



Risk Management Plan for the Wastewater Reclamation Plant (Program 3)

Prepared for Hidden Valley Lake Community Services District



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Record of Revisions

[Reference CalARP Regulation 19 CCR 2745.10, 19 CCR 2775.1]

This Risk Management Plan (RMP) will be revised at least once every five years from the date of its initial submission or most recent revision. This five year timeframe is also recognized as the duration in which this document will be kept on file at the District. The RMP will be revised within six-months of a process modification that requires a Process Hazard Analysis or Offsite Consequence Analysis. More details on what can trigger an RMP update are discussed in Title 19 of the California Code of Regulations, Section 2745.10. Record keeping requirements are commensurate with 19 CCR 2775.1 The following table will be completed to track revisions to this document.

Revision Number	Date of Change	Date Entered	Signature of Person Entering Change
R0001	9/30/2020	9/30/2020	<i>Alfonso Pardo</i>
Description of Changes:			
To address the Findings and Abatement requests of OSHA			
Description of Changes:			
Description of Changes:			
Description of Changes:			



Acronyms and Abbreviations

The following is a list of acronyms and abbreviations that have been used in this document:

CalARP	California Accidental Release Prevention
Cal/OSHA	California Occupational Safety and Health Administration
CAS Number	Chemical Abstract Service Number
CCR	California Code of Regulations
CFR	Code of Federal Regulations
CSD	Community Services District
CUPA	Certified Unified Program Agency
District	Hidden Valley Lake Community Services District
O&M	Operations and Maintenance
OSHA	Federal Occupational Safety and Health Administration
PPM	Parts of Contaminant per Million Parts of Air
RMP	Risk Management Plan
TQ	Threshold Quantity
USC	United States Code
USEPA	United States Environmental Protection Agency



Definitions

[Reference CalARP Regulation 19 CCR 2735.3]

“Stationary source” means any buildings, structures, equipment, installations, or substance emitting stationary activities which belong to the same industrial group, which are located on one or more contiguous properties, which are under the control of the same person (or persons under common control), and from which an accidental release may occur. The term stationary source does not apply to transportation, including storage incident to transportation, of any regulated substance or any other extremely hazardous substance under the provisions of this chapter. A stationary source includes transportation containers used for storage not incident to transportation and transportation containers connected to equipment at a stationary source for loading or unloading. Transportation includes, but is not limited to, transportation subject to oversight or regulations under Part 192, 193, or 195 of Title 49 of CFR, or a state natural gas or hazardous liquid program for which the state has in effect a certification to DOT under Section 60105 of Title 49 of USC. A stationary source does not include naturally occurring hydrocarbon reservoirs. Properties shall not be considered contiguous solely because of a railroad or pipeline right-of-way.



Introduction

The Hidden Valley Lake Community Services District (District) operates a Wastewater Reclamation Plant that treats domestic wastewater from the community of Hidden Valley Lake, California. The stationary source covered by this Risk Management Plan (RMP) is the Wastewater Reclamation Plant operated by the Hidden Valley Lake Community Services District (District). The only substance used at the Wastewater Reclamation Plant that is regulated by the RMP requirements is chlorine gas. The process that uses the regulated substance is the chlorine gas storage and distribution system that adds chlorine to the treated wastewater effluent. Regulated substances are listed pursuant to Section 25532(g)(2) of the Health and Safety Code and can be found in Table 3 of CalARP Regulation 19 CCR.

The following regulations were either used to provide guidance or complied with during the development of this RMP:¹

- California Accidental Release Prevention (CalARP) Program pursuant to California Code of Regulations (CCR) Title 19, Division 2, Chapter 4.5.
- Federal Occupational Safety and Health Administration (OSHA) Process Safety Management requirements pursuant to 29 CFR 1910.119.
- California Occupational Safety and Health Administration (Cal/OSHA) Process Safety Management requirements pursuant to 8 CCR 5189.

The District provided the requested information on the processes and programs discussed in this RMP. This RMP is representative of the facility and programs overseen by the District.

This RMP is a standalone document that meets the requirements found in Title 19 of the California Code of Regulations.

¹ A comprehensive index of Process Safety Information is located in Appendix M.



Section 1 Registration

[Reference CalARP Regulation 19 CCR 2740.1(d), 19 CCR Chapter 4.5 Table 1]

1.1 Stationary Source Identification

- a) Source Name: Hidden Valley Lake Community Services District
Wastewater Reclamation Plant
- b) Address: 18896 Grange Road
Middletown, California 95461
- c) County: Lake County
- d) Latitude: 38° 46' 20.05" N
- e) Longitude: -122° 33' 57.48" W
- f) Method: Google Earth was used to obtain latitude and longitude
- g) Description: The latitude and longitude represent the location of the chlorine storage and use.

1.2 Stationary Source Dun and Bradstreet Number

024132875

1.3 Corporate Parent Company Information

- a) Name of Corporate Parent Company: N/A (No Parent Company)
- b) Dun and Bradstreet Number of Parent Company: N/A

1.4 Owner or Operator Information

- a) Name: Hidden Valley Lake Community Services District
- b) Phone: 707-987-9201
- c) Mail Address: 19400 Hartmann Road, Hidden Valley Lake, CA 95467-8371

1.5 Position with Overall Responsibility for RMP Elements and Implementation

- a) Title: General Manager
- b) Phone: 707-987-9201
- c) See Section 5.10 Figure 3 "Organizational Chart of RMP Authority"

1.6 Emergency Contact

- a) Name & Title: On-Call Operator
- b) Telephone Number: 707- 987-9201
- c) 24-hour Telephone Number: 707-355-9368
- d) e-mail Address (non-emergency): <http://www.hvlcsd.org> (Click on "Contact us")



1.7 Regulated Substance

- a) Chemical Name: Chlorine
- b) CAS Number: 7782-50-5
- c) Maximum Quantity: 4,000 lbs (two 1-ton Cylinders)
- d) NAICS Code: 221310
- e) Program Level: 3

1.8 Stationary Source USEPA Identifier

1000 0023 1144

1.9 Number of Full-Time Employees

There are a maximum of seven full-time employees located at this stationary source. Six of the employees are with operations and one is with administration. The operations employees typically report to the site at the beginning of their shift, but later leave the site to perform their assigned duties at other locations. The administrative employee is at the site part-time.

1.10 Code Applicability

The Wastewater Reclamation Plant has a maximum storage capacity of 4000 pounds of chlorine gas which is greater than the 2500-pound threshold amount that triggers Title 19 of the California Code of Regulations (CCR), Chapter 4.5 Table 1 requirements, as well as the 1500-pound threshold of Title 8 CCR, Section 5189, and the 100-pound threshold of Title 40 Code of Federal Regulations, Part 355.

The Wastewater Reclamation Plant does not trigger Title V of the Clean Air Act requirements.

1.11 Date of Last Safety Inspection by a Regulatory Agency and Name of Inspecting Entity

- a) Date of Last Inspection: June 29, 2017
- b) Inspecting Entity: Lake County Environmental Health Division

Note: To comply with the Cal/OSHA requirements, the overhead crane in the chlorine storage area was tested by Crane Equipment Regulatory Training & Services LLC, on December 2, 2008.

