the properties. Your property located at 2420 Amsler Street in Torrance,

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LAWRENCE YEE, CHAIR | RENEE PURDY, EXECUTIVE OFFICER

California is among the properties that have been identified for further investigation and assessment (see attachment 2).

It is our understanding that the tenant, Hadd-Co Inspection Lab, forwarded the access agreement package to you several months ago. To date, Hi-Shear and its consultant have not been contacted by you nor have they received comments or the signed access agreement. Additionally, Hi-Shear has reached out to Ms. Janet Good via email at [janetsgood@hotmail.com](mailto:janetsgood@hotmail.com) on November 23, 2020, November 30, 2020, April 12, 2021, and April 20, 2021 regarding access and this investigation; to date, Hi-Shear has not received a response from Ms. Good.

Contaminated soil vapor and groundwater moving beneath the subject site and/or your property and contaminating additional soil and groundwater is considered an active discharge for purpose of the California Water Code (CWC). Thus, the required vapor intrusion potential investigation and assessment is necessary for the protection of the environment and public health. In order for Hi-Shear and their consultant, Genesis Engineering & Redevelopment, Inc. (Genesis), to complete the required investigation in a timely manner, the Regional Water Board is requesting that you work cooperatively with them and consider their requests and allow access onto your property to conduct soil vapor probe installations, crawl space sampling, and relevant sampling and monitoring. Should access be further delayed or denied, this Regional Water Board may require the owners or operators, at their own cost, to investigate and cleanup the soil vapor and groundwater contamination beneath their property at 2420 Amsler Street, in Torrance, California pursuant to sections 13267 and 13304 of the CWC.

Please notify this Regional Water Board and Genesis in writing of your decision no later than **June 11, 2021**. Genesis may be contacted at the following address:

Stephen J. Van der Hoven, Ph.D., P.G.  
Vice President  
Genesis Engineering & Redevelopment, Inc.  
115 South School Street, Suite 8  
Lodi, California 95240  
Phone: (209) 599-2004  
Email: [svanderhoven@gercorp.com](mailto:svanderhoven@gercorp.com)

The Regional Water Board staff are available to meet with you and Hi-Shear to assist with the completion of the required soil vapor and groundwater investigation.

We thank you in advance for your prompt attention to this matter and look forward to working with you on gaining access to conduct the investigation and assessment of vapor intrusion potential at your property.

**If you have any questions regarding this letter, please contact Mr. Kevin Lin at (213) 576-6781 or via email at [kevin.lin@waterboards.ca.gov](mailto:kevin.lin@waterboards.ca.gov) or Ms. Jillian Ly, Unit IV Chief, at (213) 576-6664 or via email at [Jillian.Ly@waterboards.ca.gov](mailto:Jillian.Ly@waterboards.ca.gov).**

Sincerely,

 Digitally signed by  
R Purdy  
Date: 2021.05.16  
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Renee Purdy  
Executive Officer

Attachment:

1. Regional Board correspondence letter dated June 1, 2020
2. Figure 1 - Site Map Showing Proposed Accelerated Response Zones East of Crenshaw, dated July 1, 2020

cc:

Thomas Schmidt ([tpjschmidt@gmail.com](mailto:tpjschmidt@gmail.com))  
Jeff Poole ([jpoole@hamricklaw.com](mailto:jpoole@hamricklaw.com))  
David L. Evans ([dlevans@hamricklaw.com](mailto:dlevans@hamricklaw.com))  
Allyson Balcolm ([abalcolm@hamricklaw.com](mailto:abalcolm@hamricklaw.com))  
Steve Van der Hoven ([svanderhoven@gercorp.com](mailto:svanderhoven@gercorp.com))  
Christopher Hammond ([chammond@gercorp.com](mailto:chammond@gercorp.com))  
Janet Good ([janetsgood@hotmail.com](mailto:janetsgood@hotmail.com))



## Los Angeles Regional Water Quality Control Board

June 1, 2020

Mr. Christian Darville  
Hi-Shear Corporation  
2600 Sky Park Drive  
Torrance, CA 90505

Certified Mail  
Return Receipt Requested  
**Claim No. 7018 3090 0000 3811 7482**

