FACILITY EMERGENCY PLAN

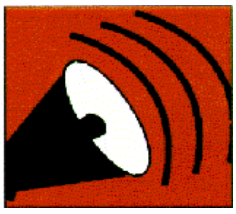
MOSS LANDING BESS



FIRE



BATTERY ENERGY STORAGE SYSTEM (BESS)



EMERGENCY RESPONSE / ICS / MEDICAL / EVACUATION



TEAMS & CONTACTS



MAPS & DIAGRAMS

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Moss Landing, CA 95039

September 2023

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The Moss Landing Power Plant (MLPP), located at the intersection of Highway 1 and Dolan Road in Moss Landing, California, is owned and operated by Moss Landing Power Company, LLC a subsidiary of Vistra Energy (Vistra). MLPP highly values the health, safety and well fare of our employees, customers and communities and the protection of the environment. Incident and emergency response planning increases the likelihood that desired conditions will be maintained as we generate electric power to serve the needs of California customers. Planning begins with anticipating environmental, health and safety hazards. This Facility Emergency Plan has been prepared to ensure that in the event of an emergency, roles, responsibilities, and actions are defined and coordinated so as to maximize response effectiveness.

This Facility Emergency Plan (FEP) has been prepared pursuant to the regulatory requirements contained in Title 19 CCR, Division 2, Chapter 4, Article 4, Section 2658 to ensure safe and effective response to any emergency situation at the Moss Landing Power Plant. The MLPP FEP provides specific procedures and notification processes to be performed in the event of an emergency. The FEP outlines and describes steps to be taken to "stop, prevent, abate, or mitigate a release or threatened release thereby ensuring the elimination of a condition of substantial probability of harm to human health and safety, property, or the environment."

Moss Landing Power Plant was originally developed by PG&E in the late 1940's following WWII. As it exists today, the facility occupies approximately 126 acres zoned "Heavy Industrial," consists of four electric power generating units with a maximum combined capacity of 1060 MW. MLPP consists of the two combustion turbine units (Units 1 and 2) rated at 510 MW each. Each of the two units includes two gas-fired combustion turbines; two heat recovery steam generators and one steam turbine operating in combined cycle mode (refer to Figure 1). Both units are fired exclusively with natural gas supplied through pipeline by PG&E.

Additionally, MLPP has an operating 100 MW Battery Energy Storage Systems (BESS), an operating 300 MW BESS, and a 350 MW BESS that is under construction.

The MLPP Managing Director/Plant Manager is the Emergency Coordinator for this facility. The Secondary Emergency Coordinator is the MLPP Operations Manager or the Operations Shift Supervisor. These personnel collectively provide 24-hour, seven day a week, emergency response coordination.

1.0. INTRODUCTION

The MLPP Facility Emergency Plan (FEP) has been prepared in compliance with emergency planning regulatory requirements described in Title 19 CCR, Division 2, Chapter 4, Article 4, Section 2658 to ensure the coordinated and effective response to various types of potential incidents and emergencies that could occur at the plant. The plan contains consistent procedures to stop, prevent, abate, or mitigate a chemical release or threatened release, fire, explosion, or other emergency, thereby ensuring the elimination of a condition of substantial probability of harm to human health and safety, property, or the environment.

1.1. PURPOSE

The complete MLPP Facility Emergency Plan (FEP) is designed to minimize hazards to human health or the environment from fires, explosions, natural disasters, bomb threats, or any unplanned sudden or non-sudden release of hazardous chemicals/hazardous waste or hazardous waste constituents or used oil to air, soil or surface water. This FEP is a subset of the complete plan and is designed to focus on minimizing the hazards associated with the BESS facilities. The provisions of the plan must be carried out immediately whenever there is an injury/illness, fire, bomb threat, earthquake, explosion or release of hazardous materials and/or wastes, which could threaten human health or the environment. This plan is applicable only to Moss Landing Power Plant.

1.2. EMERGENCY PLAN REVIEW AND UPDATE

The MLPP Facility Emergency Plan is reviewed and updated at least every three years or more frequently if necessary. The Plan will be reviewed and revised as necessary or when appropriate under any one or more of the following conditions:

1. The applicable regulations are revised.
2. The plan is deemed inadequate or fails in an emergency.
3. Facility changes occur in design, construction, operation or maintenance that results in change(s) to the response necessary in an emergency.
4. The list of Incident Commanders changes.
5. The available emergency equipment changes.
6. The notification lists/procedures change.

1.3 MANAGEMENT APPROVAL

The management of MLPP is committed to providing the manpower, equipment, facilities, and materials required to establish precautionary measures and to expeditiously control and remove material discharged because of a spill or release at the MLPP. The Plant Manager has a responsibility to provide a safe and healthful workplace for all employees. Specific responsibilities related to Emergency Planning include:

- Ensuring the development, implementation, and maintenance of the FEP;
- Communicating emergency planning expectations to employees; and
- Providing adequate resources, including proper equipment and training, to address foreseeable emergencies.

By signature, I certify that I have reviewed and approved the Moss Landing Power Plant Facility Emergency Plan.

This Plan is implemented as herein described:

Signature: _____ Date: 4/28/23

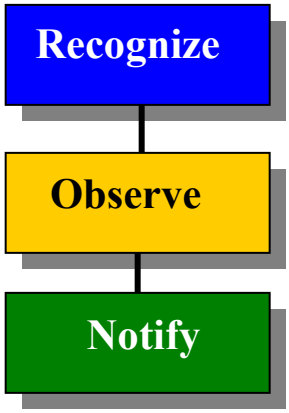
Name: Mike Batte
Title: Managing Director/Plant Manager

1.4 TRAINING & DRILLS

All Plant personnel shall have training on Emergency Action Plans and participate in drills. Refer to **MLPP Procedure 07-39 Emergency Action Plan** for details on training and drills.

2.0 INCIDENT DISCOVERY

In any spill, release, or emergency incident, the first act is ***discovery***. The following information should be learned through proper training, because the discovery process (described here in three steps) critically depends on the person's resident knowledge, alertness, and training. All employees should receive facility-specific training in hazard recognition. This includes familiarity with the forms, uses and behaviors of all of the chemicals utilized at the facility, signs of abnormal operations of the facility components, and clues or evidence of releases. Many of these topics are covered in detail in other training (e.g., operator training, hazardous materials training) provided to MLPP employees, so only a summary is provided here.



The discovery stage in incident management involves **three steps**. A potential problem is **first *recognized*** by an employee. Alternatively, recognition may result from an automated sensor or alarm system. **Secondly**, once a potential hazard has been recognized, the employee makes a reasonable attempt to ***observe*** the possible problem from a safe vantage point. The employee should note the source, location, material type, nature and extent, and possible or known impacts, including possible injuries. **Thirdly**, once the employee has determined that a significant or reportable incident is occurring, or that conditions appear abnormal and potentially dangerous, the employee immediately ***notifies*** the Control Room Operator using the internal communications systems. In all incidents, the Control Room Operator is required to notify the Operations Shift Supervisor. The Operations Shift Supervisor serves as the acting Incident Commander. This notification is to include key observations and information needed by the Incident Commander to be able to assess the situation and decide on a tactical, first-response action.



While in the workplace, an employee may ***recognize*** a problem or potential hazard. Part of recognition is to know the properties and behavior of equipment and chemicals at the facility (e.g., visible appearance, sound, odor, vibration, temperature). Some common classes of recognized hazards or emergencies and an approximate risk hierarchy, from highest hazard to lowest, are as follow:

- **Flammable Gas Release without Ignition** (e.g., hydrogen) – Can be evident by visible damage to equipment, sound, condensation or frost on surfaces. High hazard of ignition and explosion, so immediately clear the area to a safe distance.

- **Fire** – Can be evident because of visible flame and/or smoke, heat, charring of surfaces. If a compressed gas is the cause, or if there is a risk of the fire being extinguished while there is a continuing gas release, there may be a high hazard of explosion or rapid spread of the fire. Immediately clear the area to a safe distance, unless the fire is incipient and controllable, and one is trained in firefighting;

- **Gasoline or Other Highly Ignitable Fluid Release** – Can be evident by visible liquid, damage to equipment, and characteristic smell of gasoline vapors. Dense vapors stay near the ground and can easily be explosively ignited. Clear the area if the release is large, is uncontrolled, and/or there is a potential ignition source.

- **Non-Flammable Gas Release** – Can be evident by visible damage to equipment, sound, condensation or frost on surfaces. Risk of asphyxiation due to oxygen displacement. Clear the area if release appears large and uncontrolled, especially if in a building or confined space.

- **Toxic Gas or Vapor Release** (e.g., acids or caustics) – Can be evident due to equipment damage, visible vapor cloud, odor, or acute pain in breathing, the eyes, and the skin. Clear the area to a safe distance.

- **Injury / Illness** (including confined space) – First aid training received by all MLPP employees will have prepared them to recognize common injuries and illnesses. If a person is down or injured, the risk to others may be limited, provided that the cause does not remain. **Do not enter a confined space** to attempt to help a person. Without proper precautions, equipment and training, a rescuer may become the next victim.

- **Life Endangering Equipment Failure** (e.g., high-pressure steam; mechanical failure) – High-pressure steam may be detectable as a high-pitched sound, and it can be invisible. Stand clear of any failed equipment to observe the situation.

- **Oil or Other Organic Liquids Spill or Release** – Visible as clear to dark colored fluids, some that flow freely and others that are viscous, can have a noticeable odor. Can be hazardous, but less severe acute risks are usually associated with these materials. Observe from closer, but safe range.

Observe

Quickly, and ***only from a safe place***, observe the situation, making note of the following:

- **Location** of the problem and its source;
- **Identity** of the known or likely material involved if it is a release;
- **Extent** of the problem (Incidental or Uncontrolled);
- **Fire or explosion risk;**
- **Injuries** to personnel and their severity; and
- **Risks** to personnel or responders (e.g., damaged equipment, mechanical hazards, gases or vapors).

Notify

First, immediately notify personnel in the area who may be in danger or who may be trained to assist. (Attempt to do this without slowing notification of the Control Room Operator). **IF A SITUATION THAT IS IMMEDIATELY DANGEROUS TO LIFE AND/OR HEALTH IS OBSERVED, DEPLOY THE EVACUATION ALARM IMMEDIATELY.**

Second, immediately notify the Control Room Operator via plant phone, 450 MHz radio, or cell phone providing the following information:

- **Your name;**
- **Your observations** of the situation (**Location, Identity, Extent, Fire/Explosion, Injuries, Risks**).

Upon notification of the incident by the Incident Discoverer, the Control Room Operator will notify the Operations Shift Supervisor, who will assume the role and responsibilities of the Incident Commander. The Incident Commander will draw upon his/her knowledge of plant operations, specific training courses (i.e., operator training, hazardous materials training), and this manual to respond to a particular emergency.

Third, prepare to act as the first responder if properly trained and instructed to do so by the Incident Commander.

Fourth, if not properly trained to respond, ***prepare to remain*** at the scene at a safe distance to meet emergency responders to direct them to the emergency, but ***only if instructed*** to do so by the Incident Commander.

2.1 INITIAL RESPONSE

Specific incident that could pose a hazard to human health or the environment have been identified for the MLPP. Response guidelines have been developed for each specific incident and are located in the following sections. Information on the Incident Command System, medical emergencies and evacuation plans is grouped together under the orange tabs (current section); incidents not related to a spill or release including fire, earthquake, flood, and bomb threat are grouped together under the red tabs; incidents related to a chemical spill or release are grouped together under the yellow tables; teams and contact and contact information is grouped together under the blue tabs; and facility maps and diagrams are grouped together under the green tabs.

2.2 PROCEDURES FOR INTERNAL AND EXTERNAL NOTIFICATIONS

Procedures for internal and external notifications are described in detail in Section 1.0: *Incident Discovery* and in each of the incident-specific response guidelines. Internal notification procedures begin with notification of the Control Room Operator upon discovery of an incident. The Control Room Operator will then notify the Operations Shift Supervisor, who assumes the role of the Incident Commander. The incident commander is responsible for managing all emergency response actions. Detailed descriptions of the duties and responsibilities of the Incident Commander are summarized in ICS ⇒ ***ORANGE TAB***.

Depending on the nature of the incident, the Incident Commander or First Responder may initiate additional internal notifications including activation of alarms. The alarm system at the MLPP consists of an OSCILLATING SIREN and an ALL HANDS PAGE.

External notifications, as appropriate for each incident, are detailed in each incident-specific response guideline. External notifications include entities such as the National Response Center, North County Fire Department, Monterey County Health Department, California Office of Emergency Services, Regional Water Quality Control Board, possibly emergency response contractors, etc. Instructions are also included in these steps with regard to the type of critical information that the caller should be prepared to give to the emergency contact.

Especially in the event of external notification, facility employees serving in key responder roles should don the use of identification on vests during the emergency. This will assist external responders in identifying key contact individuals during an emergency. In the event that one individual serves more that one response role, the vest associated with the higher command position should be donned. The specific roles associated with identification vests are outlined in ICS ⇒ ***ORANGE TAB.***

A complete list of all internal and external contacts is provided in Teams and Contacts ⇒ ***BLUE TAB***. The notification process is summarized below.

GENERAL NOTIFICATION PROCESS

FIRST RESPONDER
contact the MLPP Control Room Operator:
x 7333 or 831-633-7333

CONTROL OPERATOR notifies:
Operations Shift Supervisor
and
Initiate additional notifications as directed by Shift Supervisor

Managing Director/PLANT MANAGER or Operations Shift Supervisor
Initiate Incident Command System (ICS)
- ❑ Ensure IC is designated and communicated
- ❑ IC to designate other ICS positions, as needed
- ❑ Ensure any additional notifications are conducted, particularly 911

Additional Notifications based on type of incident:

FIRE, BOMB THREAT OR MEDICAL EMERGENCY, notify:
North County Fire Department/Police Department…… **911**

ACTUAL OR THREATENED CHEMICAL SPILL OR RELEASE that could significantly impact human health, safety or the environment, notify:

North County Fire Department/Police Department	911
Monterey County Health Department	831-755-4511
California Office of Emergency Services	800-852-7550

❑ See Spill or Release section (Yellow Tab) for additional contact requirements and reportable quantity information

DOCUMENT ALL NOTIFICATIONS

FIRE

Discovery

General duties of a person who initially discovers an incident are to first; initiate the notification system, and second, make surrounding personnel and the area safe.

PERSON DISCOVERING THE FIRE

1. **CALL OUT** for help.
2. **NOTIFY** the Control Room Operator (CO):
   - Plant phone: **7333**
   - Cell phone and 24 hr numbers: **831-631-7333**
   - Radio: **EMERGENCY CHANNEL**
3. **STAY ON THE LINE** and provide the following information until released by the CO:
   - **LOCATION** of fire.
   - **O**BJECT:
     - Class A - wood, paper, trash
     - Class B - flammable liquids, grease, solvents
     - Class C - electrical equipment
     - Class D - metals
   - **C**ONDITION – smoking, extinguished, incidental, controlled, or uncontrolled.
   - **A**CTIONS – that have been taken.
   - **R**ESCUE – whether ambulance or rescue is needed.
   - Any other information the CO may need. REMEMBER, stay on the line until released by the CO.
4. **USE FIRE SUPPRESSION EQUIPMENT** to extinguish the fire.

> **LIMITATIONS: INCIPIENT (SMALL) FIRES ONLY!**
>
> "Incipient" level fire is one that is in the early stage and has not developed beyond which can be extinguished using portable fire extinguishers or handlines flowing up to 125 gallons per minute (gpm). Fires that have the potential to cause an explosion are **NOT** considered incipient level.
>
> Only **TRAINED RESPONDERS** qualified in the use of extinguishers, handlines, or manual activation of "Automatic" systems are to attempt fire control activities.
>
> **RESPONDERS SHALL STOP** fire suppression when they must take evasive actions to avoid heat, smoke, or flames, and then **EVACUATE** the area.

   - Portable fire extinguishers

FIRE

- Fixed fire suppression systems
  - Confirm Automatic Activation of "Automatic" systems
  - Manually activate "Automatic" systems if automatic feature has failed
- Fire suppression carts
- Fire hose reels

5. **SPECIAL ACTIONS** for **Battery Storage Facilities:**

LI-ION BATTERY FIRES pose an **Over-Heating and potential THERMAL RUNAWAY** hazard.

FIGHTING LI-ION BATTERY FIRES IS NOT CONSIDERED INCIPIENT STAGE FIREFIGHTING.

SPECIALIZED TRAINING AND PERSONAL PROTECTIVE EQUIPMENT IS REQUIRED.

DO NOT USE gaseous or dry chemical extinguishing agents (e.g. CO_2, Novec 1230, Purple K, etc.) as these do not cool battery components.

- **DO NOT ENTER** building if flames, smoke, or arc flashing is observed.
  - **NOTIFY** the Control Room Operator (CO) and report status.
- If flames, smoke, or arc flashing is observed **EXIT BUILDING**.
  - **PUSH E-STOP** local activation button at the Rack if you are positioned at the Rack, otherwise immediately exit, and use the push button located at the Inverter.
    - **Request / Isolate** AC and DC diss-connect
  - **NOTIFY** the Control Room Operator (CO) and report status
  - Request **INCIDENT COMMAND ACTIVATION**
- If no flames, smoke, or arc flashing is observed:
  - You may enter the building to **ASSESS THE SITUATION**
  - **DO NOT** open battery cabinets enclosures that are showing signs of hot spots (e.g. paint blistering).
  - Fires at Truck Bays - **ACTIVATE DELUGE** manual pull station.
  - Follow Control Room Operator (CO) instructions.

6. **REMOVE** or **ISOLATE** unaffected combustibles (e.g. containers, equipment, or hazardous material, etc.) if safe to do so.
7. **ISOLATE** and **DENY ENTRY** – evacuate the immediate area and wait for the arrival of the North County Fire Department.

FIRE

IMMEDIATE NOTIFICATION MUST BE MADE TO CO IF A FIRE IS UNCONTROLLED BEYOND THE INCIPIENT STAGE

CONTROL ROOM OPERATOR (CO)

1. **COLLECT INFORMATION** from the caller related to the fire to assess response needed.
2. **NOTIFICATIONS –** make the following notifications:
   - NORTH COUNTY FIRE DEPARTMENT (NCFD) **–** Call **9-1-1**
     Include in the notification:
     - Status of the fire - extinguished, ongoing, controlled, or uncontrolled.
     - Whether rescue of personnel or medical treatment is necessary.
   - SHIFT SUPERVISOR – Implement the Incident Command System (**ICS ⇒ *ORANGE TAB***)
   - GATE GUARD at (831) 455-5025 and dispatch two Operators (one for Fire, one for Ambulance) to the Main Gate to direct responders to the fire location.
   - DISPATCH COORDINATOR if electrical generation is or may be affected.
3. Initiate **INTERNAL NOTIFICATION** via radio broadcast, utilizing the emergency channel, with details of the emergency, and/or if necessary, a facility **EVACUATION.**
4. **MONITOR** and **COORDINATE COMMUNICATIONS** from the control room between plant IC and other resources/agencies as directed by the IC.
5. Maintain a **WRITTEN LOG** of events throughout the incident.

INCIDENT COMMANDER

1. INITIATE INCIDENT COMMAND SYSTEM [Details ⇒ *ORANGE TAB*]
   - Clearly communicate who is the IC
   - Designate other ICS positions as necessary
2. Immediately **GO TO THE EMERGENCY LOCATION**. At this point the fire may have already been extinguished. Depending on the extent of the fire the Incident Commander may assign personnel to work in safety/medical/rescue roles as needed.

NOTE: If the fire is uncontrolled or not extinguished upon arrival, **NCFD WILL ASSUME LEAD ROLE IN FIRE SUPPRESSION AND ASSUME IC. AT THIS POINT, A UNIFIED COMMAND SYSTEM WILL BE INITIATED [IC-2].**

3. **ENSURE NCFD** first responders are directed to the scene.

FIRE

4. Verify **PERSONNEL ACCOUNTABILITY CHECK** – if an evacuation has been initiated.

5. **BRIEF** NCFD personnel with the following information:
   - Location and magnitude of fire
   - Source and cause of the fire, if known,
   - Potential hazards
     - Explosion potentials - location of gas lines, flammable material tanks, etc.
     - Health and safety concerns associated with the fire to plant personnel and 9-1-1 responders - burn injury, smoke inhalation and compromised structural integrity.
   - Status of injuries if applicable,
   - Status of the electrical, chemical, and mechanical systems affected – is equipment de-energized, etc.
   - Status of fixed fire suppression systems,

6. Assist Fire Department with development of an **INCIDENT ACTION PLAN** by considering the following:
   - Safety of MLPP personnel and responders.
   - Determination of an Aggressive or Defensive (exposure protection) firefighting plan
   - Site specific Pre-Incident Plans
   - Locations of on-site firefighting equipment, hydrants, fixed system controls, etc. [see **Area Diagrams** ⇒ ***GREEN TAB***]
   - Procurement of resources.
   - Impact of fire to other areas of the plant.

7. Assist in **EXECUTING A RESPONSE**
   - Mobilize necessary personnel and equipment.
   - Shutdown systems that may contribute or be affected by the fire.
   - Monitor fire protection and process control systems for leaks, pressure buildup, gas generation, or ruptures in valves, pipes, or other equipment.
   - If safe to do so remove or isolate unaffected containers, equipment, or hazardous materials.
   - Extinguish the fire.

8. **COMMUNICATE** continuously throughout the incident to ensure resources are available and actions are effective.

9. **EXTERNAL NOTIFICATIONS:**
   - **IF**, the incident **threatens human health or the environment outside of the facility**, immediately notify the National Response Center (NRC) and the Monterey County Health Department, within 15-minutes of the start of the incident.

FIRE

NATIONAL RESPONSE CENTER 1-800-424-8802

MONTEREY COUNTY HEALTH DEPARTMENT 1-831-755-4511

Be prepared to provide:

- ❑ Your name/telephone number
- ❑ Name/address of the facility
- ❑ Time/type of incident
- ❑ Description of what happened
- ❑ Name and quantity of material involved
- ❑ Extent of injuries, if any
- ❑ Possible hazards to humane health or the environment outside the facility.

Make sure to document the **Control Number** issued by the **NRC** so that follow-up information may be appropriately issued.

- **IF**, the fire involves diesel or gasoline, there is a potential to exceed a Reportable Quantity (RQ) for combustion products, such as sulfur dioxide, and nitrogen oxide(s), which requires expedited notifications to the NRC and CalEMA. Contact an Environmental Manager to assess potential emissions and reporting guidance.

- **IF** the release causes serious injuries or harmful exposure to an employee, notify:
  - ❑ Cal/OSHA, District Office-Freemont .....(510) 794-2521

Refer to the **Medical Emergencies** ⇒ ***ORANGE SECTION*** for specific reporting criteria.

- **IF** the incident results in a death, an injury or illness requiring hospitalization, a report to an agency, damage to the plant property (>$50,000), or significant negative media coverage (circulating audience of 50,000 or more persons) the IC, or a designated alternate, must report within two hours during working hours and four hours outside of working hours utilizing the following web site; http://www.cpuc.ca.gov/PUC/emrep/ that provides the forms and guidance for reporting an incident.

- In the event **Internet Access Is Not Available call**.....800-235-1076
  - ❑ The IC should follow up with an email Event notification to CPUC email address: EGPBIR@CPUC.CA.gov or fax update within 24-hours and a final report within 20 days.
  - ❑ The MPLL IC should secure the site by physical barrier or post a person to prevent entry into the site.
    - ▪ Begin investigation as soon as possible

FIRE

Note: Ensure to Cc the Plant Manager and the Environmental Manager on the e-mail report.

10. **INTERNAL NOTIFICATIONS:**

- All reportable releases shall be reported to:

1. PG&E Moss Landing Switching Center.....(707) 449-6717
2. Managing Director/Plant Manager or his designee.

   Will make necessary calls to Company numbers, located in the Blue Section, Page TC-3.

FIRE

SUPPLEMENTARY INFORMATION

This "Fire" section has established emergency response actions to be taken in the case of:

- Incipient Level Fires
- Uncontrolled Fires

Safe and expedient fire control is essential to protect the health and safety of the plant personnel and to mitigate damage to the environment and equipment. To respond safely and appropriately Moss Landing Power Plant (MLPP) employees must be able to recognize the type of fire and their response capabilities.

INCIPIENT LEVEL FIRES

Employees of MLPP are trained to the "incipient" level of fire response -ONLY.

According to the National Fire Protection Agency Standards, NFPA 600, Standard on Industrial Fire Brigades, an incipient stage fire is one that is in the early stage and has not developed beyond which can be extinguished using portable fire extinguishers or handlines flowing up to 125 gallons per minute (gpm). Fires that have the potential to cause an explosion are **NOT** considered incipient level. Specifically, an interior and exterior fire shall be considered "incipient stage" when a responder can function as follows:

- Able to safely fight the fire in normal work clothing
- Not required to crawl or take evasive action to avoid smoke and heat
- Not required to wear thermal protective clothing or SCBA
- Able to fight the fire effectively with portable extinguishers or handlines up to 125 gpm

"Incipient" fire response includes reporting of fires; use of portable fire extinguishers; use of fire hose reels wherein the hose and nozzle are rated no greater than 125 gpm; use of fixed fire suppression systems which may be either "Automatic" or "Manual"; and use of portable fire cart suppression systems.

Response to an incipient level fire will include:

1. ATTEMPT TO EXTINGUISH THE FIRE
   - Portable fire extinguishers
   - Fixed fire suppression systems
     - Either "Automatic" or "Manual"
   - Portable fire suppression carts

FIRE

- Fire hose reels
  - Only trained personnel are to use fire hose reels.
  - Only fire hose reels (hose and nozzle) rated at 125 gpm or less may be used.

RESPONDERS SHALL STOP fire suppression activities with hand-held fire extinguishers or hose lines when they must take evasive actions to avoid heat, smoke, or flames.

2. REPORTING OF FIRE

IMPORTANT: It is the policy at MLPP that any fire emergency, even extinguished fires, be reported to the North County Fire Department.

UNCONTROLLED FIRES

Employees of MLPP are NOT trained to attempt containment of uncontrolled fires. Uncontrolled fires are to be reported immediately.

According to NFPA 600, a fire is beyond the incipient stage when the use of thermal protective clothing or self-contained breathing apparatus is required, or a responder is required to crawl on the ground or floor to stay below smoke and heat.

This may be a fire which:

- Started as an incipient level fire but has grown despite fire suppression efforts
- Spread, or has the potential to spread, instantaneously as in the case of a chemical spill
- Resulted from an explosion or is likely to cause immediate explosion

UNLIKE INCIPIENT FIRES:

IMMEDIATE NOTIFICATIONS MUST BE MADE BY CALLING 911 IF A FIRE IS UNCONTROLLED OR BEYOND THE INCIPIENT STAGE.

FIRE

BATTERY STORAGE FACILITY HAZARD CONTROLS

Hazard	Consequence		Indicator / Condition	Notes:	Mitigation		Response Plan Actions / References		
Initiators					Controls - Click Here for Details		Impact	Impact	Impact
					Auto	Manual	Low	Medium	High
							I.E. Unit Level	I.E. Plant Level	I.E. Community Level / Environmental Impact
Battery Cell/Module Over-Heat									
Any initiating cause e.g.: Failure of Heat Suppression water supply							Initiate General Emergency Response Plan (GE)	Initiate Incident Command Plan (IC)	N/A
						Incipient Stage Fire Fighting	Response to Fires (F)		
						Trip pre-action valve	Operator Intervention		
						Implement FD connection		Local FD Action	
Manufacturing/Installation defect					ITM	Acceptance Testing	N/A	N/A	
Process Control System Failure						Operator Intervention			
Operating temperature >175F	Thermal Runaway		See "Thermal Runaway" Hazard		IMD		See "Thermal Runaway" Hazard		
Physical Damage					IMD	ITM			
					BBMS	Operator Intervention			
					E-Stop	Operator Intervention			
					Battery Heat Suppression System	Incipient Stage Fire Fighting	Response to Fires (F)		
			Operational Process Alarm(s)			Operator Intervention			
			Fire Alarm Control panel			Operator Intervention			
	Fire		See 'Fire/Explosion" Hazard		RBMS	Municipal FD assistance	See 'Fire/Explosion" Hazard		
					VESDA	Operator Intervention			
	Smoke or Hydrogen		See "Toxic/Flammable" Hazard		BPU		See "Toxic/Flammable" Hazard		
					VESDA	Operator Intervention			
	Off Gassing	Toxic/Flammable	See "Toxic/Flammable" Hazard		VESDA	Operator Intervention			
Battery Module Short Circuit							Initiate General Emergency Response Plan (GE)	See "Thermal Runaway" Hazard	N/A
Contact with water	Module temperature rise		Operational Process Alarm(s)		BBMS	BPU			
Insulation Degradation			Humidity, condensation, common mode voltage, dust, insulation degradation		IMD	ITM			
						Instrument & Electrical department intervention			
	Arc flash								
	Thermal Runaway		See "Thermal Runaway" Hazard						
Thermal Runaway							Initiate General Emergency Response Plan (GE)	Initiate Incident Command Plan (IC)	
								Initiate Evacuation Plan (EP) (Consider plant evacuation)	N/A
			See "Battery Cell/Module Over-Heat"				De-energize affected		
Short Circuit			Hazard		BBMS	Operator Intervention	circuits		
							Ensure/manually activate		
High charge/discharge rate					BBMS	BPU	E-Stop		
	Module temperature rise / high temperature						Engage manual AC and DC		
					E-Stop	Operator Intervention	dis-connects		
	Arc flash						Evacuate area - see Section 4 of MLPP ERP		
								Plant and FD initiates	
					Building Fire Protection	Local FD Response	FD supplements sprinkler and standpipe systems	Incident Command System	
Fire Exposure			See 'Fire/Explosion" Hazard			Control room operator			
					Fire Detection and Alarm System	activation and/or radio announcement	Sound Alarm / notify 9-1-1		

Hazard	Consequence	Indicator / Condition	Notes:	Mitigation		Response Plan Actions / References		
Fire/Explosion						Initiate General Emergency Response Plan (GE)	Initiate Incident Command Plan (IC)	
					Incipient stage FF by plant personnel	Response to Fires (F)	Initiate Evacuation Plan (EP) (Consider plant evacuation)	
Internal to battery racks/cabinets		See "Battery Module Short Circuit" Hazard	UL test concluded no propagation to neighboring modules			Incipient stage fires: Sound Plant Alarm Advise FD via 9-1-1		
								Consider Community Evacuation provisions of (EP)
	Generation of flammable/toxic gases	See "Toxic/Flammable" Hazard	UL test concluded no IDLH exposure, LEL <25%	VESDA and spot detectors	Operator Intervention			
External to battery cabinets (e.g. building fire propagating into racks, cable tray fires, etc.)				Fire wall segregation	This is a passive mitigation system			
							FD hook-up to FD sprinkler/standpipe connections	
Combustibles				Building sprinkler system	Local FD response	Insure sprinkler system is activated		
					Manual activation buttons at Truck Bay deluge system			
					Standpipes / Hose stations	Local FD Response		
						FD connections	FD charges FD connections	
			Per UL verification test, fire will not progress past module origin (given activation of Heat Suppression system)					
	"Knock On" from adjacent exposures Thermal Runaway	See "Thermal Runaway" Hazard						
							Consider defensive exposure protection firefighting	
Fire		Fire Alarm Activation		VESDA and spot detectors	Operator Intervention	Follow Response to Fires procedure (F)		N/A
					Alarm pull stations at all exit doors			
				Heat Suppression System	Fire Water System			
Smoke	Toxic - impeding evacuation	See "Toxic/Flammable" Hazard	Building Egress is NFPA 101 compliant	Building ventilation system	Operator Intervention	Ensure ventilation system is operating.	Consider need for continued ventilation	See "Toxic/Flammable" Hazard
External to battery building (e.g. vehicle, crane, airplane, adjacent equipment, etc.)								
Vehicle impact (other than airplane)	Fire/Explosion/Smoke	Building is non-combustible concrete construction	Resultant fire would be limited to the initiating vehicle/equipment		Unauthorized vehicles stopped at security gate.			
				Fire wall segregation	This is a passive mitigation system	Follow F-1 Response to Fires procedure		N/A
				Building sprinkler system	Local FD response	Insure sprinkler system is activated if needed	FD hook-up to FD sprinkler/standpipe connections	
					Manual activation buttons at Truck Bay			
					Standpipes / Hose stations	Local FD Response		

Hazard	Consequence		Indicator / Condition	Notes:	Mitigation		Response Plan Actions / References		
					Risk of an actual airplane crash hitting and penetrating the building is negligible.			Consider evacuation downwind areas from plant.	
	Airplane crash	Smoke	See "Toxic/Flammable" Hazard	Aircraft products of combustion (fuel and furnishings) pose higher hazard than that of battery fires.			Continuous air quality monitoring	Consider Shelter-in-Place upwind areas from plant.	
		Fire/Explosion	Extent of consequence is highly dependent upon size and velocity of aircraft.				Local FD Response with high capacity (master stream) foam apparatus		
Toxic/Flammable				HMA concluded egress not a problem with proper activation of Heat Suppression System			Initiate General Emergency Response Plan (GE)	Initiate Incident Command Plan (IC) Initiate Evacuation Plan (EP) (Consider plant evacuation)	Consider Community Evacuation provisions of (EP)
	Products of Thermal Runaway/Combustion		Fire Alarm Activation	Building considered "unoccupied" (per NFPA 101)	VESDA Fire / Heat suppression sys	Ventilation Sys	Activate Ventilation system from FCC	Consider need for continued ventilation	

Thermal Runaway T	394 Deg F at 34 to 37 min.		Fire
Combustion Products	Thermal (UL-9540A test) wt%		Smoke wt%
Nitrogen			65.2 - 75.1
Hydrogen		31.8	
Carbon Dioxide		29.7	3.8 - 24.9
Carbon Monoxide		24.2	0 - 2.5
Oxygen			18.9 - 20.0
Methane		7.3	
Ethylene		4.7	
HF		0	0.6 - 4.7
Total HC		14.3	
LFL		6.8	
Water Vapor			0.4 - 2.8

IDLH = 30ppm, AEGL (10min)1 = 1ppm, AEGL2 = 95ppm, AEGL3 = 170ppm, ERPG (30min)1 = 2ppm, ERPG2 = 20ppm, ERPG3 = 50ppm, REL = 0.2ppm

								Consider evacuation downwind areas from plant.	HF dispersion modeling results indicate ERGP-1 (2ppm) worst case extends 1,200 feet downwind from the source.
								Consider Shelter-in-Place upwind areas from plant.	Cal REL (.28ppm) worst case extends an additional 2,050 feet further downwind.
							Evacuate building		
Release/Outfall									
	Heat Suppression effluent (water)	Effluent spreads onto floor and floors below	See "Environmental Impact"						
		Module shorting	Rain Fall into building						
	Atmospheric release (smoke)		See "Toxic/Flammable" Hazard						
			See "Environmental Impact"						
Environmental Impact				Environmental Risk Management Plan identifies potential receptors.					

Hazard	Consequence	Indicator / Condition	Notes:	Mitigation		Response Plan Actions / References		
Spill	JH4 cell gel does not require neutralization	Clean up and/or fire water carry over to catch basin		Low impact gel composition		Follow 90 Day Storage Pad and Oily Water Separator Plan (PW) Follow MLPP Storm Water Pollution Prevention Plan and Attachment: "Guidance for Firefighting Water Collection, Monitoring, Storage, and Disposal Associated with a Battery Suppression System Activation"	Follow Corporate or Government Agency Notification Plan (PW)	Follow Corporate or Government Agency Notification Plan (PW)
Gas	Toxic / Flammable Hazard	See "Toxic/Flammable" Hazard						
Flood	Cell and Module shorting	Rising water in building			Install outside flood plane	Follow Flash Floods/High Tides/Tsunami Plan (FL)	Follow Flash Floods/High Tides/Tsunami Plan (FL)	Follow Corporate or Government Agency Notification Plan (PW)
Medical Smoke inhalation Thermal/chemical burns Electrical Shock Electrocution				First Aid Training	Outside Medical Response (911)	Follow Medical Emergency Procedure (ME)	Follow Medical Emergency Procedure (ME)	N/A
Earthquake	Facility upset / Shutdown					Follow Major Earthquake Plan (EQ) See "Thermal Runaway" Hazard	Follow Major Earthquake Plan (EQ)	N/A
High Tides/ Tsunami	Cell and Module shorting	Arcing / Sparking / Thermal Runaway				Follow Flash Floods/High Tides/Tsunami Plan (FL) See "Thermal Runaway" Hazard	Follow Flash Floods/High Tides/Tsunami Plan (FL)	N/A
Terrorist/Sabotage/Bomb Threat								
Personnel Carried Charge (11lbs TNT equ)	No significant damage (limited to immediate area). No significant structural damage expected unless the charge is detonated within 25 feet of a structural support.		Threats are based on FERC guidance for LNG facilities.	None required		Follow Bomb Threat Response Plan (BT) Follow (EP) Evacuation Plan	Follow Bomb Threat Response Plan (BT) Follow (EP) Evacuation Plan	N/A
Vehicle-Born Improvised Explosive Device (VBIED) 50lbs TNT equ.	Damage limited to cracks and wall displacement.	Explosive device found	Threats are based on FERC guidance for LNG facilities.	Bollards at critical locations.	Vehicles stopped and searched at security gate.			N/A Follow Community Response Plan (TC)
Cyber Attack	Shutdown or upset	Difficulties with operating equipment with electronic chips				Follow Moss Landing Physical Security Plan	Follow Moss Landing Physical Security Plan	N/A

Hazard	Consequence	Indicator / Condition	Notes:	Mitigation	Response Plan Actions / References

BESS - Battery Energy Storage System
BBMS - Bank Battery Management System
monitor, regulate, predict, optimize, process performance parameters
One per Node; Controls RBMS
RBMS - Rack BMS,
Housed in the BPU module
Software programmable logic controller
BPU - Battery Protection Unit
Central communications for process commands (automatic and manual overrides)
Includes RBMS logic controller
Includes E-Stop and all process controls
E-Stop
Electrically isolates battery modules at each core and building fire zone
Activated automatically via BBMS:
Fire suppression (building sprinkler system, fire pump, firewater flow, etc.)
Process Control (module temperature, battery charge and discharge rate, Heat Suppression system, etc.)
Activated manually via:
Push button stations
Operator process control interface
IMD - Insulation Monitoring Device
ITM - Inspection, Testing & Maintenance program
Need system description
Battery Heat Suppression System
Automatic pre-action dry pipe closed sprinkler heads inside battery cabinet
Activated by:
VESDA (smoke and hydrogen detection)
Pressure loss in fire water distribution piping
5.6gpm/nozzle
VESDA - Very Early Smoke Detection and Alarm
Battery cabinet racks
Ground floor ceiling and second floor "hot aisles"
Building Fire Protection
Both Passive and Active systems
Non-Combustible construction
CBC-602 Type II-B
1 hour fire resistance
2 hour rated Fire zone separations
Occupancy
"Unoccupied" building
High Hazard Group 2 (H-2)
Automatic wet pipe sprinkler system
Design basis
NFPA 13 - Extra Hazard Group 1 (0.3gpm/ft^2 x 2,500 ft^2), EXCEPTIONS:
Old FCC: NFPA 13 - Ordinary Group 1 (0.15gpm/ft^2 x 1,500 ft^2)
Second floor 56 ft roof elevation: NFPA Extra Hazard Group 1 (0.5gpm/ft^2 x 2,500 ft^2)
1st floor at ceiling level
2nd floor at roof level
Manual Truck Bay deluge system
Sidewall sprinkler open head
East and West Truck Bays
5 Manual Pull Stations
Fire Detection and Alarm
Any detection system will activate site wide visual and audible alarms
Mimicking fire alarm control and interface panels at FCC and process Control Room
VESDA Fire Detection System
Spot smoke detectors (FCC and Process Control Room)

Hazard	Consequence	Indicator / Condition	Notes:	Mitigation	Response Plan Actions / References
			Standpipes (Class III NFPA14) Fire Water System 4 pumps (1 electric, 3 diesel) at 1,000gpm each Fire Hydrants Manual fire alarm pull stations at every door Portable fire extinguishers **Ventilation System** Automatic operation by RBMS to control battery module temperatures Automatic activation of the VESDA, spot smoke, or fire water flow alarm will SHUT DOWN the ventilation system Manual over-rides provided in the FCC 100% outside air inlet, building louvers outlet **FCC** - Fire Command Center		

Moss Landing
Battery Energy Storage Systems

Introduction

The Moss Landing Battery Energy Storage Systems (BESS) are comprised of a 300 megawatts/1,200 megawatt-hours (Moss 300) and a 100 megawatts/400 megawatt-hours (Moss 100) lithium-ion battery energy storage system. Moss 300 is housed inside the Moss Landing Power Plant's (MLPP) former turbine building and is comprised of 4,539 battery racks. Moss 100 is housed inside a newly constructed building and is comprised of 1,558 battery racks. Each rack contains 22 battery modules. The BESS facilities utilize LGCHEM JH4 Lithium-Ion Battery Cells. Additionally, a 350-megawatt facility is currently under construction on the Moss Landing site, and will utilize containerized systems rather than being housed in a building.

Operation

The BESS facilities operate relatively autonomously, compared to typical fossil-fuel power generation facilities. This is because the BESS is not generating electricity, it is simply receiving, storing, and discharging it. Excess green energy generated from renewable sources like wind and solar, comes into the BESS and is stored. During periods of peak energy demand, the batteries release their stored chemical potential energy back into California's electrical grid, thereby increasing grid reliability and maximizing the use of zero-carbon energy. Trained facility operators and technicians will perform critical monitoring, troubleshooting, maintenance, and repair operations as needed to continue the safe operation of the BESS.

Hazards

The greatest hazards that exist at the BESS are electrical shock, fire from runaway heating caused by uncontrolled exothermic reaction due to damage or malfunction of one or more battery cells and contact with hazardous chemicals that constitute the batteries' electrolyte, via absorption through skin and eyes, ingestion, or inhalation of gases. Section 2 of the Product Emergency Response Guide (PERG) contains detailed information on the hazards present. If necessary, see the section for fire response under the **=>RED TAB.**

Training

The training required to work at the BESS will consist of reading facility and operation specific MLPP Procedures related to the duties required of certain positions critical to facility operation. It will also consist of on-the-job (OJT) training provided by Senior Operators and Technicians and/or Work Supervisors. Lastly, reading and understanding the PERG document (see below) itself will be paramount in understanding the hazards associated with working at the BESS.

Spill/Release

There are essentially no chemicals used at BESS facilities as part of normal operations, however, the batteries themselves contain a hazardous chemical electrolyte. During normal battery operation, the batteries will remain sealed and there is no electrolyte exposure hazard. However, the batteries can become ruptured through either damage or malfunction and electrolyte can be released. The electrolyte is generally composed of a volatile hydrocarbon-based liquid with a dissolved lithium salt, such as lithium hexafluorophosphate. If electrolyte liquid is released, it is likely to rapidly evaporate and leave a white residue (salt). The evaporated electrolyte is flammable and contains compounds of alkyl-carbonates. WARNING: AVOID CONTACT WITH ELECTROLYTE. The following personal protective equipment is required if managing an electrolyte spill or release: respirator with organic vapor/acid gas cartridges for air purification, full face respiration with face shield or chemical safety goggles, and safety gloves (butyl rubber or laminated film), and protective clothing. Spills can be cleaned up using a dry absorbent material such as diatomaceous earth. **See Section 2D and Section 6 of the PERG for more information.**

BESS Evacuation

If an emergency arises at the BESS, all facility personnel must immediately evacuate the battery building. MLPP Facility Emergency Plan (FEP) Plot Plan numbers 3, 7, and 35 show the Moss 300 and Moss 100 building layouts and are included as attachments, as well as Plot Plan 37 for the Moss 350 construction area. Upon discovery of any emergency at the BESS:

- Announce over the radio system that the facility should be immediately evacuated
- Safely proceed to one of the building exits
- Once outside, proceed to and assemble at the appropriate Evacuation Assembly Area.
- Take attendance to account for all personnel
- If any facility personnel are absent at the attendance roll call, immediately notify your supervisor and any Emergency Response Personnel that may be present
- If necessary, see **ORANGE TAB** site evacuation.

Incident Reporting

Facility personnel should immediately report significant events to the Vistra Regulatory Compliance Department, as follows:

Notify any incident of the following type:

- An incident that resulted in a death to a person
- An injury or illness requiring overnight hospitalization
- An incident involving a report to Cal/OSHA, OSHA, or other regulatory agency
- Damage to property (ours or someone else's) that exceeds $50k
- Any incident (safety or not) that results in negative media attention

Notify the following Vistra personnel:

Jessica Miller
Managing Counsel, Regulatory Compliance
Office: 512.349.6402
Cell: 512.917.3782
jessica.miller@vistracorp.com

LG Chem Energy Storage System Product Emergency Response Guide

The LG Chem Energy Storage System Product Emergency Response Guide (PERG) is the document created by LG Chem to address the hazards of working with the batteries housed at Moss 100, 300, and 350. The PERG is arranged exactly like an SDS for a hazardous material, with different hazards and emergency response information covered in different sections, as shown below in the Table of Contents. The PERG is the primary document to be used in the event of an emergency at the Moss BESS facilities. Facility Operators and Technicians should familiarize themselves with the PERG in its entirety.

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Attachment 1 – Plot Plan No. 3: Moss 300 MW Battery Energy Storage System (BESS) Building 30' Elevation

Attachment 2 – Plot Plan No. 7: Moss 300 MW Battery Energy Storage System (BESS) Building 56' Elevation

Attachment 3 – Plot Plan No. 35: Moss 100 MW Battery Energy Storage System (BESS)

Attachment 4 – Plot Plan No. 37 Moss 350 MW Battery Energy Storage System (BESS)

Attachment 5 – Fire Fighting Water Handling

Attachment 6 – Dispersion Modeling Results and Appendices

LG Chem Energy Storage System (ESS) Product Emergency Response Guide

Section 1: Company and Product Information

Product Name: LG Chem ESS products
Company: LG Chem, Ltd. ("LG Chem")

Manufacturer information:
Company name: LG Chem, Ltd.
Address: LG Twin Tower, 128 Yeoui-daero, Yeoungdeungpo-gu, Seoul, 07336, Korea
Telephone number: +82-2-3773-6740
E-mail address: lkblive@lgchem.com

Emergency Contact:
CHEMTREC
(800) 424-9300 (U.S.)
+1(202) 366-4488 (outside U.S.)

