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Secretary for
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Department of Toxic Substances Control

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May 3, 2016

Mr. Bruce Bailey
Member/Advisor
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Riverside, CA 92519

RESPONSE TO EMAIL INQUIRIES REGARDING RIVERSIDE AGRICULTURAL PARK SITE, 7020 CREST AVENUE, RIVERSIDE, RIVERSIDE COUNTY

Dear Mr. Bailey:

The Department of Toxic Substances Control (DTSC) received several emails, and a complaint transmitted via EnviroStor, sent by you on behalf of the Center for Community Action and Environmental Justice (CCAEJ), which contained questions and comments regarding the Riverside Agricultural Park (Site). A response to your questions and comments is provided herein:

Environmental Justice/Public Participation Related Inquiries

DTSC is committed to working with the community to provide everyone involved with transparency on our cleanup and public participation processes, using the best available science and data to identify recommended actions and remedies, and working with other government agency partners to provide the information and resources needed to be protective of human health and the environment for the Site residents and surrounding community. According to the CalEnviroScreen tool, the Site neighborhood scores in the top 10% of impacted communities in California. CalEnviroScreen is a screening methodology developed by CalEPA that can be used to help identify California communities that are disproportionately burdened by multiple sources of pollution. DTSC is in the process of developing formal guidelines and policies on reviewing Environmental Justice communities that will include the use of screening tools like CalEnviroScreen, but those formal processes and guidelines have not been established yet.

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In addition to Public Participation activities described below, throughout the confirmation sampling activities of 2015 and 2016, DTSC has been responsive to meeting with community residents and CCAEJ regarding the process. DTSC will be establishing an Off-Site Community Work Group, with the first meeting scheduled for early June, in order to improve dialogue and communication with the surrounding community on its evaluation of potential off-site impacts. On a programmatic level, DTSC has contracted with the UC Davis Extension Collaboration Center to produce a set of recommendations to enhance and modernize our public outreach and engagement strategies with interested and impacted communities. The UC Davis Extension Collaboration Center has been interviewing community members and stakeholders, convening small groups, and hosting public forums to gather ideas and input from the public in support of this effort. The preliminary recommendations gathered so far have been compiled into a report which is available for public review at the following link: https://www.dtsc.ca.gov/GetInvolved/PublicParticipation/upload/EnhancingPP_SummRept.pdf.

DTSC has conducted, and continues to conduct public participation activities to maintain communication with the public and interested parties. DTSC activities have been routinely posted on its Envirostor website to create a transparent process, and for immediate public access to project related information. Public participation activities, conducted in accordance with H&S Code 25395.96, include but have not been limited to the following:

a) Fact Sheet regarding the cleanup proposal, dates for a comment period, and notice of a public meeting was published in local newspapers and mailed out to residents in December 2005;
b) Public comment period for the Draft Response Plan started on December 22, 2005 and ended on January 31, 2005;
c) Draft Response Plan made available at the La Sierra Library, the City of Riverside Planning Department and the DTSC File Room in Cypress;
d) A public meeting and open house was held on January 25, 2006 at the Arlanza Elementary School;
e) Responses to comments were published on August 4, 2006;
f) Work notice mailed to residents around April 2009 notifying of the first phase of cleanup;
g) Work notice mailed to residents in May 2013 notifying of the second phase of cleanup;
h) Letter to resident who expressed concerns regarding dust in September 2013;
i) Approximately seventy (70) dust monitoring reports posted to EnviroStor on a routine basis to keep the community informed during Phase 2 cleanup implementation in 2013;
j) Approximately twenty (20) DTSC site visit/oversight reports posted to EnviroStor during Phase 2 cleanup implementation in 2013;

k) Letter to resident responding to a request for details on zoning information, information on how to report illnesses to the Riverside County Disease Control Branch, and detailed instructions on how to use EnviroStor in September 2014;
l) Community Update regarding completion of cleanup mailed to residents in November 2014;
m) Community Update regarding additional sampling mailed to residents in September 2015;
n) Community Update regarding results of additional sampling mailed to residents in November 2015;
o) Letter to approximately one hundred (100) residents living in the immediate vicinity of the Riverside Ag Park requesting feedback on their preferred method of communication mailed in January 2016;
p) Community Update regarding additional sampling and cleanup mailed to residents in March 2016;
q) Cleanup plan was made available for public review from March 7, 2016 through March 21, 2016 at the Arlanza Public Library and on EnviroStor; and,
r) DTSC field oversight reports posted routinely to EnviroStor since March 22, 2016.

