



# California Regional Water Quality Control Board

## Santa Ana Region



**Matthew Rodriguez**  
Secretary for  
Environmental Protection

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**Edmund G. Brown Jr.**  
Governor

November 1, 2012

Brian Rupp  
Uptown Newport, L.P.  
c/o Shopoff Management, Inc.  
8951 Research Drive  
Irvine, CA 92618

**Subject: Human Health Risk Assessment  
Uptown Newport Village – Phase One (Former Conexant Facility)  
4311 Jamboree Road, Newport Beach, California**

Dear Mr. Rupp:

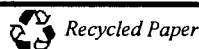
This letter is in response to the "Vapor Intrusion Health Risk Assessment" (HRA) submitted by your consultant, RM Environmental, Inc. (RME). The HRA was conducted by Skinner Associates. In the HRA, Skinner Associates concludes that future residents and visitors of the Uptown Newport Village Phase 1 development will not be exposed to unacceptable levels of volatile organic compounds (VOCs) as a result of vapor intrusion into the proposed buildings. RME is requesting that Board staff issue a no further action letter on the Phase 1 portion of the property and concur with the proposed intended use. Board staff has no objection to the proposed site development.

The proposed development at the site splits the property into two development phases. Phase 1 development is approximately 12.29 acres and will include multi-family residential dwellings with subterranean basement parking located in the southern and southwestern portion of the former Conexant site and residential dwellings on slab on grade construction along the northeastern and northwestern portion of the Phase 1 development. Prior usage of the Phase 1 property is reportedly been limited to open parking and landscape areas and an office/administrative building.

The Phase 2 development property is approximately 12.76 acres located in the northern and northeastern portion of the site and is currently occupied by the Jazz Semiconductor manufacturing facility. The soil and groundwater underlying the Phase 2 portion of the site has been impacted by historical VOC and petroleum hydrocarbon underground tank releases. VOCs have migrated from the release area into the soil gas and groundwater. An additional human health risk assessment (HHRA) is proposed to be conducted on the Phase 2 development property upon completion of remedial activities on the Phase 2 portion of the property.

In 2007, Haley and Aldrich conducted a Health Risk Assessment within and in proximity to the proposed Phase 1 area. One soil vapor probe (B3) was located within the Phase

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1 property boundary near Building 501. The remaining soil vapor probes were located on the Phase 2 property. Haley & Aldrich assumed limited exposure to VOCs from vapor intrusion in the subterranean parking structure to be one hour a day for 350 days per year and estimated that the incremental lifetime cancer risk (ILRC) for the on-site future residents to be  $1 \times 10^{-8}$  from the results from the one on-site soil gas probe and estimated a potential ILCR of  $5 \times 10^{-7}$  from potential vapor intrusion from the VOC concentrations from the underlying shallow groundwater. Haley & Aldrich concluded that the estimated indoor concentrations due to subsurface vapor intrusion into the proposed subterranean basement parking underlying the proposed residential dwellings do not propose unacceptable health risks to future resident in the Phase 1 portion of the property and that the site may be developed for unrestricted, residential development.

From 2010 to 2011, RME oversaw the advancement of 17 soil gas probe borings. The majority of the probes were located along the perimeter area of the VOC-affected soil and groundwater in the Phase II portion of the site. Because the basement subterranean parking was anticipated to be 5 to 18 feet below the existing grade, soil gas samples were collected from 5, 10, and 15 feet sample depths. Chlorinated VOCs (primarily TCE and PCE) and benzene were detected at a concentration in the soil vapor from samples collected on the existing Jazz Semiconductor facility (GP-3 and GP-7) that exceeded the residential California Human Health Screening Levels (CHSSLs). The chlorinated VOCs were not detected in the nearest vapor probes on the Phase 1 property approximately 150 feet away (GP-8 and GP-1). PCE and benzene were detected at a concentration that exceeded the residential CHSSLs from vapor samples collected from GP-10.

Based on the soil gas data, Skinner Associates conducted a site specific health risk assessment using the 2009 CAL EPA Human Ecological Risk Division soil-gas screen vapor intrusion model for residential use. In the model, Skinner Associates assumed continuous potential exposure to VOCs from vapor intrusion for 350 days per year for 30 years. Skinner Associates estimated that the incremental lifetime cancer risk (ILRC) for the on-site future residents under two different scenarios: residences constructed directly on slab on grade and residences constructed over subterranean parking.

Based on their Health Risk assessment, Skinner and Associates asserted the following:

- Using the 95 percent upper confidence level of the mean for soil gas concentrations, the combined risk for the detected VOCs were below the  $1 \times 10^{-6}$  ILCR and the hazard threshold of 1 for slabs constructed at or above the existing grades. All risk values for slabs were in the mid- $10^{-6}$  to  $10^{-7}$  ILCR range for residential exposure.
- Using the 95 percent upper confidence level of the mean for soil gas concentrations, the combined risk for the detected VOCs were within  $10^{-6}$  to  $10^{-7}$

ILCR range and below the hazard threshold of 1. All risk values for the garage are acceptable for residential exposure.

- Most of the soil gas probes were located in the Phase 2 area of the site and, with the exception of soil gas probes GP-2 through GP-7, were within 100 feet from the Phase I development area. Attenuation of vapors through diffusion in the soil and air should reduce impacts well below the risk and hazard estimates.
- Based on the results of the health risk assessment, future residents and visitors of the Uptown Newport Village Phase 1 development will not be exposed to unacceptable levels of VOCs as a result of vapor intrusion into the buildings.

