

Interim Measure No. 3 Preparation for Lay-up Completion Report

Document no: PPS0413221309BAO
Revision no: FINAL

Pacific Gas and Electric Company
TPK_IM3 Prep for Layup Rpt_[JUNE 1,2022]

Topock Compressor Station, Needles California
June 1, 2022





Interim Measure No. 3 Preparation for Lay-up Completion Report

Client name:	Pacific Gas and Electric Company		
Project name:	Topock Compressor Station, Needles California		
Client reference:	TPK_IM3 Prep for Layup Rpt_[JUNE 1,2022]	Project no:	D31084AW
Document no:	PPS0413221309BAO	Project manager:	Christina Hong
Revision no:	FINAL	Prepared by:	Hailey Mahoney
Date:	June 1, 2022	File name:	FINAL_IM3 Cleaning Report_June012022

Jacobs Engineering Group Inc.

155 Grand Avenue
Suite 800
Oakland, CA 94612
United States

T +1.510.251.2426
F +1.510.451.5507
www.jacobs.com

Copyright Jacobs Engineering Group Inc. © 2022.

All rights reserved. The concepts and information contained in this document are the property of the Jacobs group of companies. Use or copying of this document in whole or in part without the written permission of Jacobs constitutes an infringement of copyright. Jacobs, the Jacobs logo, and all other Jacobs trademarks are the property of Jacobs.

NOTICE: This document has been prepared exclusively for the use and benefit of Jacobs' client. Jacobs accepts no liability or responsibility for any use or reliance upon this document by any third party.

Contents

Acronyms and Abbreviations.....	iii
1. Introduction	1
1.1 Purpose and Scope	1
1.2 Background	1
2. Reporting Requirements.....	1
3. IM-3 Cleanup	1
3.1 Completed Tasks.....	1
3.1.1 Extraction Shutdown and Isolation	2
3.1.2 Treatment and Injection Shutdown and Isolation.....	3
3.1.3 Emergency Generator Return and Chemicals.....	3
3.2 Remaining Materials and Facility Turnover	4
4. Waste Generation and Waste Management	4
5. References	4

Table

Table 3-1. IM-3 Cleaning Tasks Schedule as Completed.....	2
---	---

Appendices

Appendix A Agencies Approvals and Notifications
Appendix B Process and Instrumentation Diagrams
Appendix C Photo Documentation Log
Appendix D Records, Manifests, Receipts

Acronyms and Abbreviations

AOC	area of concern
CIP	Clean In Place
DOI	U.S. Department of the Interior
DTSC	California Environmental Protection Agency, Department of Toxic Substances Control
Final Remedy	final groundwater remedy
IM	Interim Measure
IM-3	Interim Measure No. 3
MCC	Motor Control Center
PG&E	Pacific Gas and Electric Company
PMO	Program Management Office
RO	reverse osmosis
TCS	Topock Compressor Station
Work Plan	<i>Interim Measure No. 3 Decommissioning, Removal, and Restoration Work Plan</i>

1. Introduction

1.1 Purpose and Scope

Pacific Gas and Electric Company (PG&E) has begun operating a final groundwater remedy (Final Remedy) to address chromium in groundwater at Solid Waste Management Unit (SWMU) 1/Areas of Concern (AOCs) 1 and 10 located near PG&E's Topock Compressor Station (TCS) in San Bernardino County, California.

To minimize interference with the Final Remedy start-up, pursuant to the *Interim Measure No. 3 Decommissioning, Removal, and Restoration Work Plan* (Work Plan; CH2M, 2014) and with approvals from the California Department of Toxic Substances Control (DTSC) and U.S. Department of the Interior (DOI), PG&E shut down the Interim Measure No. 3 (IM-3) extraction system on December 22, 2021 and started to prepare for lay-up. Groundwater treatment at IM-3 was terminated on December 28, 2021. The preparation for lay-up was completed on March 21, 2022. See Appendix A for records of agencies notifications and communications.

This Preparation for Lay-Up Completion Report documents completed cleaning activities from December 22, 2021 to March 21, 2022 for the IM-3 system as described in Section 2 of the Work Plan.

1.2 Background

PG&E began implementing interim remedy measures at the Topock site in March of 2004. Initially, PG&E commenced pumping, transport, and disposal of groundwater from the MW-20 Bench location in March 2004 (IM-2). Batch treatment on the MW-20 Bench was added later in 2004. Because of space and treatment capacity limitations to manage the desired higher groundwater extraction flows at the MW-20 Bench, the IM-3 system includes a groundwater extraction, conveyance, treatment, and injection system. The IM-3 system began treating groundwater in July 2005; in 2005, IM-2 was turned off, and in 2009, it was decommissioned. During decommissioning of IM-2, the IM-3 brine storage and loading facilities were relocated and upgraded on the MW-20 Bench.

The IM-3 brine and loading facilities have been incorporated into, and are now being operated as part of, the Final Remedy.

2. Reporting Requirements

This Preparation for Lay-Up Completion Report was prepared at the request of DTSC and DOI.

3. IM-3 Cleanup

3.1 Completed Tasks

This section describes the tasks completed in preparation for lay-up of IM-3. Table 3-1 contains the detailed schedule of completed cleaning and disconnecting activities. Appendix B contains pertinent process and instrumentation diagrams with red boxes indicating the locations of blind flange installations. Appendix C, which contains the photo log, documents system dismantling and cleaning.

Table 3-1. IM-3 Cleaning Tasks Schedule as Completed

IM-3 Clean-up Tasks	Date Work Began	Date Finished
Notify PG&E and PMO via email that the IM-3 system (extraction, treatment, and injection) is ready to be shut down and prepared for layup	12/21/2021	12/21/2021
Extraction Wells		
Turn off the extraction system	12/21/2021	12/21/2021
Isolate extraction wells from IM-3 treatment plant	12/29/2021	12/29/2021
Prepare the extraction well system equipment and instrumentation for long-term storage	1/8/2022	1/20/2022
Injection Wells		
Treat as much process water within the IM-3 treatment plant as possible; inject treated water into the aquifer	12/21/2021	12/28/2021
Turn off the injection well system	12/28/2021	12/28/2021
Isolate the injection wells from the IM-3 Treatment Plant	12/30/2021	12/30/2021
Disconnect each injection pipeline from each injection well head	1/18/2022	1/22/2022
Remove the conduit from IM-3 Treatment Plant to the injection wells	12/30/2021	1/22/2022
Process Facility		
Clear chemical lines and collect chemical waste for treatment or proper disposal	1/25/2022	2/22/2022
Isolate chemical storage totes or day tanks	1/25/2022	2/25/2022
Remove and return totes with any unused chemicals, including laboratory chemicals, to the chemical supplier.	3/1/2022	3/1/2022
Remove flammable liquids from the flammable liquid storage cabinet located at the IM-3 Treatment Plant	3/2/2022	3/21/2022
Remove and drain all wastes from the system and flush lines	12/27/2021	2/25/2022
Transport brine, sludge, and RO membranes to permitted offsite facility(ies)	1/25/2022	3/21/2022
Return rental equipment including the emergency diesel generator	12/27/2021	3/17/2022
Recycle diesel at TCS tank	N/A	12/21/2021
Install a new auto-dialer to enable notification in the event of a high-level alarm in the septic tank	11/20/2021	11/20/2021
Turn off the HMI and PLCs and lights	3/21/2022	3/21/2022
Notify PG&E and PMO via email that the IM-3 system is ready for layup	3/21/2022	3/21/2022
Put the system in layup and lock the gate	3/21/2022	3/21/2022

HMI = human-machine interface; PLC = programmable logic controller; PMO = Program Management Office;
RO = reverse osmosis

3.1.1 Extraction Shutdown and Isolation

All IM-3 extraction wells (TW-2S, TW-2D, and TW-3D) were shut down on December 21, 2021 at 14:20. Cleanup and dismantling work began on January 8, 2022 and was completed January 20, 2022. Extraction pumps and drop pipes were removed from the wells. All instrumentation was removed from well vaults. Well caps with blind flanges were reinstalled on the wellheads to prevent objects from falling into the wells. Extraction piping was removed from the wellhead to the well vault wall penetration. Extraction piping from the well vaults to Valve Vault #1 was evacuated using a vacuum truck and the water transported to IM-3 for processing. Blind flanges were installed at the well vault wall penetrations.

Valve Vault #1 lay-up preparation work began January 8, 2022 and was completed January 20, 2022. The extraction well piping for TW-2S, TW-2D, and TW-3D was removed between all wall penetrations and blind flanges installed at all open locations. All extraction well instrumentation was removed from the valve vault. The extraction piping from Valve Vault #1 to IM-3 was evacuated using a vacuum truck and the water transported to IM-3 for processing.

IM-3 extraction line isolation work began January 8, 2022 and was completed by January 20, 2022. The extraction piping Valve Vault #1 to IM-3 was evacuated using the vacuum truck and the water transported to IM-3 for processing. The extraction line was taken apart at the point where it entered the IM-3 containment structure and a blind flange was installed at the end of the dual containment pipe.

Extraction pump Motor Control Center (MCC) breakers layup work began and was completed on December 29, 2021. TW-2S, TW-2D, and TW-3D extraction pump MCC breakers were disabled by removing the load side electrical leads from the breaker and tagging the breaker in the closed position.

3.1.2 Treatment and Injection Shutdown and Isolation

All waste was drained from the treatment system and lines flushed starting December 27, 2021 and concluding on February 25, 2022. This process included pressure washing the inside of the process tanks, flushing all pipelines with clean water, flushing all chemical lines with clean water followed by pH neutralizer, and disposing of microfilter modules and reverse osmosis (RO) membranes.

Treated water injection was completed on December 28, 2021. Injection wells were isolated from the IM-3 treatment plant on December 30, 2021. The injection line was taken apart downstream of P-700 and rerouted so that it can no longer be reconnected to the injection wells. Blind flanges were then installed on the injection line just before it entered the ground at IM-3.

The off-spec water line work began and was completed on December 30, 2021. The line to the MW-20 bench was taken apart downstream of P-700 and a blind flange installed just before the line entered the ground at IM-3.

Work began and was completed to isolate the brine line from IM-3 to the MW-20 bench on December 30, 2021. A section of piping was removed from the brine line just before it entered the ground at the IM-3 and blind flanges were installed on both sides of the removed section.

Removal of the aboveground control system conduit from the IM-3 treatment plant to the injection wells began on December 30, 2021 and was finished on January 22, 2022. The exposed ends of the conduit were sealed to keep out foreign material.

Each injection pipeline was disconnected from each injection well head on January 22, 2022 with work beginning on January 18, 2022. Blind flanges were installed on the injection wellheads and all instrumentation was removed from the well vaults. The P-900 discharge line was disconnected from T-100 and rerouted to T-402.

The entire aboveground control system for the injection wells was removed March 4, 2022. This includes the security fence and traffic control bollards.

3.1.3 Emergency Generator Return and Chemicals

On December 27, 2021 the backup generator was disconnected from the IM-3 electrical system; all diesel fuel was removed from the backup generator and put into the project truck bulk tank for use in the project back-hoe, forklift, and pick-up truck. The backup generator was removed from the site on March 17, 2022.

Isolation of the chemical storage totes and day tanks began January 25, 2022 and was completed by February 25, 2022. There were no waste chemicals to be disposed. All unused chemicals, including laboratory chemicals, were returned to the supplier, Thatcher Chemical in Henderson, Nevada.

3.2 Remaining Materials and Facility Turnover

As of March 21, 2022 several process tanks still contain the following materials:

- T-100 contains 2.34 feet of solid material.
- T-600 contains 3,960 gallons of treated microfilter effluent water.
- T-700 contains 15,837 gallons of treated RO permeate.
- T-900 contains 1,538 gallons of treated washdown water.

All sludge inside T-100 could not be removed with approximately 2.34 feet (about 4,171.28 gallons) of solid material remaining in the bottom of the tank. Sludge within this tank is expected to contain hazardous levels of hexavalent chromium. Cutting open one end of the tank will be required to finish sludge removal. This would render the tank unusable and will be left until decommission.

Water from the microfilter and RO permeate were retained with the intent to continue to use it during lay-up operations. T-900 is a floor drain accumulation tank and will retain a small amount of water until facility decommissioning.

On March 21, 2022, PG&E was notified that clean-up was complete. PG&E representatives (Curt Russell and David Diaz) toured the site on March 22, 2022 and received all keys and lock combinations.

4. Waste Generation and Waste Management

All treatment-generated waste was processed through the plant. The solid portion was disposed of through the phase separators. Fifty-six cubic yards of dewatered solids, microfilter modules, and RO membranes were shipped to US Ecology, Beatty Nevada using US Ecology WS# 070304177-0. Phase separators were removed from the site on March 21, 2022.

Flammable liquid waste from the flammable liquid storage cabinet at IM-3 were sent offsite on March 3, 2022 with the routine phase separator disposal.

All brine was sent to Liquid Environmental Solutions (LES) in Phoenix, Arizona for treatment and disposal.

See Appendix D for waste disposal documentation.

5. References

CH2M Engineers Inc. (CH2M). 2014. *Interim Measure No. 3 Decommissioning, Removal, and Restoration Work Plan, Topock Compressor Station, Needles, California*. September 3.