Section 2: Hazard(s) Identification

Hazard Classification: Electrical, physical, chemical, environmental and fire risk

		
Electricity Hazard	Physical Hazard Chemical Hazard Environmental Hazard	Flammable Material Hazard

Caution:

This document includes descriptions of products that are dangerous if handled improperly. Property damage or injuries to people, including loss of life, are possible.
LG Chem ESS products contain lithium-ion batteries and are sources of energy. Do not expose to temperatures and humidity levels above the specified operating ranges, immerse, puncture, crush, short circuit, incinerate, or force discharge. Internal or external short circuits can cause severe overheating and provide ignition sources that can result in fires of surrounding materials or materials within the cell or battery. The battery design is such that when the battery integrity is completely maintained, the electrode materials and electrolyte are not exposed. Only cases of abuse (mechanical, thermal, and electrical) will result in risk of exposure.

2A: High Voltage Hazards
During normal conditions and when LG Chem ESS enclosure remains closed, there is not an electrical hazard. LG Chem ESS products include designed safeguards to tolerate a number of expected abuse conditions. The battery cells are sealed within the battery module. Connectors are touch-safe and the battery module exteriors are isolated from internal components. Battery modules are typically installed in a battery rack which should be isolated from high voltage.
If the external enclosure, battery modules, and/or safety circuits have been compromised or have been significantly damaged, the ESS product poses significant risks of high voltage and electrocution. Regardless of the state of charge and even in a normally discharged condition, battery modules contain

electrical energy and mishandling can cause injury or death. If there is visible damage to an LG Chem ESS product, preventative measures should be taken until the danger is assessed and next steps identified.
WARNING: Due to the high voltage and the associated electrocution risks, NEVER DISASSEMBLE LG Chem ESS products.
Contact LG Chem tor proper installation and removal instructions.

2B: Mechanical Damage Hazards
When not in use and prior to installation, battery modules should be stored in their original packaging for protection from mechanical damage.

Hazardous conditions can result from mechanical damage, including:

- Fire.
- Electric shock.
- Injuries due to sharp edges.
- Electrolyte leakage.
- Individual cells rapidly heating up, cell venting, thermal runaway, and propagation.

If Battery Modules Are Dropped:

- Battery modules must be handled carefully and any exposure to shock or excessive mechanical load could cause significant damage. In the event of a module being dropped during handling, storage, or installation, the following steps should be followed.

Step 1: Perform visual inspection
For a period of least twenty (20) minutes after the event, undertake a detailed physical inspection and note if there are unusual odors. Should there be abnormal conditions, please refer to:

- Section 2D: Hazards Associated with Leaked Electrolyte
- Section 2E: Hazards Associated with Vented Gases
- Section 4: First-Aid Measures
- Section 5: Fire-Fighting Measures

In the absence of abnormal conditions, proceed to Step 2 below.

Step 2: Perform voltage check
To confirm the electrical integrity of the battery module, a voltage check should be performed. To avoid injury or electrical shock, personnel must not touch metal parts such as the base plate assembly. Check the voltage between the power (negative) terminal and module base plate to confirm the integrity of the module's insulation and record the voltage value. When measuring the voltage, the installer should wear insulated gloves and avoid body contact with any metal parts. After the voltage check, repack the battery into its packing box.

Step 3: Set aside the dropped battery module
Regardless of whether the battery module has visible damage, any module that has been dropped should not be used. Batteries that have failed the voltage check should have a "V" mark noted on the top of the packaging box.

Step 4: Store the module
Keep the module outdoors and away from enclosures, buildings, and equipment. Protect the module from direct sunlight, rain, snow, and the elements. Lithium cells or batteries, that have been damaged or identified by the manufacturer as being defective for safety reasons, that have the potential of producing a dangerous evolution of heat, fire, or short circuit (*e.g.,* those being returned to the manufacturer for safety reasons) may be transported by highway, rail or vessel only, and must be packaged and shipped according to the Code of Federal Regulations Title 49 → Subtitle B → Chapter I → Subchapter C → Part 173 → Subpart E → §173.185.

2C: High Temperature Exposure Hazards
The normal operating ranges for LG Chem ESS products are temperatures of 0~40°C (32~104°F) with a non-condensing humidity value of less than 85%. The LG Chem ambient temperature recommendation is 19~27°C (66.2~80.6°F) based on the battery inlet temperature.
Fire can result from exposure to elevated temperatures can cause thermal runaway of battery cells, resulting in fires.

- Electrolyte leakage can occur if: Stored for more than 24 hours at temperatures above approximately 80°C (176°F).
- Cell thermal runaway can occur if: Stored for more than a few minutes at temperatures above approximately 150°C (302°F) or subjected to localized heat sources.

2D: Electrolyte Leak Hazards
Under normal conditions, the battery electrolyte is absorbed in electrodes within individual sealed cells. As a result, there should be visible signs of and no contact with the electrolyte. Mechanical damage can cause a small quantity of electrolyte to leak out of a cell and in order for the electrolyte liquid to come into contact with an LG Chem ESS user, mechanical damage would have to occur to the battery rack or enclosure, the battery module, and the cell.

The electrolyte is generally composed of a volatile hydrocarbon-based liquid with a dissolved lithium salt, such as lithium hexofluorophosphate. If electrolyte liquid is released, it is likely to rapidly evaporate and leave a white residue (salt). The evaporated electrolyte is flammable and contains compounds of alkyl-carbonates. Some of the characteristics of leaked electrolyte include a colorless appearance and a sweet odor. Upon detecting an odor, evacuate the surrounding area and ventilate the area. WARNING: AVOID CONTACT WITH ELECTROLYTE.
Leaked electrolyte solution is an eye and skin irritant, as well as flammable and corrosive. If there is suspected liquid electrolyte, ventilate the area and avoid contact with the liquid until the identity of the liquid is verified and proper personal protective equipment is available for protecting the eyes, skin, and respiration.

To aid in the identification of spilled liquid, chemical classifier strips can be used since the electrolyte contains organic solvents and fluoride compounds.

The following personal protective equipment is recommended: respirator with organic vapor/acid gas cartridges for air purification, full face respiration with face shield or chemical safety goggles, and safety gloves (butyl rubber or laminated film), and protective clothing. Spills can be cleaned up using a dry absorbent material.

2E: Vented Gas Hazards
Venting should not occur since Lithium-ion cells are designed to be sealed under normal operating conditions. If ESS products are subjected to abuse conditions or abnormal heating, venting can occur due to the vaporization of electrolyte and electrolyte decomposition products. If a hazardous and abnormal thermal runaway reaction occurs, it can often be detected by vented gases.

In the event of gas or smoke, evacuate the area and notify the local fire department and other first responders. Venting gases or smoke should be considered flammable and could unexpectedly ignite. Only trained first responders with appropriate personal protective equipment should approach a venting LG Chem ESS product.
The vented gases from battery cells are dependent on cell composition, cell state of charge, and the cause of cell venting. The corresponding cell vent gases can include volatile organic compounds (VOCs), such as alkyl-carbonates, methane, ethylene, and ethane, as well as hydrogen gas, carbon dioxide, carbon monoxide, soot, and some particulates containing oxides of nickel, aluminum, lithium, copper, manganese and cobalt. There is also the possibility of the formation of phosphorus pentafluoride, POF_3 and HF vapors.

WARNING: AVOID ALL CONTACT WITH VENTED GASES AND TREAT VENTED GASES AS FLAMMABLE. Vent gas temperatures can exceed 600 ºC (1,110 ºF) and contact with hot gases can result

in thermal burns. The eyes, skin, nose, and throat can be irritated by vented gas. Vented gas is flammable, and ignition sources should be mitigated.

Section 3: Composition/ Information on Ingredients

The table below is being provided for battery cells for general informational purposes.

The Occupational Safety and Health Administration (OSHA) Hazard Communication Standard, 29 CFR Subpart 1910.1200 does not apply to various subcategories including anything defined by OSHA as an "article". The LG Chem ESS products are defined as "articles", and are exempted from the requirements for Safety Data Sheets.

Materials in Battery Cells			
Chemical Name	**Synonym**	**CAS#**	**Content (%)**
Aluminum	Aluminum Foil	7429-90-5	2-10
Metal Oxide (proprietary)			20-50
1,1-Difluoroethene homopolymer	Polyvinylidene Fluoride (PVDF)	24937-79-9	<5
Copper	Copper Foil	7440-50-8	5-20
Poly-olefin		9003-07-0	<1
Carbon (proprietary)		7440-44-0	10-20
Electrolyte (proprietary)			10-20
Aluminum, Copper plate and inert materials		Not applicable	Remainder

Section 4: First-Aid Measures

Electric Shock / Electrocution: Seek medical assistance immediately.

Contact with Leaked Electrolyte: Flush with water immediately and wash the affected area with soap and water. Seek medical assistance if there is a chemical burn occurs or if irritation persists. Should eye contact occur, flush with significant amounts of water for 15 minutes. Do not rub the eyes. Seek medical attention.

Electrolyte Vapor or Vent Gas Inhalation: Move the person into fresh air. If there is difficult or painful breathing, seek medical attention immediately.

IF EXPOSURE TO INTERNAL MATERIALS WITHIN CELL DUE TO DAMAGED OUTER CASING, THE FOLLOWING ACTIONS ARE RECOMMENDED ;
- Obtain special instructions before use.
- Do not handle until all safety precautions have been read and understood.
- Keep away from heat/sparks/open flames/hot surfaces.
- Keep/Store away from clothing /combustible materials.
- Do not breathe dust/fume/gas/mist/vapors/spray.
- Do not get in eyes, on skin, or on clothing.
- Avoid release to the environment.

- Wear protective gloves/protective clothing/eye protection/face protection.
- Use personal protective equipment as required.

After skin contact:
- Wash with plenty of soap and water.
- Remove/Take off immediately all contaminated clothing. Rinse skin with water/shower.
- Take off contaminated clothing and wash it before reuse.
- Get medical attention immediately.
- If skin irritation or rash occurs, Get medical advice/attention.
- Wear gloves when washing the patient, and please avoid contact with contaminated clothing.

After eye contact:
- Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
- Get medical attention immediately.

After inhalation:
- Remove victim to fresh air and keep at rest in a position comfortable for breathing.
- Take specific treatment if needed.
- Get immediate medical advice/attention.
- If breathing is stopped or irregular, give artificial respiration and supply oxygen.

After swallowing:
- Rinse mouth.
- Immediately call a POISON CENTER or doctor/physician.
- Get immediate medical advice/attention.
- Whether to induce vomiting: Consult with a doctor for advice.

Section 5: Fire-Fighting Measures

Responding to a Battery Enclosure without Venting: There can be cases where the battery enclosure is sealed and there is no visible venting of smoke or gases, but there is a rise in temperature indicating possible risk of fire. In these situations, there is the possibility of pressure buildup inside the container due to combustible gas, which can ignite and explode upon the in-rush of air. Alert trained first responders and the nearest fire department for appropriate guidance. If possible, the enclosure should be kept closed and monitored for 24 hours or longer to see if there is a continued rise in temperature or whether there is visible smoke.

Determining Possibility of Monitoring: If the ESS enclosure or building is not occupied by people and it is determined by the Incident Commander that there is not an immediate threat to lives, it could be possible to use an approach of monitoring the enclosure from safe distance for 24 hours or more to further assess the situation and to determine next steps.

Opening of closed Battery Enclosure: When the Incident Commander decides to have an enclosure door opened, the door opening operation should be performed remotely at a safe distance using non-conducting ropes, hooks, poles, or similar devices without anyone standing directly in front of the door. The main intent is to minimize personnel exposure in front of the open door or to avoid a life-threatening situation due to heated gas or a flying object by potential explosion. After the enclosure door is opened, the enclosure should be monitored for 12 hours or longer to see if there is a rise in temperature or visible smoke.

Responding to a Venting Battery Enclosure: In cases where the battery enclosure is venting, the venting from lithium-ion batteries may cause fire or smoke. There is the possibility that the vented gases are

flammable and may ignite at any time. In the event of a fire, keep the ESS enclosure or building closed and do not to open any windows or doors. Contact trained first responders and the nearest fire department.

Shutting off Power: A trained first responder team or the local fire department should shut off power to the Battery Enclosure to prevent charging of the battery, if possible. However, shutting off power to the LG Chem ESS product does not de-energize the battery, and there is still the presence of a shock hazard. The LG Chem ESS product should then be monitored for evidence of continued smoke evolution. Application of high volumes of water from a safe distance to cool the battery pack may prevent further reaction and prevent a fire from developing.

Development of Fire: If a fire develops, the Incident Commander should determine whether an attempt will be made to suppress the fire (aggressive firefighting) or allow the battery to burn itself out, while protecting surrounding materials (defensive firefighting).

Virtually all fires involving lithium-ion batteries can be controlled with water. Based on currently available information, water has been found to be the most effective agent for controlling lithium-ion battery fires. Water can help suppress flames, cool cells and batteries, and limit thermal runaway propagation. If water is used, there is a possibility that the electrolysis of water (which is the splitting of water into hydrogen and oxygen) can contribute to the flammable gas mixture formed by venting cells and the burning of plastic and other combustibles. Abundant and significant amounts of water should be used to fight a lithium-ion battery fire.

Gaseous agents (carbon dioxide (CO_2), Novec 1230, or FM-200) or dry chemical suppressants may temporarily suppress flaming of lithium-ion battery packs, but they will not provide sufficient cooling of lithium-ion batteries and will not suppress the propagation thermal runaway. Metal fire suppressants, such as copper powder or graphite powder are not appropriate agents for suppressing fires involving lithium-ion battery packs as they are unlikely to be effective.

A battery fire may continue for several hours and it may take 24 hours or longer for the battery pack to cool. A lithium-ion battery fire that has been extinguished can re-ignite due to the exothermic reaction of constituent materials from broken or damaged cells. To avoid this, remove sources of ignition and cool the burned mass by flooding with water.

Aggressive Firefighting: One possible approach for aggressive firefighting is to apply abundant amounts of water into the battery room. Applying water into the battery room may help provide cooling of the incident cell and could slow down the propagation. If a decision is made for trained first responders to apply water, it should be noted that plenty significant amount of water needs to be available and responders should maintain safe distances at all times.

Defensive Firefighting: One possible defensive reaction to a fire is to allow the fire to burn itself out (self-extinguish). Simultaneously, fire crews may spread water from a safe distance to reduce exposures to and diffusion of smoke. Please be aware that lithium-ion batteries can burn for several hours and there is the possibility of re-ignition events.

Firefighter Personal Protective Equipment: Firefighters should protect themselves at all times and wear turnout gear rated for fire protection, as well as a self-contained breathing apparatus (SCBA). There is a possibility that cells or batteries could develop flames or leak potentially hazardous organic vapors if exposed to excessive heat, fire or overvoltage conditions. These vapors may include, but are not limited to carbon monoxide, hydrogen gas, carbon dioxide, volatile organic compounds (VOCs), soot, and particulates containing oxides of nickel, aluminum, lithium, copper, and cobalt. There is also the possibility that vapors of phosphorus pentafluoride, POF_3 and HF may form.

Fire Behavior Considerations: Some conditions and situations that can potentially occur during the

course of the fire should be considered. This section examines these potential conditions, risks, and safety concerns. Lithium-ion battery fires can cause abnormalities such as Backdraft, Flashover, and Rollover.

Backdraft: Many battery enclosures are isolated fire-resistant structures, so when a fire proceeds, the combustion process typically involves slow smoke generation while lacking a supply of oxygen. In the event that large amounts of air (oxygen) are supplied while incompletely burned flammable gas and heat are concentrated, an explosive ignition can occur momentarily, resulting in backdraft.

Flashover: Flashover is the transition phase in the development of a contained fire in which surfaces exposed to thermal radiation from fire gases in excess of 600°C (1112°F), reach ignition temperature more or less simultaneously and fire spreads rapidly through the space. This is the most dangerous stage of fire development.

The following should be considered in a lithium-ion battery fire.
1) Flashover appears more frequently than backdraft.
2) During Backdraft and Flashover, windows can be broken, thereby enabling smoke and flames to hit the openings as shock waves are generated. This can result in parts of the enclosure collapsing.
3) If the combined gas generated by the fire occupies about 25% of the total space, an explosion can occur. If high-temperature vented gases are concentrated in a corner of the enclosure, an explosion can occur when the enclosure door is opened for search operations.
4) Explosive pressure generated within a limited space is a fatal hazard. Pressure levels higher than ambient pressure can destroy windows, collapse partitions, and even collapse brick walls.
This phenomenon generates when heat is transferred directly to the lithium-ion battery, which can be prevented by cooling the lithium-ion battery through continuous cooling with copious amounts of water and venting of smoke and gas.

Symptom	Firefighting strategy
• High temperature smoke generation • Rollover phenomenon observed • Free combustion occurs • Continuous thermal integration within a certain space (simultaneous heat of other materials) • Thick, hot, thick smoke accumulates downwards	• Water cooling method • It is not possible to completely extinguish a fire by spraying water into a battery enclosure or battery rack, but it can temporarily reduce the temperature to delay flashover and defend the expansion of the fire. • Smoke venting method

Section 6: Accidental Release Measures

A. Personal precautions, protective equipment and emergency procedures

- Protective equipment: Wear proper protective equipment

- Emergency procedures:
On Land: Place material into suitable containers and call local fire/police department.
In Water: If possible, remove from water and call local fire/police department.

- If required, notify relevant authorities according to all applicable regulations.

B. Environmental precautions
- Prevent runoff and contact with waterways, drains or sewers.
- Advise emergency services.

C. Methods and materials for containment and cleaning up

- Control personal contact by using protective equipment.
- Prevent, by any means available, contaminants from entering drains or waterways.
- Dispose of waste in accordance with local regulation.

Section 7: Handling and Storage

A. Precautions for safe handling
- No special protective clothing required for handling individual cells.
- Do not expose battery or cell to extreme temperatures or fire.
- Do not disassemble, crush or puncture battery.
- Do not overcharge or over discharge the battery.
- Do not connect (short circuit) positive and negative terminals.
- Do not place the batteries on conductive metal.

B. Conditions for safe storage, including any incompatibilities
- Store in a cool, dry place.

Section 8: Exposure Controls/Personal Protection

A. Exposure limits

○ ACGIH TLV
- Not available

○ OSHA PEL
- Not available

B. Engineering controls
- Keep away from heat and open flame.
- Store in cool and dry place.

C. Personal protective equipment

○ Respiratory protection
- Not required during normal operations.
- SCBA required in the event of fire.

○ Eye protection
- Not required beyond safety practices of employer.

○ Hand protection
- Required to use insulation gloves.

○ Skin protection
- Steel toed shoes recommended for large container handling.

○ Others
- Not available

Section 9: Physical and Chemical Properties

A. Appearance
- Appearance: Solid
- Color: Not available

B. Odor: Not available
C. Odor threshold: Not available
D. pH: Not available
E. Melting point/Freezing point: Not available
F. Initial Boiling Point/Boiling Ranges: Not available

G. Flash point: Not available
H. Evaporation rate: Not available
I. Flammability(solid, gas): Not available
J. Upper/Lower Flammability or explosive limits: Not available
K. Vapor pressure: Not available
L. Solubility: Insoluble
M. Vapor density: Not available
N. Specific gravity(Relative density): Not available
O. Partition coefficient of n-octanol/water: Not available
P. Autoignition temperature: Not available
Q. Decomposition temperature: Not available
R. Viscosity: Not available
S. Molecular weight: Not available

Section 10: Stability and Reactivity

A. Chemical Stability
- Stable during normal operating conditions.

B. Possibility of hazardous reactions
- None during normal operating conditions.

C. Conditions to avoid
- Avoid exposure to heat, high moisture, foreign particles, open flame, corrosives, etc.
- Do not puncture, crush or incinerate.

D. Incompatible materials
- None during normal operating conditions.

E. Hazardous decomposition products
- None during normal operating conditions.
- If cells are damaged, hydrogen fluoride, hydrogen gas, hydro carbons and carbon monoxide may be released.

Section 11: Toxicological Information

A. Information on the likely routes of exposure

○ (Respiratory tracts)
- None during normal operating conditions.

○ (Oral)
- None during normal operating conditions.

○ (Eye, Skin)
- None during normal operating conditions.

B. Delayed and immediate effects and also chronic effects from short and long term exposure

○ Acute toxicity
* Oral
- This product does not elicit toxicological properties during routine handling and use.

* Dermal
- This product does not elicit toxicological properties during routine handling and use.

* Inhalation

- This product does not elicit toxicological properties during routine handling and use.

○ Skin corrosion/irritation
- No irritation.
- If the cells are opened through misuse or damage, discard immediately. Internal components of cell are irritants and sensitizers.

○ Serious eye damage/irritation
- Not available

○ Respiratory sensitization
- Not available

○ Skin sensitization
- No sensitization.
- If the cells are opened through misuse or damage, discard immediately. Internal components of cell are irritants and sensitizers.

○ Carcinogenicity
- Not available

○ Germ cell mutagenicity
- Not available

○ Reproductive toxicity
- This product does not elicit toxicological properties during routine handling and use.

○ STOT-single exposure
- Not available

○ STOT-repeated exposure
- Not available

○ Aspiration hazard
- Not available

Section 12: Ecological Information (non-mandatory)

Ecotoxicity:

○ Fish
- Not available

○ Crustaceans
- Not available

○ Algae
- Not available

Mobility:
- Not available

Biodegradation:

○ Persistence
- Not available

○ Degradability
- Not available

Bioaccumulation:

- Some materials within the cell are bioaccumulative. Under normal conditions, these materials are contained and pose no risk to persons or the surrounding environment.

○ Biodegration
- Not available

Section 13: Disposal Considerations (non-mandatory)

- Dispose of according to all federal, state, and local regulations.
Follow Directive 2006/66/EC. California regulated debris
RCRA Waste Code : Non regulated

Section 14: Transport Information (non-mandatory)

A. UN No.
- 3480 / 3481

B. Proper shipping name
- Lithium Ion Batteries / Lithium Ion Batteries contained in equipment

C. Hazard Class
- Class 9
- Hazard label: Miscellaneous

D. Packing group
- II

E. Marine pollutant
- Not available

F. Special precautions for user related to transport or transportation measures

ICAO/IATA
- Packing Instruction: 965, 967
- Maximum Gross Weight per Package on Passenger and Cargo Aircraft: 5 kg
- Maximum Gross Weight per Package on Cargo Only Aircraft: 35 kg
- Special Provision: A45, A88, A99

IMO
-Packing Instruction: P903
- Special Provision: 188, 230, 310, 957
- EmS: F-A, S-I

US DOT
- This product is not subject to any other requirements of dangerous goods under 49 CFR 173.185 (Lithium Batteries and Cells).
- The shipping of hazardous materials should be performed according to the Code of Federal Regulations.

Section 15: Regulatory Information (non-mandatory)

○ Information of EU Classification
- Information according to Regulation (EC) No 1272/2008 [CLP]

- Information according to Directive 67/548/EEC

○ U.S. Federal regulations
- Information according to ISHA
- Information according to TCCA and other chemical management regulations

- Dangerous Substances Safety Management Act
- Regulation of Disposal
- OSHA hazard communication standard (29 CFR 1910.1200)

☒ Hazardous Non-hazardous

Section 16: Other Information

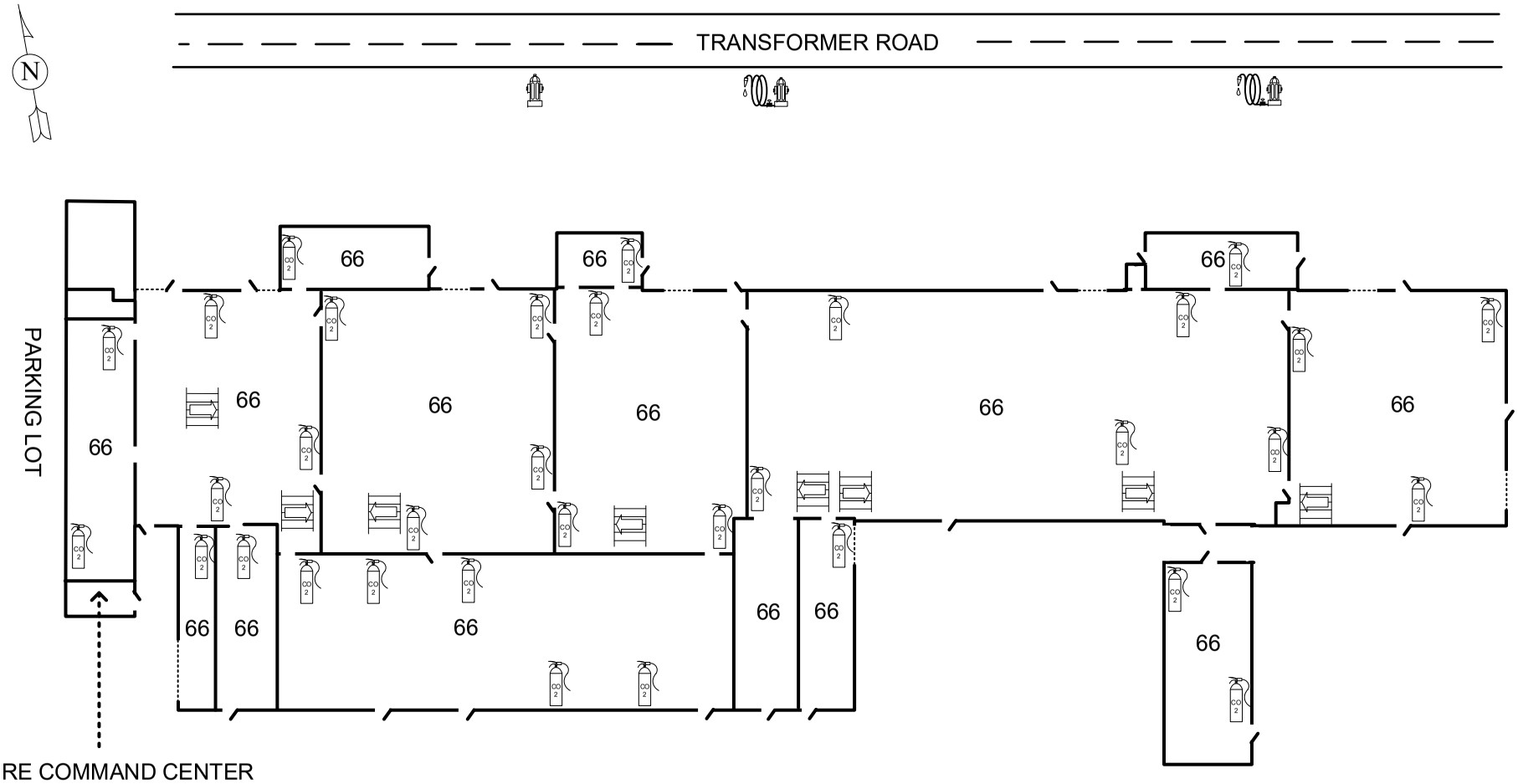
Emergency Response Guide date of preparation/update: June 8, 2020, Version AM

Notice: The information and recommendations set forth are made in good faith and believed to be accurate as of the date of preparation. LG Chem, Ltd. and its subsidiaries and affiliates make no warranty, expressed or implied, with respect to this information.

U.S.A
- The Occupational Safety and Health Administration (OSHA) Hazard Communication Standard, 29 CFR Subpart 1910.1200 does not apply to various subcategories including anything defined by OSHA as an "article". The LG Chem ESS products are defined as "articles", and are exempted from the requirements for Safety Data Sheets.

EU
- The products are no “substances” or “mixtures” according to Regulation (EC) No 1907/2006 EC. Instead they have to be regarded as “articles”, no substances are intended to be released during handling. Therefore there is no obligation to supply a Safety Data Sheet according to Regulation (EC) 1907/2006, Article 31.

General remarks
- This Emergency Response Guide is provided as a service to our customers. This information is based on our current knowledge and is intended to describe the product for the purposes of health, safety and environmental requirements only. Therefore, it should not be construed as guaranteeing any specific property of the product or the results of any specific actions.



LEGEND	REF. NO.	HAZARDOUS MATERIAL / WASTE
CO2 FIRE EXTINGUISHER	66	Batteries, Lithium Ion
HOSE STATION W/ HYDRANT		
HYDRANT		
STAIRS (UP)		
PHONE		

WELDING SHOP

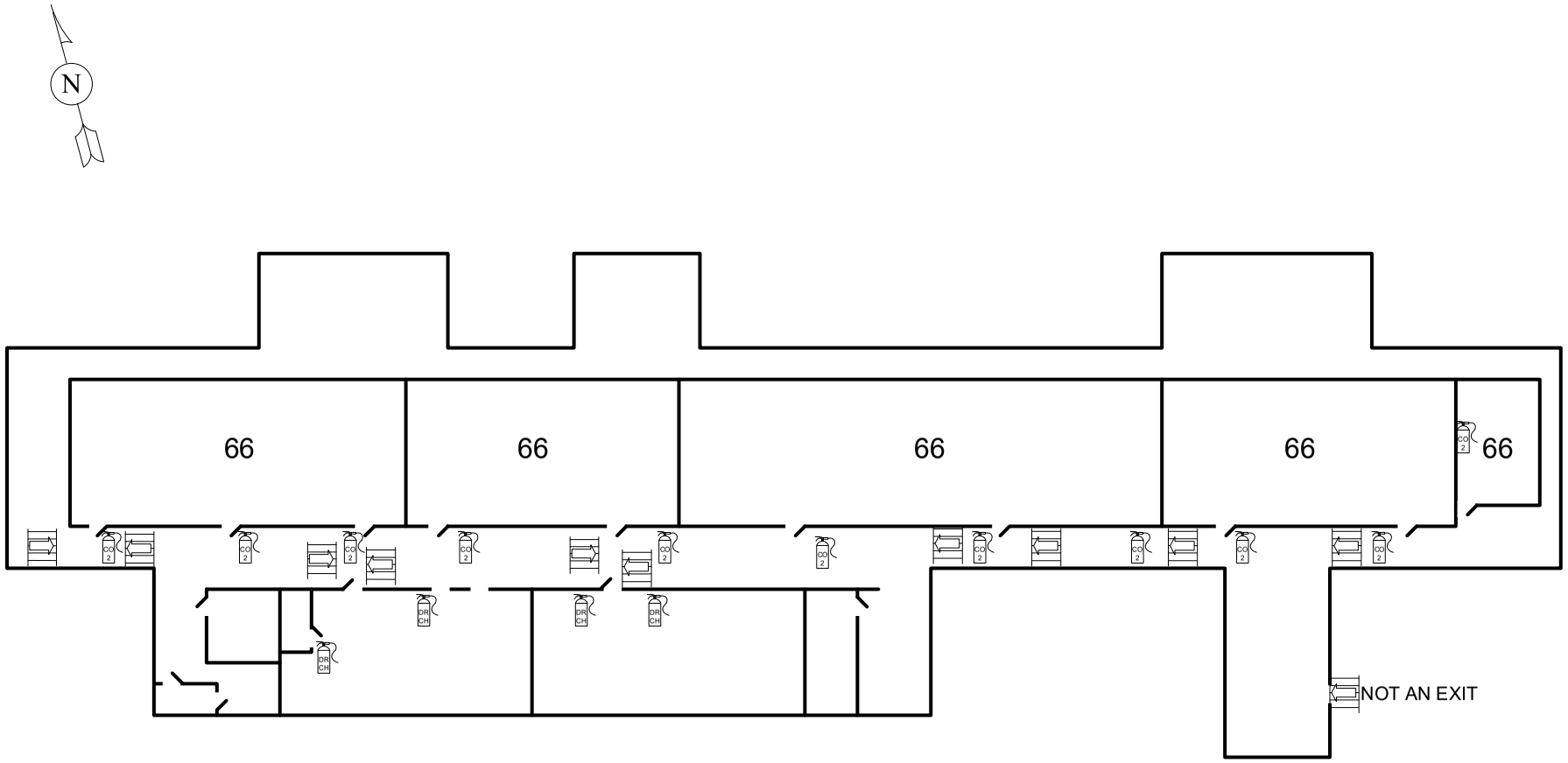
The location of structures, chemicals and all other objects are approximate and subject to temporary change necessary for operation and maintenance.

Moss 300 MW Battery Energy Storage System (BESS) Building 30' Elevation

MOSS LANDING POWER PLANT

REV. 15 09/23/20

PLOT PLAN NO. 3



LEGEND	REF. NO.	HAZARDOUS MATERIALS / WASTE
CO2 FIRE EXTINGUISHER	66	Batteries, Lithium Ion
DRY CHEMICAL FIRE EXTINGUISHER		
STAIRS UP – NO EGRESS		
STAIRS DOWN – EGRESS		

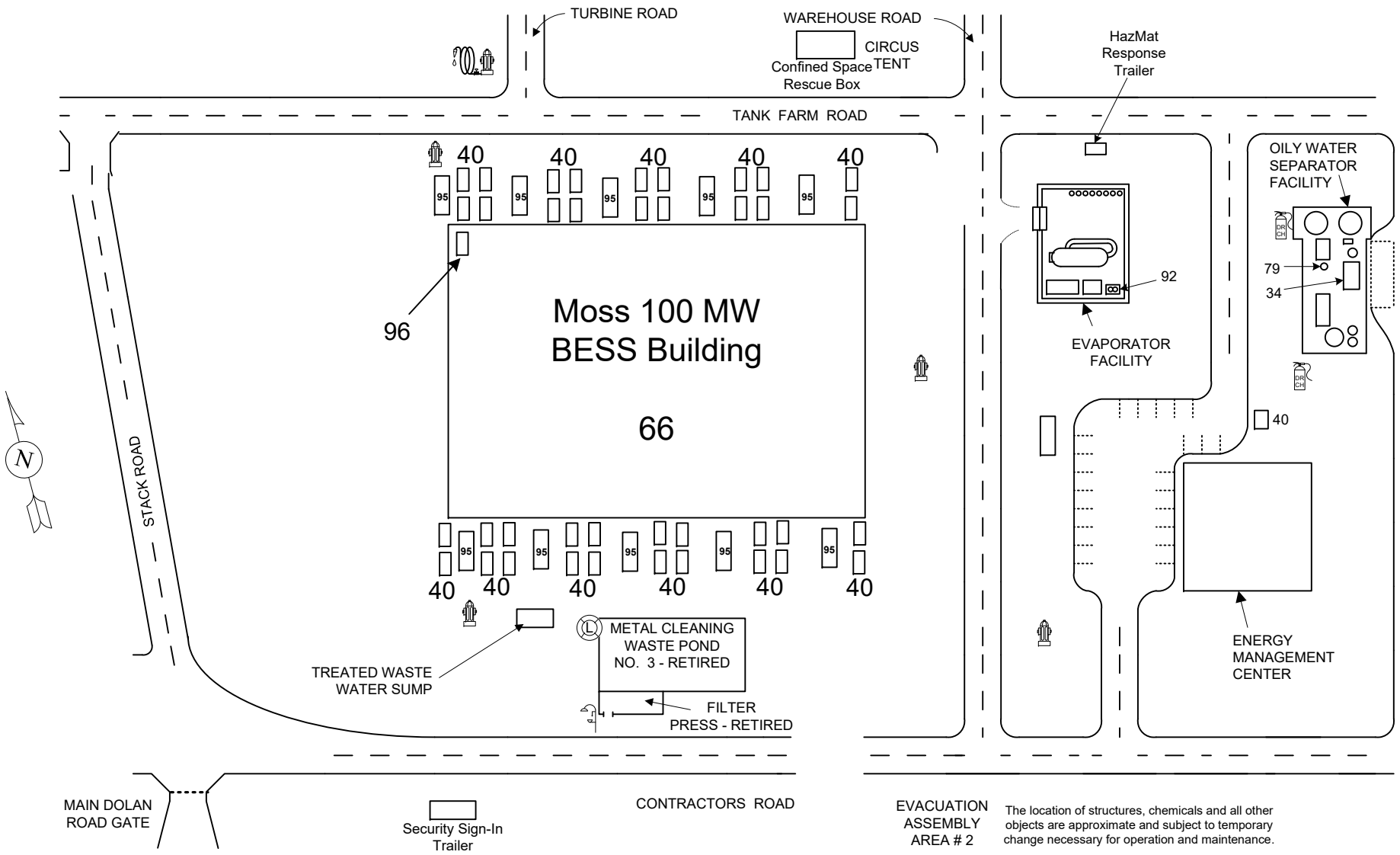
The location of structures, chemicals and all other objects are approximate and subject to temporary change necessary for operation and maintenance.

Moss 300 MW Battery Energy Storage System (BESS) Building 56' Elevation

MOSS LANDING POWER PLANT

Rev. 9, 9/28/20

PLOT PLAN NO. 7



The location of structures, chemicals and all other objects are approximate and subject to temporary change necessary for operation and maintenance.

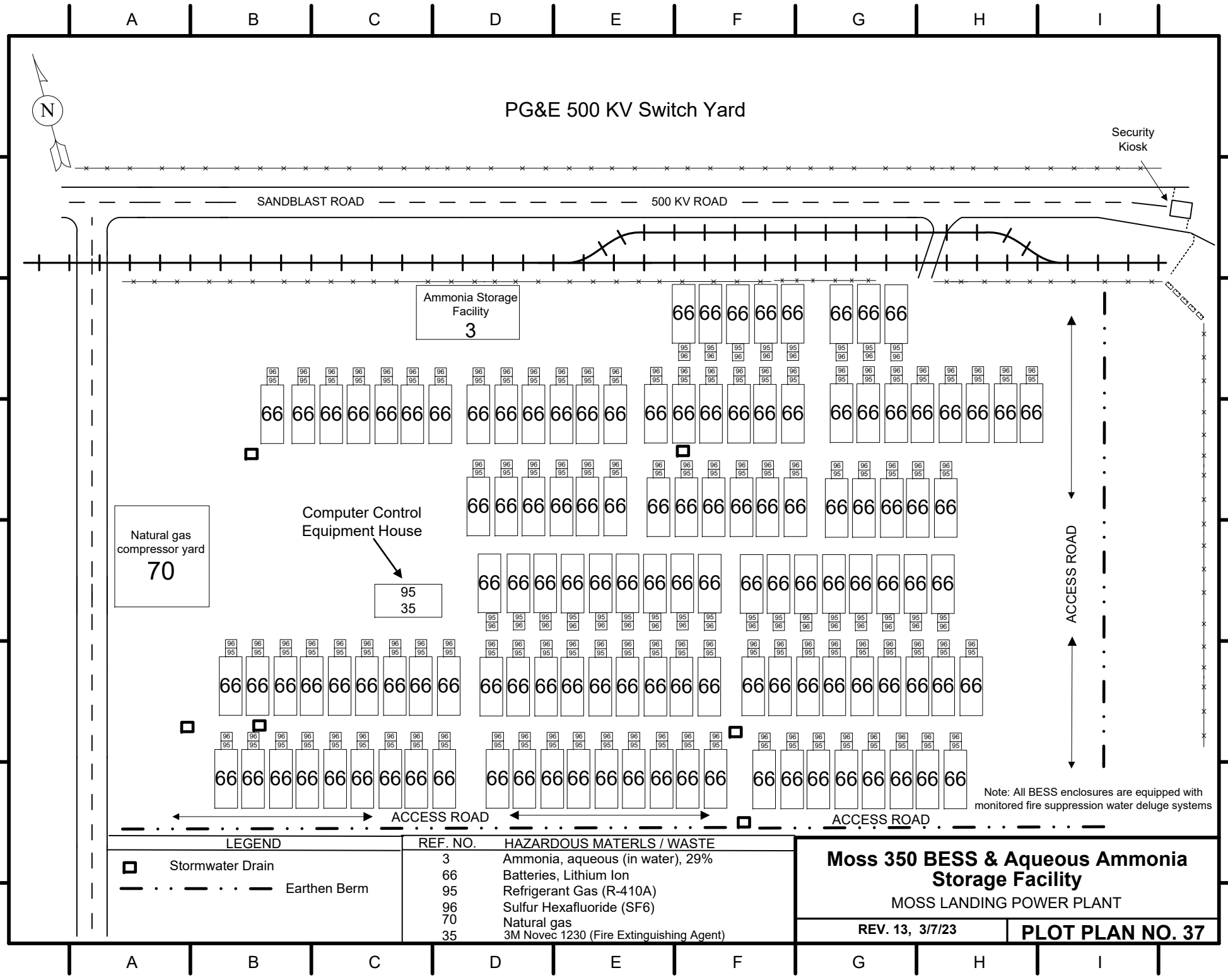
LEGEND	REF. NO.	HAZARDOUS MATERIALS / WASTE
PHONE	95	REFRIGERANT GAS (R-410A)
DRY CHEM FIRE EXTINGUISHER	34	HAZARDOUS WASTE ACCUMULATION AREA
EMERGENCY SHOWER / EYEWASH	40	TRANSFORMER INSULATING OIL
FIRE HYDRANT	79	EMULSION BREAKER (NALCO 7735)
	92	SCALE INHIBITOR (ID204)
	66	BATTERIES, LITHIUM ION
	96	SULFUR HEXAFLUORIDE (SF6)

MOSS 100 BESS, OILY WATER SEPARATOR AND ENERGY MANAGEMENT CENTER

MOSS LANDING POWER PLANT

REV. 10, 7/14/2021

PLOT PLAN NO. 35


PG&E 500 KV Switch Yard
Security Kiosk
SANDBLAST ROAD
500 KV ROAD
Ammonia Storage Facility
3
Natural gas compressor yard
70
Computer Control Equipment House
95
35
ACCESS ROAD
ACCESS ROAD
ACCESS ROAD
Note: All BESS enclosures are equipped with monitored fire suppression water deluge systems
LEGEND
Stormwater Drain
Earthen Berm
REF. NO. HAZARDOUS MATERLS / WASTE
3 Ammonia, aqueous (in water), 29%
66 Batteries, Lithium Ion
95 Refrigerant Gas (R-410A)
96 Sulfur Hexafluoride (SF6)
70 Natural gas
35 3M Novec 1230 (Fire Extinguishing Agent)
Moss 350 BESS & Aqueous Ammonia Storage Facility
MOSS LANDING POWER PLANT
REV. 13, 3/7/23
PLOT PLAN NO. 37

Guidance For Firefighting Water Collection, Monitoring, Storage and Disposal Associated with a Battery Suppression System Activation

1. PURPOSE

1.1. The purpose of this document is to provide Moss Landing Power Plant (MLPP) guidance for collection, monitoring, storage, and disposal of firefighting related discharges, associated with activation of the fire suppression systems in the battery buildings, that are contained following an event which causes an activation of the heat/fire suppression system, and results in water being released.

2. RESPONSIBILITIES

2.1. The Plant Manager is responsible for final review and approval of this guidance document.

2.2. The Environmental Manager is responsible for overall implementation and update of this guidance document.

3. SPECIAL INSTRUCTIONS/PRECAUTIONS

3.1. This document is intended to be used as a guide in conjunction with the facility Storm Water Pollution Prevention Plan (SWPPP), discharge permits, and facility emergency response plan. It does not contravene any permit or regulatory requirements that apply to MLPP.

3.2. MLPP stormwater is covered by the California General Permit for Storm Water Discharges Associated with Industrial Activities. The Regional Water Board has the authority to enforce the provisions and requirements of the General Permit.

3.3. Except during a planned stormwater discharge evolution, the normal position for stormwater valves is closed IAW the MLPP SWPPP.

4. GUIDANCE

4.1. Firefighting Related Discharges

4.1.1. Firefighting related discharges are not subject to the General Permit and are not subject to the conditions of Authorized Non-Storm Water Discharges IAW Section IV.C of the General Permit. However, Firefighting

related discharges that are collected and later discharged may be subject to municipal agency ordinances and/or Regional Water Board requirements.

4.1.2. This guidance document has been developed in the spirit of MLPP's environmental stewardship and best practices with the cooperation of the Regional Water Board, CUPA, and DTSC.

4.2. Firefighting Water Collected Inside the Battery Buildings

4.2.1. **Collection** - Firefighting water discharged from the suppression system, and/or used to control the fire, that remains inside the main battery buildings will be vacuumed up by a third-party contractor.

4.2.2. **Storage** - The water that is collected will be stored in a temporary on-site storage tank so that it can be sampled and properly disposed of offsite.

4.2.3. **Sampling** - Based on the profile of the water collected and the requirements for proper disposal.

4.2.4. **Disposal** – Proper offsite disposal

4.3. Firefighting Water Collected Outside of the Battery Buildings/Battery Containers

4.3.1. **Collection -** Firefighting water which leaves the main battery buildings, or battery containers, during an activation event is collected in various containments, stormwater troughs, and underground stormwater sumps. This also applies to the water used during firefighting efforts to control the fire in the buildings/containers.

4.3.2. **Storage -** Water contained outside the battery buildings will be collected by a third-party contractor using a vacuum truck and transferred to the MLPP #3 Wastewater Pond.

4.3.3. **Sampling -** Once all firefighting water is collected in the #3 Wastewater Pond the water will be given an appropriate amount of time to settle and will then be sampled and evaluated for disposal. These analytical methods are based on previous experience and intended to determine if the water is suitable for release back into the ground onsite or needs to be disposed of offsite.

a Recent history has shown that VOC and SVOC analysis are non-detect for all constituents and therefore these tests will not routinely be run in the future.

b Storm Water requires testing for **Total Suspended Solids (TSS), pH, Oil and Grease (O&G), and Iron (Fe)**.

c The Regional Water Board specifically requested that **Conductivity** be analyzed.

d **CAM-17 Metals** is the list of metal analysis used in California to identify possible constituent which would result in a hazardous profile for the water.

4.3.4. **Disposal –** Analytical results will be submitted to the Regional Water Board (RWB).

a Analytical results will be compared against storm water limits and ground water screening levels (San Francisco Bay Regional Water Quality Control Board, 2019 Rev. 2), and will be reviewed with the RWB.

- If the RWB agrees the water is suitable for discharge back into the ground on the Moss Landing site the Stormwater final discharge valves will be checked closed; and the #3 Wastewater Pond will be slowly pumped down into the on-site stormwater swale and inspected daily to ensure there is no ponding > 72 hours.

b If the water is not suitable for discharge back into the ground on the Moss Landing site arrangements will be made for proper disposal off site.

c Notification shall be provided to the Monterey County Health Department Environmental Health Bureau (CUPA) regarding the disposal of the water.

