Administrative Draft

Modesto Electric Generation Station

Prepared for

Modesto Irrigation District

April 14, 2003

CH2MHILL
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Submitted to

Modesto Irrigation District

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CH2MHILL

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Acronyms and Abbreviations

AADT	annual average daily traffic
AASHTO	American Association of State Highway Transportation Officials
ACHP	Advisory Council on Historic Preservation
ACI	American Concrete Institute
ADT	average daily traffic
AFC	application for certification
AHM	acutely hazardous material
AHPA	Archaeological and Historic Preservation Act
AISC	American Institute of Steel Construction
AISI	American Iron and Steel Institute
AM	archaeological monitor
AMCA	Air Moving and Conditioning Association
ANSI	American National Standards Institute
APCD	air pollution control district
APE	area of potential effect
AQIA	air quality impact analysis
AQMD	Air Quality Management District
ARB	Air Quality Board
ARM	Ambient ratio method
ASME	American Society of Mechanical Engineers
AST	aboveground storage tank
ASTM	American Society for Testing and Materials Standards
AVO	average vehicle occupancy
AWS	American Welding Society
BACT	best available control technology
BPIP	Building Profile Input Program

BMP	best management practice
Btu	British thermal units
C	celsius
CAA	Clean Air Act
CAAQS	California Ambient Air Quality Standards
CalEPA	California Environmental Protection Agency
Cal-OSHA	California Occupational Safety and Health Administration
Caltrans	California Department of Transportation
CAPCO	California Air Pollutants Control Officers Association
CAPE	Computer-Aided Protection Engineering
CARB	California Air Resources Board
CAS	Chemical Abstract Service
CBC	California Building Code
CCR	California Code of Regulations
CCTS	Central California Taxonomic System
CCTV	closed-circuit television
CCW	closed cooling water
CDC	California Department of Conservation
CDFG	California Department of Fish and Game
CDOGGR	California Division of Oil, Gas, and Geothermal Resources
CEC	California Energy Commission
CEDD	California Employment Development Department
CEM	continuous emission monitoring
CEMS	continuous emission monitoring system
CEQA	California Environmental Quality Act
CERCLA	Comprehensive Environmental Response, Compensation, and Liability Act
CESA	California Endangered Species Act
CFR	Code of Federal Regulations
CHP	California Highway Patrol

CHRIS	California Historical Resources Information System
CIWMB	California Integrated Waste Management Board
CIWMP	County Integrated Waste Management Plan
CIWMA	California Integrated Waste Management Act
CMP	Congestion Management Program
CNDDB	California Natural Diversity Database
CNPS	California Native Plant Society
CO	carbon monoxide
CO_2	carbon dioxide
CPUC	California Public Utilities Commission
CRHR	California Register of Historical Resources
CSC	California Species Concern
CT	combustion turbine
CTG	combustion turbine generator
CTI	Cooling Tower Institute
CUP	conditional use permit
CVC	California Vehicle Code
CVRWQCB	Central Valley Regional Water Quality Control Board
CWA	Clean Water Act
DAS	data acquisition system
DC	direct current
DCS	distributed control system
DOF	(California) Department of Finance
DOT	(U.S.) Department of Transportation
DTSC	(California) Department of Toxic Substances Control
EAEC	East Altamont Energy Center
EAF	equivalent availability factor
EDI	Electro Deionization
EHS	extremely hazardous substance

EIR	Environmental Impact Report
EJ	environmental justice
EMF	electric and magnetic fields
EPCRA	Emergency Planning and Community Right-to-Know Act
ERCs	emission reduction credits
ERPG	Emergency Response Planning Guideline
ESA	environmentally sensitive area
F	Fahrenheit
FAA	Federal Aviation Administration
FEMA	Federal Emergency Management Agency
FESA	Federal Endangered Species Act
FMMP	Farmland Mapping and Monitoring Program
g	ground gravity acceleration (9.8 meters squared per second)
GEP	Good Engineering Practice
G/hr	gigajoules per hour
$g/m^2/year$	grams per square meter per year
gpm	gallons per minute
GSU	generator step-up
GO	General Order
GP	General Plan
gr/dscf	Grains per dry standard cubic foot
GWh	gigawatt hours
HAP	Hazardous air pollutant
HMBP	Hazardous Materials Business Plan
HCM	Highway Capacity Manual
HI	Hydraulic Institute Standards
HMBP	Hazardous Materials Business Plan
HMMP	Hazardous Materials Management Plan
HP	high pressure

HRSG	heat recovery steam generator
HS	historical site
HSP	Health and Safety Plan
HVAC	heating, ventilating, and air-conditioning systems
HWCL	Hazardous Waste Control Law
HC	hydrocarbons
Hz	hertz
I/O	input/output
ICEA	Insulated Cable Engineers Association
IDLH	immediately dangerous to life and health
IEEE	Institute of Electrical and Electronic Engineers
IES	Illuminating Engineering Society
IP	intermediate pressure
KOPs	key observation points
kV	kilovolt
kV/m	kilovolts per meter
kVA	kilovolt ampere
LC	load center
LD_{50}	dose lethal to 50 percent of those tested
LDLO	lowest published lethal dose
LEL	lower explosive limit
LEPC	Local Emergency Planning Committee
LO/TO	lock-out/tag-out
LORS	laws, ordinances, regulations, and standards
LOS	level of service
LP	low pressure
MA	milliampere
MACT	maximum achievable control technology
MBtu/hr	million British thermal units per hour