Appendix A

Agencies Approvals and Notifications

Mullin, Kevin/HEI

From: Mullin, Kevin/HEI
Sent: Tuesday, December 21, 2021 3:56 PM
To: 'Baxter, Jonathan'; Russell, Curt; Diaz, David; Bonnett, Kristina; Hong, Christina/LAC; Bush, Dan
Cc: Prowd, Brian; Richard Orens; Gentile, Margaret; Lenzo, Frank; mbloes@pivox.com; Newman, Janet; Lisa Kellogg; Talbot, Daniel; Goodrich, Chris/CVO
Subject: RE: Topock IRZ Recirculation Initiated

Hello All,

I talked to Jon at about 14:15 this afternoon and confirmed the information in the email below. Per the email correspondence from DTSC yesterday and DOI this morning, now that the IRZ is scheduled to begin carbon dosing tomorrow, it is time to shut down IM-3.

IM-3 extraction was shut down at 14:20.

Thank you,

Kevin Mullin
Jacobs
Operations Specialist
208-278-3515
kevin.mullin@jacobs.com

www.jacobs.com

From: Baxter, Jonathan <Jonathan.Baxter@arcadis.com>
Sent: Tuesday, December 21, 2021 3:10 PM
To: Russell, Curt <gcr4@pge.com>; Diaz, David <D3D6@pge.com>; Bonnett, Kristina <KABY@pge.com>; Mullin, Kevin/HEI <Kevin.Mullin@jacobs.com>; Hong, Christina/LAC <Christina.Hong@jacobs.com>; Bush, Dan <Dan.Bush@arcadis.com>
Cc: Prowd, Brian <Brian.Prowd@arcadis.com>; Richard Orens <richard.orens@arcadis.com>; Gentile, Margaret <Margaret.Gentile@arcadis.com>; Lenzo, Frank <Frank.Lenzo@arcadis.com>; mbloes@pivox.com; Newman, Janet <Janet.Newman@arcadis.com>; Lisa Kellogg <lisa.kellogg@arcadis.com>; Talbot, Daniel <Daniel.Talbot@arcadis.com>
Subject: [EXTERNAL] Topock IRZ Recirculation Initiated

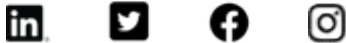
Good Afternoon,

We've begun recirculation using the node 3 wells for the IRZ system at approximately 90 gpm. IRZ-23 is operating as the extraction well and IRZ-16, -17, -18, -20, and -27 operating as injection wells. This afternoon we will continue operating those wells, balance flow distribution based on the initial targets provided by Margy, and testing the carbon dosing system using water (no ethanol injection today) in order to prepare for carbon dosing tomorrow. Recirculation flow rates will vary a bit today as we continue working through that configuration, testing and tracking down bugs in some of the controls. We do not plan to operate overnight at this point in time.

The plan for tomorrow is to bring the control system and wells online after fueling the generator, rebalance flows to meet align with the targets and start carbon dosing as soon as possible in the morning. Brian will have the lead for Arcadis onsite tomorrow.

Thank you,
Jon

Jonathan Baxter PE
Principal Environmental Engineer
Arcadis U.S., Inc.
126 N Jefferson St Suite 400 | Milwaukee, WI | 53202 | USA
T +1 414 277 6257
M +1 414 477 9243
www.arcadis.com



Professional Registration / PE-WI, 41417-6

This e-mail may contain or attach privileged, confidential or protected information intended only for the use of the intended recipient. If you are not the intended recipient, any review or use of it is strictly prohibited. If you have received this e-mail in error, you are required to notify the sender, then delete this email and any attachment from your computer and any of your electronic devices where the message is stored.

This email and any files transmitted with it are the property of Arcadis and its affiliates. All rights, including without limitation copyright, are reserved. This email contains information that may be confidential and may also be privileged. It is for the exclusive use of the intended recipient(s). If you are not an intended recipient, please note that any form of distribution, copying or use of this communication or the information in it is strictly prohibited and may be unlawful. If you have received this communication in error, please return it to the sender and then delete the email and destroy any copies of it. While reasonable precautions have been taken to ensure that no software or viruses are present in our emails, we cannot guarantee that this email or any attachment is virus free or has not been intercepted or changed. Any opinions or other information in this email that do not relate to the official business of Arcadis are neither given nor endorsed by it.



Curt Russell
Topock Project Manager
Environmental Remediation

Topock Compressor Station
145453 National Trails Hwy
Needles, CA 92363

Mailing Address
P.O. Box 337
Needles, CA 92363

760.326.5582
Fax: 760.326.5542
Email: gcr4@pge.com

January 31, 2022

Mr. Mark Bechel
Hazardous Materials Specialist/RMP Coordinator
San Bernardino County Fire Department, Office of the Fire Marshal, Hazardous Materials Division
620 South E Street
San Bernardino, CA 92415-0153

Subject: Notification of Termination of Hazardous Waste Treatment at IM-3, Conditional Authorization Tier for Hazardous Waste Treatment Facility ID No. FA36001

Dear Mr. Bechel:

This letter serves as a notification to the CUPA that Pacific Gas and Electric (PG&E) terminated treatment of wastewater at IM-3 on December 28, 2021.

Pursuant to Section 7.3.3 (Implementation of Transition Plan) of the approved *Basis of Design Report for the Final Groundwater Remedy*, on December 20, 2021, Pacific Gas and Electric (PG&E) requested approvals from the California Department of Toxic Substances Control (DTSC) and the U.S. Department of the Interior (DOI) to shut down IM-3 as the groundwater remedy equipment and systems were in place and ready to begin start-up. PG&E received approval from DTSC on December 20, 2021, and DOI on December 21, 2021.

After receipt of the agencies' approvals, PG&E shut down IM-3 extraction wells on December 21, 2021 and terminated treatment of wastewater at IM-3 on December 28, 2021.

PG&E is in the process of preparing IM-3 for layup which is anticipated to last about 3 months. Once the preparation is complete, PG&E will notify DTSC and DOI that IM-3 is ready for lay-up. When the IM-3 system is in a lay-up condition, the system will be left in a safe, secure, and preserved state and will not operate again until agency approval is received for decommissioning and removal of the system.

Please note that per Section 9.4 of the approved IM-3 Decommissioning Work Plan, the hazardous waste treatment facility closure requirements will be fulfilled after receipt of agency approval to decommission and removal of IM-3.

Please contact me at (760) 791-5884 or Valeri Hirst at (760) 577-4642 if you have any questions or comments regarding this submittal.

Sincerely,

Curt Russell
Topock Project Manager

C: Valeri Hirst, Kevin Mullin

From: [Hong, Christina/LAC](#)
To: [Aaron Yue](#); [Innis, Pamela S](#)
Cc: [Russell, Curt](#); [Diaz, David](#); [Baker, Iain](#)
Subject: Request for Agencies' Approval/Concurrence for IM-3 Shutdown by December 21, 2021
Date: Monday, December 20, 2021 11:11:00 AM
Importance: High

Mr. Yue and Ms. Innis,

On behalf of PG&E and pursuant to Section 7.3.3 (Implementation of Transition Plan) of the approved *Basis of Design Report for the Final Groundwater Remedy*, the IM system (also called IM No. 3) will be turned off after the first phase of construction, when groundwater remedy equipment and systems are in place and ready to begin start-up. The current start-up date is December 22, 2021.

Therefore, PG&E plans to shut down the IM No. 3 extraction wells (TW-2D and TW-3D) on December 22, 2021. In compliance with Section 2.1 (IM-3 Layup Preparation) of the approved *IM-3 Decommissioning, Removal, and Restoration Work Plan*, this email notifies DTSC and DOI of the planned shut down and requests the agencies' approval/concurrence by December 21, 2021. We also have notified the FMIT of this request.

After receipt of the agencies' approval/concurrence, PG&E will shut down the IM No. 3 extraction wells and prepare for lay-up. The preparation for lay-up is anticipated to last about 3 months. Once the preparation is complete, PG&E will notify the agencies that IM No. 3 is ready for lay-up. When the IM-3 system is in a lay-up condition, the system will be left in a safe, secure, and preserved state and will not operate again until agency approval is received for decommissioning and removal of the system.

Regards,
Christina Hong

From: [Aaron Yue](#)
To: [Hong, Christina/LAC](#); [Russell, Curt](#)
Cc: [Diaz, David](#); [Innis, Pamela S](#); [Baker, Iain](#); [Adam Cochran, BLM](#); [Amelia Flores, CRIT](#); [Abbott, Aurora/STL](#); [Baker, Karen@DTSC](#); [Beahta Davis, Regional Parks](#); [Betty Kuo Brinton, MWD](#); [Bryan Etsitty, CRIT](#); [Buddingh, Katharine@Waterboards](#); [Chauvel, Tim@DTSC](#); [Cortez, Jose@Waterboards](#); [CourtCoyle@aol.com](#); [Bush, Dan](#); [Danielle Starring, PG&E](#); [Vigil, David@Wildlife](#); [dbonamici@critdoj.com](#); [Doug Bonamici 2, CRITs](#); [Edgardo Castillo](#); [Edwin Sparks, USFWS](#); [Eichelberger, James@DTSC](#); [Eli Ludwig, Groundwater Partners](#); [Eric Putnam, ARCADIS](#); [Eric Fordham](#); [Funk, Alexander@Wildlife](#); [yolanda.garza](#); [Gloria Benson, BLM](#); [Guerre, Christopher@DTSC](#); [Hare, Lori@DTSC](#); [Jim Colmer](#); [Janet Newman, Arcadis](#); [Jason R. West, BLM](#); [Jeff Howland, USFWS](#); [Smith, Jeffery B](#); [Darcangelo, Jennifer](#); [Jessica Neuwerth, CRB](#); [Jill C. Teraoka, MWD](#); [historicpreservation](#); [John Krause, BIA](#); [Kelly, Colin@DTSC](#); [Kevin Sullivan](#); [Bonnett, Kristina](#); [Lisa Kellogg](#); [Lisa.MichelettiCope@arcadis-us.com](#); [Lindia Liu](#); [Leonhart@hargis.com](#); [Marcos, Jose@DTSC](#); [Margy Gentile, Arcadis](#); [Martina Dawley, Hualapai](#); [mbloes@pivox.com](#); [Matt Dudley, PG&E](#); [Santos,Mauricio J](#); [Middleton, Greg@Waterboards](#); [Mike Boyles, USBOR](#); [Cavaliere, Mike/BAO](#); [Mike Meek, Mohave County DPH](#); [Morgan O'Connor, ADEQ](#); [Lopez,Maria T](#); [Nathalie Doherty, USDOJ](#); [Nichole Osuch, ADEQ](#); [Nora McDowell, FMIT](#); [Owens, Zakary@Waterboards](#); [Paul Rochelle, MWD](#); [PGEFile](#); [Rasmussen, Paula@Waterboards](#); [RG Keith Sheets \(keith.sheets@ch2m.com\)](#); [Rich Juricich, CRB](#); [Richard Meyers, USFWS](#); [Richard Orens, Arcadis](#); [Robert Cheng, Coachella Valley Water District](#); [Ron Escobar, Chemehuevi](#); [Ronald Balsamo, Mohave Co](#); [Roy-Semmen, Shukla@DTSC](#); [Shakeel Jogia](#); [Sierra Pencille](#); [smcdonald@spmcdonaldlaw.com](#); [Steven Escobar, Chemehuevi](#); [Perry, Steven](#); [Stormo, Scot@Waterboards](#); [Anthony Rossi](#); [vincent.garcia@ihs.gov](#); [Strohl, Virginia](#); [William Mack, BLM](#); [Aaron Yue](#); [Adrienne LaPierre](#); [Brian Schroth, Jacobs](#); [Frank Lenzo, Arcadis](#); [Greg Foote, Arcadis](#); [Piper, Jay/LAS](#); [Joey Pace, ADEQ](#); [Sheets, Keith/PDX](#); [Vigil, David@Wildlife](#); [ericrosenblum](#); [meggers](#); [Monica Ruth](#); [PGEFile](#); [prucha](#); [Walt McNab, Jr.](#); [Anthony Madrigal, Jr., 29 Palms](#); [Antoinette Flora, CRIT](#); [Arlene Kingery, Fort Yuma-Quechan](#); [Blake Watahomigie, Hualapai](#); [calisay17@hotmail.com](#); [Carrie Imus, Hualapai](#); [Chase Choate, Quechan](#); [cocotcsec@cocopah.com](#); [Johnson "JD" Fisher, CRITs](#); [Jolene Marshall, Hualapai](#); [Justin Brundin, Cocopah](#); [LindaOtero@FortMojave.com](#); [Lyndee Hornell, Hualapai](#); [Manfred Scott, Quechan](#); [Sullivan, Michael J](#); [Rena Van Fleet, CRIT](#); [Richard Powskey, Hualapai](#); [rloudbear@critdoj.com](#); [Roland Ferrer, Torres-Martinez](#); [ShanLewis@fortmojave.com](#); [Williams, Timothy@CDSS-Import](#); [Toni Carlyle, CRIT](#)
Subject: [EXTERNAL] RE: Request for Agencies' Approval/Concurrence for IM-3 Shutdown by December 21, 2021
Date: Monday, December 20, 2021 11:58:17 AM
Attachments: [image002.jpg](#)

Ms. Hong and Mr. Russell,

Thank you for your notification and request to shut down the Interim Measure 3 (IM3) groundwater extraction and treatment system in preparation of the Groundwater Remedy start-up. DTSC concurs with the request to terminate the Interim Measure extraction and treatment to control the hexavalent chromium groundwater plume which was proposed and approved by DTSC on June 30, 2004.

Pursuant to the formal agreement between DTSC, PG&E and the Fort Mojave Indian Tribe, DTSC also concurs with PG&E that the IM3 system shall begin the layup process and be maintained but not operated until a functional determination of the groundwater remedy prior to decommissioning.

If you have any questions regarding this concurrence, please feel free to contact me.

