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August 2, 2007

Aaron Yue  
California Department of Toxic Substances Control  
5796 Corporate Avenue  
Cypress, CA 90630

Kris Doebbler  
BLM WO-360D, Building 50  
Denver Federal Center  
Denver, CO 80225

Subject: Response to Additional DTSC Comments on the RCRA Facility  
Investigation/Remedial Investigation, Volume 1 – Site Background and History  
Report, Pacific Gas and Electric Company (PG&E), Topock Compressor Station,  
Needles, California (EPA ID NO. CAT080011729)

Dear Mr. Yue and Ms. Doebbler:

This letter transmits the revisions to the September 6, 2006 RCRA Facility Investigation/  
Remedial Investigation (RFI/RI), Volume 1 – Site Background and History Report, Pacific Gas  
and Electric Company (PG&E), Topock Compressor Station, Needles, California made pursuant  
to the comments in the Department of Toxic Substances Control's (DTSC's) July 18, 2007 e-mail  
and discussed in a July 24, 2007 conference call.

With one exception, the modifications to the September 6, 2006 RFI/RI, Volume 1 – Site  
Background and History Report are limited to the specific revisions identified in the June 29,  
2007 erratum package (in brown) and DTSC's July 18, 2007 e-mail (in green). In addition, one  
other change was made that consisted of adding Title 22 metals to the text in Section 4.2.9.2 to  
be consistent with Table 4-2. No additional changes have been made to the report.

After DTSC has approved the revisions identified herein, PG&E will re-issue the Final RFI/RI  
Volume 1 report with all revisions incorporated. We request your concurrence of the identified  
revisions by August 7, 2007; this would allow re-issuance of the Final RFI/RI Volume 1 report  
prior to the August 15, 2007 CWG meeting.

Please contact me at 805/234-2257 if you have any questions regarding the attached information  
or any other aspect of the RFI/RI activities.

Sincerely,

Yvonne Meeks

Enclosures

distributing fact sheets, maintaining a project website and site mailing list, holding public meetings, conducting site tours and other stakeholder briefings, and updating the Public Participation Plan and project information repositories.

### 1.4.1 Public Participation Resources

~~DTSC's~~ The Public Participation Plan for the project, ~~dated February 2007, is dated June 1998 and~~ is available in the information repositories or from DTSC (~~DTSC 1998 DTSC 2007a~~). ~~DTSC is currently updating this plan and the updated plan is due to be released in 2006.~~ DTSC has ~~also~~ prepared communication process documents with the Chemehuevi and Colorado River Indian tribes (DTSC 2007b and DTSC 2007c) and is also working with other tribes on communication protocols. DTSC ~~also~~ maintains local information repositories located in six Mojave Desert cities and tribal reservations. DTSC also maintains a project Web site, [www.dtsc-topock.com](http://www.dtsc-topock.com), which provides activity updates, project documents, locations of the information repositories, opportunities to join the site mailing list or provide comments to DTSC, and other related resources.

### 1.4.2 Stakeholder Involvement

Although DTSC is the lead agency and is responsible for making decisions with respect to RCRA corrective action activities, DTSC has been working closely with other state and federal regulators and key project stakeholders for many years. A key component of stakeholder involvement in the project is the Consultative Workgroup (CWG), convened by DTSC, which is comprised of over 15 federal, state, and other agencies who provide guidance on technical matters and project activities. Included in the CWG is the Arizona Department of Environmental Quality, with whom DTSC and PG&E coordinate public participation and outreach efforts in Arizona. DTSC coordinates public participation efforts with other stakeholders as appropriate. A full list of CWG members can be found on DTSC's Topock project Web site or in the Public Participation Plan referenced above.

Agency consultations for compliance with federal requirements such as the Section 106 of the National Historic Preservation Act and Section 7 of the Endangered Species Act are conducted separately and are the responsibility of the federal agencies.

## 1.5 Report Organization

This document is Volume I of the RFI/RI for the Topock Compressor Station (Final Site Background and History), intended to document the historical materials and waste management practices at the Topock Compressor Station and present a complete identification of potential areas for investigation based on the historical information. Characterization of the identified areas for investigation will be presented in Volumes 2 and 3 of the RFI.

