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October 9, 2006

Mr. John Earle
Refuge Manager
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P.O. Box 3009
317 Mesquite Ave.
Needles, CA 92363

Subject: **PG&E Topock Remediation Site**
Request for Approval to Implement the Upland In Situ Pilot Test and Supporting Activities

Dear Mr. Earle:

This letter serves as a formal request for approval to implement the *In Situ Hexavalent Chromium Reduction Pilot Test Work Plan – Upland Plume Treatment* (Upland In Situ Pilot Test Work Plan) on the United States Fish and Wildlife Service (USFWS) Havasu National Wildlife Refuge (HNWR) near the Pacific Gas and Electric Company (PG&E) Topock Compressor Station. PG&E originally sent the Upland In Situ Pilot Test Work Plan to the HWNR on August 4, 2006. Since that time, the work plan has undergone minor revisions in response to technical comments by the Department of Toxic Substances Control (DTSC), and we have copied you on those revisions. Per DTSC's email of October 6, DTSC now has determined that the work plan is adequate and has sufficient detail for PG&E to pursue the necessary permits and approvals for this proposed activity.

This letter also requests approval to implement related and supporting activities at the pilot test location. As part of development of the Upland In Situ Pilot Test Work Plan, PG&E evaluated the value of using nearby existing wells (PGE-6 and PGE-7) for the pilot study, and that evaluation suggested that certain activities should be performed prior to or concurrent with the pilot study. Specifically, PG&E requests approval to implement the following activities:

- Decommissioning of existing well PGE-6
- Retrofitting of existing well PGE-7
- Aquifer testing at existing wells MW-48, PGE-7 and PGE-8
- Other activities as described in this letter

These supporting activities are small in scope compared to the Upland In Situ Pilot Test, and will not result in new wells, structures or facilities. Your approval of these supporting activities now will minimize the number of equipment mobilizations to the area, as these activities would be performed concurrent with the pilot test construction activities. Importantly, sequencing the work in this manner will result in more reliable data from the pilot test, and

will avoid delaying the aquifer testing until after the pilot test is complete, minimizing schedule impacts to groundwater remediation. These activities are described in more detail below; work plans are currently in process.

Proposed Activities

The Upland In Situ Pilot Test is intended to provide site-specific data regarding the effectiveness of in situ treatment in the upland portions of the project site; these data would be used to develop or refine the site-wide remedy program. The upland in situ pilot test is proposed to be located on the "MW-24 bench," a previously-graded flat-lying area of approximately 0.25 acre located directly north of the Topock Compressor Station, and immediately south of Interstate 40. The proposed pilot test will consist of the following activities:

- Installation of two vertical circulation wells and three monitoring well clusters
- Well development and pre-injection sampling
- Reagent injection required for hexavalent chromium in situ treatment
- Performance of a tracer test concurrent with reagent injection to better understand flow conditions
- Groundwater monitoring and sampling

Further details regarding the proposed in situ technology, well drilling activities, well locations, site access, required materials, waste management, and groundwater monitoring and sampling are provided in the Upland In Situ Pilot Test Work Plan, enclosed.

The decommissioning of well PGE-6, located on the MW-24 bench in the immediate vicinity of the pilot test area, is proposed for this time because there is a potential for this deteriorating mid-1960s era well to act as a conduit for groundwater to flow vertically and interfere with the pilot test. Field work involves filling the well with inert materials (clean sand or gravel in the bottom portion of the well and sand-cement grout in upper portion of well), and surface excavation around the wellhead for removal of the uppermost 5 feet of well casing. Details on the backfill materials, casing removal, grout requirements, and waste management are provided in the *PGE-6 Decommissioning Work Plan*, dated February 28, 2006, currently under review by DTSC.