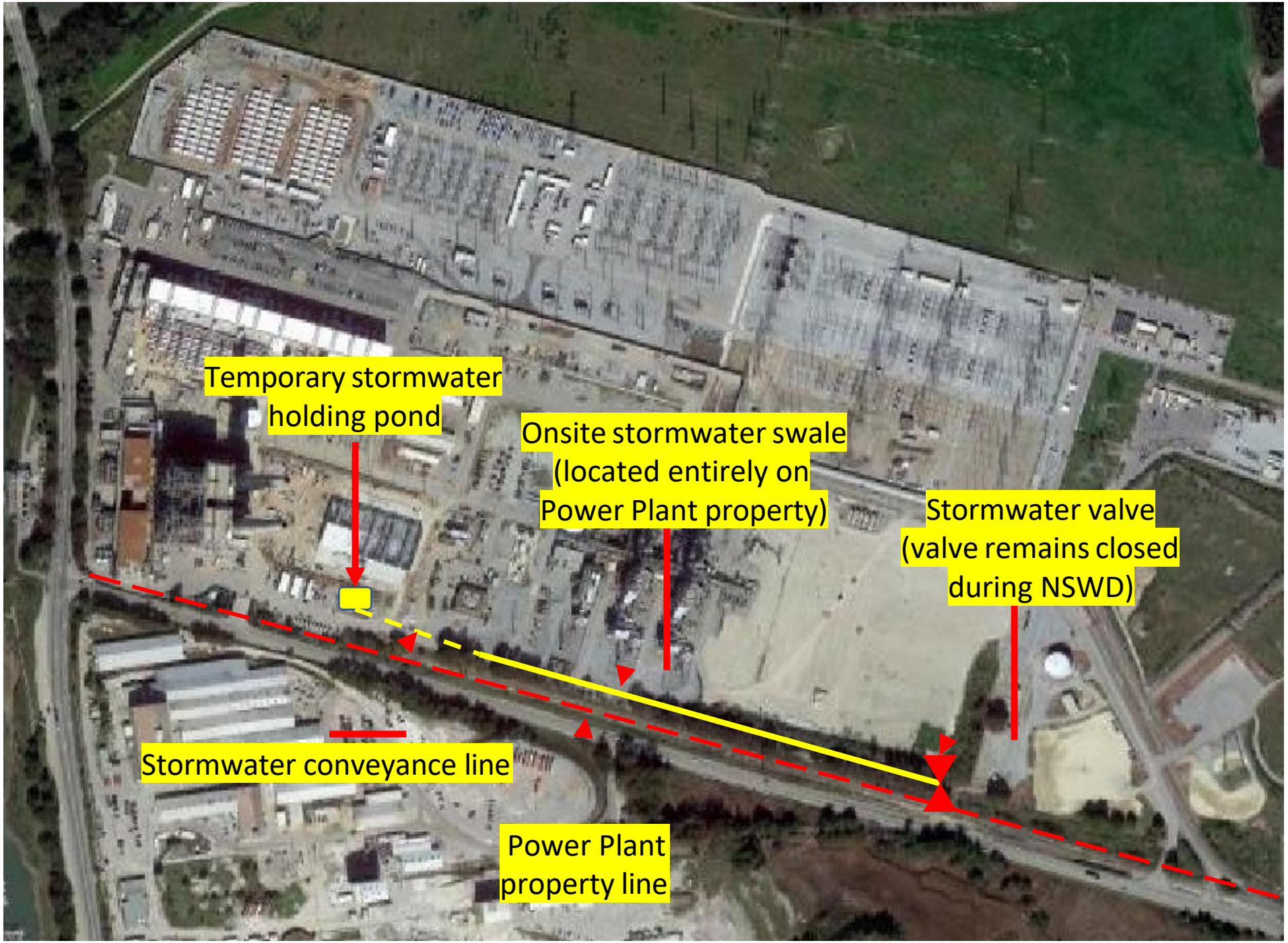
5. REFERENCES

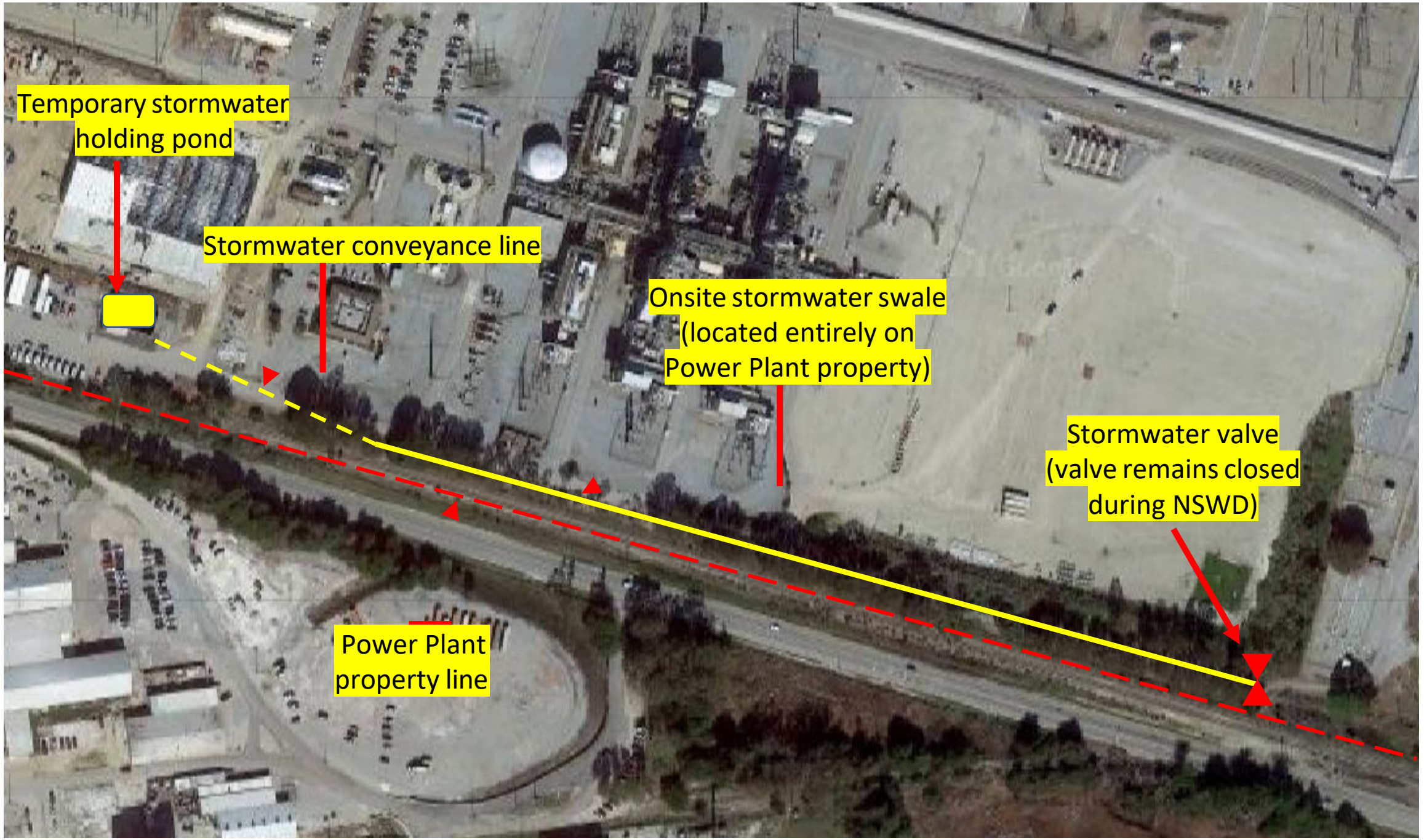
5.1. California General Permit for Storm Water Discharges Associated with Industrial Activities

5.2. Moss Landing Power Plant SWPPP

6. ATTACHMENTS

6.1. Map


Temporary stormwater holding pond
Onsite stormwater swale (located entirely on Power Plant property)
Stormwater valve (valve remains closed during NSWD)
Stormwater conveyance line
Power Plant property line


Temporary stormwater holding pond
Stormwater conveyance line
Onsite stormwater swale (located entirely on Power Plant property)
Stormwater valve (valve remains closed during NSWD)
Power Plant property line


Moss Landing Power Plant
Stormwater Swale
Berms on both sides
contain discharged water

Worst Case Dispersion Modeling (Moss 100 & 300)

BAKERRISK®

Identify | Evaluate | Solve

Vistra Fire Plume Modeling

Moss Landing, CA

Results Presentation

Prepared for:

Gibson

Presented by:

Jin Zhao, Principal Consultant
Jef Rowley, Principal Consultant

BakerRisk Project No.

01-07833-001-22

Confidential

Issue Date:

February 3, 2022

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Fire Scenario Location

- The worst case for Moss 100 and 300 would be a fire in a ground-level room (the 30-foot deck of Moss 300), the lowest HVAC flow rate, and a louver on the wall.
- Such a configuration would result in a smoke plume exhausting the building near grade.
- Based on above considerations, a fire in room 30-s-1 is modeled

Fire Characteristics

- Per Jerry Back

Property	Value
Combustion Energy	17,200 MJ
Air Entrainment Rate	0.33 kg/MW-s
Product Generation Rate	0.379 kg/MW-s
N2	0.248 kg/MW-s
CO2	0.104 kg/MW-s
H2O	0.01 kg/MW-s
HF	0.0017 kg/MW-s
Product Initial Temperature*	900 °C

*Assumed based on comparison with data from Back and in B. Ditch, "Development of sprinkler protection guidance for lithium ion based energy storage systems", FM Global, 2019.

Release Scenarios

- Assume a duration of 30 minutes
  - Single stack fire in 30-S-1: ~9.6 MW

- Two scenarios modeled:
  - Case 1: HVAC running
  - Case 2: HVAC off

Case 1: HVAC Running

- **Combustion products mix with HVAC air flow (assume well-mixed in building), and exhaust through wall louvers:**

Case 1					
Location	30-S-1				
Heat release rate (MW)	9.6				
HVAC flow rate (CFM)	22,500				
Mixture exiting room	O2	N2	CO2	H2O	HF
kg/s	2.24	9.79	0.994	0.096	0.016
w%	17.1%	74.5%	7.6%	0.7%	0.1%
Mass flow (kg/s)	13.14				
Temperature (°C)	297				

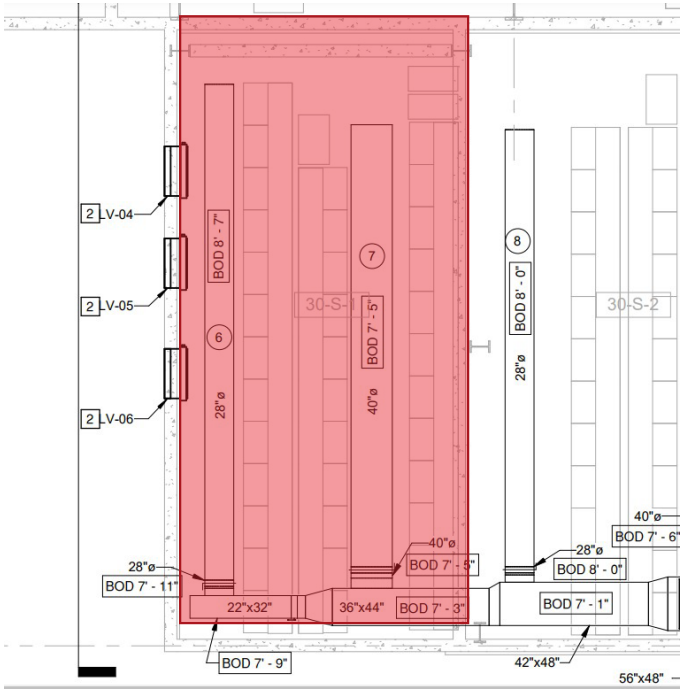
Case 2: HVAC Off

- With no HVAC air flow, system is likely oxygen starved
- Assume 0.3 kg CO generated per 1 kg fuel combustion[1]
- Assume pure combustion products leaves the room at 900 °C for Case 2a
  - Sensitivity study performed assuming combustion products at lower temperatures
    - Case 2b: 800 °C
    - Case 2c: 700 °C

Case 2					
Location	30-S-1				
Heat release rate (MW)	9.6				
Mixture exiting room	CO	N2	CO2	H2O	HF
kg/s	0.085	2.26	0.86	0.096	0.016
w%	2.5%	68.1%	26.0%	2.9%	0.5%
Mass flow (kg/s)	3.32				

[1] Pitts, W. M., The global equivalence ratio concept and the prediction of carbon monoxide formation in enclosure fires, Monograph 179, NIST, June 1994

Dispersion Modeling

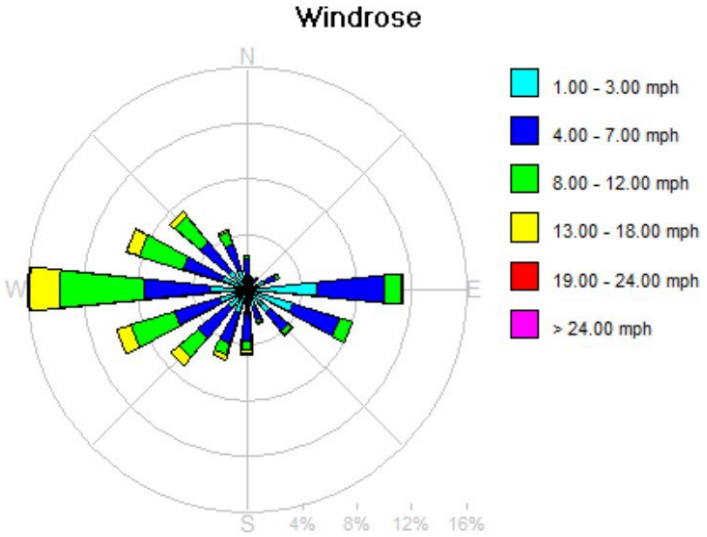


- **Room 30-S-1 has 3 louvers, all 4' by 4'.**
- **Release is modeled as horizontal release at 15 feet above ground with equivalent diameter of 93.8 inch.**

Weather

- Dispersion modeled for typical weather conditions based on met data from Monterey Airport
  - Temperature: 70 ºF
  - Humidity: 70%

Stability	Wind Speed (m/s)	Probability
B	2.4	0.112
D	2.8	0.483
D	7.1	0.070
F	2.0	0.335
Total:		1.00



Dispersion Endpoints

- The following HF and CO concentration threshold were used in dispersion calculation:
  - Reference Exposure Level (REL)
    - HF: 240 µg/m^3 (0.28 ppm)
    - CO: 23,000 µg/m^3 (19.8 ppm)

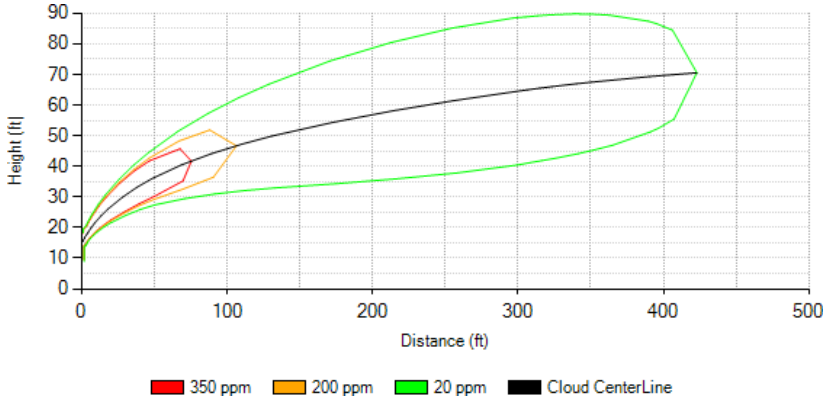
	Concentration (ppm)	
	HF	CO
Reference Exposure Level (REL)	0.28	19.8
ERPG-1	2	200
ERPG-2	20	350

Summary of Assumptions

- Fire occurs in a ground-level room with the lowest HVAC rate (conservative)
- Temperature of smoke is 900 °C (best estimate)
  - Lower temperatures analyzed for HVAC off scenario to examine effect (700 °C scenario is conservative)
- CO generation:
  - Negligible when HVAC is running (best estimate)
  - 0.3 kg/kg fuel when HVAC off (conservative)
- Wind is aligned with the initial exhaust direction (conservative)
- Combustion products are exhausted out of louvers on room's external wall(s)
  - HVAC running: Products are well-mixed with HVAC flow, with exhaust rate and composition based on steady-state (conservative)
  - HVAC off: Pure product exhausted (no air) (conservative)
  - Multiple louvers combined as a single source with an effective area equivalent to the total flow area (conservative)
  - Louvers are fully open and do not restrict flow (conservative)
  - Flow through the louvers yields no turbulence generation (conservative)
- Effect of building wake not considered (conservative)
- Water spray is off in the room where the fire occurs (conservative)

HVAC Off: CO Dispersion Results

- For all cases evaluated:
  - CO concentrations at 6 ft were below 19.8 ppm (23,000 µg/m^3)
- D7.1 CO dispersion side view is shown
  - Scenario C (smoke at 700 ºC) is provided, which yields plume closest to grade
- CO dispersion side view of all cases modeled are provided in Appendix



HF Dispersion Results

- For all cases evaluated:
  - HF concentrations at 6 ft were below 0.28 ppm (240 µg/m^3) for most scenarios
    - The exception is the HVAC off scenario

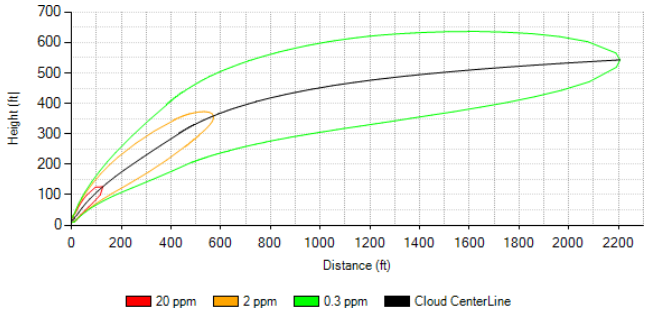
- Example HF dispersion sideviews are provided for Case 1 (HVAC on) and Case 2 (HVAC off, low flame temperature) under all weather conditions

- Example footprint and composite contour is shown at 6 ft for the HVAC off scenario for 800 °C smoke

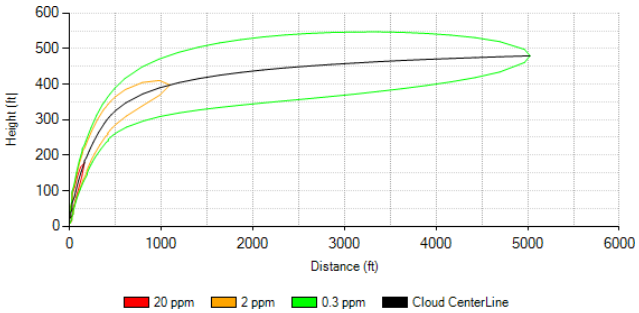
- For other scenarios, dispersion side views are provided in appendix.

Example HF Dispersion Result: HVAC on

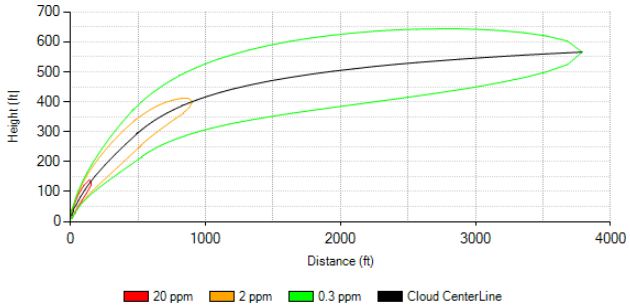
Weather: B2.4



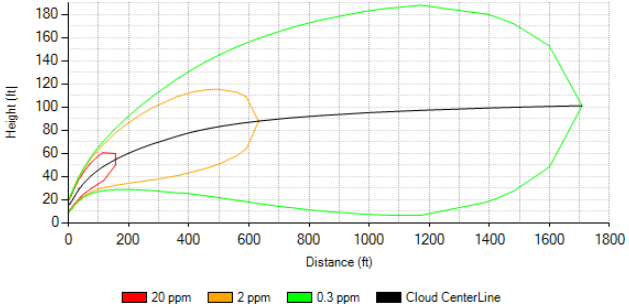
Weather: F2.0



Weather: D2.8

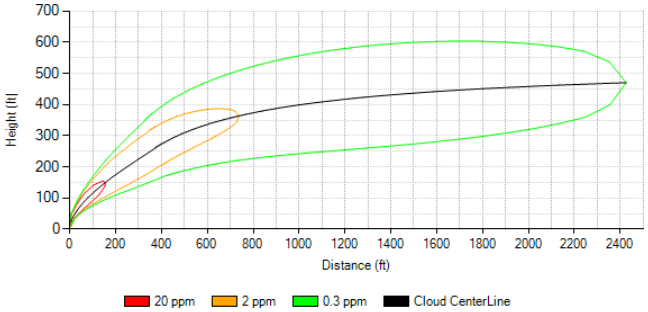


Weather: D7.1

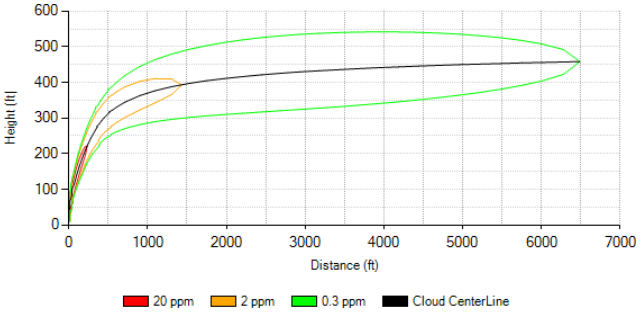


Example HF Dispersion Result: HVAC off

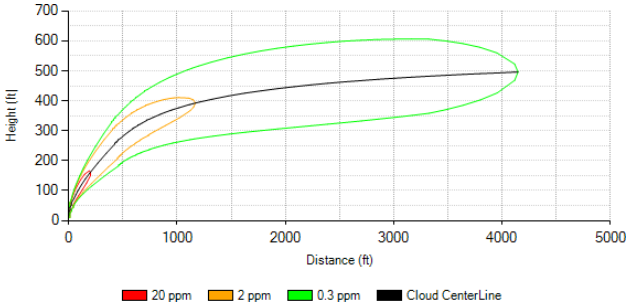
Weather: B2.4



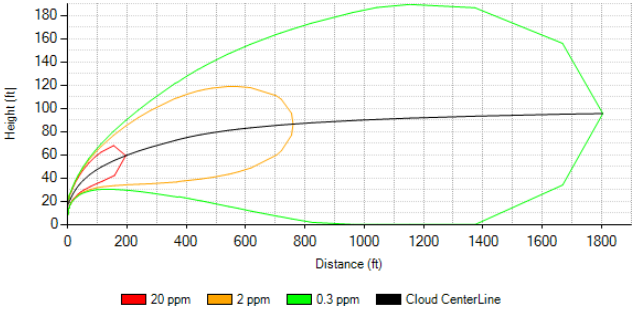
Weather: F2.0



Weather: D2.8



Weather: D7.1



Example HF Dispersion Result: HVAC off



D7: Footprint at 6 feet



Composite Contour at 6 feet

HF Dispersion Summary

HF Dispersion Distances (at 6-feet) For All Cases Evaluated, D7 Weather Conditions

Source Name	Distance (ft)		
	ERPG-2 (20 ppm)	ERPG-1 (2 ppm)	REL (0.28 ppm)
Case1 HVAC on	0	0	0
Case2a HVAC off (900 °C)	0	0	1300
Case2b HVAC off (800 °C)	0	0	1380
Case2c HVAC off (700 °C)	0	0	1360

Moss 100 & 300 APPENDIX A

TOXIC DISPERSION Details

This appendix includes cloud side view plots and any relevant cloud plan views for each release case. Missing plan views indicate the release did not exhibit concentrations about the toxic thresholds at an elevation of 6 feet.

Each figure is labeled with the case name, the pollutant to which the isopleths apply, and weather conditions during the release.

Where provided, the Plan Views show the cloud extent to the three toxic endpoints overlaid on a map. The toxic extents were taken at an elevation of 6 feet from grade.

The Side Views show the three toxic endpoints together with the cloud centerline. The horizontal axis shows downwind distance and the vertical axis shows the cloud height (note the scales on each axis differ to maximize the viewable area).