Terms defined under RCRA that are used in this report and that correspond to terms defined under CERCLA are intended to be construed to include the CERCLA term. In particular, SWMUs and AOCs identified in this report shall be construed to be facilities where a release or threatened release of a hazardous substances has occurred, as defined under CERCLA. Additional requirements pertaining to a CERCLA remedial investigation report, if not adequately addressed in this report will be addressed in future documents.

In addition to sites that have been identified and formally designated as SWMUs and AOCs by USEPA (Kearny 1987) and by DTSC (DTSC 1996, 2001, 2006), two other potentially impacted areas have been identified in the vicinity of the Topock Compressor Station during review of historic facility information (see Table 4-3). These areas consist of an area where asbestos-covered piping may potentially have been buried east of the access road for the Old Evaporation Pond (referred to as the Potential Pipe Disposal Area), and the former 300B Pipeline Liquids Tank location.

Aerial photos were evaluated in conjunction with information gathered during site visits to determine if there were areas of white powdery residue that were not already identified. No additional areas of white powdery residue were found. If a white powdery substance is found at any of the units, PG&E will notify DTSC and conduct further investigation where necessary.

In summary, there are currently 10 SWMUs, and ~~19~~ 20 AOCs that have been formally designated at the Topock Compressor Station. Two additional potentially impacted units have been identified as the result of recent site reconnaissance activities. The SWMUs, AOCs and other areas were identified and formally designated at various points in the RCRA corrective action process at Topock. Detailed information regarding each SWMU, AOC, and other undesignated areas is provided in the following sections.

Constituents of potential concern (COPCs) identified for each unit are based on available information regarding historic activities at the unit and overall compressor station operations. Based on regulatory review, additional COPCs have been identified by DTSC at some units (DTSC 2006~~ba~~ and 2007e). These additional COPCs are described in the discussion of each SWMU, AOC, or unit. As appropriate, these additional COPCs will be addressed as part of the RFI/RI soil investigation program currently being developed. Tables 4-1, 4-2, and 4-3 also provide a summary of the description, constituents of potential concern, and other pertinent information concerning the SWMUs, AOCs, and other undesignated areas identified at the Topock Compressor Station.

## 4.1 SWMUs and AOCs Identified in the RCRA Facility Assessment and Corrective Action Consent Agreement

This section presents information regarding the SWMUs identified in the USEPA RFA (Kearny 1987) and the CACA (DTSC 1996). In the RFA, SWMUs were designated by units (e.g., Unit 4.1), while in the CACA, SWMUs are designated by SWMU (e.g., SWMU 1). As previously indicated, there is not a direct correlation between SWMU designations in the RFA and CACA.

### 4.1.1 SWMU 1– Former Percolation Bed

SWMU 1, the Former Percolation Bed, was located outside the facility fenceline in Bat Cave Wash as depicted in Figure 4-1. About half of SWMU 1 is located on PG&E property; the remainder of SWMU 1 is located on property owned by the HNWR and managed by the USFWS.

#### 4.1.6.2 Constituents of Potential Concern

The precipitation tank was clean closed by PG&E between November 1989 and March 1990, and a closure certification acceptance letter for this unit was issued by DTSC in 1995. Therefore, there are no current COPCs for this unit.

#### 4.1.7 SWMU 8 – Process Pump Tank

The process pump tank was part of the two-step cooling water blowdown treatment system, and was located within the facility fenceline on the southern end of lower yard (Figures 4-1 and 4-2).

##### 4.1.7.1 Description and History

The process pump tank consisted of a 1,500-gallon capacity steel holding tank about 8 feet high and 5.5 feet in diameter (PG&E 1982; Kearny 1987). The tank had an open top and was situated on a concrete pad.

The process pump tank was used as a temporary holding tank for wastewater discharged from the precipitation tank (SWMU 7; Unit 4.9). From May 1970 to December 1973 effluent was discharged primarily to injection well PGE-08 (SWMU 2); however, after Pond 1 (SWMU 10; Unit 4.11) was constructed in late 1971, it also received some of the discharged wastewater. From December 1973 to October 1987, the effluent was discharged to the old evaporation ponds (SWMU 10; Unit 4.11).

Chemical analysis data for wastewater held within the process pump tank are not available. No indication of a release was observed during a facility inspection performed as part of the RFA (Kearny 1987).