1.12 Consultant that Prepared the RMP

- a) Name: Coastland Civil Engineering, Inc.
- b) Mailing Address: 1400 Neotomas Avenue, Santa Rosa, CA 95405
- c) Telephone Number: 707.571.8005

1.13 Miscellaneous Source Contact Information

- a) Source E-Mail Address: <http://www.hvlcsd.org> (Click on "Contact us")
- b) Source Homepage Address: www.hvlcsd.org



c) Phone Number for Public Inquiries: 707-987-9201

d) Local Emergency Planning Committee:

Lake County Emergency Preparedness Committee

Lake County Op Area Emergency Coordinators

e) OSHA Voluntary Protection Program (VPP) Status: Hidden Valley Lake Community Services District does not participate in the OSHA VPP program.

1.14 Type and Reason for Changes to a Previously Submitted RMP:

This is the fourth submittal of the RMP. Changes were made to address the Findings and Abatement requests of OSHA.



Section 2 Executive Summary

2.1 The Accidental Release Prevention and Emergency Response Policies

[Reference CalARP Regulation CCR 2745.3(a)]

The District's goal is to prevent accidental releases of chlorine gas. The District's accidental release prevention strategy incorporates operator training, periodic audits, standard operating procedures, regularly scheduled maintenance, management practices, continuous system monitoring, and current technology to achieve its goals. Additionally, applicable provisions of Federal, State, and Local regulations are followed to ensure compliance and prevention of accidental releases.

In the unlikely event of a release, this plan addresses the response to emergencies by the District and coordination with response agencies that may be involved. In addition, the District has prepared an Emergency Response Plan to address an alarm scenario. Training includes instruction on using emergency response equipment and following proper procedures in the event of a chlorine release. A copy of the Emergency Response Plan is included as Appendix A.

2.2 The Stationary Source and Regulated Substances Handled

[Reference CalARP Regulation 19 CCR 2745.3(b)]

The Hidden Valley Lake Community Services District (District) operates a Wastewater Reclamation Plant that treats domestic wastewater from the community of Hidden Valley Lake, California. The only substance used at the Wastewater Reclamation Plant (stationary source) that is regulated by the RMP requirements is chlorine gas.

As a final step in the treatment process, chlorine gas is added to the treated wastewater as a disinfectant. The chlorination distribution system and chlorine gas storage used for disinfection are located in the Wastewater Reclamation Plant's Control Room. The chlorine storage area stores full and empty chlorine cylinders and contains the equipment and piping that controls and supplies the chlorine gas to the wastewater reclamation operation.

The maximum number of one-ton chlorine gas cylinders stored on site is two which contain a maximum total of 4,000 pounds of chlorine gas. However, in practice the amount of chlorine stored on site will be less than 4,000 pounds, because the gas is continuously being used. Both one-ton cylinders are connected to the chlorination system, with one of cylinders feeding chlorine to the system and the other cylinder in reserve. When the pressure in the active cylinder falls below 20 pounds per square inch gauge (psig), an automatic switchover system places the reserve cylinder on line while allowing the first cylinder to depressurize to ambient pressure. Then the empty one-ton cylinder is replaced with a reserve cylinder delivered to the site by the chlorine vendor.



Chlorine gas under pressure in the cylinder flows through the cylinder valve and directly into the chlorinator.

Note: There is no pressurized piping between the cylinder valve and the chlorinator.

The chlorinator reduces the chlorine gas pressure to less than atmospheric and regulates the chlorine gas flow rate. Chlorine gas under a negative air pressure flows through piping passing through the automatic switchover system, a gas flow measuring device, and to the ejector where it is mixed with untreated wastewater.

Note: A more detailed description of the process with diagrams is provided in the Chlorine System Operating Procedures included in Appendix E.

2.3 The General Accidental Release Prevention Program and Specific Prevention Steps

[Reference CalARP Regulation 19 CCR 2745.3(c)]

The District has in place the following general strategies to help prevent the release of chlorine gas:

- Regularly scheduled maintenance of the chlorine systems;
- A defined management system that defines roles and responsibilities;
- Written operating and emergency procedures;
- Readily available information to plant operators;
- Training for gas handling and use of emergency repair kits;
- Continuous system monitoring;
- A proactive incident investigation process.

2.4 The Five-Year Accident History

[Reference CalARP Regulation 19 CCR 2745.3(d)]

No accidental chlorine releases have occurred at the Wastewater Reclamation Plant in the past five-years that have resulted in any of the following:

- Deaths
- Injuries
- Significant Property Damage
- Evacuations
- Sheltering in Place
- Environmental Damage



2.5 The Emergency Response Program

[Reference CalARP Regulation 19 CCR 2745.3(e), 19 CCR 2765.1(b)(1)]

The District has developed an Emergency Response Plan for chlorine gas releases to ensure adequate preparedness with rapid and appropriate response to emergencies. This Plan provides

an organizational and procedural framework for the management of emergency incidents that may affect the District. The Emergency Response Plan also describes the coordination of the District with outside agencies for the further protection of District employees and property, as well as the surrounding community and environment. Coordination with the Lake County Fire Department to execute a tabletop exercise of the Emergency Response Plan occurred in April 2018. The last functional exercise with Lake County Fire Department was September 16, 2010. The Emergency Response Plan may be found in Appendix A.

2.6 Planned Changes to Improve Safety

[Reference CalARP Regulation 19 CCR 2745.3(f)]

The following recommendations were identified during the Process Hazard Analysis (PHA) discussed in Section 5.2 of this RMP and fully documented in Appendix D to improve the safety of the chlorination system. Please refer to each footnote to cross-reference the items identified in the the PHA:

1. Sodium hypochlorite feasibility: Evaluation discontinued due the acceptance of the Risk Management Plan and the history of safety at the District.²
2. Relocate fuel tanks: New tanks purchased, expected completion Spring 2021.³
3. The prevention of chlorine gas releases from the chlorination system is dependent on the proper operation of the chlorinator valve that is attached to the one-ton cylinders. As an integrated component of the one-ton cylinders, the District uses a reliable chlorine gas vendor that supplies cylinders that are in good condition. Once delivered, proper cylinder handling becomes the responsibility of the District. Proper cylinder handling procedures are documented, and are required training for all field personnel.⁴
4. Components of the chlorination system are maintained and inspected on a regular basis according to manufacturer recommendations and procedures (Ongoing maintenance requirement).⁵
5. The feasibility of updating the ventilation in the chlorine cylinder room will be examined (Spring 2021).
6. Maintenance of the leak detectors is performed according to manufacturer's recommendations. (Ongoing maintenance requirement.)⁶
7. Accessibility to emergency personnel will be improved with signage on Glider

