

GW - __15__

**H2S CONTINGENCY
PLAN**

(Gas Plant & AGI Well)

APPROVED

Nov 9, 2009

Chavez, Carl J, EMNRD

From: Chavez, Carl J, EMNRD
Sent: Friday, August 19, 2011 4:01 PM
To: Chavez, Carl J, EMNRD; 'Gonzales, Carl I'; 'Rebecca Voss'; VonGonten, Glenn, EMNRD
Cc: 'Bowhay, Glenn A'
Subject: RE: DCP Fullerton to Linam Pipeline H2S CP & Linam Ranch H2S CP (GW-015)

Mr. Gonzales, et al.:

Good afternoon. After checking the ROEs for the AGI Well associated with Linam Ranch, I notice that the worse case [H2S] is 5,700 ppm. However, the Fullerton to Linam Ranch Pipeline worse case [H2S] is 10,100 ppm. Consequently, DCP Midstream L.P. should re-evaluate it approved H2S CP associated with the Acid Gas Injection Well to determine if any modification are required based on an approximately 56% difference in concentration of [H2S].

Please double check your approved AGI Well H2S Contingency Plan to revise the ROEs based on the additional mole fraction of [H2S] and any other changes that this may affect for the AGI well facility.

Please contact me if you have questions. Thank you.

Carl J. Chavez, CHMM
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"Why not Prevent Pollution; Minimize Waste; Reduce the Cost of Operations; & Move Forward with the Rest of the Nation?" To see how, go to "Pollution Prevention & Waste Minimization" at:
<http://www.emnrd.state.nm.us/ocd/environmental.htm#environmental>)

-----Original Appointment-----

From: Chavez, Carl J, EMNRD
Sent: Friday, August 12, 2011 3:28 PM
To: 'Gonzales, Carl I'; Rebecca Voss; VonGonten, Glenn, EMNRD
Cc: Bowhay, Glenn A
Subject: DCP Fullerton to Linam Pipeline H2S CP
When: Thursday, August 11, 2011 3:00 PM-4:00 PM (GMT-07:00) Mountain Time (US & Canada).
Where: Tele Conference Call

Mr. Bowhay, et al.:

<< File: H2S CP Fullerton to Linam Pipeline Draft 8-11-2011.pdf >>

Subsequent to our telephone conference call yesterday, August 11, 2011, the OCD approves the 60 day period (submit by COB on October 11, 2011) for re-submittal of the above subject H2S Contingency Plan to address OCD issues provided in the attached OCD draft correspondence.

Please contact me or Mr. von Gonten in my absence if you have questions. Thank you.

Carl J. Chavez, CHMM

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<http://www.emnrd.state.nm.us/oed/environmental.htm#environmental>)

Glenn von Gonten

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Jones, Brad A., EMNRD

From: Jones, Brad A., EMNRD
Sent: Tuesday, November 17, 2009 5:03 PM
To: 'Boles, Burnace J'; Kardos, Gregory C; Lang, Ruth M
Cc: VonGonten, Glenn, EMNRD; Fesmire, Mark, EMNRD; 'Ocean Munds-Dry'; Lowe, Leonard, EMNRD
Subject: DCP Midstream Linam Ranch Gas Plant and AGI Wellsite H2S Contingency Plan

The Oil Conservation Division has completed the review of the DCP Midstream Linam Ranch Gas Plant and AGI Wellsite Hydrogen Sulfide (H2S) Contingency Plan, dated November 9, 2009, and has determined it to be adequate. DCP Midstream has submitted a H2S contingency plan that demonstrates compliance with the applicable provisions of 19.15.11 NMAC. DCP Midstream shall implement the H2S Contingency Plan immediately and provide copies of the plan to the appropriate parties identified on the distribution list provided in Appendix H.

Thank you for your cooperation in resolving the H2S contingency plan. The OCD appreciates all of the time and effort of you and your staff in making the appropriate revisions to the plan. If there are any questions regarding this matter, please do not hesitate to contact me at (505) 476-3487 or brad.a.jones@state.nm.us.

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(Plan not yet approved by NMOCD)

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2009 NOV 10 4 10:46



H₂S CONTINGENCY PLAN

**Linam Ranch Gas Plant
and AGI Wellsite
Hobbs, New Mexico**

DCP Midstream, LP.

November 9, 2009

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Appendix C - Radius of Exposure (ROE) Maps