Sincerely,



Aaron Yue

Senior Hazardous Substances Engineer

Office of Geology

(714) 484-5439

Aaron.Yue@dtsc.ca.gov

Department of Toxic Substances Control

5796 Corporate Avenue

Cypress, California 90630

From: Hong, Christina/LAC <Christina.Hong@jacobs.com>
Sent: Monday, December 20, 2021 11:12 AM
To: Yue, Aaron@DTSC <Aaron.Yue@dtsc.ca.gov>; Innis, Pamela S <Pamela_Innis@ios.doi.gov>
Cc: Russell, Curt <gcr4@pge.com>; Diaz, David <D3D6@pge.com>; Baker, Iain <IxBj@pge.com>
Subject: Request for Agencies' Approval/Concurrence for IM-3 Shutdown by December 21, 2021
Importance: High

EXTERNAL:

Mr. Yue and Ms. Innis,

On behalf of PG&E and pursuant to Section 7.3.3 (Implementation of Transition Plan) of the approved *Basis of Design Report for the Final Groundwater Remedy*, the IM system (also called IM No. 3) will be turned off after the first phase of construction, when groundwater remedy equipment and systems are in place and ready to begin start-up. The current start-up date is December 22, 2021.

Therefore, PG&E plans to shut down the IM No. 3 extraction wells (TW-2D and TW-3D) on December 22, 2021. In compliance with Section 2.1 (IM-3 Layup Preparation) of the approved *IM-3 Decommissioning, Removal, and Restoration Work Plan*, this email notifies DTSC and DOI of the planned shut down and requests the agencies' approval/concurrence by December 21, 2021. We also have notified the FMIT of this request.

After receipt of the agencies' approval/concurrence, PG&E will shut down the IM No. 3 extraction wells and prepare for lay-up. The preparation for lay-up is anticipated to last about 3 months. Once the preparation is complete, PG&E will notify the agencies that IM No. 3 is ready for lay-up. When the IM-3 system is in a lay-up condition, the system will be left in a safe, secure, and preserved state and will not operate again until agency approval is received for decommissioning and removal of the system.

Regards,
Christina Hong

NOTICE - This communication may contain confidential and privileged information that is for the sole use of the intended recipient. Any viewing, copying or distribution of, or reliance on this message by unintended recipients is strictly prohibited. If you have received this message in error, please notify us immediately by replying to the message and deleting it from your computer.

From: [Hong, Christina/LAC](#)
To: [Aaron Yue](#); [Innis, Pamela S](#)
Cc: [Russell, Curt](#); [Diaz, David](#); [Baker, Iain](#)
Subject: Agency Notification - IM No. 3 is in lay-up mode (starting March 22, 2022)
Date: Tuesday, March 22, 2022 11:11:00 AM

Mr. Yue and Ms. Innis,

This email notifies the agencies that the preparation for IM No. 3 lay-up, which began on December 22, 2022, was completed on March 21, 2022. IM No. 3 is now in lay-up mode and will not operate again until agency approval is received for decommissioning and removal of the system.

As directed, a completion report will be prepared and submitted to the agencies that summarizes work completed as part of the preparation for layup.

Regards,
Christina Hong

From: Hong, Christina/LAC
Sent: Monday, December 20, 2021 11:12 AM
To: Yue, Aaron@DTSC <Aaron.Yue@dtsc.ca.gov>; Innis, Pamela S <Pamela_Innis@ios.doi.gov>
Cc: gcr4@pge.com; Diaz, David <D3D6@pge.com>; Baker, Iain <IxBj@pge.com>
Subject: Request for Agencies' Approval/Concurrence for IM-3 Shutdown by December 21, 2021
Importance: High

Mr. Yue and Ms. Innis,

On behalf of PG&E and pursuant to Section 7.3.3 (Implementation of Transition Plan) of the approved *Basis of Design Report for the Final Groundwater Remedy*, the IM system (also called IM No. 3) will be turned off after the first phase of construction, when groundwater remedy equipment and systems are in place and ready to begin start-up. The current start-up date is December 22, 2021.

Therefore, PG&E plans to shut down the IM No. 3 extraction wells (TW-2D and TW-3D) on December 22, 2021. In compliance with Section 2.1 (IM-3 Layup Preparation) of the approved *IM-3 Decommissioning, Removal, and Restoration Work Plan*, this email notifies DTSC and DOI of the planned shut down and requests the agencies' approval/concurrence by December 21, 2021. We also have notified the FMIT of this request.

After receipt of the agencies' approval/concurrence, PG&E will shut down the IM No. 3 extraction wells and prepare for lay-up. The preparation for lay-up is anticipated to last about 3 months. Once the preparation is complete, PG&E will notify the agencies that IM No. 3 is ready for lay-up. When the IM-3 system is in a lay-up condition, the system will be left in a safe, secure, and preserved state and will not operate again until agency approval is received for decommissioning and removal of the system.

Regards,
Christina Hong

Appendix B

Process and Instrumentation Diagrams

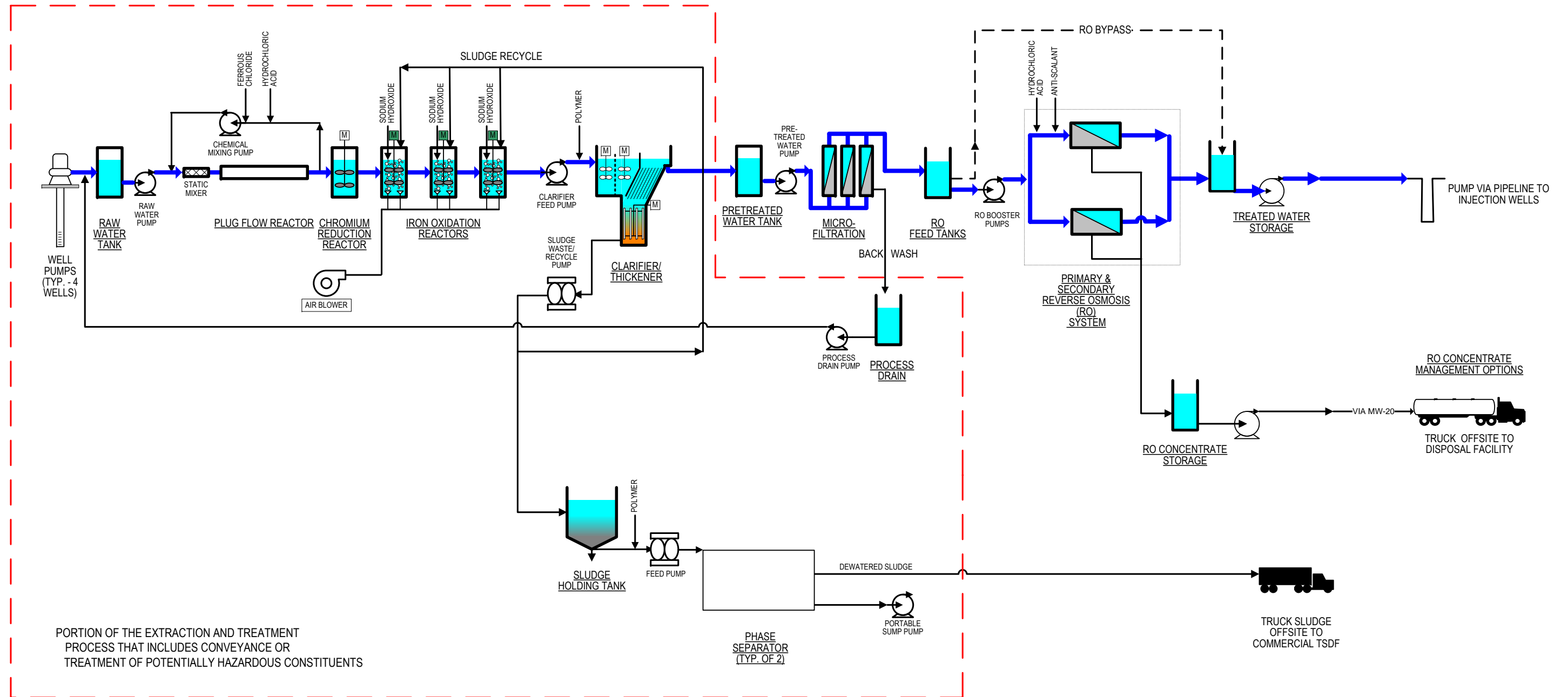
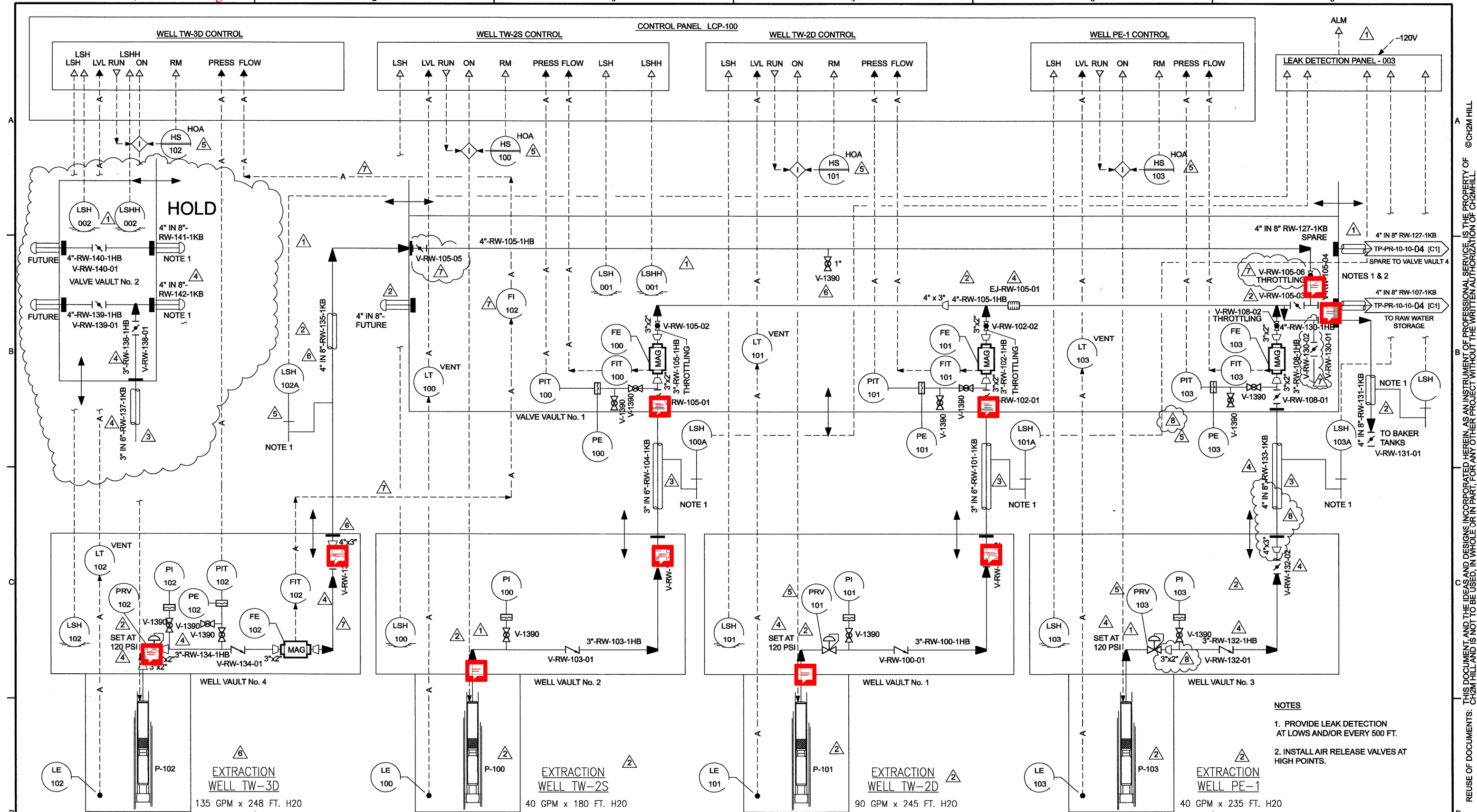


FIGURE 4-1
GROUNDWATER EXTRACTION AND TREATMENT SYSTEM
PROCESS FLOW DIAGRAM
IM3 DECOMMISSIONING, REMOVAL, AND RESTORATION WORK PLAN
PG&E TOPOCK COMPRESSOR STATION
NEEDLES, CALIFORNIA



NOTES

1. PROVIDE LEAK DETECTION AT LOWS AND/OR EVERY 500 FT.
2. INSTALL AIR RELEASE VALVES AT HIGH POINTS.



RESPONSIBLE ENGINEER:
Kenneth L. Martins
PE # CH4876
Exp. 6-30-05

NO.	DATE	REVISION	BY	CHK	REVISION APPROVAL	REV 8	DATE 12/06/05	PRINT DISTRIBUTION
8	12/01/05	REMOVED PE-1 HOLDS	JBW	SDH	DISCIPLINE	REVIEWED	DISCIPLINE	REVIEWED
1	10/13/04	REVISED AND APPROVED FOR CONSTRUCTION	EFC	AJ	CIVIL	—	ELECTRICAL	—
2	01/23/05	REVISED AND APPROVED FOR CONSTRUCTION	EFC	AJ	STRUCTURAL	—	INST. & CONTROL	—
3	03/16/05	DELETED NOTES, APPROVED FOR CONSTRUCTION	EFC	AJ	MECHANICAL	—	ARCHITECTURAL	—
4	07/20/05	RELIEF VALVE SETTINGS, WELL PE-1 LINE TAGS, HOLDS REMOVED, APPROVED FOR CONSTRUCTION	EFC	AJ	PROCESS	—	ENVIRONMENTAL	—
5	09/27/05	FINAL RECORD ISSUE	EFC	AJ	PIPING	SDH	GEN. ARRANG.	—
6	10/06/05	REVISED FINAL RECORD - ADDED TW-3D	EFC	AJ	—	—	—	—
7	10/19/05	REVISED AS NOTED	EFC	AJ	—	—	—	—