² Appendix D, Checklist #1.13

³ Appendix D, Checklist #2.2

⁴ Appendix D, What-If #13,14,15,16,17,19

⁵ Appendix D, Checklist #3.12; What-If #18,20,21,22,23,26

⁶ Appendix D, What-If #27



- port road, and a Knox box at the gate to the Glider port. Completed Spring 2019.⁷
8. At the assembly area identified in the ERP, access to the existing water line will be added. This will provide first responder personnel the ability to administer first aid if necessary. Completed Spring 2019.⁸
 9. Within 10 steps of the chlorine cylinder and injector rooms, install a third eyewash and shower station. Completed Summer 2020.⁹
 10. The feasibility of installing additional chlorine leak detectors around the perimeter of the chlorination area will be evaluated. The additional external detectors could provide data on the chlorine plume if chlorine gas were to escape the chlorine storage area. Expected completion by Spring 2021.¹⁰
 11. For contractors that will be working on or near the chlorine system or for vendors providing chlorine gas, their contracts require them to take the necessary precautions to prevent accidents that could result in a chlorine release and also require training of their employees on appropriate actions to take in the event of a chlorine alarm or release. This training may need to be provided by the District. Contractor safety procedures are listed in Section 5.12 of this RMP (Ongoing).¹¹
 12. Install seismic hold-down straps on 1-ton chlorine cylinders. Completed Fall 2019¹²

⁷ Appendix D, Checklist #10.6

⁸ Appendix D, Checklist #10.7

⁹ Appendix D, Checklist #10.8

¹⁰ Appendix D, Checklist #10.4

¹¹ Appendix D, Checklist #4.13,4.14,4.15; What-If #24,25

¹² Appendix D, Checklist #7.2; What-If #3



Section 3 Offsite Consequence Analyses

[Reference CalARP Regulation 19 CCR 2745.4]

For facilities that must prepare an RMP, the Federal and State regulations require that a hazard assessment be performed to determine the effects on public and environmental receptors from the accidental release of chlorine gas. The Wastewater Reclamation Plant meets the requirements for a Program 3 RMP and therefore is required to perform offsite consequence analyses for both a Worst-Case and an Alternative Case chlorine gas release.

These analyses were performed by California Industrial Hygiene Services, Inc. under the professional direction and review of William J. Cornils in May 2009 and are updated herein.

3.1 Applicability

[Reference CalARP Regulation 19 CCR 2750.1]

The Wastewater Reclamation Plant uses and stores quantities of chlorine gas contained within two one-ton cylinders for a maximum total of 4,000 pounds. The potential total amount of chlorine gas onsite is greater than;

- a) The 2,500-pound Threshold Quantity (TQ) as identified in Title 19 of the California Code of Regulations
- b) The 1500-pound TQ established by the United States Environmental Protection Agency (USEPA)
- c) The 100-pound TQ established by the California Accidental Release Prevention (CalARP) Program

This means that an RMP is required. To satisfy the requirements of the CalARP program, this RMP will be submitted to the local Certified Unified Program Agency (CUPA) which is the Lake County Division of Environmental Health. The information in this RMP will also be submitted to the USEPA using their electronic submittal process called RMP*eSubmit.

Even though there have not been any accidental releases of chlorine from this facility, it is not eligible as a Program 1 because the distance to a toxic endpoint for a worst-case release is greater than the distance to a public receptor. However, it does meet Program 3 eligibility requirements, because the potential maximum storage of 4,000 pounds of chlorine gas is greater than the TQs mentioned. Additionally, the Lake County Division of Environmental Health has determined that this facility requires a Program 3 RMP.

3.2 Offsite Consequence Analysis Parameters

[Reference CalARP Regulation 19 CCR 2750.2]



3.2.1 Toxic Endpoints

As listed in the Table of Toxic Endpoints from Appendix A of the CalARP regulations, the toxic endpoint for chlorine is 0.0087 milligrams of chlorine per liter of air (0.0087 mg/L) or 0.0087 parts chlorine per million parts of air (0.0087 ppm).

The 0.0087 ppm toxic endpoint required by the CalARP regulations is from the Emergency Response Planning Guidelines, tier 2 (EPRG-2). ERPGs estimate the concentrations at which most people will begin to experience health effects if they are exposed to a toxic chemical for one hour. An EPRG-2 is the maximum airborne concentration below which it is believed nearly all individuals could be exposed for up to one hour without experiencing or developing irreversible or other serious health effects or symptoms that could impair their abilities to take protective action.

3.2.2 Meteorological Conditions

The meteorological conditions used for both the Worst-Case and Alternative Case scenarios are given in Table 1. The Worst-Case values are the default atmospheric parameters required by CalARP if ambient meteorological conditions are not available for the facility. The Alternative Case Scenario values were those provide in the Risk Management Program Guidance for Offsite Consequence Analysis, from the Environmental Protection Agency, dated April 15, 1999.

Table 1: Characteristics of the Atmosphere for the Worst-Case and the Alternative Scenarios

Parameters	Worst-Case	Alternative Case
Ambient Dry-bulb Temperature	77 °F (25 °C)	77 °F (25 °C)
Humidity	50%	50%
Atmospheric Stability Class	F	D
Wind Velocity	3.36 miles/hour (1.5 meters/second)	6.7 miles/hour (3 meters/second)

3.2.3 Height of Release

A ground level (0 feet) release was assumed for both scenarios.

3.2.4 Surface Roughness

A ground surface roughness consistent with rural topography (open country that is generally flat with no buildings or other obstructions) was selected.



3.3 Worst-Case Release Scenario Analysis

[Reference CalARP Regulation 19 CCR 2750.3]

Please note that this case is considered highly unlikely to occur because of the procedures, training, and safeguards that are present at the Wastewater Reclamation Plant.

The Worst-Case Release scenario considered for this site is a release of the entire contents of a one-ton chlorine gas cylinder within 10 minutes. To be conservative, no administrative controls or passive mitigation measures that would limit the off-site consequence distance were considered for this scenario. Also, the hills surrounding the facility, which would limit the distance the chlorine gas would travel, were also not considered in this scenario. Additionally, this scenario does not consider that the containers are kept in a closed building and assumes the chlorine was released directly to the air outside the Wastewater Reclamation Plant.

3.3.1 Dispersion Modeling

The RMP*Comp computer model was used to perform the off-site consequence analyses for the Worst-Case scenario. This is one of the models suggested by the USEPA for conducting off-site consequence analyses. Parameters used for this analysis are listed in Table 2.

Table 2: Worst-Case Consequence Analysis Parameters (RMP*Comp Ver. 1.07)

Chemical Name	Chlorine (CAS # 7782-50-5)
Percent of Mixture	100%
Physical State	Liquefied (Under Pressure)
Basis of Results	RMP*Comp Ver. 1.07
Scenario	Toxic Gas Release
Quantity Released	2000 pounds
Release Rate	200 pounds per minute
Release Duration	10 minutes
Category	Toxic Gas
Toxic Endpoint	0.0087 mg/L ; Basis: ERPG-2

3.3.2 Dispersion Modeling Results

The modeling indicated that the 0.0087 mg/L toxic endpoint extended 3.0 miles (4.8-kilometers) from the point of release for the Worst-Case scenario. Figure 1 is an aerial photo showing the 3-mile radius from the Wastewater Reclamation Plant that would be impacted under this scenario.

