

# CALIFORNIA DEPARTMENT OF TOXIC SUBSTANCES CONTROL

## Draft Subsequent Environmental Impact Report *for the* Pacific Gas And Electric Company Topock Compressor Station Final Groundwater Remediation Project

SCH# 2008051003

January 2017



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AQ	Air Quality & GHG Assumptions and Calculations
BOD	Basis of Design Report/Pre-Final (100%) Design Submittal for the Final Groundwater Remedy, PG&E Topock Compressor Station, Needles, California (provided under separate cover)
COM	PG&E Topock Tribal Communications Summary Table
ENERGY	Energy Calculations
GWMM	Groundwater FEIR and SEIR Mitigation Measures Comparison Table
IS	Modified Initial Study
NOI	Noise Calculations
NOP	Notice of Preparation
SCO	Scoping Report
TRA	Traffic Impact Analysis Report
WAT	2013 Water Board Memorandum

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## ACRONYMS AND ABBREVIATIONS

AB	Assembly Bill
ACEC	Area of Critical Environmental Concern
ADEQ	Arizona Department of Environmental Quality
ADT	Average Daily Traffic
ADOA	Arizona Department of Administration
ADOT	Arizona Department of Transportation
afa	acre feet per annum
AFY	acre-feet per year
AGFD	Arizona Game and Fish Department
ANSI	American National Standards Institute
AOC	Area of Concern
APE	Area of Potential Effect
AQAP	<i>1991 Air Quality Attainment Plan</i>
ARAR	applicable or relevant and appropriate requirement
AR4	<i>IPCC's Fourth Assessment Report</i>
A.R.S.	Arizona Revised Statutes
ASTM	American Society for Testing and Materials
AT&SF	Atchison, Topeka and Santa Fe Railway
BACT	Best Available Control Technology
bgs	below ground surface
BIAMP	Bird Avoidance and Minimization Plan
BLCA	Beal Lake Conservation Area
BLM	U.S. Bureau of Land Management
BMP	Best Management Practice
BNSF	Burlington Northern Santa Fe
BOR	U.S. Bureau of Reclamation
CAAQS	California ambient air quality standards
CAA	Clean Air Act
CalEEMod	California Emissions Estimator Model
CALFIRE	California Department of Forestry and Fire Protection
Cal/OSHA	California Division of Occupational Safety and Health
Caltrans	California Department of Transportation
CARB	California Air Resources Board
CBC	California Building Code
CCAA	California Clean Air Act
CCR	California Code of Regulations
CDFW	California Department of Fish and Wildlife
CEC	California Energy Commission
CEQA	California Environmental Quality Act
CERCLA	Comprehensive Environmental Response, Compensation, and Liability Act

CESA	California Endangered Species Act
CFR	Code of Federal Regulations
CGP	Construction General Permit
CH <sub>4</sub>	methane
CHPMP	<i>Cultural and Historical Properties Management Plan</i>
CHQ	Construction Headquarters
CHRIS	California Historical Resources Information System
CIP	Clean-In-Place
CLP	USEPA Contract Laboratory Program
CMS/FS	<i>Corrective Measures Study/Feasibility Study</i>
CNDDB	<i>California Natural Diversity Database</i>
CNEL	Community Noise Equivalent Level
CNPS	California Native Plant Society
CO	carbon monoxide
COC	chemical of concern
CO <sub>2</sub>	carbon dioxide
CO <sub>2</sub> e	CO <sub>2</sub> equivalents
COPC	chemical of potential concern
CPUC	California Public Utilities Commission
Cr(III)	trivalent chromium
Cr(T)	total chromium
Cr(VI)	hexavalent chromium
C/RAWP	<i>Construction/Remedial Action Work Plan</i>
CRHR	California Register of Historical Resources
CRIT	Colorado River Indian Tribes
CRPR	CNPS California Rare Plant Rank
CSLC	California State Lands Commission
CTR	California Toxics Rule
CUPA	Certified Unified Program Agency
CWA	Clean Water Act
dB	decibels
dBA	A-weighted decibels
DEIR	draft environmental impact report
DEM	digital elevation model
DOI	United States Department of the Interior
DOT	U.S. Department of Transportation
DPM	diesel particulate matter
DPR	California Department of Parks and Recreation
DQO	Data Quality Objective
DTSC	California Department of Toxic Substances Control
EHS	Division of Environmental Health Services