The process pump tank was removed from service along with the rest of the treatment system in October 1985. Closure of the treatment system was completed between December 1988 and March 1990. Physical removal of the process pump tank occurred during Phase 1 of the closure process between December 1988 and February 1989 (Mittelhauser 1990a). Laboratory data sheets are provided for this unit in Appendix C. In 1995, DTSC issued a closure certification acceptance letter for this unit (DTSC 1995). Additional details regarding the closure of the treatment system are presented in Section 5.0.

##### 4.1.7.2 Constituents of Potential Concern

The process pump tank was clean closed by PG&E between December 1988 and March 1990, and a closure certification acceptance letter for this unit was issued by DTSC in 1995. At the time of closure, no evaluation of organic constituents potentially present in the wastewater (as a result of treated water discharge from the OWS) was conducted. COPCs potentially associated with discharge of treated effluent from the OWS include TPH and PAHs. As discussed earlier, there is no information to suggest that significant amounts of solvents were used at Topock and any VOCs present in the wastewater that were released to the environment would have quickly evaporated due to the high temperatures typically encountered at the station. Therefore, the COPCs for soil associated with SWMU 8 consist of TPH and PAHs. DTSC also identified the following COPCs at this unit: VOCs, and all other SVOCs (in addition to PAHs) as COPCs at this unit (DTSC 2006ba). COPCs are anticipated to be limited to soil only.

the heavier-than-diesel range was detected; TPH-d and TPH-g were not detected. Based on the historical operations, PG&E has identified the following COPCs for this unit: Cr(T), copper, nickel, lead, zinc, Cr(VI), TPH, and PAHs as COPCs for this unit. DTSC also identified the following additional COPC for this unit: other Title 22 metals, VOCs, and all other SVOCs (in addition to PAHs), and pH as COPCs for this unit (DTSC 2006ba). COPCs are anticipated to be limited to soil only.

#### 4.1.11 Unit 4.4 – Oil/Water Separator

The former OWS (it has since been replaced with a new system) was identified by the USEPA in the RFA (Kearny 1987), but not subsequently designated as a SWMU or AOC by DTSC. The former OWS was part of the original oily water treatment system that operated until 1989 and was located adjacent to the oil/water holding tank (Unit 4.3) within the facility fenceline in the southern portion of the lower yard (Figures 4-1 and 4-2).

##### 4.1.11.1 Description and History

The former OWS was approximately 4.5 feet deep, 15 feet long, and 6 feet wide, and it was constructed of 6-inch thick concrete (Kearny 1987). The unit reportedly received oily water from the oil/water holding tank (Kearny 1987). The unit was equipped with an underflow weir to control discharges and a suction pump on the effluent end to collect and remove floating oil. The floating oil was transferred by flexible hose to a portable waste oil storage tank (Unit 4.5). Prior to 1964, treated water from the OWS was directed to the transfer sump prior to discharge to Bat Cave Wash. From 1964 to 1969, effluent from the OWS may have been directed to a treatment pond and processed along with the cooling water blowdown through the single-step chromium treatment system prior to discharge. From 1969 through October 1985, effluent from the OWS was routed to the chromate reduction tank and was processed along with the cooling water blowdown through the two-step chromium treatment system prior to being discharged. In November 1985, the chromate reduction tank was converted into a holding tank (Kearny 1987), and the discharge from the OWS was routed to either the holding tank or the transfer sump prior to discharge.

Chemical analysis data for wastewater processed through the OWS indicate that the wastewater contained 60 mg/L oil and grease (Brown and Caldwell 1986). Detectable concentrations of some metals including Cr(T), copper, and zinc were also present in the wastewater. No indication of a release was observed during a facility inspection performed as part of the RFA (Kearny 1987).

This OWS was closed and removed between November 1989 and March 1990 (Mittelhauser, 1990b). Laboratory data sheets are provided for this unit in Appendix C. Additional details regarding the closure of this unit are presented in Section 5.0.

##### 4.1.11.2 Constituents of Potential Concern

At the time of closure, only limited TPH analysis was conducted. Soil samples from beneath the OWS were analyzed only for TPH quantified as diesel. Limited soil removal was conducted, and residual concentrations ranged from ND to 18 mg/kg. However, TPH concentrations in the heavier-than-diesel range were not evaluated. Based on the historical operations, PG&E identified the COPCs for this unit include TPH-d, The other COPCs for this unit include Cr(VI), wear metals (Cr[T], copper, lead, nickel, and zinc), and PAHs as the

COPCs for this unit. DTSC also identified the following additional COPCs for this unit: all other Title 22 metals, VOCs, and all other SVOCs (in addition to PAHs) as COPCs for this unit (DTSC 2006ba, 2007f). COPCs are anticipated to be limited to soil only.