STATUS	ISSUED	REV	DATE	SDE	PEM
PRELIMINARY	—	—	—	—	—
FOR REVIEW AND APPROVAL	D	07/28/04	—	—	—
APPROVED FOR CONSTRUCTION	0	09/03/04	KLM	TP	—
REVISED & APPROVED FOR CONSTRUCTION	7	12/19/05	—	—	—

SCALE NONE

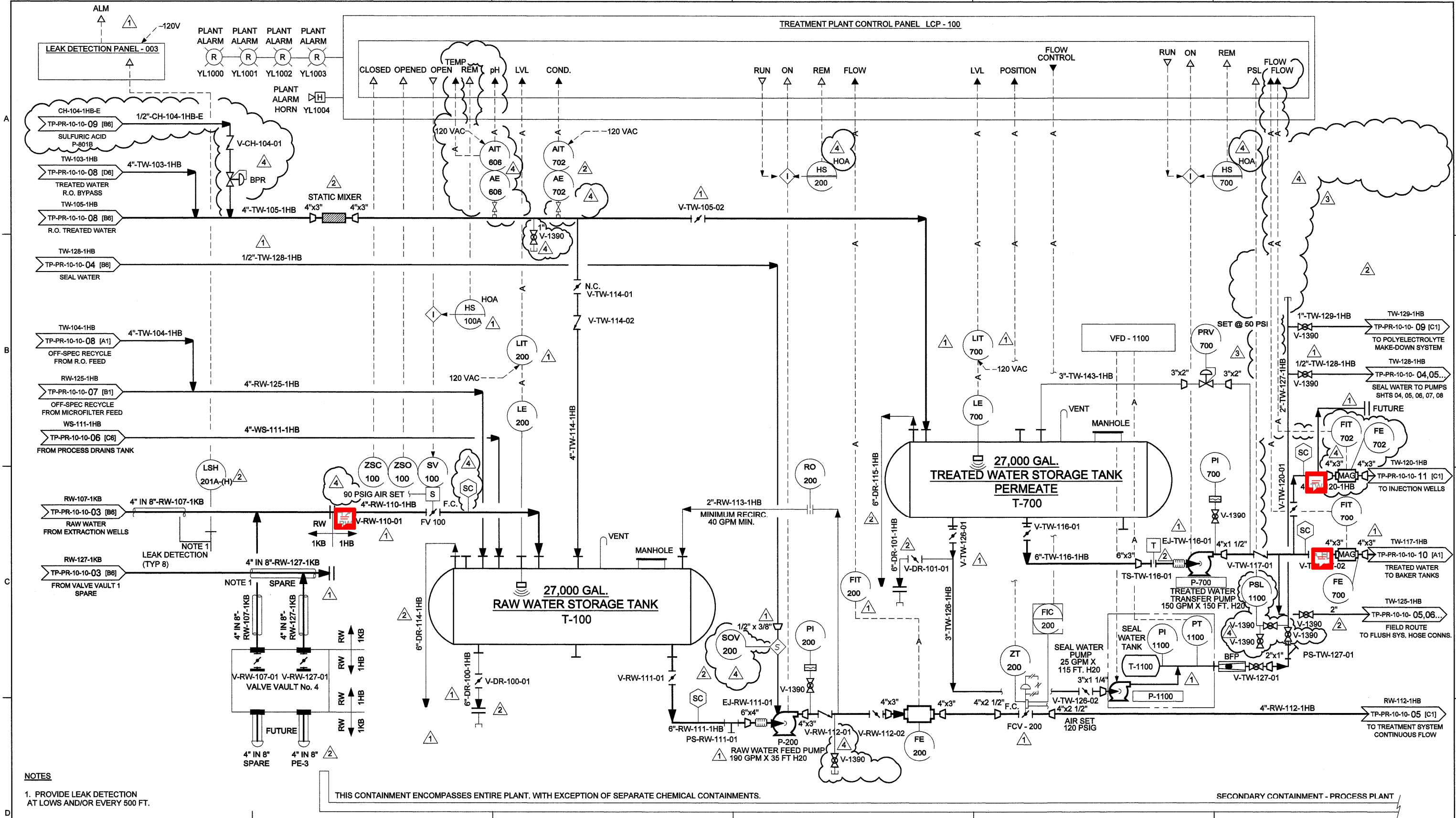
PACIFIC GAS & ELECTRIC CO.
TOPOCK COMPRESSOR STATION
INTERIM MEASURE 3
EXPANDED GROUNDWATER EXTRACTION
AND TREATMENT SYSTEM
PROJ NO. 315994

CH2MHILL

PROCESS AND INSTRUMENTATION DIAGRAM
SHEET 03
EXTRACTION WELLS
PE-1, TW-2D, TW-2S AND TW-3D

DWG. NO. TP-PR-10-10-03 REV. 8

Red Boxes Indicate Blind Flange Installation Points




NOTES

1. PROVIDE LEAK DETECTION AT LOWS AND/OR EVERY 500 FT.

THIS CONTAINMENT ENCOMPASSES ENTIRE PLANT, WITH EXCEPTION OF SEPARATE CHEMICAL CONTAINMENTS.

SECONDARY CONTAINMENT - PROCESS PLANT

	RESPONSIBLE ENGINEER: Kenneth L. Martins CH4876 PE #	NO.	DATE	REVISION	BY	CHK	REVISION APPROVAL		REV 4	DATE 09/27/05	PRINT DISTRIBUTION	STATUS					PACIFIC GAS & ELECTRIC CO. TOPOCK COMPRESSOR STATION INTERIM MEASURE 3 EXPANDED GROUNDWATER EXTRACTION AND TREATMENT SYSTEM PROJ NO. 315994	PROCESS AND INSTRUMENTATION DIAGRAM SHEET 04 STORAGE AREA		
		D	07/28/04	FOR INTERNAL REVIEW	EFC	AJ	DISCIPLINE	REVIEWED	DISCIPLINE	REVIEWED	DATE		ISSUED	REV	DATE	SDE				
		0	09/03/04	APPROVED FOR CONSTRUCTION	EFC	AJ	CIVIL	—	ELECTRICAL	KOM	STATUS		PRELIMINARY							
		1	10/13/04	REVISED AND APPROVED FOR CONSTRUCTION	EFC	AJ	STRUCTURAL	—	INST & CONTROL	KOM	REV.		FOR REVIEW AND APPROVAL	D	07/28/04					
		2	01/23/05	REVISED AND APPROVED FOR CONSTRUCTION	EFC	AJ	MECHANICAL	AS	ARCHITECTURAL	—	CLIENT		APPROVED FOR CONSTRUCTION	0	09/03/04	KLM		TP		
		3	02/14/05	ADDED RECIRC. LINE AND PRV VALVE TO T-700 - APPROVED FOR CONSTRUCTION	EFC	AJ	PROCESS	AS to KLM	ENVIRONMENTAL	—	FIELD		REVISED & APPROVED FOR CONSTRUCTION	4	10/03/05	AS to KLM		AJ		
		4	09/27/05	FINAL RECORD ISSUE	EFC	AJ	PIPING	SDH	GEN. ARRANG.	JP	INTRA CO.									
												SCALE NONE					CH2MHILL	DWG. NO. TP-PR-10-10-04	REV. 4	

BAR IS ONE INCH ON ORIGINAL DRAWING.

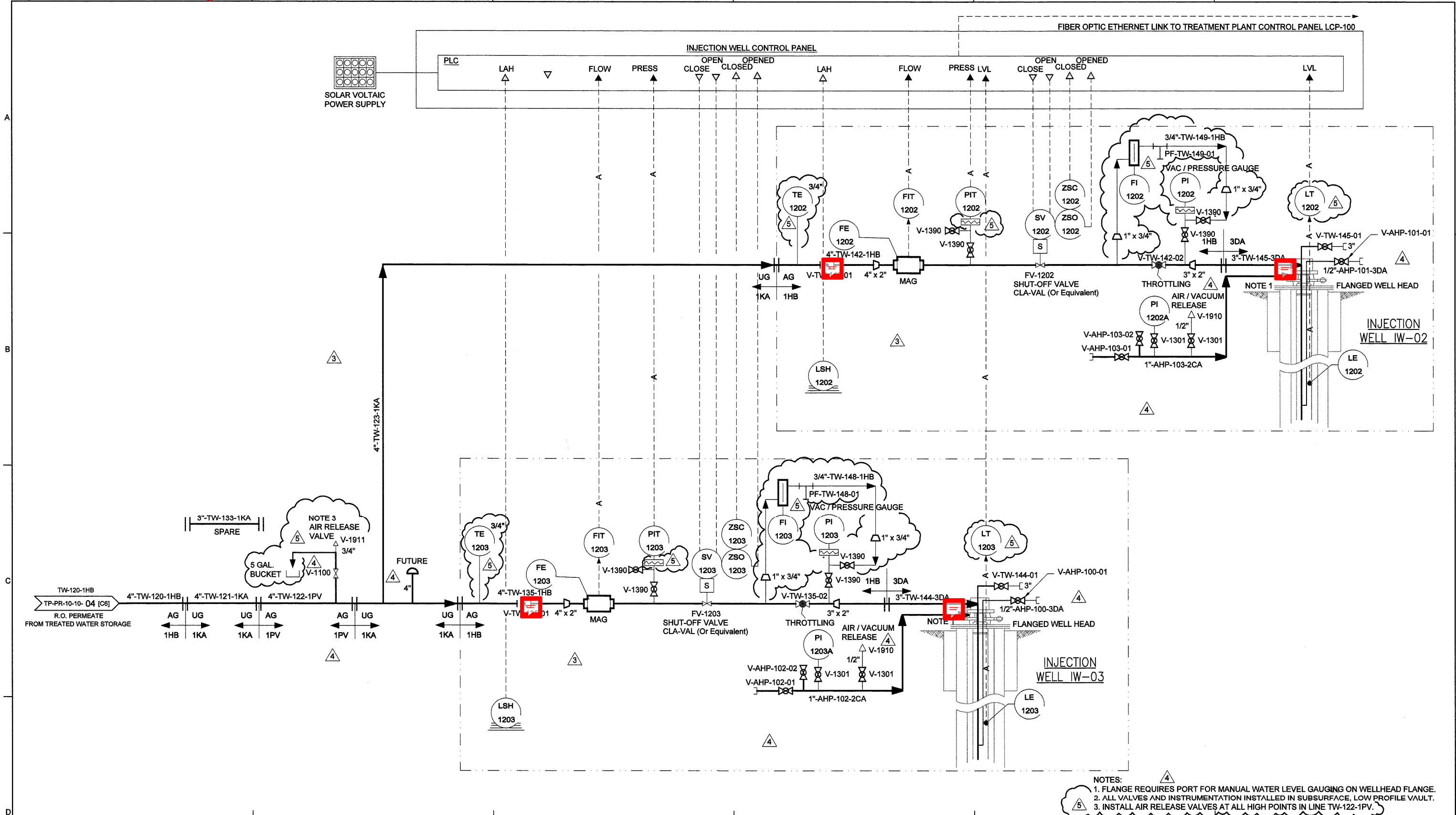
FILENAME: tppr101004.dwg

PLOT DATE: 27-SEP-2005


PLOT TIME:

THIS DOCUMENT AND THE IDEAS AND DESIGNS INCORPORATED HEREIN, AS AN INSTRUMENT OF PROFESSIONAL SERVICE, IS THE PROPERTY OF CH2M HILL AND IS NOT TO BE USED, IN WHOLE OR IN PART, FOR ANY OTHER PROJECT WITHOUT THE WRITTEN AUTHORIZATION OF CH2M HILL.

Red Boxes Indicate Blind Flange Installation Points



- NOTES:
1. FLANGE REQUIRES PORT FOR MANUAL WATER LEVEL GAUGING ON WELLHEAD FLANGE.
 2. ALL VALVES AND INSTRUMENTATION INSTALLED IN SUBSURFACE, LOW PROFILE VAULT.
 3. INSTALL AIR RELEASE VALVES AT ALL HIGH POINTS IN LINE TW-122-1PV.