MCC	motor control center
MdA	Madera sandy loam
MEA	Master Environmental Assessment
MEGS	Modesto Irrigation District Electric Generation Station
MEI	Maximally exposed individual
mG	milligauss
mg/kg	milligrams per kilogram
mg/m^3	milligrams per cubic meter
MID	Modesto Irrigation District
MLD	most likely descendant
mph	miles per hour
MSDS	Material Safety Data Sheet
MSS	Manufacturers Standardization Society Practices
MSW	municipal solid waste
MVM	million vehicle miles
MW	megawatt
NAAQS	national ambient air quality standard
NAHC	Native American Heritage Commission
NEC	National Electrical Code (NFPA No. 70)
NEMA	National Electrical Manufacturers Association
NEPA	National Environmental Policy Act
NESC	National Electric Safety Code
NESHAPS	National Emission Standards for Hazardous Air Pollutants
NFPA	National Fire Protection Association
NH_3	ammonia
NHPA	National Historic Preservation Act
NIOSH	National Institute of Occupational Safety and Health
NO_x	oxides of nitrogen
NOI	Notice of Intent

NPDES	National Pollutant Discharge Elimination System
NRCS	Natural Resources Conservation Service
NSPS	National Standards of Performance for New Stationary Sources
NSR	New Source Review
NRHP	National Register of Historic Places
O&M	operations and maintenance
OEHHA	Office of Environmental Health Hazard Assessment
OSD	official soil description
OSHA	Occupational Safety and Health Act
PA	project archaeologist
PAH	Polycyclic aromatic hydrocarbon
PEL	OSHA permissible exposure limit for 8-hr workday
PG&E	Pacific Gas & Electric Company
PI	Planned Industrial
PLC	programmable logic controller
PPE	personal protective equipment
ppm	parts per million
ppmvd	parts per million by volume, dry
PRC	Public Resources Code
Project	Modesto Irrigation District (MID) Electric Generation Station (MEGS) Project
PSD	Prevention of Significant Deterioration
PSMP	Process Safety Management Plan
RACM	reasonably available control measures
RCRA	Resource Conservation and Recovery Act
REL	reference exposure level
RH	relative humidity
RI	radio interference
RI-TVI	radio interference and television interference

RMP	Risk Management Plan
RO	Reverse Osmosis
ROC	reactive organic compound
ROW	right-of-way
RQ	reportable quantity
RTP	Regional Transportation Plan
RUSLE	revised universal soil loss equation
RV	recreational vehicle
RWQCB	Regional Water Quality Control Board
S&HC	[California] Street and Highways Code
SARA	Superfund Amendments and Reauthorization Act
SCR	selective catalytic reduction
SERC	State Emergency Response Commission
SHPO	State Historic Preservation Officer
SHRA	screening health risk assessment
SIP	State Implementation Plan
SJMSCP	San Joaquin County Multi-Species Habitat Conservation and Open Space Plan
SJVUAPCD	San Joaquin Valley Unified Air Pollution Control District
SOP	standard operating procedure
SPCC	Spill Prevention Control and Countermeasures
SPPE	Small Power Plant Exemption
SR 99	State Route 99
SSPC	Steel Structures Painting Council
STEL	short-term exposure limit, 15-min. exposure
STG	steam turbine generator
SVP	Society of Vertebrate Paleontology
SWPPP	Stormwater Pollution Prevention Plan
SWRCB	State Water Resources Control Board
TCLO	lowest published toxic concentration

TDS	total dissolved solids
TEWAC	totally enclosed water-to-air cooler
TLV	ACGIH threshold limit value for 8-hr workday
TpA	Traver sandy loam
TPQ	threshold planning quantity
TPY	tons per year
TSD	treatment, storage, and disposal
TSP	total suspended particulate
TSRR	Tidewater Southern Railroad
TuA	Tujunga loamy sand
TWA	NIOSH time-weighted average for 8-hr workday
UBC	Uniform Building Code
UL	Underwriter Laboratories Incorporated
UPC	Uniform Plumbing Code
UPRR	Union Pacific Railroad
UPS	uninterruptible power supply
USACE	United States Army Corps of Engineers
USC	United States Code
USE	Utility System Efficiencies, Inc.
USEPA	United States Environmental Protection Agency
USFWS	United States Fish and Wildlife Service
USGLO	United States Government Land Office
USGS	United States Geological Survey
UTM	Universal Transverse Mercator Projection
VOCs	Volatile Organic Compounds
WEAT	Worker Environmental Awareness Training
WPRR	Western Pacific Railroad
WWTP	wastewater treatment plant
ZLD	zero-liquid discharge