**SUBJECT: COMMENTS ON VAPOR INTRUSION RESPONSE PLAN PURSUANT TO CALIFORNIA WATER CODE SECTION 13267 ORDER**

**SITE: HI-SHEAR, 2600 SKYPARK DRIVE, TORRANCE, CALIFORNIA (SCP NO. 218, SITE ID NO. 2042300)**

Dear Mr. Darville:

The California Regional Water Quality Control Board, Los Angeles Region (Regional Board) is the state agency with primary responsibility for the protection of groundwater and surface water quality within major portions of Los Angeles and Ventura counties. To accomplish this, the Regional Board oversees the investigation and cleanup of discharges of waste that may affect the quality of waters of the state as authorized by the Porter-Cologne Water Quality Control Act (California Water Code [CWC], Division 7).

The Regional Board received the "Vapor Intrusion Response Plan" (VIRP) dated March 20, 2020 prepared on your behalf by Genesis Engineering and Redevelopment (GER) for the subject site (Site).

A summary of the VIRP and Regional Board comments and requirements are included below.

### **SUMMARY OF THE VIRP**

The objectives of the VIRP are to:

1. Develop a modeled attenuation factor (AF) for the residential and commercial areas east of Crenshaw Boulevard;

IRMA MUÑOZ, CHAIR | RENEE PURDY, EXECUTIVE OFFICER

2. Develop response actions to further investigate the potential for vapor intrusion in the residential and commercial areas east of Crenshaw Boulevard; and
3. Validate the modeled AF by collecting data to calculate an empirical site-specific AF.

The following is a summary of the VIRP:

1. In a letter dated January 30, 2019, the Regional Board directed Hi-Shear to use 0.03 as the default attenuation factor (DAF) to develop soil vapor screening levels. Hi-Shear submitted decision trees developed based on the DAF of 0.03 on September 30, 2019 but withdrew them on November 4, 2019 stating that the 0.03 DAF was too conservative, and proposed developing alternate modeled attenuation factors (MAFs) by using the Johnson & Ettinger (J&E) Model and Empirical AFs. The MAFs were used to calculate residential and commercial soil vapor screening levels (MAFSLs).

The MAFSLs for specific volatile organic compounds (VOCs) including tetrachloroethene (PCE) and trichloroethene (TCE) were calculated for residential and commercial properties at a depth of 5 feet below ground surface (bgs). The MAFSLs calculated for PCE and TCE for residential properties were 1,098 micrograms per cubic meter ( $\mu\text{g}/\text{m}^3$ ) and 1,146  $\mu\text{g}/\text{m}^3$ , respectively. The MAFSLs calculated for PCE and TCE for commercial properties were 4,773  $\mu\text{g}/\text{m}^3$  and 7,160  $\mu\text{g}/\text{m}^3$ , respectively.

Using the DAF, the residential and commercial screening levels for PCE are 15  $\mu\text{g}/\text{m}^3$  and 67  $\mu\text{g}/\text{m}^3$ , respectively; and for TCE are 16  $\mu\text{g}/\text{m}^3$  and 100  $\mu\text{g}/\text{m}^3$ , respectively.

2. MAFs and the DAF were used to calculate vapor intrusion risks, response categories and response actions for the residential and commercial properties. Based on the Department of Toxic Substances Control (DTSC)'s *Guidance for the Evaluation and Mitigation of Subsurface Vapor Intrusion to Indoor Air* (DTSC 2011), three response categories of "Response Action Needed", "Evaluate Need For Action" and "No Further Action" based on risk exceeding  $1 \times 10^{-4}$ , risk between  $1 \times 10^{-4}$  and  $1 \times 10^{-6}$ , and risk less than  $1 \times 10^{-6}$ , respectively, were recommended. Similarly, based on indoor air screening levels for TCE documented in DTSC's *HHRA Note No.5: Health-based Indoor Air Screening Criteria for Trichloroethylene* (Note 5), three response categories of "Urgent Response", "Accelerated Response", and "Less Than Accelerated Response" were recommended.
3. **Areas Where "Response Action Needed" or "Urgent Response" recommended:** Using DTSC criteria, the areas where "Response Action Needed" or "Urgent Response" is recommended are in the vicinity of soil vapor probes VP-

35, VP-62, VP-63, and VP-64. These four soil vapor probes are located in an area just to the east of Crenshaw Boulevard between Amsler Avenue to the north in Torrance and 247th Street to the south, in Lomita.