	RESPONSIBLE ENGINEER: Kenneth L. Martins PE # CH4876 Exp. 6/30/05	NO.	DATE	REVISION	BY	CHK	REVISION APPROVAL		REV 5	DATE 09/27/05	PRINT DISTRIBUTION	STATUS					PACIFIC GAS & ELECTRIC CO. TOPOCK COMPRESSOR STATION INTERIM MEASURE 3 EXPANDED GROUNDWATER EXTRACTION AND TREATMENT SYSTEM PROJ NO. 315994			PROCESS AND INSTRUMENTATION DIAGRAM SHEET 11 INJECTION WELLS		
		A	07/28/04	FOR INTERNAL REVIEW	EFC	AJ	DISCIPLINE	REVIEWED	DISCIPLINE	REVIEWED	DATE		ISSUED	REV	DATE	SDE						
		D	09/03/04	APPROVED FOR CONSTRUCTION	EFC	AJ	CIVIL	—	ELECTRICAL	KCM	STATUS		PRELIMINARY									
		1	10/13/04	REVISED AND APPROVED FOR CONSTRUCTION	EFC	AJ	STRUCTURAL	—	INST & CONTROL	KCM	REV.		FOR REVIEW AND APPROVAL	A	07/28/04							
		2	01/23/05	REVISED AND APPROVED FOR CONSTRUCTION	EFC	AJ	MECHANICAL	AJ	ARCHITECTURAL	—	CLIENT		APPROVED FOR CONSTRUCTION	0	09/03/04	KLM	TP					
		3	02/14/05	REVISED AND APPROVED FOR CONSTRUCTION	EFC	AJ	PROCESS	AJ	ENVIRONMENTAL	—	FIELD		REVISED & APPROVED FOR CONSTRUCTION	5	10/03/05	AJ	AJ					
		4	03/10/05	REMOVED HOLD AND APPROVED FOR CONSTRUCTION	EFC	AJ	PIPING	SDH	GEN. ARRANG.	BP	INTRA CO.											
		5	09/27/05	FINAL RECORD ISSUE	EFC	AJ																

SCALE NONE												CH2MHILL		DWG. NO. TP-PR-10-10-11	REV. 5
------------	--	--	--	--	--	--	--	--	--	--	--	----------	--	-------------------------	--------



Revisions Drawn By J PORCELLA Date OCTOBER 2009
 THESE RECORD DRAWINGS HAVE BEEN PREPARED, IN PART, ON
 THE BASIS OF INFORMATION COMPILED BY OTHERS. THE ARCHITECT
 NOT INTENDED TO REPRESENT IN DETAIL THE EXACT LOCATION,
 TYPE OF COMPONENT NOR MANNER OF CONSTRUCTION. THE
 ENGINEER WILL NOT BE RESPONSIBLE FOR ANY ERRORS OR
 OMISSIONS WHICH HAVE BEEN INCORPORATED INTO THE
 RECORD DRAWINGS. TW-112-1RB

BAR IS ONE INCH ON ORIGINAL DRAWING. 0 1" FILENAME: PR-10-04.dgn PLOT DATE: 11/19/2009 PLOT TIME: 10:28:26 AM

Appendix C

Photo Documentation Log

Appendix C. Photo Documentation Log

This photo log documents the clean-up process including pictures from before, during, and after clean-up activities, as well as pictures of disconnection points. Photographs documenting conditions prior to the clean-up activities are taken from Appendix A of the *Interim Measure No. 3 Decommissioning, Removal, and Restoration Work Plan* (CH2M, 2014). Dismantling and cleaning photos were taken from 12/30/2021 through 3/21/2022.

Photograph 1: Extraction Well Vault interior prior to dismantling and cleaning (CH2M, 2014).



Photograph 2: TW-2S Well Vault after dismantling and cleaning.



Photograph 3: TW-2D Well Vault after dismantling and cleaning.



Photograph 4: TW-3D Well Vault after dismantling and cleaning.



**Photograph 5: Valve Vault #1 interior prior to dismantling and cleaning [facing southwest]
(CH2M, 2014).**



Photograph 6: Valve Vault #1 after dismantling and cleaning [facing south].



Photograph 7: Valve Vault #1 after dismantling and cleaning [facing north].



Photograph 8: Extraction Line isolation at IM-3 after dismantling and cleaning [facing west].



Photograph 9: Extraction Well MCC tagout.



Photograph 10: Injection line isolation at IM-3 after dismantling and cleaning [facing southeast].



Photograph 11: Off-spec water line isolation at IM-3 after dismantling and cleaning [facing east].



Photograph 12: Brine line isolation at IM-3 after dismantling and cleaning [facing southwest].



Photograph 13: Injection well control conduit removal example.



Photograph 14: Injection well vault example before dismantling and cleaning (CH2M, 2014).



Photograph 15: Injection well vault example after line blinding and vault cleaning.



Photograph 16: P-900 rerouting to T-402 [facing west].



Photograph 17: P-900 rerouting to T-402 [facing northeast].



Photograph 18: Emergency diesel generator pad after generator removal.



Photograph 19: Example of a 301 Tank being cleaned.



Photograph 20: Example of a 301 Tank being cleaned (interior view).



Photograph 21: Example of a 301 Tank being cleaned (view from above).



Photograph 22: Example of a 301 Tank after cleaning, side and floor view.



Photograph 23: Example of a 301 Tank after cleaning, upward view.



Photograph 24: Example of a 301 Tank after cleaning, interior detail view.



Photograph 25: Example of a 301 Tank after cleaning, alternate upward view.



Photograph 26: Chemical storage area prior to dismantling and cleaning (CH2M, 2014).



Photograph 27: Ferrous Chloride Storage Area after dismantling and cleaning.



Photograph 28: Caustic Storage Area 1 after dismantling and cleaning.



Photograph 29: Caustic Storage Area 1 after dismantling and cleaning.



Photograph 30: Hydrochloric Acid Storage Area after dismantling and cleaning.



Photograph 31: Microfilter CIP Chemical Storage Area after dismantling and cleaning.



Photograph 32: RO Antiscalant Storage Area prior to dismantling and cleaning, frontal view (CH2M, 2014).



Photograph 33: RO Antiscalant Storage Area after dismantling and cleaning, side view.



Photograph 34: Phase Separator storage area after removal and cleaning.



Photograph 35: Injection Well control skid exterior prior to dismantling and removal (CH2M, 2014).



Photograph 36: Injection Well Control system area after removal.



Photograph 37: Injection Well Control system bollards after removal.



Appendix D

Records, Manifests, Receipts

UNIFORM HAZARDOUS WASTE MANIFEST		1. Generator ID Number CAR000151118		2. Page 1 of 1	3. Emergency Response Phone PSC 844-334-2468		4. Manifest Tracking Number 019381296 JJK		
		5. Generator's Name and Mailing Address PG&E - MANIFESTS P.O. BOX 7640 SAN FRANCISCO CA 94120 Generator's Phone: 415-833-4155		Generator's Site Address (if different than mailing address) At: Susan Song TOPOCK GROUND WATER EXTRA SITE HWY I-40 & PARK MOABI RD NEEDLES CA 92363					
6. Transporter 1 Company Name MP Environmental Services		U.S. EPA ID Number CAT000624247							
7. Transporter 2 Company Name		U.S. EPA ID Number							
8. Designated Facility Name and Site Address US ECOLOGY - BEATTY HWY 95, 11 MILES SOUTH OF BEATTY BEATTY NV 89003 Facility's Phone: 775-553-2203		U.S. EPA ID Number NVT330010000							
GENERATOR	9a. HM	9b. U.S. DOT Description (including Proper Shipping Name, Hazard Class, ID Number, and Packing Group (if any))			10. Containers		11. Total Quantity	12. Unit Wt./Vol.	13. Waste Codes
		1. NON-RCRA HAZARDOUS WASTE, SOLID (CLARIFIER SLUDGE WITH CHROMIUM, TRACE HEAVY METALS)			No.	Type			
		2.							
		3.							
		4.							
14. Special Handling Instructions and Additional Information 1) 9b1) #070304177-0 Clarifier Sludge Return Weight Ticket with TDSF Copy Back to Generator Wear Proper PPE and Eyewear BIN# 5631									
15. GENERATOR'S/OFFEROR'S CERTIFICATION: I hereby declare that the contents of this consignment are fully and accurately described above by the proper shipping name, and are classified, packaged, marked and labeled/placarded, and are in all respects in proper condition for transport according to applicable international and national governmental regulations. If export shipment and I am the Primary Exporter, I certify that the contents of this consignment conform to the terms of the attached EPA Acknowledgment of Consent. I certify that the waste minimization statement identified in 40 CFR 262.27(a) (if I am a large quantity generator) or (b) (if I am a small quantity generator) is true. Generator's/Offoror's Printed/Typed Name: DAVID DIAZ Signature: <i>[Signature]</i> Month: 01 Day: 25 Year: 2022									
TRANSPORTER INT'L	16. International Shipments <input type="checkbox"/> Import to U.S. <input type="checkbox"/> Export from U.S. Port of entry/exit: _____ Date leaving U.S.: _____								
	17. Transporter Acknowledgment of Receipt of Materials Transporter 1 Printed/Typed Name: HECTOR LINARES Signature: <i>[Signature]</i> Month: 1 Day: 25 Year: 22 Transporter 2 Printed/Typed Name: _____ Signature: _____ Month: _____ Day: _____ Year: _____								
DESIGNATED FACILITY	18. Discrepancy								
	18a. Discrepancy Indication Space <input type="checkbox"/> Quantity <input type="checkbox"/> Type <input type="checkbox"/> Residue <input type="checkbox"/> Partial Rejection <input type="checkbox"/> Full Rejection								
	18b. Alternate Facility (or Generator) Manifest Reference Number: _____ U.S. EPA ID Number: _____								
	Facility's Phone: _____								
	18c. Signature of Alternate Facility (or Generator) _____ Month: _____ Day: _____ Year: _____								
19. Hazardous Waste Report Management Method Codes (i.e., codes for hazardous waste treatment, disposal, and recycling systems)									
1.		2.		3.		4.			
20. Designated Facility Owner or Operator: Certification of receipt of hazardous materials covered by the manifest except as noted in Item 18a Printed/Typed Name: _____ Signature: _____ Month: _____ Day: _____ Year: _____									

Please print or type.

UNIFORM HAZARDOUS WASTE MANIFEST		1. Generator ID Number CAR000151118		2. Page 1 of 1	3. Emergency Response Phone PSC 844-334-2468		4. Manifest Tracking Number 019381297 JJK				
		5. Generator's Name and Mailing Address PG&E - MANIFESTS P.O. BOX 7640 SAN FRANCISCO CA 94120		Att: Susan Song		Generator's Site Address (if different than mailing address) TOPOCK GROUND WATER EXTRA SITE HWY I-40 & PARK MOABI RD NEEDLES CA 92363					
Generator's Phone: 925 415-6331		6. Transporter 1 Company Name MP Environmental Services				U.S. EPA ID Number CAT000624247					
7. Transporter 2 Company Name						U.S. EPA ID Number					
8. Designated Facility Name and Site Address US ECOLOGY - BEATTY HWY 85, 11 MILES SOUTH OF BEATTY BEATTY NV 89003		Facility's Phone: 775 553 2203				U.S. EPA ID Number INVT330010000					
GENERATOR	9a. HM	9b. U.S. DOT Description (including Proper Shipping Name, Hazard Class, ID Number, and Packing Group (if any)) NON-RCRA HAZARDOUS WASTE, SOLID (CLARIFIER SLUDGE WITH CHROMIUM, TRACE HEAVY METALS)			10. Containers		11. Total Quantity	12. Unit Wt./Vol.	13. Waste Codes		
					No.	Type					
				2	CM	16	Y				
14. Special Handling Instructions and Additional Information BIN# 5634-5633		1) 9b1) #070304177-0 Clarifier Sludge Return Weight Ticket with TDSF Copy Back to Generator Wear Proper PPE and Eyewear									
15. GENERATOR'S/OFFEROR'S CERTIFICATION: I hereby declare that the contents of this consignment are fully and accurately described above by the proper shipping name, and are classified, packaged, marked and labeled/placarded, and are in all respects in proper condition for transport according to applicable international and national governmental regulations. If export shipment and I am the Primary Exporter, I certify that the contents of this consignment conform to the terms of the attached EPA Acknowledgment of Consent. I certify that the waste minimization statement identified in 40 CFR 262.27(a) (if I am a large quantity generator) or (b) (if I am a small quantity generator) is true.											
Generator's/Offor's Printed/Typed Name DAVID DIAZ					Signature <i>[Signature]</i>		Month Day Year 02/01/2022				
INTL	16. International Shipments		<input type="checkbox"/> Import to U.S.		<input type="checkbox"/> Export from U.S.		Port of entry/exit:				
	Transporter signature (for exports only):				Date leaving U.S.:						
TRANSPORTER	17. Transporter Acknowledgment of Receipt of Materials										
	Transporter 1 Printed/Typed Name HECTOR LINARI					Signature <i>[Signature]</i>		Month Day Year 12/1/22			
	Transporter 2 Printed/Typed Name					Signature		Month Day Year			
DESIGNATED FACILITY	18. Discrepancy										
	18a. Discrepancy Indication Space <input type="checkbox"/> Quantity <input type="checkbox"/> Type <input type="checkbox"/> Residue <input type="checkbox"/> Partial Rejection <input type="checkbox"/> Full Rejection										
	Manifest Reference Number:										
	18b. Alternate Facility (or Generator) U.S. EPA ID Number										
	Facility's Phone:										
	18c. Signature of Alternate Facility (or Generator)							Month Day Year			
19. Hazardous Waste Report Management Method Codes (i.e., codes for hazardous waste treatment, disposal, and recycling systems)											
1.		2.		3.		4.					
20. Designated Facility Owner or Operator: Certification of receipt of hazardous materials covered by the manifest except as noted in Item 18a											
Printed/Typed Name					Signature		Month Day Year				

