

Draft Environmental Impact Report

Comprehensive Groundwater Cleanup Strategy for Historical Chromium Discharges from PG&E's Hinkley Compressor Station, San Bernardino County

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View of Hinkley looking northeast from the Mojave River.

August 2012

Prepared by ICF International for the
California Regional Water Quality Control Board,
Lahontan Region



DRAFT ENVIRONMENTAL IMPACT REPORT

COMPREHENSIVE GROUNDWATER CLEANUP STRATEGY FOR HISTORICAL CHROMIUM DISCHARGES FROM PG&E'S HINKLEY COMPRESSOR STATION, SAN BERNARDINO COUNTY

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1 Acronyms and Abbreviations

2	µg/L	microgram per liter
3	µg/m ³	micrograms per cubic meter
4	²³⁸ U	Uranium
5	AADT	average annual daily traffic
6	AB	Assembly Bill
7	ACEC	Areas of Critical Environmental Concern
8	ACHP	the Advisory Council on Historic Preservation
9	ADT	average daily traffic
10	af	acre-feet
11	afy	acre-feet per year
12	AG	Agriculture
13	AG-AP	Agricultural Preserve overlay
14	AGR	agricultural supply
15	Albion	Albion Environmental Inc.
16	Alquist-Priolo Act	Alquist-Priolo Earthquake Fault Zoning Act
17	AMS	Accelerator Mass Spectrometry
18	amsl	above mean sea level
19	AQUA	aquaculture
20	ARB	California Air Resources Board
21	ATSF	Atchison, Topeka & Santa Fe Railway
22	bgs	below ground surface
23	BLM	U.S. Bureau of Land Management
24	BMPs	Best Management Practices
25	BNSF	Burlington, Northern & Santa Fe Railway
26	BSCF	brake specific fuel consumption
27	BSSC	Building Seismic Safety Council
28	Business Plans	Hazardous Materials Release Response Plans and Inventory
29	BWh	dry-hot desert climate
30	BWhh	dry-very hot desert
31	CAA	federal Clean Air Act
32	CAAQS	California ambient air quality standards
33	CAL FIRE	California Department of Forestry and Fire Protection
34	Cal-EPA	California Environmental Protection Agency
35	Cal-OSHA	California Occupational Safety and Health Administration
36	Caltrans	California Department of Transportation
37	CAO	Cleanup and Abatement Order
38	CAPCOA	California Air Pollution Control Officers Association
39	CBC	California Building Code
40	CBC	California Building Code

1	CCAA	California Clean Air Act
2	CCAs	community choice aggregators
3	CCR	California Code of Regulations
4	CDFG	California Department of Fish and Game
5	CDPH	California Department of Public Health
6	CEQA	California Environmental Quality Act
7	CERCLA	Comprehensive Environmental Response, Compensation and Liability
8		Act of 1980
9	CESA	California Endangered Species Act
10	CG	General Commercial
11	CGS	California Geological Survey
12	CH ₄	methane
13	CHLs	California Historical Landmarks
14	CHRIS	California Historical Resources Information System
15	CN	neighborhood commercial
16	CNDDB	California Natural Diversity Database
17	CNEL	community noise equivalent level
18	CNG	compressed natural gas
19	CNPS	California Native Plant Society
20	CO	carbon monoxide
21	CO ₂	carbon dioxide
22	CO ₂ e	carbon dioxide equivalents
23	County	San Bernardino County
24	CPUC	California Public Utility Commission
25	Cr	chromium
26	Cr[T]	total chromium
27	Cr[VI]	hexavalent chromium
28	CRHR	California Register of Historic Resources
29	CRPR	California Rare Plant Rank
30	CUPA	Certified Unified Program Agency
31	CWA	Clean Water Act
32	dB	decibel
33	dBA	A-Weighted Decibel
34	DEHP	di 2-ethylhexyl phthalate
35	DNL	Day-Night Level
36	DOT	federal Department of Transportation
37	DPM	diesel particulate matter
38	DPT	Direct-Push Technology
39	DTSC	California Department of Toxic Substances Control
40	DVD	Desert View Dairy
41	DVD	Desert View Dairy
42	DWMAs	Desert Wildlife Management Areas

