

RESPONSES TO REGULATORY AGENCY COMMENTS – SEPTEMBER 20, 2023
PRELIMINARY ENVIRONMENTAL ASSESSMENT REPORT OF
PROPOSED KATHERINE JOHNSON MIDDLE SCHOOL, DATED AUGUST 17, 2023

REVIEWER Lisa Holcomb, Project Manager, Northern California Schools Unit, Department of Toxic Substances Control (DTSC) DATE September 7, 2023

REVIEWER Alicia Taylor, PhD, Staff Toxicologist, Human and Ecological Risk Office (HERO), DTSC DATE September 7, 2023

ITEM	PAGE OR REFERENCE	COMMENT	RESPONSE OR ACTION
GENERAL COMMENTS			
1		The response to comments and cover letter for the revised document should indicate and identify any changes and/or modifications made to the revised document not requested specifically in the comments below.	Changes to the text and tables in response to the comments below have been highlighted in the PDF.
2		Specific comments generally reference a specific occurrence, it is the responsibility of the consultant to ensure that each occurrence be identified and corrected throughout the document as appropriate.	Each occurrence will be identified and corrected through the document as appropriate.
3		Once DTSC has issued notice to submit the revised document, please provide an electronic copy of the revised document in portable document format (PDF) without password protection, in a file size no more than 400-megabytes. Please use a searchable form of Adobe Acrobat to facilitate review of the revised document and future PDF document submittals. Signature pages must be included and have either original or electronic signature. An electronic copy of the revised/final document will be posted on the DTSC EnviroStor database public access web site.	Comment noted.
HERO reviewed the revised PEA Report relative to the comments provided in the HERO memo from A. Taylor to L. Holcomb dated June 22, 2023. The following comments use the same numbering system found in the HERO June, 2023 memo.			
SPECIFIC COMMENTS			
1		<u>Cumulative Cancer Risk:</u> HERO finds in Section 8.4.2, the Site-wide cancer risk is 5×10^{-5} for a residential scenario, which is above the cancer risk of 1×10^{-6} . With few exceptions (e.g., risk greater than 10^{-6} associated with natural background or anthropogenic ambient concentrations), when a PEA shows a cumulative risk that exceeds 1×10^{-6} , it "indicates the presence of contamination which may pose a significant threat to human health" and supports the	Executive Summary and Recommendations sections have been revised to include installation of a soil vapor barrier and excavation of three OCPs hot spots.

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		need for further action at a Site (DTSC HHRA Note 4 and PEA Guidance manual 2015). When broken down by media type, the calculated risk based on a residential scenario with maximum chemical concentrations for chemicals of concern (COCs) in soil is 3×10^{-4} with a hazard index (HI) of 96. Table 6 shows that multiple organochlorine pesticides (OCPs) are the risk drivers for cancer risk from soil. For the HI of 96 when using maximum concentrations, the risk driver is 4,4-DDD (HI of 43). Three other OCPs also have individual HI's above 13. The risk based on a residential scenario with maximum chemical concentrations from COCs in soil vapor is 5×10^{-5} with a hazard index of 3. Table 7A shows that benzene is the risk driver for cancer risk from soil vapor. For the HI of 3 when using maximum concentrations, the risk drivers are total petroleum hydrocarbon in the gasoline range (TPHg), trichloroethene, and benzene. HERO finds recommendations in the PEA Report for mitigation at the Site include a soil vapor barrier and excavation of three soil locations. These recommendations are discussed in more detail in below comments.	
2		<u>OCPs from Termiticides</u>: Additional OCP samples were collected and analyzed on July 13 and 14, 2023. Data are presented in Table 2. HERO has the following comments: a. Table 6 Human Health Risk Assessment in Soil: A cumulative risk assessment is presented for all COCs detected in soil. However, HERO cannot identify the maximum COPC concentrations used in Table 6 with the corresponding OCP data presented in Table 2. In addition, the units used in Table 6 (listed as	Tables have been updated with the correct data values and units.

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		mg/kg) do not match data presented in Table 2 (also described as mg/kg but appear to be 3 decimals off). HERO requests that these tables are updated to reflect correct data and units.	
3		<u>Ecological Receptors</u> : HERO has no further comment on ecological receptors.	No response/action.
4		<u>Soil Vapor and Proposed Vapor Intrusion Mitigation System (VIMS)</u>: a. <u>Additional SV Sampling</u>: HERO has no further comment. b. <u>Use of DTSC Screening Levels (SLs)</u>: HERO cannot confirm this comment was addressed. HERO recommends the following for Table 5: i. Remove “Tier 1 ESLs” for all analytes except for TPHv (defined as C5 – C12). The San Francisco Water Quality Control Board’s Environmental Screening Levels (ESLs) recommended for use for TPH only. All other COCs should be compared to DTSC Screening Levels (SLs) or if not available, EPA Regional Screening Levels (RSLs). ii. Residential “ESLs” and Commercial “ESLs” should be replaced with “DTSC Commercial SLs” and “DTSC Residential SLs” from HHRA Note 3. While the DTSC SLs may be used in these rows, the use of “ESL” is not clear nor supported. iii. 0.03 Attenuation Factor (AF) should be included. Two rows: “DTSC Commercial SL with 0.03 AF” and “DTSC Residential SL with 0.03 AF” should be included in Table 5. It should be clear to the reader that the 0.03 AF was applied as a default. Based on the legend, application of the 0.03 AF to SLs could not be confirmed. c. Use of 0.001 AF: HERO agrees with the response that the 0.001 AF should not be applied. d. Vapor Intrusion Mitigation System (VIMS): A soil vapor barrier is the proposed remedy in the PEA Report. HERO notes that a soil vapor barrier is a type of “VIMS”. HERO recommends verifying empirically the efficacy of the barrier to ensure that building	Tables and text have been revised as requested.

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		occupants will not be exposed to COCs from vapor intrusion. For example, verification via incorporating sub-slab vapor probes into the future soil vapor barrier design for future performance monitoring of the barrier (as previously recommended in the June 22, 2023 HERO memo). Indoor air sampling should occur in the future if sub-slab data are above SLs. HERO also still recommends that the soil vapor barrier design (including sub-slab vapor probe ports) is evaluated by DTSC's Engineering and Special Projects Office (ESPO).	
NEW HERO COMMENTS			
1		<u>Information Missing from Tables 7B – 7G:</u> Information (first column, chemical names) appears to be missing from Tables 7B – 7G. HERO cannot confirm which chemicals correspond to the maximum concentrations and risk. Please update these tables so the chemical names are included.	Tables have been updated with the chemical names.
2		<u>Site Mitigation Recommendations for OCPs:</u> Please present a figure showing all OCP exceedances (data and depths) so that HERO can confirm the appropriate locations are proposed for excavation. HERO agrees with the proposal for confirmation sampling at the bottom of the excavation pit and four side wall sampling. Side wall sampling should be taken at the same depth that the exceedances were identified.	Text has been revised to state that confirmation soil samples will be collected from the depths of previously detected exceedances as requested.
3		<u>Date of RTCs and PEA Report:</u> HERO assumes the June 6, 2023 date is referencing a previous draft. HERO recommends revising the documents with the August 17, 2023 (revision date) so as not to confuse this revision with a past revision.	New report will be dated with updated print date.