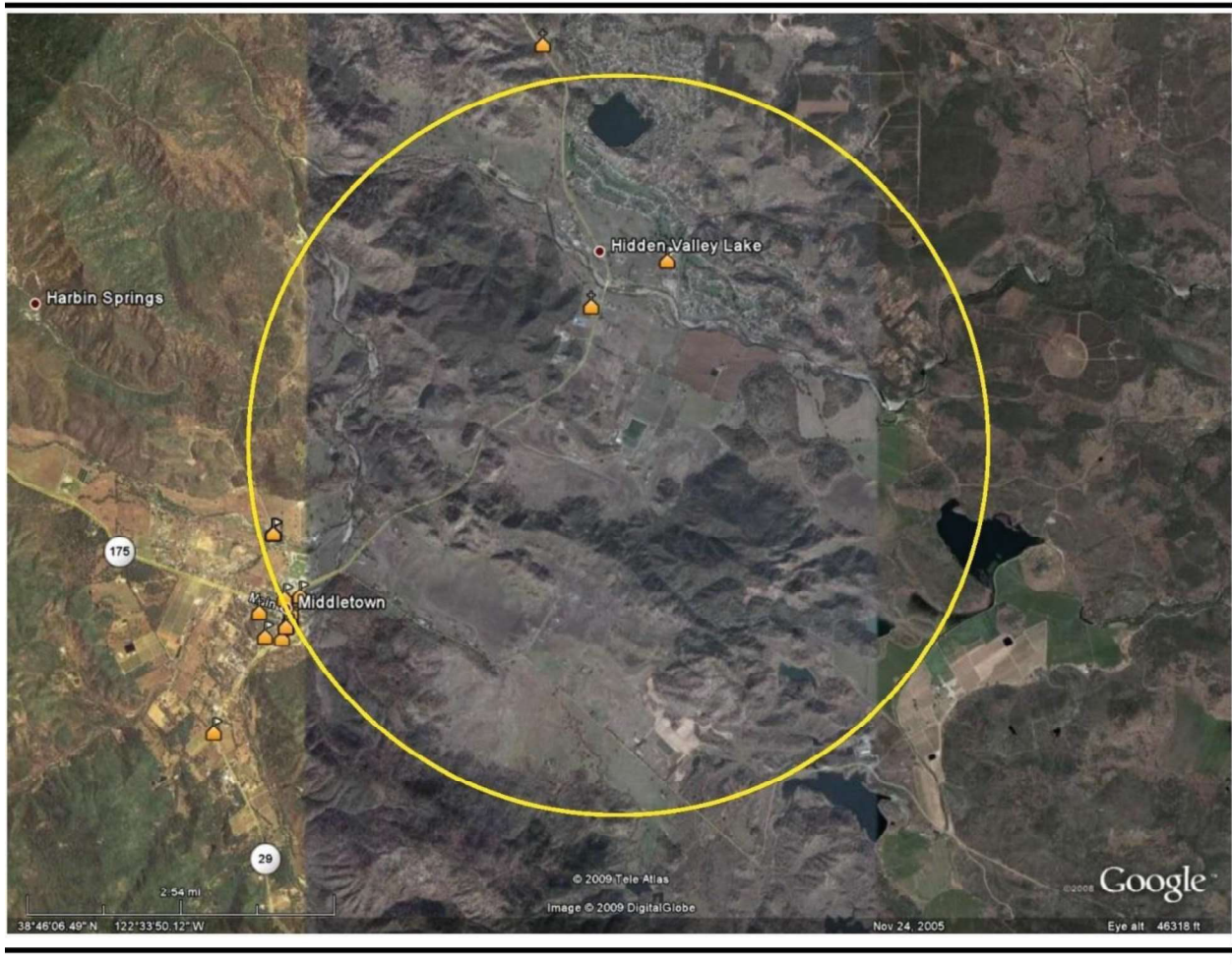


Figure 1 Aerial Photo Showing results of the Offsite Consequence Analysis for the Worst Case Scenario

3.4 Alternative Release Scenario Analysis

[Reference CalARP Regulation 19 CCR 2750.4]

Please note that this case is considered unlikely to occur because of the procedures, training, and safeguards that are present at the Wastewater Reclamation Plant.

The alternative release scenario modeled a one-ton cylinder that had a failure of a fuse plug with a fuse diameter of 5/16-inch located 4 inches from the bottom of the horizontal cylinder. This results in a release rate of 87.1 pounds of chlorine per minute assuming a total failure of the



5/16-inch diameter fuse. The release from the container continues for 60 minutes until the liquid contents left in the tank solidify due to the withdrawal of the Heat of Vaporization by the escaping chlorine vapor or the leak is fixed. To be conservative, no administrative controls or active mitigation measures that would limit the off-site consequence distance were considered for this scenario. Also, the hills surrounding the facility, which would limit the distance the chlorine gas would travel, were also not considered in this scenario.

3.4.1 Dispersion Modeling

The RMP*Comp computer model was used to perform the off-site consequence analyses for the Alternative-Case scenario. This scenario considers that the container is inside a building with direct contact with outside air. Parameters used for this analysis are listed in Table 3.

Table 3: Alternative Release Scenario Consequence Analysis Parameters (RMP*Comp Ver. 1.07)

Chemical Name	Chlorine (CAS # 7782-50-5)
Percent of Mixture	100%
Physical State	Liquefied (Under Pressure)
Basis of Results	RMP*Comp Ver. 1.07
Scenario	Failure of a Fuse Plug
Quantity Released	2000 pounds
Release Rate	87.1 pounds per minute
Release Duration	60 minutes
Category	Toxic Gas
Toxic Endpoint	0.0087 mg/L; Basis: ERPG-2

3.4.2 Dispersion Modeling Results

The modeling indicated that the 0.0087 mg/L toxic endpoint extended 0.3 miles (0.5 kilometers) from the point of release for the Alternative scenario. Figure 2 is an aerial photo showing the 0.3-mile radius from the Wastewater Reclamation Plant that would be impacted under this scenario.



Figure 2 Aerial Photo Showing results of the Offsite Consequence Analysis for the Alternative Scenario

3.5 Offsite Impacts to the Population

[Reference CalARP Regulation 19 CCR 2750.5]

The population estimates calculated for this section were based on United States Bureau of Census 2,010 data. Estimates of receptors were based on information found in recent aerial photos.

3.5.1 Worst-Case Release Scenario

For the Worst-Case Release scenario, the estimated population within the 3.0-mile radius from the point of release to the endpoint is approximately 2,950 individuals. The offsite receptors within the 3.0-mile radius circle are listed in Table 4.



Table 4: Offsite Receptors Located within a 3.0-Mile Radius from Point of Release

Receptor	Estimated Count
Schools – Elementary, Middle, & High School	5
Colleges	None
Hospitals	None
Long Term Healthcare Facilities	None
Library	None
Churches	1
Child Care Centers	None
Prisons	None
Private Residences	1,900
District Employees	12
Community Swimming Pool	2
Athletic Field	1
Museums	None
Major Shopping Areas	None
Golf Course	1
Major Highway	1
Community Parks	None
River & Lake front Beach Areas	6
Softball, Soccer Fields, & Tourist Attractions	2

3.5.2 Alternative Release Scenario

For the Alternative release scenario, the estimated population within the 0.3-mile radius from the point of release to the endpoint is less than 49 including the maximum staff of eight employees at the Wastewater Reclamation Plant. The offsite public and environmental receptors within the 0.3-mile radius circle are provided in Table 5.