#### 4.1.12 Unit 4.5 – Portable Waste Oil Storage Tank

The portable waste oil storage tank was identified by the USEPA in the RFA (Kearny 1987), but not subsequently designated as a SWMU or AOC by DTSC. The portable waste oil storage tank was located within the facility fenceline in the southern portion of the lower yard adjacent to the OWS (Unit 4.4), as depicted in Figures 4-1 and 4-2.

##### 4.1.12.1 Description and History

The portable waste oil storage tanks consisted of an enclosed steel tank about 6 feet long and 2 feet in diameter mounted horizontally on a trailer (Kearny 1987). The tank was connected to a suction pump within the OWS with a flexible hose. The portable tank was stationed on a concrete pad that was bermed on three sides with a 6-inch high curb. The fourth side of the pad was left open to allow removal of the unit.

The tank was used to collect floating oil from the OWS. When the tank was full, it was transported to the east side of the facility and placed next to the stationary waste oil storage tank (Unit 4.6). Oil within the portable tank was then transferred to the stationary tank. Starting in 1975, oil within the stationary tank was periodically removed and initially sold for reuse and later transported offsite for recycling (PG&E 1980a; Riddle 2004).

The portable waste oil storage tank was removed from service in 1989. During the removal of the transfer sump (SWMU 9) and the OWS (Unit 4.4), the portable tank was used to temporarily hold waste oil removed from the sump and OWS. The waste oil was subsequently removed from the portable tank, and the tank was then transported offsite to Chemical Transportation in Wilmington (Mittelhauser 1990a). Laboratory data sheets are provided for this unit in Appendix C. No indication of a release associated with the portable waste oil storage tank was observed during a facility inspection performed as part of the RFA (Kearny 1987).

##### 4.1.12.2 Constituents of Potential Concern

The portable waste oil storage tank was closed and removed between November 1989 and March 1990 (Mittelhauser 1990b). At the time of closure, no evaluation of organic constituents was performed. COPCs potentially associated with incidental releases from the portable waste oil storage tank include TPH and PAHs. DTSC also identified VOCs as COPCs for this unit (DTSC 2006ba). ~~Therefore, the COPCs for soil associated with Unit 4.5 consist of TPH and PAHs.~~ COPCs are anticipated to be limited to soil.

#### 4.1.13 Unit 4.6 – Waste Oil Storage Tank

The waste oil storage tank was identified by the USEPA in the RFA (Kearny 1987), but not subsequently designated as a SWMU or AOC by DTSC. The waste oil storage tank is located within the facility fenceline in the eastern portion of the facility within the oil and fuel storage area (Figure 4-1).

#### 4.1.13.1 Description and History

This tank was installed during the construction of the facility in 1951. The tank is an enclosed vertical steel tank that is about 20 feet high and 8 feet in diameter, and has a capacity of 7,500 gallons. The tank is located within the oil and fuel storage area, which is equipped with secondary containment consisting of a concrete paved area about 20 feet wide and 100 feet long that is surrounded by a 2-foot-high concrete curb.

The waste oil storage tank is still in active service. Waste oil generated at the compressor station is accumulated in this tank for temporary storage. The contents of the tank are periodically removed and transported offsite for recycling (PG&E 1980a; Riddle 2004).

#### 4.1.13.2 Constituents of Potential Concern

The waste oil storage tank is still in active service, and there have been no known releases from this tank. Therefore, there are no COPCs for this unit.

### 4.1.14 AOC 1 – Area Around Percolation Bed

AOC 1 consists of the area that surrounds SWMU 1, the former percolation bed. AOC 1 is located outside the facility fenceline west of the compressor station within Bat Cave Wash (Figure 4-1).

#### 4.1.14.1 Description and History

The areal extent of AOC 1 has not been formally defined; however, by definition it is considered to consist of the floor of Bat Cave Wash in the area surrounding the location of the discharge area (SWMU 1). It also includes the floor of Bat Cave Wash from the discharge area to the railroad tracks (none of historic aerial photographs indicates that the flow of wastewater in the wash extended beyond the railroad tracks). Portions of AOC 1 are located on PG&E property and portions are located on property owned by the HNWR.