UNIFORM HAZARDOUS WASTE MANIFEST		1. Generator ID Number C A R 0 0 0 1 5 1 1 1 8		2. Page 1 of 1		3. Emergency Response Phone PSC 844-334-2468		4. Manifest Tracking Number 019381391 JJK							
		5. Generator's Name and Mailing Address PG&E - MANIFESTS P.O. BOX 7840 SAN FRANCISCO CA 94120 Generator's Phone: 9 2 5 4 1 5 - 8 3 3 1						Generator's Site Address (if different than mailing address) TOPOCK GROUND WATER EXTRA SITE HWY I-40 & PARK MOABI RD NEEDLES CA 92363							
GENERATOR		6. Transporter 1 Company Name MP Environmental Services						U.S. EPA ID Number C A T 0 0 0 8 2 4 2 4 7							
		7. Transporter 2 Company Name						U.S. EPA ID Number							
DESIGNATED FACILITY		8. Designated Facility Name and Site Address US ECOLOGY - BEATTY HWY 95, 11 MILES SOUTH OF BEATTY BEATTY NV 89003 Facility's Phone: 775 553 2203						U.S. EPA ID Number N V T 3 3 0 0 1 0 0 0 0							
		9a. U.S. DOT Description (including Proper Shipping Name, Hazard Class, ID Number, and Packing Group (if any))						10. Containers		11. Total Quantity		12. Unit Wt./Vol.		13. Waste Codes	
TRANSPORTER		NON-RCRA HAZARDOUS WASTE, SOLID (CLARIFIER SLUDGE WITH CHROMIUM, TRACE HEAVY METALS)						2 CM		16		Y		491	
INT'L		14. Special Handling Instructions and Additional Information 1) 9b1) #070304177-0 Clarifier Sludge Return Weight Ticket with TDSF Copy Back to Generator Wear Proper PPE and Eyewear BIN# 5633 & 5634													
		15. GENERATOR'S/OFFEROR'S CERTIFICATION: I hereby declare that the contents of this consignment are fully and accurately described above by the proper shipping name, and are classified, packaged, marked and labeled/placarded, and are in all respects in proper condition for transport according to applicable international and national governmental regulations. If export shipment and I am the Primary Exporter, I certify that the contents of this consignment conform to the terms of the attached EPA Acknowledgment of Consent. I certify that the waste minimization statement identified in 40 CFR 262.27(a) (if I am a large quantity generator) or (b) (if I am a small quantity generator) is true.													
		Generator's/Offor's Printed/Typed Name DAVID DIAZ						Signature <i>David Diaz</i>		Month 10		Day 21		Year 2022	
		16. International Shipments <input type="checkbox"/> Import to U.S. <input type="checkbox"/> Export from U.S.						Port of entry/exit:							
		Transporter signature (for exports only):						Date leaving U.S.:							
DESIGNATED FACILITY		17. Transporter Acknowledgment of Receipt of Materials Transporter 1 Printed/Typed Name ABRAHAM LIVANES						Signature <i>Abraham Livanes</i>		Month 10		Day 21		Year 2022	
		Transporter 2 Printed/Typed Name						Signature		Month		Day		Year	
		18. Discrepancy													
		18a. Discrepancy Indication Space <input type="checkbox"/> Quantity <input type="checkbox"/> Type <input type="checkbox"/> Residue <input type="checkbox"/> Partial Rejection <input type="checkbox"/> Full Rejection													
		18b. Alternate Facility (or Generator)						Manifest Reference Number: U.S. EPA ID Number							
DESIGNATED FACILITY		Facility's Phone:													
		18c. Signature of Alternate Facility (or Generator)						Month		Day		Year			
		19. Hazardous Waste Report Management Method Codes (i.e., codes for hazardous waste treatment, disposal, and recycling systems)													
		1. 2. 3. 4.													
		20. Designated Facility Owner or Operator: Certification of receipt of hazardous materials covered by the manifest except as noted in Item 18a Printed/Typed Name						Signature		Month		Day		Year	

Please print or type.

Form Approved. OMB No. 2050-0039

UNIFORM HAZARDOUS WASTE MANIFEST		1. Generator ID Number C A R D 0 0 1 5 1 1 1 8	2. Page 1 of 1	3. Emergency Response Phone PSC 844-334-2468	4. Manifest Tracking Number 019381399 JJK		
5. Generator's Name and Mailing Address PG&E - MANIFESTS P.O. BOX 7640 SAN FRANCISCO CA 94120		Att: Susan Song		Generator's Site Address (if different than mailing address) TOPOCK GROUND WATER EXTRA SITE HWY I-40 & PARK MOABI RD NEEDLES CA 92363			
Generator's Phone: 9 2 5 4 1 5 - 8 3 3 1							
6. Transporter 1 Company Name MP Environmental Services				U.S. EPA ID Number C A T 0 0 0 6 2 4 2 4 7			
7. Transporter 2 Company Name				U.S. EPA ID Number			
8. Designated Facility Name and Site Address US ECOLOGY - BEATTY HWY 95, 11 MILES SOUTH OF BEATTY BEATTY NV 89003				U.S. EPA ID Number N V T 3 3 0 0 1 0 0 0 0			
Facility's Phone: 775 553 2203							
GENERATOR	9a. HM	9b. U.S. DOT Description (including Proper Shipping Name, Hazard Class, ID Number, and Packing Group (if any))	10. Containers No. Type		11. Total Quantity	12. Unit Wt./Vol.	13. Waste Codes
		1. NON-RCRA HAZARDOUS WASTE, SOLID (CLARIFIER SLUDGE WITH CHROMIUM, TRACE HEAVY METALS)	2	CM	16	Y	491
		2.					
		3.					
		4.					
14. Special Handling Instructions and Additional Information 1) 9b1) #070304177-0 Clarifier Sludge Return Weight Ticket with TDSF Copy Back to Generator Wear Proper PPE and Eyewear BIN# 5635-5631							
15. GENERATOR'S/OFFEROR'S CERTIFICATION: I hereby declare that the contents of this consignment are fully and accurately described above by the proper shipping name, and are classified, packaged, marked and labeled/placarded, and are in all respects in proper condition for transport according to applicable international and national governmental regulations. If export shipment and I am the Primary Exporter, I certify that the contents of this consignment conform to the terms of the attached EPA Acknowledgment of Consent. I certify that the waste minimization statement identified in 40 CFR 262.27(a) (if I am a large quantity generator) or (b) (if I am a small quantity generator) is true.							
Generator's/Offoror's Printed/Typed Name Valeri Hirst				Signature Valeri Hirst		Month Day Year 12 17 22	
TRANSPORTER INT'L	16. International Shipments <input type="checkbox"/> Import to U.S. <input type="checkbox"/> Export from U.S.		Port of entry/exit: _____ Date leaving U.S.: _____				
	Transporter signature (for exports only): _____						
TRANSPORTER	17. Transporter Acknowledgment of Receipt of Materials						
	Transporter 1 Printed/Typed Name HECTOR LINARES		Signature [Signature]		Month Day Year 12 17 22		
DESIGNATED FACILITY	Transporter 2 Printed/Typed Name		Signature		Month Day Year		
18. Discrepancy							
18a. Discrepancy Indication Space <input type="checkbox"/> Quantity <input type="checkbox"/> Type <input type="checkbox"/> Residue <input type="checkbox"/> Partial Rejection <input type="checkbox"/> Full Rejection							
18b. Alternate Facility (or Generator) Manifest Reference Number: _____ U.S. EPA ID Number _____							
Facility's Phone: _____							
18c. Signature of Alternate Facility (or Generator) _____ Month Day Year _____							
19. Hazardous Waste Report Management Method Codes (i.e., codes for hazardous waste treatment, disposal, and recycling systems)							
1. _____		2. _____		3. _____		4. _____	
20. Designated Facility Owner or Operator: Certification of receipt of hazardous materials covered by the manifest except as noted in Item 18a							
Printed/Typed Name _____				Signature _____		Month Day Year _____	

Ticket: 22615

US Ecology Nevada
11 Miles South of Beatty
Beatty, NV 89003

Vehicle: 14001

Manifest #: 019381296JJK

Date: 1/25/2022

Time In: 01:07 PM

Time Out: 01:55 PM

In: 43460 lb

Out: 32020 lb

Net: 11440 lb

Net Tons: 5.72 tons

Net Kg: 5189 kilograms



US ecology NEVADA

Ticket: 22856

US Ecology Nevada
11 Miles South of Beatty
Beatty, NV 89003

Vehicle: 14001

Manifest #:019381297JJK

Date: 2/1/2022

Time In: 02:55 PM

Time Out: 04:17 PM

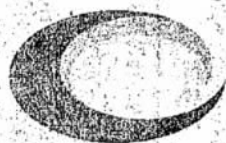
In: 70340 lb

Out: 46760 lb

Net: 23580 lb

Net Tons:11.79 tons

Net Kg: 10696 kilograms



US ecology

Ticket: 23329

US Ecology Nevada
11 Miles South of Beatty
Beatty, NV 89003

Vehicle: 14001

Manifest #: 019381399JJK

Date: 2/18/2022

Time In: 07:22 AM

Time Out: 09:15 AM

In: 80640 lb

Out: 47120 lb

Net: 33520 lb

Net Tons: 16.76 tons

Net Kg: 15204 kilograms



Ticket: 23957

US Ecology Nevada
11 Miles South of Beatty
Beatty, NV 89003

Vehicle: 14001

Manifest #:021783881JJK

Date: 3/22/2022

Time In: 07:29 AM

Time Out: 09:22 AM

In: 73460 lb

Out: 46520 lb

Net: 26940 lb

Net Tons:13.47 tons

Net Kg: 12220 kilograms

US Ecology Nevada, Inc.
P.O Box 578
Beatty, Nevada 89003

Phone: (800) 239-3943
(775) 553 2203
Fax: (775) 553 2125

US Ecology Nevada, Inc.

a US Ecology Inc. company

April 22, 2021

MP ENVIRONMENTAL
3045 S. 51ST AVE.
PHOENIX, AZ 85043

RE: Generator : **PG & E GROUNDWATER EXTRACT SITE**
Site Address : **HWY I-40 & PARK MOABI ROAD, NEEDLES, CA 92363**
US Ecology WS # : **070304177-0**
Waste Stream Name : **CLARIFIER SLUDGE W/CHROMIUM, TRACE HEAVY METALS**
Expiration Date : **04/22/2022**
Process : **DIRECT LANDFILL**

Dear Susan Song,

US Ecology recently received approval from the Nevada EPA for the disposal of the subject waste stream at our fully permitted RCRA, TSCA and CERCLA approved landfill facility at Beatty, Nevada. US Ecology appreciates the opportunity to manage this waste stream for you and looks forward to working with you for all your disposal needs.

The Uniform Hazardous Waste Manifest and Truck Inventory Sheet must accompany each shipment. If the shipment is lab waste, drum inventories must accompany the manifest. Also, the drum number is to be placed on top of the corresponding drum.

Please notify the Beatty disposal facility at least 48 hours prior to shipment and provide the facility with the following information:

- Date of Arrival
- U.S EPA Generator ID Number
- Waste Stream Number(s) and Total Quantity of each waste stream shipped
- Indicate if the waste is for Stabilization, Debris Treatment, or Direct Landfill
- Indicate if the waste is being shipped in bulk or in containers

The following is required when the load is received at US Ecology.

- A manifest
- A Truck inventory
- A Land Disposal Restriction Form (LDR), if applicable
- The driver is required to have all necessary p.p.e., including an appropriate respirator, in order to offload the waste.

Under conditions of our operating permit, US Ecology is required to inform you that we have all the appropriate permits in order to manage your waste stream.

Should you have any questions, Please contact your US Ecology Technical Sales Representative or Beatty customer service at (800) 239-3943. Please refer to the US Ecology Waste Stream Number above when making inquiries.

It is important that each shipment be scheduled at least 48 hours in advance. Unscheduled loads will be offloaded as time permits but may be subject to delay or rejection.

Sincerely,

KRISTIN KUESTER
CUSTOMER SERVICE REPRESENTATIVE

Please print or type.

Form Approved. OMB No. 2050-0039

UNIFORM HAZARDOUS WASTE MANIFEST		1. Generator ID Number C A R 0 0 0 1 5 1 1 1 8		2. Page 1 of 1	3. Emergency Response Phone 877-577-2669		4. Manifest Tracking Number 019381126 JJK			
		5. Generator's Name and Mailing Address PG&E - MANIFESTS P.O. BOX 7540 SAN FRANCISCO CA 94120		Att: Susan Song		Generator's Site Address (if different than mailing address) TOPOCK GROUND WATER EXTRA SITE HWY I-40 & PARK MOABI RD NEEDLES CA 92363				
Generator's Phone: 9 2 5 4 1 5 - 6 3 3 1		6. Transporter 1 Company Name MP Environmental Services				U.S. EPA ID Number C A T 0 0 0 6 2 4 2 4 7				
7. Transporter 2 Company Name						U.S. EPA ID Number				
8. Designated Facility Name and Site Address US ECOLOGY - BEATTY HWY 95, 11 MILES SOUTH OF BEATTY BEATTY NV 89003						U.S. EPA ID Number N V T 3 3 0 0 1 0 0 0 0				
Facility's Phone: 775 553 2203										
GENERATOR	9a. HM	9b. U.S. DOT Description (including Proper Shipping Name, Hazard Class, ID Number, and Packing Group (if any))			10. Containers No. Type		11. Total Quantity	12. Unit Wt./Vol.	13. Waste Codes	
		NON-RCRA HAZARDOUS WASTE, SOLID (CLARIFIER SLUDGE WITH CHROMIUM, TRACE HEAVY METALS)							491	
					CM			Y		
	2.									
	3.									
	4.									
14. Special Handling Instructions and Additional Information 1) 9b1) #070304177-0 Clarifier Sludge Return Weight Ticket with TDSF Copy Back to Generator Wear Proper PPE and Eyewear BIN# _____										
15. GENERATOR'S/OFFEROR'S CERTIFICATION: I hereby declare that the contents of this consignment are fully and accurately described above by the proper shipping name, and are classified, packaged, marked and labeled/placarded, and are in all respects in proper condition for transport according to applicable international and national governmental regulations. If export shipment and I am the Primary Exporter, I certify that the contents of this consignment conform to the terms of the attached EPA Acknowledgment of Consent. I certify that the waste minimization statement identified in 40 CFR 262.27(a) (if I am a large quantity generator) or (b) (if I am a small quantity generator) is true.										
Generator's/Offor's Printed/Typed Name					Signature			Month	Day	Year
INT'L	16. International Shipments <input type="checkbox"/> Import to U.S. <input type="checkbox"/> Export from U.S. Port of entry/exit: _____ Transporter signature (for exports only): _____ Date leaving U.S.: _____									
	17. Transporter Acknowledgment of Receipt of Materials									
TRANSPORTER	Transporter 1 Printed/Typed Name				Signature			Month	Day	Year
	Transporter 2 Printed/Typed Name				Signature			Month	Day	Year
DESIGNATED FACILITY	18. Discrepancy									
	18a. Discrepancy Indication Space <input type="checkbox"/> Quantity <input type="checkbox"/> Type <input type="checkbox"/> Residue <input type="checkbox"/> Partial Rejection <input type="checkbox"/> Full Rejection									
	Manifest Reference Number: _____									
	18b. Alternate Facility (or Generator)				U.S. EPA ID Number					
	Facility's Phone: _____									
	18c. Signature of Alternate Facility (or Generator)							Month	Day	Year
19. Hazardous Waste Report Management Method Codes (i.e., codes for hazardous waste treatment, disposal, and recycling systems)										
1.		2.		3.		4.				
20. Designated Facility Owner or Operator: Certification of receipt of hazardous materials covered by the manifest except as noted in Item 18a										
Printed/Typed Name					Signature			Month	Day	Year