Appendix D - Plant & AGI Wellsite Diagrams - Evacuation Routes, H₂S

Monitoring and Alarm Locations

Appendix E - Description of Emergency Response Equipment

Appendix F - H₂S Contingency Plan - Response Flow Diagrams

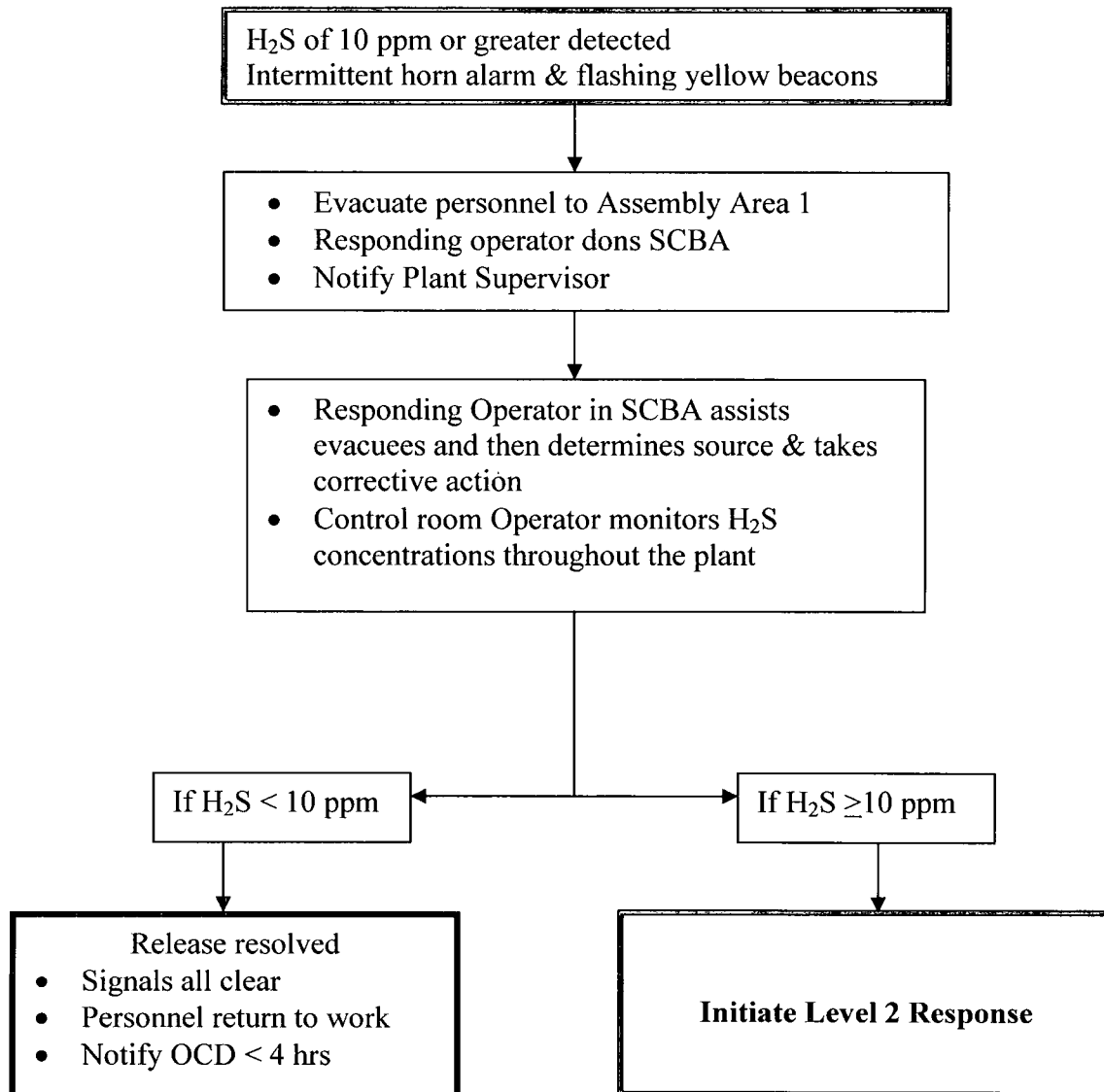
Appendix G - Emergency Call List

Appendix H - H₂S Plan Distribution List

Appendix I – Chronological Record of Events Log

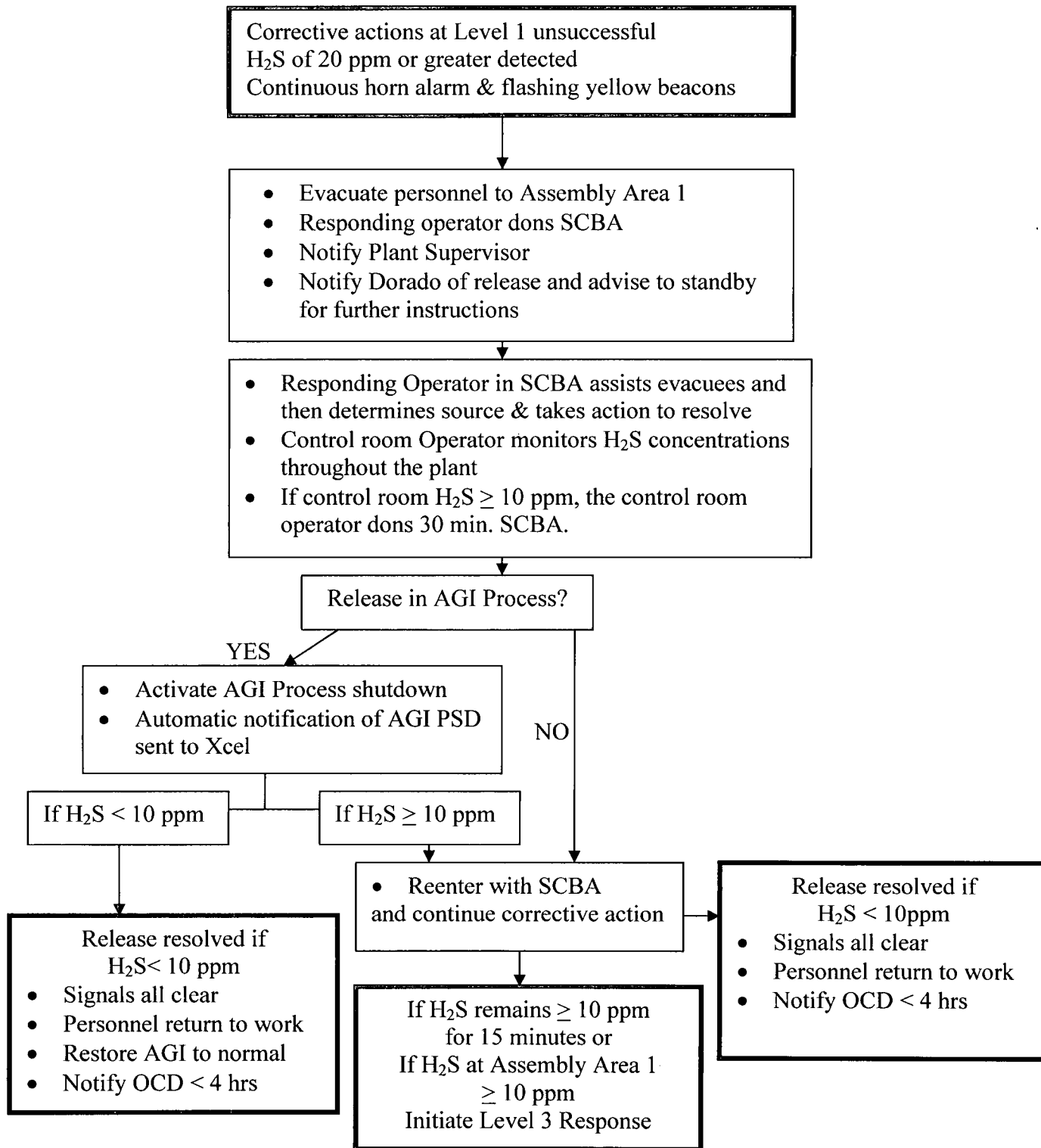
OPERATOR QUICK REFERENCE GUIDE

LINAM RANCH PLANT RELEASE LEVEL 1 RESPONSE



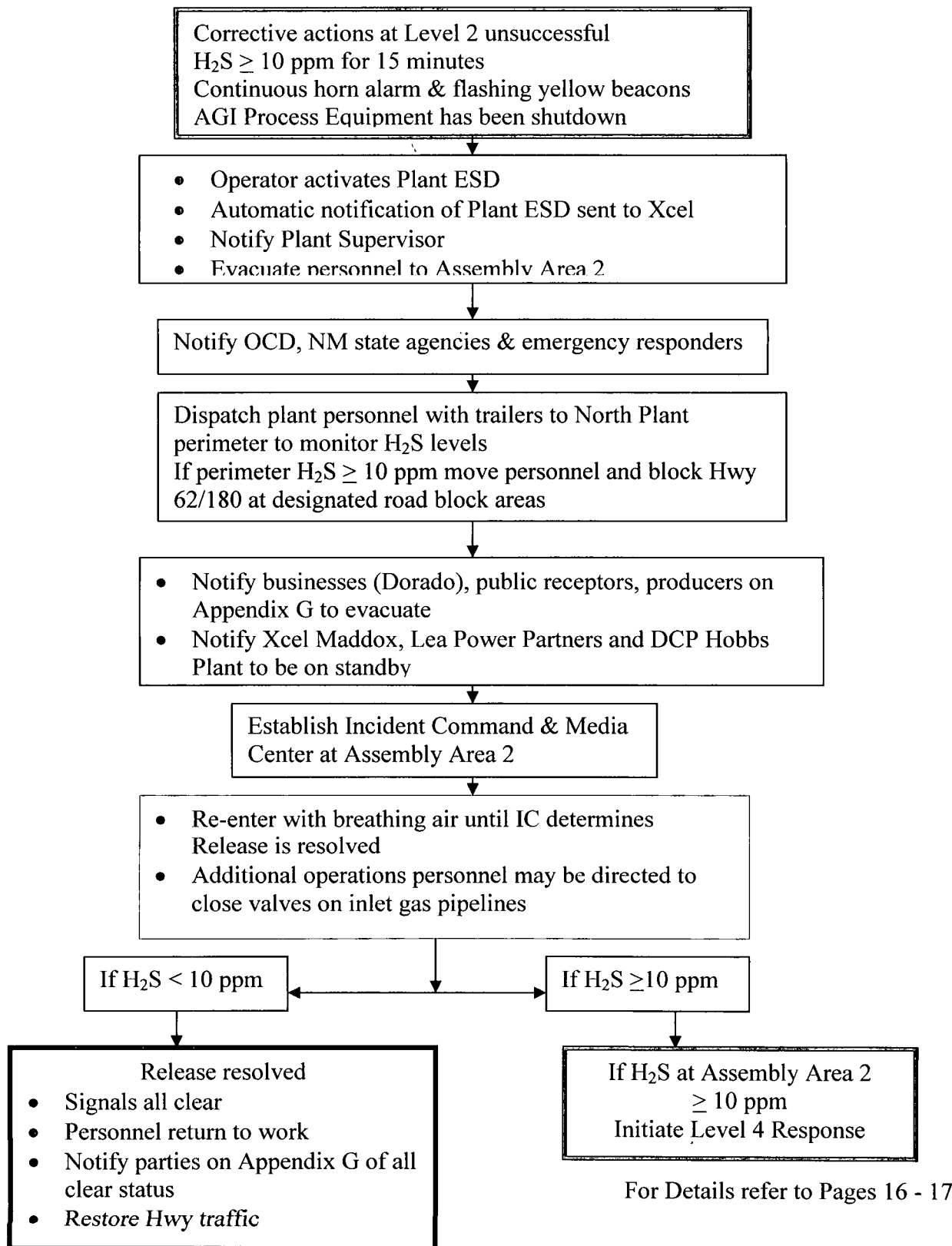
For Details refer to Page 14

LINAM RANCH PLANT RELEASE LEVEL 2 RESPONSE



For Details refer to Page 15

LINAM RANCH PLANT RELEASE LEVEL 3 RESPONSE



LINAM RANCH PLANT RELEASE LEVEL 4 RESPONSE

Corrective actions at Level 3 unsuccessful
 $H_2S \geq 10$ ppm at Assembly Area 2
Continuous horn alarm & flashing yellow beacons
Catastrophic release has occurred

- Activate Plant ESD
- Automatic notification of Plant ESD sent to Xcel
- Notify Plant Supervisor
- Notify OCD, NM state agencies & emergency responders

- Establish Incident Command & Media Center at Assembly Area 3
- Evacuate all personnel to Assembly Area 3.