#### 4.1.14.2 Constituents of Potential Concern

COPCs for soil associated with AOC 1 are the same as for SWMU 1, and consist of Cr(T), Cr(VI), copper, lead, mercury, nickel, zinc, pH, TPH and PAHs. The COPCs for groundwater are Cr(T), Cr(VI), copper, lead, nickel, zinc, electrical conductivity, pH, and TPH. For AOC 1, DTSC also recommended further evaluation of the Title 22 metals and VOCs (if VOCs are present in soil at SWMU 1) and other organic COPC analyses (TPH and SVOCs, including PAHs) if elevated concentrations are detected at SWMU 1.

### 4.1.15 AOC 2 – Area Around Inactive Injection Well (PGE-08)

AOC 2 consists of the unpaved soil area around inactive injection well PGE-08 (SWMU 2). AOC 2 is located within the facility fenceline on the west side of the lower yard (Figure 4-1).

#### 4.1.15.1 Description and History

The areal limits of AOC 2 have not been formally defined. However, AOC 2 is considered to consist of the unpaved surficial area in the immediate vicinity of the well, and the interconnecting piping. The area in the immediate vicinity of injection well PGE-08 is unpaved.

#### 4.2.4.2 Constituents of Potential Concern

A more general characterization of this AOC is appropriate because of its use as the hazardous material accumulation area for the facility. This area is also used to store chemicals used in routine maintenance such as lubricants and parts cleaning compounds, including small quantities of solvents. Hazardous wastes such as oily rags, air filters, oil filters, contaminated “dry sweep” (oil absorbent), small quantities of paint, and spent aerosol cans of solvent are generated as part of equipment and facility maintenance. Based on interviews with station personnel, weed and insect control is conducted by a contractor, so these materials are not stored onsite. Based on the types of chemical products and wastes stored in this area, COPCs in soil associated with AOC 7 consist of VOCs, SVOCs [including PAHs](#), PCBs, TPH, and Title 22 metals. [DTSC also identified Cr\(VI\) and pH as COPCs \(DTSC 2006ba\)](#). COPCs are anticipated to be limited to soil only.

#### 4.2.5 AOC 8 - Paint Locker

A small locker used for the storage of paint is located within the facility fence line in the southeastern portion of the facility (Figure 4-1).

##### 4.2.5.1 Description and History

The paint locker measures about 5 feet wide by 5 feet long, and is constructed of steel. The locker has tight-fitting doors and was designed for the fire-safe storage of flammable materials. Large-scale painting activities at the compressor station are handled by outside crews (Riddle 2004). Therefore, only small quantities of paint and thinners used for minor touch-up work are stored in this shed. Paint is stored in both spray cans and in 1- to 5-gallon cans. Non-chlorinated paint thinners are also stored in 1-gallon cans. About 100 gallons of paint and thinners are routinely stored in this shed. No evidence of any release is present in or around the shed.

##### 4.2.5.2 Constituents of Potential Concern

It is likely that paints contained within the locker have consisted of oil-based, and water-based paints. Thinners are believed to have consisted of non-chlorinated thinners. During the use of these products, it is possible that small quantities of paint and/or thinners may have spilled in the vicinity of the paint locker. Based on this information, COPCs for soil associated with AOC 8 consist of VOCs, TPH, and some metals (e.g., lead from lead-based paint). COPCs are anticipated to be limited to soil only.

#### 4.2.6 AOC 9 – Southeast Fence Line (Outside Visitor Parking Lot)

AOC 9 is located in the southeast portion of the facility, just south of the visitor parking lot and immediately east of (outside) the facility fence line (Figure 4-1). It is also located in the vicinity of the leachfield and septic tank associated with the Auxiliary Building.

##### 4.2.6.1 Description and History

In the spring of 2000, PG&E informed the DTSC that a worker at the compressor station had encountered a small amount of discolored surface soil just outside the fence line on the southeast side of the facility (PG&E 2000b). The discolored soil was located on an extremely steep slope. It was uncovered by erosion, which caused a storm drain pipe to break off near



the top of the ravine. The pipe was replaced, the pipe was extended into the East Ravine, and the end was covered with gravel.