1	ECSZ	Eastern California Shear Zone
2	EIR	Draft Environmental Impact Report
3	EPA	United States Environmental Protection Agency
4	ESA	federal Endangered Species Act
5	ESPs	energy service providers
6	FEMA	Federal Emergency Management Agency
7	FMMP	Farmland Mapping and Monitoring Program
8	FONSI	Finding of No Significant Impact
9	FPA	free production allowance
10	FPPA	Farmland Protection Policy Act
11	FRSH	freshwater replenishment
12	FS	The 2010 Feasibility Study
13	ft/ft	feet per foot
14	FWARG	Far Western Anthropological Research Group
15	g	gravity
16	g/bhp-hr	grams per brake horsepower-hour
17	GFH	granular ferric hydroxide
18	GHG	greenhouse gas
19	GMP	groundwater monitoring reports
20	gpm	gallons per minute
21	GPS	global positioning system
22	GVWR	gross vehicle weight rating
23	GWP	global warming potential
24	HAP	hazardous air pollutants
25	HCFCs	halogenated chlorofluorocarbons
26	HCP	Habitat Conservation Plan
27	HDPE	High-density polyethylene
28	HFCs	hydrofluorocarbons
29	HSAA	Carpenter-Presley-Tanner Hazardous Substances Account Act
30	HUD	U.S. Housing and Urban Development
31	HWCL	California Hazardous Waste Control Law
32	Hwy 58	State Highway 58
33	I-15	Interstate 15
34	IBC	International Building Code
35	ICES	Intermodal Corridors of Economic Significance
36	IND	industrial service supply
37	IOUs	investor-owned utilities
38	IPaC	Information, Planning and Conservation System
39	IPM	integrated pest management
40	IR	Regional Industrial
41	IRZ	in-situ reduction zones
42	kWh	kilowatts per hour

1	LCFS	Low Carbon Fuel Standard
2	L _{dn}	day-night sound level
3	L _{eq}	equivalent sound level
4	lf	linear feet
5	LLNL	Lawrence Livermore National Laboratory
6	L _{max}	maximum sound levels
7	L _{min}	minimum sound levels
8	LOS	level of service
9	LTUs	land treatment units
10	LUST	leaking underground storage tank
11	L _{xx}	percentile-exceeded sound levels
12	MBfRs	Membrane Biofilm Reactors
13	MBTA	Migratory Bird Treaty Act
14	MCE	maximum credible earthquake
15	MCL	Maximum Contaminant Level
16	MDAB	Mojave Desert Air Basin
17	MDAQMD	Mojave Desert Air Quality Management District
18	mg/L	milligram per liter
19	mgd	million gallons per day
20	MLDs	most likely descendants
21	MND	mitigated negative declarations
22	Mojave Solar	Mojave Solar, LLC
23	mpg	miles per gallon
24	MSAT	mobile source air toxics
25	msl	above mean sea level
26	MT	metric tons
27	MUN	municipal and domestic supply
28	MW	megawatt
29	MWA	Mojave Water Agency
30	N ₂ O	nitrous oxide
31	NAAQS	national ambient air quality standards
32	NAHC	Native American Heritage Commission
33	NDMA	N-nitrosodimethylamine
34	NEPA	National Environmental Policy Act of 1969 as amended
35	ng/L	nanogram per liter
36	NHPA	National Historic Preservation Act
37	NIRS	National Inorganic and Radionuclide Survey
38	NO ₂	nitrogen dioxide
39	Non-Degradation Policy	Statement of Policy with Respect to Maintaining High Quality of Waters
40		in California
41	NOP	Notice of Preparation
42	NPDES	National Pollution Discharge Elimination System