Table 5: Offsite Receptors Located within a 0.3-Mile Radius from Point of Release

Receptor	Estimated Count
Schools – Elementary, Middle, & High School	None
Colleges	None
Hospitals	None
Long Term Healthcare Facilities	None
Library	None
Churches	None
Child Care Centers	None
Prisons	None
Private Residences	4
District Employees	7
Community Swimming Pool	None
Athletic Fields	None
Museums	None
Major Shopping Areas	None
Golf Course	None
Major Highway	None
Community Parks	None
River & Lake front Beach Areas	None
Soft Ball, Soccer Fields, and Tourist Attractions	None

3.6 Offsite Impacts to the Environment

[Reference CalARP Regulation 19 CCR 2750.6]

Environmental receptors are defined as natural areas such as national or state parks, forests, or monuments; officially designated wildlife areas, sanctuaries, preserves, or refuges; and Federal wilderness areas that can be identified on local United States Geological Survey (USGS) maps. After reviewing available USGS maps it was determined that there were no environmental receptors in the Alternative or Worst-Case Scenario areas of impact.

3.7 Offsite Consequence Analysis Review and Update

[Reference CalARP Regulation 19 CCR 2750.7]

The offsite consequence analysis will be reviewed at least once every five years from the date of this RMP and updated as necessary. If changes in the chlorine system, the quantities stored, the manner in which chlorine is handled, or any other aspect of the stationary source might reasonably be expected to increase or decrease the distance to the endpoint by a factor two or more, the District will complete a revised analysis within six months of the change and submit a revised RMP.



Section 4 Five-Year Accident History

[Reference CalARP Regulation 19 CCR 2745.5, 2750.9(a), and 2750.9(b)]

No accidental chlorine releases have occurred at the Wastewater Reclamation Plant in the past five-years that have resulted in any of the following:

- Onsite and Offsite Deaths
- Onsite and Offsite Injuries
- Significant Onsite and Offsite Property Damage
- Offsite Evacuations
- Offsite Sheltering in Place
- Offsite Environmental Damage



Section 5 Prevention Program: Program 3

5.1 General Safety Information for Chlorine and the Wastewater Reclamation Plant

[Reference CalARP Regulation 19 CCR 2745.7 and 2760.1]

The following safety information will be updated if a major change is made to the chlorination system or building that makes the following information inaccurate.

5.1.1 Safety Data Sheet for Chlorine

Information pertaining to the hazards of Chlorine is found in the Safety Data Sheet (SDS) included as Appendix B. The SDS for chlorine is also available onsite in the control room for the Wastewater Reclamation Plant. The SDS are filed alphabetically by chemical name in a three-ring binder that is clearly marked as to its contents. This binder is kept in a wall mounted rack in plain view and accessible to all employees. The safety information was last reviewed in April 2018 and is reviewed quarterly.

The SDS includes information on toxicity, permissible exposure limit (PEL), physical data, reactivity data, corrosivity data, thermal and chemical stability data, and hazardous effects of inadvertent mixing with different materials.

The following are some basic toxicity data on chlorine:

- Cal/OSHA Permissible Exposure Limit (PEL): 0.5 ppm
- Cal/OSHA Short Term Exposure Limit (STEL): 1 ppm
- Concentration specified by the National Institute of Occupational Safety and Health (NIOSH) which is Immediately Dangerous to Life and Health (IDLH): 10 ppm

5.1.2 Technology of the Chlorination Process

Detailed information concerning the technology of the process is included in the Operating Procedures that are located in the Wastewater Reclamation Plant's control room. A copy of the Operating Procedures can also be found in Appendix E. Such information includes a simplified process flow diagram; pertinent details concerning the process chemistry; maximum intended inventory; the safe upper and lower limits for such items as temperatures, pressures, and flows; and an evaluation of the consequences of deviations. The following is some general information concerning the technology of the process:

Maximum Inventory: The maximum inventory of chlorine gas is 4,000 pounds (two, one-ton cylinders). This assumes that both cylinders are full. It should be noted that the actual amount of chlorine stored at the facility is typically less than 4,000 pounds.

Safe Upper and Lower Operating Limits: The safe upper and lower operating limits are discussed in the Operating Procedures.



5.1.3 Information Pertaining to the Equipment in the Chlorination Process

The District uses an NXT 3000 Vacuum Regulator. Appendix E, Operating Procedures contains detailed information pertaining to the equipment.

The codes and standards used in the construction of the chlorination facility were those specified in the California Uniform Building Code (CA/UBC) in effect at the time of the construction.

Equipment was manufactured in accordance with industry standards (i.e., Chlorine Institute) and installed in accordance with manufacturer's recommendations.

Detailed information pertaining to the equipment used in the chlorination process including materials of constructions, piping and instrument diagrams, electrical classifications, relief system design, ventilation system design, design codes and standards employed, and safety systems can be found in the design documents for the facility. These documents are kept in the Wastewater Reclamation Plant control room. Reduced plans pertinent to the chlorine system may be found in Appendix C.

5.2 Process Hazard Analysis (PHA)

[Reference CalARP Regulation 19 CCR 2760.2]

A "What-If/Checklist" hazards review was conducted in November 2008 for the Wastewater Reclamation Plant. The analysis team consisted of management, operations and maintenance personnel, the consulting engineer that designed the facility, and a team leader (serving as scribe). The analysis commenced with training of the team by the team leader in the purpose and elements of a Risk Management Plan and the "What-If/Checklist" analysis method. A site walk of the facility was conducted to familiarize all the team members with the system.

The "What-If/Checklist" method combines the creative, brainstorming features of the "What-If" analysis method with the systematic features of the "Checklist" method. The results of this hazard review are listed in Section 2.6 of this RMP along with expected dates of completion, if applicable. The PHA received a cursory review in August 2015 by management and operations staff. This review of the 2018 document deemed the analysis comprehensive and appropriate in its needs assessment. A comprehensive review of the PHA was completed in April 2018. In September of 2020, two items were added (Checklist #10.8, and xxxxx) based on OSHA recommendations. Tables from the analysis showing major hazards and safeguards that include process controls, mitigation systems and monitoring systems may be found in Appendix D. An additional column (2018/2020) was added to the original PHA to provide closure for items that have already been complete, as well as confirmation for items that remain open for review and feasibility studies. The PHA will continue to be re-examined after major changes to a process or at least every five years and updated as necessary.

PHA findings and recommendations shall be promptly addressed with resolution measures fully documented. Upon PHA findings being brought to the District Manager's attention, the District Manager will document the problem, list corrective actions to be taken, and develop a written



schedule of when corrective actions will be completed. Corrective actions that may affect employee operations and performance will be communicated to employees. PHAs and updates to PHAs as well as documented resolutions to findings and recommendations shall be maintained by the District for the life of the chlorine system.