- Plant personnel move to designated road block areas
- Monitor air quality and move further if H_2S reaches 10 ppm and notify IC of new road block location

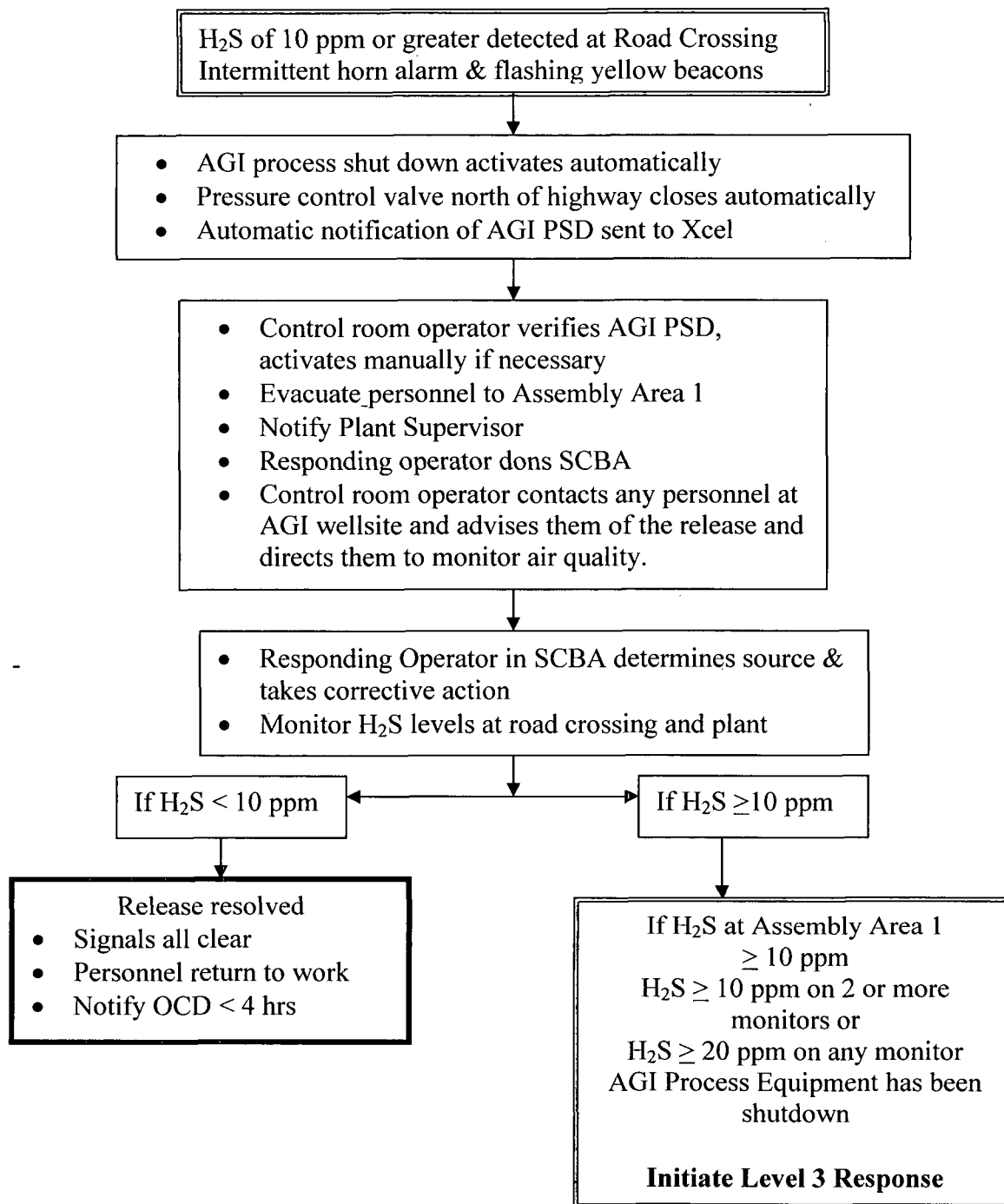
- Notify businesses, public receptors, producers on Appendix G to evacuate
- Advise Xcel Maddox, Lea Power Partners and DCP Hobbs Plant to evacuate west, avoiding Maddox Road
- Notify Smith Ranch to shelter in place or evacuate east, avoiding Maddox Road.

- Re-enter with breathing air until IC determines release is resolved
- Additional operations personnel may be directed to close valves on inlet gas pipelines

- When $H_2S < 10$ ppm
Release resolved
- Signals all clear
 - Personnel return to work
 - Notify parties on Appendix G of all clear status
 - Restore Hwy traffic

For Details refer to Pages 17 - 18

ROAD CROSSING RELEASE LEVEL 1 RESPONSE



For Details refer to Page 19

ROAD CROSSING RELEASE LEVEL 3 RESPONSE

Note: There is no LEVEL 2 Response for Road Crossing Release

Corrective actions at Level 1 unsuccessful
 $H_2S \geq 10$ ppm on 2 or more monitors
 $H_2S \geq 20$ ppm on any monitor
AGI Process Equipment has been shutdown
Intermittent horn alarm & flashing yellow beacons

- Operator activates Plant ESD and continuous H_2S alarm if necessary
- Automatic notification of Plant ESD sent to Xcel
- Evacuate personnel including all at AGI wellsite to Assembly Area 2
- Notify Plant Supervisor
- Notify Dorado to evacuate

Notify OCD, NM state agencies & emergency responders

Dispatch plant personnel with trailers to North Plant perimeter to block Hwy 62/180 at designated road block locations (Appendix C)

- Notify businesses, public receptors, producers on Appendix G to leave area
- Notify Xcel Maddox, DCP Hobbs Plant, and Lea Power Partners to shelter in place or evacuate, depending on wind direction.
- Notify Smith Ranch to shelter in place or evacuate, depending on wind conditions

Establish Incident Command & Media Center at Assembly Area 2

- Re-enter with breathing air until IC determines Release is resolved
- Additional operations personnel may be directed to close valves on inlet gas pipelines
- Monitor H_2S levels at road crossing and plant

If $H_2S < 10$ ppm

If $H_2S \geq 10$ ppm

Release resolved

- Signals all clear
- Personnel return to work
- Notify parties on Appendix G of all clear status
- Restore Hwy traffic

If H_2S at Assembly Area 2 ≥ 10 ppm
Initiate Level 4 Response

For Details refer to Pages 20 - 21

ROAD CROSSING RELEASE LEVEL 4 RESPONSE

Correction actions at Level 3 are unsuccessful
 $H_2S \geq 10$ ppm at Assembly Area 2
Continuous horn alarm & flashing yellow beacons
Catastrophic release has occurred

- Activate Plant ESD
- Automatic notification of Plant ESD sent to Xcel
- Notify Plant Supervisor
- Notify OCD, NM state agencies & emergency responders

- Establish Incident Command & Media Center at Assembly Area 3
- Evacuate all personnel to Assembly Area 3.

- Plant personnel with emergency trailers move to designated road block areas
- Monitor air quality and move further if H_2S reaches 10 ppm and notify IC of new road block location

- Notify businesses, public receptors, producers on Appendix G to evacuate
- Advise Xcel Maddox Station, Lea Power Partners and DCP Hobbs Plant to evacuate to the west, avoiding Maddox Road.
- Notify Smith Ranch to evacuate to the east. avoid driving south on ranch road.