The storm drain is believed to be connected to a trench that could have received runoff from leaks originating from the AJCW pumps (AOC 15). Two employees indicated that leaks from the AJCW entered a pipe trench in the road near the AJCW system in the past (Russell 2006b). The trench system leading to the storm drain at AOC 9 and/or another nearby storm drain may also have captured a portion of the steam cleaning (washrack) runoff before the washrack area was bermed (Russell 2006b). AOC 9 is also located in the vicinity of the leachfield and septic tank associated with the laboratory. Review of aerial photographs indicates that this area was formerly unpaved.

About 1.5 cubic yards of the stained soil was removed and shipped offsite for disposal. Site conditions (the steepness of the terrain) limited the feasible extent of excavation. Confirmation samples indicated that residual Cr(T) and Cr(VI) still remained in the soil; however, other metals and pH appear to be at background levels (PG&E 2000c).

#### 4.2.6.2 Constituents of Potential Concern

The color of the soil and the results of samples collected from AOC 9, indicated that some chromium-containing material may have been released in this area. Based on these data, COPCs for AOC 9 consist of Cr(T) and Cr(VI). Because this AOC may have received runoff from the steam cleaning area, and leaks of non-hazardous molybdenum-containing cooling water, other COPC for soil associated with AOC 9 include TPH, PAHs, molybdenum, and wear metals (copper, lead, nickel, and zinc). DTSC identified the following additional COPCs: Title 22 metals, VOCs, pH, and all other SVOCs (in addition to PAHs) as COPCs for this unit (DTSC 2006ba). COPCs are anticipated to be limited to soil only.

#### 4.2.7 AOC 10 – East Ravine

The East Ravine is a small ravine located on the southeast side of the compressor station (Figure 4-1). The ravine runs eastward towards the Colorado River. Portions of the East Ravine are on PG&E property outside the facility fenceline, and other portions of the ravine are located on property owned by the HNWR.

##### 4.2.7.1 Description and History

The East Ravine is approximately 1,600 feet long and is bisected by three man-made impoundments (one constructed dam and two dirt roads). Due to the impoundments, flow from most of the length of this ravine (west of the lower dirt road) does not typically reach the Colorado River. The drainage for this ravine includes minor runoff from the access road to the facility, runoff from the mountains to the south, and some runoff from the compressor station. Several small erosion channels are visible in a 1955 aerial photograph (Figure 3-15), and plant personnel report having to repair erosion damage on the slopes on a regular basis (Russell 2006b). Runoff from the station access road may have included leakage from the Jacket Cooling Water pumps and/or hot well, as described in Section 4.2.12 (Russell 2006b).

The origin of the berms in the East Ravine is uncertain. Some former employees have said that the berms were constructed (or improved) by PG&E as part of backhoe practice, but other former employees have said that the berms were there before they started their

#### 4.2.9.1 Description and History

The area containing AOC 12 was formerly a hill bisected by ravines (Figure 3-14). The original plant access road ran to the east of the hill. Former employees indicated that this area was used for backhoe practice (Russell 2006b). Review of aerial photographs suggests that by 1967 a portion of this area had been leveled. It is possible that during backhoe practice and or grading and leveling of the area, other materials could have been buried in the low areas. E&E identified a fill area located on the bench north of the metering station (area F2), on property owned by the HNWR. This area was identified based on employee interviews and the presence of small pieces of concrete debris on the slope.

Two potential fill locations were identified by interviewees (Russell 2006b). These two locations are adjacent to the northwestern and southwestern corners of the Transwestern Intertie Facility (Figure 4-1), and may be completely or partially located on PG&E property. According to one employee, several bags of asbestos and two leaking 55-gallon drums were buried near the northwest corner of the Transwestern Intertie. (Russell 2006b). Asbestos that may not have been bagged was reportedly buried in a small (6-foot deep) ravine near the southwestern corner of the Transwestern Intertie area. The elevation of the area at the time was reportedly several feet lower (Russell 2006b). The continuation of the small ravine is still visible. No excavation or sampling has been performed at any of these locations.

#### 4.2.9.2 Constituents of Potential Concern

The 12a fill area appears to be a disposal area for construction-related debris; however, it is possible that other materials may have been disposed of in this area. While asbestos was reportedly disposed of at the other two locations within AOC 12, the exact nature of the materials placed into these areas is unknown. Therefore, COPCs for soil associated with AOC 12 include a broad range of possible contaminants including VOCs, PAHs, [Title 22](#) metals, asbestos, and TPH; specific COPCs vary by subarea (see Table 4-2). [DTSC also identified the following COPCs for this unit: Cr\(VI\), pH, and all other SVOCs \(in addition to PAHs\) as COPCs for this unit \(DTSC 2006ba\)](#). COPCs are anticipated to be limited to soil only.