**4. Areas where “Evaluate Need for Action” is recommended:**

Using DTSC criteria, the areas where “Evaluate Need for Action”  
Is recommended include:

- a. Between Crenshaw Boulevard (west) and Pennsylvania Avenue (east), 247th Street (north) and 250th Street (south) except for along the eastern half of 248th Street in the City of Lomita
- b. Between Pennsylvania Avenue (west) and Cypress Street (east), Lomita Boulevard (north) and 247th Street (south) in the City of Lomita

**5. Areas where “Accelerated Response” Action Needed**

The residential and commercial buildings that fall into the Accelerated Response category will be determined in consultation with Office of Environmental Health Hazard Assessment (OEHHA) and the Regional Board.

**6. Proposed Response Actions**

Response actions vary from urgent to no response depending on the AF. A conservative urgent response approach will be implemented for the buildings in the vicinity of borings VP-35, VP-62, VP-63, and VP-64. The following sequence of response actions are proposed in the Urgent Response Area (URA):

- a) Install and sample a sub-slab or 5-foot bgs soil vapor probe on the potentially impacted property itself.
- b) Perform a 24-hour indoor air monitoring event for the residential and commercial buildings as warranted by soil vapor concentrations detected in step (a).
- c) Perform a second (8-hour for commercial buildings and 24-hour for residential buildings) indoor air monitoring event as warranted by indoor air concentrations detected in step (b).
- d) Conduct vapor intrusion mitigation as warranted in steps a through c.

The owners and/or occupants of all buildings in the URA category will be approached for access to conduct the response actions listed above. In addition, desktop activated carbon filtration units will be offered immediately for use in any of the residential buildings in this category. Other mitigation activities will be determined in consultation with OEHHA and the Regional Board and will be based on building-specific risk calculations. All indoor air samples will be collected in

conjunction with a soil vapor sample in order to develop an empirical attenuation factor (EAF) for east of Crenshaw Boulevard and to validate the MAF approach for use in other areas of investigation.

7. **Areas Needing Action Evaluation/Less Than Accelerated Response:** Hi-Shear recommended an "Evaluate Need for Action" (ENFA) category and a "Less than Accelerated Response" category (LTAR) in areas where PCE or TCE concentrations exceed the default soil vapor screening levels of 15 µg/m<sup>3</sup> and 16 µg/m<sup>3</sup>, respectively.

A subset of the owners and occupants of buildings in ENFA/LTAR category will be approached and asked to volunteer to allow additional vapor intrusion investigation activities on their properties. Volunteers will be sought through public meetings and direct mailings through collaboration with the Regional Board and the City of Lomita. A subset of volunteers will be chosen for further vapor intrusion investigations by prioritizing slab on grade foundations and proximity to higher concentrations. The selection of buildings will be determined in consultation with the OEHHA and the Regional Board.

A similar sequence of response actions as proposed in the URA is also proposed for the properties selected in the ENFA/LTAR category. The owners and/or occupants of all buildings in the ENFA/LTAR category will be approached for access to conduct response actions listed in item 6 above.

8. **Development of Site Specific Attenuation Factors:** The EAF will be calculated when (a) paired indoor air and soil vapor samples are collected from a minimum of 10 buildings; and (b) at least two indoor air sampling events have been conducted per building. Once this threshold has been reached, the 95 percent (%) Upper Confidence Limit (UCL) will be calculated for the data set consisting of at least 10 EAFs. The 95% UCL will be used as the initial AF (IAF) and the IAF will be updated as additional EAF data are collected. Once established, the EAF will be used to make vapor intrusion assessment decisions.
9. **Reporting:** A technical memorandum containing the results of the initial soil vapor samples and recommendations with respect to additional sampling (either soil vapor or indoor air) will be submitted. After the initial indoor air monitoring event, the results will be transmitted individually to the owner/occupant of each building that was sampled. A summary report will be prepared based on the initial soil vapor and initial indoor air sampling event. This report will include the initial EAFs and comparison to the J&E MAFs. Reporting after the initial soil vapor and indoor air monitoring events is anticipated to include individual notifications after every indoor air monitoring event, and quarterly or semi-annual reports of all soil vapor and indoor air sampling results and updated EAFs, and other Response Actions taken.