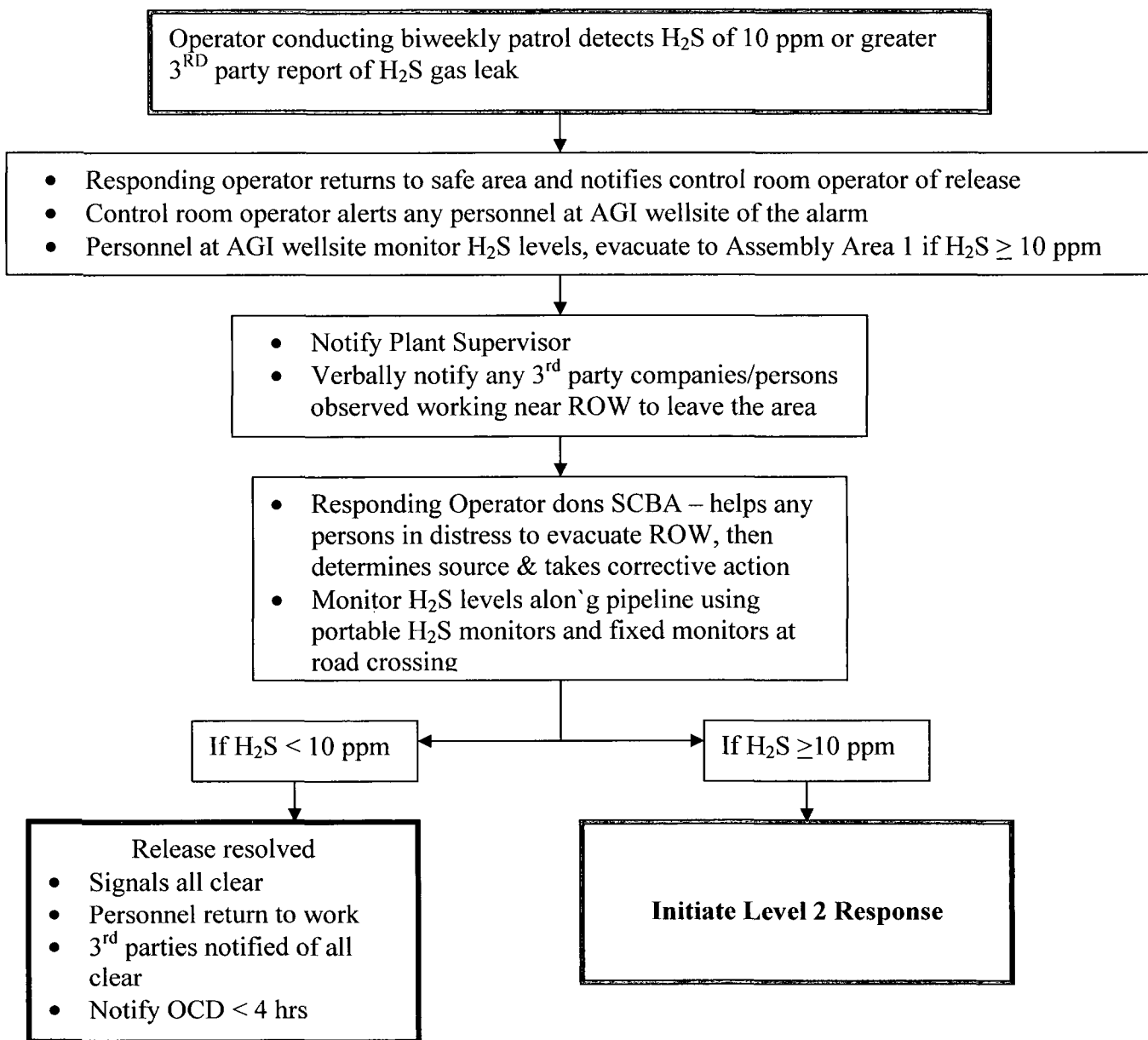
- Re-enter with breathing air until IC determines release is resolved
- Additional operations personnel may be directed to close valves on inlet gas pipelines

When $H_2S < 10$ ppm at Plant, Road Crossing, Road blocks & Assembly Areas - Release resolved

- Signals all clear
- Personnel return to work
- Notify parties on Appendix G of all clear
- Restore Hwy traffic

For Details refer to Pages 21 - 22

AGI PIPELINE RELEASE LEVEL 1 RESPONSE



For Details refer to Page 23

AGI PIPELINE RELEASE LEVEL 2 RESPONSE

Level 1 response unsuccessful
 $H_2S > 10$ ppm along pipeline and increasing
 $H_2S > 20$ ppm detected
Pipeline leak is visible

- Responding operator returns to safe area and directs the control room operator to activate the AGI process shutdown
- Automatic notification of AGI PSD sent to Xcel

- Control room operator directs any personnel at AGI wellsite to evacuate to Assembly area 1
- Verbally notify any 3rd party companies or persons observed working near ROW to leave the area.
- Notifies Plant Supervisor

- Control room operator directs personnel to depressurize pipeline into acid gas flare line at pig launcher and receiver
- Personnel or responding operator opens valves at AGI wellsite
- Incident Command Center set up at Assembly Area 1

- Responding operator dons SCBA, determines source & takes action to resolve
- Dispatch plant personnel with emergency trailers to Hwy 62/180 and Xcel Maddox Station to monitor wind direction and H_2S levels
- If H_2S levels reach 10 ppm at Hwy 62/180, Assembly Area 1 or at Xcel Maddox Station, initiate a Level 4 Response. Go to next page AGI PIPELINE RELEASE LEVEL 4

- Reenter with breathing air as directed by IC until IC determines release is resolved
- Monitor H_2S levels along pipeline, at road crossing Hwy 62/180, Assembly Area 1, at Xcel Maddox Station and the AGI wellsite

Release resolved

- Signals all clear
- Personnel return to work
- Restore AGI to normal
- Notify 3rd parties of all clear
- Notify OCD < 4 hrs

If $H_2S < 10$ ppm

If $H_2S \geq 10$ ppm

Initiate Level 4 Response

For Details refer to Pages 23 - 24

AGI PIPELINE RELEASE LEVEL 4 RESPONSE

Note: There is no Level 3 Release for the AGI Pipeline

- Corrective action at Level 2 is unsuccessful
- $H_2S \geq 10$ ppm at Xcel Maddox Station, Hwy 62/180, at Assembly Area 1, or any public area or road
- Catastrophic release occurs

- Direct control room operator to activate Plant ESD
- Automatic notification of Plant ESD sent to Xcel
- Verbally notify any 3rd party companies or persons observed working near ROW to leave the area.
- Notify Plant Supervisor
- Notify OCD, NM state agencies & emergency responders

- Establish Incident Command & Media Center at Assembly Area 3
- Evacuate all personnel to Assembly Area 3.

- Dispatch personnel with emergency trailers to designated road block areas on Hwy 62/180.
- Monitor air quality and move further if H_2S reaches 10 ppm and notify IC of new road block location

- Notify businesses, public receptors, producers on Appendix G to evacuate
- Advise Xcel Maddox Station, Lea Power Partners and DCP Hobbs Plant to evacuate to the west, avoiding Maddox Road
- Notify Smith Ranch to evacuate to the east, avoid driving south

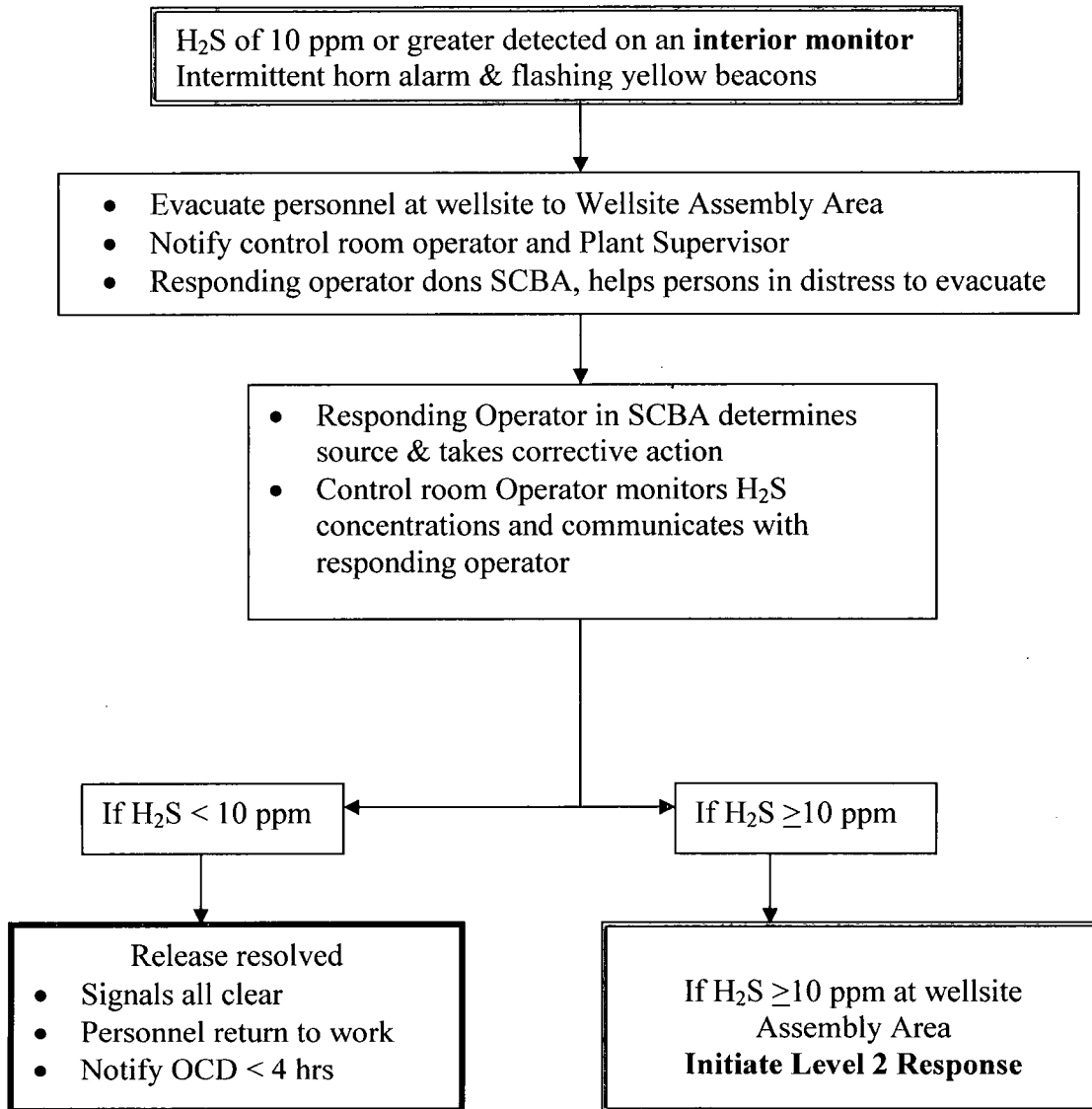
- Re-enter with breathing air until IC determines release is resolved
- Additional operations personnel may be directed to close valves on inlet gas pipelines
- Monitor H_2S levels in Linam Ranch Plant, Hwy 62/180 road crossing, AGI wellsite and along the pipeline

