Department of Toxic Substances Control

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VIA ELECTRONIC TRANSMITTAL

November 10, 2016

Ms. Yvonne Meeks
Topock Project Manager
Pacific Gas and Electric Company
4325 South Higuera Street
San Luis Obispo, California 93401

TOPOCK SOIL RCRA FACILITY INVESTIGATION/REMEDIAL INVESTIGATION (RFI/RI) – PLAN TO ADDRESS DATA GAPS IDENTIFIED DURING WORK PLAN IMPLEMENTATION (DATA GAP WORK PLAN 3 [DGWP-3]), PACIFIC GAS AND ELECTRIC COMPANY, TOPOCK COMPRESSOR STATION, NEEDLES, CALIFORNIA (EPA ID NO. CAT080011729)

Dear Ms. Meeks:

The Department of Toxic Substances Control (DTSC) has completed its evaluation of the *"Topock Soil RFI/RI – Plan to Address Data Gaps Identified During Work Plan Implementation (DGWP-3)"*, (data gap workplan) for the Pacific Gas & Electric (PG&E) Topock Compressor Station Project. The data gap workplan was prepared by CH2M for PG&E and is dated September 21, 2016. The document was distributed to the Tribes and stakeholders on September 21, 2016 for review and comment. As part of our evaluation, the DTSC reviewed and considered comments received from the Fort Mojave Indian Tribe (FMIT), the Cocopah Indian Tribe, and the Hualapai Indian Tribe, all dated October 27, 2016. A web-based meeting was held on October 5, 2016 to provide the Tribes and stakeholders an overview of the data gap workplan, and a site walk was conducted to view sample locations on October 20, 2016. An additional site walk was performed by PG&E on October 21, 2016 to select Tribal representatives that were not available for the October 20, 2016 site walk.

Below are DTSC's responses to comments received from the Tribes along with direction to PG&E.

- The Tribes provided comments related to impacts associated with collecting additional samples from previously sampled locations, and also the use of mechanical equipment to re-sample locations that were previously sampled using hand tools. The August 2015 Final Soil Investigation Environmental Impact Report (Soil FEIR) properly described the main project objective in Section 1.3.2 and Section 3.4, which is "to gather sufficient soil samples to be able to reliably characterize the nature and extent of soil and sediment contamination within the Project Site." Furthermore, Section 3.5 of the Soil FEIR properly described a range of sampling methods and considered multiple mobilizations of workers, sampling equipment and support trucks during the soil investigation project. Furthermore, for impact analysis (e.g. Section 4.4.3.3 Impact Analysis of Cultural Resources, and Section 4.7.3.3 Impact Analysis of Noise) the Soil FEIR properly considered the range of sampling method and equipment to be used during drilling and excavation of soil borings.

  As described in the data gap workplan, an attempt will be made to collect deeper samples from 23 previously sampled locations to delineate the vertical extent of contamination. It is anticipated that the locations will be sampled using a hydrovac (and potentially hand tools for those locations proposed to be sampled at 2-feet below grade) with the exception of one boring in SWMU 6 (located inside the station) that will be attempted with a drill rig, if feasible. Depending on the field conditions encountered, most of the locations will be sampled at various depths, including 2, 5 and 9 feet, with two proposed to be sampled at 14 feet below ground surface. The Soil FEIR described sampling at different locations using different sampling methods, with the intent of using the least intrusive method feasible depending on the conditions encountered at the specific location. For deeper samples, the feasible methods are limited to using mechanical equipment since hand tools are restricted to sampling only shallow depths. Additionally, Section 3.5.2.9 of the Soil FEIR indicates that while the full extent of potential effects on the environment from the proposed collection methods were assessed, "efforts will be made to employ the least invasive method(s) feasible". Phasing work ensures that the least invasive measures are employed.

- The Tribes commented that the data gap workplan lacks sufficient detail and rationale for the proposed sample locations, and that the soil screening levels used in the evaluation of the data should be provided. The description/rationale for each of the proposed sample location is identified in the data gap workplan and is similar in format to the description/rationale in the soil RFI/RI workplan. Additional information was also provided during the October 5, 2016 meeting and October 20, 2016 site walk. To enable the Tribes and stakeholders the ability to perform independent evaluations, the existing soil data set and sample location map were previously transmitted by PG&E in June and September 2016 to the Tribes and stakeholders via electronic mail. Also, as previously provided, the screening levels are identified in the soil RFI/RI workplan and were also

included in the soil data set (soil screening tab) submitted by PG&E to the Tribes and stakeholders.

- The Cocopah and Hualapai Indian Tribes requested that PG&E provide the soil sample location coordinates and figures showing adequate detail and quality be provided to assist in the Tribes evaluation of the data. Additionally, the Tribes requested that an index page be provided to assist in the proper printing of the figures. DTSC believes that the figures provided in the work plan are adequate to perform the proposed scope of work. However, for future submittals, DTSC requests that PG&E work closely with the requesting Tribes to provide figures, and other pertinent information that will assist the Tribes in evaluating the spatial information relevant to the project.