## REGIONAL BOARD COMMENTS AND REQUIREMENTS

The Regional Board approves the VIRP with the following comments and requirements:

1. The VIRP was forwarded to OEHHA for review. On May 4, 2020, the Regional Board received a memorandum from OEHHA containing technical comments for the VIRP (attached). The Regional Board concurs with OEHHA's comments and conclusions.
2. The DAF of 0.03 for soil vapor should be used for the screening of the Site. This AF is protective of public health under most building occupancy scenarios and should be used for the initial screening. MAFs derived from mathematical models, such as the J&E model are not recommended for the initial screening of occupied buildings.
3. The assumptions of the J&E model are not applicable at the soil vapor probe (VP) locations in the investigated area as follows:
  - The subsurface soil layers are not homogeneous and isotropic and include sand, silt, and clay;
  - VOC contaminants are not homogeneously distributed at the investigated area, because the source of VOCs appears primarily to be the underlying VOC groundwater plume and no evidence of VOC release at the VP locations indicated by soil matrix contamination is currently available; and
  - The assumed upward one-dimensional diffusive vapor transport from the source to the base of building foundation may have not been just upward but appears to have followed complex pathways through several overlying soil layers of sand, silt, and clay, and VOCs may have also migrated laterally to the VP locations.

Based on the above statements, Regional Board staff does not consider the J&E model to be applicable at the investigated VP locations and does not consider the MAFs to be protective of human health. Using the MFA of 0.000419, 1,490  $\mu\text{g}/\text{m}^3$  of TCE in soil vapor at 5 feet bgs at VP-62 will result in an estimated value of 3.8  $\mu\text{g}/\text{m}^3$  in the indoor air, whereas using the DFA of 0.03 will result in an estimated value of 447  $\mu\text{g}/\text{m}^3$  of TCE in the indoor air. This reduction from an estimate of 447  $\mu\text{g}/\text{m}^3$  of TCE to 3.8  $\mu\text{g}/\text{m}^3$  in the indoor air by using the MFA may underestimate the risk to human health.

4. The Regional Board concurs with the use of the *Guidance for the Evaluation and Mitigation of Subsurface Vapor Intrusion to Indoor Air* (DTSC 2011) and the *Health-based Indoor Air Screening Criteria for Trichloroethylene in Human Health Risk*

*Assessment (HHRA) Note No.5 (DTSC 2014)* to define the Response Categories and the Response Actions.

**5. Areas Where “Response Action Needed” or “Urgent Response”**

**Recommended:** You are required to include the location of VP-38, VP-67, and VP-68 in addition to VP-35, VP-62, VP-63, and VP-64 for the area needing URA. While conducting response actions including soil vapor and indoor air sampling in a building included in the URA, collect concurrent sub-slab, soil vapor, and indoor air samples. Submit a map(s) with the properties proposed for the URA implementation to the Regional Board by **July 1, 2020**. The map(s) at minimum shall show proposed sampling locations at these proposed properties. The report documenting the implementation and results of the URA action investigation is due by **October 15, 2020**.

**6. Areas where “Evaluate Need for Action” is recommended:**

Structures whose estimated indoor air concentrations for TCE and PCE exceed the USEPA Regional Screening Levels (RSLs) or DTSC Human Health Risk Assessment (HHRA) Note 3 screening levels by a factor of 10 based on an AF of 0.03 should be prioritized for response action. Submit a map with the proposed properties for the “evaluate need for action” implementation to the Regional Board by **July 1, 2020**.

**7. Areas where “Accelerated Response Action Needed”:**

Structures whose estimated indoor air concentrations for TCE and PCE exceed the USEPA RSLs or DTSC HHRA Note 3 screening levels by a factor of 10 based on an AF of 0.03 should be prioritized for response action. Submit a map with the proposed properties for the “accelerated response action” implementation to the Regional Board by **July 1, 2020**.