Signage Question

With respect to your question regarding the requirement for posting signs pursuant to Health and Safety Code (H&SC) Section 25359.5, DTSC does not believe that this section is applicable to the Site. H&SC Section 25359.5(a)(2) indicates that DTSC shall fence and post a site if, among other things, "The site poses a public health risk if human contact is made with the hazardous waste or the surrounding contaminated area." In the case of Riverside Agricultural Park, we have determined that the Site does not pose a significant risk to public health if human contact is made based on its current condition (vacant property). An evaluation of the potential cancer risk associated with the Site based on the current conditions indicates that the risk to potential on-Site and off-Site receptors is below the threshold of significance (1E-6 excess cancer risk). In addition, the non-cancer hazard is also below the threshold of significance (Hazard Index of 1.0).

The scenarios evaluated included an on-Site construction/maintenance worker, on-Site trespasser, Santa Ana River recreational trail user, and a resident living around the Site.

The Site is fenced and gated to control access, and a security guard is stationed at the Site to deter trespassing. Personnel working at the Site are health and safety trained, and when conducting intrusive subsurface activities would wear personal protective equipment as appropriate.

PCB Congener Questions

Several questions were raised in emails dated April 18 and 19, 2016. DTSC has grouped its responses according to the following topics:

a) The need for a health risk assessment for the dioxin and dioxin-like compounds;
b) The toxicity of dioxin-like PCB congeners;
c) The presence of 1,4-dioxane at the Rohr property; and
d) Clarification regarding Site groundwater information.

Health risk assessment for dioxin and dioxin-like compounds
Regarding the need for a health risk assessment for dioxin and dioxin-like compounds, 115 soil samples were analyzed for dioxins/furans throughout the various project phases to guide the cleanup and to support the risk evaluations. The following is a summary table listing dioxins/furans data collected from the Site and its purpose/use:

Time Period	No. Samples	TEQ Range (pg/g or ppt)	Purpose/Use
Pre-Phase1 (Frey, 2006)	25	0.462 – 5,270	Data used for statistical analysis to correlate PCBs and dioxin occurrence.
Phase 1 (TRC, 2010)	31	0.332 – 8,373	Data used to guide Phase1 cleanup; several areas > screening level (4.5 ppt) to be addressed in Phase 2 cleanup.
Phase 2 (TRC, 2014)	50	0.277 – 465.2	Data used to guide Phase 2 cleanup (all areas > 4.5 ppt were removed); remaining data used in the post-cleanup risk assessment (TRC, 2014).
Post-Phase 2 (DTSC, 2015)	9	0 – 1.04	Data used to verify Phase 2 cleanup and in the health risk evaluation (DTSC, 2015).

Sources:

Frey, 2006: Revised Response Plan, Excavation of Soils Containing PCBs (http://www.envirostor.dtsc.ca.gov/public/final_documents2.asp?global_id=33490087&doc_id=6009866)
TRC, 2010: Phase 1 Response Plan Implementation Report (http://www.envirostor.dtsc.ca.gov/public/final_documents2.asp?global_id=33490087&doc_id=60194161)
TRC, 2014: Phase 2 Response Plan Implementation Report (http://www.envirostor.dtsc.ca.gov/public/final_documents2.asp?global_id=33490087&doc_id=60194163)
DTSC, 2015: Limited Soil Confirmation Evaluation (http://www.envirostor.dtsc.ca.gov/regulators/deliverable_documents/5470245182/Riverside%20Ag%20Sampling%20Report%20Final%20Nov%202%202015.pdf)

In summary, a statistical study using co-located PCB and dioxin data (Frey 2006) showed a strong correlation between the presence of PCBs and dioxins/furans within PCB-impacted areas. This study along with the sampling data collected during the Phase 1 and Phase 2 cleanup (TRC, 2010; TRC, 2014) was relied upon to confirm that all known dioxin concentrations above the screening level of 4.5 pg/g (or ppt) were removed from the property. In addition, the dioxins/furans data from the Phase 2 final

confirmation sampling and the 2015 re-sampling by DTSC were evaluated in two human health risk assessments (TRC, 2014; DTSC, 2015) in accordance with the USEPA and Cal/EPA guidance. The risk assessments indicated that PCBs were the primary risk driver, and the total cancer risk and non-cancer hazards associated with other Site-related chemicals of concern including dioxins/furans were not significant.