When $H_2S < 10$ ppm -Release resolved

- Signals all clear
- Personnel return to work
- Notify parties on Appendix G of all clear
- Restore Hwy traffic

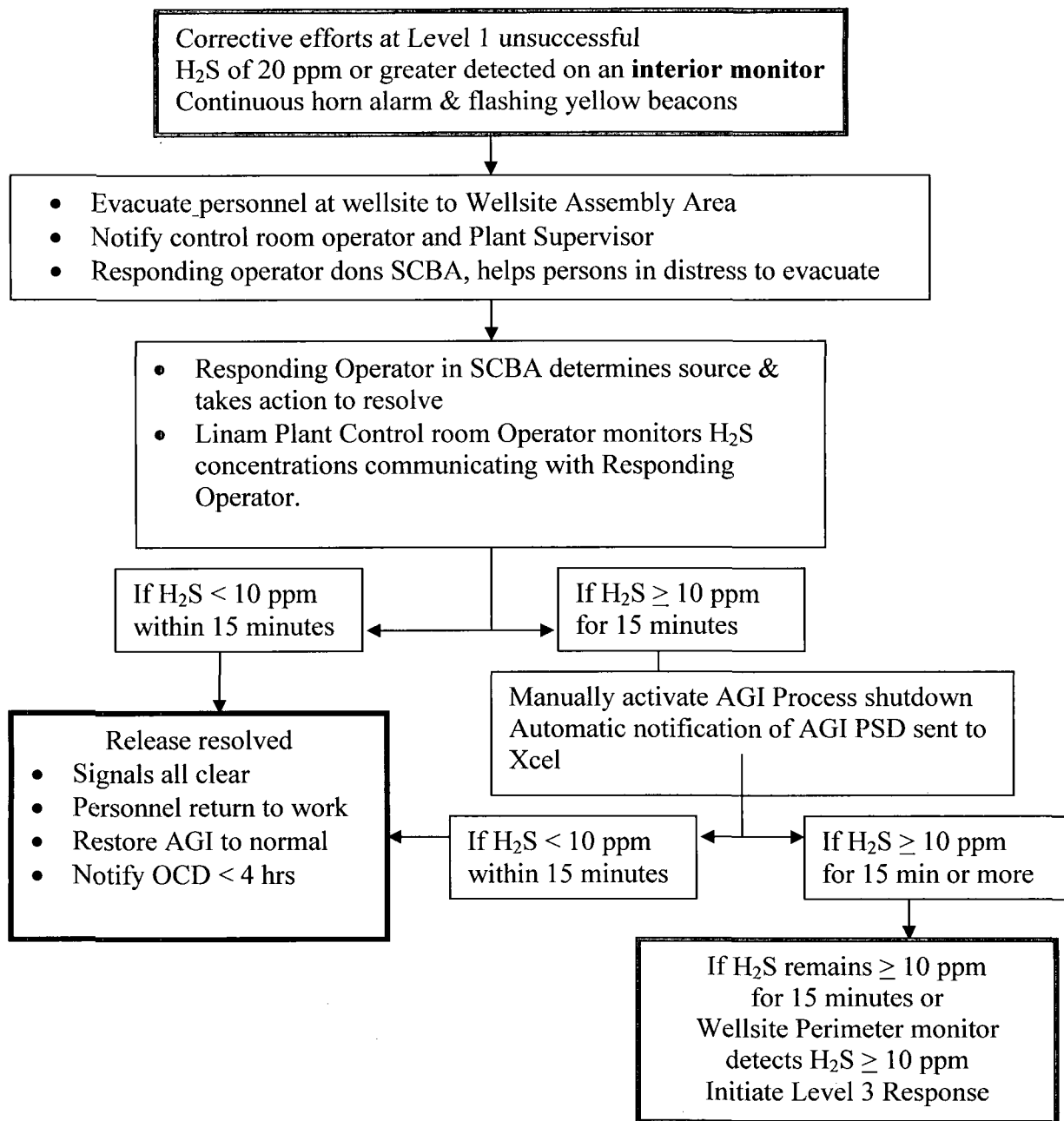
For Details refer to Pages 25 - 26

**AGI WELLSITE RELEASE
LEVEL 1 RESPONSE**



For Details refer to Page 27

AGI WELLSITE RELEASE LEVEL 2 RESPONSE



For Details refer to Pages 27 - 28

AGI WELLSITE RELEASE LEVEL 3 RESPONSE

Level 2 corrective actions unsuccessful
 $H_2S \geq 10$ ppm on PERIMETER monitor
Continuous horn alarm & flashing yellow beacons

- AGI Process shut down activates automatically when perimeter monitor detects $H_2S \geq 10$ ppm
- Automatic notification of AGI PSD sent to Xcel
- Flashing Poison Gas signs activated along Maddox road & Smith Ranch road as shown on Appendix C

- Evacuate all wellsite personnel to Linam Ranch Plant Assembly Area 1
- Notify Plant Supervisor

- Dispatch plant personnel with emergency trailer to Maddox Road and Xcel Maddox Station to monitor H_2S levels
If $H_2S \geq 10$ ppm, initiate Level 4 response Go to next page AGI WELLSITE RELEASE LEVEL 4

- Notify OCD, NM state agencies & emergency responders
- Notify businesses, public receptors, producers on Appendix G of the wellsite release and advise them to immediately leave the vicinity of the AGI Wellsite until further notified
- Notify Xcel Maddox Station, Lea Power Partners and DCP Hobbs Plant of the release and advise to standby for further instructions
- Notify Smith residence of the release and advise to shelter in place (depending on wind direction), or evacuate east, avoiding driving south

Establish Incident Command & Media Center at Assembly Area 1

- Re-enter with breathing air until IC determines release is resolved
- Monitor H_2S concentrations at wellsite using perimeter and interior monitors