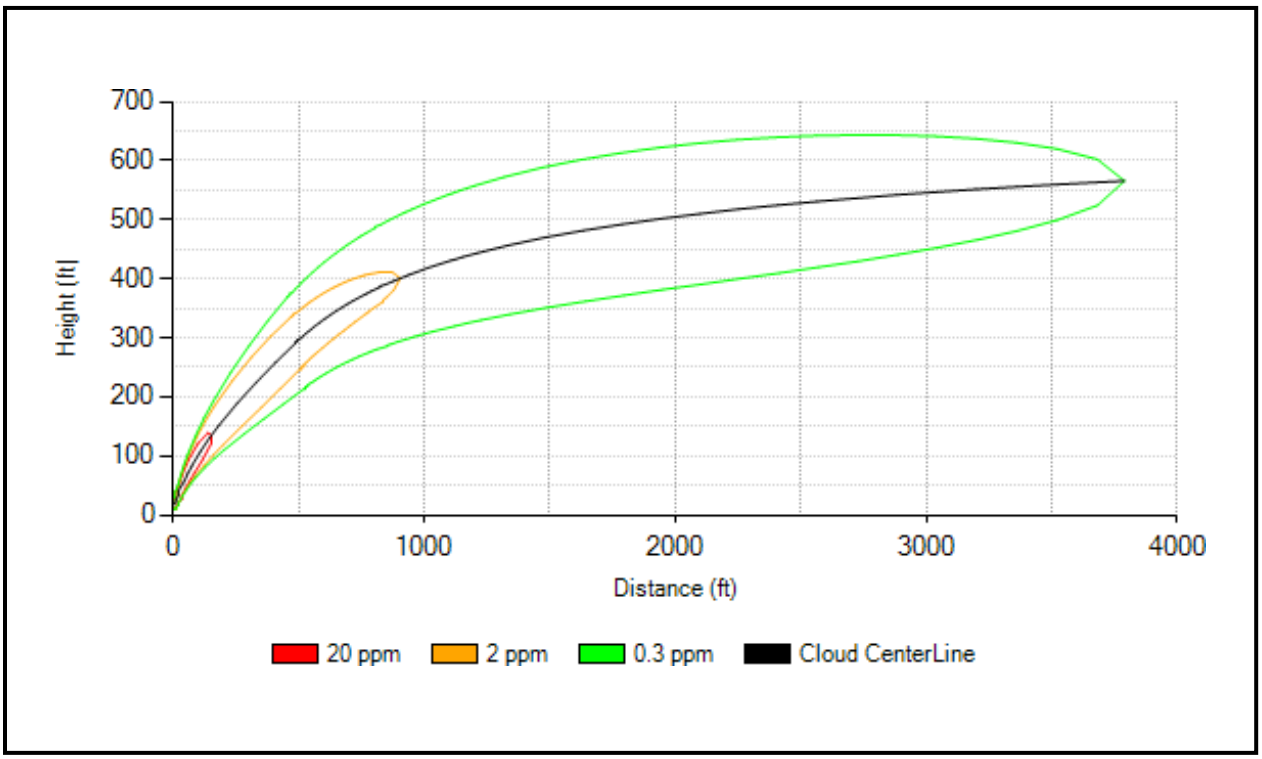


Figure A- 1. Pollutant: HF; Scenario: HVAC on; Weather: D2.8; Side View

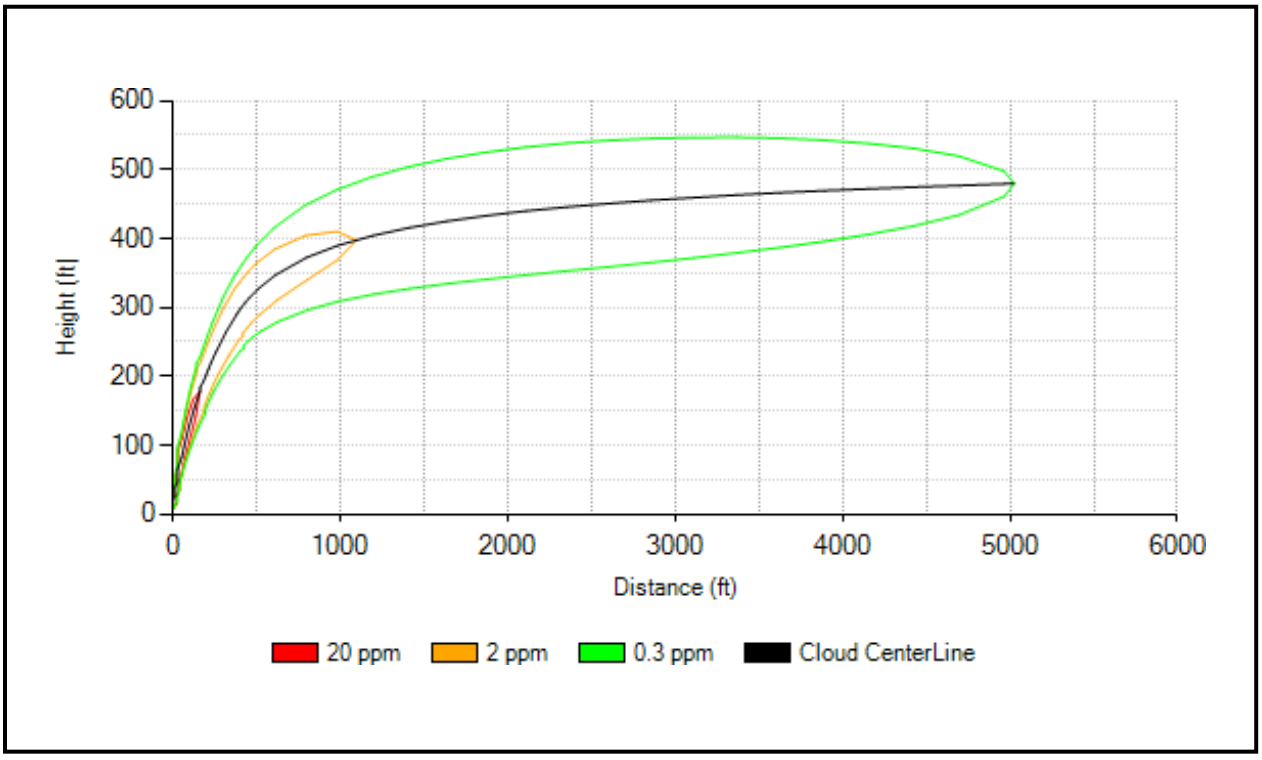


Figure A- 2. Pollutant: HF; Scenario: HVAC on; Weather: F2.0; Side View

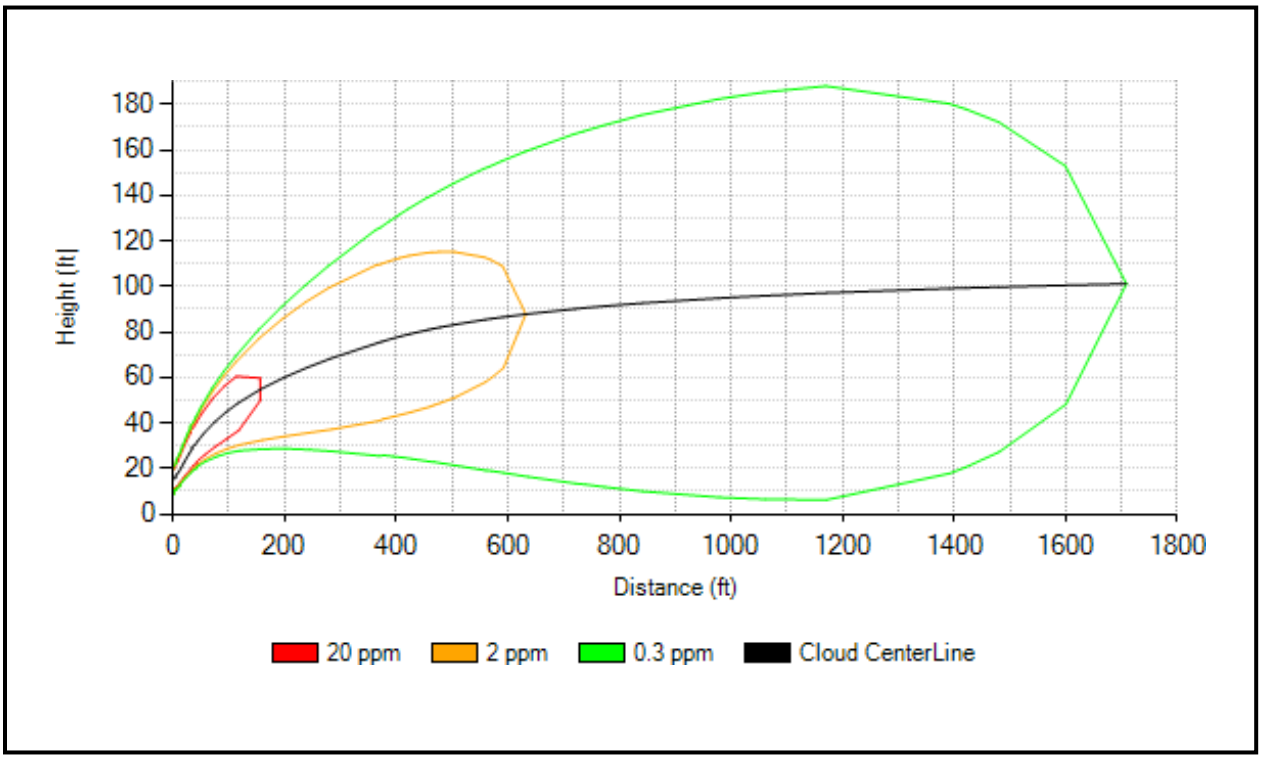


Figure A- 3. Pollutant: HF; Scenario: HVAC on; Weather: D7.1; Side View

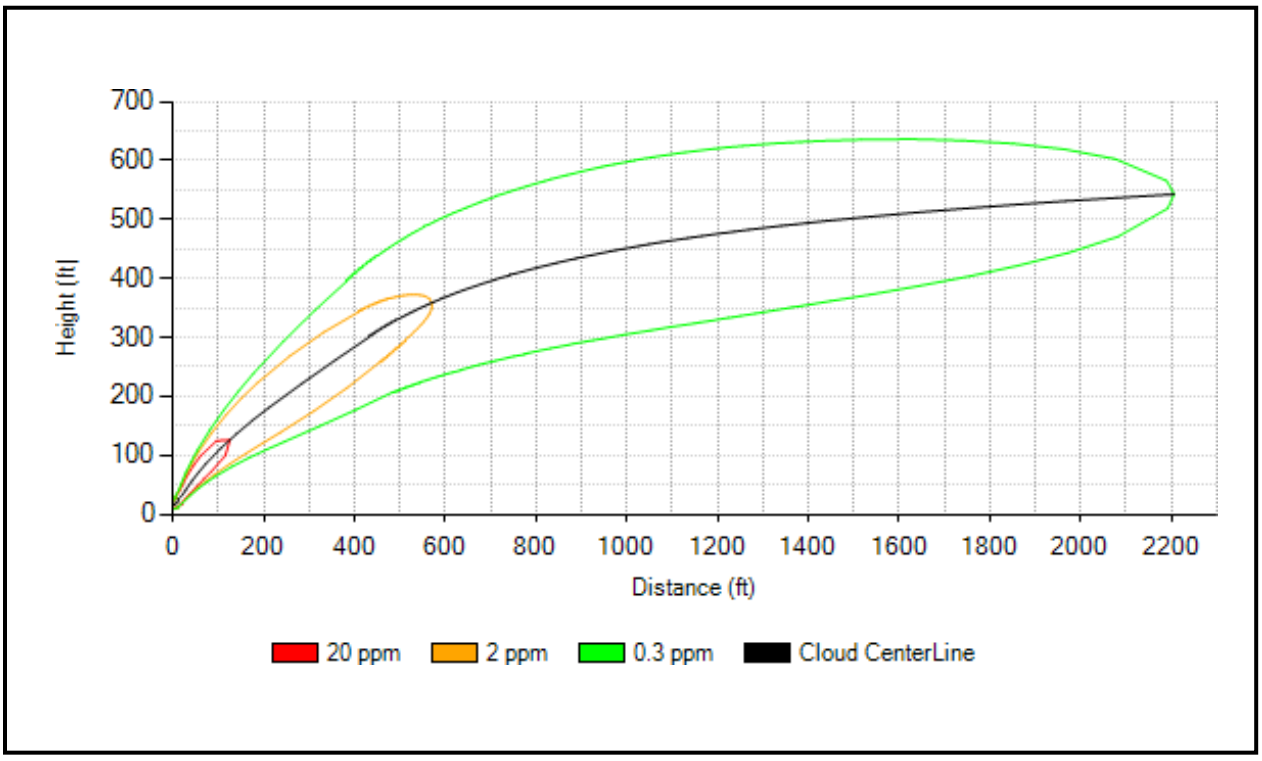


Figure A- 4. Pollutant: HF; Scenario: HVAC on; Weather: B2.4; Side View

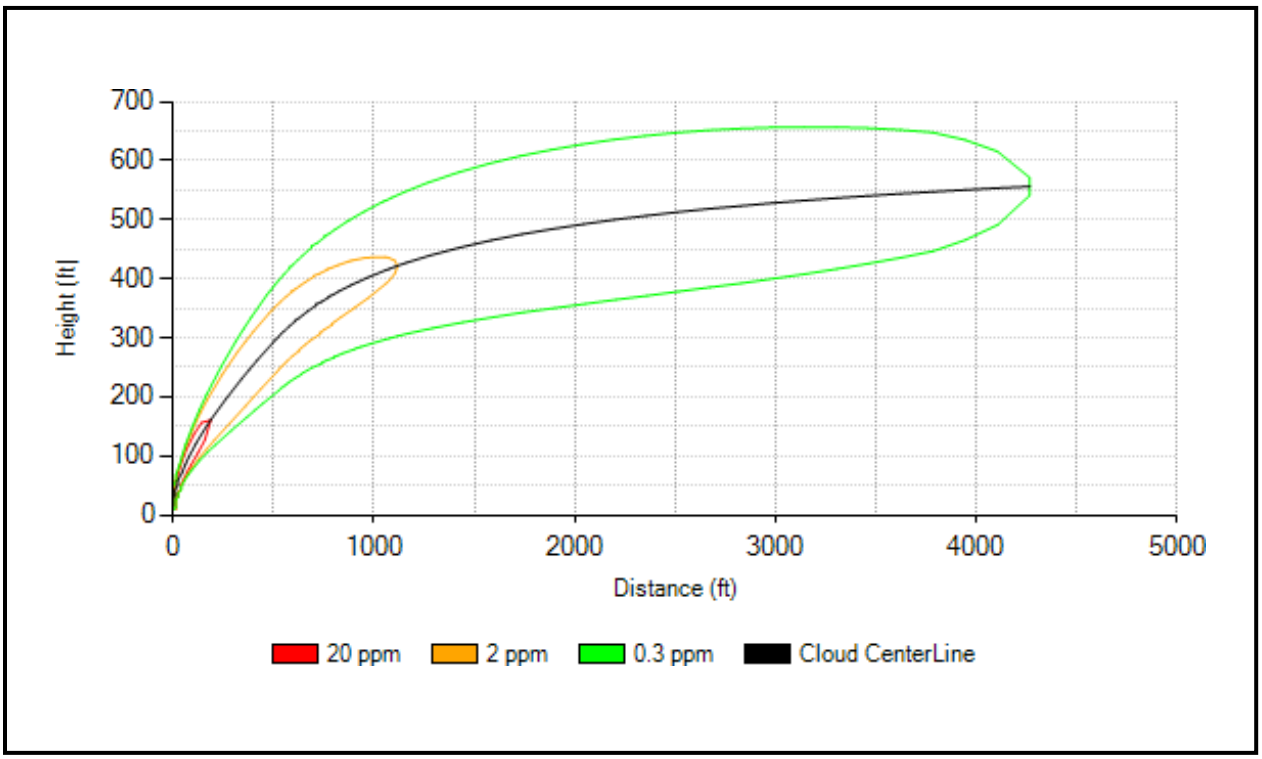


Figure A- 5. Pollutant: HF; Scenario: HVAC off, 900C; Weather: D2.8; Side View

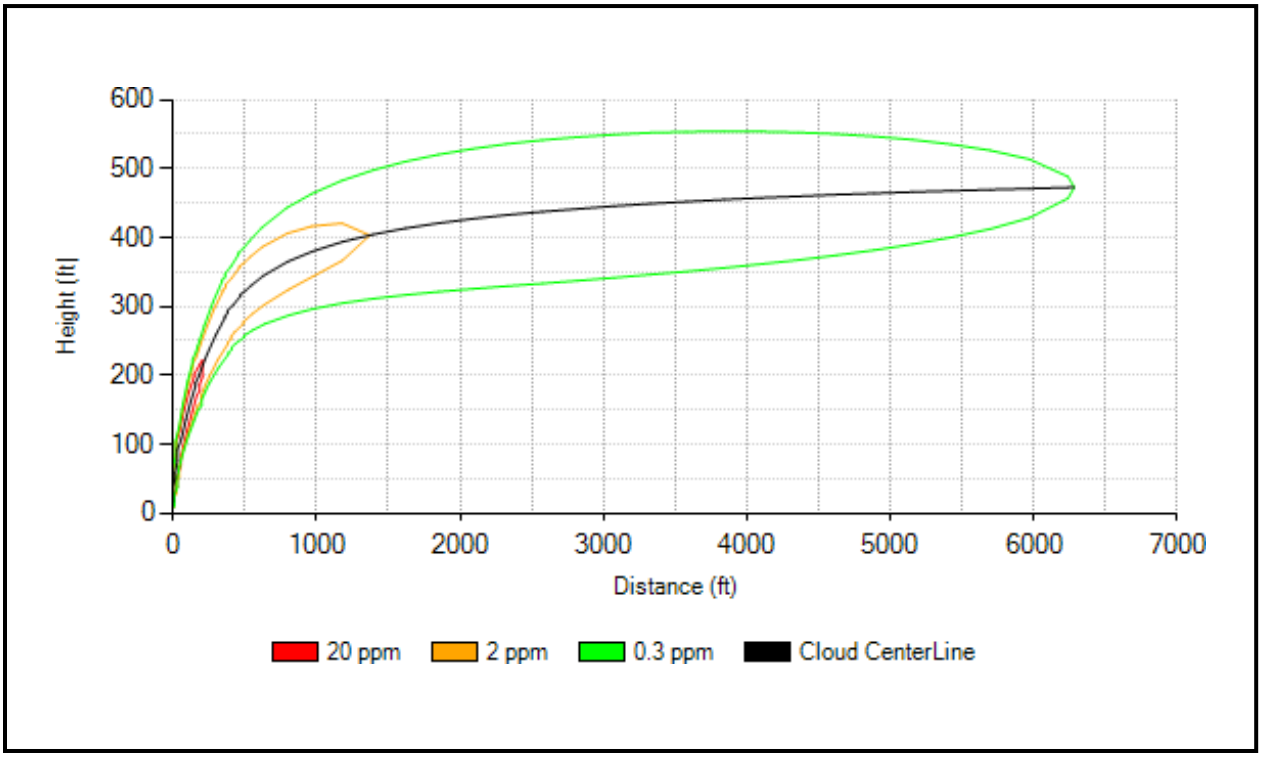


Figure A- 6. Pollutant: HF; Scenario: HVAC off, 900C; Weather: F2.0; Side View

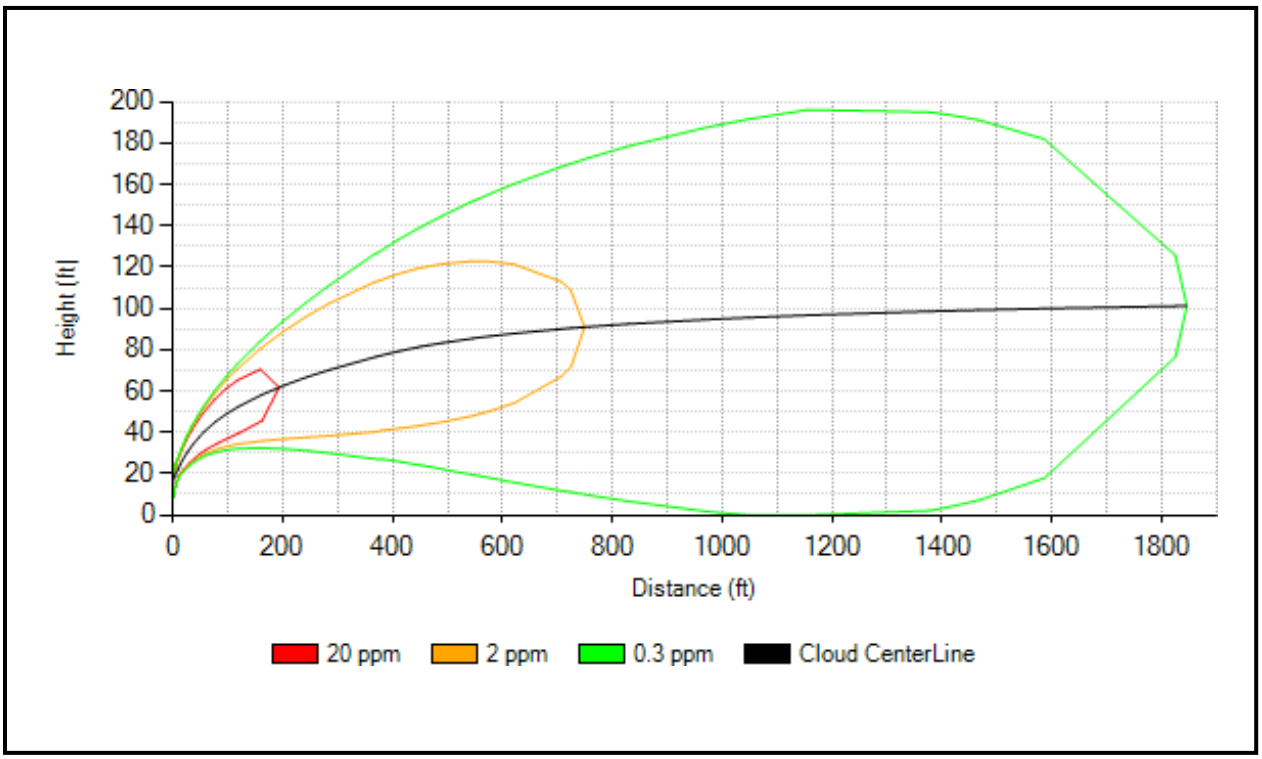


Figure A- 7. Pollutant: HF; Scenario: HVAC off, 900C; Weather: D7.1; Side View

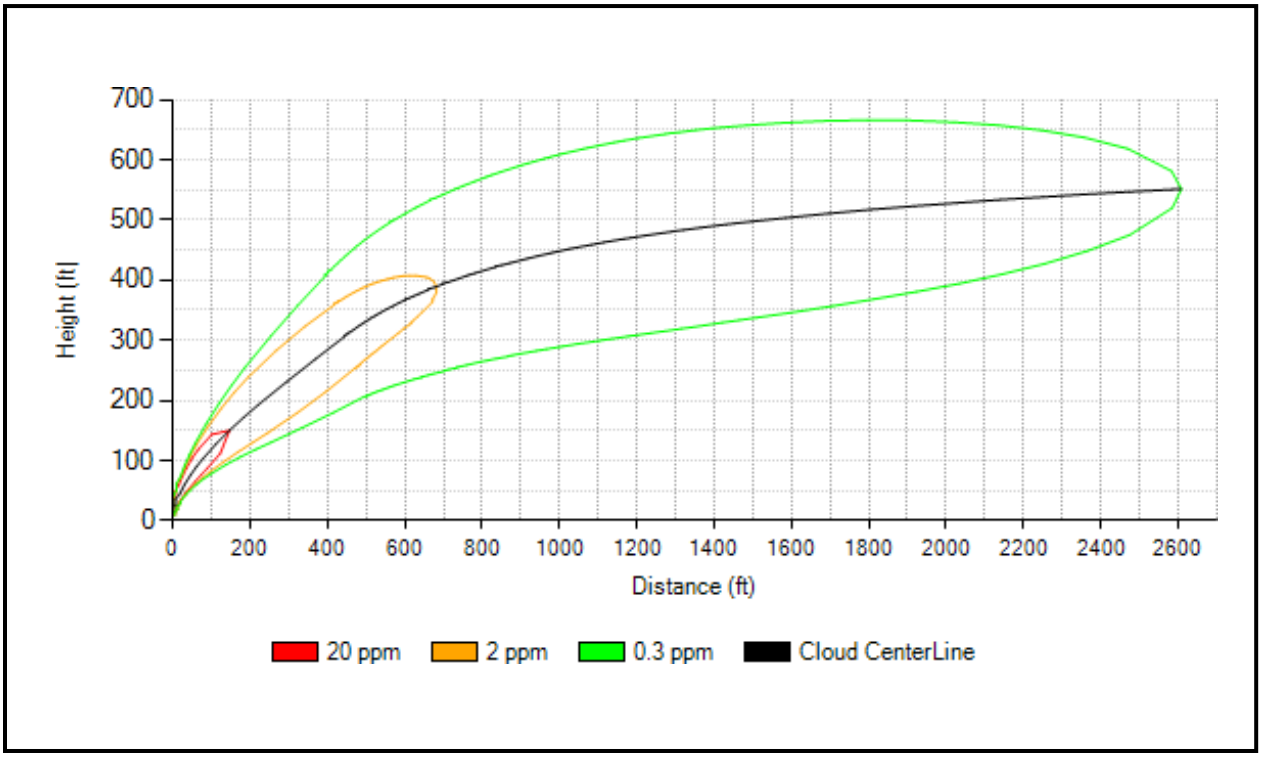


Figure A- 8. Pollutant: HF; Scenario: HVAC off, 900C; Weather: B2.4; Side View

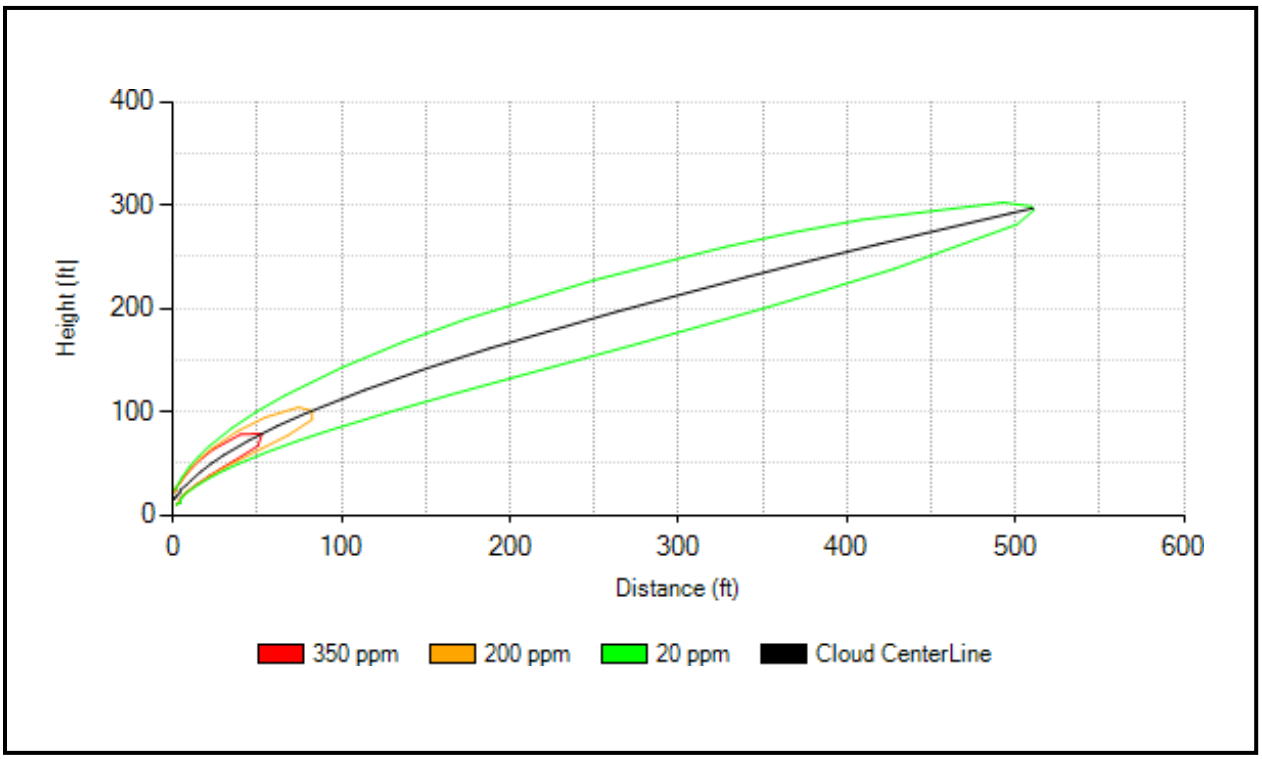


Figure A- 9. Pollutant: CO; Scenario: HVAC off, 900C; Weather: D2.8; Side View

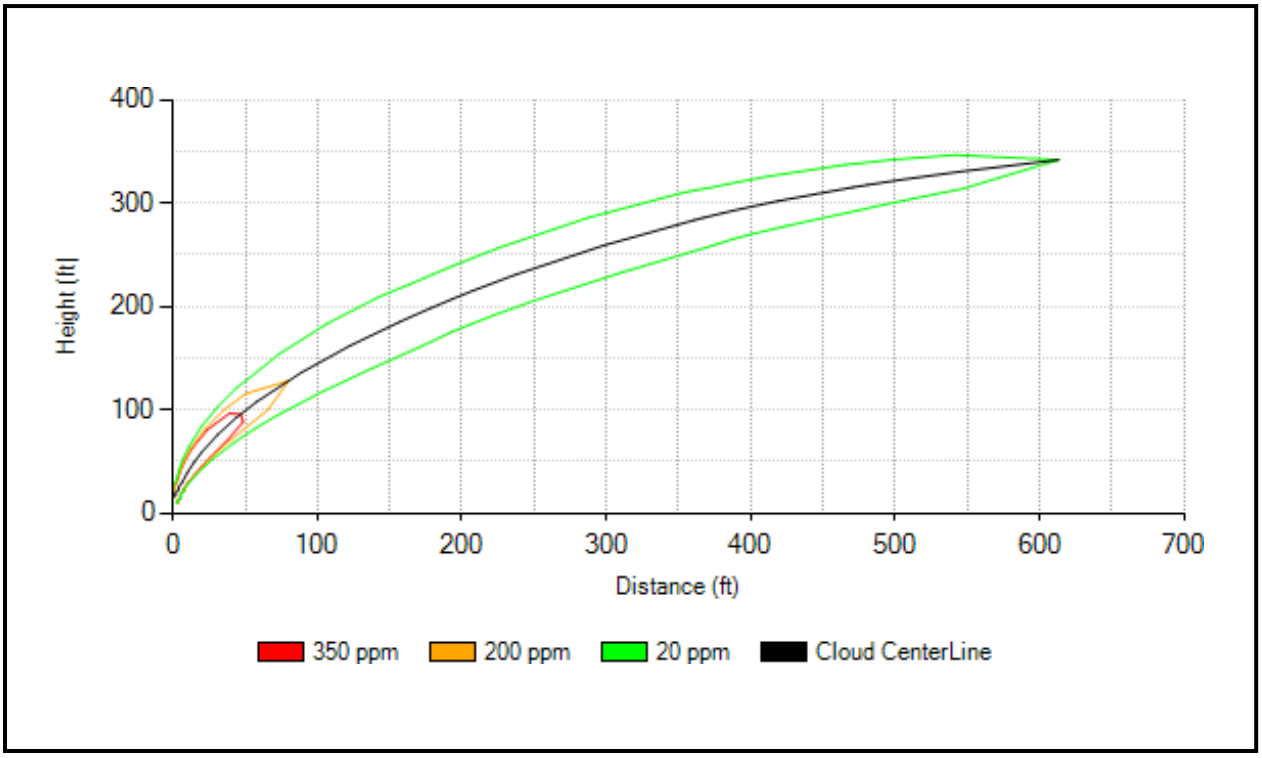


Figure A- 10. Pollutant: CO; Scenario: HVAC off, 900C; Weather: F2.0; Side View

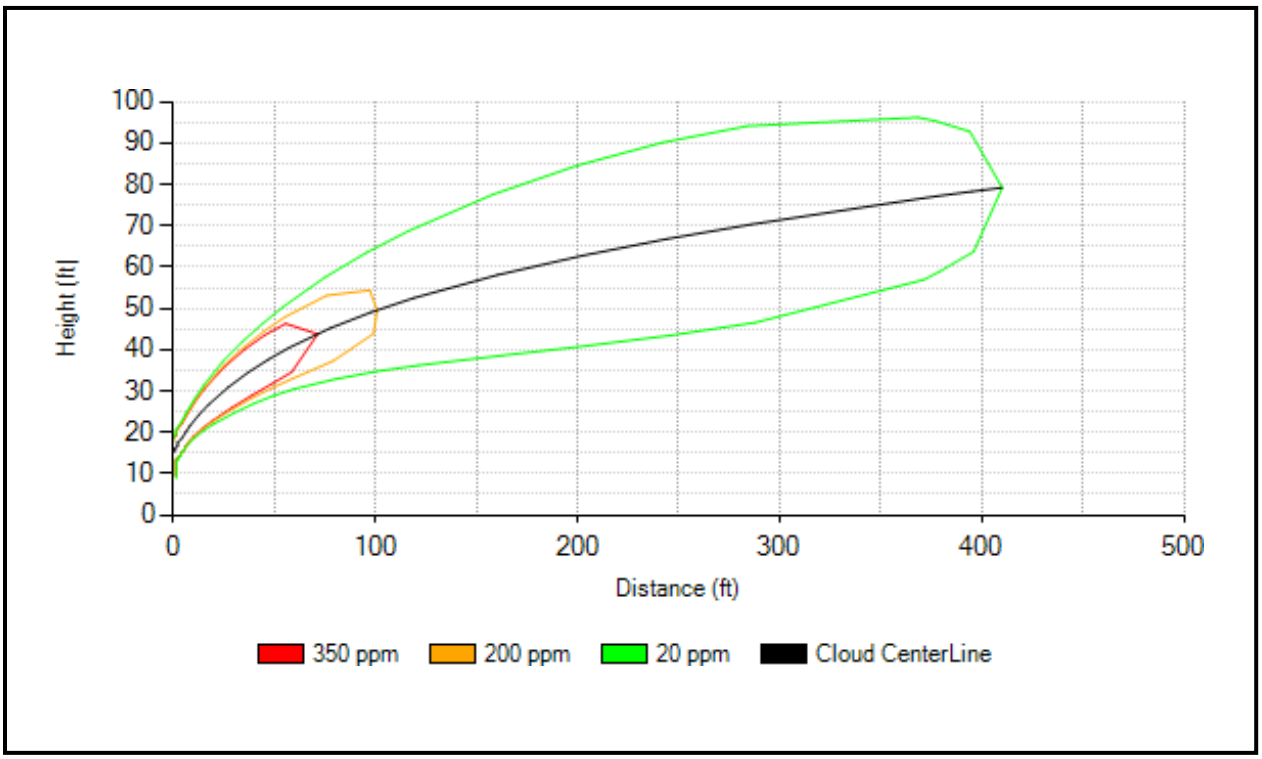


Figure A- 11. Pollutant: CO; Scenario: HVAC off, 900C; Weather: D7.1; Side View

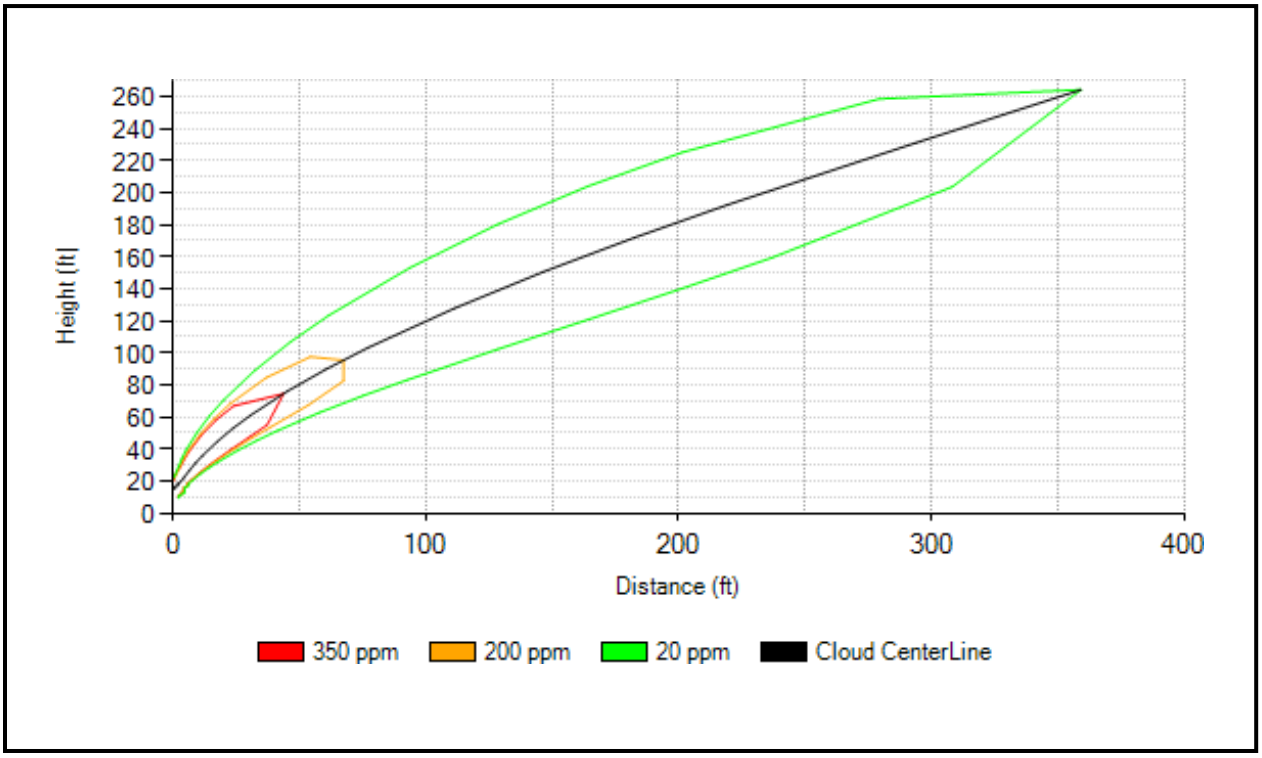


Figure A- 12. Pollutant: CO; Scenario: HVAC off, 900C; Weather: B2.4; Side View

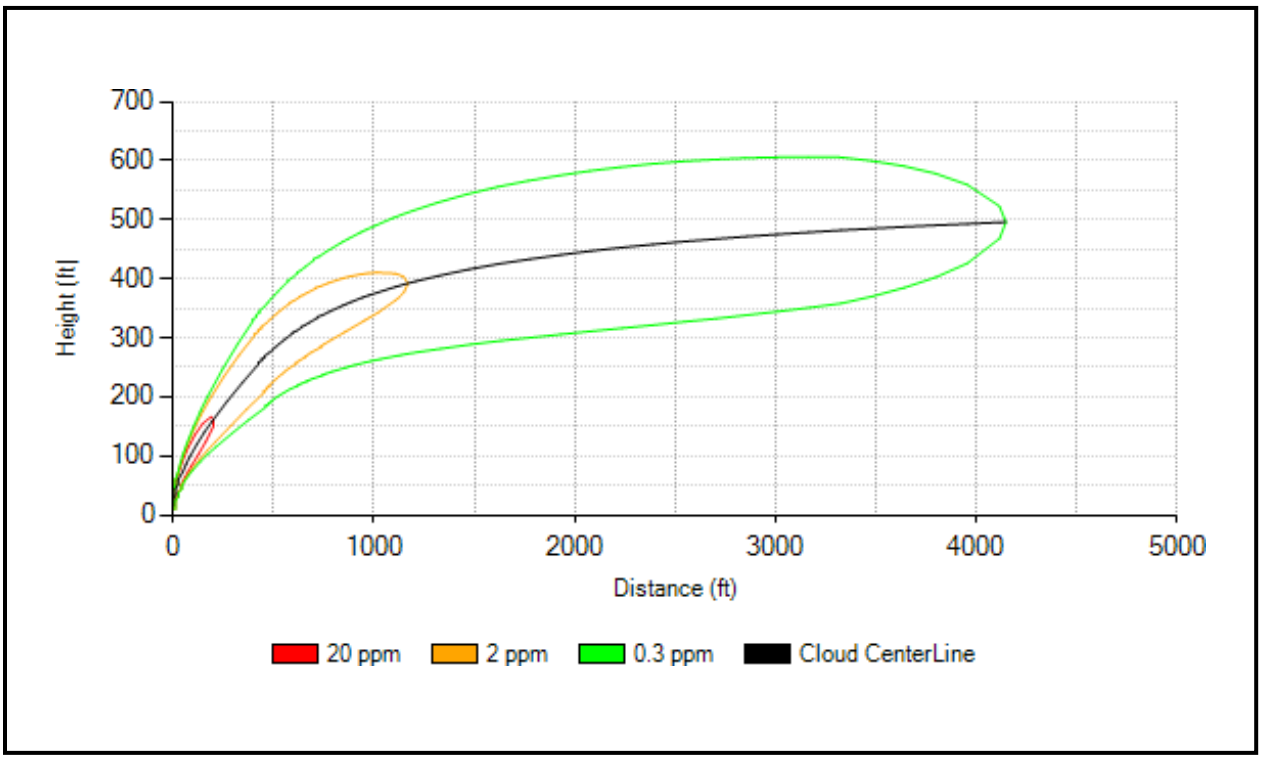


Figure A- 13. Pollutant: HF; Scenario: HVAC off, 800C; Weather: D2.8; Side View

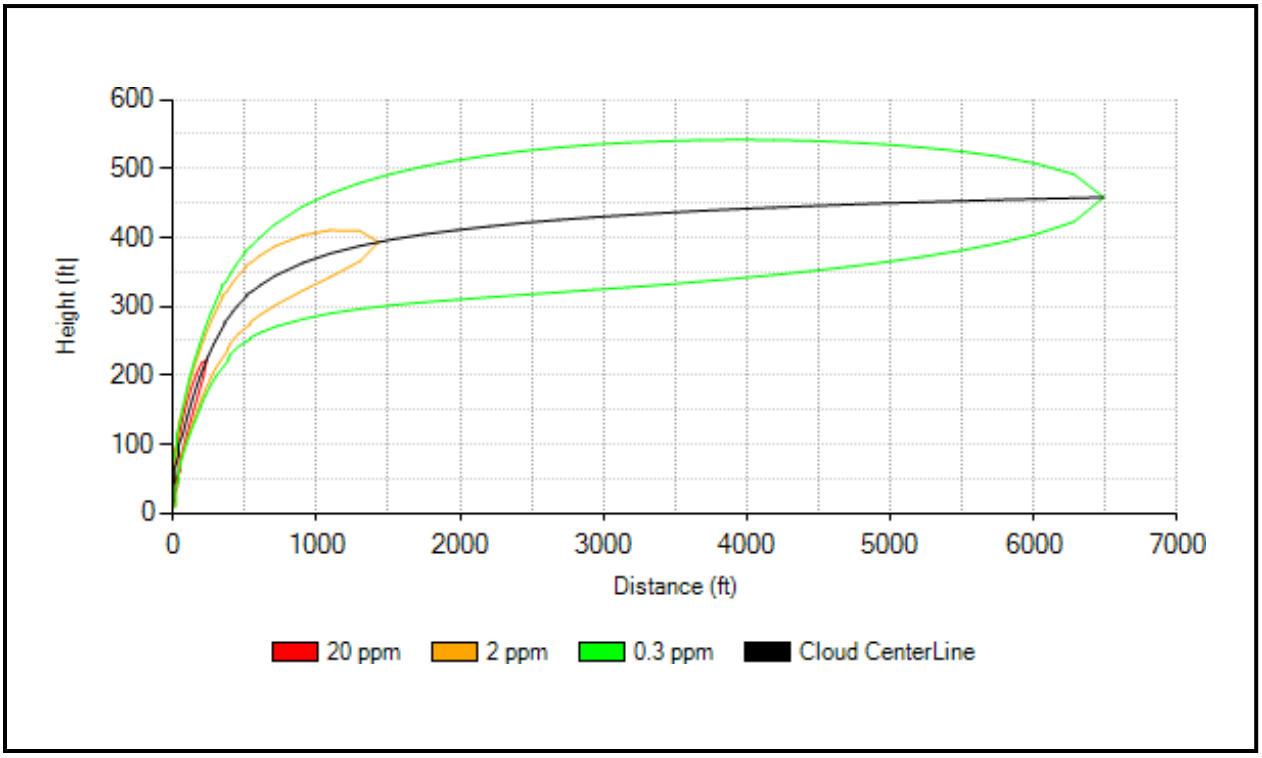


Figure A- 14. Pollutant: HF; Scenario: HVAC off, 800C; Weather: F2.0; Side View

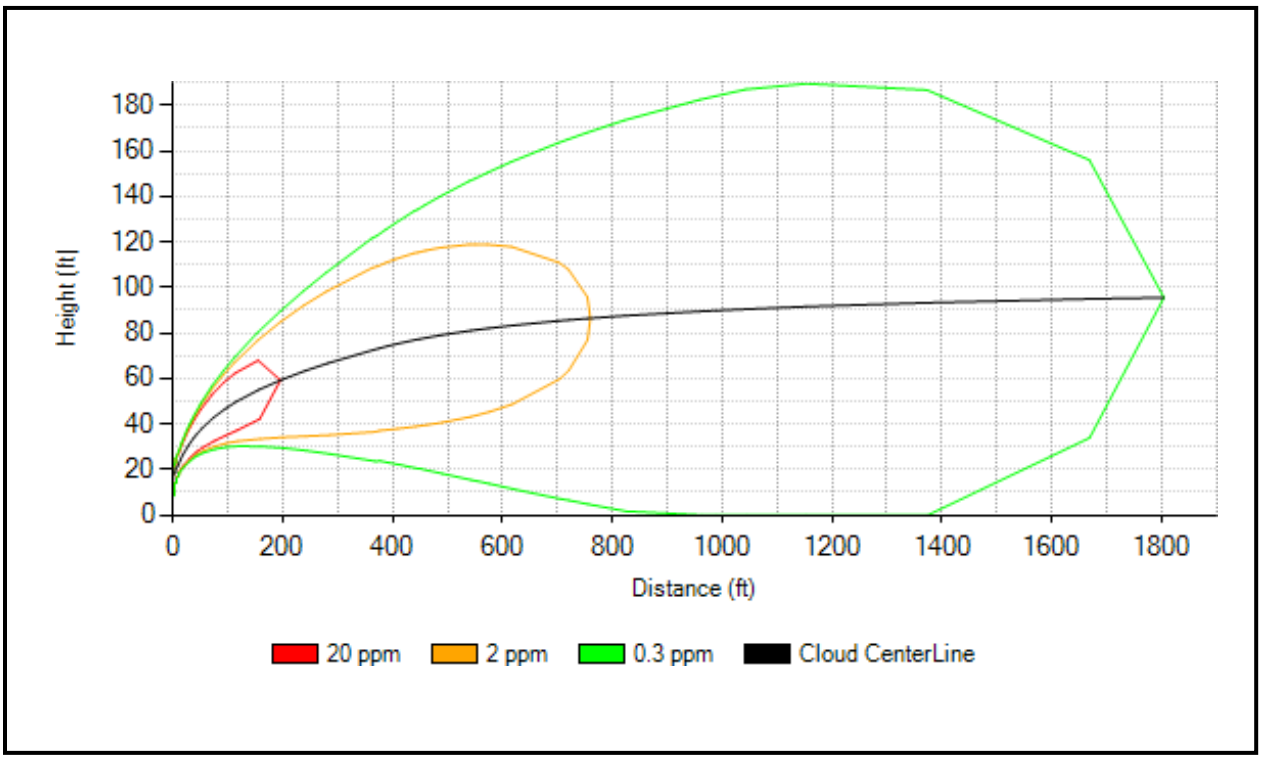


Figure A- 15. Pollutant: HF; Scenario: HVAC off, 800C; Weather: D7.1; Side View

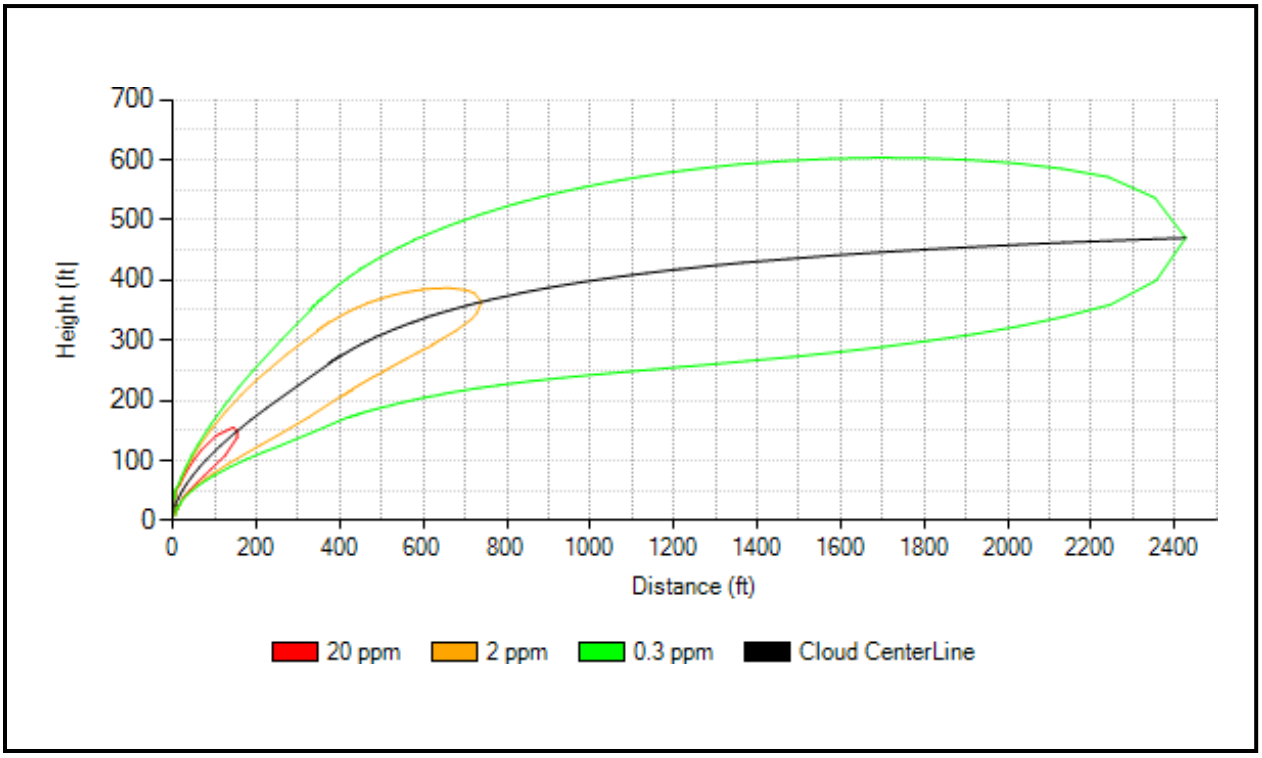


Figure A- 16. Pollutant: HF; Scenario: HVAC off, 800C; Weather: B2.4; Side View

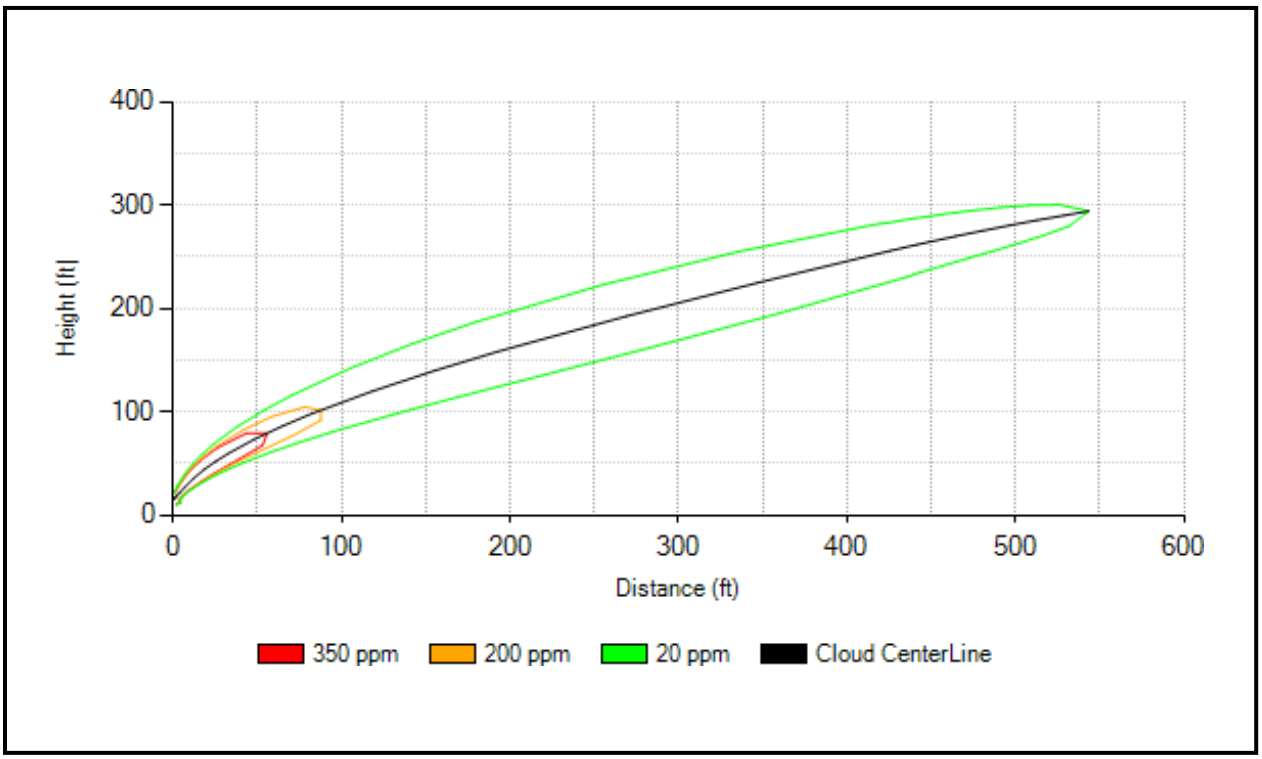


Figure A- 17. Pollutant: CO; Scenario: HVAC off, 800C; Weather: D2.8; Side View

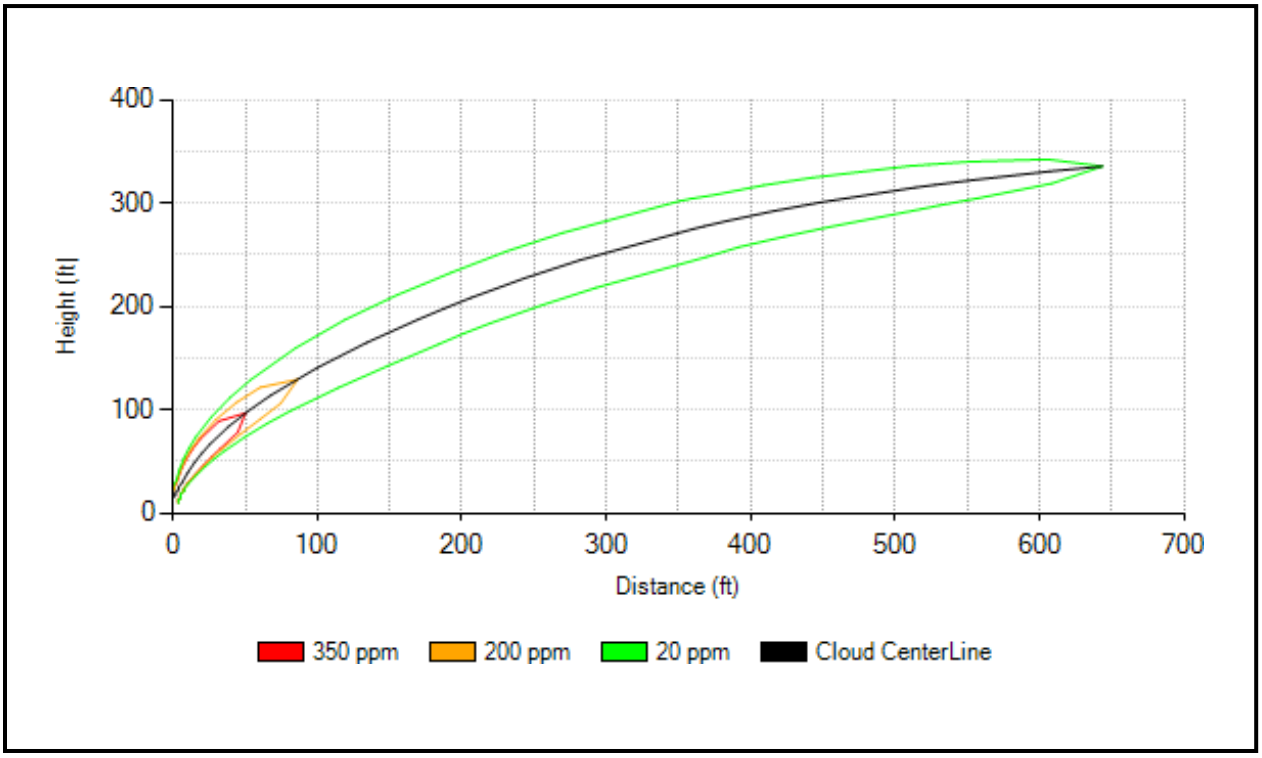


Figure A- 18. Pollutant: CO; Scenario: HVAC off, 800C; Weather: F2.0; Side View

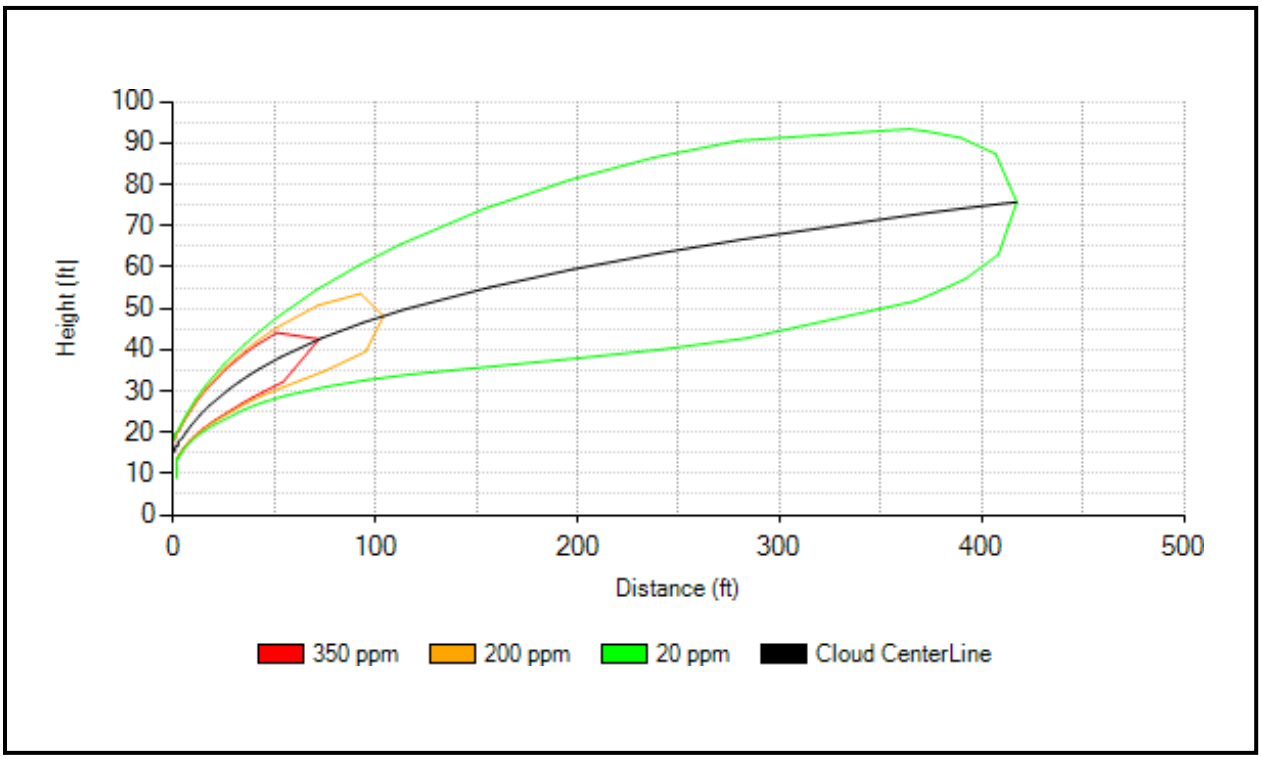


Figure A- 19. Pollutant: CO; Scenario: HVAC off, 800C; Weather: D7.1; Side View

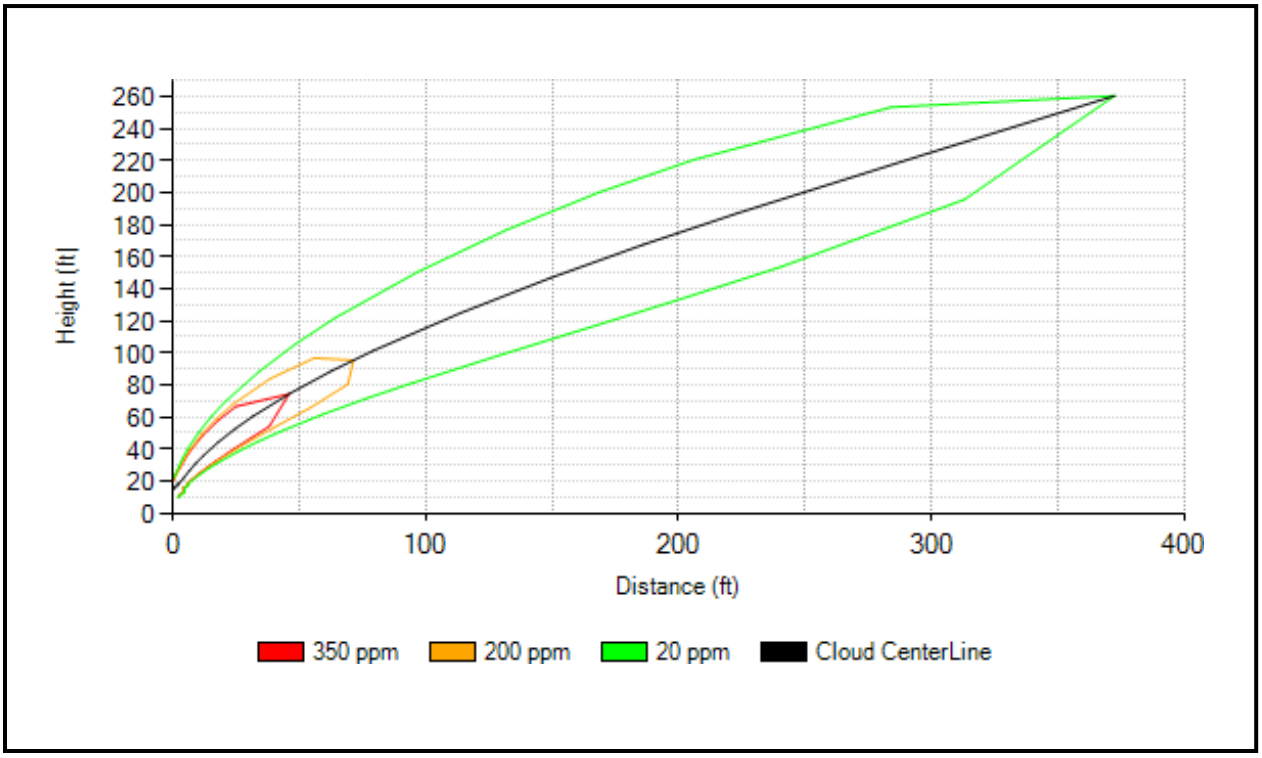


Figure A- 20. Pollutant: CO; Scenario: HVAC off, 800C; Weather: B2.4; Side View

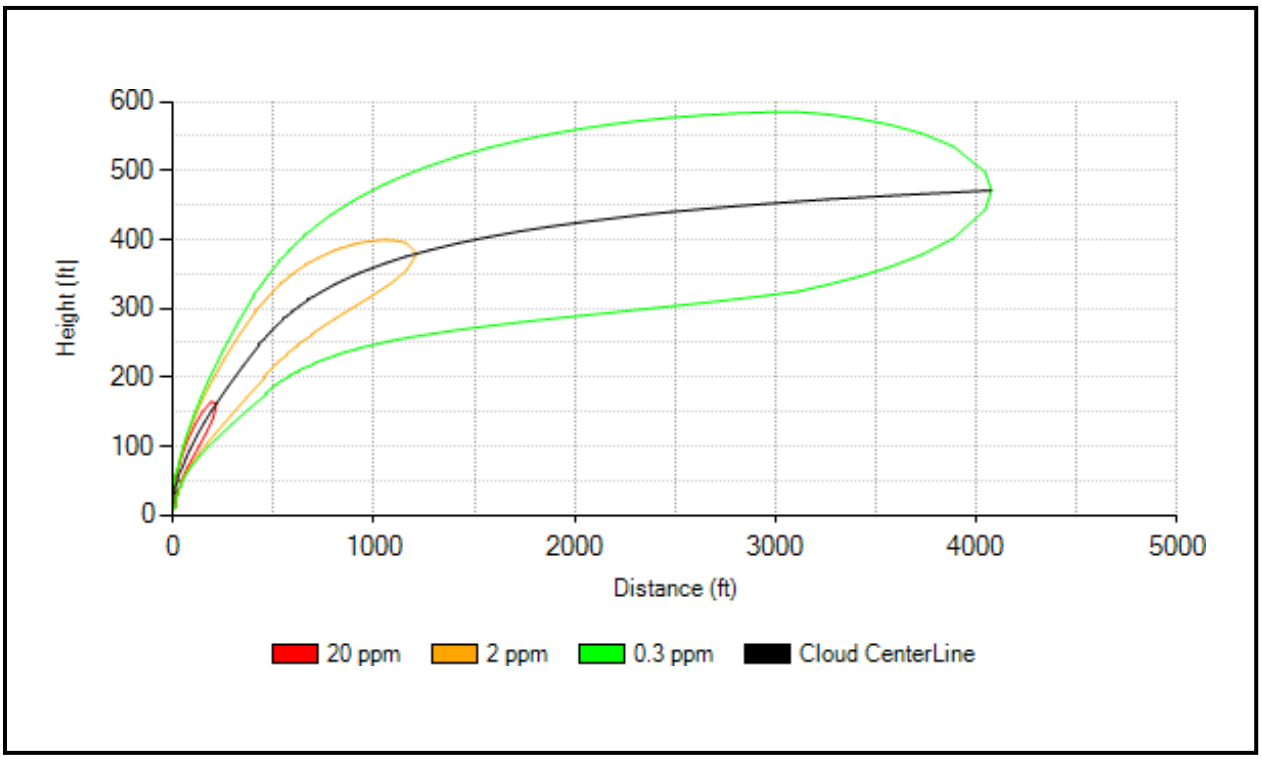


Figure A- 21. Pollutant: HF; Scenario: HVAC off, 700C; Weather: D2.8; Side View

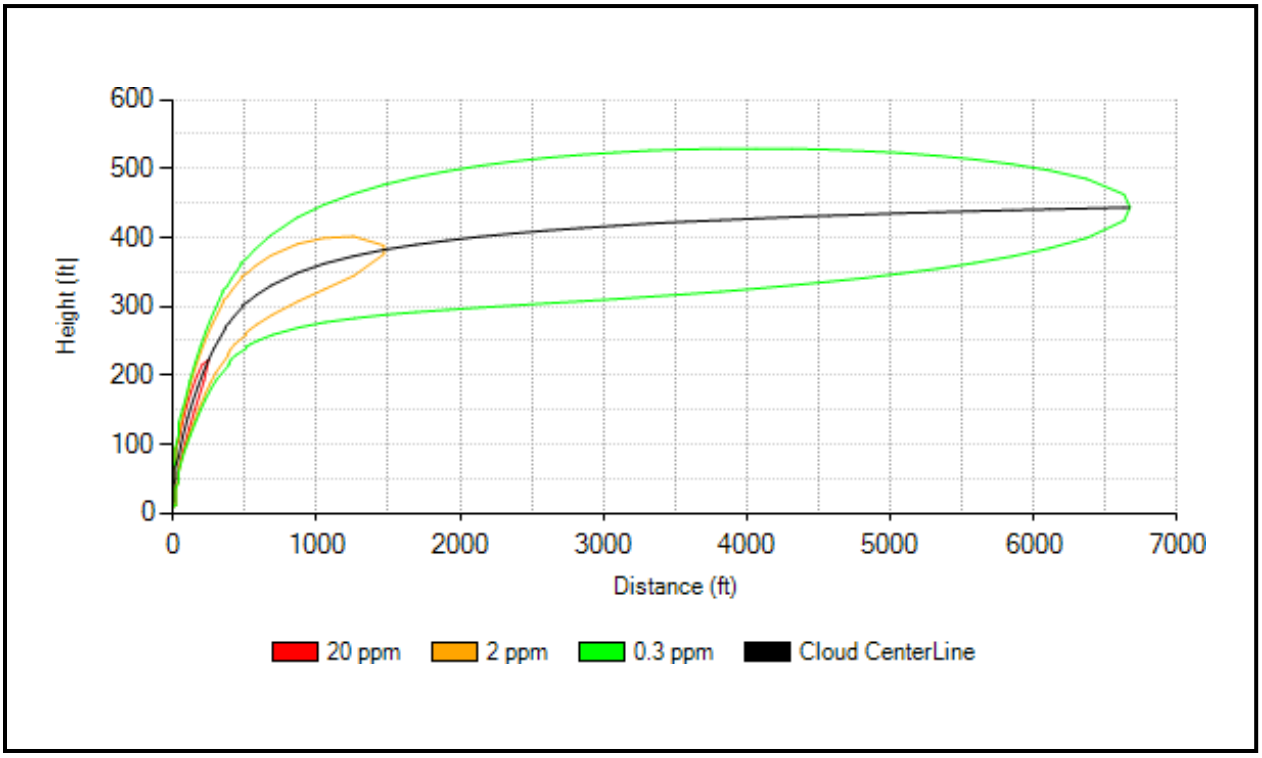


Figure A- 22. Pollutant: HF; Scenario: HVAC off, 700C; Weather: F2.0; Side View

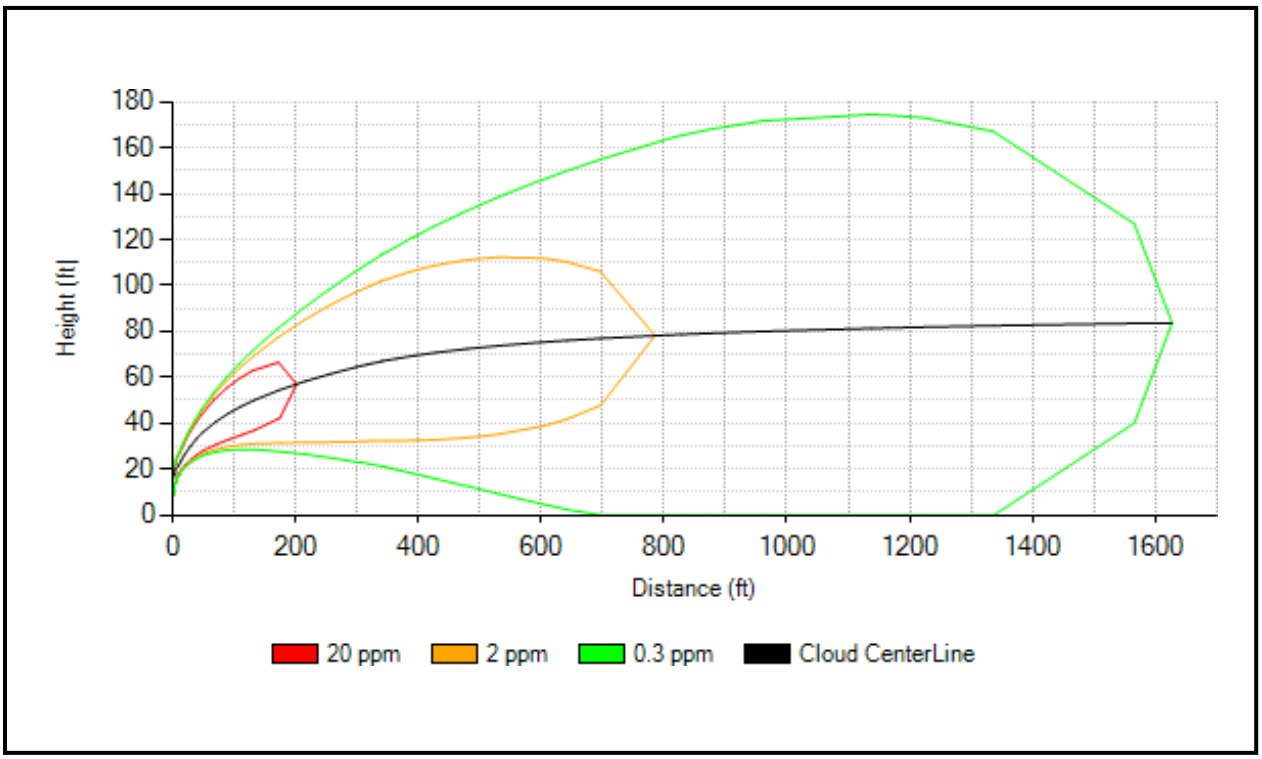


Figure A- 23. Pollutant: HF; Scenario: HVAC off, 700C; Weather: D7.1; Side View

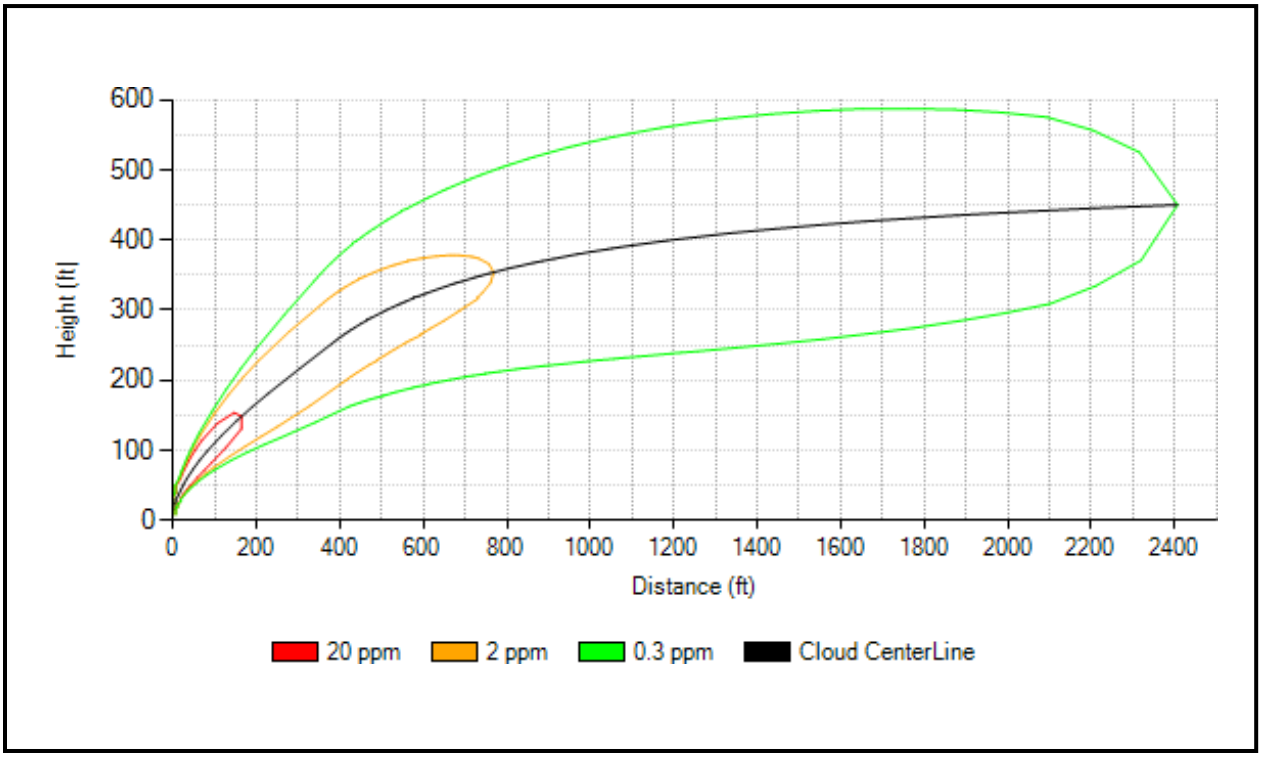


Figure A- 24. Pollutant: HF; Scenario: HVAC off, 700C; Weather: B2.4; Side View

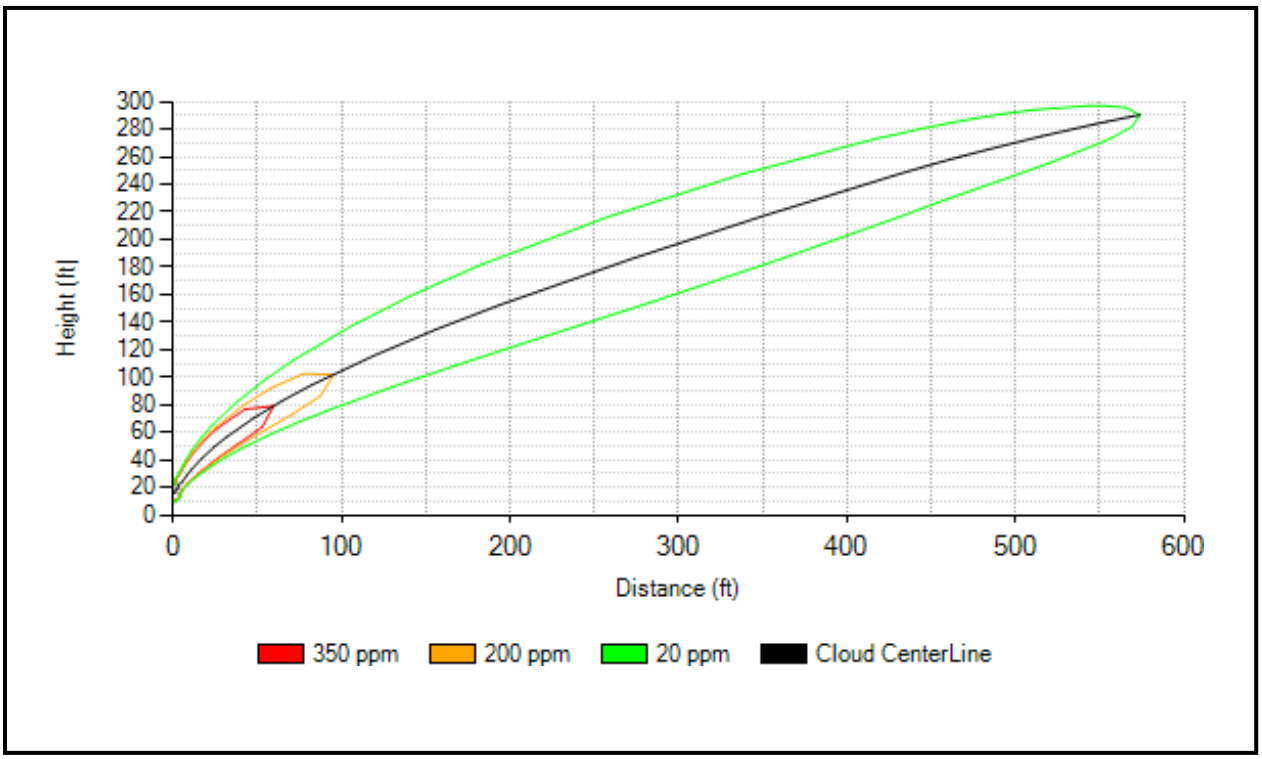


Figure A- 25. Pollutant: CO; Scenario: HVAC off, 700C; Weather: D2.8; Side View

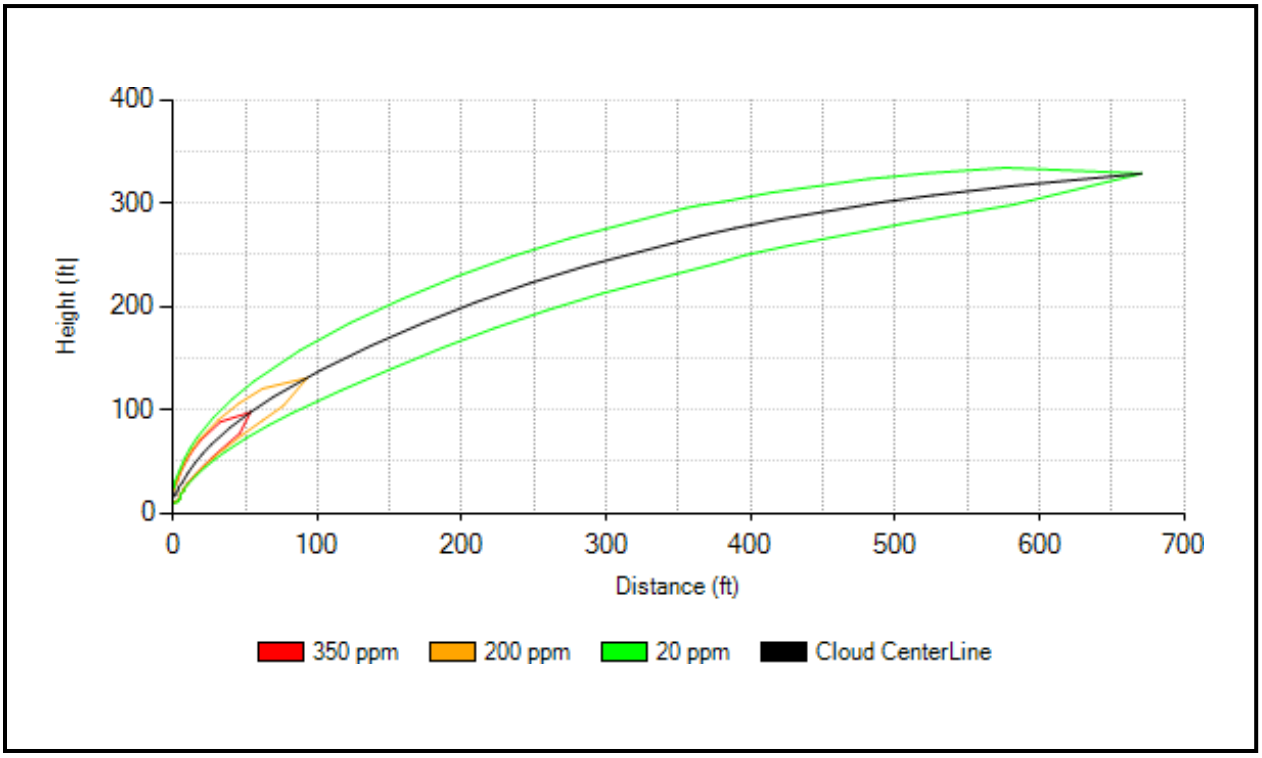


Figure A- 26. Pollutant: CO; Scenario: HVAC off, 700C; Weather: F2.0; Side View

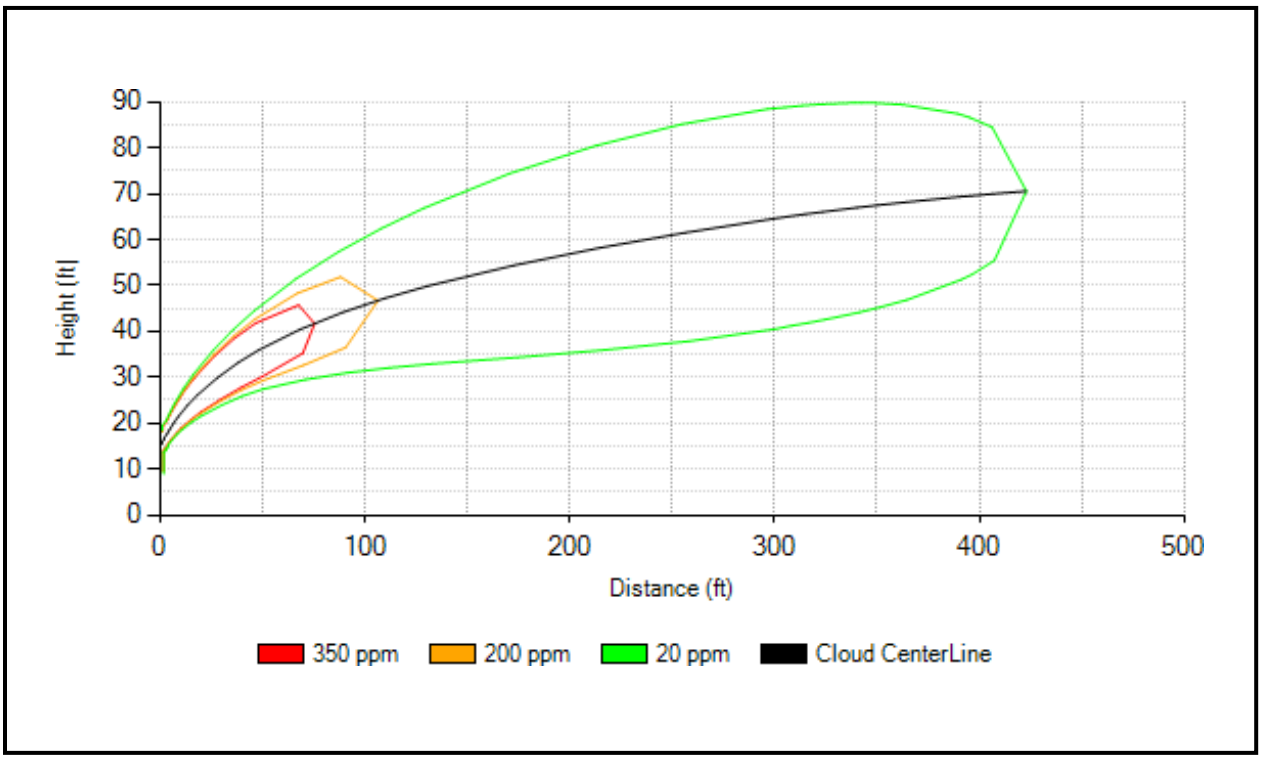


Figure A- 27. Pollutant: CO; Scenario: HVAC off, 700C; Weather: D7.1; Side View

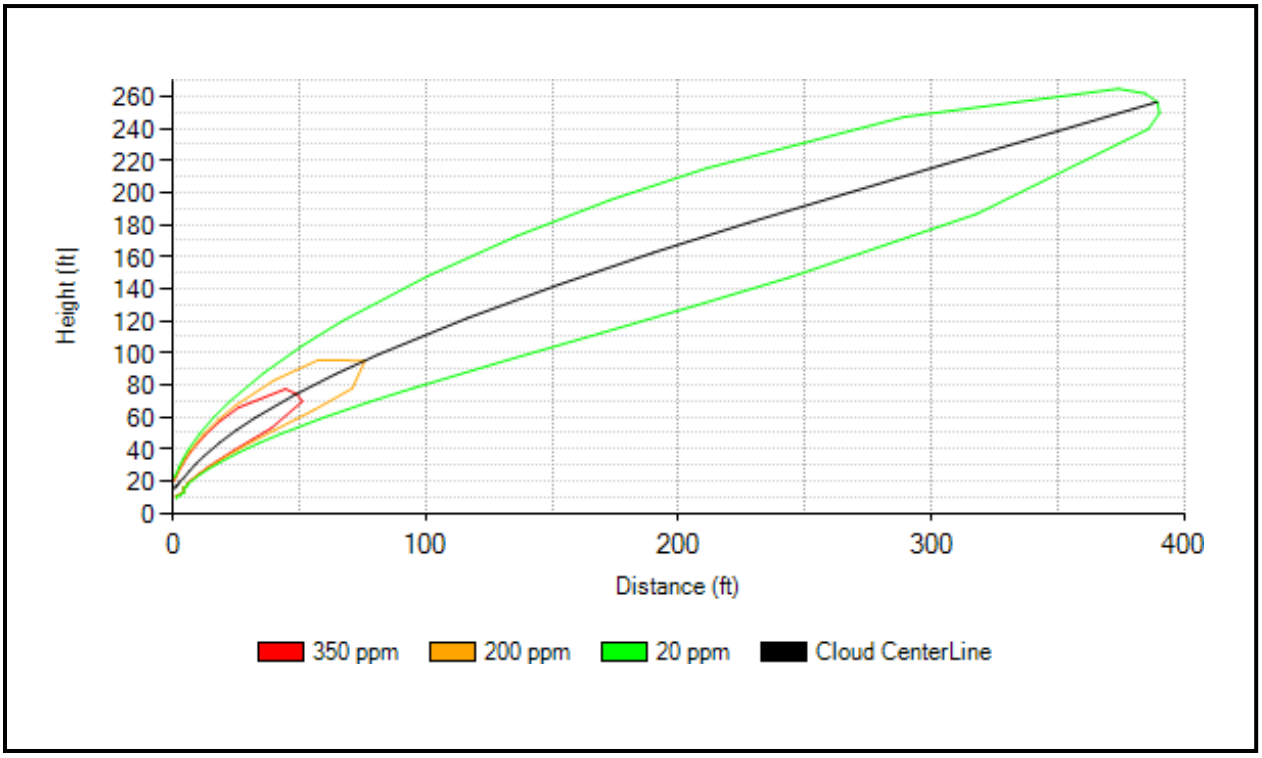


Figure A- 28. Pollutant: CO; Scenario: HVAC off, 700C; Weather: B2.4; Side View

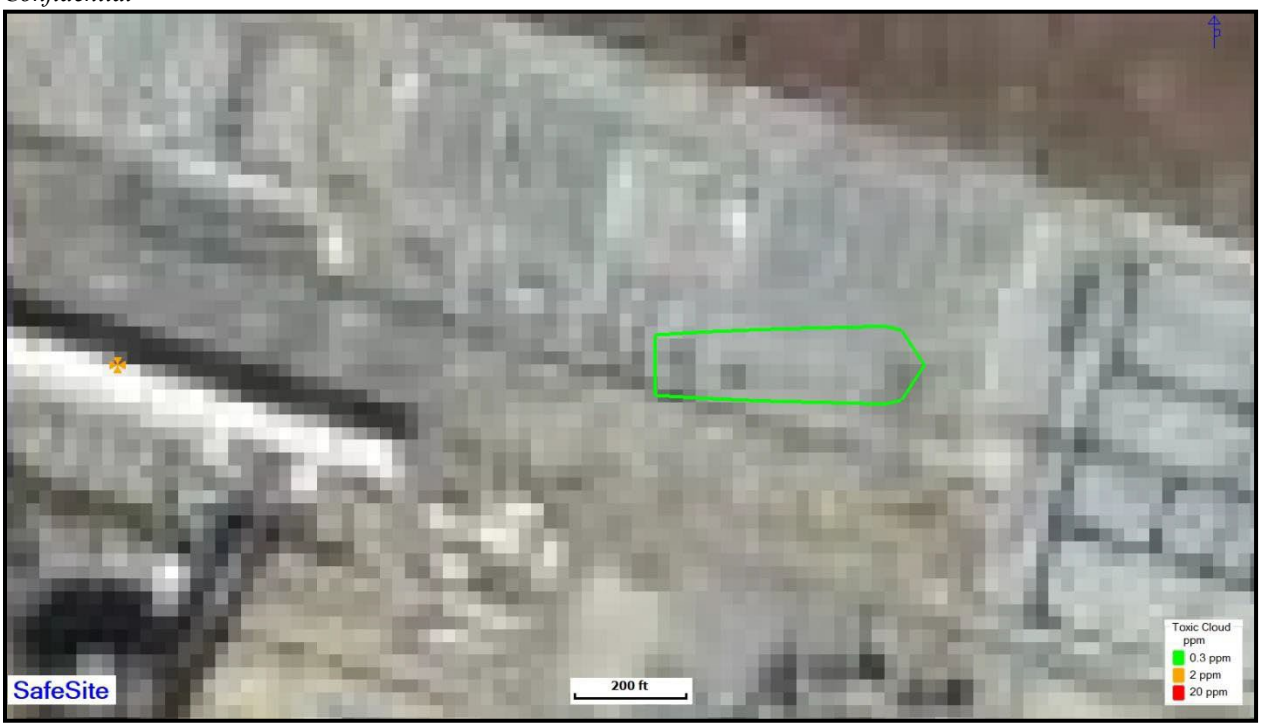


Figure A- 29. Pollutant: HF; Scenario: HVAC off, 900C; Weather: D7.1; Plan View



Figure A- 30. Pollutant: HF; Scenario: HVAC off, 800C; Weather: D7.1; Plan View

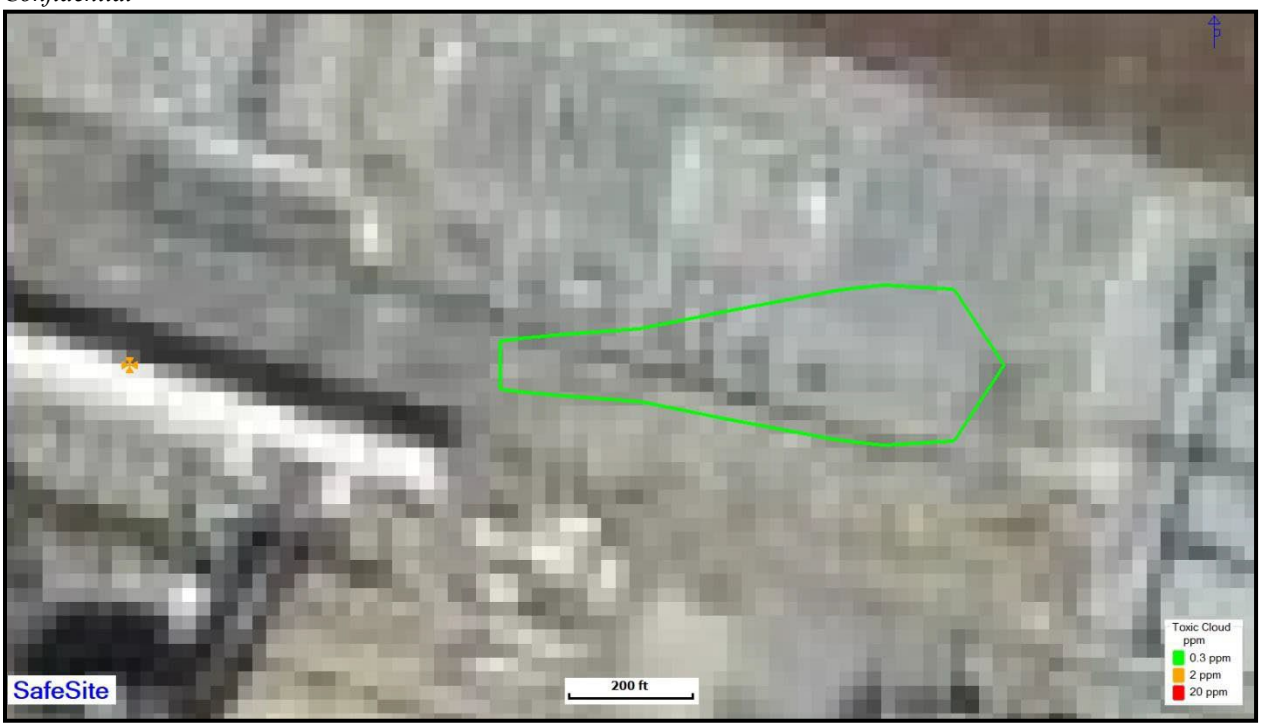


Figure A- 31. Pollutant: HF; Scenario: HVAC off, 700C; Weather: D7.1; Plan View

Moss 100 & 300 APPENDIX B

ADDITIONAL HF DISPERSION ANGLES

This appendix includes HF cloud plan views taken at an elevation of 6 feet for additional wind angles. Plan views are presented in 20º increments, from 20º to 80º from north.