EIR	environmental impact report
EM	electromagnetic induction
EPA	Environmental Protection Agency
EPAct	Energy Policy Act of 1992
EPCRA	Emergency Planning and Community Right-to-Know Act
EZ	exclusion zone
FAA	Federal Aviation Administration
FCAA	Federal Clean Air Act
CAAAA	Federal Clean Air Act Amendments of 1990
FCR	field contact representative
FESA	Federal Endangered Species Act
FEIR	final environmental impact report
FEMA	Federal Emergency Management Agency
FESA	Federal Endangered Species Act
FHWA	Federal Highway Administration
Final RFI/RI Report	Final RCRA Facility Investigation and Remedial Investigation Report (RFI/RI Report)
FLPMA	Federal Land Policy and Management Act
FMIT	Fort Mojave Indian Tribe
FTA	Federal Transit Administration
FWPTS	freshwater pre-injection treatment system
GANDA	Garcia and Associates
Groundwater FEIR	Topock Compressor Station Groundwater Remediation Project Final EIR (January 2011)
HDCR	Hualapai Department of Cultural Resources
HDPE	high-density polyethylene
GHG	greenhouse gas
GIS	Geographic Information System
gpm	gallons per minute
GPR	ground-penetrating radar
H <sub>2</sub> S	hydrogen sulfide
HAZWOPER	Hazardous Waste Operations and Emergency Response
HAPs	hazardous air pollutants
HMBP	<i>Hazardous Materials Business Plan</i>
HMD	Hazardous Materials Division
HOV	high occupancy vehicle
HNWR	Havasu National Wildlife Refuge
HSWA	Hazardous and Solid Waste Amendments
NTH	National Trails Highway
Hz	hertz
I-40	Interstate 40
IAMPO	International Association of Plumbing and Mechanical Officials
IDW	investigation-derived waste

IEPR	Integrated Energy Policy Report
IM	Interim Measure
Interested Tribes	Chemehuevi Indian Tribe, Cocopah Indian Tribe, Colorado River Indian Tribes, Fort Mojave Indian Tribe, and the Hualapai Indian Tribe
IPCC	Intergovernmental Panel on Climate Change
IRZ	in situ reactive zone
IS	Initial Study
kWh	kilowatt-hours
LACM	Natural History Museum of Los Angeles County
LCR MSCP	Lower Colorado River Multi-Species Conservation Program
LCWSP	Lower Colorado River Water Supply Project
LDL	Larson Davis Laboratories
LES	Liquid Environmental Solutions
$L_{eq}$	energy-equivalent noise level
$L_{max}$	maximum noise level
$L_{min}$	minimum noise level
LOS	Level of Service
LUST	Leaking Underground Storage Tank
MACT	Maximum Achievable Control Technology
MBTA	Migratory Bird Treaty Act
MCL	maximum contaminant level
MDAB	Mojave Desert Air Basin
MDAQMD	Mojave Desert Air Quality Management District
MG	million gallons
mg/L	milligrams per liter
mg/kg	milligrams per kilogram
MLD	Most Likely Descendant
MMRP	Mitigation Monitoring and Reporting Program
MMTCO <sub>2</sub> e	gross million metric tons of carbon dioxide equivalent
mph	miles per hour
MPO	metropolitan planning organization
MRZ	Mineral Resource Zone
MS4	municipal separate storm sewer system
msl	mean sea level
MW	monitoring well
MWh	megawatt-hour
my	million years
N <sub>2</sub> O	nitrous oxide
NAAQS	National Ambient Air Quality Standards
NAHC	Native American Heritage Commission
NED	National Elevation Dataset
NEPA	National Environmental Policy Act