Site Address : TOPOCK GW EXTRACTION SITE HWY I-40
AND PARK MOABI RD
Needles, CA 92363

SC PPW 8/1/2021

WORK ORDER NO. 2107338118

DOCUMENT NO. 1544035

STRAIGHT BILL OF LADING

TRANSPORTER 1 Clean Harbors Environmental Services, Inc. VEHICLE ID # 83082

EPA ID # MAD039322250 TRANS. 1 PHONE (781) 792-5000

TRANSPORTER 2 _____ VEHICLE ID # _____

EPA ID # _____ TRANS. 2 PHONE _____

DESIGNATED FACILITY Clean Harbors Buttonwillow LLC			SHIPPER ATTN: Susan Song Pacific Gas & Electric Co - TOPOCK GW EXTRACT SITE		
FACILITY EPA ID # CAD980675276			SHIPPER EPA ID # CAR000151118		
ADDRESS 2500 West Lokern Road			ADDRESS Pacific Gas & Electric Co-Manifest PO BOX 7640		
CITY Buttonwillow		STATE CA	ZIP 93206	CITY San Francisco	
STATE CA		ZIP 94120			
CONTAINERS NO. & SIZE	TYPE	HM	DESCRIPTION OF MATERIALS		TOTAL QUANTITY
2X BAGS	BA		A. NON HAZARDOUS, NON D.O.T. REGULATED MATERIAL, (DEBRIS, SOIL)		280
			B.		
			C.		
			D.		
			E.		
			F.		
			G.		
			H.		
SPECIAL HANDLING INSTRUCTIONS A.CH1146839			EMERGENCY PHONE #: (800) 483-3718		
			GENERATOR: Pacific Gas & Electric Co - TOPOCK GW EXTRACT SITE		

SHIPPERS CERTIFICATION: This is to certify that the above named materials are properly classified, described, packaged, marked and labeled and are in proper condition for transportation according to the applicable regulations of the Department of Transportation.

SHIPPER	PRINT DAVID DIAZ	SIGN <i>David Diaz</i>	DATE 03-03-2022
TRANSPORTER 1	PRINT TELESA LEUNG WO	SIGN <i>Telesa Leung Wo</i>	DATE 03.03.22
TRANSPORTER 2	PRINT	SIGN	DATE
RECEIVED BY	PRINT	SIGN	DATE

Generator acknowledges that no material change has occurred either in the characteristics or in the process generating the material.

UNIFORM HAZARDOUS WASTE MANIFEST		1. Generator ID Number CAR000151118		2. Page 1 of 1		3. Emergency Response Phone (800)483-3718		4. Manifest Tracking Number 016441199 FLE					
		5. Generator's Name and Mailing Address Pacific Gas & Electric Co - TOPOCK GW EXTRACT SITE Pacific Gas & Electric Co-Manifest PO BOX 7640 San Francisco, CA 94120 Generator's Phone: (925) 415-6331 ATTN: Susan Song		Generator's Site Address (if different than mailing address) TOPOCK GW EXTRACTION SITE HWY I-40 AND PAR Needles, CA 92363									
6. Transporter 1 Company Name Clean Harbors Environmental Services, Inc.		U.S. EPA ID Number MAD039322250											
7. Transporter 2 Company Name		U.S. EPA ID Number											
8. Designated Facility Name and Site Address Clean Harbors Buttonwillow LLC 2500 West Lokem Road Buttonwillow, CA 93206 Facility's Phone: (661) 762-6200		U.S. EPA ID Number CAD980675276											
9a. HM		9b. U.S. DOT Description (including Proper Shipping Name, Hazard Class, ID Number, and Packing Group (if any))				10. Containers No. Type		11. Total Quantity		12. Unit Wt./Vol.		13. Waste Codes	
		1. NON-RCRA HAZARDOUS WASTE, SOLID, (OILY DEBRIS)				02 DM		273		P		352	
		2.											
		3.											
		4.											
14. Special Handling Instructions and Additional Information 1. CELL 146645 2 YSS TRUCK # 83082													
15. GENERATOR'S/OFFEROR'S CERTIFICATION: I hereby declare that the contents of this consignment are fully and accurately described above by the proper shipping name, and are classified, packaged, marked and labeled/placarded, and are in all respects in proper condition for transport according to applicable international and national governmental regulations. If export shipment and I am the Primary Exporter, I certify that the contents of this consignment conform to the terms of the attached EPA Acknowledgment of Consent. I certify that the waste minimization statement identified in 40 CFR 262.27(a) (if I am a large quantity generator) or (b) (if I am a small quantity generator) is true.													
Generator's/Offoror's Printed/Typed Name DAVID DIAZ													
Signature <i>David Diaz</i>													
Month Day Year 03 03 2022													
16. International Shipments <input type="checkbox"/> Import to U.S. <input type="checkbox"/> Export from U.S. Port of entry/exit Date leaving U.S.:													
Transporter signature (for exports only):													
17. Transporter Acknowledgment of Receipt of Materials													
Transporter 1 Printed/Typed Name TELESO LEUNG WO													
Signature <i>Teleso Leung Wo</i>													
Month Day Year 03 03 22													
Transporter 2 Printed/Typed Name													
Signature													
Month Day Year													
18. Discrepancy													
18a. Discrepancy Indication Space <input type="checkbox"/> Quantity <input type="checkbox"/> Type <input type="checkbox"/> Residue <input type="checkbox"/> Partial Rejection <input type="checkbox"/> Full Rejection													
Manifest Reference Number:													
18b. Alternate Facility (or Generator) U.S. EPA ID Number													
Facility's Phone:													
18c. Signature of Alternate Facility (or Generator) Month Day Year													
19. Hazardous Waste Report Management Method Codes (i.e., codes for hazardous waste treatment, disposal, and recycling systems)													
1. H132 2. 3. 4.													
20. Designated Facility Owner or Operator: Certification of receipt of hazardous materials covered by the manifest except as noted in Item 18a													
Printed/Typed Name Signature Month Day Year													

GENERATOR	UNIFORM HAZARDOUS WASTE MANIFEST		1. Generator ID Number CAR000151118	2. Page 1 of 1	3. Emergency Response Phone (800) 483-3718	4. Manifest Tracking Number 016441212 FLE				
	5. Generator's Name and Mailing Address Pacific Gas & Electric Co - TOPOCK GW EXTRACT SITE Pacific Gas & Electric Co-Manifest PO BOX 7640 San Francisco, CA 94120 Generator's Phone: (925) 415-6331 ATTN: Susan Song				Generator's Site Address (if different than mailing address) TOPOCK GW EXTRACTION SITE HWY I-40 AND PAR Needles, CA 92363					
	6. Transporter 1 Company Name Clean Harbors Environmental Services, Inc.				U.S. EPA ID Number MAD039322250					
	7. Transporter 2 Company Name				U.S. EPA ID Number					
	8. Designated Facility Name and Site Address Clean Harbors San Jose LLC 1021 Berryessa Road San Jose, CA 95133 Facility's Phone: (408) 441-0862				U.S. EPA ID Number CAD059494310					
TRANSPORTER	9a. HM	9b. U.S. DOT Description (including Proper Shipping Name, Hazard Class, ID Number, and Packing Group (if any))			10. Containers		11. Total Quantity	12. Unit Wt./Vol.	13. Waste Codes	
		1. NON-RCRA HAZARDOUS WASTE, LIQUIDS, (POLYETHYLENE GLYCOL, POLYETHYLENE GLYCOL TERT-OCTYLPHENYL ETHER)			No.	Type				
		2.								
		3.								
		4.								
DESIGNATED FACILITY	14. Special Handling Instructions and Additional Information 1. CH2302306 IX55 TRUCK # 83082									
	15. GENERATOR'S/OFFEROR'S CERTIFICATION: I hereby declare that the contents of this consignment are fully and accurately described above by the proper shipping name, and are classified, packaged, marked and labeled/placarded, and are in all respects in proper condition for transport according to applicable international and national governmental regulations. If export shipment and I am the Primary Exporter, I certify that the contents of this consignment conform to the terms of the attached EPA Acknowledgment of Consent. I certify that the waste minimization statement identified in 40 CFR 262.27(a) (if I am a large quantity generator) or (b) (if I am a small quantity generator) is true.									
	Generator's/Offor's Printed/Typed Name DAVID DIAZ				Signature <i>David Diaz</i>		Month Day Year 10 03 2022			
	16. International Shipments <input type="checkbox"/> Import to U.S. <input type="checkbox"/> Export from U.S. Port of entry/exit: _____ Transporter signature (for exports only): _____ Date leaving U.S.: _____									
	17. Transporter Acknowledgment of Receipt of Materials Transporter 1 Printed/Typed Name TEUSA LEUNG WO Signature <i>Leung Wo</i> Month Day Year 10 03 22 Transporter 2 Printed/Typed Name _____ Signature _____ Month Day Year _____									
DESIGNATED FACILITY	18. Discrepancy									
	18a. Discrepancy Indication Space <input type="checkbox"/> Quantity <input type="checkbox"/> Type <input type="checkbox"/> Residue <input type="checkbox"/> Partial Rejection <input type="checkbox"/> Full Rejection									
	18b. Alternate Facility (or Generator) _____ Manifest Reference Number: _____ U.S. EPA ID Number _____									
	18c. Signature of Alternate Facility (or Generator) _____ Month Day Year _____									
	19. Hazardous Waste Report Management Method Codes (i.e., codes for hazardous waste treatment, disposal, and recycling systems)									
1. H141		2.		3.		4.				
20. Designated Facility Owner or Operator: Certification of receipt of hazardous materials covered by the manifest except as noted in Item 18a Printed/Typed Name _____ Signature _____ Month Day Year _____										

Profile Number

15713

Generator Name	PG&E Topock Groundwater Extraction Site Phone: (760) 326-3326 Emergency: (800) 833-7602	Generator Address	15 Mi Southwest of Needles Hwy I40 & Park Moabi Rd. Needles, CA 92363 EPA ID#: CAR000151118
Waste Type	Non Hazardous Waste, Liquid (Brine Water)		
<p>I certify that the waste material removed from the above premises does not contain any radioactive, flammable, explosive, toxic or hazardous material ("Excluded Waste"). The term "hazardous material" is defined as any one or more pollutant, toxic substance, hazardous substance, solvent or oil as defined in or pursuant to the Resource Conservation and Recovery Act, the Comprehensive Environmental Response Compensation and Liability Act, the Federal Clean Water Act, or any other federal, state or local environmental law, regulation, ordinance, or rule, whether existing as of the date of this agreement or subsequently enacted. I also acknowledge that the Generator shall be responsible for any costs incurred by the Transporter or Disposal Facility in handling or proper disposal of any hazardous waste and that the Generator expressly agrees to defend, indemnify and hold harmless the Transporter from and against any and all damages, costs, fines and liabilities resulting from or arising out of any such hazardous waste.</p>			
Generator Rep. Name (please print)	PG&E (IM-3)	Generator Rep. Signature	[Signature]
Transporter Name	MP Environmental Services	Transporter Address	3045 S. 51st Ave. Phoenix, AZ 85043

Vehicle Information

Truck #	782	Tank#	3346	Inspection Paperwork Verified By:	
Waste Removed (Gallons)	5500	Totalizer Readings (Gallons)		Date	Time
		Start	Finish	2-1-2022	09:15
<p>I certify that the information above is accurate, and that only the waste certified for removal by the Generator is contained in the servicing vehicle. I am aware that falsification of this manifest may result in prosecution.</p>					
<p>Driver must comply with proper PPE requirements. Including; gloves, safety vest, hard hat, steel toes shoes & safety glasses</p>					
Driver Name (please print)	Marvel Arreaga		Driver Signature	[Signature]	

Disposal Facility	Liquid Environmental Solutions of Arizona	Address	5159 West Van Buren Street Phoenix, AZ 85043	
Waste Received (Gallons)		Date	Time	
Facility Rep. Name (please print)		Facility Rep. Signature		