Since the PHA was performed in 2008, the following changes have been made:

- A lockout/tagout program was developed by the District
- Battery backup for the chlorine detector was installed.
- Two portable detectors on-site. One portable detector is part of the on-call operator's toolkit
- Three total SCBAs and a Level A chlorine suit is now on-site (Summer 2020)
- SCBA training completed (Fall 2020)
- Personal protective equipment (PPE) and chlorine repair kit have been re-located to an area farther away from the chlorine storage area.
- Industrial Hygiene Sampling has begun (Fall 2020)
- Implementation and employee training on the Chlorine Emergency Response Plan. The Plan was completed in February 2017 and is included in Appendix A.
- Procedures for handling chlorine cylinders written and presented as training to field staff (Summer 2020).
- Updated procedures for the extended aeration basin written and presented as training to field staff (August 2017).
- New rotameter was installed
- The Cl₂ Analyzer was repaired and calibrated
- Injector was rebuilt
- Regulator was rebuilt
- Seismic straps were installed
- New chlorine sensor installed (DeNora 1620), training conducted, and manual on-site (Summer 2020)
- A new chlorine vendor, Thatcher Company, has confirmed all safety recommendations identified in the PHA, and they are now incorporated into our contract.
- An inspection sheet was documented, and included in the new hire documentation packet (field operations).
- A tabletop exercise with County Emergency personnel was completed in April 2018.
- A plan to notify and educate contractors of chlorine safety while on-site has been developed.
- Hazard Communication Program including risk matrix has been implemented
- A comprehensive preventative maintenance checklist and tracking system has been developed.
- The Injury and Illness Prevention Program (IIPP) is now incorporated into annual and new hire training (Summer 2020).
- Field operations training is completed annually, and documentation of completion is kept in the employee's personnel file.



A Project Performance Certification Report was done in 1997 by Winzler & Kelly at which time field verification confirming that equipment is installed and maintained as designed was included. No previous incidents occurred that had a likelihood for catastrophic consequences.

5.3 Operating Procedures

[Reference CalARP Regulation 19 CCR 2760.3]

The Chlorine System Operating Procedures have been prepared in a clear and concise format. They provide detailed procedures for various operating phases, discuss operating limits including consequences of deviation, they incorporate safety and health considerations, and discuss safety systems. The procedures are dated to show their latest revision and old copies of the procedures are discarded. The Chlorine System Operating Procedures are kept in the Wastewater Reclamation Plant control room. A copy of the Chlorine System Operating Procedures can also be found in Appendix E. The Operating Procedures were most recently reviewed in April 2018.

5.4 Training

Reference CalARP Regulation [19 CCR 2760.4]

5.4.1 General

A key element of the prevention program is employee training. Properly trained employees have fewer accidents, damage less equipment, and improve operational efficiency. Employees are trained in the treatment process overview and applicable operating and maintenance procedures. Training consists of review of written materials and an apprenticeship under the direction and supervision of a skilled, experienced operator. Training is provided by a combination of vendor provided instruction and in-house on the job instruction by skilled operators. Additionally, the operators are certified by the State Water Resources Control Board. The training correlates to the Operations & Maintenance Manual for the Treatment of Wastewater at Hidden Valley Lake CSD. Initial training and recurring training have been formalized to include specific safety and health hazards of the process/procedure, emergency operations including shutdown and safe work practices applicable to the employee's job tasks. The training program is defined by training checklists and was most recently reviewed in April 2018 and consists of:

- Distinction of method of training (on the job, verbal or written)
- The type of training, whether Initial, Refresher, or Post Incident
- Documentation of the training (checklist)
- Testing or senior operator oversight to verify the employees competence

5.4.2 Employee Training Checklist

A training checklist is completed for each employee. A copy of the checklist is maintained in the employee's personnel file by the Administrative Assistant. An example blank checklist is provided in Appendix F and details training element subject matter. Columns are included on the checklist



to note method of training, type of training (i.e. annual, refresher, etc.), and employee initials acknowledging the training was received. Training checklists are maintained in the employees' files and reviewed annually.

5.4.3 Hazard Communication training program

Per the OSHA Hazard Communication Standard, a Hazard Communication training program has been implemented at the District. This program was updated in April 2018, and is part of the new hire orientation program. A copy of this program is provided in Appendix G.

5.5 Mechanical Integrity

[Reference CalARP Regulation 19 CCR 2760.5]

The mechanical integrity program at the Wastewater Reclamation Plant applies to the chlorine treatment process equipment and appurtenances including the following:

- Cylinders
- Piping Systems, Including Components
- Relief Valves/Venting
- Emergency Shutdown Systems
- Controls Including Monitoring Devices, Sensors, Alarms
- Pumps
- SCADA system

Operators, as applicable, perform basic day-to-day type maintenance. The operators also perform chlorine system maintenance beyond basic day-to-day maintenance including the rebuilding of the chlorinators.

5.5.1 Routine Maintenance & Inspection of the Wastewater Plant Chlorination System

The preventive maintenance program includes appropriate checks and inspections to keep equipment in satisfactory condition and to aid in detecting and correcting malfunctions before they develop into major problems.

The preventive maintenance schedule is a reminder of which routine maintenance operation is to be done. The District's comprehensive checklist has been separated into two categories; 1) Inspection Sheet, and 2) Maintenance Checklist. The inspection sheet is comprised of daily and weekly tasks. The maintenance checklist incorporates tasks that occur less frequently, and may require the commissioning of an outside contractor. Both lists appear in Appendix H. The maintenance checklist has also been converted into a tracking program, as referenced in the PHA Checklist 3.12.¹² The Manager of the Wastewater Reclamation Plant will audit the process and the records on a quarterly basis. That audit is documented in writing and any deficiencies or

¹² Appendix D



omissions are noted with a date for correction and the name of the employee responsible for completing the action item(s).

The maintenance procedures for each major piece of equipment of the chlorination system can be found in the Operating Procedures. In conjunction with safe operating and maintenance procedures, the District ensures the following:

- All District employees involved in maintenance of the chlorination system are trained in the hazards of the process, in how to avoid or correct unsafe conditions, and in the procedures applicable to the employee's job tasks.
- All contractors involved in maintenance work on and around the Wastewater Reclamation Plant chlorination equipment are trained to perform the assigned maintenance work.
- Regularly scheduled inspections and tests are performed on the chlorination equipment in accordance with manufacturers' recommendations, industry standards and codes, good engineering practices, and knowledge gained through prior operating experience to assure that equipment is installed properly and consistent with design specifications and manufacturer's instructions.

For the chlorination system, the essential inspection and maintenance procedures are as follows:

- Periodic inspections, calibrations, and replacement of chlorine leak detection system components.
- Periodic inspection of the chlorination equipment for deteriorated, corroded, worn, or cracked piping, fittings, and hold-downs.
- Pre-startup safety reviews following extensive maintenance activity.
- Documentation of each inspection and test that has been performed on chlorine equipment. Said documentation shall include the date of inspection or test, the name of the person performing the work, a description of the equipment and test/inspection performed, and the results of the inspection/test.

This maintenance checklist is provided in Appendix H. The preventative maintenance program was most recently reviewed in April 2018. The date of the most recent equipment inspection/test was in April 2018 for all the items on the Maintenance Schedule and Checklist.

5.5.2 Leak Sensors in the Chlorination Room

The presence of chlorine gas in the chlorination areas of the control building, resulting from a chlorine container or system leak, will be detected by the chlorine detector. The make/model of the detector is a DeNora 1620B Multipoint gas detector. The display unit that contains the alarms and digital readout is mounted outside the entrance to the chlorination areas of the control building. The sensors are located in the cylinder storage room and the adjacent chlorinator room. The warning alarm on the detector is set for 1.0 ppm, and SCADA controls for this device are set to alarm at 3.0 ppm. Once the warning alarm is activated, it can only be manually reset.