### 4.2.10 AOC 13 – Unpaved Areas Within the Compressor Station

AOC 13 consists of unpaved areas within the fence line of the compressor station. The unpaved areas are located in various strips and patches among buildings and structures on this active facility. The majority of the unpaved areas within the fence line that are not part of another SWMU, AOC, or other undesignated areas lie within the lower yard on the west side of the facility (Figure 4-1). E&E identified numerous subareas within AOC 13; however, given that stormwater runoff is likely to have traversed various areas, and that potential spills of cooling water could have occurred in various areas, AOC 13 will be addressed as one unit.

#### 4.2.10.1 Description and History

AOC 13 consists of unpaved areas within the fence line of the compressor station. These areas could have incidentally been impacted as a result of facility activities. In addition, as discussed earlier, former employees have reported and existing documentation suggests

the Oil-Water Separator System (OWSS). AOC 20 does not include the miscellaneous floor drains in areas such as lavatories that drain to one of the three septic systems on the station.

#### 4.2.17.1 Description and History

Several of the industrial buildings within the compressor station are equipped with floor drains that capture liquids released to the floor of the building, and convey the liquid to the OWSS. In addition, other industrial facilities, such as the steam cleaning area and the main jacket water surge tanks, are equipped with drains that capture overflow and spills. A pipe trench - that extends from just north of the steam cleaning area to the east side of the compressor building - also drains to the OWSS and has been included in this AOC. Collectively, these drains are referred to as industrial floor drains to distinguish their use and intent from the storm drains that are also present at the facility. As shown in Figure 4-3, industrial floor drains are found in the following buildings and facilities: Compressor Building, Auxiliary Building, Jacket Cooling Water Pumps, Oil Storage Tank Area, Steam Rack (steam cleaning area), and Fire Water Pump Building (Former Water Softener Building).

Pipelines that are connected to the OWSS were historically made primarily of vitrified clay. Currently, the system contains a variety of pipe materials including reinforced fiberglass, PVC, cast iron, and Acrylonitrile-Butadiene-Styrene (ABS). The aboveground lines (shown on Figure 4-3) are all welded carbon steel pipe (PG&E 1991c). No sampling of the industrial floor drains has been conducted. Many of the pipes leading from the industrial floor drains to the OWSS are located under building floors and machinery, and/or are buried below ground and largely inaccessible. Floor drains located within buildings are not considered a likely source of releases because these drains are contained within the building floor (above the foundation) and are contained in the concrete between the finished floor and the foundation.

The liquids potentially discharged to the industrial floor drains would consist primarily of liquids present within the industrial buildings and facilities. Liquids used in the operations in the industrial buildings included lubricating oil, oily water from the steam cleaning area and compressor and generator engine steam cleaning, jacket cooling water, and lubricating oil cooling water. The other two sources of liquids consist of the rainwater that collected in the pipe trench and hose-down water used when the pipe trench was cleaned. Drainage from the various cooling water systems would have contained chromium compounds and, later, molybdenum. No records exist of any specific releases to the industrial floor drains; however, both are expected to have captured incidental drips and spills during plant operations, as well as occasional washing liquid from floor cleaning within the buildings.

#### 4.2.17.2 Constituents of Potential Concern

Based on the operations history, COPCs associated with AOC 20 include Cr(T), copper, mercury, lead, molybdenum, nickel, zinc, Cr(VI), TPH, and PAHs. COPCs are anticipated to be limited to soil. DTSC also identified all other Title 22 metals and VOCs as COPCs for this unit (DTSC 2007f).