- The FMIT commented that reasonable alternatives to the proposed sampling should be considered, such as using risk assessment tools, modeling, mapping concentration trends, and deferring to remediation confirmation sampling. Consistent with the same data gap evaluation process utilized in the development of the soil investigation workplan, DTSC, the Department of Interior (DOI), and PG&E evaluated various alternatives and took great effort to minimize the number of additional samples. As explained by PG&E during the October 5, 2016 web-based meeting, October 19, 2016 CWG, and the October 20, 2016 field walk, a number of data gaps were identified, but are deferred for later consideration. The purpose of which is to minimize the number of samples and intrusion to the landscape. However, some of these data gaps may still need to be fulfilled at a later date if ambiguities exist for cleanup decisions. Likewise, some of these deferred data gaps could be addressed during the corrective measures study/remedy selection phase of the project if cleanup is necessary. Furthermore, the agencies are also implementing other options to minimize intrusion by re-analyzing previously collected samples that are archived at the laboratory. DTSC believes that the proposed new sampling locations represent the minimum data collection efforts necessary to address uncertainties in understanding the nature and extent of contamination but allow the process to move forward with evaluating risk and the potential need for cleanup. It is noteworthy that DTSC would normally require significantly more data collection efforts on other projects to characterize the nature and extent of site contamination.

- The FMIT commented on using characterization data to determine background range for dioxins in soil and that some of the detected concentrations may be due to background. DTSC does not disagree that it might be possible that some dioxins may be attributable to background levels, and that background levels could be useful as an additional screening tool to characterize dioxin contamination; however, the significantly elevated levels of dioxin, when compared to ecological and human health risk screening levels, suggests that the elevated levels of dioxins encountered at certain portions of the site can be attributed to historic site activities. DTSC hopes that the proposed additional sampling will provide the needed information to assist in characterizing the nature and extent of the dioxins/furans contamination at the site.

- The FMIT commented that sufficient data exists on the decreasing concentrations of contaminants in the lower stretch of Bat Cave Wash and the known occurrence of regular scouring and deposition of sediments in the wash to perform risk calculations. FMIT representatives also previously suggested that existing data can be used to perform risk calculations for the site. DTSC does not believe that there is sufficient understanding of contaminant sources and distribution to properly perform a meaningful risk evaluation for the site. Such is the case with dioxins and furans, which are often risk drivers in a risk assessment. If the previous limited data was used to perform a risk assessment, these contaminants would have potentially been inadequately and improperly dismissed. In section 2.3 of the Soil FEIR, DTSC appropriately specified the necessary corrective action process which distinctively separated the RCRA Facility Investigation/ Remedial Investigation (RFI/RI) from the risk assessment process, where the “RFI/RI is an in-depth investigation designed to gather data needed to determine the nature and extent of contamination at a site.”

  The recent soil sampling event and the additional data gathering efforts proposed in the data gap workplan will bring the site closer to attaining a sufficient data set to perform a risk evaluation and, if needed, evaluation of potential remedial alternatives. DTSC is concerned that evaluating risk with inadequate site characterization will either result in an underestimation of risk (unknowingly leaving unacceptable contamination in-place) or over-estimating risk (potentially performing excessive remedial actions). DTSC is aware that the Tribes and their technical experts understand the delicate balance that is necessary in the site cleanup process, particularly in a sensitive environment such as Topock.

- The FMIT provided sample location-specific comments and recommendations, including moving and deleting proposed sample locations based on evaluation of existing data, using topographical restrictions as physical barriers, evaluating concentration trends, assuming removal will take place and deferral of data collection during confirmation sampling. Additionally, the FMIT noted that exact sample locations were not marked in the field during the October 20 & 21, site walks. The recommendations listed above were utilized and considered by DTSC, DOI and PGE in the evaluation of data gaps and in the development of the data gap workplan. DTSC appreciates the recommendations on the sample locations and will ask PG&E to review them to determine if adjustments are warranted. However, as previously mentioned, DTSC, DOI and PG&E spent significant efforts to minimize the number of proposed sample locations. The current proposal in the DGWP-3 is the bare minimum data collection efforts that we hope may provide sufficient information to enable the project to move forward. While field adjustments may occur during the sample collection activities, it is unlikely that any of the proposed sample locations will be removed, unless field conditions make them infeasible. It is noted that, as PG&E explained during the October 20, 2016 site walk, the exact sample locations were not marked and only the general locations were identified using temporary orange disks so as to avoid placing more intrusive semi-permanent

markers on the ground for the purpose of the site walk. DTSC believes that the sample locations are adequately depicted on the figures in the data gap workplan. The actual sample locations are expected to be in the general vicinity depicted in the data gap workplan figures and will conform with mitigation measure requirements prior to and during sample collection. Finally, as also explained by PG&E during the October 20, 2016 site walk, some of the proposed locations that are on slopes were marked by temporary orange disks at nearby accessible areas (near the road or path) and the actual proposed location on the slopes were pointed-out by PG&E to the site walk participants, to avoid having to scramble along slopes during the site walk.

Based on consideration and our evaluation of the above items, DTSC approves the proposed work described in the data gap workplan. DTSC request that PG&E provide a detailed implementation schedule as soon as possible for oversight planning. PG&E must ensure that all activities are conducted in accordance with the mitigation measures adopted as part of the August 2015 Soil FEIR.

If you have any questions regarding this letter, please feel free to contact me at (714) 484-5423.

Sincerely,

Karen Baker

Karen Baker, CHG, CEG
Branch Chief - Geological Services Brach
Department of Toxic Substances Control

cc: PG&E Topock Consultative Workgroup Members
PG&E Topock Geo/Hydro Technical Workgroup Members
Tribal Representatives in PG&E Project Contact List
Technical Review Committee Contact List