Each figure represents a single wind angle for the a scenario estimated to have concentrations above the toxic thresholds at 6 feet, i.e., HVAC off during a D7.1 weather. Three smoke temperatures were considered to evaluate the impact of plume density.



Figure B-1. 20º from North, 900 ºC Smoke



Figure B-2. 40º from North, 900 ºC Smoke



Figure B-3. 60º from North, 900 ºC Smoke



Figure B-4. 80º from North, 900 ºC Smoke



Figure B-5. 20º from North, 800 ºC Smoke



Figure B-6. 40º from North, 800 ºC Smoke



Figure B-7. 60º from North, 800 ºC Smoke



Figure B-8. 80º from North, 800 ºC Smoke



Figure B-9. 20° from North, 700 °C Smoke

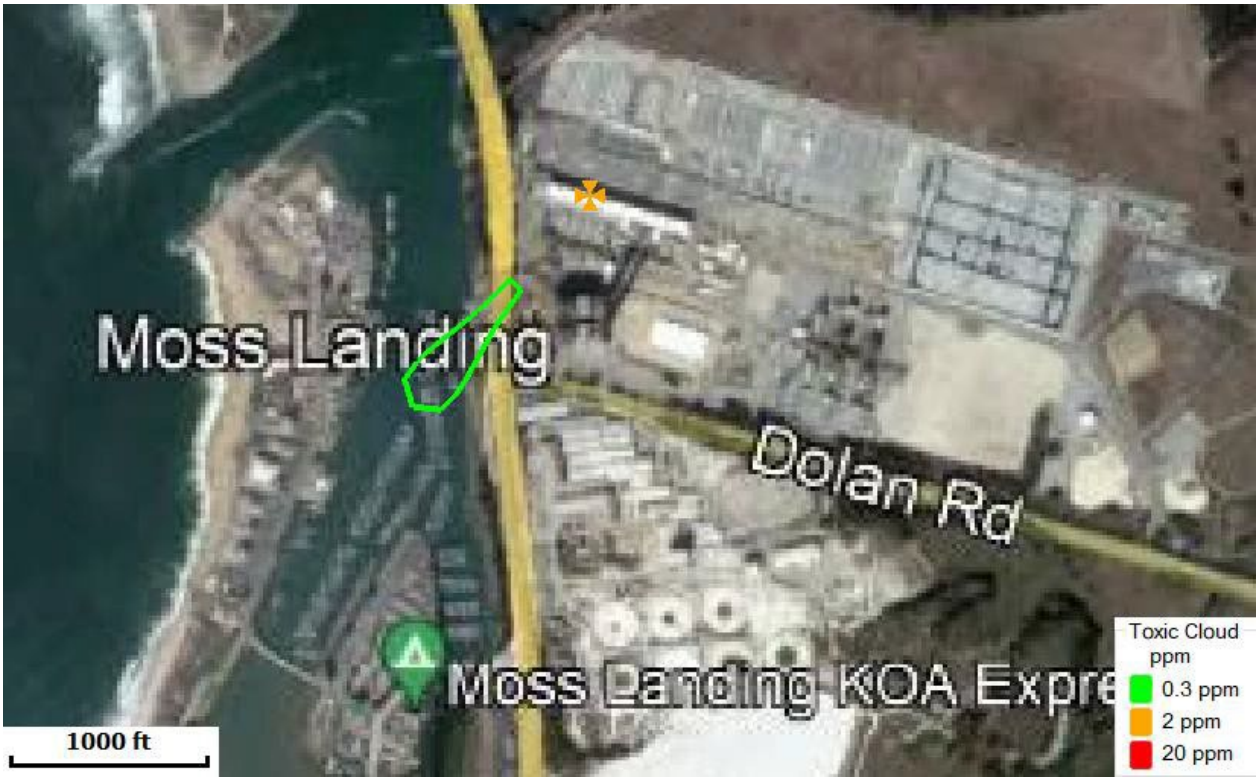


Figure B-10. 40° from North, 700 °C Smoke



Figure B-11. 60º from North, 700 ºC Smoke



Figure B-12. 80º from North, 700 ºC Smoke

WORST CASE DISPERSION MODELING (MOSS 350)

BAKERRISK®

Identify | Evaluate | Solve

Vistra Fire Plume Modeling

Moss Landing, CA

Results Presentation

Prepared for:

Gibson

Presented by:

Jin Zhao, Principal Consultant

BakerRisk Project No.

01-07833-001-22

Confidential

Issue Date:

December 2, 2022

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BakerRisk regards the work that it has done as being advisory in nature. The responsibility for use and implementation of the conclusions and recommendations contained herein rests entirely with the client.

Release sources

- Dispersion of 20 MW fire combustion product were modeled
- Composition/flow rate of combustion product per Larry's input:

4.96 kg/sec N2, 2.08 kg/sec CO2, 0.20 kg/sec H2O and 0.034 kg/sec HF

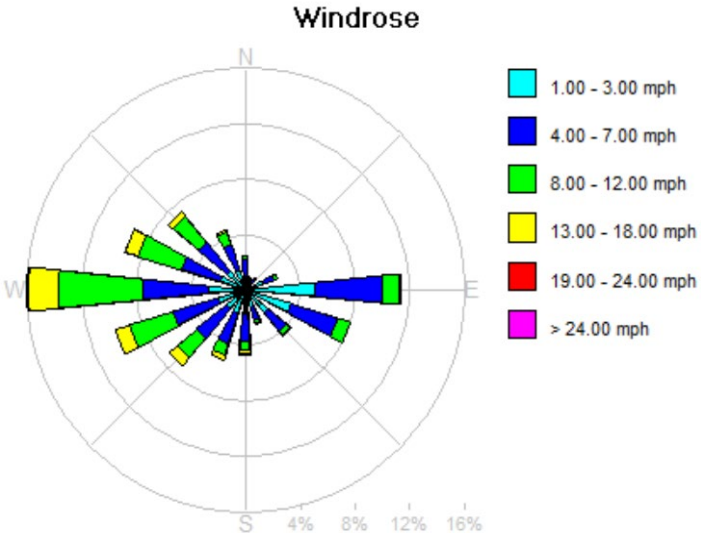
- Combustion product temperature assumed to be 900C.
- Due to high temperature, combustion product is expected to release vertically to the atmosphere.
- A series of cases modeled as outdoor vertical release at 3m above ground with different release velocities. Release hole size of each case adjusted to achieved the required discharge rate.

Discharge	Release Diameter (m)	Release Velocity (m/s)	Discharge Rate (kg/s)
Moss350-02ms	3.7	2	7.3
Moss350-05ms	2.4	5	
Moss350-10ms	1.7	10	
Moss350-20ms	1.2	20	
Moss350-30ms	1.0	30	

Weather

- Dispersion modeled for typical weather conditions based on met data from Monterey Airport
  - Temperature: 70 ºF
  - Humidity: 70%

Stability	Wind Speed (m/s)	Probability
B	2.4	0.112
D	2.8	0.483
D	7.1	0.070
F	2.0	0.335
Total:		1.00



Dispersion Endpoints

- The following HF concentration threshold were used in dispersion calculation:

	Concentration (ppm)
	HF
Reference Exposure Level (REL)	0.28
ERPG-1	2
ERPG-2	20

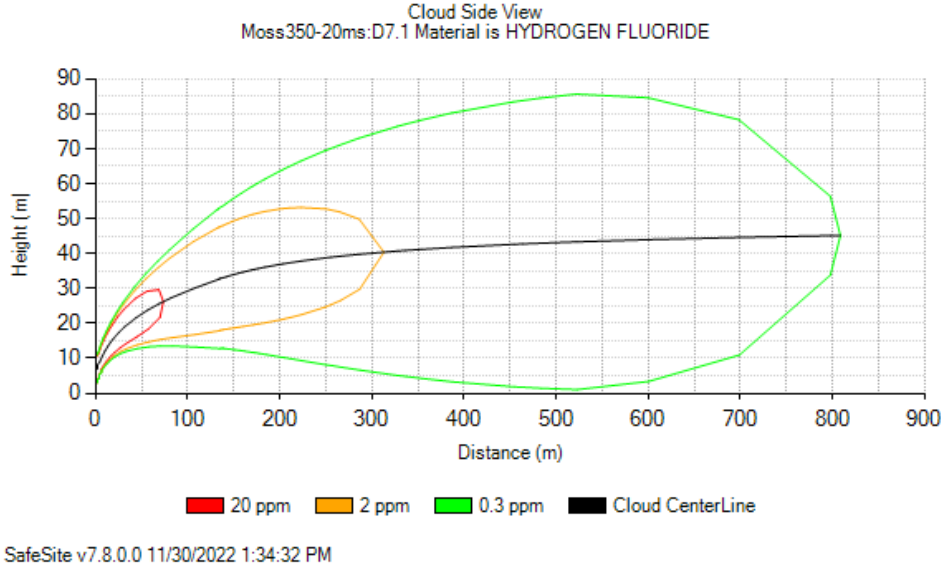
Dispersion Results

- HF concentrations at 6 ft above ground were predicted to be lower than 0.28 ppm (240 µg/m3)for all cases modeled except for Cases Moss350-010ms and Moss350-020ms under D7.1 weather condition
- Dispersion cloud side views and footprints at 6ft above ground level of these two cases provided
- Dispersion side views for all scenarios modeled are provided in appendix.

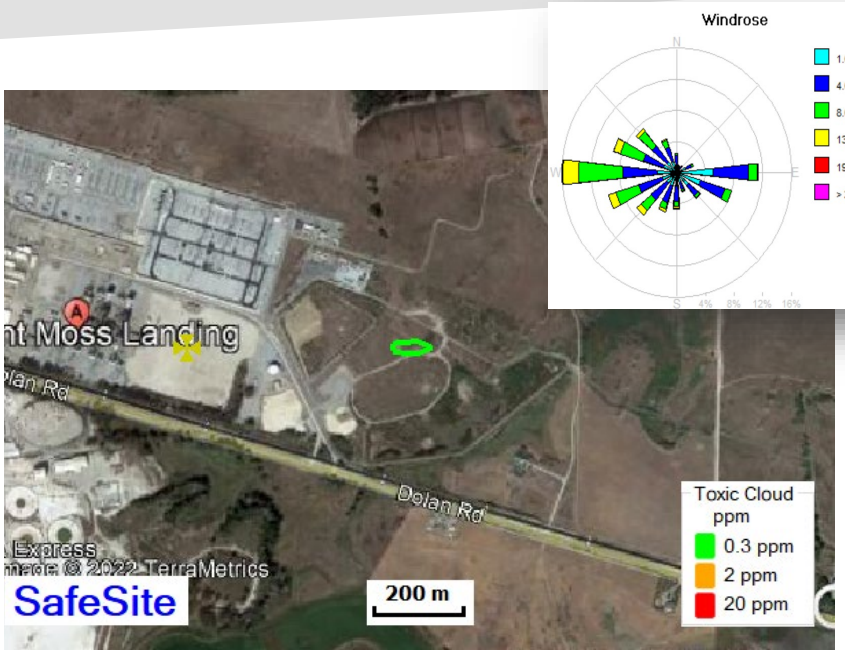
Dispersion Distance @ 6 ft Above Ground Level

Source Name	Weather Name	Distance (m)		
		ERPG-2 (20 ppm)	ERPG-1 (2 ppm)	REL (0.28 ppm)
Moss350-10ms	D7.1	<1	<1	556
Moss350-20ms	D7.1	<1	<1	554

HF Dispersion Result: Moss350-20ms:D7.1

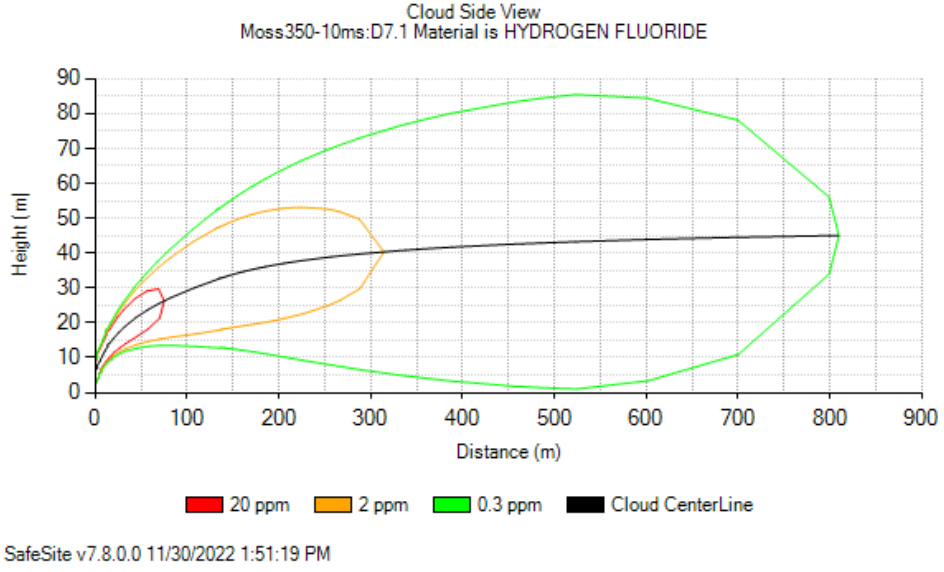


Dispersion Side View

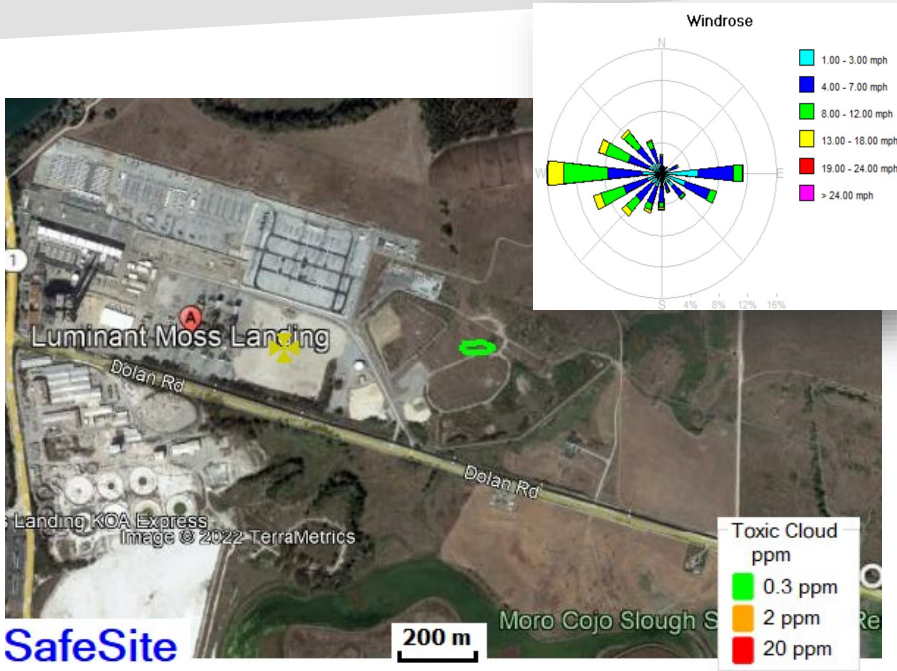


Dispersion Footprint at 6ft Above Ground Level

HF Dispersion Result: Moss350-10ms:D7.1



Dispersion Side View



Dispersion Footprint at 6ft Above Ground Level

Composite Dispersion Contour



Composite Contour at 6 feet of All Cases Modeled

MOSS 350 APPENDIX A

TOXIC DISPERSION DETAILS

This appendix includes cloud side view plots and cloud plan views for each release case.

Each figure is labeled with the case name, the release size and weather conditions during the release.

The Plan Views show the cloud extent to the three toxic endpoints at 6ft above ground level overlaid on a map.

The Side Views show the three toxic endpoints together with the cloud centerline. The horizontal axis shows downwind distance and the vertical axis shows the cloud height (note the scales on each axis differ to maximize the viewable area).