1	NRCS	Natural Resources Conservation Service
2	NRHP	National Register of Historic Places
3	nZVI	Nanoscale zero valent iron
4	O&M	operation and maintenance
5	O ₃	ozone
6	OEHHA	Office of Environmental Health Hazard Assessment
7	OIMP	Odor Impact Mitigation Plan
8	OSHA	federal Occupational Safety and Health Administration
9	OU	Operable Unit
10	Pb	lead
11	PCB	polychlorinated biphenyls
12	pCi/L	picoCurie per liter
13	Peak Velocity	Peak Particle Velocity
14	PFCs	perfluorinated carbons
15	PG&E	Pacific Gas and Electric Company
16	PHG	Public Health Goal
17	PM	particulate matter
18	PM10	PM 10 microns in diameter or less
19	PM2.5	PM 2.5 microns in diameter or less
20	Porter-Cologne Act	Porter-Cologne Water Quality Control Act of 1967
21	ppb	parts per billion
22	ppm	parts per million
23	ppt	parts per trillion
24	ppv	peak particle velocity
25	PRBs	Permeable Reactive Barriers
26	PRC	Public Resources Code
27	Program	Voluntary Whole House Replacement Water Program
28	PVC	Polyvinyl chloride
29	RCRA	Resource Conservation and Recovery Act of 1974
30	Resolution 92-49	Resolution 92-49, Policies and Procedures for Investigation and Cleanup
31		and Abatement of Discharges Under Water Code Section 13304
32	RL	Rural Living
33	ROGs	reactive organic gases
34	RPS	California's Renewable Portfolio Standard
35	RS	Single Residential
36	RWQCB	Regional Water Quality Control Board
37	SANBAG	San Bernardino Associated Governments
38	Santa Fe Railroad	Atchison, Topeka & Santa Fe Railroad line
39	SARA	Superfund Amendments and Reauthorization Act of 1986
40	SB	Senate Bill
41	SBA	Strong-Base Anion
42	SBAIC	San Bernardino Archaeological Information Center

1	SCAG	Southern California Association of Governments
2	SCAQMD	South Coast Air Quality Management District
3	SCE	Southern California Edison
4	SD	Special Development
5	SDWA	Federal Safe Drinking Water Act
6	SF ₆	sulfur hexafluoride
7	SFHA	Special Flood Hazard Area
8	SHPO	State Historic Preservation Office
9	SIPs	state implementation plans
10	SJVAPCD	San Joaquin Valley Air Pollution Control District
11	SMCLs	secondary maximum contaminant levels
12	SO ₂	sulfur dioxide
13	SPCC Plan	Spill Prevention, Control, and Countermeasure Plan
14	SPT	Standard Penetration Tests
15	SR	State Route
16	SRRE	Source Reduction and Recycling Element
17	SS	Stainless steel
18	SSC	species of special concern
19	STAA	Surface Transportation Assistance Act
20	State Water Board	State Water Resources Control Board
21	SVP	Society of Vertebrate Paleontology
22	SWPPP	Stormwater Pollution Prevention Plan
23	SWRCB	State Water Resources Control Board
24	TACs	toxic air contaminants
25	TCPs	traditional cultural properties
26	TDS	total dissolved solids
27	UFWS	U.S. Fish and Wildlife Service
28	USA North	Underground Service Alert of Northern California
29	USC	U.S. Government Code
30	USDA	U.S. Department of Agriculture
31	USEPA	U.S. Environmental Protection Agency
32	USFWS	United States Fish and Wildlife Service
33	USGS	U.S. Geological Survey
34	UST	underground storage tank
35	VA	Veterans Administration
36	VMT	vehicle miles traveled
37	VOC	volatile organic compound
38	Water Board	California Regional Water Quality Control Board, Lahontan Region
39	WBA	Weak-Base Anion
40	WDID	Waste Discharge Identification
41	WDRs	waste discharge requirements
42	WECC	Western Electricity Coordinating Council

1	WHO	World Health Organization
2	ZVI	Zero-valent iron