If $H_2S < 10$ ppm

Release resolved

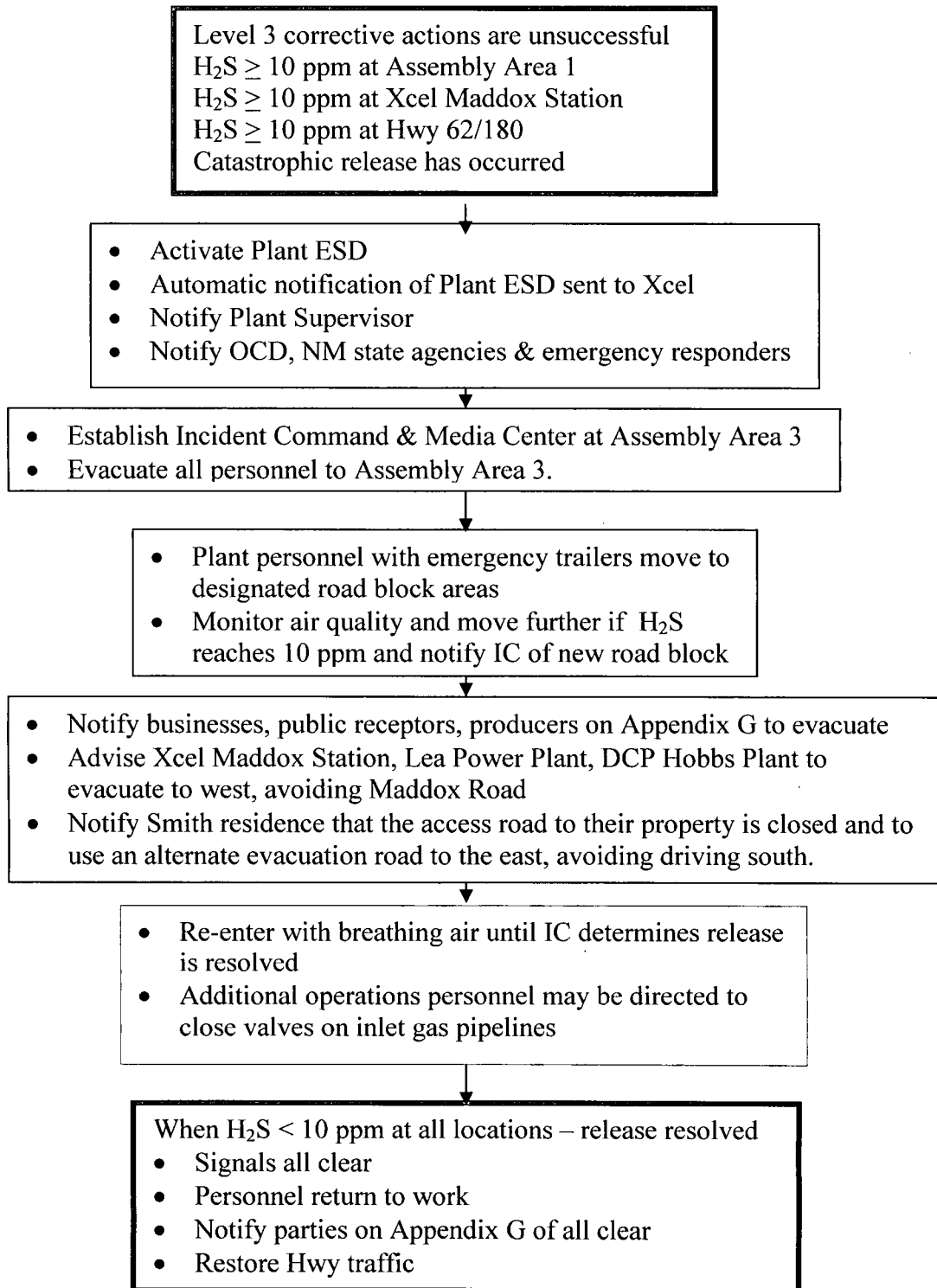
- Signals all clear
- Personnel return to work
- Notify parties on Appendix G of all clear

If $H_2S \geq 10$ ppm

If $H_2S \geq 10$ ppm at Xcel Maddox,
Hwy 62/180, or Assembly Area 1
Initiate Level 4 Response

For Details refer to Pages 28 - 30

AGI WELLSITE RELEASE LEVEL 4 RESPONSE



For Details refer to Pages 30 - 31

I. INTRODUCTION

The Linam Ranch Gas Plant (hereinafter the "Plant") is a natural gas processing plant which handles and/or generates hydrogen sulfide and/or sulfur dioxide; therefore this Hydrogen Sulfide Contingency Plan (the "H₂S Plan" or "the Plan") has been developed:

- 1) to satisfy the New Mexico Oil Conservation Division (OCD) Rule 11
- 2) to conform with API "Recommended Practices for Oil and Gas Producing and Gas Processing Plant Operations Involving Hydrogen Sulfide," RP 55, and
- 3) to create a site-specific hydrogen sulfide contingency plan that outlines the emergency response procedures that will be implemented to ensure a coordinated, efficient and immediate action plan for alerting and protecting operating personnel and the public as well as to prevent or minimize environmental hazards and damage to property.

The terms used in this Plan are to be used in the same manner as defined in Title 19 Chapter 15 Part 11 of the New Mexico Administrative code (19.15.11.7- Definitions) unless otherwise defined herein.

The term "public receptor" is used to designate residences, businesses, or public areas.

The Linam Ranch Plant and AGI wellsite have extensive Emergency Shut Down (ESD) and Process Shut Down (PSD) systems designed to isolate incoming and out-going gas and product streams, contain hydrocarbon and H₂S releases, and safely depressurize equipment to flares. These systems are either automatically or manually initiated, depending on process conditions. There are manually activated ESD and PSD buttons located at exit locations at the Plant. The AGI wellsite has Process Shut Down (PSD) buttons that activate the PSD system for the AGI process which shuts down the AGI related equipment at both the wellsite and plant locations. The locations of the ESD and PSD activation buttons are shown in Appendix D. The ESD and PSD systems are designed to prevent a Level 4 response.

A. PLANT DESCRIPTION & MAP (Figure 1)

The Linam Ranch Gas Plant is located in Lea County, New Mexico and encompasses 164.6 acres. The Plant is owned and operated by DCP Midstream LP.

More specifically, the Plant is located in Section 6, Township 19S, Range 37E in Lea County, New Mexico.

1. Its coordinates are:

Latitude: 32.6953 N

Longitude: -103.2853 W

2. Its physical address is:

139 West Highway 62/180 Hobbs, New Mexico 88240

3. Its mailing address is:

139 West Highway 62/180 Hobbs, New Mexico 88240

4. Driving Directions from Hobbs, New Mexico to the Plant:

At intersection of Marland (Hwy 62/180) and West County Road, drive west on highway 62/180 for 6.3 miles, turn left (south) into Linam Ranch Gas Plant office parking lot.

B. ACID GAS INJECTION (AGI) & MAP (Figure 1)

The Linam Acid Gas Injection well is located in Lea County, New Mexico. The mineral and surface lease encompasses 160 acres, with the wellsite being 8.6 acres within a secure fenced area. The AGI wellsite is leased from the State and operated by DCP Midstream LP.

More specifically, the AGI is located in Section 30, Township 18S, Range 37E in Lea County, New Mexico.

1. Its coordinates are:

Latitude: 32.7167 N

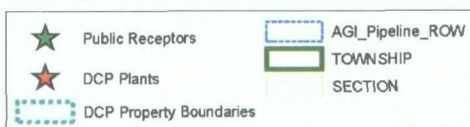
Longitude: -103.2928 W

2. Driving Directions from Hobbs, New Mexico to the AGI:

At intersection of Marland (Hwy 62/180) and West County Road, drive west on highway 62/180 for 7.0 miles, turn right (north) on Maddox Road (County Road 41) drive 1.3 miles, turn right (east) at cattle guard and drive 0.2 miles to AGI wellsite gate.

The location of the Plant, AGI Pipeline, and AGI Wellsite are illustrated herein on Figure 1.

FIGURE 1
Linam Ranch Gas Plant &
Acid Gas Injection Property



0 1,000 2,000 4,000 Feet

dcp
Midstream

C. DESCRIPTION OF PLANT OPERATIONS

1. The Plant operations include gas compression, treating, and processing, as well as flow lines and storage tanks. The Plant gathers and processes produced natural gas from Lea and Eddy Counties, New Mexico. Once gathered at the Plant, the produced natural gas is compressed; treated in an amine process for the removal of carbon dioxide and hydrogen sulfide; dehydrated to remove the water content; and processed to remove and recover natural gas liquids. The processed natural gas and recovered natural gas liquids are then sold and shipped to various customers.
2. Because the natural gas that is gathered and processed at the Plant contains hydrogen sulfide ("sour gas"), it must be treated or processed to remove these and other impurities. The carbon dioxide and hydrogen sulfide (H_2S) stream that is removed from the natural gas in the amine treating process is compressed to approximately 90 psi and then sent via a high density polyethylene lined 8" steel pipeline to the Acid Gas Injection wellsite located approximately 2 miles from the Plant.

D. DESCRIPTION OF AGI WELLSITE OPERATIONS

1. The acid gas stream is received at the wellsite where it is further compressed to 1500 - 2644 psi. This is accomplished using electric driven, reciprocating compressors. Water vapor contained in the gas stream is removed during compression and cooling and is pumped back to the Plant location via a polyethylene lined 4" steel pipeline for disposal through the existing wastewater disposal system.
2. The acid gas is injected into the Lower Bone Spring formation at a depth of 8710 feet to 9085 feet below the surface. The wellbore is constructed with 3 casing strings, all with cement circulated to the surface. A permanent packer is set at approximate 8650 feet. The injection tubing is attached to the packer and is equipped with a check valve located below the packer and a hydraulically operated subsurface safety valve located approximately 250 feet below the surface.
3. The wellsite, normally unmanned, is fully automated and is connected to the Linam Ranch Plant control room DCS via a fiber optic line. The wellsite facility operations are monitored and are controlled from the Linam Ranch Plant. Video cameras located at the wellsite provide visibility throughout the AGI wellsite to the Linam Ranch Plant control room.