Figure A- 1. Moss350-02ms:D2.8 - Plan View

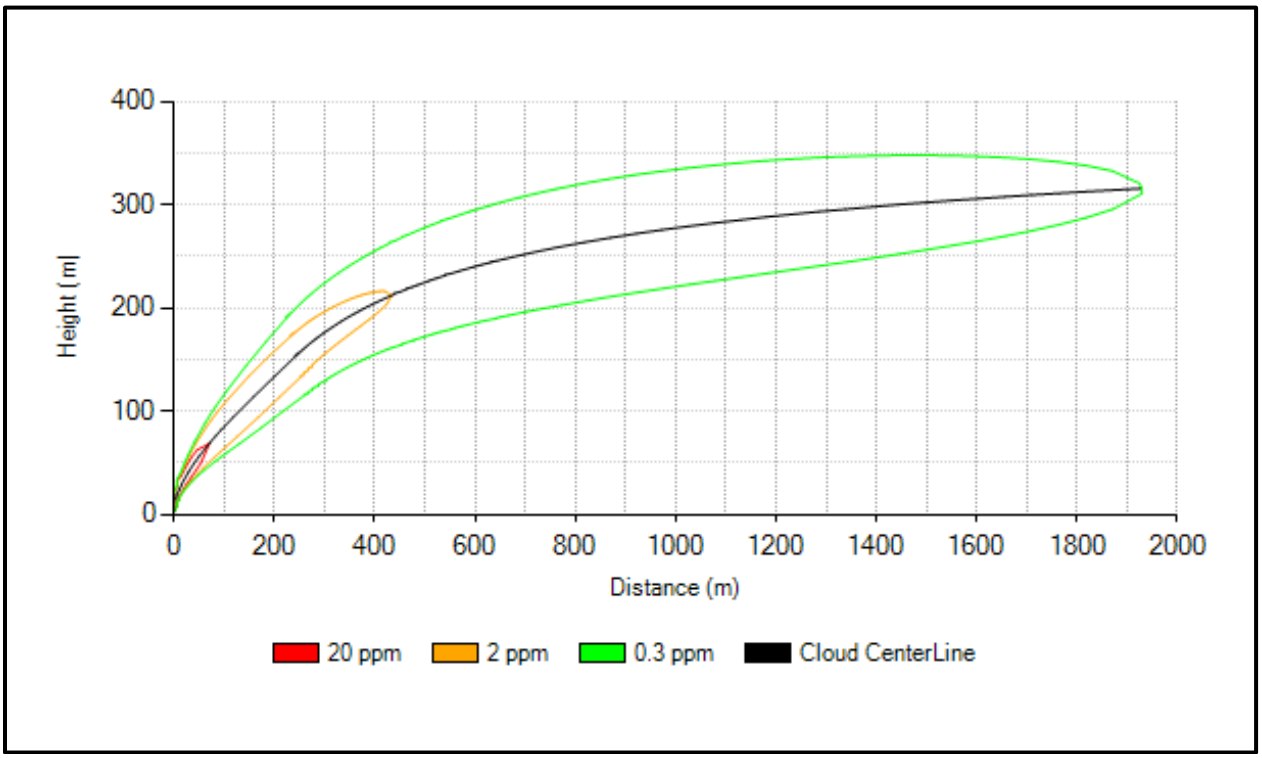


Figure A- 2. Moss350-02ms:D2.8 - Side View

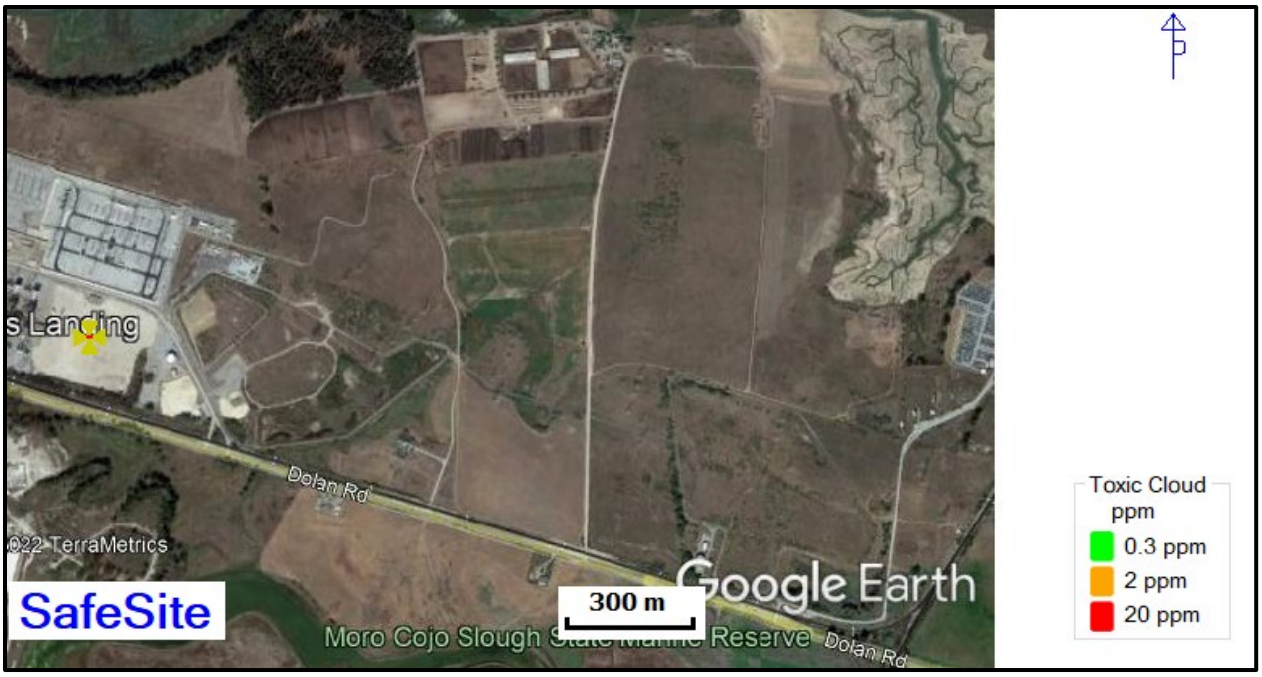


Figure A- 3. Moss350-02ms:F2.0 - Plan View

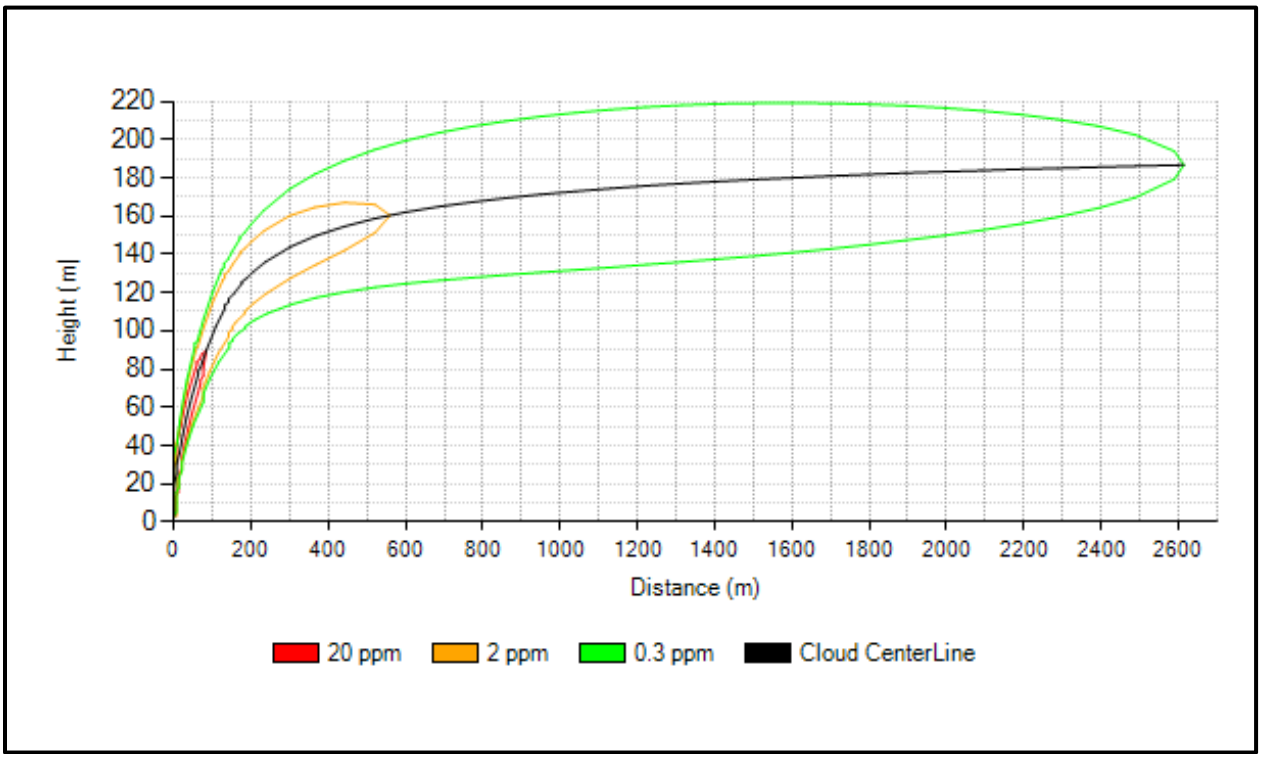


Figure A- 4. Moss350-02ms:F2.0 - Side View



Figure A- 5. Moss350-02ms:D7.1 - Plan View

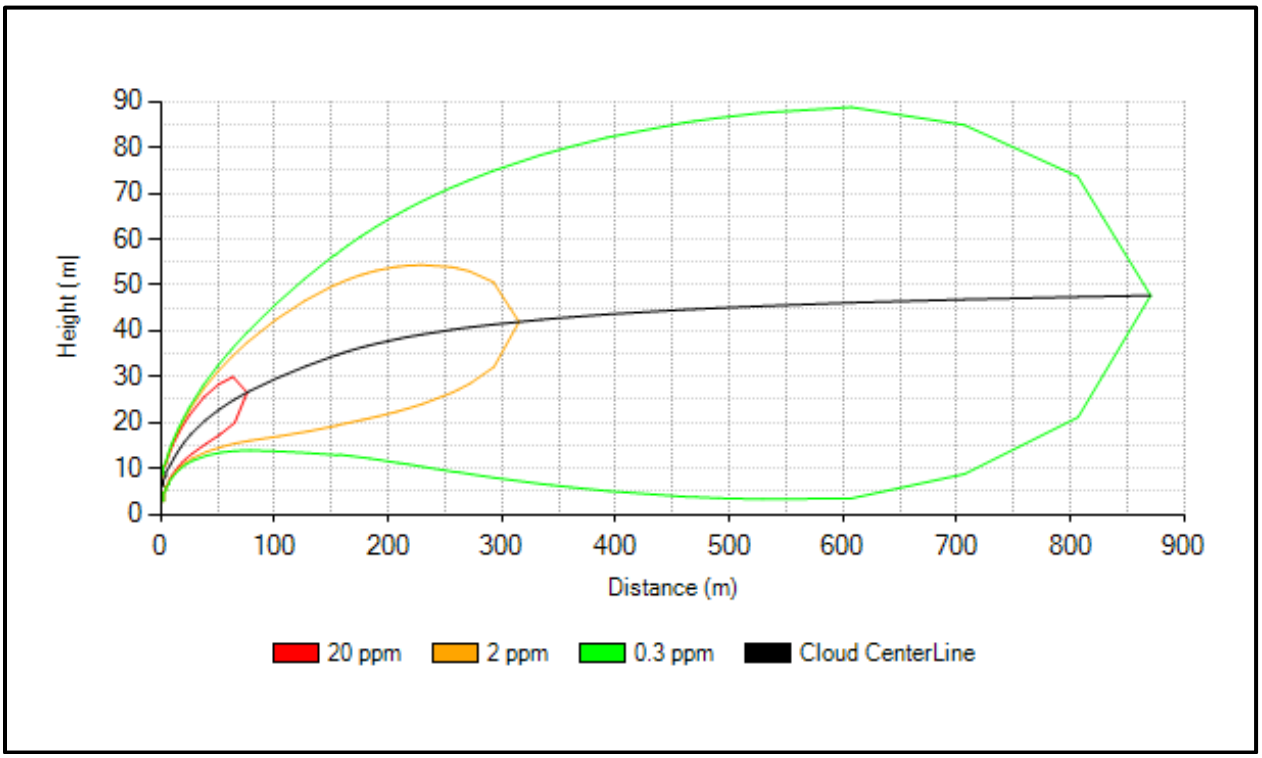


Figure A- 6. Moss350-02ms:D7.1 - Side View



Figure A- 7. Moss350-02ms:B2.4 - Plan View

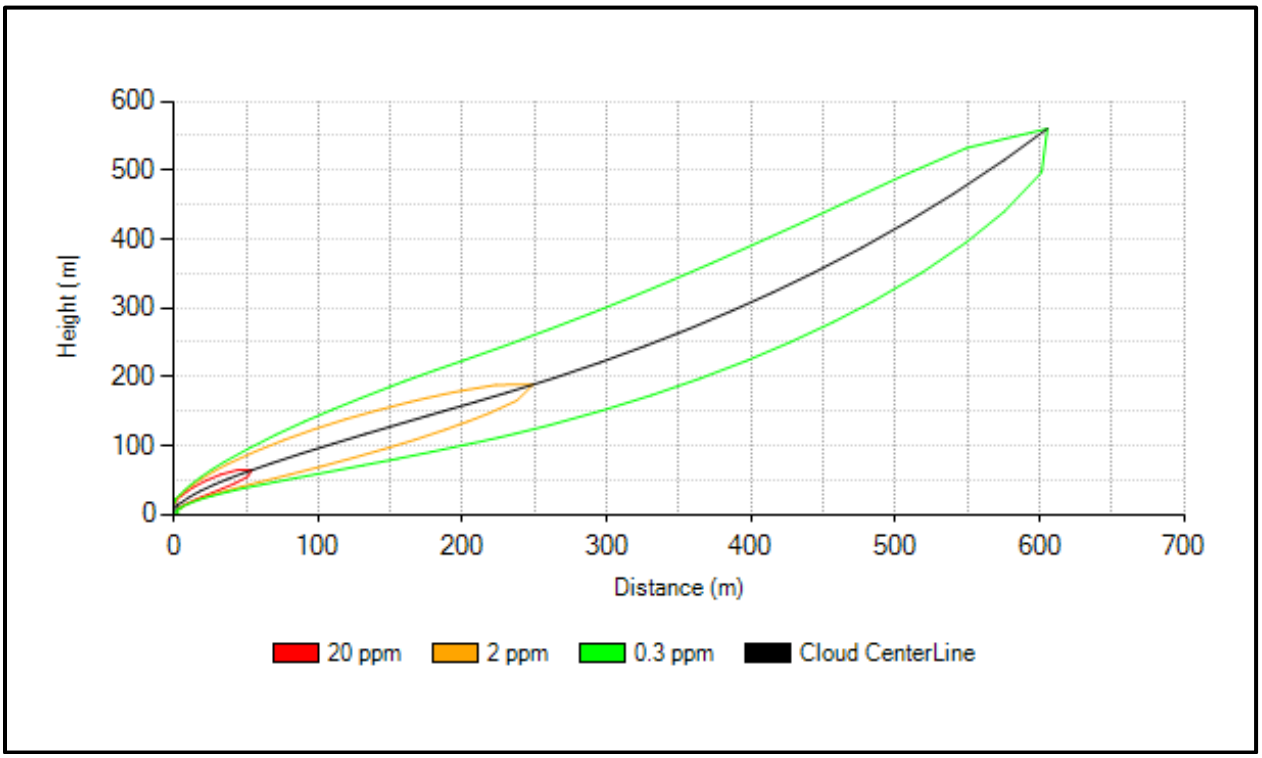


Figure A- 8. Moss350-02ms:B2.4 - Side View



Figure A- 9. Moss350-05ms:D2.8 - Plan View

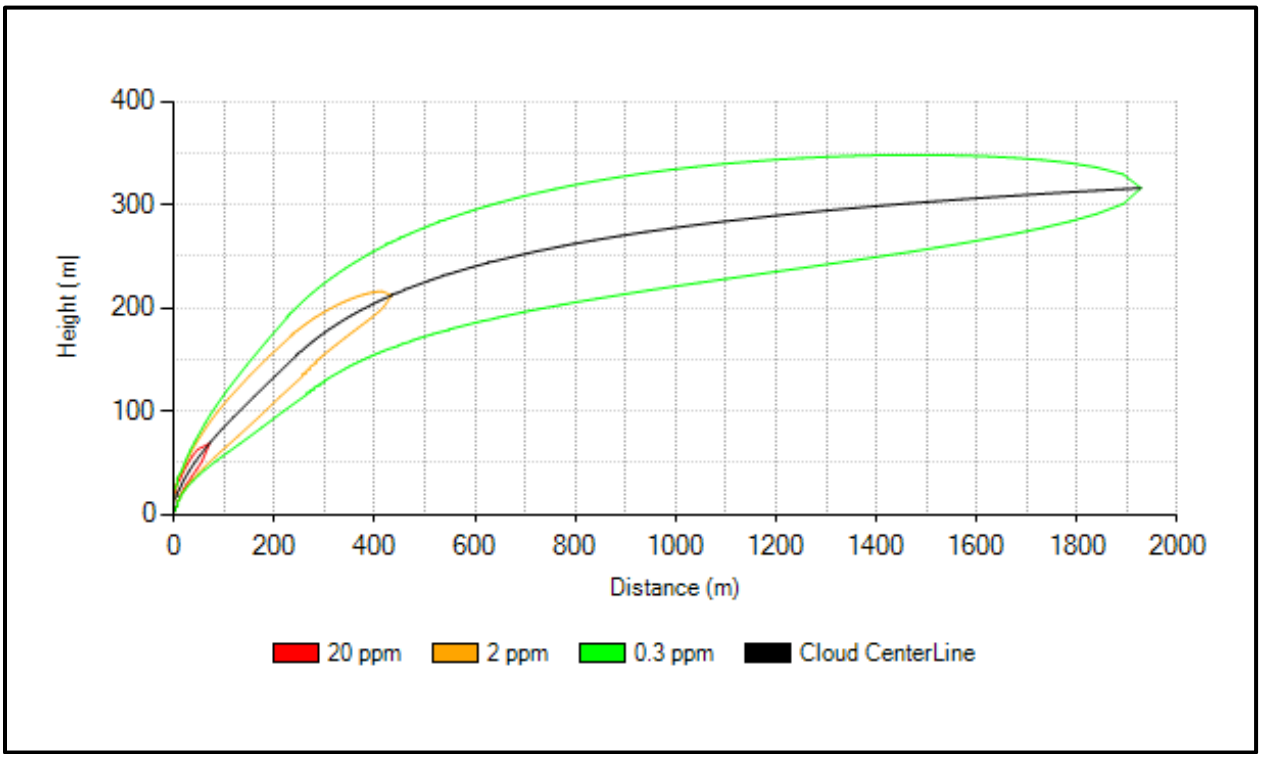


Figure A- 10. Moss350-05ms:D2.8 - Side View

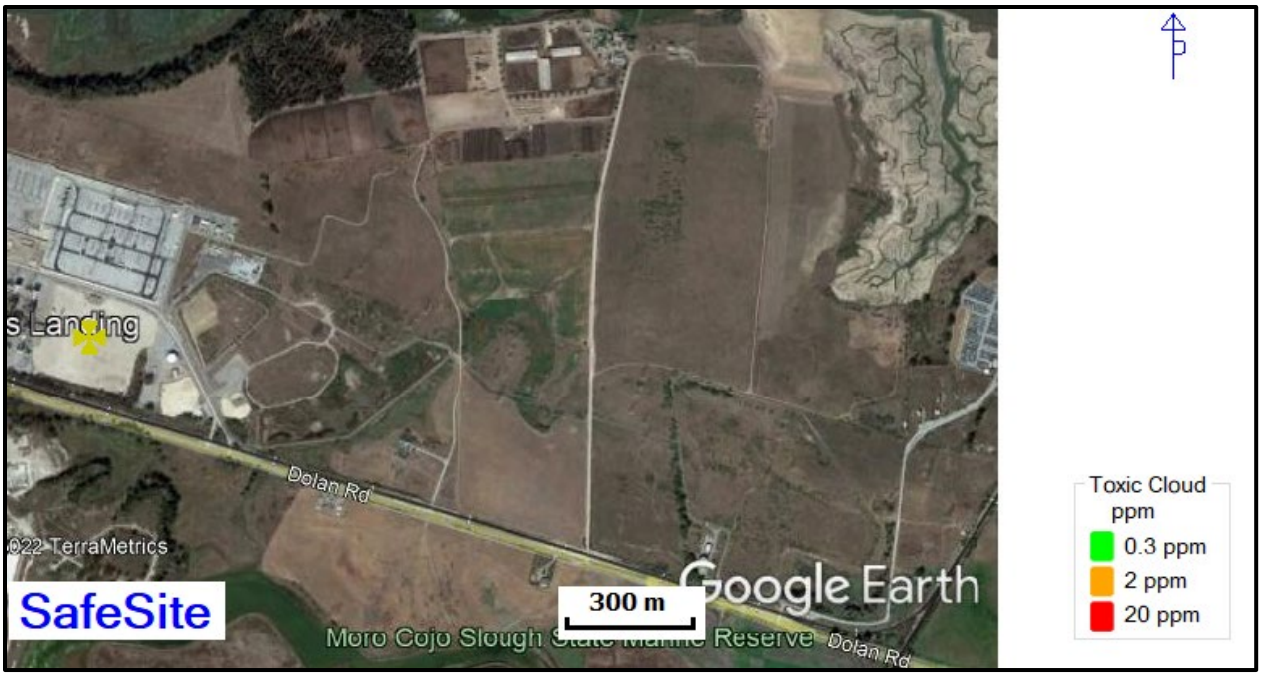


Figure A- 11. Moss350-05ms:F2.0 - Plan View

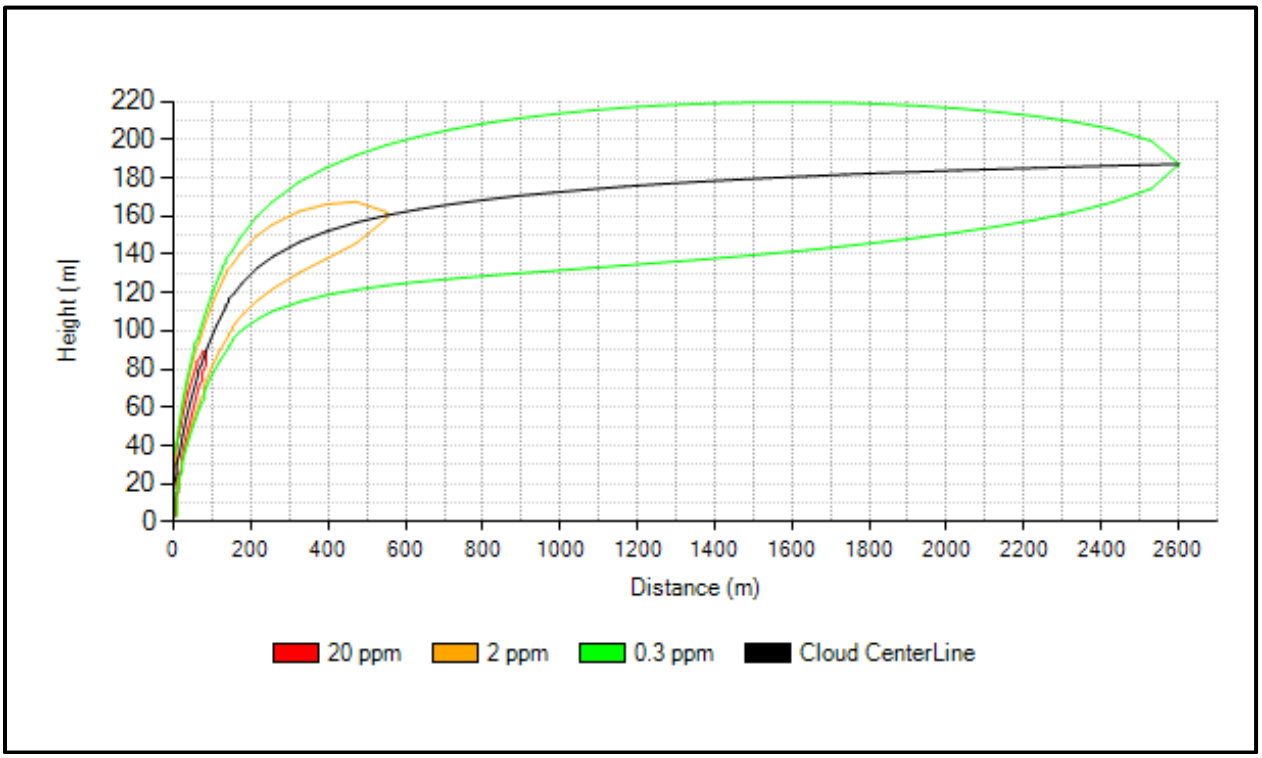


Figure A- 12. Moss350-05ms:F2.0 - Side View



Figure A- 13. Moss350-05ms:D7.1 - Plan View

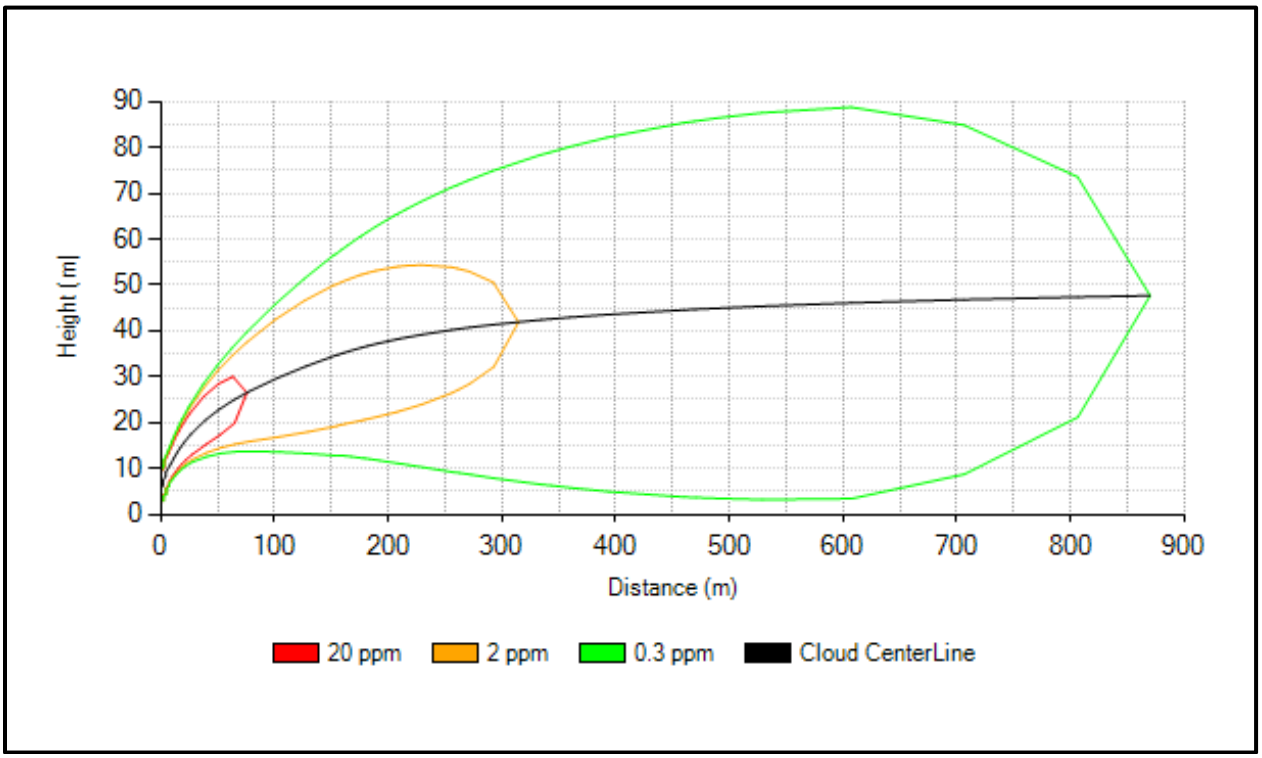


Figure A- 14. Moss350-05ms:D7.1 - Side View



Figure A- 15. Moss350-05ms:B2.4 - Plan View

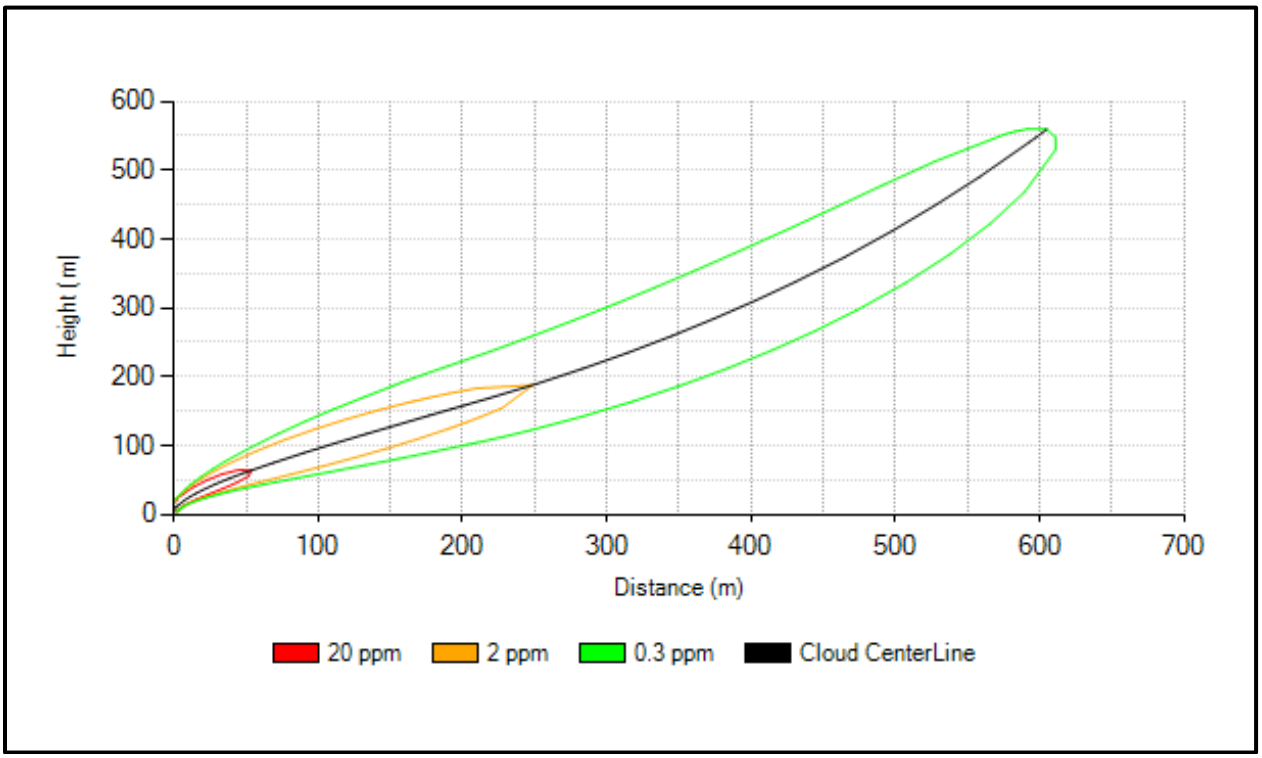


Figure A- 16. Moss350-05ms:B2.4 - Side View



Figure A- 17. Moss350-10ms:D2.8 - Plan View

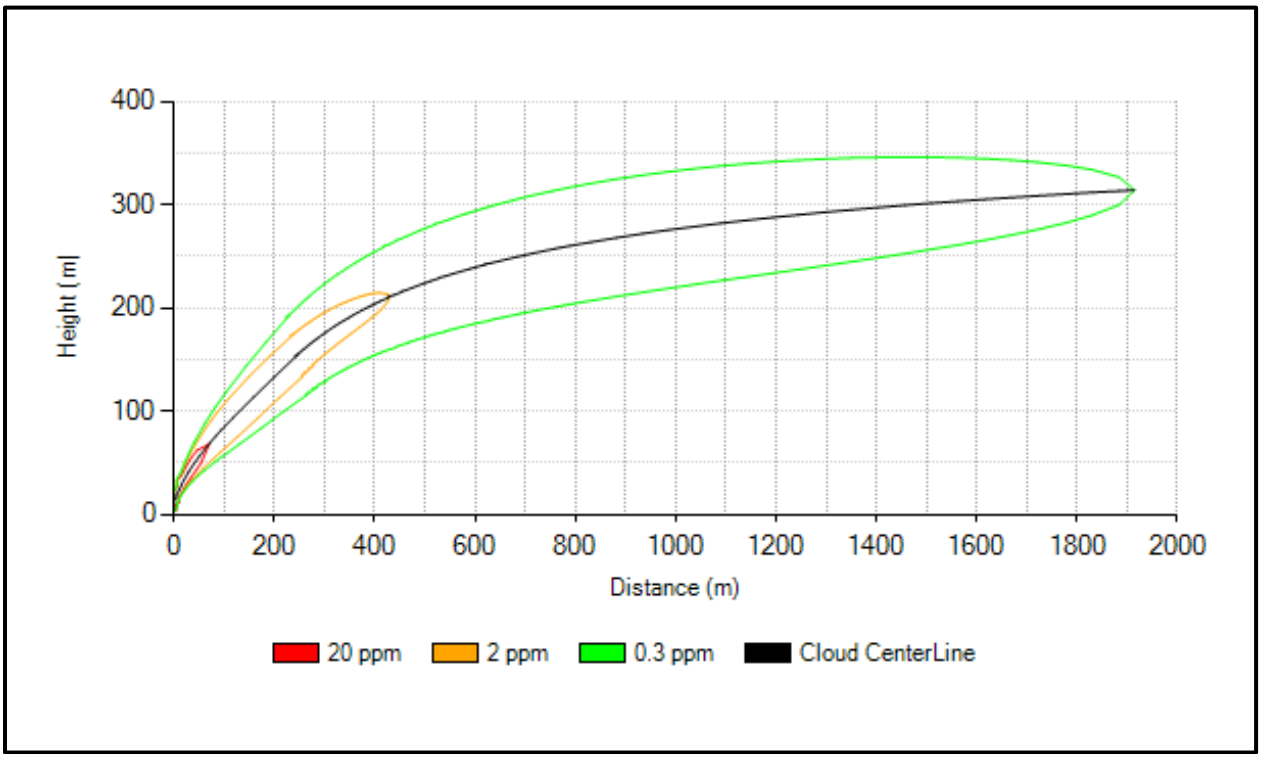


Figure A- 18. Moss350-10ms:D2.8 - Side View

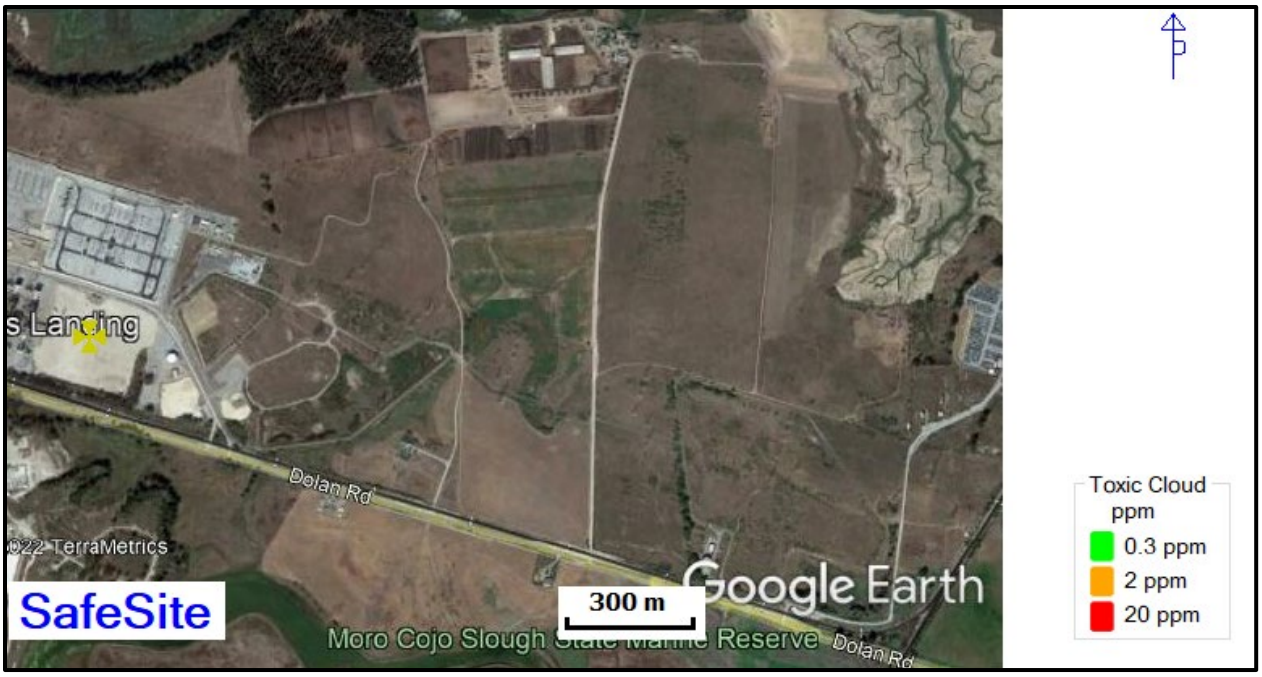


Figure A- 19. Moss350-10ms:F2.0 - Plan View

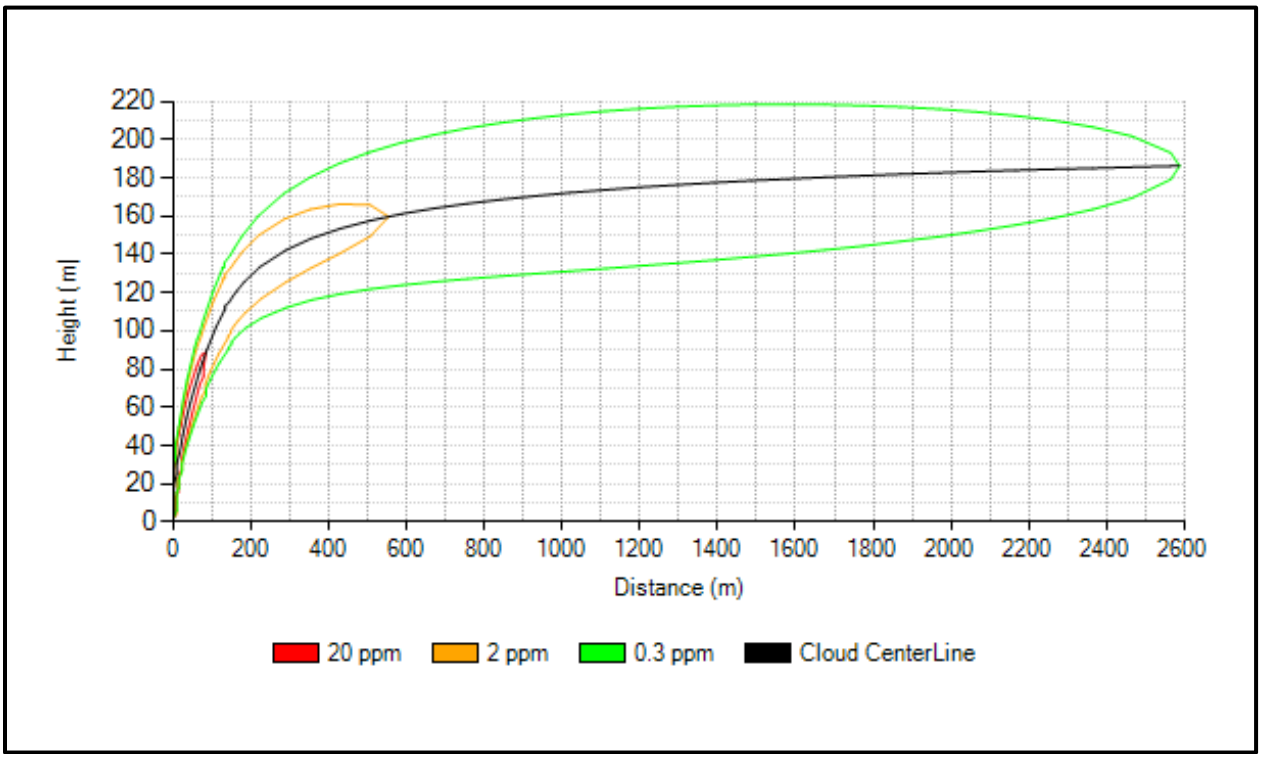


Figure A- 20. Moss350-10ms:F2.0 - Side View



Figure A- 21. Moss350-10ms:D7.1 - Plan View

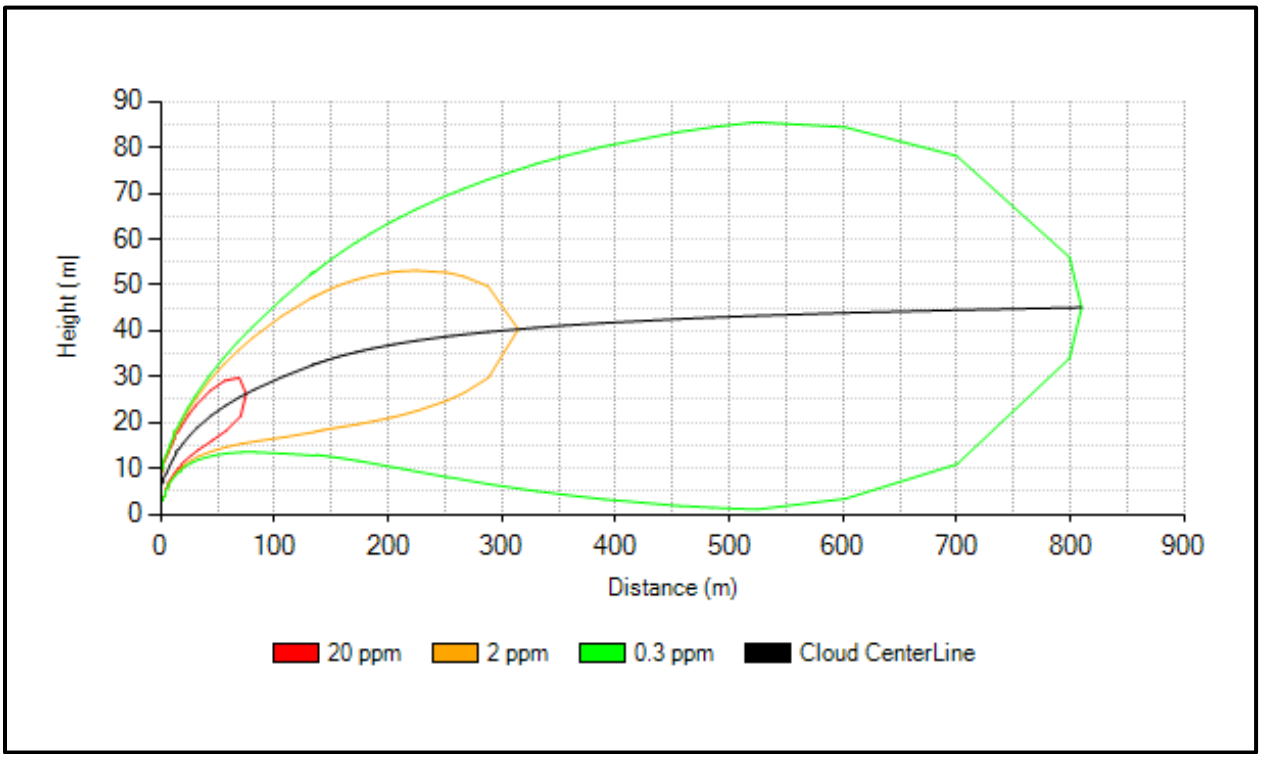


Figure A- 22. Moss350-10ms:D7.1 - Side View



Figure A- 23. Moss350-10ms:B2.4 - Plan View

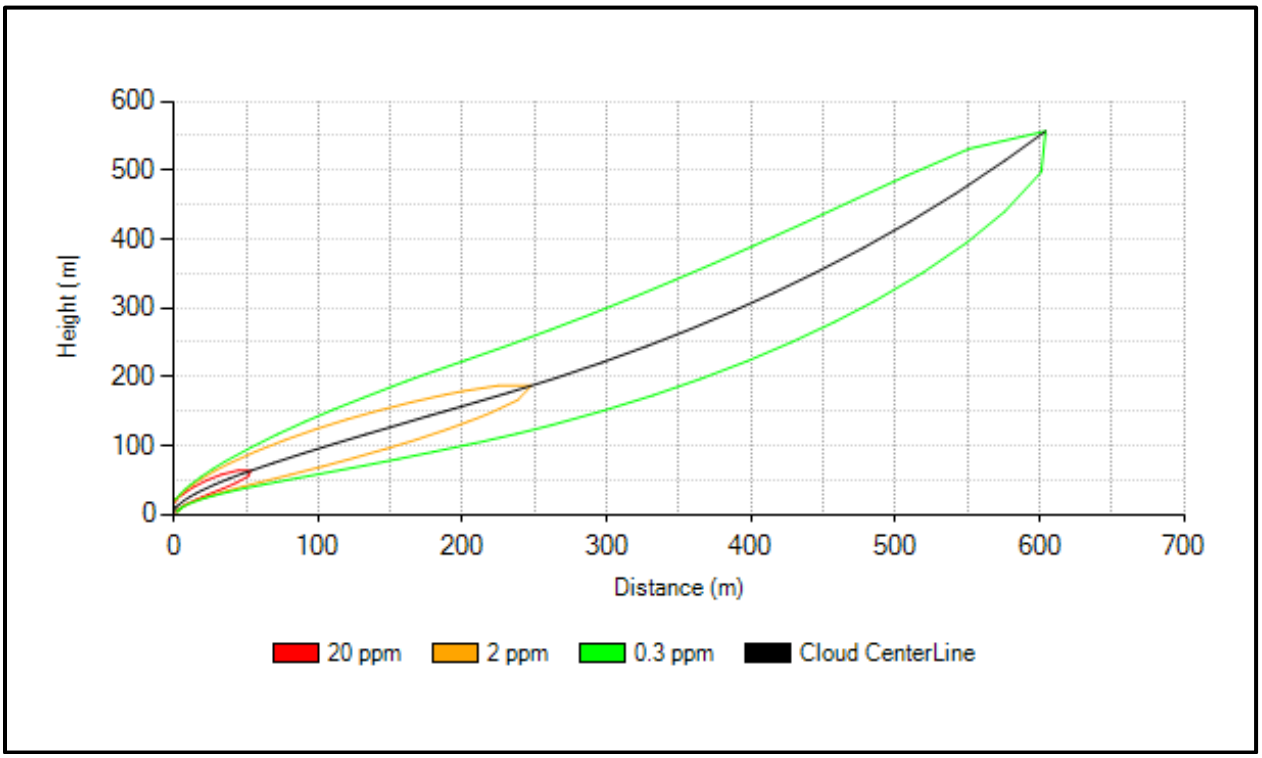


Figure A- 24. Moss350-10ms:B2.4 - Side View



Figure A- 25. Moss350-20ms:D2.8 - Plan View

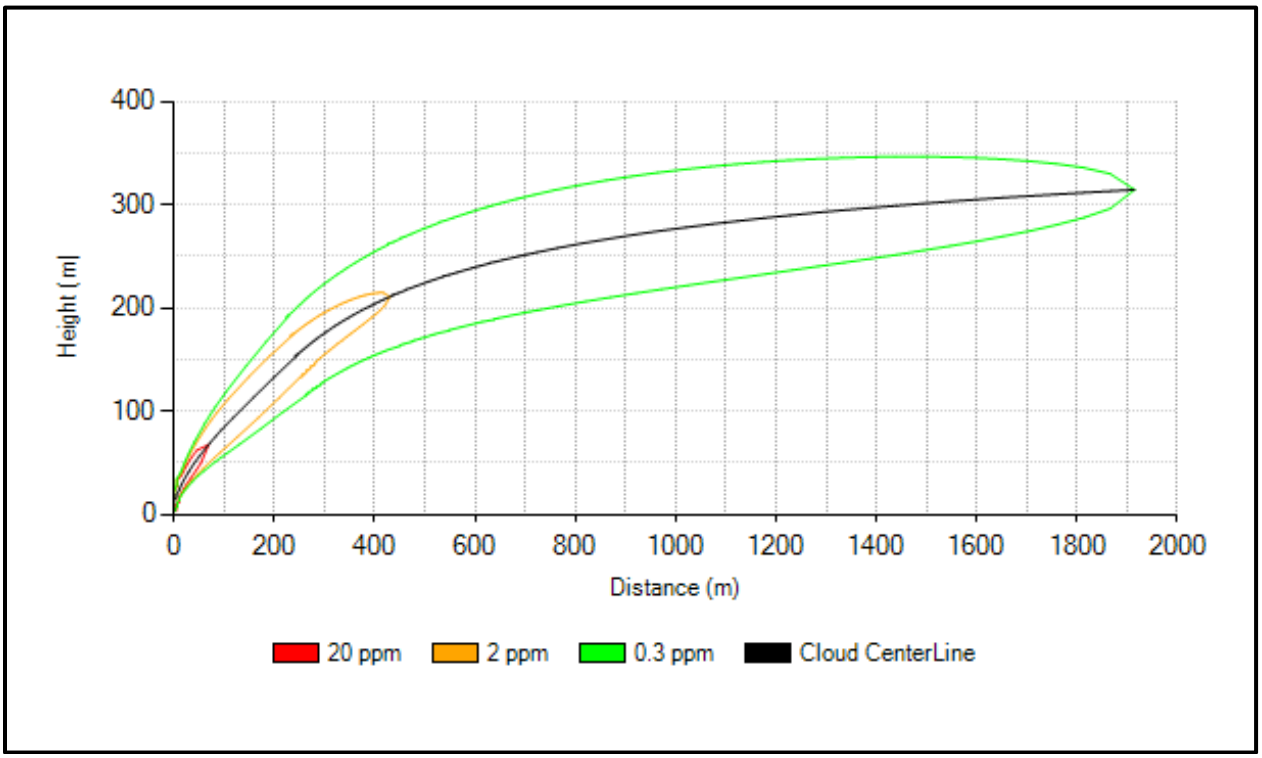


Figure A- 26. Moss350-20ms:D2.8 - Side View

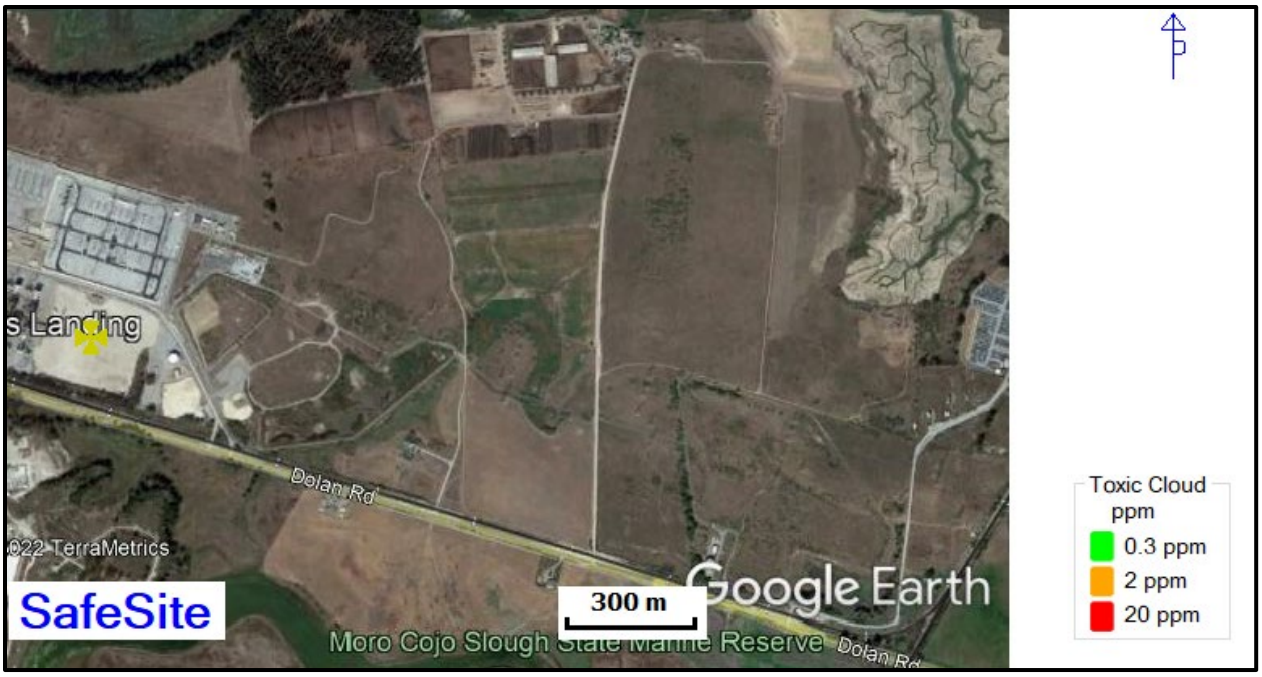


Figure A- 27. Moss350-20ms:F2.0 - Plan View

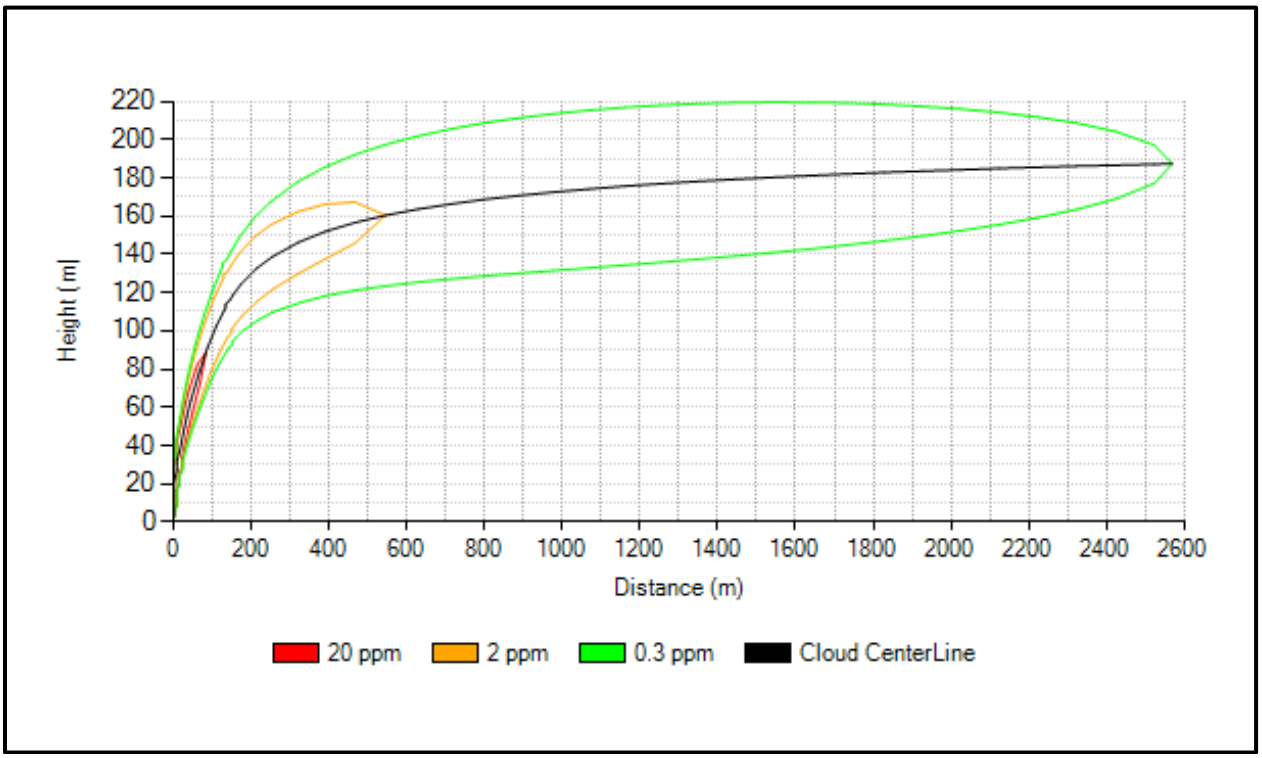


Figure A- 28. Moss350-20ms:F2.0 - Side View



Figure A- 29. Moss350-20ms:D7.1 - Plan View

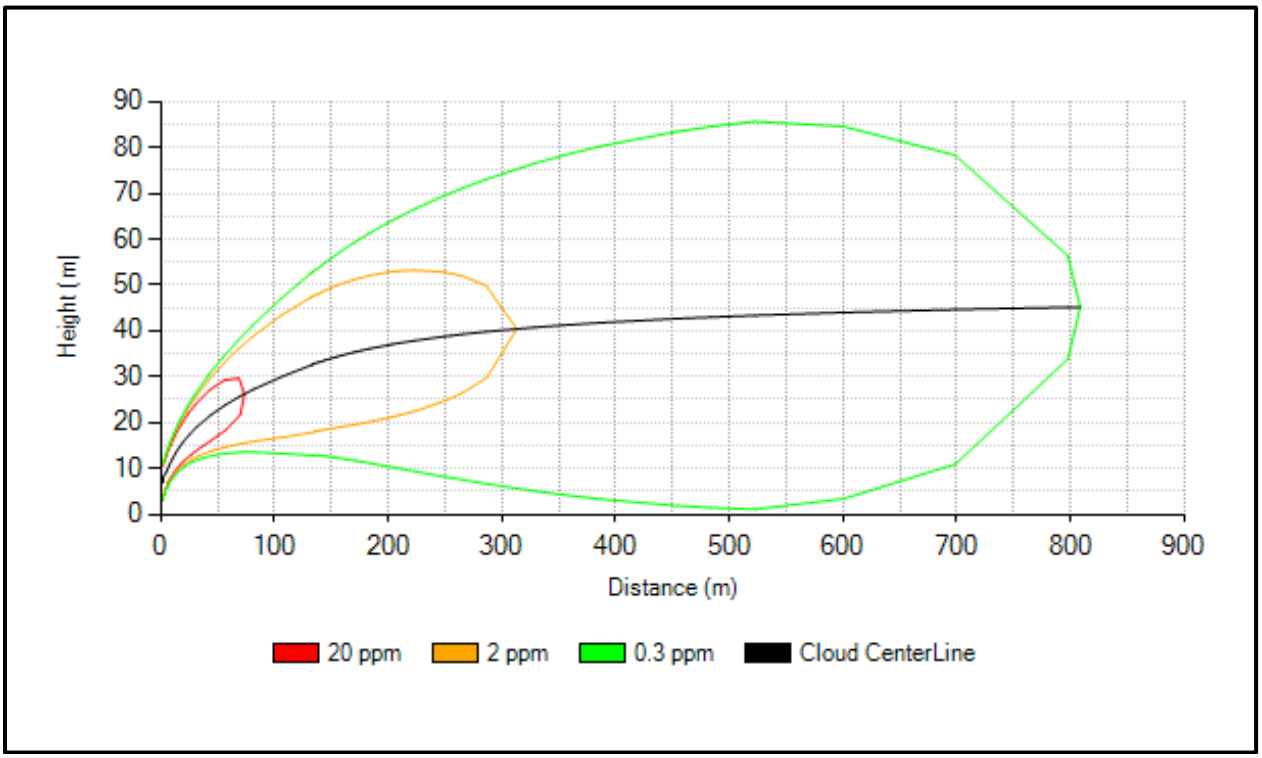


Figure A- 30. Moss350-20ms:D7.1 - Side View



Figure A- 31. Moss350-20ms:B2.4 - Plan View

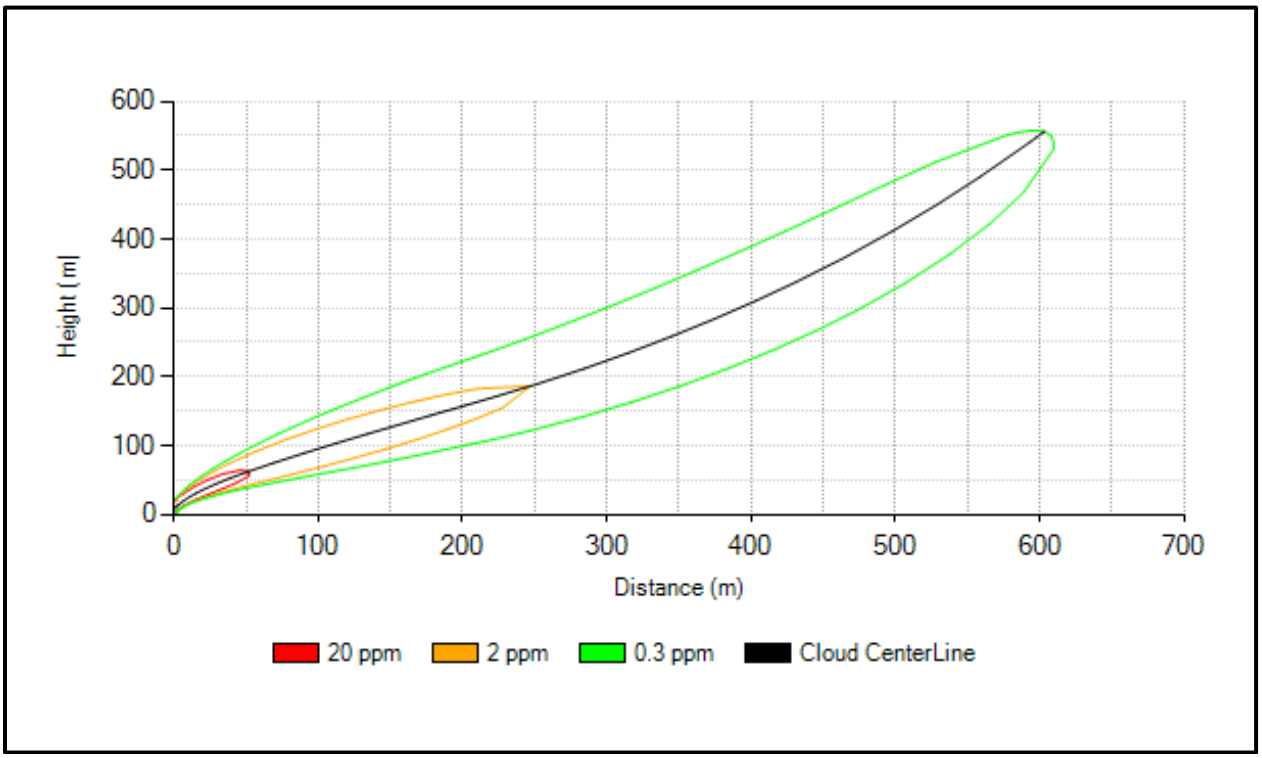


Figure A- 32. Moss350-20ms:B2.4 - Side View



Figure A- 33. Moss350-30ms:D2.8 - Plan View

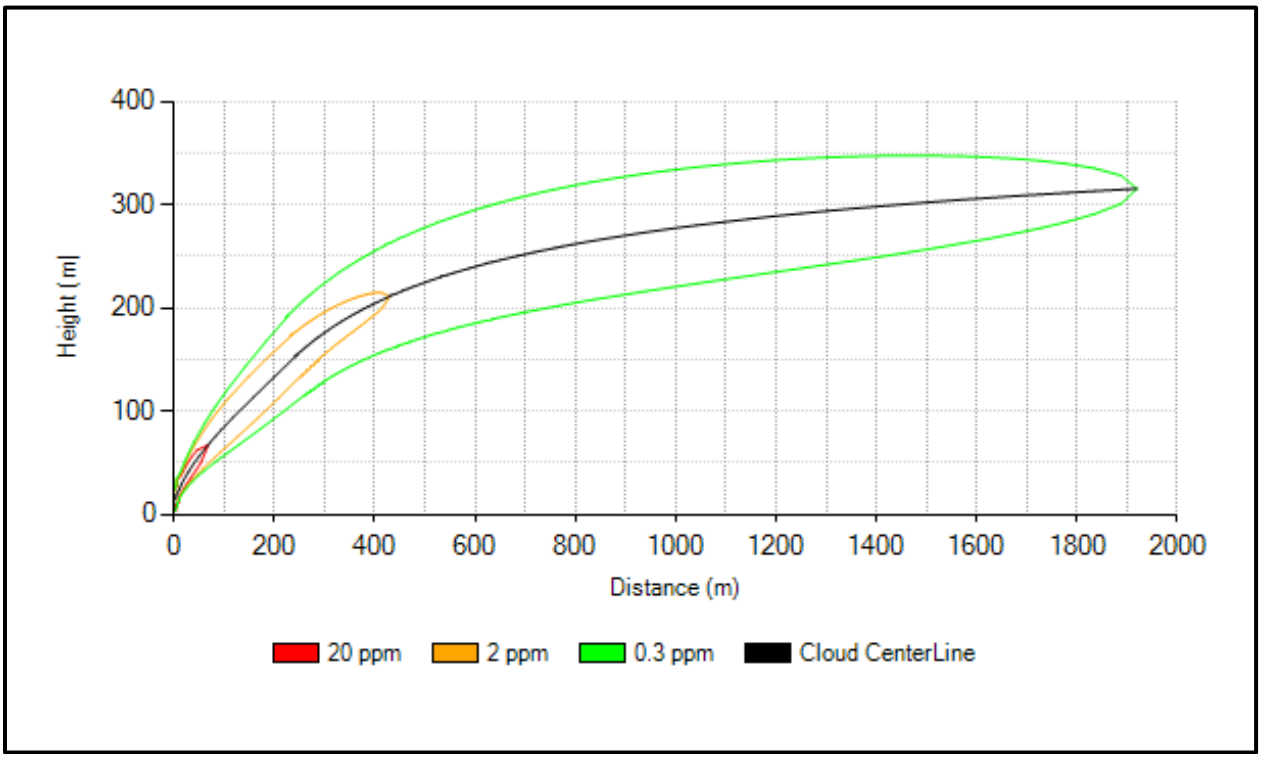


Figure A- 34. Moss350-30ms:D2.8 - Side View

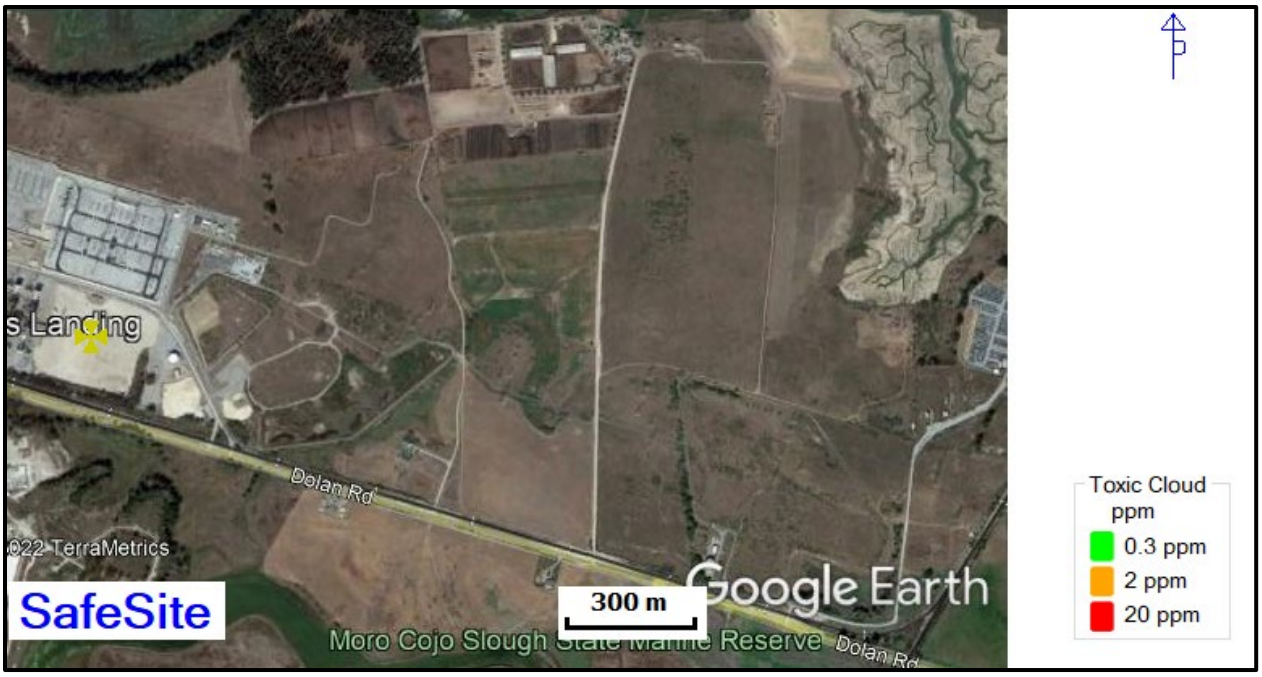


Figure A- 35. Moss350-30ms:F2.0 - Plan View

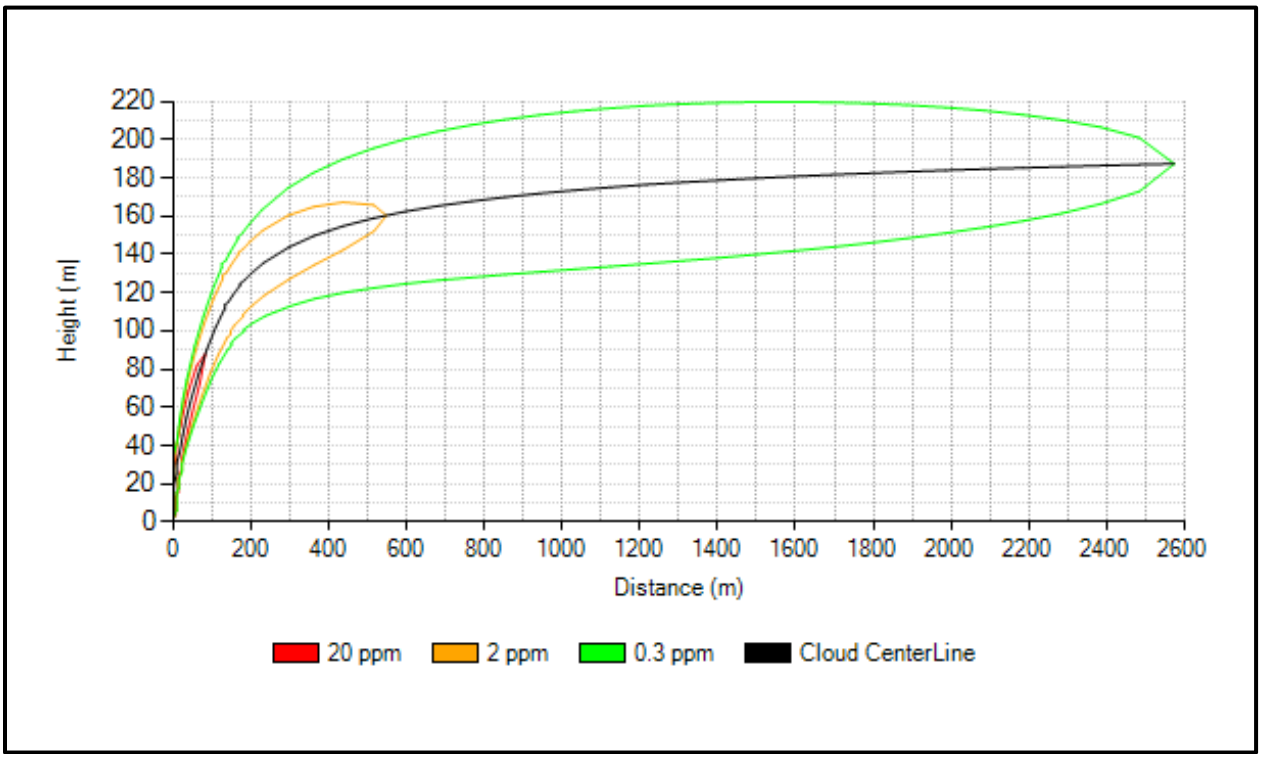


Figure A- 36. Moss350-30ms:F2.0 - Side View



Figure A- 37. Moss350-30ms:D7.1 - Plan View

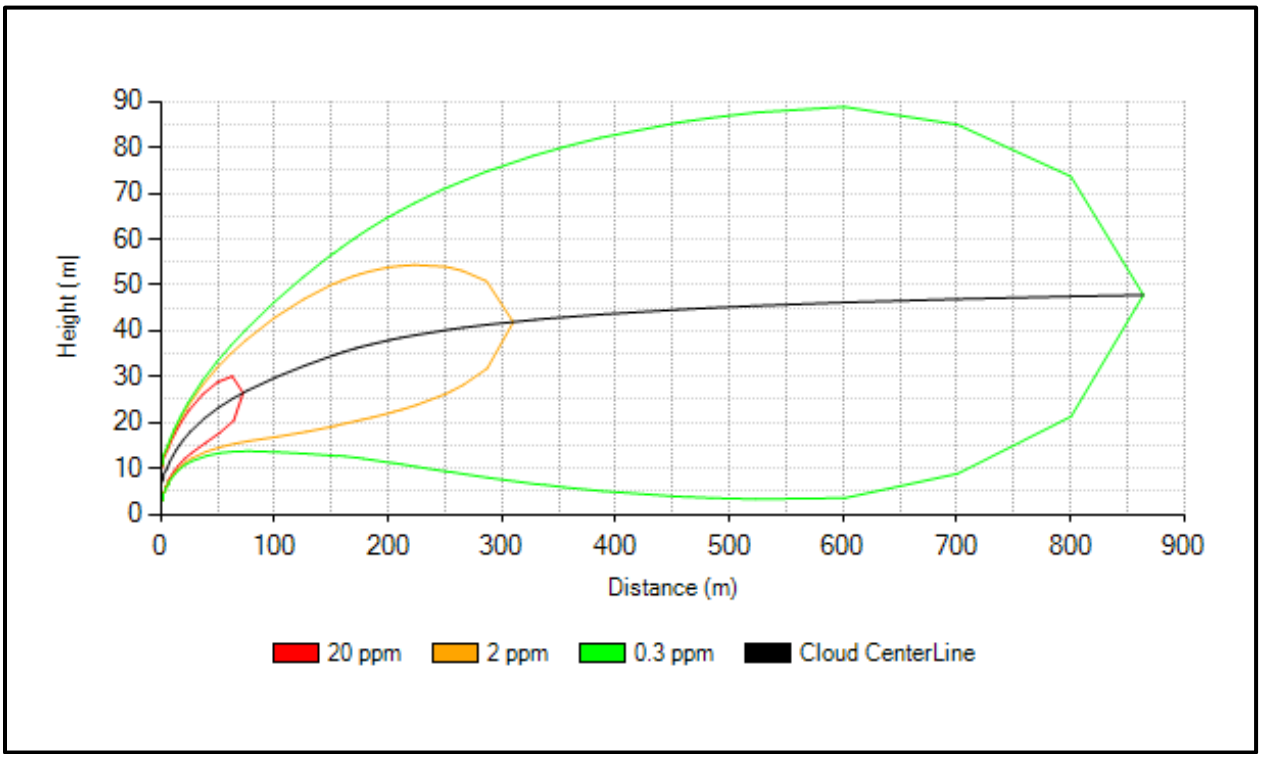


Figure A- 38. Moss350-30ms:D7.1 - Side View



Figure A- 39. Moss350-30ms:B2.4 - Plan View

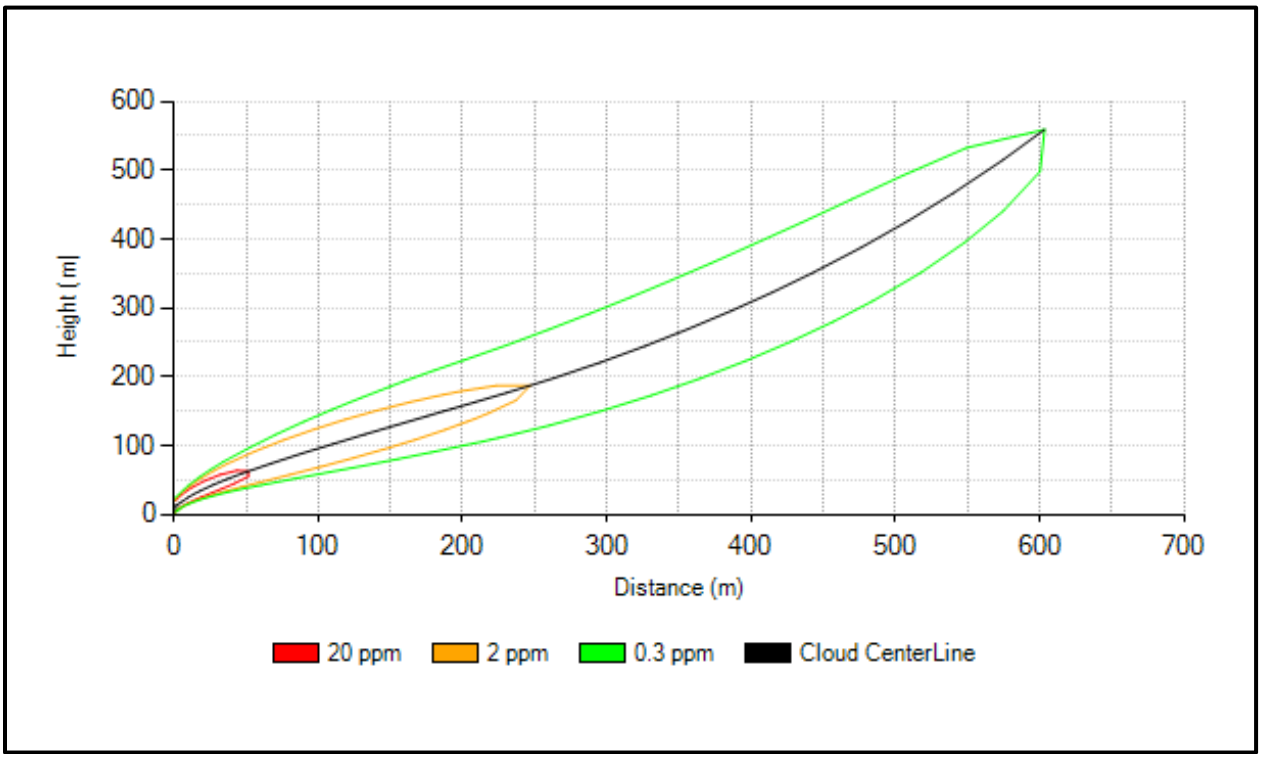


Figure A- 40. Moss350-30ms:B2.4 - Side View

GENERAL EMERGENCY RESPONSE

Information contained in this section provides a framework for responding to plant emergencies. Organizational roles and responsibilities are defined, and procedures identified which will ensure prompt and proper response actions during an emergency. An ***EMERGENCY*** is an unexpected situation or sudden event, which involves physical, medical and/or chemical hazards. Examples would be hazardous chemical releases, oil spills, fires, bomb threats, explosions, and natural disasters. Any emergency shall be acted upon according to the guidelines established by this section. Refer to the specified guidelines for responses to fires, bomb threats, earthquakes, spills and releases, medical emergencies and floods contained in the ***RED*** and ***ORANGE*** Tabs.

INITIATING EMERGENCY RESPONSE

In general, the nature and magnitude of any incident will govern the level of response necessary. The following steps should be taken for any emergency.

PERSON DISCOVERING THE INCIDENT

1. NOTIFY the Control Room Operator from a safe location:
   - Plant phone: **7333**
   - Cell phone and 24hr numbers: **831-633-7333**
   - 450 MHz Radio: **CONTROL ROOM OPERATOR**

2. STAY ON THE LINE and provide information until released by the CO:

CONTROL ROOM OPERATOR (CO)

1. COLLECT INFORMATION from the caller related to the emergency to assess the response needed. Consider:
   - Type of emergency
   - Exact location
   - Resources needed

2. If necessary, activate the PLANT EVACUATION Plan EP-1 and SOUND the ALARM (SIREN).

3. NOTIFICATIONS:
   - **CALL 9-1-1** to request off-site emergency assistance.
   - OPERATIONS SHIFT SUPERVISOR – convey emergency information.
   - PLANT SECURITY FORCE – convey emergency information.
   - DISPATCH FIRST AID TRAINED PERSONNEL – if necessary.
     STATE: location and condition of injured, and assistance needed so that the person(s) may respond with the necessary medical supplies promptly.

GENERAL EMERGENCY RESPONSE

NOTE: All Operations and Maintenance personnel have received CPR & First Aid instruction.

4. MONITOR and COORDINATE COMMUNICATIONS from the Control Room by telephone and/or 450 MHz radio.

5. DOCUMENT incident actions and maintain a timeline of events.
   Use the ***INCIDENT REPORTING FORM*** ⇒ **ER-4** as a tool.

INCIDENT COMMANDER

➢ ACTIONS

1. INITIATE INCIDENT COMMAND SYSTEM [IC ⇒ ***ORANGE TAB***]
   - ➢ Clearly communicate who is IC
   - ➢ Designate other IC positions, as necessary

2. Immediately REPORT to the emergency location.

3. ASSESS safety/medical/rescue needs.

4. ENSURE response support is promptly and efficiently directed to the location of the emergency.

5. If necessary, issue instructions to de-energize equipment.

6. COORDINATE safety/medical/rescue activities with the off-site emergency responders.

7. COMMUNICATE continuously throughout the incident with municipal responders and plant personnel to ensure resources are available and actions are effective.

8. MAKE NOTIFICATION & DOCUMENTATION, as appropriate, of the incident per the requirements of the respective guidelines

➢ RESPONSE OBJECTIVES

- ❑ Minimize chance for personnel injury and/or chemical exposure.
- ❑ Contain any spills or releases from a safe distance.
- ❑ Protect nearby persons, property, and the environment.
- ❑ Extinguish fires and eliminate fire/explosion conditions.

GENERAL EMERGENCY RESPONSE

NOTE: Only trained employees will respond to and attempt to extinguish incipient level fires, if safe to do so. Firefighting duties will be relinquished to the local municipal Fire Department when they arrive. (see **FIRE ⇒** ***RED TAB***)

- Coordinate DEFENSIVE RESPONSE ACTIONS. The IC must insure that non-essential personnel are evacuated from the hazardous area(s) and that only qualified employees assist in handling the emergency. Examples of defensive actions include:
  - De-energizing electrical circuits near the hazardous area;
  - Activation of fixed fire suppression systems (either "Automatic" or "Manual" use of portable dry chemical or raw city water)Providing ventilation for smoke/fume removal if possible;
  - Use fire extinguishers or water hose (pressurized no greater than 125psi flowing no grater then 125pgm) on incipient level fires;
  - Operate fire water pumps;
  - Barricading hazardous areas; and
  - Initiating partial or complete plant evacuations.
  - Battery storage facility - Special care must be taken when selecting an extinguishing agent.
    - **Water cooling method** – The primary objective in fighting a fire is to cool the battery enclosure. Unattenuated excessive heat can result in thermal runaway, flashover, a back-draft condition, and the resultant fire expansion.
    - More specific information is provided in Response to Fires / Explosions (F1)
- IF THE SHIFT SUPERVISOR IS THE IC, assume the role of incident liaison with municipal responders until reassigned by the Plant Manager or his/her designee.
- MAINTAIN COMMUNICATIONS with the CO to keep the CO informed of the emergency situation.
- COORDINATE TECHNICAL SUPPORT from the Plant's engineering and maintenance staff as needed.
- ENSURE THE AREA REMAINS SECURE by advising the Plant's security force (if present) or the on-duty Shift Supervisor.

Notice for MLPP Personnel Not Directly Supporting the Emergency

During an emergency, all MLPP personnel that do not have a designated emergency response function shall remain where they are or proceed to the designated assembly area (in the event of an emergency evacuation) until a verbal "all clear" is given. Do not go to the emergency scene, and/or call the Control Room, unless specifically asked to do so by responding personnel.

Significant Event Initial Information Form

This event information form is for capturing as quickly as possible the relevant information about a significant environmental or equipment event.

Brief Description of Event: _____

Immediate Actions Taken:

Location of Event:

Date and Time of Event:

Work Order Number:

Shift Supervisor:

1. List all the individuals involved in the event.

2. Were there any interfacing teams, groups, contractors involved? If so, list them and their relationship to the event.

3. What were the conditions during the event? (in start up, in process, environmental conditions, working conditions, resources assigned, etc.)

4. What were the indicators that the event had taken place? (Alarms, unusual noise, visual observation, etc.) or the likely causes.

5. Individuals' description of the sequence of events. Instruct each involved person to write down a summary of the work activity/task performed, their observations and actions prior to, during, and immediately following the event. Individuals should be encouraged to include suggestions to prevent or mitigate future occurrence of the event.

6. California Energy Commission (CEC) Com-13 Incident reporting requirements.

   A) A brief description of the incident, including its date, time and location:

   B) A description of the cause of the incident, or likely causes if it is still under investigation.

Significant Event Initial Information Form

C) The Location of any off-site impacts

D) Description of any resultant impacts;

E) A description of emergency response actions associated with the incident;

F) Identification of responding agencies;

G) Identification of emergency notifications made to federal, state, and/or local agencies;

H) Identification of any hazardous materials released and an estimate of the quantity released;

I) A description of any injuries, fatalities, or property damage that occurred as a result of the incident;

J) Fines or violations assessed or being processed by other agencies;

K) Names, phone number, and e-mail address of the appropriate facility contact person having knowledge of the event: and

L) Corrective actions to prevent a recurrence of the incident.

INCIDENT COMMAND SYSTEM

Procedure:

Upon the notification of an emergency the MLPP IC will report to the Field Command Post located at incident location if safe to do so or SECONDARY: Energy Management Center (EMC). He/she will assume command and gather the information about the event. They will begin to organize a response to the incident.

In the event that the incident is beyond their control, they will call 911 for assistance from the local fire department, ambulance services, etc. Upon arrival of the emergency units, the office in charge will be briefed and will assume command. The IC from MLPP that was relieved will stay and assist with technical questions.

Background information and assigned duties:

Moss Landing Power Plant (MLPP) has adopted the principles of the National Interagency Incident Management System (NIIMS) Incident Command System (ICS) to ensure a safe and effective response to Facility emergencies. ICS provides a model tool for command, control, and coordination of any emergency response, including fires, floods, earthquakes, and hazardous materials releases.

INCIDENT COMMAND SYSTEM (ICS)

Incident Command System (ICS) is a nationally recognized system to manage an organized response to an emergency incident such as:

- Chemical releases
- Fires/explosions/bomb threats
- Natural disasters

ICS is utilized by most local, state, and federal emergency response agencies throughout the United States. Using ICS allows for a methodical approach to managing emergencies involving numerous agencies, company representatives and response support personnel. ICS provides an opportunity for a coordinated response effort by all parties, with an emphasis on safety. The system is organized such that all decisions are made through the Incident Commander.

ICS is an emergency management system that accomplishes three major goals:

1. Ensures a manageable span of control
2. Provides consistent terminology
3. Establishes a clear chain of command

These three goals are intended to maintain clear communication during emergency response efforts. The following are the three goals defined:

Manageable Span of Control
Is defined as the maximum number of people one individual can effectively manage. During emergencies, one person can be expected to effectively manage six people. More than six requires

separate Sections to be established. A Section is a group usually managed by a Section Chief with a specific response objective.

Consistent Terminology

The ICS system incorporates consistent terminology to facilitate communication between emergency responders. Examples include hazard zones, wind direction, command position titles, command post, etc.

Chain of Command

Emergency response personnel need to organize themselves quickly and effectively. During times of crisis, this is best accomplished by a hierarchical organization structure. This allows for decisive actions to be communicated quickly through a clear chain of command.

INCIDENT COMMAND SYSTEM

UNIFIED COMMAND SYSTEM (UCS)

Although MLPP utilizes ICS, almost all emergencies requiring this system will be governed by a lead governmental agency. Depending on the extent of the emergency, the lead agency may be a representative from a federal, state, or local agency. This jurisdictional authority is loosely based on the type of incident and potential safety and environmental impacts.



Examples may include:

- Fire Department (Local): Public safety
- US Coast Guard (Federal): Spills on navigable waters
- Fish and Game (State): Spills impacting inland waters, state coastal waters and sensitive lands
- EPA (State and Federal): Spills to environment

The most effective responses are those that involve the concerted efforts of agencies and the expertise of MLPP personnel. Unifying command with lead agencies allows MLPP to participate in the decision-making process, allowing for the most effective and efficient mitigation of the incident.

UCS SHOULD NOT BE ASSUMED. Lead agencies will only be receptive to unifying command if MLPP demonstrates competency with its own ICS organization. The MLPP IC will need to request that a unified command structure be established with involved agencies. In the event that lead agencies do not wish to unify command, MLPP will continue to function within ICS and serve as technical support to the agencies.

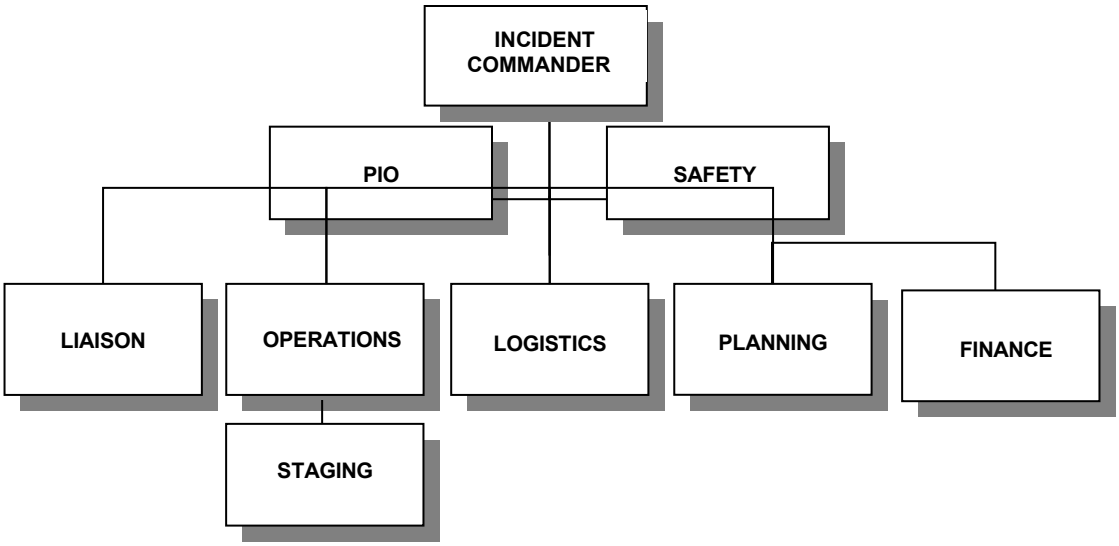
MLPP INCIDENT COMMAND POSITIONS

The following table lists the MLPP ICS positions and a brief description of overall responsibilities. A more detailed description of the MLPP ICS positions, responsibilities and checklist will be provided later in this section.

MLPP ICS Positions	Overview of Responsibilities
Incident Commander	▪ Manages overall emergency ▪ Assigns and delegates to other ICS positions
Safety Officer	▪ Works with IC to ensure for the protection of personnel and responders ▪ Develops health & safety plan
Operations Chief	▪ Coordinates tactical response actions ▪ Provides technical expertise to IC and agencies as needed
Planning Officer	▪ Assistant to IC ▪ Ensures adequate documentation of emergency
Staging Manager	▪ Establish staging area and control access to the scene ▪ Manage personnel and visitor sign-in sheet
Logistics Officer	▪ Determine resource needs (coordinate with ICS positions) ▪ Procure resources (personnel or equipment)
Liaison Officer	▪ Meet, greet and brief arriving agency representatives ▪ Escort agency representative to Command Post as needed
Public Information Office	▪ Manage the release of information to the media ▪ Coordinate release of information with IC, Agency PIOs and MLPP Management
Finance	▪ Manages financial matters related to the incident ▪ Generally only instituted for high level emergencies

INCIDENT COMMAND SYSTEM

MLPP ICS Organization Chart



MLPP INCIDENT COMMANDER

For most MLPP incidents the Managing Director/Plant Manager will assume the responsibilities of Incident Commander. However, the Managing Director/Plant Manager may not always be onsite or available to fill this role. Therefore, the responsibility of IC may begin with a Operations Shift Supervisor. As more senior MLPP employees arrive on-site, they will assume the IC position. The following illustration demonstrates the flow of the IC position within MLPP.

Flow of MLPP IC responsibility →

Operations Shift Supervisor → **Managing Director/Plant Manager**

Before a more senior employee assumes the role of IC, they must be fully briefed on the incident. Once the senior employee is comfortable with the information, they will assume command. This transition of command must be clearly communicated to all MLPP responders. Be aware that the role of IC does not have to be passed upwards if the transition will cause undo confusion; however, the decision not to do so must be a defendable (i.e. the incident is not escalating and is being well managed, or another more senior employees will be arriving shortly).

The MLPP IC has the authority to approve the use of a contractor even if pre-established contracts do not exist. IC has the authority to commit monies to initiate response and clean-up activities. Overall responsibility for the health and safety of MLPP personnel is the duty of the IC. IC may delegate this responsibility to a Safety Officer, however ultimately responsibility is his/hers.

INCIDENT COMMAND SYSTEM

FIELD COMMAND POST

The FIELD Command Post serves as the main communication, action planning, and operational execution, post for the duration of the emergency. The command post is to be located in a safe (upwind, uphill, upstream) position, within the cold zone. The Field Command Post can be in a predetermined conference room (e.g. MLPP Building 300 Fire Communication Center) or, in many cases, at the Fire Department's Mobile Command Vehicle. It is important for a command post to be established as soon as possible. The MLPP IC should coordinate with arriving mutual aid responders to ensure the command post location meets their approval. Adjust the location as necessary and communicate it to all MLPP responders. Foot traffic and disruptions within the command post should be kept to a minimum.

COMMAND POST LOCATIONS AT MOSS LANDING POWER PLANT

- PRIMARY: Field Command Post
- SECONDARY: Emergency Management Center (EMC)

PLANS AND FORMS

Attached herein at the end of this section (ICS-FORMS) are three forms/plans that may be used by members of the IC Staff. The intent for inclusion is to provide tools that ICS Staff may use to organize there objectives and document response details for an effective response. Response personnel from participating Agenies may also need some of the information outlined in the forms/plans to assist responding to an incident. The documents included are:

1. MLPP EMERGENCY RESPONSE SITE HEALTH AND SAFETY PLAN
2. HAZARD ASSESSMENT, MLPP Procedure Library, Volume 7 Health and Safety HS 07-03 Hazard Assessment & Job Safety Analysis (JSA).
3. INDIVIDUAL LOG, ICS-214a – Designed for ICS Staff members to log activities and events as they occur.

INCIDENT COMMAND SYSTEM

INCIDENT COMMANDER (IC) - Managing Director/Plant Manager

For most MLPP incidents the responsibilities of Incident Commander will begin with a Operations Shift Supervisor. As more senior MLPP employees arrive on-site, they will assume the IC position. IC has the authority to approve the use of a contractor even if pre-established contracts do not exist. IC has the authority to commit monies to initiate response and clean-up activities. Overall responsibility for the health and safety of MLPP personnel is the duty of the IC. IC may delegate this responsibility to a Safety Officer, however ultimately responsibility is his/hers.

IC Responsibilities:

- ❑ Verify internal MLPP notifications have been made
- ❑ Conduct site assessment
- ❑ Initiate MLPP Incident Command System
- ❑ Assign ICS positions
  - Safety Officer
  - Operations Chief
  - Planning Officer
  - Staging Officer
  - Logistics Officer
  - Liaison Officer
  - Public Information Officer (PIO)
  - Finance Officer (as needed)
- ❑ Delegate responsibility based on the needs of the incident
- ❑ Establish safe command post location
- ❑ Meet with Lead Agency IC
- ❑ Request Unified Command, as appropriate
- ❑ Health & Safety
- ❑ Assesses the situation
- ❑ Initiate evacuation of facility, as needed
- ❑ Ensure safety procedures are followed, such as: hazard zones, PPE etc.
- ❑ Ensure Health & Safety plan is being developed
- ❑ Ensure H&S Plan is being communicated to persons entering site
- ❑ Maintain site control – establish hazard zones and appropriate corridors (e.g. decon)
- ❑ Ensure Staging Area has been established
- ❑ Facilitate briefings and planning meetings, as appropriate
- ❑ Manage and coordinate overall incident actions
- ❑ Ensure that briefings and planning meetings are scheduled regularly
- ❑ Assure good documentation is being kept by all participants
- ❑ Assure orderly transition of IC responsibilities when relieved
- ❑ Arrange and ensures that incident critics are performed
- ❑ Oversee and approves requests for resources (avoid duplication)
- ❑ Provide oversight of media management
- ❑ Anticipate the need for relief of ICS positions
- ❑ Incident Action Plan (IAP)
- ❑ Coordinate with Lead Agency to develop a clear plan of action (IAP)
- ❑ Communicate the IAP to appropriate MLPP IC staff
- ❑ Coordinate with MLPP IC staff to implement the IAP
- ❑ Ensure documentation of the IAP
- ❑ Provide updates to MLPP Corporate, as necessary
- ❑ Declare “all clear” of incident for MLPP response team - record:
- ❑ Date: _____ Time:_____

Related USCG NIIMS Forms:

- ❑ Incident Briefings (ICS-201)
- ❑ Unit Log (ICS-214)

INCIDENT COMMAND SYSTEM

SAFETY OFFICER - Site Safety Engineer

The MLPP Safety Officer is responsible for assessing the overall emergency site and Incident Action Plan procedures to ensure the health and safety of all response personnel. **The Safety Officer also has the authority to suspend operations based on health and safety concerns.** The Health and Safety Plan (attached at the end of this section) is the primary tool to help the Safety Officer methodically conduct a thorough site assessment. The Safety Officer is also responsible for communicating the H&S Plan to all response personnel.