In May 2012, PharmaCal, Ltd., conducted a third party review of the Health Risk Assessment. In their May 25, 2012 letter, PharmaCal concluded that the methods and approach used by Skinner Associates for conducting the HHRA are appropriate and supports the conclusions of the report.

In October 2012, RME submitted the "*Addendum to Vapor Risk Assessment for Uptown Newport Village – Phase One*". In the addendum, RME provided the following:

- Updated ICLR risk and health hazard values using the 2011 CAL EPA Human Ecological Risk Division soil-gas screen vapor intrusion model for residential use.
- Updated ICLR risk calculations for specific soil vapor gas probes both at the existing grade and the proposed 4 feet above existing grade.
- Updated ICLR risk calculations for soil gas probes GP-4 through GP-7 since the surface depth of the probes were approximately 14 feet below the existing ground elevation of the Phase 1 area.
- Updated ICLR risk and health hazard for the proposed residential subterranean garages using the recommended USEPA duration of 1 hour per day, 350 days per year over a 30-year period.

Based on these revised estimates, RME asserted the following:

- Future residents and visitors of the proposed Phase I development will not be exposed to unacceptable levels of VOCs as a result of vapor intrusion into the buildings.
- Based on the findings of the specific gas probe risk assessment and the 95% upper confidence level soil gas concentrations of VOCs, the estimated vapor intrusion risk and hazards in the proposed parking garage and residential slab-

on-grade elevations were below the ICLR and health hazard of  $1 \times 10^{-6}$  and 1.0, respectively.

- Only vapor probe GP-7 indicated an estimated vapor intrusion risk greater than the residential ICLR of  $1 \times 10^{-6}$ . Since GP-7 is located greater than 100 feet from the Phase 1 property boundary at a depth of 14 feet depth open basement area, the results from GP-7 are not representative of the proposed risk for the Phase 1 portion of the site.

The results of the revised risk estimates are summarized below:

Scenario		ILCR		Health Hazard Threshold	
	Sample Depth	95 Percentile	Maximum	95 Percentile	Maximum
Slab plus 4 feet fill	5'	$7.42 \times 10^{-7}$	$2.98 \times 10^{-6}$	$8.06 \times 10^{-2}$	1.01
	10'	$4.99 \times 10^{-7}$	$3.95 \times 10^{-6}$	$5.4 \times 10^{-2}$	$6.73 \times 10^{-1}$
	15'	$3.76 \times 10^{-7}$	$5.88 \times 10^{-6}$	$4.06 \times 10^{-3}$	$5.06 \times 10^{-1}$
Garage with 1 hr./day exposure	5'	$1.22 \times 10^{-7}$	$4.33 \times 10^{-7}$	$1.48 \times 10^{-2}$	$1.77 \times 10^{-1}$
	10'	$1.22 \times 10^{-7}$	$4.33 \times 10^{-7}$	$1.48 \times 10^{-2}$	$1.77 \times 10^{-1}$
	15'	$4.79 \times 10^{-8}$	$1.75 \times 10^{-7}$	$5.28 \times 10^{-3}$	$7.57 \times 10^{-3}$
Target Residential Risk Levels		$< 1 \times 10^{-6}$		$< 1$	

<sup>1</sup>USEPA and CalEPA guidance documents that use of 95% upper confidence interval is appropriate in lieu of the maximum encountered concentration when there is an adequate number of representative data points collected within the impacted area.

Since soil vapor probe GP-7, the only soil vapor probe that exceeded the target residential risk levels assuming the proposed site conditions, is distal to the Phase 1 property development, Board staff concurs that estimating the risks using the statistical 95% percentile instead of a composite of the maximum Phase 1 and Phase 2 site-wide concentrations is appropriate. Based on the 95 percentile concentrations, the estimated residential ICLR and health hazards appear to be below the target residential risk levels. Board staff has no objection to the proposed site development and is not requiring further remediation of the soil on the Phase 1 portion of the property. Board staff requests that reasonable and adequate access be granted, if warranted, on the Phase 1 property for the necessary remedial and monitoring activities on the Phase 2 portion of the former Conexant site.

If on-site excavation or construction activities expose previously unknown contaminated soil or if changes in the proposed land use indicate that the residual contamination at the site poses a risk to existing or future site occupants, review of the corrective actions may be warranted and additional corrective actions may be necessary to minimize worker exposure and protect human health and the environment.

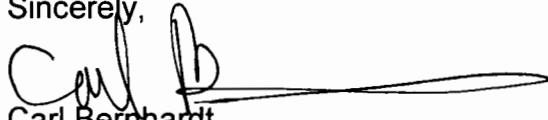
Mr. Rupp  
Uptown Newport

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November 1, 2012

If you have any questions, please contact me at 951-782-4495 or by electronic mail at [cbernhardt@waterboards.ca.gov](mailto:cbernhardt@waterboards.ca.gov).

Sincerely,



Carl Bernhardt  
Engineering Geologist  
Underground Storage Tank Section

Addressee: Brian Rupp, Uptown Newport: [brupp@shopoff.com](mailto:brupp@shopoff.com)

cc: Robert Manning, R M Environmental: [robrme@msn.com](mailto:robrme@msn.com)  
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