If chlorine is detected the alarm indicator will illuminate, and the annunciator will sound. The display unit also shows what sensor has exceeded the 1.0 ppm trigger. Additionally, an alarm goes through the SCADA system to inform on-call operators that a chlorine leak has occurred.

During routine inspections, the display unit will be checked for a “malfunction” alarm to help ensure there are no problems with the sensors or wiring to the sensors. The alarms are tested monthly with a known concentration of chlorine to see if they are working correctly. See Appendix H for a Maintenance Schedule and Checklist.

5.5.3 Locating Small Chlorine Leaks

Small chlorine leaks may be located by using a strong ammonia solution. An unstopped bottle or saturated swab of strong ammonia solution will cause wisps of white fumes to appear near the chlorine. Ammonia resistant gloves and eye protection must be worn when using this method of leak detection. The open bottle or the ammonia wetted swab may be slowly passed over pipes, connections and fittings to pinpoint the leak. Depending on the severity of the leak, it may be prudent to shut the system down, ventilate the area, then partially open the main shut-off valve and proceed with leak detection. The system will be checked for leaks after every change of containers, after any system maintenance, and after repair of any leaks.

5.5.4 Special Problems

As part of the chlorination system there is a “loss of vacuum/high vacuum” switch, manufactured by Ecometrics Inc. If there is a loss of vacuum, the switch sends a low pressure signal to the SCADA system. If the low pressure signal persists for 2 minutes or more, an alarm is activated in the control room. The loss of vacuum could be caused by an over pressure from the chlorine container due to a malfunctioning chlorinator or a leak in the chlorine system. The alarm also indicates a loss of injector vacuum that would have been caused by the loss of water pressure.

If the alarm was caused by an over pressurization of the system, the operator must act quickly, but carefully, to avoid any personal injuries to himself, other employees, or to the surrounding community by following the procedures in the Emergency Response Plan and Respiratory Protection Program. Copies of these documents can be found in Appendix A

5.5.5 Repairs

Basic repairs to correct any found deficiencies will be performed by trained operators to assure that maintenance materials, spare parts, and equipment are suitable for the chlorination system.



Only manufacturers' components will be used for any repair and maintenance work on the chlorine systems, its components, alarms, containers, sensors, and pumps.

5.5.6 Lockout/Tagout

In order to prevent unwanted releases of chlorine and to protect worker safety, the District has implemented Lockout/Tagout (LOTO) procedures. A copy of the procedure is located in the Wastewater Reclamation Plant control room and may be found in Appendix I.

5.6 Management of Change

[Reference CalARP Regulation 19 CCR 2760.6]

The District has established and implemented procedures to manage changes to processes, equipment, and procedures. The Management of Change (MOC) Checklist is the first step toward assessing the possibility of change documentation. An example MOC form is provided in Appendix J. It is necessary to assure that the changes are at least as safe as the original intent and that any new hazards are identified and mitigated. The MOC checklist also assesses safety implications, whether an update to the Process Hazard Analysis (located in Appendix D) is warranted. The Standard Operating Procedure (SOP) documentation process is well suited to changes in the chlorination system, in that it is comprised of seven sections, and incorporates timelines and approval requirements. The SOP encompasses the following conditions:

- Changes or expansions of the chlorine system (SOP Section 2).
- Changes to the operating conditions beyond the limits given in process flow diagrams or in equipment specifications (SOP Section 2).
- Changes to operating and maintenance procedures (SOP Section 5).

The District's SOP Form is completed by District staff to document proposed changes, the technical basis for the change, and impacts to health and safety. All changes, except "replacement in kind" to equipment, procedures, chemicals used, will be reviewed by the General Manager. Complete review must take place before the change is approved. Employees involved in operating and maintaining the chlorine system will be informed of, and trained in, the change prior to start-up. If a change is made to the chlorine system that results in a change to the process safety information or Operating Procedures, that information will be updated accordingly. Employee training and document update is tracked on the Employee Training Form.¹³

An example SOP form is provided in Appendix J for conducting the review. The procedures to manage changes were most recently reviewed in October 2020. No recent changes have triggered changes to the SOP structure.

5.7 Pre-Startup Review

[Reference CalARP Regulation 19 CCR 2760.7]

¹³ Appendix F



The District will conduct a pre-startup safety review of the Wastewater Reclamation Plant chlorination system in the following circumstances:

1. At the time of commissioning the system into service; and
2. After each modification that affects any process safety parameters including the following:
 - The piping and instrumentation;
 - The high- and low-level, and high- and low-pressure, shut down or alarm devices and their set points; and
 - The operating instructions, including safe operating limits.

The pre-startup review shall confirm the following:

- Construction and equipment is in accordance with design specifications.
- Safety, operating, maintenance, and emergency procedures are in place and are adequate.
- Modifications meet the “Management of Change” requirements noted in the previous subsection.
- Employee training has been completed.

The most recent pre-startup review occurred at the time of commissioning the system into service. No modifications have occurred to warrant a new pre-startup safety review.

5.8 Compliance Audits

[Reference CalARP Regulation 19 CCR 2760.8]

This section provides a written auditing and inspection procedure designed to ensure that the District has evaluated compliance with all Program 3 RMP requirements and that all administrative actions are implemented in a timely manner and are maintained as required.

The compliance audit will be conducted by at least one person knowledgeable with the process. Typically the General Manager or designee will use an audit checklist as listed in Appendix K to verify compliance with the RMP requirements and to verify that all required actions have been/are being performed. The audit will include a review of the documents or specifications to ensure that actions and procedures are current and are being appropriately implemented.

The audit will be conducted at least once every three years, and may be conducted more frequently if the General Manager determines that additional inspections are required. If the audit finds deficiencies in the procedures and/or practices, a report of the findings shall be developed and appropriate responses shall be determined with corrective actions documented. The two most recent completed and signed copies of the Audit Checklist and any report of findings shall be maintained by the District. The most recent compliance audit was completed April 2018.



5.9 Incident Investigation

[Reference CalARP Regulation 19 CCR 2760.9]

Incidents are investigated that involve injuries to personnel or catastrophic or potentially catastrophic chlorine release. A catastrophic release is one that presents an imminent and substantial endangerment to the public and the environment. If an incident meets the criteria for including in the five-year accident history section of this RMP, it automatically warrants an incident investigation. Immediately following a reportable event, the operator is to notify their supervisor, who will in turn make additional notifications. The supervisor will promptly assemble an incident investigation team, comprised of the Utility Supervisor, the General Manager, the operator involved in the incident, and a member of the administrative team as a scribe. An investigation is initiated as promptly as possible, but not later than 48 hours following the incident. Investigations would include the following:

- Interviews with staff involved.
- Interview with others who may be involved or who may have relevant information.
- Documentation of the physical environment with photographs.
- Review of electronic records, as applicable.
- Conducting an incident review with staff and management.
- A physical examination of the process.
- A written record of appropriate corrective measures or actions to be taken to prevent reoccurrence, with assignment of duties and completion dates.
- Creation of a written record of an incident that results in injuries to personnel. The record will include the following:
 - 1) The date of the event;
 - 2) The date the investigation begins;
 - 3) A description of the event;
 - 4) Factors contributing to the event;
 - 5) Root cause of the incident; and
 - 6) Recommendations resulting from the investigation.
- Creation of a written record of an incident that results in catastrophic or potentially catastrophic chlorine release. The record will include the following:
 - 1) Date, time, and approximate duration of the release;
 - 2) Regulated substance(s) released;
 - 3) Estimated quantity released in pounds;
 - 4) The type of release event and its source;
 - 5) Weather conditions, if known;
 - 6) On-site impacts;
 - 7) Known offsite impacts;
 - 8) Initiating event and contributing factors if known;
 - 9) Root cause of the incident;



- 10) Whether offsite responders were notified if known; and
- 11) Operational or process changes that resulted from the investigation.