NON-HAZARDOUS WASTE MANIFEST

Profile Number

15713

Generator Name	PG&E Topock Groundwater Extraction Site Phone: (760) 326-3326 Emergency: (800) 833-7602	Generator Address	15 Mi Southwest of Needles Hwy I40 & Park Moabi Rd. Needles, CA 92363 EPA ID#: CAR000151118
Waste Type	Non Hazardous Waste, Liquid (Brine Water)		
<p>I certify that the waste material removed from the above premises does not contain any radioactive, flammable, explosive, toxic or hazardous material ("Excluded Waste"). The term "hazardous material" is defined as any one or more pollutant, toxic substance, hazardous substance, solvent or oil as defined in or pursuant to the Resource Conservation and Recovery Act, the Comprehensive Environmental Response Compensation and Liability Act, the Federal Clean Water Act, or any other federal, state or local environmental law, regulation, ordinance, or rule, whether existing as of the date of this agreement or subsequently enacted. I also acknowledge that the Generator shall be responsible for any costs incurred by the Transporter or Disposal Facility in handling or proper disposal of any hazardous waste and that the Generator expressly agrees to defend, indemnify and hold harmless the Transporter from and against any and all damages, costs, fines and liabilities resulting from or arising out of any such hazardous waste.</p>			
Generator Rep. Name (please print)	PG & E / IAT 31	Generator Rep. Signature	[Signature]
Transporter Name	MP Environmental Services	Transporter Address	3045 S. 51st Ave. Phoenix, AZ 85043

Vehicle Information

Truck #	782	Tank#	3346	Inspection Paperwork Verified By:	
Waste Removed (Gallons)	5500	Totalizer Readings (Gallons)		Start	Finish
				Date	Time
				2-7-2022	0930
<p>I certify that the information above is accurate, and that only the waste certified for removal by the Generator is contained in the servicing vehicle. I am aware that falsification of this manifest may result in prosecution.</p>					
<p>Driver must comply with proper PPE requirements. Including; gloves, safety vest, hard hat, steel toes shoes & safety glasses</p>					
Driver Name (please print)	Manuel Arana		Driver Signature	[Signature]	

Disposal Facility	Liquid Environmental Solutions of Arizona	Address	5159 West Van Buren Street Phoenix, AZ 85043	
Waste Received (Gallons)		Date	Time	
Facility Rep. Name (please print)		Facility Rep. Signature		

WHITE - Transporter YELLOW - Second Generator GOLDENROD - Disposal Facility PINK - Generator



LIQUID ENVIRONMENTAL SOLUTIONS

P 5498

NON-HAZARDOUS WASTE MANIFEST

Profile Number

15713

Generator Name	PG&E Topock Groundwater Extraction Site Phone: (760) 326-3326 Emergency: (800) 833-7602	Generator Address	15 Mi Southwest of Needles Hwy 140 & Park Moabi Rd. Needles, CA 92363 EPA ID#: CAR000151118
Waste Type	Non Hazardous Waste, Liquid (Brine Water)		
I certify that the waste material removed from the above premises does not contain any radioactive, flammable, explosive, toxic or hazardous material ("Excluded Waste"). The term "hazardous material" is defined as any one or more pollutant, toxic substance, hazardous substance, solvent or oil as defined in or pursuant to the Resource Conservation and Recovery Act, the Comprehensive Environmental Response Compensation and Liability Act, the Federal Clean Water Act, or any other federal, state or local environmental law, regulation, ordinance, or rule, whether existing as of the date of this agreement or subsequently enacted. I also acknowledge that the Generator shall be responsible for any costs incurred by the Transporter or Disposal Facility in handling or proper disposal of any hazardous waste and that the Generator expressly agrees to defend, indemnify and hold harmless the Transporter from and against any and all damages, costs, fines and liabilities resulting from or arising out of any such hazardous waste.			
Generator Rep. Name (please print)	CHRIS LINTZ	Generator Rep. Signature	[Signature]
Transporter Name	MP Environmental Services	Transporter Address	3045 S. 51st Ave. Phoenix, AZ 85043

Vehicle Information

Truck #	Tank#		Inspection Paperwork Verified By:			
Waste Removed (Gallons)	4.600	Totalizer Readings (Gallons)	Start	Finish	Date	Time
					3-9-22	12:34

I certify that the information above is accurate, and that only the waste certified for removal by the Generator is contained in the servicing vehicle. I am aware that falsification of this manifest may result in prosecution.

Driver must comply with proper PPE requirements. Including: gloves, safety vest, hard hat, steel toes shoes & safety glasses

Driver Name (please print)	Hector Linares	Driver Signature	[Signature]
-------------------------------	----------------	------------------	-------------

Disposal Facility	Liquid Environmental Solutions of Arizona	Address	5159 West Van Buren Street Phoenix, AZ 85043
Waste Received (Gallons)		Date	Time
Facility Rep. Name (please print)		Facility Rep. Signature	

WHITE - Transporter YELLOW - Second Generator GOLDENROD - Disposal Facility PINK - Generator

Liquid Environmental Solutions of Arizona
5159 West Van Buren Street Phoenix, AZ 85043 (602) 278-3442

www.liquidenviro.com



MOJAVE DESERT AIR QUALITY MANAGEMENT DISTRICT

14306 Park Avenue, Victorville, CA 92392-2310
760.245.1661 -- 800.635.4617 -- FAX 760.245.2022

PERMIT TO OPERATE

E009727

Operation under this permit must be conducted in compliance with all information included with the initial application, initial permit condition, and conditions contained herein. The equipment must be maintained and kept in good operating condition at all times. This Permit to Operate or copy must be posted on or within 8 meters of equipment. If a copy is posted, the original must be maintained on site, available for inspection at all times.

EXPIRES LAST DAY OF: AUGUST 2022

OWNER OR OPERATOR (Co.#15)

Pacific Gas & Electric/Air Permits
3401 Crow Canyon Road
San Ramon, CA 94583

EQUIPMENT LOCATION (Fac.#2998)

PG&E - IM3 Remediation Site
I-40 and Park Moabi Rd/5 miles E of
Needles, CA 92363

Descriptions:

DIESEL IC ENGINE, EMERGENCY GENERATOR consisting of: Year of Mfg. 2000, USEPA engine family YKLXL15.2EC1, CARB E.O. #U-R-005-0040, with no exhaust after-treatment device installed:

One Komatsu, Diesel fired internal combustion engine Model No. SA6D140 and Serial No. 28865, After Cooled, Compression-Ignited, Direct Injected, Turbo Charged, producing 478 bhp with 6 cylinders at 1800 rpm while consuming a maximum of 34 gal/hr with a heat input rating of 0 MMBTUH. This equipment powers a 300 KW Komatsu Generator Model No. DF-4400K and Serial No. 612558, rated at 300KW.

EMISSIONS RATES

Emission Type	Est. Max Load	Unit
CO	0.23	gm/bhp-hr
NOx	5.7	gm/bhp-hr
PM10	0.1	gm/bhp-hr
SOx	0.007	gm/bhp-hr
VOC	0.2	gm/bhp-hr

CONDITIONS

1. This certified stationary compression-ignited internal combustion engine shall be installed, operated and maintained in strict

Fee Schedule: 7 (g)

Rating: 1 device

NAICS: 221210

SCC: 20100102

Location/Coordinates:
+34.72134, -114.49560

This permit does not authorize the emission of air contaminants in excess of those allowed by law, including Division 26 of the Health and Safety Code of the State of California and the Rules and Regulations of the District. This permit cannot be construed as permission to violate existing laws, ordinances, statutes or regulations of this or other governmental agencies. This permit must be renewed by the expiration date above. If billing for renewal fee required by Rule 301(c) is not received by expiration date above, please contact the District.

Pacific Gas & Electric/Air Permits
PO Box 7640
San Francisco, CA 94120

By:


Brad Poiriez

Air Pollution Control Officer

accordance with those recommendations of the manufacturer/supplier and/or sound engineering principles which produce the minimum emissions of air contaminants. Unless otherwise noted, this equipment shall also be operated in accordance with all data and specifications submitted with the application for this permit.

[40 CFR 60.4211(a), District Rule 1302]

2. A non-resettable four-digit (9,999) hour timer shall be installed and maintained on this equipment to indicate elapsed engine operating time.

[17 CCR 93115.10(d)]

3. This equipment shall only be fired on diesel fuel that meets the following requirements, or an alternative fuel approved by the ATCM for Stationary CI Engines:

a. Ultra-low sulfur concentration of 0.0015% (15 ppm) or less, on a weight per weight basis; and,

b. A cetane index or aromatic content, as follows: (i) A minimum cetane index of 40; or, (ii) A maximum aromatic content of 35 volume percent.

Note: Using CARB certified ULSD satisfies the requirements of Condition 3.b

[17 CCR 93115.5(a) and 40 CFR 60.4207(b)]

4. The owner/operator shall maintain an operations log for this engine current and on-site (or at a central location) for a minimum of three (3) years, and this log shall be provided to District, State and Federal personnel upon request. The log shall include, at a minimum, the following information:

a. Date of each use and duration of each use (in hours);

b. Reason for use (testing & maintenance, emergency, required emission testing, etc.);

c. Monthly and calendar year operation in terms of fuel consumption (in gallons) and/or total hours;

d. Fuel sulfur concentration and cetane index, as required by condition #3 (the o/o may use the supplier's certification of sulfur content if it is maintained as part of this log); and,

e. Maintenance performed on this equipment.

[17 CCR 93115.10(f)]

5. This equipment may operate in response to an impending rotating outage if the area utility has ordered rotating outages in the area where the engine is located or expects to order such outages at a particular time. The engine may be operated no more than 30 minutes prior to the forecasted outage and must be shut down immediately after the utility advises that the outage is no longer imminent or in effect.

[17 CCR 93115.6(a)(2)]

6. This equipment shall not be used to provide power during a voluntary agreed to power outage and/or power reduction initiated under an Interruptible Service Contract (ISC); Demand Response Program (DRP); Load Reduction Program (LRP) and/or similar arrangement(s) with the electrical power supplier.

[17 CCR 93115.6(c)(1)(C)]

7. This engine is subject to the requirements of Title 17 CCR 93115, the Airborne Toxic Control Measure (ATCM) for Stationary Compression Ignition Engines and 40 CFR 60, Subpart IIII - Standards of Performance for Stationary Compression Ignition Internal Combustion Engines (NSPS). In the event of a conflict between these conditions and this ATCM or NSPS, the more stringent requirement shall govern.

[District Rule 1302]

8. This engine shall be limited to use for emergency power, defined as in response to a fire or flood, or when commercially available power has been interrupted. In addition, this engine shall be operated no more than 50 hours per year for testing and maintenance.

[17 CCR 93115.6(a)(3)(1)(c)]

9. A facility wide Comprehensive Emission Inventory (CEI) for all emitted criteria and toxic air pollutants must be submitted to the District, in a format approved by the District, upon District request.

[District Rule 107(b), H&S Code 39607 & 44341-44342, and 40 CFR 51, Subpart A]

MOJAVE DESERT AIR QUALITY MANAGEMENT DISTRICT**BRAD POIRIEZ, EXECUTIVE DIRECTOR**

14306 Park Avenue, Victorville, CA 92392-2310

760.245.1661 • Fax 760.245.2022

Email: engineering@mdaqmd.ca.govwww.MDAQMD.ca.gov • @MDAQMD

Request to cancel a permit

(ATC or PTO)

PERMIT ISSUED TO:	CONTACT NAME:	PHONE:
EQUIPMENT PHYSICAL ADDRESS:	CITY:	STATE: ZIP:
OWNER OR OPERATOR (DISTRICT COMPANY NUMBER):	EQUIPMENT LOCATION (DISTRICT FACILITY NUMBER):	
PERMIT NUMBER(S) TO CANCEL:	CORRESPONDING EQUIPMENT DESCRIPTION:	
1 _____	_____	
2 _____	_____	
3 _____	_____	
4 _____	_____	
5 _____	_____	

If applying to cancel more than 5 permits, use additional forms or attach a list of additional permit numbers and corresponding equipment descriptions.

Cancellation of the permit described above is hereby requested for the following reason:

- ☐ Equipment has been: sold replaced destroyed removed from premises.
- ☐ Equipment will no longer be used.
- ☐ Equipment is exempt from permit requirement by Rule 219 Section ____.
- ☐ Replaced by statewide permit. *(Please attach copies of statewide permits.)*
- ☐ Other: _____

IT IS UNDERSTOOD THAT ANY FUTURE USE OF THIS EQUIPMENT MAY REQUIRE A NEW PERMIT APPLICATION AND THAT OPERATION OF THIS EQUIPMENT WITHOUT A VALID PERMIT MAY CONSTITUTE LEGAL ACTION AND PENALTIES OF UP TO \$25,000 FOR EACH DAY OF VIOLATION.

_____ SIGNATURE OF RESPONSIBLE MEMBER OF ORGANIZATION	_____ TITLE	_____ DATE
_____ PRINTED NAME	_____ PHONE NO.	_____ EMAIL ADDRESS

-For District use only-

_____ SIGNATURE OF ENGINEERING SUPERVISOR	_____ DATE SIGNED
--	----------------------

Original—Not Negotiable

Carrier No. _____

LWP
(Name of Carrier)

[illegible]

TOTAL	
CHARGES:	\$

FREIGHT CHARGES
Check Appropriate Box:
☐ Freight prepaid
☐ Collect

\$ _____ per _____

(Signature of Consignor)

Note: Liability limitation for loss or damage in this shipment may be applicable. See 49 United States Code, Sections 14706(c (1)(A) and (B).

CARRIER	Ground Water Partners
PER	Kevin Ashline / Mary Smith

1

Carrier acknowledges receipt of packages and any required placards. Carrier certifies emergency response information was made available and/or carrier has the U.S. Department of Transportation emergency response guidebook or equivalent documentation in the vehicle. Property described above is received in good order, except as noted.

Carrier No. _____

GWP
(Name of Carrier)

Carrier acknowledges receipt of packages and any required placards. Carrier certifies emergency response information was made available and/or carrier has the U.S. Department of Transportation emergency response guidebook or equivalent documentation in the vehicle. Property described above is received in good order, except as noted.