II. THE PLAN

A. RESPONSIBILITY FOR CONFORMANCE WITH THE H₂S PLAN

It is the responsibility of all personnel on-site to follow the safety and emergency procedures outlined in the Hydrogen Sulfide Contingency Plan (the H₂S Plan) as well as the following documents:

- DCP Midstream (DCP) Safe Work Practices
- DCP Midstream Linam Ranch Plant Emergency Response, Groundwater Discharge Plan, and Oil Spill Contingency Plan; and
- DCP Midstream Environmental Policies and Programs.

B. REVISIONS TO THE PLAN

The H₂S Plan will be reviewed annually and revised at that time as necessary to address changes to the Plant facilities, operations, or training requirements, contact information and the public areas including roads, businesses, or residents potentially affected by the operations of the Plant and AGI wellsite, specifically those areas within the radii-of-exposure.

C. AVAILABILITY OF THE H₂S PLAN

The H₂S Plan shall be available to all personnel responsible for implementation, regardless of their normal location assignment. A copy of the Plan will be maintained at the Linam Ranch Plant Control Room, in the Plant Supervisor's office at the plant, in the Asset Manager's office at the Hobbs office, and at the Western Region Safety Manager's office in Midland, Texas. **See Appendix H for the H₂S Plan Distribution List**, which lists all the additional entities that have been provided a copy of the H₂S Plan.

D. CONTENT OF THE PLAN

At a minimum, the H₂S Plan will contain information regarding:

- 1) the emergency procedures to be followed in the event of an hydrogen sulfide (H₂S) or sulfur dioxide (SO₂) release that may pose a threat to the Plant, public or public areas,
- 2) the characteristics of H₂S and SO₂,
- 3) a facility description, map and/or drawings, and
- 4) information regarding training and drills to be conducted related to this Plan.

III. PLAN DESIGN CONSIDERATIONS

A. CHARACTERISTICS OF H₂S, SO₂ AND CARBON DIOXIDE

1. Hydrogen Sulfide (H₂S)

The current inlet gas streams into the Plant contain approximately 4,700 ppm (or 0.47 mole percent) of hydrogen sulfide based on data generated from the sampling of the combined inlet gas stream (average of samples taken Jan.- Oct. 2009 and analyzed by an independent laboratory).

The current inlet to the AGI compression, pipeline, and injection well contains 23.39 mole percent hydrogen sulfide (average of samples taken monthly Jan. – Sept. 2009).

Hydrogen sulfide is a colorless, toxic and flammable gas, and at low concentrations, has the odor of rotten eggs. Hydrogen sulfide gas is heavier than air.

Hydrogen sulfide presents a significant health hazard by paralyzing the respiratory system resulting in serious injury or death.

Hydrogen Sulfide Properties and Characteristics	
CAS No.	7783-06-4
Molecular Formula	H ₂ S
Molecular Weight	34.082
TWA	10 ppm
STEL	15 ppm
IDLH	100 ppm
Specific Gravity (air = 1.0)	1.189
Boiling Point	-76.5°F
Freezing Point	-121.8°F
Vapor Pressure	396 psia
Auto ignition Temperature	518°F
Lower Flammability Limit	4.3%
Upper Flammability Limit	46.0%
Stability	Stable
pH in water	3
Corrosivity	Reacts with metal, plastics, tissues & nerves

Physical Effects of Hydrogen Sulfide		
Concentration		
ppm	%	Physical Effect
1	0.00010	Can be smelled (rotten egg odor)
10	0.0010	Obvious & unpleasant odor; Permissible Exposure Limit; Safe for 8-hour exposure
15	0.0015	Short Term Exposure Limit (STEL); Safe for 15 minutes of exposure without respirator
50	0.0050	Loss of sense of smell in 15 minutes
100	0.0100	Immediately Dangerous to Life & Health (IDLH); Loss of sense of smell in 3-15 minutes; Stinging in eyes and throat; Altered breathing
200	0.0200	Kills smell rapidly; Stinging in eyes & throat
500	0.0500	Dizziness; Unconscious after short exposure; Need artificial respiration
700	0.0700	Unconscious quickly; death will result if not rescued promptly
1,000	0.1000	Instant unconsciousness; followed by death within minutes

2. Sulfur Dioxide (SO₂)

Sulfur dioxide is produced as a by-product of H₂S combustion. The waste gas stream consisting of hydrogen sulfide and carbon dioxide is routed to the plant acid gas flare during abnormal conditions when the acid gas injection equipment is out of service. Waste gas is routed to the acid gas flare at the wellsite during maintenance operations when equipment needs to be blown down.

It is colorless, transparent, and is non-flammable, with a pungent odor associated with burning sulfur.

Sulfur dioxide is heavier than air, but can be picked up by a breeze and carried downwind at elevated temperatures. Sulfur dioxide can be extremely irritating to the eyes and mucous membranes of the upper respiratory tract.

Sulfur Dioxide Properties and Characteristics	
CAS No.	7446-09-05
Molecular Formula	SO ₂
Molecular Weight	64.07
TWA	2 ppm
STEL	5 ppm
IDLH	100 ppm
Specific Gravity (air = 1.0)	2.26
Boiling Point	14°F
Freezing Point	-103.9°F
Vapor Pressure	49.4 psia
Auto ignition Temperature	N/A
Lower Flammability Limit	N/A
Upper Flammability Limit	N/A
Stability	Stable
Corrosivity	Could form an acid rain in aqueous solutions

Physical Effects of Sulfur Dioxide	
Concentration	Effect
1 ppm	Pungent odor, may cause respiratory changes
2 ppm	Permissible exposure limit; Safe for an 8 hour exposure
3-5 ppm	Pungent odor; normally a person can detect sulfur dioxide in this range
5 ppm	Short Term Exposure Limit (STEL); Safe for 15 minutes of exposure
12 ppm	Throat irritation, coughing, chest constriction, eyes tear and burn
100 ppm	Immediately Dangerous To Life & Health.
150 ppm	So irritating that it can only be endured for a few minutes
500 ppm	Causes a sense of suffocation, even with first breath
1,000 ppm	Death may result unless rescued promptly

3. Carbon Dioxide

The current inlet gas streams to the Plant contain approximately 1.6% carbon dioxide based on samples taken Jan. – Oct. 2009.

The current inlet to the AGI compression, pipeline, and injection well contains 76.30 mole percent of carbon dioxide (average of samples taken monthly Jan. – Sept. 2009).

Carbon dioxide gas is colorless, odorless, and non-flammable. Carbon dioxide is heavier than air.

Carbon Dioxide Properties and Characteristics	
CAS No.	124-38-9
Molecular Formula	CO ₂
Molecular Weight	44.010
TWA	5,000 ppm
STEL	30,000 ppm
IDLH	40,000 ppm
Specific Gravity (air = 1.0)	1.5197
Boiling Point	-109.12°F
Freezing Point	-69.81°F
Vapor Pressure	830 psia
Auto ignition Temperature	N/A
Lower Flammability Limit	N/A
Upper Flammability Limit	N/A
Stability	Stable
pH in saturated solution	3.7
Corrosivity	Dry gas is relatively inert & not corrosive; can be corrosive to mild steels in aqueous solutions

Physical Effects of Carbon Dioxide	
Concentration	Effect
1.0%	Breathing rate increases slightly
2.0%	Breathing rate increases to 50% above normal level; Prolonged exposure can cause headache, tiredness
3.0%	Breathing rate increases to twice normal rate and becomes labored. Weak narcotic effect; impaired hearing, headache, increased blood pressure and pulse rate
4 – 5 %	Breathing increases to approximately four times normal rate, symptoms of intoxication become evident, and slight choking may be felt
5 – 10 %	Characteristic sharp odor noticeable. Very labored breathing, headache, visual impairment, and ringing in the ears. Judgment may be impaired, followed within minutes by loss of consciousness
10 – 100%	Unconsciousness occurs more rapidly above 10% level. Prolonged exposure to high concentrations may eventually result in death from asphyxiation

B. RADII OF EXPOSURE (ROE)

For the Linam Ranch Plant and AGI wellsite operations, the "Radius of Exposure" for both 500-ppm and 100-ppm of H₂S gas was determined using the "escape rate", which is calculated using the maximum daily rate of the gaseous mixture that is handled by the Plant and the AGI wellsite. The rates and other variables used to calculate the ROE is discussed in greater detail in Appendix B – ROE calculations. Also refer to Appendix C - map showing 500-ppm ROE and the 100- ppm ROE.

	<u>500-ppm ROE</u>	<u>100-ppm ROE</u>
Linam Ranch Plant	4,057 ft.	8,877 ft.
AGI wellsite	4,073 ft.	8,914 ft.