Toxicity of dioxin-like PCB congeners
A total of 11 soil samples were collected and analyzed for the 209 PCB congeners by EPA Method 1668 during the November 2015 resampling event. These samples were collected from areas with known PCB impacts, to verify the presence of Aroclors using EPA Method 8082 for sample analysis. EPA Method 8082 is a standard method for analyzing environmental samples to determine PCB concentrations, and the resulting data is regularly used for health risk assessment. USEPA and DTSC have reviewed the data sets and found the distribution of detected congeners and Aroclors in the samples to be consistent with each other. In addition, all congener concentrations were converted to the total dioxin TEQ concentrations (ranging from 5.5 to 17.5 pg/g), and they fall within the acceptable risk range used by both agencies. Please note that the removal of soil containing dioxins/furans above the screening level of 4.5 pg/g for the Phase 1 and Phase 2 cleanup was highly conservative. For comparison, dioxin background concentrations in California urban soils range from 7 to 20 pg/g, and DTSC recommends a residential remedial goal of 50 pg/g for dioxins and dioxin-like compounds in its Human Health Risk Assessment (HHRA) Note 2 (http://www.dtsc.ca.gov/AssessingRisk/upload/HHRA_Note2_dioxin-2.pdf). Based on its evaluation of the data, and in consultation with USEPA, DTSC considers the use of PCB Aroclor data for cleanup purposes to be adequate, and additional PCB congener analysis is not necessary.

1,4 Dioxane
The analytical program conducted as part of the groundwater investigation in 2005 included groundwater analyses for volatile organic compounds (VOCs) as well as semi-volatile organic compounds (SVOCs). The results of the groundwater analysis indicated that VOCs and SVOCs were not detected. The compound 1,4-dioxane was historically used primarily as a stabilizer for chlorinated solvents and has been associated with 1,1,1-trichloroethane (1,1,1-TCA). Although 1,4-dioxane was not specifically included in the analytical program it would not be expected to be present in the absence of other VOCs.

Clarification Regarding Site Groundwater Information
The flow of groundwater in decomposed granitic bedrock is defined by the relative density of the in place rock material. The Site specific bedrock conditions at the Riverside Agricultural Park Site are such that all groundwater passing beneath the Site continues north only at the northwest corner of the Site due to a bedrock high which

extends from the east beyond the Site boundary to an area at the northwest corner of the Site where a natural drainage exists. The locations chosen for the onsite groundwater wells coincide with the highest concentrations (historically) of PCB impacted soil, and represent areas where groundwater would most likely be impacted by contamination, if present. Based upon the available documentation from the Regional Water Quality Control Board (RWQCB), a single saturated groundwater zone exists below the Rohr facility. However, due to Site-specific investigation needs, two zones are monitored (approximately 10-55 feet below ground surface [bgs], and deeper than 55 feet bgs). Apparently, two distinct water bearing zones are not present below the Rohr facility.

Air Monitoring Questions

DTSC has requested that the South Coast Air Quality Management District (SCAQMD) review the 2006 Air Monitoring Plan to provide its opinion as to the adequacy of the plan, and to provide suggestions, as necessary. The objectives of the 2006 Air Monitoring Plan are to set safety thresholds for dust control, so as not to impact the surrounding community during remedial activities that will disturb PCB impacted soils on the Site. SCAQMD is continuing with its review, and DTSC will provide responses to questions raised in your emails regarding air monitoring upon final completion of the SCAQMD review and resolution of their comments.

If you have any further questions, or would like to meet to discuss DTSC's response, please contact me at (714) 484-5459 or peter.garcia@dtsc.ca.gov.

Sincerely,

Peter Garcia
Branch Chief
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cc: See next page.

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