Safety Officer Responsibilities:

- ❑ Receive briefing of incident
- ❑ Coordinate with IC to discuss priority response actions
- ❑ Identify and evaluate safety and health hazards that may impact responders and the public
- ❑ Ensure responders have adequate skills to safely perform assigned tasks
- ❑ Ensure initial response personnel are located in a safe location
- ❑ Designate exclusion zone boundaries and determine level of PPE required
- ❑ Begin developing the Site-Specific Health and Safety Plan
- ❑ Establish contact with on-scene agency Safety Officer(s)
- ❑ Ensures lead agency agrees with established Hazard Zones – revise as needed
- ❑ Conduct initial briefing of the H&S Plan
- ❑ Establish regularly scheduled safety meetings
- ❑ Ensure that an “attendance roster” is maintained for the H&S Plan briefings
- ❑ Work with Staging Officer to conduct H&S Plan briefings with arriving response personnel
- ❑ Assess need for atmospheric monitoring – coordinate as needed
- ❑ Assess need for triage location. Coordinates with appropriate agencies as needed
- ❑ Attend briefing and planning meetings
- ❑ Review Incident Action Plans to ensure safety oversight
- ❑ Establish smoking areas
- ❑ Anticipate the need for relief of position and insure orderly transition
- ❑ Investigate accidents (post emergency phase)

MLPP Forms:
- ❑ Emergency Response Site Specific Health & Safety Plan

Related USCG NIIMS Forms:
Unit Activity Log (ICS-=214)

INCIDENT COMMAND SYSTEM

OPERATIONS CHIEF

The MLPP Operations Chief is responsible for coordinating all tactical response actions taken by MLPP or contract personnel. The Operations Chief should have a general understanding of response actions including equipment isolation, product containment, fire suppression systems, equipment repair, decontamination systems, etc. The Operations Chief will work closely with response agencies and clean-up support contractors to develop and implement operational (tactical) incident action plans within the requirements of the Health & Safety Plan.

Operations Chief Responsibilities:

- Receive briefing of incident
- Coordinate with IC to discuss priority response actions
- Determines available resources and initiate requests for additional resources as needed
- Anticipate the need for relief of position and coordinate work schedules
- Assist with creating operational (tactical) Incident Action Plans based on projected response needs
- Identify and mitigate hazards associated with the tactical response
- Establishes relations with on-scene Fire Department and Agency Operations Chief if available
- Directs MLPP personnel and emergency response contractors performing operations activities
- Establishes communication with Safety Officer
- Reviews and ensures communication of the H&S Plan to MLPP personnel and emergency response contractors performing operations activities
- Ensures Decontamination system is set-up and functional prior to Hot Zone entry
- Keep IC apprised of tactical progress
- Attend briefings and planning meetings, as necessary
- Maintain or ensure documentation of:
- Resource requests (equipment and contractors)
- Operational (tactical) incident action plans
- Coordinate with Safety Officer to update H&S Plan, as necessary
- Assist with preparation of waste management plans

Related USCG NIIMS Forms:

- Incident Action Plan (IAP)
  - Response Objectives (ICS-202)
  - Assignment List (ICS-204, ICS-204a)
- Unit Log (ICS-214)

INCIDENT COMMAND SYSTEM

PLANNING OFFICER

The MLPP Planning Officer is the closest to what could be considered an "Assistant IC". The Planning Officer works closely with the IC to manage information flowing to and from the command post. The Planning Officer plays a critical role in ensuring adequate documentation of the incident (e.g. Incident Action Plans, critical communications, meeting minutes, etc.). Additional responsibilities may differ depending on the complexity of the incident and the needs of the IC.

Planning Officer Responsibilities:

- ❑ Receive briefing of incident
- ❑ Coordinate with IC to discuss priority response actions
- ❑ Participate in Incident Action Plan development by evaluating alternative strategies and tactical operations plans that anticipate changing requirements
- ❑ Identify resource needs
- ❑ Ensure the MLPP ICS organization chart is being developed for future posting
- ❑ Collect, evaluate, and disseminate timely and pertinent incident information and event status
- ❑ Log important communication transmissions
- ❑ Establish contact with on-scene fire department and agency Planning Officer(s)
- ❑ Assist IC to ensure that briefings and planning meetings are scheduled regularly
- ❑ Communicate up-coming briefing/meeting times
- ❑ Ensure documentation of Incident Action Plans
- ❑ Consider development of a waste management plan for anticipated response wastes
- ❑ Assure good documentation is being kept by all participants
- ❑ Compile an accurate and detailed record of all aspects of the incident from commencement to termination of the response operations
- ❑ Collect and disseminate weather data, as necessary
- ❑ Anticipate the need for relief of position
- ❑ Plan for demobilization

Related USCG NIIMS Forms:

- ❑ Executive Summary – To update IC
- ❑ MLPP ICS Organization Chart (Site H&S Plan)
- ❑ Meeting Summary (ICS-231)
- ❑ IAP Operational Planning Summary (ICS-215)
- ❑ Unit Log (ICS-214)

INCIDENT COMMAND SYSTEM

STAGING OFFICER

The MLPP Staging Officer manages the first access control point into the emergency, known as the Staging Area. Any MLPP responders, emergency response contractors, equipment, regulatory agency representatives and visitors will be required to check in with the Staging Officer before entering the incident site. Once arriving personnel or equipment have checked-in, the Staging Officer is responsible for communicating this information to the appropriate ICS position for further direction.

Staging Officer Responsibilities:

- ❑ Receive briefing of incident
- ❑ Coordinate with IC to establish a defined Staging Area
- ❑ Ensure Staging Area is clearly visible to everyone arriving at the scene (e.g. put up a "STAGING" sign)
- ❑ Develop Incident sign-in sheet
- ❑ Ensure all MLPP responders, contractors, agency representatives and visitors sign-in
- ❑ Work with Safety Officer to conduct H&S Plan briefings for arriving personnel
- ❑ Request a copy of the H&S Plan be posted at the Staging Area
- ❑ Coordinate with lead agency Staging Officer(s)
- ❑ Control traffic flow and parking within the Staging Area
- ❑ Coordinate with Logistics Officer to manage and track arriving resources
- ❑ Work closely with Logistics and Operations to coordinate swift dissemination of resources
- ❑ Coordinate with Liaison Officer to ensure agency personnel receive appropriate consideration
- ❑ Anticipate the need for relief of position

Related USCG NIIMS Forms:

- ❑ Incident Sign-in Sheet (ICS-202)
- ❑ Unit Log (ICS-214)

INCIDENT COMMAND SYSTEM

LOGISTICS OFFICER

The MLPP Logistics Officer is responsible for the procurement of response resources. Response resources may include equipment as well as personnel. Most resources will be requested by the Operations Chief and be used in tactical response efforts. However, additional resources may be requested to assist with managing the emergency such as communication equipment, restroom facilities, food, and drink, etc.

Logistics Officer Responsibilities:

- ❑ Receive briefing of incident
- ❑ Coordinate with IC and Operations Chief to discuss priority response resources
- ❑ Request inventory of resources already mobilized
- ❑ Order and arrange resources as requested by MLPP Command or agency staff
- ❑ Get clear understanding of resource priorities
- ❑ Establish contact with on-scene agency Logistics Officer(s)
- ❑ Gather pertinent information when ordering (ETA, contact person, etc.)
- ❑ Inform Staging of anticipated resources
- ❑ Coordinate with Operations Chief to allocate resources upon arrival
- ❑ Assure good documentation of resource requests, procurement, and availability
- ❑ Coordinate with Safety Officer to update H&S Plan, as needed
- ❑ Ensure response personnel have adequate communications resources
- ❑ Create communications plan (i.e. radio channel use), if necessary
- ❑ Assist in preparing service and support elements of Incident Action Plan
- ❑ Estimate incident needs for next planning cycle
- ❑ Keep IC informed updated on resources, activities, and progress
- ❑ Oversee availability of necessities – food, drink, restroom facilities, rest areas, etc.
- ❑ Arrange hotel accommodations as needed
- ❑ Anticipate the need for relief of position

Related USCG NIIMS Forms:

- ❑ See “Planning Officer’s” List
- ❑ Unit Log (ICS-214)

INCIDENT COMMAND SYSTEM

LIAISON OFFICER

The MLPP Liaison Officer serves as a "go-between" linking the IC to various response and regulatory agencies, as appropriate. The Liaison Officer intercepts, greets and briefs response and regulatory agency representatives as they arrive on scene. It is the responsibility of the Liaison Officer to notify the IC before escorting anyone to the Command Post. Any Federal On-Scene Coordinator, State and Local ICs are to be escorted to the Command Post. A separate Liaison Area may need to be established to accommodate agency representatives not permitted to enter the Command Post.

Liaison Officer Responsibilities:

- ❑ Receive briefing of incident
- ❑ Coordinate with IC to discuss priority response actions
- ❑ Coordinate with lead agency Liaison Officer(s), if available
- ❑ Coordinate with Staging Officer to ensure agency personnel are directed to you
- ❑ Intercept, greet, brief and serve as the initial point of contact for response and regulatory agency representatives
- ❑ Ensure agency representative(s) have signed-in with Staging and reviewed H&S Plan
- ❑ Request identification (e.g. business card), as needed
- ❑ Inquire about agency responsibilities and potential concerns
- ❑ Inquire about agency's potential support abilities (e.g. expertise, resources)
- ❑ Relay information to IC or request whether agency representative should be escorted to the Command Post
- ❑ Anticipate need for a Liaison Area –establish and communicate the location, if needed
- ❑ Provide on-going briefings to agency representatives, as needed
- ❑ Keep IC apprised of arriving agency representatives
- ❑ Anticipate the need for relief of position
- ❑ Maintain a log of agency representatives
- ❑ Coordinate with Safety Officer to update H&S Plan, as needed

Related USCG NIIMS Forms:

- ❑ Unit Log (ICS-214)

INCIDENT COMMAND SYSTEM

PUBLIC INFORMATION OFFICER (PIO)

The MLPP Public Information Officer (PIO) is responsible for managing the media during emergencies. This is most effectively done through coordination with the IC, MLPP Public Affairs Office and lead agency PIO(s). The MLPP PIO coordinates with the IC and lead agency PIO(s) to manage media representatives at the incident (through establishing a Media Area and scheduling briefings). The MLPP PIO coordinates the development and release of appropriate media information with the MLPP Public Affairs Office.

PIO Responsibilities:

- Receive briefing of incident
- Coordinate with IC to discuss priority media management actions
- Serve as the central clearing point for the dissemination of official information
- Resolve conflicting information and identify media concerns
- Anticipate need for and establish a Media Area
- Coordinate with lead agency PIOs – request one if necessary
- Coordinate with the MLPP Public Affairs Office for development and release of appropriate media information
- Provide general MLPP press release form, as appropriate
- Keep IC apprised of media management activities
- Schedule, organize and conduct media briefing, interviews, and tours, if needed
- Anticipate the need for relief of position
- Maintain a log of agency PIOs, news media, news releases etc.

Related USCG NIIMS Forms:

- Unit Log (ICS-214)

INCIDENT COMMAND SYSTEM

FINANCE OFFICER

The MLPP Finance Officer is responsible for all financial and cost analysis aspects for the incident. The Finance Officer needs to keep the MLPP IC aware of all financial matters relating to the incident and provide possible cost savings recommendations for the incident. The Finance Officer is also responsible for ensuring that all financially related documentation is completed and maintained.

The Finance Officer position is usually only assigned for high-level, multi-agency emergencies, such as a significant release on water.

Finance Officer Responsibilities:

- ❑ Receive briefing of incident
- ❑ Coordinate with IC to gather information on overall strategy
- ❑ Coordinate with the Logistics Officer to determine resource needs
- ❑ Meet with cooperating agencies as required
- ❑ Provide financial and cost analysis input in planning meetings
- ❑ Track time records for employees and contractors
- ❑ Track costs associated with equipment rental, field purchases and other expenses
- ❑ Track and review compensation and claims that are filed due to the incident
- ❑ Ensure that required documents for the incident are properly completed and maintained
- ❑ Ensure that the amount of time equipment is used/assigned for the incident is recorded
- ❑ Participate in demobilization planning

Related USCG NIIMS Forms:

- ❑ Unit Log (ICS-214)

INCIDENT COMMAND SYSTEM

DECONTAMINATION PROCEDURES

Decontamination is required whenever contamination is suspected, in order to prevent further spread. It may apply to responders, victims, equipment, and property. Personnel decon may be necessary any time responders leave the hot zone to receive tools, change air cylinders, exchange information, repair damaged suits, or at completion of tasks.

1. The decon area should be set up in the warm zone, upwind/upgrade of the release.
2. Define the perimeter with barricades, tape, or cones.
3. Decon setup should be completed prior to entry into the hot zone.
4. Decon personnel must be in proper protective equipment (PPE) – generally one level below hot zone workers.
5. Avoid contact with contaminants by using long handled brushes, mops, etc.
6. Water for dilution may be supplied by garden type hoses, fire hoses, or buckets/drums.
7. Hot zone workers may decontaminate each other using equipment and decon solutions left at the hot zone perimeter line.
8. Full consideration must be given to runoff control.

EMERGENCY PREVENTION/PRE-EMERGENCY PLANNING

(Incorporated by reference)

Procedures to prevent spills or releases of hazardous materials from becoming emergencies are included in the response guidelines throughout this plan. In addition, emergency prevention procedures and techniques at this facility are incorporated into various operating and maintenance procedures, specific operating plans, Company Standard Practices, and personnel training programs at the plant. They are not duplicated here, so that this response manual can remain streamlined and efficient, and response information can be retrieved and implemented quickly in an emergency. This manual and the training accompanying it constitute pre-emergency planning.

CRITIQUE OF RESPONSE AND FOLLOW-UP

Post emergency critiques will be conducted following any response actions. The purpose of critiques is for identification of lessons learned in the implementation of the plan, and to provide new information for follow-up revisions to the procedures in the plan.

The format for the critique is open forum, no-fault, and collaborative. Participants from any agencies or response contract groups involved will be included. The focus of the critique should be constructive and on the general response, not on individual performance. Topics should include the following:

- What actions/events helped or hindered the response activities?
- What were the pros and cons of the plan as applied to this event?
- What was left undone or could have been improved?

(end **INCIDENT COMMAND SYSTEM** section)

RESPONSE TO A

MEDICAL EMERGENCY

Information contained in this section provides direction to the Plant's Operating Department so that appropriate actions are followed to ensure that prompt medical care is provided should a medical condition threaten the health and wellbeing of on-site personnel. During a medical emergency, a clear understanding of organizational roles and responsibilities is necessary to ensure a prompt and proper response. A ***medical emergency*** for the purpose of this Section is an unexpected situation or sudden event that results in the need for immediate medical action. Any incident involving a medical emergency shall be acted upon according to the guidelines established by this section.

INITIATING MEDICAL EMERGENCY RESPONSE

In general, the nature and magnitude of any incident will govern the level of response necessary. The following steps should be taken for any medical emergency.

PERSON DISCOVERING THE INCIDENT

1. ISOLATE machinery, tools or equipment and ensure any remaining hazards are mitigated.
2. TAKE NOTICE any significant circumstances and make general observations at the scene of the injured
3. NOTIFY the Control Room Operator (CO):
   - Plant phone: **7333**
   - Cell phone & 24-hr number: **831-633-7333**
   - Radio: **CONTROL ROOM OPERATOR**
4. STAY ON THE LINE and have the following information ready to communicate to the CO:
   - LOCATION of injured person and the caller,
   - NAME – of injured person and the caller,
   - CONDITION – of injured person,
   - ACTIONS – that have already been taken,
   - RESCUE – type of help you need, and whether ambulance and/or rescue is needed.
     - **NOTE:** If attempting a rescue, the following must be done:
       - Sound the alarm,
       - Protect oneself
       - Rescue.
   - Any other information the CO may need. Remember, stay on the line until released by the CO.

CONTROL ROOM OPERATOR

1. COLLECT INFORMATION from the caller related to the medical emergency to assess the response needed:
   - Time call received,

RESPONSE TO A
MEDICAL EMERGENCY

- Name of caller,
- Name of injured,
- Exact location, and
- Type of medical emergency and condition of the injured person.

2. NOTIFICATIONS:
   - DISPATCH FIRST AID TRAINED PERSONNEL & THE OPERATIONS SHIFT SUPERVISOR, if not already present at the scene.
     - Notify using the Emergency Channel
       - STATE: location and condition of injured, and assistance needed so that the person(s) may promptly respond with the necessary medical supplies.
     - Request that a SITE TRAUMA KIT and an AED be transported to the incident location.
   - **CALL 9-1-1** to request off-site emergency assistance.
   - **CALL** Main Gate Guard at (831) 251-8475.
   - and dispatch two Operators (one for fire dept., one for ambulance) to direct off-site emergency response personnel to the emergency location.
3. MONITOR and COORDINATE COMMUNICATIONS from the control room between plant IC and the off-site medical responders, as appropriate.
4. DOCUMENT incident actions and maintain a timeline of events.

INCIDENT COMMANDER

1. INITIATE INCIDENT COMMAND SYSTEM [IC ⇒ ***ORANGE TAB***]
   - Clearly communicate who is IC (The person that takes command will announce on the radio that they are the IC).
   - Designate other IC positions, as necessary
2. Immediately REPORT to the emergency location.
3. SIZE UP safety/medical/rescue needs.
4. ENSURE medical support is promptly and efficiently directed to the location of the injury.
5. COORDINATE safety/medical/rescue activities with the off-site emergency responders.

   (Prepare for command changeover.)
6. COMMUNICATE continuously throughout the incident to ensure resources are available and actions are effective.
   - Secure the incident site.
   - Begin the investigation as soon as possible.
   - Turn facility back to MPLL
7. EXTERNAL NOTIFICATIONS
   - OSHA: Contact OSHA within 8-hours if the emergency results in the following:
   - A fatality,

RESPONSE TO A

MEDICAL EMERGENCY

- A serious injury or illness which may require inpatient hospitalization for a period exceeding 24-hours for other than medical observation,
- A loss of any member of the body, and/or
- Any significant degree of permanent disfiguration

Cal/OSHA, District Office-Fremont .....(510) 794-2521

- IF the incident results in a death, an injury or illness requiring hospitalization, a report to an agency, damage to the plant property (>$50,000), or significant negative media coverage (circulating audience of 50,000 or more persons), then within 24-hours send a written e-mail message to the following:
  - Event notification, CPUC .....EGPBIR@CPUC.CA.gov

Note: Copy the Plant Manager and the Environmental Manager on the e-mail report.

8. INTERNAL NOTIFICATIONS
   a. MANAGING DIRECTOR/PLANT MANAGER or his designee.
      Will make necessary calls to Company numbers, located in the Blue Section, Page TC-3.
9. DOCUMENTATION
   1. Secure accident site
   2. Investigate and document the incident
   3. Use Attachment, the Significant Event Initial Information form, to document the incident.

Notice for MLPP Personnel Not Directly Supporting the Emergency

During an emergency, all MLPP personnel that do not have a designated emergency response function should refrain from going to the emergency scene, and/or call the Control Room unless specifically asked to do so by responding personnel.

RESPONSE TO A

MEDICAL EMERGENCY

SUPPLEMENTARY INFORMATION

LITHIUM-ION BATTERY STORAGE FACILITIES

- NOTE: Only TRAINED first responders with appropriate personal protective equipment should approach a venting battery product or equipment
- INHALATION:
  - If a person has inhaled Electrolyte Vapor, Vent Gas or smoke immediately move the person into fresh air.
  - If the patient has breathing problems seek medical attention immediately.
- CONTACT WITH LEAKED ELECTROLYTE:
  - If a person has come into contact with electrolyte wash the area with plenty of soap and water.
  - All clothing that has come into contact with electrolyte must be remove immediately.
  - Seek medical assistance if there is a chemical burn or if irritation persists.
  - Eye contact flush eyes with copious amount of water for a minimum of 15 minutes. Do not rub the eyes. Seek medical attention.

RESPONSE TO A

MEDICAL EMERGENCY

HOSPITAL LOCATIONS

- **Salinas Valley memorial Hospital**
  450 E. Romie Lane
  Salinas, CA
  (831) 757-4333

  Take Highway 1 south
  Turn left on 183 to Salinas
  Turn left on Pajaro
  Turn left on Romie Lane.

- **Watsonville Community Hospital**
  75 Nielson St.
  Watsonville, CA
  (831) 724-4741

  Take Highway 1 North
  Take Airport Blvd. East
  Turn left onto Airport Blvd
  Turn Right on Nielson Street

RESPONSE TO A

MEDICAL EMERGENCY

Significant Event Initial Information Form

This event information form is for capturing as quickly as possible the relevant information about a significant environmental or equipment event.

Brief Description of Event: _____

Immediate Actions Taken:

Location of Event:

Date and Time of Event:

Work Order Number:

Shift Supervisor:

1. List all the individuals involved in the event.

2. Were there any interfacing teams, groups, contractors involved? If so, list them and their relationship to the event.

3. What were the conditions during the event? (in start up, in process, environmental conditions, working conditions, resources assigned, etc.)

4. What were the indicators that the event had taken place? (Alarms, unusual noise, visual observation, etc.) or the likely causes.

5. Individuals' description of the sequence of events. Instruct each involved person to write down a summary of the work activity/task performed, their observations and actions prior to, during, and immediately following the event. Individuals should be encouraged to include suggestions to prevent or mitigate future occurrence of the event.

6. California Energy Commission (CEC) Com-13 Incident reporting requirements.

   A) A brief description of the incident, including its date, time and location:

   B) A description of the cause of the incident, or likely causes if it is still under investigation.

RESPONSE TO A
MEDICAL EMERGENCY

C) The Location of any off-site impacts

D) Description of any resultant impacts;

E) A description of emergency response actions associated with the incident;

F) Identification of responding agencies;

G) Identification of emergency notifications made to federal, state, and/or local agencies;

H) Identification of any hazardous materials released and an estimate of the quantity released;

I) A description of any injuries, fatalities, or property damage that occurred as a result of the incident;

J) Fines or violations assessed or being processed by other agencies;

K) Names, phone number, and e-mail address of the appropriate facility contact person having knowledge of the event: and

L) Corrective actions to prevent a recurrence of the incident.

EVACUATION PLAN

Potential emergencies, such as operational emergencies, fire, explosion, release of hazardous material or hazardous waste, bomb threat or an earthquake may require that personnel evacuate portions of, or the entire facility. This section establishes actions to be taken if it is necessary to evacuate personnel or the public from locations within or around the facility.

NOTE: For conditions requiring an immediate evacuation of all Plant personnel including Operating Personnel and leaving the plant shut down in the most adequate condition for the circumstance, refer to ***the MLPP Procedure Library, Volume 10 Operating Procedures Units 1 & 2 and Units 6 & 7 Emergency Operating Orders.***

EVACUATE SIGNAL

- **OSCILLATING SIREN, for one minute** – accompanied by a **RADIO BROADCAST** over the emergency channel. When the siren is operating communications could be difficult. The emergency message should be repeated by a radio broadcast once the siren has stopped.

EVACUATION ASSEMBLY AREAS

Upon hearing the evacuation signal, all persons should:

- Ensure that nearby personnel are aware of the emergency.
- If safe, quickly secure any work that might otherwise be a hazard.
- Evacuate the area immediately
  - If it is a gas release or smoke from a fire respond to the upwind assembly area.
  - Use nearest safe exit without walking through the building or operating area. Then walk around any structures to reach the designated assembly area.
  - Close doors as you exit.
  - Do not stop to pick up personal belongings.
  - Do not linger to finish tasks.
- Essential Personnel (Operations): Report to the Control Room for direction/instruction.
  - The ONSHIFT SUPERVISOR on shift will account for Operations personnel using the 7:00 am/pm log.
  - Radio the count (all accounted for or missing) to the IC at the assembly area.
- Non-Essential Personnel (Administration, Maintenance, Visitors, Contractors, etc.): Report to the designated on-site evacuation assembly area**.**

EVACUATION ASSEMBLY AREA - #1:
- Assembly Room by the flagpole next to Highway 1 gate

EVACUATION ASSEMBLY AREA - #2:
- West side of Ammonia Pad (5-30,000 Gallon Tanks)

EVACUATION ASSEMBLY AREA - #3:
- South-west of the Energy Management Center (EMC)

EVACUATION PLAN

(See **EVACUATION ASSEMBLY AREAS** in **MAPS** ⇒ ***GREEN TAB***)

If a designated Assembly Area is or becomes unsafe, this will be communicated by the IC or his designee. All personnel will be instructed to proceed to another Evacuation Assembly Area or to an off-site location to be determined by the Incident Commander (IC).

- The IC shall insure a copy of the Contractor Work Hours Collection Sheet from both the Security Gate and the Security Trailer are brought to Assembly Areas.
- The IC or his/her designee shall obtain a print-out of the Muster Report from the Plant Manager's Administrative Assistance of the EMC.

ACCOUNTABILITY OF PERSONNEL

A head count shall be conducted at each Evacuation Assembly Area.

- All personnel are to report to their immediate Supervisor
  - If you're immediate Supervisor is not available, report to any available Supervisor or a Shift Supervisor.
- Contractors and Visitors are to report to their MLPP point of contact.

IF YOU DO NOT REPORT TO THE AREA, YOU MAY BE DETERMINED MISSING AND A SEARCH WILL BE UNNECESSARILY CONDUCTED.

- Supervisors and Shift Supervisors will begin accounting for personnel that fall under their supervision.
- Supervisors and Shift Supervisors are to determine if:
  - Anyone is unaccounted for
  - Anyone is "extra"
  - All Contractors (and their employees) are accounted for
  - All Visitors are accounted for
  - If employees have information on last known locations of missing persons, they should report the information to a Shift Supervisor. Shift Supervisor's will then relay the information to the IC.

If anyone is needed for response efforts, they must first notify their Supervisor before leaving the Evacuation Assembly Area.

- Shift Supervisor(s) and Supervisors at any designated Assembly Area should then coordinate information and SELECT ONE SUPERVISOR TO RELAY THE INFORMATION TO THE IC.
  - The IC could potentially receive three (3) reports of accountability – one from each Assembly Area.
  - The report shall include personnel status: present and accounted for or missing. For 'missing' personnel, query employees that may have information on the last know location of the missing person and relay this information to the IC.

EVACUATION PLAN

- Based on the information received, the Contractors Sign-in Sheet and the Visitors Log, the IC will determine if there are any missing persons. Depending on the emergency, the IC may choose to conduct a search for missing persons using company personnel or wait for outside emergency services to conduct the search.

- All employees shall wait in the Evacuation Assembly Areas for further instructions. Do not leave the area unless instructed to do so by the Incident Commander. If an employee is instructed to leave the Assembly area, provide the employee with a radio for communications.

- If and when appropriate the IC may issue an "All Clear" by communication with the EMC.

  - The "All Clear" determination must be agreed upon by at least two members of the IC Team. The "All Clear" may only be issued after it has been verified that no threat or hazard to human health, the environment, or company property exists.

  - Communicate an ALL CLEAR by activating the oscillating siren for 10 seconds and broadcasting an "All-Clear" over the radio, utilizing the emergency channel.

  - Secure the incident area by physical barriers or by posting a person.

  - Begin the investigation as soon as possible.

INTERNAL NOTIFICATIONS

- All incidents shall be reported to:
  1. PG&E Moss Landing Switching Center.....(707) 449-6717
  2. Plant Manager/Managing Director or his designee.

Will make necessary calls to Company numbers, located in the Blue Section, Page TC-3.

Community Notifications

- In the event that hazardous material may leave the fence line of MLPP then the following must be notified. Any release, or threatened release, of hazardous material that has the potential for off-site impact, and/or could significantly impact human health or the environment, must be reported immediately upon discovery to:

  - North County Fire Department (NCFD).....**911**
  - Monterey County Department of Emergency Management …. (831) 755-8969
  - Monterey County Rescue/Office of Emergency Service…….. (831) 796-1901
  - Monterey County Health Department .....(831) 755-4500
  - California Office of Emergency Services (Cal OES) .....(800) 852-7550
  - Monterey Bay Air Resources District (MBARD) .....(831) 647-9411
  - DOSH Local District Office (Cal DOSH)…… …… .(510) 794-2521
  - Monterey County Sheriff's office (non-emergency number) .....(831)-647-7911
  - Monterey County OES ……(831) 796-1905

EVACUATION PLAN

- Notification of Neighbors

In the event that one or more of the neighbors may be affected, the IC or his designee will immediately call the potentially affected neighbor (S). Below is the list of neighbors and contact information.

Contact	Phone Number	Comments
PG&E's Vacaville Grid Control Center (Moss Landing Desk)	(707) 449-6717	Incidents that may impact their facilities or personnel.
PG&E's Moss Landing Substation Supervisor	(831) 227-0581	Incidents that may impact their facilities or personnel.
Moss Landing Harbor District	(831) 633-5417 or (831) 633-2461	Incidents that may impact the harbor.
South side neighbor: Moss Landing Commercial Park.	(831) 818-2144 (831) 594-9711	Incidents that may impact their facilities or personnel.
East side neighbor: Louis Calcagno	(831) 208-1944	Incidents that may impact his farm.
North side neighbor: Vierra Property	(831) 633-3424 or (415) 450-5393	Incidents that may impact his farm.

PLANT EVACUATION - OFF-SITE

- An off-site evacuation assembly area will be determined and communicated by the IC based on the type of emergency, wind direction, and other factors. The IC may obtain information on wind and weather conditions from the onsite weather station by contacting the Shift Supervisor or Environmental Manager.

- The IC will contact the Shift Supervisors via portable radio or mobile phone and give them instructions to begin off-site evacuation.

- All persons should stay with their on-site assembly group for accountability purposes when evacuating to the off-site location.

EVACUATION PLAN

- Each essential employee responsible for Unit Shut down procedure during an Off-Site evacuation will be issued a full face escape pack to utilize during the evacuation process. These employees will be trained according to the manufacturer's instruction and fit tested

- Once the assembly groups arrive at the off-site assembly area the ONSHIFT SUPERVISOR will conduct a head count to ensure that all persons were safely evacuated off-site.

COMMUNITY EVACUATION / SHELTER-IN-PLACE

- The decision to execute community evacuation or shelter-in-place is the responsibility of local, state, and/or federal agencies.

- Implementation of such orders will be made through the Incident Command System

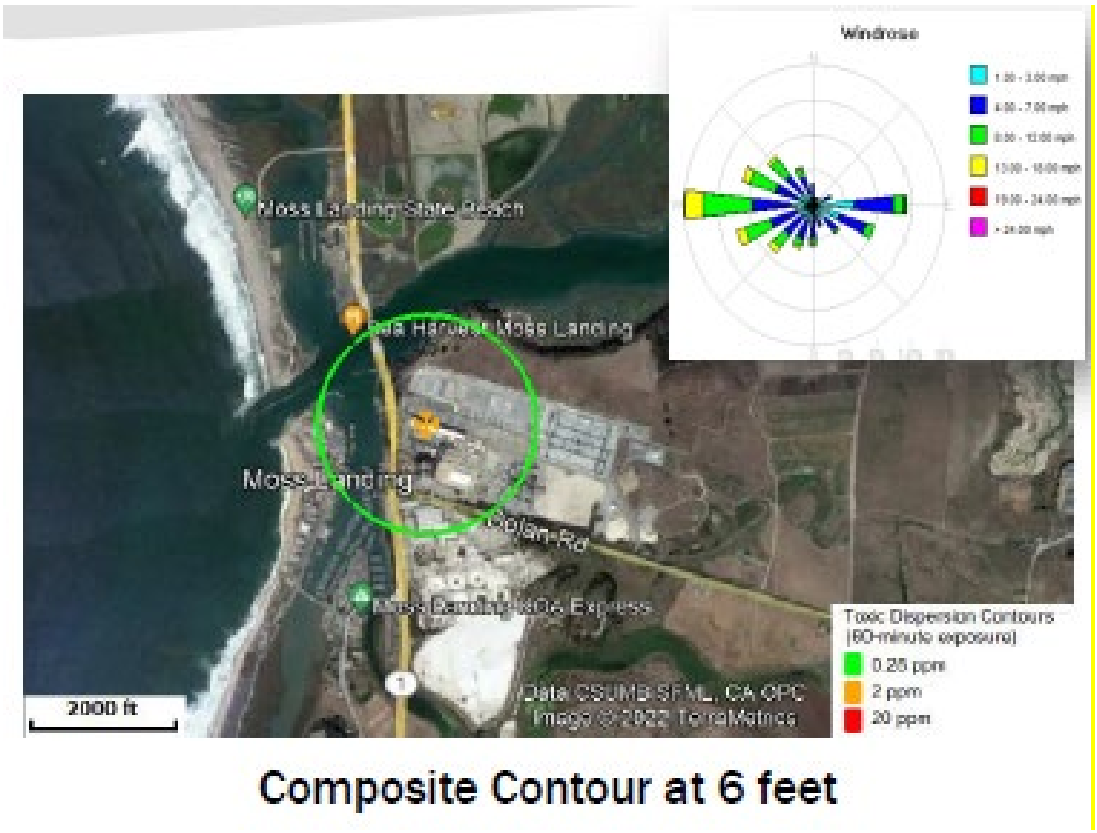
    - The IC may obtain information on wind and weather conditions from the onsite weather station by contacting the Shift Supervisor or Environmental Manager.

- Battery Fires
    - All fires produce products of combustion in the form of smoke. Smoke contains many components, most of which can be toxic.
    - Smoke plume modeling of Li-ion battery fires can aid in the process to decide evacuation, and shelter-in-place zones.
    - Modeling of potential smoke plumes has been performed for a variety of wind conditions based on a scenario involving combustion of a full rack of 22 battery modules.
    - This modeling predicts that the potential carbon monoxide ("CO") concentrations at ground level will not exceed the California OEHHA Acute Reference Exposure Levels ("RELs") in any wind conditions, and that the hydrogen fluoride ("HF") concentrations will not exceed the REL in most wind conditions.[1]
    - The only modeled scenario in which HF levels exceed the REL at ground level were for steady, sustained winds with a mean speed of 15.8 miles per hour. These wind conditions occur roughly 7% of the time. Under these wind conditions, the model estimates a worst-case downwind impact zone extending up to 1,360 feet for the REL. Below is a map showing the maximum potential downwind impact zones based on the REL (green line), for these wind conditions.
    - The potentially impacted areas will depend on the wind direction. As indicated by the wind rose, the prevailing winds are typically from west to east (onshore) but are at times from east to west (offshore).

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[1] The RELs are 23,000 $\mu g/m^3$ for CO; 240 $\mu g/m^3$ for HF.

EVACUATION PLAN

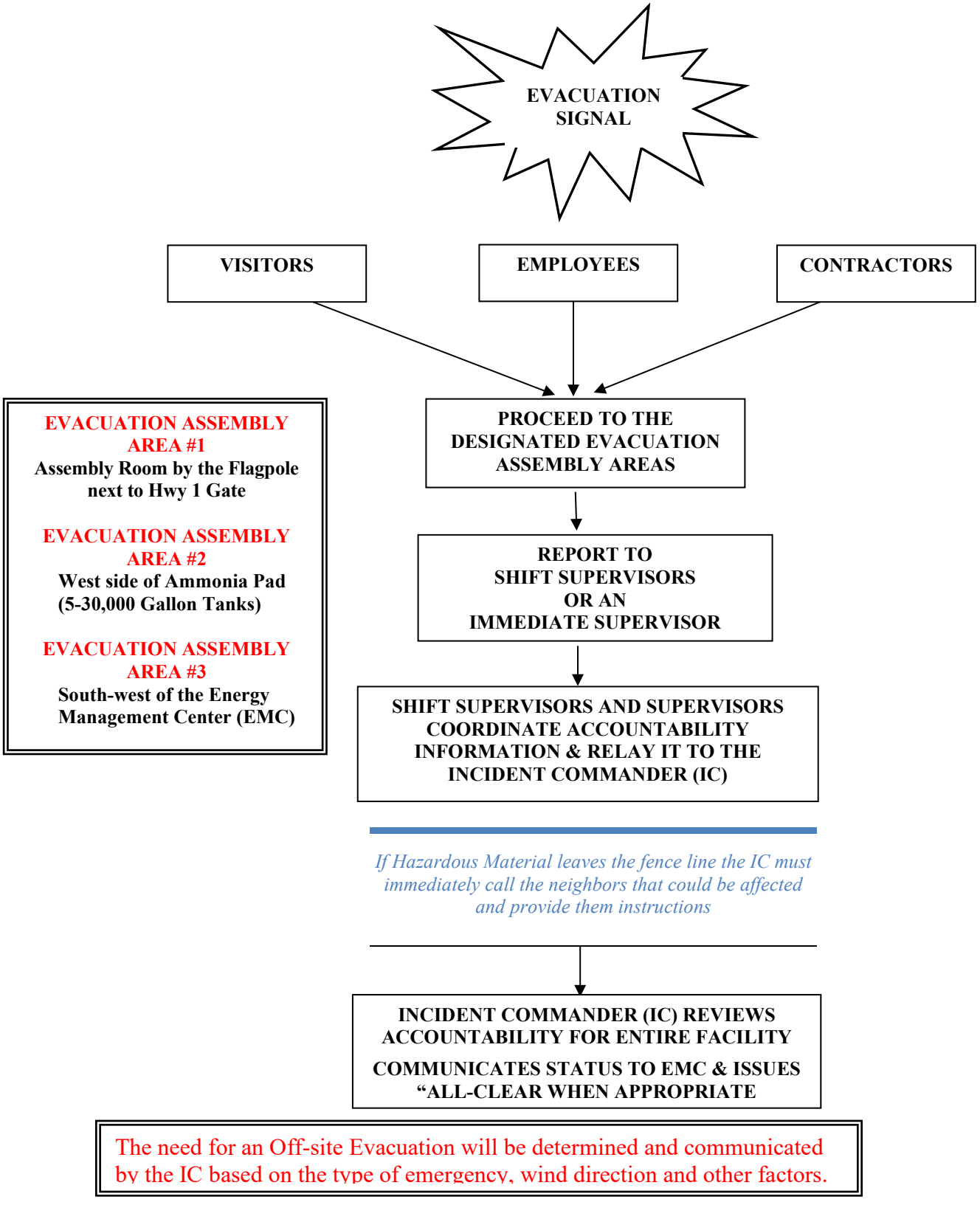


Composite Contour at 6 feet

FIGURE IS FOR MAXIMUM POTENTIAL HF CONCENTRATIONS AT SIX FEET ABOVE GROUND SURFACE UNDER STRONG, STEADY WIND CONDITIONS. DIRECTION OF IMPACTS WILL FOLLOW WIND DIRECTION

EVACUATION PLAN

FLOW OF EVACUATION ACCOUNTABILITY INFORMATION



GOVERNMENT RESPONSE ORGANIZATIONS and CONTACTS

NATIONAL RESPONSE CENTER ..... 1-(800) 424-8802

When a regulated quantity (RQ) of designated hazardous substances has been released into the environment, or oil has been released to waters of the state producing sheen or discoloration, this center is immediately notified. The center records the report, provides basic information on procedures for specific chemicals, and if necessary, alerts the Federal On-scene Coordinator, who may set the Regional or National response mechanism into action.

CALIFORNIA OFFICE OF EMERGENCY SERVICES (Cal OES)

Hazardous material spill reporting..... 1-800-852-7550
24-hour Warning Center (Headquarters) ..... (916) 845-8911

Immediate verbal notification to the CalEMA State Warning Center is required. CalEMA relays notifications to other agencies, coordinates the Mutual Aid Radio Communications System, and provides support.

(ALPHABETIZED)

CALIFORNIA COASTAL COMMISSION ..... (415) 904-5200
Santa Cruz, CA ..... (831) 427-4863
Energy, Ocean Resources and Water Quality Division ..... (415) 904-5240
(Land uses in coastal zone. Immediate notification of major spills within the coastal zone is requested)

CALIFORNIA DEPARTMENT OF FISH AND WILDLIFE

Oil Spills to Marine Water-Office of Oil Spill Prevention & Response(800) 852-7550 or (800) OILS-911
Monterey Field Office..... (831) 649-2870

CALIFORNIA DEPARTMENT OF TOXIC SUBSTANCES CONTROL (DTSC)

Emergency Response Duty Offices (M-F 8AM-5PM)..... (800) 260-3972
Emergency Response (Hazmat Emergency Response) ..... (916) 255-6504

CALIFORNIA DIVISION OF OCCUPATIONAL SAFETY AND HEALTH.... (510) 794-2521
Cal-OSHA, Fremont

CENTRAL COAST REGIONAL WATER QUALITY CONTROL BOARD..... (805) 549-3147

MONTEREY BAY NATIONAL MARINE SANCTUARY:

Weekdays ..... (831) 647-4201

GOVERNMENT RESPONSE ORGANIZATIONS and CONTACTS

MONTEREY BAY UNIFIED AIR POLLUTION CONTROL DISTRICT..... (831)-647-9411

MONTEREY COUNTY HEALTH DEPARTMENT, Environmental Div. ..... (831) 755-4505
Administering agency for Hazardous Materials Business Plan.

MOSS LANDING HARBOR DISTRICT ..... (831) 633-2461

NATIONAL OCEANIC AND ATMOSPHERIC ADMINISTRATION..... (206) 526-4911
(NOAA) (answer phone HazMat)
U.S. Department of Commerce
Office of Oceanography and Marine Assessment
Hazardous Material Response Branch

POISON CONTROL CENTER:
Regional Poison Control Center (UC San Francisco)..... (800) 222-1222

STATE FIRE MARSHAL
Pipeline Safety & CUPA ..... (916) 263-6300
Engineering Safety ..... (916) 263-6300

STATE LANDS COMMISSION
Long Beach Headquarters,..... (562) 499-6312
Northern California Field Office, ... (916) 574-1869

U.S. COAST GUARD (24 hour)
Live Watch (manned 24-hours), Los Angeles, CA..... (310) 833-1600
24-Hour Watch Marine Safety Office, Alameda ..... (415) 399-3547
District 11 Command, Alameda (24-hour emergency)..... (510) 437-3701

U.S. DEPT. Of TRANSPORTATION, PIPELINE & HAZMAT SAFETY ADMIN. (PHMSA)
Western Regional Headquarters ..... (720) 963-3160
(All HazMat Transportation and Pipeline accidents must be reported to National Response Center (800-424-8802) within 24 hours as required by DOT regulations)

U.S. ENVIRONMENTAL PROTECTION AGENCY (EPA)
Region IX (24-hour Duty Officer – Oil/Chemical Spill)..... (800) 300-2193
Public Information Center (general information) ..... (415) 947-8000

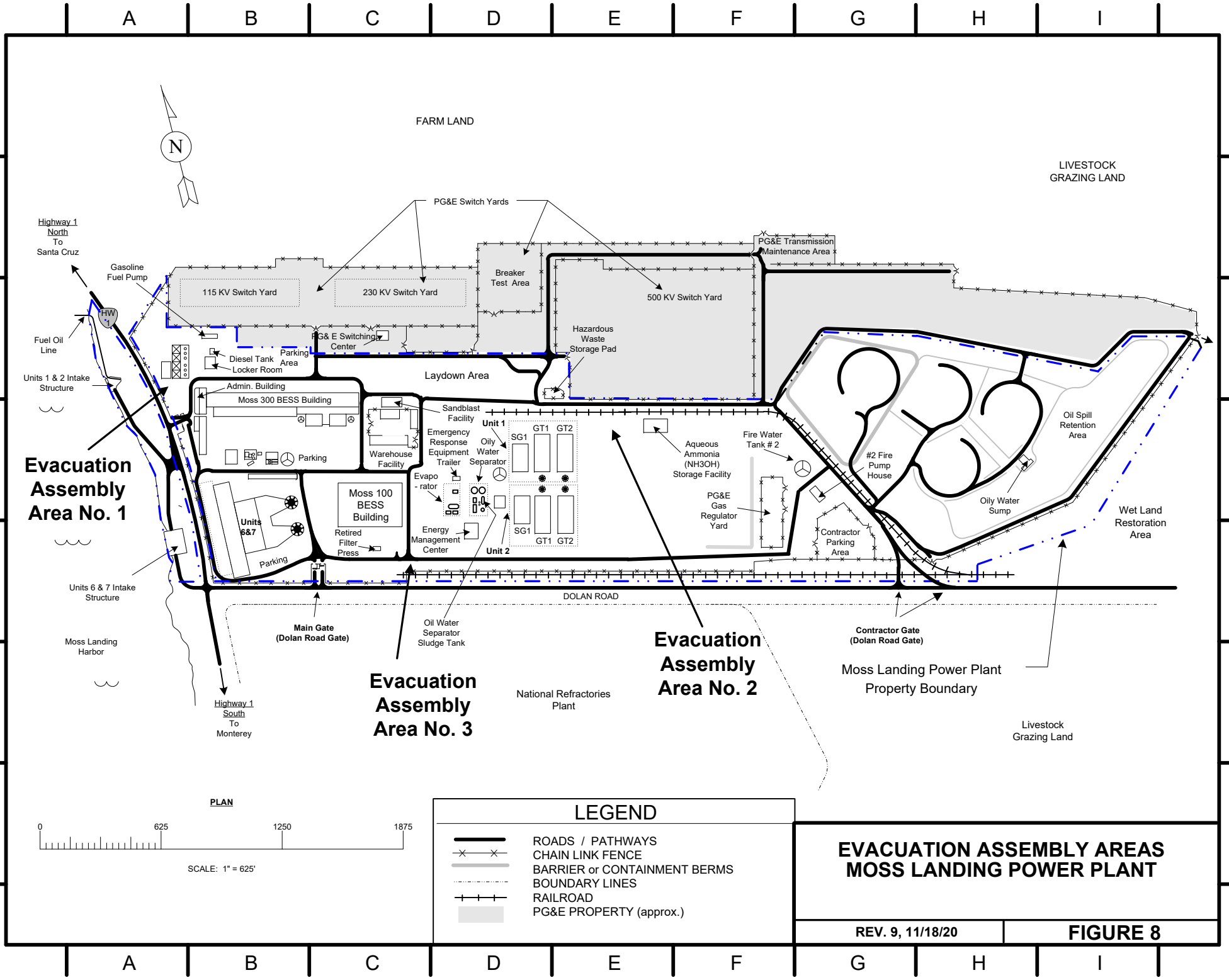
COMMUNITY NOTIFICATION NETWORK
MOSS LANDING POWER PLANT

In the event a catastrophic incident, additional community notifications may be advised. By "catastrophic", it is meant that the incident could result in public health concerns or raise significant questions from the community at large. In this case, it may be advisable to notify the officials listed below.

It is at the discretion of the MLPP Incident Commander (in coordination with outside response agencies) to determine whether an incident is "catastrophic" or whether it will greatly impact the surrounding community.

NOTIFICATIONS TO THE OFFICIALS LISTED BELOW ARE INTENDED AS A "COURTESY CALL" AND ARE TO BE MADE AT THE DESCRETION OF THE MLPP INCIDENT COMMANDER AND PUBLIC AFFAIRS MANAGER.

Contact	Phone Number	Comments
PG&E's Vacaville Grid Control Center (Moss Landing Desk)	(707) 449-6717	Incidents that may impact their facilities or personnel.
PG&E's Moss Landing Substation Supervisor	(831) 227-0581	Incidents that may impact their facilities or personnel.
Moss Landing Harbor District	(831) 633-5417 or (831) 633-2461	Incidents that may impact the harbor.
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EVACUATION ASSEMBLY AREAS MOSS LANDING POWER PLANT

REV. 9, 11/18/20

FIGURE 8