**8. Areas Needing Action Evaluation/Less Than Accelerated Response:** Submit a map with the proposed properties for the “areas needing action evaluation/less than accelerated response” implementation to the Regional Board by **July 31, 2020**.

**9. Submit decision trees for soil vapor and indoor air response actions based on the Regional Board comments 1 through 8 above by July 31, 2020.**

**10. Development of Site Specific Attenuation Factors:** Due to the differences in building structures, underlying specific soil types and their bed thicknesses, only EAFs calculated using VOC concentrations from a 5-foot soil vapor sample, a sub-slab soil vapor sample, and an indoor air sample collected at a specific property may be considered representative of that specific location. Only a location specific EAF should be used to make decisions about the human health risk of vapor

intrusion applicable to that location. A minimum data set of at least 10 EAFs from buildings with a similar building structures, underlying soil sequences, and bed thicknesses are required for the consideration of development of an average EAF for the area. The maximum empirical AF should be considered along with the 95% UCL.

The above requirement for submittal of technical reports by the due dates listed above constitutes an amendment to the requirements of the Water Code section 13267 Order originally dated October 29, 2009. All other aspects of the Order originally dated October 29, 2009, and the amendments thereto, remain in full force and effect. Pursuant to section 13268 of the California Water Code, failure to submit the required technical reports by the specified due dates may result in civil liability administratively imposed by the Regional Board in an amount up to one thousand dollars (\$1,000) for each day each technical report is not received.

**If you have any questions regarding this letter, please contact Mr. Mohammad Zaidi at (213) 576-6732 or via email at [Mohammad.Zaidi@waterboards.ca.gov](mailto:Mohammad.Zaidi@waterboards.ca.gov), or Ms. Jillian Ly, Unit IV Chief, at (213) 576-6664 or via email at [Jillian.Ly@waterboards.ca.gov](mailto:Jillian.Ly@waterboards.ca.gov).**

Sincerely,

 Digitally signed by  
R Purdy  
Date: 2020.06.01  
14:22:16 -07'00'

Renee Purdy  
Executive Officer

Attachment: OEHHA Memo dated May 4, 2020

cc: Mr. Dmitriy Ginzburg, Division of Drinking Water  
Mr. Thomas P. Schmidt, Hamrick & Evans, LLP  
Mr. Stephen Van der Hoven, Genesis Engineering & Redevelopment  
Mr. Aram Chaparyan, the City of Torrance  
Mr. Ryan Smoot, City Manager, the City of Lomita  
Ms. Carla Dillon, the City of Lomita



Gavin Newsom, Governor  
Jared Blumenfeld, Secretary for Environmental Protection  
Lauren Zeise, Ph.D., Director

## MEMORANDUM

**TO:** Mr. Mohammad Zaidi PG, CHG  
Engineering Geologist  
California Regional Water Quality Control Board  
Site Cleanup Program Unit IV  
320 West 4<sup>th</sup> Street, Suite 200  
Los Angeles, CA 90013

**FROM:** Jim Carlisle, D.V.M., M.Sc.  
Air and Site Assessment and Climate Indicators Branch

**DATE:** May 4, 2020

**SUBJECT:** REVIEW OF VAPOR INTRUSION RESPONSE PLAN, HI-SHEAR CORPORATION, TORRANCE, CALIFORNIA, SCP CASE NO. 218, SITE ID NO. 2402300 SWRCB # R4-19-017 OEHHA # 880550-00

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### Document reviewed

- Vapor Intrusion Response Plan, Hi-Shear Corporation, Torrance, California, by Genesis Engineering and Redevelopment, dated March 20, 2020

### Urgent response criteria

- Genesis lists borings VP-35, VP-62, VP-63, and VP-64 as selected for urgent response based on the default (screening) attenuation factor (AF). OEHHA agrees that the areas around these borings need to be evaluated regarding the need for accelerated or urgent action.
  - However, OEHHA recommends adding the areas around VP-67 and VP-68 to the list to be evaluated regarding the need for urgent response since the estimated indoor air concentration based on the default AF exceeds the Note 5 accelerated or urgent action level for trichloroethylene (TCE) at the 15-foot depth at these locations (DTSC 2014).
- The selection of properties for urgent action around these borings is undetermined at present. OEHHA understands that property owners and/or renters will have to agree to on-property testing, consisting of the following:
  - Step 1: install and sample sub-slab or 5-foot soil vapor probes on these potentially impacted properties.
  - Step 2: perform an initial 24-hour indoor air monitoring event for residential and commercial buildings as warranted by soil vapor concentrations

measured in Step 1. The criteria for deciding what soil vapor concentrations warrant further testing is specified only in general terms (“in consultation with OEHHA and the RWQCB”). The initial decisions should be based on  $AF = 0.03$ .