TABLE 4-2

Summary of Other AOCs<sup>(a)</sup>*RCRA Facility Investigation/Remedial Investigation (Volume 1), PG&E Topock Compressor Station, Needles, California*

Designation	Identification	Subareas	Subarea Designation in this RFI <sup>(b)</sup>	Description	Constituents of Potential Concern <sup>(c)</sup>
				between the JCW pumps and the jacket cooling water tanks/former hot well.	
<u>AOC 20</u>	<u>Industrial Floor Drains</u>	<u>None</u>	<u>None</u>	<u>Industrial floor drains and associated pipelines leading to the OWSS. Floor drains and overflow drains are located in the Compressor Building, Auxiliary Building, Jacket Cooling Water Pumps, Oil Storage Tank Area, Steam Rack (steam cleaning area), and Fire Water Pump Building (Former Water Softener Building).</u>	<u>Cr(T), copper, mercury, lead, molybdenum, nickel, zinc Title 22 metals, Cr(VI), TPH, VOCs, and PAHs</u>

## Notes:

<sup>(a)</sup> Considered AOCs by DTSC in letters to PG&E dated January 4, 2006 and July 13, 2006.<sup>(b)</sup> Subarea designation is shown on Figure 4-1.<sup>(c)</sup> COPCs developed in this RFI. COPCs are limited to soil; there are no COPCs for groundwater associated with these AOCs. Additional COPCs have been identified by DTSC (DTSC 2006b, 2007f). These additional COPCs are described in the discussion of each SWMU, AOC or unit.

## Sources:

*Work Plan for Additional Soils Sampling (E&E 2000b).**Draft RCRA Facility Investigation Report (E&E 2004).*

- \_\_\_\_\_. 2007b. Letter to The Honorable Charles Wood (Chemehuevi Indian Tribe). Communication Process Between DTSC and the Chemehuevi Indian Tribe PG&E Topock Compressor Station Project. March 15.
- \_\_\_\_\_. 2007c. Letter to The Honorable Daniel Eddy, Jr. (Colorado River Indian Tribe). Communication Process Between DTSC and the Colorado River Indian Tribe PG&E Topock Compressor Station Project. March 15.
- \_\_\_\_\_. 2007d. Letter to Yvonne Meeks (PG&E). "Comments on the RCRA Facility Investigation/Remedial Investigation, Volume 1 - Site Background and History Report, Pacific Gas and Electric Company (PG&E), Topock Compressor Station, Needles, California (EPA ID No. CAT080011729)." May 9.
- \_\_\_\_\_. 2007e. Internal DTSC Memorandum from Greg Neal and Chris Guerre to Aaron Yue. "Comments on the RCRA Facility Investigation/Remedial Investigation Soil Investigation Work Plan Part A, Pacific Gas and Electric Company (PG&E), Topock Compressor Station, Needles, California No. 22120/540015/48/36/HWMP Tracking No. 640338/640160." May 14.
- \_\_\_\_\_. 2007f. DTSC Email from Aaron Yue to Cathy Wolff-White, Kris Doebbler, Julie Eakins, and Yvonne J Meeks. Subject: Greetings. July 18.
- Ecology and Environment (E&E). 2000a. *Draft RCRA Facility Investigation (RFI) Report, Bat Cave Wash Area, Pacific Gas and Electric Company's Topock Compressor Station.* April.
- \_\_\_\_\_. 2000b. *Work Plan for Additional Soils Sampling, Corrective Action Consent Agreement for Bat Cave Wash Area, PG&E Topock Compressor Station, Needles, California.* October 12.
- \_\_\_\_\_. 2004. *Draft RCRA Facility Investigation (RFI) Report, Bat Cave Wash Area, Pacific Gas and Electric Company's Topock Compressor Station.* February.
- Fryman, Frank B. 1976 *An Archaeological Survey of the Proposed Park Moabi Motorcycle Race Course Project Area, San Bernardino County, Ca.* Arizona State University, Tempe.
- Furst, Jill L. 2001. *Mojave Pottery, Mojave People: The Dillingham Collection of Mojave Ceramics.* School of American Research Press, Santa Fe, New Mexico.
- Hornkohl Laboratory. 1951. *Complete Sanitary Chemical Water Analysis, Drinking Fountain - Topock Machine Shop.* December 28.
- \_\_\_\_\_. 1964. *Domestic Water Analysis Report, PG&E Well No. 6.* June 24.
- Howard, K. A., B.E. John, and J.E. Nielson. 1997. Preliminary Geologic Map of the Eastern and Northern Parts of the Topock 7.5-minute Quadrangle, Arizona and California, United States Geological Survey Open-File report 95-534.
- Huckell, Bruce B. 1996. "The Archaic Prehistory of the North American Southwest." *Journal of World Prehistory* 10:305-373.