Useful and timely well testing and retrofitting is proposed at three existing wells. Specific equipment, pumping procedures, and data collection activities will be described in a work plan currently under preparation. Planned activities include:

- Retrofitting PGE-7, another mid-60s era well, located at the southern end of the MW-24 bench. Evaluation showed that this well, properly retrofitted, could potentially be useful for monitoring and as such, would avoid having to install a new well in the future. Field work includes performing downhole tests including a flow meter survey and/or spinner logging to evaluate vertical hydraulic gradients, and aquifer testing at PGE-7 to further characterize the hydraulic properties of the bedrock.
- Aquifer testing at MW-48 to further characterize hydraulic properties of the bedrock.

- Aquifer testing at PGE-8 to further characterize hydraulic properties of the bedrock. PGE-8 is located on PG&E property; however, as part of the aquifer testing at PGE-8, water level data are anticipated to be collected at wells on HNWR, such as MW-24BR, PGE-7 and MW-48.

Establishment of an electrical connection to the MW-24 bench is required to power the two in situ pilot test recirculation wells. Power will be provided from an existing Needles Electric power pole located near the northern edge of the MW-24 bench, very close to the pilot test area. Connection will require installation of a meter at the power pole and trenching to install a temporary power line from the pole to the recirculation well heads. In addition, because buried gas pipelines cross PG&E and HNWR property just outside the north gate of the Compressor Station, an earthen berm will need to be placed over the top of these pipelines to allow the safe passage of heavy vehicles across them.

PG&E will conduct all field activities in a manner that protects and avoids impacts to cultural and natural resources. Pre-construction surveys for biological and cultural resources will be conducted for avoidance or minimization of any project-related impacts. If deemed necessary based on the results of pre-construction surveys, biological and/or cultural resource monitors will be present during well installation and operational activities.

Schedule

The anticipated schedule for implementation of the upland in situ pilot test is provided in the Upland In Situ Pilot Test Work Plan. Construction activities include well installation (approximately 1 month) followed by installation of pilot test equipment (approximately 1 week). Following construction activities, the pilot test implementation activities include baseline sampling of the wells, followed by injection/recirculation of the organic substrate and groundwater monitoring for a period of approximately 8 months.

The anticipated schedule for decommissioning PGE-6 is approximately 3 days. Retrofitting and testing at PGE-7 are anticipated to require approximately 4 weeks. This work is planned to occur concurrently with the pilot test construction activities.

Approvals and Permits Required

The following is a summary of our understanding of requirements applicable to the Upland In Situ Pilot Test Work Plan, the PGE-6 decommissioning, PGE-7 retrofitting and testing, and associated activities:

- Authorization from the HNWR, subject to the following:
  - Consultation between HNWR and the USFWS pursuant to Section 7 of the Endangered Species Act (ESA), to ensure that project actions do not jeopardize listed species or destroy or adversely modify critical habitat.
  - Compliance with any applicable requirements of the National Historic Preservation Act.
- Approval from the DTSC, subject to compliance with the requirements of the California Environmental Quality Act (CEQA) and the DTSC/PG&E Corrective Action Consent Agreement.

- Issuance of well installation permits and a well destruction permit by San Bernardino County.
- Issuance of waste discharge requirements by the Colorado River Basin Regional Water Quality Control Board (required for pilot test operation only).

A programmatic Section 7 ESA consultation is currently underway which addresses future investigative and remediation work that is proceeding under the oversight of DTSC and the U.S. Department of the Interior, including the proposed pilot test and supplemental activities at existing wells. It is anticipated that this programmatic consultation will provide the necessary ESA compliance required for HNWR approval. Compliance with the National Historic Preservation Act may require additional consultation with the State Historic Preservation Office and local Native American tribes.

PG&E appreciates your consideration for approving the activities described in the *In Situ Hexavalent Chromium Reduction Pilot Test Work Plan – Upland Plume Treatment* and the *PGE-6 Decommissioning Work Plan*. As you previously requested, we have enclosed 20 copies of the work plan for use in consultations.

Please contact me at (805) 234-2257 with any questions or concerns concerning this request.

Sincerely,

Julie Eakins for Yvonne Meeks

Yvonne Meeks
Topock Remediation Project Manager

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