### **Criteria for requiring evaluation of the need for further action**

- Genesis lists the same borings (VP-35, VP-62, VP-63, and VP-64) as requiring evaluation of the need for further action based on the default AF. OEHHA recommends adding VP-67 and VP-68 to the list requiring evaluation of the need for further action since the estimated indoor air concentration based on the default AF exceeds the Note 5 accelerated action level for TCE and the combined residential risk estimate for TCE and PCE exceeds  $10^{-4}$  at the 15-foot depth at these locations.
- The selection of properties around these borings for further evaluation is undetermined at present. OEHHA understands that property owners and/or renters will have to agree to on-property testing.
- Genesis plans to seek volunteers for additional vapor intrusion investigations, with a subset to be chosen by prioritizing slab-on-grade foundations and proximity to higher concentrations, noting that the selection of buildings will be determined in consultation with the OEHHA and the RWQCB.
- OEHHA agrees with this approach, noting that it was agreed during a March 4, 2020 teleconference that structures whose estimated indoor air concentrations exceed DTSC HHRA Note 3 screening levels by a factor of 10 based on an AF of 0.03 would be prioritized for response action.
- Initial response actions are similar to those noted above for urgent responses:
  - Step 1: install and sample sub-slab or 5-foot soil vapor probes on these potentially impacted properties.
  - Step 2: perform an initial 24-hour indoor air monitoring event for residential and commercial buildings as warranted by soil vapor concentrations measured in Step 1. The criteria for deciding what soil vapor concentrations warrant further testing is specified only in general terms. The initial decisions should be on the basis of  $AF = 0.03$ .
- If indoor TCE levels exceed the accelerated or urgent action levels in DTSC Note 5, the actions called for in Note 5 will need to be followed.

### **Site-specific AFs**

- When a statistically significant number of empirical AF values have been measured, Genesis proposes to use the empirical AF in place of the default AF for making vapor intrusion assessment decisions. The empirical AF will be calculated when paired indoor air and soil vapor samples are collected from a

minimum of 10 buildings with at least two sampling events conducted per building. The 95% UCL will be used as the initial AF and the AF will be updated as additional data are collected.

- Although OEHHA agrees with the concept of using empirical data from sampled affected properties to assist in making decisions about properties outside the high-priority area, we believe that this should occur within significant constraints:
  - Properties to which the empirical AF are to be applied should be similar in lithology, type of building (residential or commercial), and foundation type.
  - Ten pairings are minimal if they are all similar in lithology and type of building, but inadequate if they are subdivided by lithology and/or building structure.The maximum empirical AF should be considered along with the 95% UCL.

## Conclusions

- As previously stated during the March 4, 2020 teleconference, OEHHA agrees with the concept of paired sampling at the properties surrounding the borings with the highest TCE and PCE concentrations and using the information gained from those paired samples to assist in making decisions about the other properties. However, the following concerns should be kept in mind:
  - OEHHA recommends adding VP-67 and VP-68 to the list requiring evaluation of the need for further action since the estimated indoor air concentration based on the default AF exceeds the Note 5 accelerated action level for TCE and the residential risk estimate exceeds  $10^{-4}$  at the 15-foot depth at these locations.
  - Properties to which the empirical AF are to be applied should be similar in lithology and building and foundation type.
  - Ten pairings should be the minimum to determine an empirical AF are for any particular lithology and type of building.

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## Reference:

DTSC (Department of Toxic Substances Control). 2014. Human Health Risk Assessment (HHRA) Note Number 5: Health Based Indoor Air Screening Criteria for Trichloroethylene (TCE). August 23, 2014.

