



United States Department of the Interior

BUREAU OF LAND MANAGEMENT
FISH AND WILDLIFE SERVICE
BUREAU OF RECLAMATION



ELECTRONIC SUBMISSION

September 22, 2017

Curt Russell
Pacific Gas & Electric Company
Topock Project Manager
P.O. Box 337, Needles, CA 92363

Subject: Topock Soil RFI/RI - Ambient/Background Study of Dioxins and Furans at the Pacific Gas and Electric Company (PG&E) Topock Compressor Station, Needles, California

Dear Mr. Russell

The United States Department of the Interior (DOI), on behalf of the Bureau of Land Management (BLM), the U.S. Fish and Wildlife Service, and the Bureau of Reclamation (collectively referred to as "DOI"), has completed the review of the *Ambient/Background Study of Dioxins and Furans at the Pacific Gas and Electric Company Topock Compressor Station, Needles, California* dated July 20, 2017.

The ambient background study was done in accordance with the approved work plan dated March 2, 2017. The purpose of this study was to determine ambient/anthropogenic concentrations of dioxin and furan compounds in soil in areas not expected to be impacted by PG&E Topock Compressor Station activities. Soil samples were also analyzed for polycyclic aromatic hydrocarbons (PAHs) and the analytical results were used to determine benzo(a)pyrene equivalent (B[a]P) values.

DOI provided the draft technical memorandum to the Consultative Work Group members on July 20, 2017. Comments were received from the California Department of Toxic Substances Control (DTSC) on August 18, 2017, from the Fort Mojave Indian Tribe (FMIT) on August 21, 2017, and from the Hualapai Tribe on August 19, 2017. DOI considered all the comments in providing our direction to PG&E. The aggregated comments are as follows:

1. Table 1 of the draft technical memorandum identifies BKG 24, 25, 26, 31 and 47 as sample locations are near historic waste deposits (former dumps). While it was necessary to sample these locations to fully understand other potential sources of contamination, these areas should be considered in calculating ambient conditions. PG&E shall recalculate the ambient concentrations and toxic equivalent (TEQ) values for human/mammal and avian receptors for dioxins and furans, and (B[a]P) equivalent for PAHs, excluding the BKG 24, 25, 26, 31 and 47 samples. All other data shall be used in the evaluation.
2. The FMIT noted the previous background study identified that the statistical differences between background values within different lithologic soil units were not observed and questioned whether this applied to the dioxins and furans study. As specified in the original work plan, the report should clarify that the presence of dioxins and furans were evaluated in surface soils only and that lithology would not likely influence the results.
3. DTSC requested that the technical memorandum title be changed to reflect that the terminology “background” is considered to be representative of natural or native soil conditions while the study included the selection of sampling locations with anthropogenic sources of dioxins and furans. Please revise the title and language to identify this study as an “ambient study”. Additionally, revise the term “background threshold value” to “ambient threshold value” throughout the document.
4. DTSC notes that pages 2 and 3 discuss the sample collection rationale and references that sample locations were identified outside of wash and arroyo areas where surface soils can be frequently disturbed. The inference is that the study only applies to areas outside of washes. The technical memorandum should discuss any implications and uncertainties for use of the study in washes and arroyos.
5. The document refers to the previous soil background study as the “previous ambient/ background study”. The previous study was focused on background concentrations and should be referred to appropriately as the “Soil Background Investigation Technical Memorandum”. This is the name of the document on file.
6. The summary section on page 8 lists threshold values for TEQ bird and mammals that do not match those posted in Table 9(A). Revise those values accordingly.
7. DTSC identified the need to clarify the citations referenced for calculating the TEQ values for receptor. The DTSC/HERO 2017 reference does not provide toxicity equivalency factors (TEFs) for ecological receptors (avian) and explicitly states that “the soil remedial goals derived herein are not necessarily protective of ecological organisms. Avian TEFs found in Van den Berg et al., 1998, should be used in the analysis and cited as the TEF reference.

8. DTSC also noted that (B[a]P) equivalents are based on a human health note utilizing a cancer endpoint, inappropriate for ecological receptors. The US Environmental Protection Agency (US EPA) Ecological Soil Screening Levels (Eco SSL) process provides an alternate approach that divides the PAHs into two classes; low molecular weight and high molecular weight molecules. Please see the reference document for US EPA Eco SSLs at https://www.epa.gov/sites/production/files/2015-09/documents/eco-ssl_pah.pdf. As prescribed by DTSC, the sum of the low molecular weight PAHs and the sum of the high molecular weight PAHs shall each be reported for each sample location.

PG&E shall expedite the revision of the dioxins and furans ambient study to minimize impacts to the risk assessment schedule and submit it for approval by DOI. If you have any questions, please contact me at (602) 417-9578.

Sincerely,



Pamela S. Innis
DOI Topock Remedial Project Manager

Cc: PG&E Topock Consultative Workgroup (CWG) Members