The report findings will be reviewed with District staff and others that were involved in the incident. Any necessary operational or process changes found from the investigation shall be addressed promptly with resolutions and corrective actions fully documented. The written report will be kept in the General Manager’s office for at least five-years. The District has not experienced a chemical release requiring an investigation within the last 5 years.

5.10 Employee Participation

[Reference CalARP Regulation 19 CCR 2760.10]

A limited number of the District’s employees are involved with the chlorination system. The General Manager and senior operators hold the primary responsibility for the system.

**HIDDEN VALLEY LAKE COMMUNITY SERVICES
DISTRICT ORGANIZATIONAL CHART OF RMP
AUTHORITY**



Figure 3 RMP Organizational Chart of Authority

The District has developed an Employee Training Checklist to document employee participation in the prevention program (See Appendix F). The District recognizes that employee participation is crucial to the success of the Prevention Program. The employees’ knowledge of the chlorination system is essential to ensure identification of associated hazards and to develop workable corrective actions.



The operators and maintenance personnel hold secondary responsibility. These employees participated in the prevention program development process by:

- Participating in the process hazard analysis (What-If/Checklist) study session held for the chlorination system; and/or
- Reviewing the completed process hazard analysis study; and
- Reviewing this document; and
- Receiving regular training

This document is available to all employees for review. Any written employee suggestions regarding elements of this prevention program are required to be addressed by the management. Written justification will be given for not implementing any suggestion regarding elements of this program. The Employee Training Checklist used to document employee participation was most recently reviewed in March 2017.

5.11 Hot Work Permit

[Reference CalARP Regulation 19 CCR 2760.11]

Hot work is not performed on or near the Wastewater Reclamation Plant chlorination system. If in the future, in the unlikely event that hot work needs to be performed, the District has developed a hot work SOP that complies with Cal/OSHA regulations.¹⁴

5.12 Contractors

[Reference CalARP Regulation 19 CCR 2760.12]

Periodically the District may use contractors for construction, modification, maintenance, repair and other work on or near the chlorination system. The responsibilities of the District towards these contractors are as follows:

- The District will obtain and evaluate information regarding the contractor's safety performance and programs.
- The District will inform the contractor of the known potential hazards related to the contractor's work.
- The District will inform the contractor of the relevant sections of the District's Emergency Response Plan as applicable to the work being performed by the contractor.
- The District will ensure that the contractor is provided with safe work conditions and entrance/exits during the duration of the contract work.

¹⁴ Appendix L



- To prevent the release of chlorine gas, the contractor will follow safe work practices such as lockout/tagout, confined space entry, and controlling access to chlorine equipment and storage areas.
- Any unsafe conditions noticed by the District employees or contract employees are to be addressed by the District.
- The District will periodically evaluate the performance of the contractor to ensure they are fulfilling their responsibilities as discussed below.
- The responsibilities of the contractor are as follows:
 - The contractor will ensure that each contract employee is trained in the work practices necessary to safely perform their job. Training records should contain the identity of the contract employee, the date of training, and the means used to verify that the employee understood the training.
 - The contractor will inform each contract employee of the known potential hazards related to the contractor's work and of the applicable provisions of the District's Emergency Response Plan.
 - The contractor will assure that their employees follow the safety requirements established by the District for working at or around the chlorination system.
 - The contractor will inform each contract employee to advise the District of any unique hazards presented by the contract work, or of any hazards found by the contract employee, so that work can proceed in a safe manner.

Contractor safety procedures were most recently reviewed in March 2017. Evaluation of contractor safety performance occurred in March 2017.



Section 6 Emergency Response Program

[Reference CalARP Regulations 19 CCR 2745.8 and 2765.2]

The District is not the first responder for chlorine emergencies. Therefore, the District's emergency response program includes a callout alarm, a call to 911, and assembly to designated areas. The emergency response program consists of an Emergency Response Plan, emergency response equipment, employee training, and procedures to ensure the program is up-to-date.

The emergency response program includes the following:

- A written Emergency Response Plan that includes procedures and measures for emergency response.
- A written Respiratory Protection Program.

Copies of the written Emergency Response Plan are kept at the Wastewater Reclamation Plant, the control room of the Wastewater Reclamation Plant, and offsite at the administration offices. Additionally, a copy of the Emergency Response Plan along with the Respiratory Protection Program can be found in Appendix A of this RMP.

Employee training relevant to procedures and various aspects of the Emergency Response Plan is detailed in Subsection 1.3.4 of the Emergency Response Plan.

Review of the Emergency Response Plan will occur with the RMP audit at 3-year intervals, when changes to the chlorine system are made that would affect the Plan, or more frequently if determined by the General Manager. Employee training will include any revisions made to the Emergency Response Plan and/or Respiratory Protection Program.

The Emergency Response Plan was last updated in February 2017. The most recent Emergency Response Plan employee training occurred in March 2017.



Section 7 Management System

[Reference CalARP Regulations 19 CCR 2735.6]

The District has developed a management system to oversee the implementation of this RMP document (the prevention program elements). The District has assigned a qualified person (or position) that has the overall responsibility for the development, periodic review, implementation, and integration of the RMP elements. When responsibility for implementing individual requirements is assigned to another person, it must be documented.

The District General Manager has been assigned as a qualified person with overall responsibility for the development, periodic review, implementation, and integration of the RMP elements.



Section 8 Owner or Operator Certification

[Reference CalARP Regulation 19 CCR 2745.2(a)(1) and 19 CCR 2745.9]

To the best of the signer's knowledge, information, and belief formed after reasonable inquiry, the information submitted is true, accurate, and complete.

Owner or Operator:

Kirk Cloyd

Signature

4-27-18

Date

Kirk Cloyd

Print Name

General Manager

Title

Hidden Valley Lake CSD

Company



Section 9 Preparer's Certification

[Reference CalARP Regulation 19 CCR 2745.2(a)(1)]

This Risk Management Plan was prepared by Coastland Civil Engineering, Inc. under the professional direction and review of the person whose name and seal are provided below.

The professional services provided by Coastland Civil Engineering, Inc. were performed within the limits prescribed by the client and in accordance with generally accepted industry practices. The findings and recommendations presented herein reflect the professional opinions of Coastland Civil Engineering, Inc. No warranties, either express or implied, or guarantees, are made as to the sole benefit of client and shall not be construed to create benefits to, responsibilities to, or rights in any third party.

Qualified Person

Mark N Oberfell

Signature

Mark Oberfell

Print Name

Supervising Engineer

Title

Coastland Civil Engineering, Inc.

Company