NESHAP	national emissions standards for hazardous air pollutants
NHPA	National Historic Preservation Act
NO <sub>2</sub>	nitrogen dioxide
NOI	Notice of Intent
NOP	Notice of Preparation
NO <sub>x</sub>	nitrogen oxides
NPDES	National Pollutant Discharge Elimination System
NPS	U.S. National Park Service
NRCS	National Resource Conservation Service
NRHP	National Register of Historic Places
NSF	National Sanitation Foundation
NTH	National Trails Highway
NTR	National Toxics Rule
NWP	Nationwide Permit
O&M Manual	<i>Operation and Maintenance Manual Final (100%) Design Submittal</i>
OEHHA	Office of Environmental Health Hazard Assessment
OHV	Off-Highway Vehicle
OSHA	U.S. Occupational Safety and Health Administration
PA	Programmatic Agreement
PAH	polycyclic aromatic hydrocarbon
PBA	<i>Programmatic Biological Assessment for Pacific Gas and Electric Topock Compressor Station Remedial and Investigative Actions</i>
PCBs	polychlorinated biphenyls
PFC	perfluorocarbon
PFYC	Potential Fossil Yield Classification
PG&E	Pacific Gas and Electric Company
PM <sub>2.5</sub>	fine particulate matter with an aerodynamic resistance diameter of 2.5 micrometers or less
PM <sub>10</sub>	fine particulate matter with an aerodynamic resistance diameter of 10 micrometers or less
ppd	pounds per day
PPV	peak particle velocity
PQS	professional qualifications standards
PRC	Public Resources Code
PRMP	<i>Paleontological Resources Management Plan</i>
PRPA	Paleontological Resources Preservation Act
RAO	Remedial Action Objective
RAWP	<i>Human Health and Ecological Risk Assessment Work Plan</i>
RB	River Bank
RCRA	Resource Conservation and Recovery Act
RFA	RCRA Facility Assessment
RFI	RCRA Facility Investigation
RFI/RI	Resource Conservation and Recovery Act Facility Investigation and Remedial Investigation Report

RMA	Risk management analysis
RMP	Resource Management Plan
RMS	root mean square
ROG	reactive organic gases
ROW	right-of-way
RV	recreational vehicle
RWQCB	Regional Water Quality Control Board
SBAIC	San Bernardino Archaeological Information Center
SBCM	Museum of San Bernardino County
SCADA	Supervisory Control and Data Acquisition
SCAG	Southern California Association of Governments
SCF	standard cubic feet
SCH	State Clearinghouse
Scoping Plan	<i>AB 32 Climate Change Scoping Plan</i>
SCRMA	Special Cultural Resource Management Area
SCS	sustainable communities strategies
Section 106	Section 106 of the National Historic Preservation Act
SEIR	subsequent environmental impact report
SEL	sound exposure level
SENEL	single event noise exposure level
SERC	State Emergency Response Commission
SF <sub>6</sub>	sulfur hexafluoride
SHPO	State Historic Preservation Officer
SIP	State Implementation Plan
SFL	Sacred Land File
SLM	sound level meter
SO <sub>2</sub>	sulfur dioxide
SO <sub>x</sub>	oxides of sulfur
SOP	Standard Operating Procedure
Station	Topock Compressor Station
SVOC	semivolatile organic compound
SWMU	Solid Waste Management Unit
SWPPP	Stormwater Pollution Prevention Plan
SWRCB	State Water Resources Control Board
TACs	toxic air contaminants
TAL/TCL	Target Compound and Target Analyte Lists
TBC	“To Be Considered” criteria
TCA	Topock Cultural Area
TCP	Traditional Cultural Property
TCS	Topock Compressor Station
TCRA	Time critical removal action

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TDS	total dissolved solids
TMDL	Total Maximum Daily Load
TOC	total organic carbon
TPH	total petroleum hydrocarbons
TRC	Technical Review Committee
TW Bench	Transwestern Bench
TWG	Technical Working Group
UA	Undesignated Area
ug/kg	micrograms per kilogram
ug/L	micrograms per liter
URBEMIS	Urban Emissions model
USACE	U.S. Army Corps of Engineers
USEPA	U.S. Environmental Protection Agency
USFWS	U.S. Fish and Wildlife Service
USGS	U.S. Geological Survey
US 95	United States Route 95
VdB	decibel notation
VMG	Vertical Magnetic Gradient
VOC	volatile organic compound
VRM	Visual Resource Management
WDR	Waste Discharge Requirements
WWII	World War II
XRF	x-ray fluorescence
ZEV	zero emission vehicle
ZNE	zero net energy

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