IV. EMERGENCY ACTION PROCEDURES

A. EMERGENCY RESPONSE ORGANIZATION

The Plant uses the Incident Command System (ICS) for emergency response. The ICS structure used is based on the National Interagency Incident Management System (NIIMS), and is consistent with the National Contingency Plan (NCP).

In the event of an accidental release that results in the activation of the H₂S Plan and all personnel have been evacuated out of the affected area, the Plant Supervisor, or his designee, will be the On-Scene Incident Commander (IC in this Plan). The IC will contact and coordinate with DCP Midstream's management.

The Plant Supervisor, or his designee, will act as IC until the New Mexico State Police arrive. Once the New Mexico State Police arrive, the ranking State Police officer will assume the duties of the IC.

The Plant Supervisor or his designee shall determine:

- 1) Plant Shut Downs
- 2) Isolation of pipeline segments
- 3) Repairs, tests or restarts as required

If an emergency occurs, the Plant Supervisor, or his designee, shall be notified first. The Plant Supervisor, or his designee, shall notify the Southeast New Mexico Asset Manager who will notify the Regional Operations Vice President, and the Regional Operations Vice President shall contact the South Business Unit President to activate the DCP Midstream Crisis Management Plan. If any person in this chain of command is unavailable, the DCP Midstream employee shall elevate the communication to the next level. The intention of this process is to allow the IC to make one phone call and then be able to focus on the incident response.

B. EMERGENCY RESPONSE

This section explains the procedures and decision process to be used in the event of an H₂S release; much of which has been pre-determined to ensure a coordinated, efficient and immediate action plan for alerting and protecting operating personnel and the public as well as to prevent or minimize environmental hazards and damage to property.

1. OBJECTIVE

All Plant employees shall be prepared to respond to an H₂S emergency at the Plant, the AGI pipeline, and the AGI wellsite.

Emergency response actions may be taken for a variety of situations that may occur. The Plan is activated in progressive levels, based on the concentration of H₂S that has been released, and the physical location where the release has occurred.

Response Levels

To facilitate the Plan implementation, the release responses were made site-specific. There are four (4) response “sites” – the Linam Ranch Plant, Highway 62/180 Road Crossing, AGI Pipeline, and AGI wellsite.

The Plan has four (4) activation levels that are described in detail below and in outline form in the Response Flow diagrams in Appendix F.

Level 1 - Intermittent alarm sounded and flashing yellow beacons activated for H₂S greater than 10 ppm.

Level 2 - Continuous alarm sounded and flashing yellow beacons activated for H₂S greater than 20 ppm.

Level 3 - Continuous alarm sounded and flashing yellow beacons activated, H₂S levels continue to increase above 20 ppm for 15 minutes, Operators activate AGI process shut down (PSD) and/or Linam Ranch Plant Emergency Shut down (ESD), depending on location of the release. Notification of public receptors and State agencies is initiated.

Level 4 - Catastrophic release; fire; explosion; a continuous release of maximum volume for 24 hours; or Rule 11 Mandatory Activation for 100 ppm in any defined public area; 500 ppm at any public road; or 100 ppm at a distance greater than 3000 feet from the site or the release. Operators activate ESD system at the Plant. Notification of public receptors and State agencies is initiated.

As soon as the Plan has been activated based on the criteria above, the Plant Supervisor, or his designee, should be notified.

2. EVACUATION AND EMERGENCY ASSEMBLY AREAS

Evacuation for all visitors and all personnel that are not operators begins at the 10 ppm H₂S intermittent alarm and flashing yellow beacon. The responding Plant operator(s) are to put on the 30-min Self Contained Breathing Apparatus (SCBA) and first determine if any personnel are in distress and assist any distressed personnel to evacuate to Emergency Assembly Area 1. Emergency services (911) will be contacted if there are injuries or as otherwise deemed necessary. The operators will then, wearing the SCBA, investigate the cause of the release. At the sound of the alarm and flashing yellow beacons, all other personnel in the Plant are to stop work, check the prevailing wind direction (using visible windsocks) and immediately proceed along designated evacuation routes and/or upwind to the pre-designated Emergency Assembly Area(s) that are shown in **Appendix D**.

Prevailing winds for the area are from the southwest. Personnel should evacuate along the designated route unless the designated evacuation route is downwind of the release (based on the windsock), then all evacuees should proceed perpendicular and then upwind to the Emergency Assembly Areas.

The Plant and AGI wellsite plot plans show evacuation routes (Appendix D) Emergency Assembly areas are shown on Appendix C.

The Emergency Assembly Area 1 is:

**Parking Area on the north side of the Plant Office
Building (see Appendix C)**

The Emergency Assembly Area 2 is:

**Parking Area at Hobbs Plant Office
(see Appendix C)**

The Emergency Assembly Area 3 is:

**North Parking lot at intersection of Hwy 62/180 and Hwy 483
(see Appendix C)**

Wellsite Emergency Assembly Area:

**Parking Area outside main gate on west side of wellsite
(see Appendix C)**

Roll call shall be conducted at the Emergency Assembly Area to ensure all personnel (including contractors and visitors) are accounted for and have evacuated safely. The Linam Ranch Plant is a Process Safety Management (PSM) facility and requires all personnel to check in at the Plant Office or Plant Control Room before entering the Plant or AGI wellsite, thus the sign-in sheet will be used at the Emergency Assembly Areas to make a full accounting of all personnel and visitors.

Also at each Emergency Assembly Area, the ambient air quality will be monitored for H₂S concentration to ensure the area remains at less than 10 ppm. If the H₂S concentration rises to 10 ppm or greater, the assembly area will be relocated as specified in the detailed response description.

3. IMMEDIATE ACTION PLANS/ INITIAL RESPONSES

Linam Ranch Plant Operators are authorized to elevate the level of response based on observed conditions if a lower level response may not be effective in protecting personnel, the public, or the environment.

The following outlines the immediate action plans that are illustrated by flow diagrams in Appendix F. These are to be used when responding to an H₂S release occurring at the Linam Ranch Plant, Highway 62/180 road crossing, the AGI pipeline, or the AGI wellsite. Additional or long term response actions will be determined on a case-by-case basis, if needed, once the Incident Command Center and System is established following the immediate response.

The individual response plans are listed on the following pages:

Linam Ranch Plant Release pgs.14-18

Road Crossing Response pgs. 19-22

AGI Pipeline Response pgs. 23-26

AGI Wellsite Response pgs. 27-31

LINAM RANCH PLANT RELEASES:

LEVEL 1 RESPONSE - PLANT

A Level 1 response occurs when

- 10 ppm of H₂S or greater is detected at a fixed monitor
- 10 ppm of H₂S or greater is detected on a personal monitor
- an intermittent horn and a flashing yellow light occurs

1. At the initial sound of the intermittent alarm or the flashing yellow beacon, the responding operator will prepare to put on a 30 minute SCBA, the control room operator will remain in the control room and will monitor H₂S concentrations throughout the plant.

All other personnel in the Plant complex shall immediately evacuate the Plant using the evacuation routes to the Emergency Assembly Area 1 (**see Appendix D**). At the assembly area, all personnel will be accounted for using the plant sign in sheet and the air quality will be monitored to insure it remains less than 10 ppm H₂S. If H₂S rises to 10 ppm, all personnel will move to Assembly Area 2.

The Plant Supervisor shall be notified of the release.

2. The responding operator, upon donning the SCBA, will first help any persons in distress evacuate to the Emergency Assembly Area. If deemed necessary, local emergency response service providers will be contacted by Plant personnel designated by the Operator.
3. Wearing the SCBA, the responding operator(s) will determine the source of the release and if possible take corrective actions. If corrective actions are successful and the release is resolved, and the monitored H₂S levels in the Plant return to less than 10 ppm, the Plant Supervisor or his designee will signal all clear and personnel will be allowed to sign in and re-enter the plant to resume work.
4. The Plant Supervisor or his designee will contact the OCD district office within 4 hours of the release.

If the release is not resolved and H₂S levels continue to increase, Level 2 Response is initiated.

LEVEL 2 RESPONSE - PLANT

A Level 2 response occurs when

- corrective actions at Level 1 are unsuccessful
- 20 ppm of H₂S or greater is detected at a fixed monitor
- a continuous horn and a flashing yellow light occurs

1. The responding operator will prepare to put on a 30 minute SCBA, the control room operator will remain in the control room and will monitor H₂S concentrations throughout the plant. If the concentration of H₂S in the control room reaches 10 ppm, the control room operator will also put on a 30 minute SCBA.

All other personnel in the Plant complex shall immediately evacuate the Plant using the evacuation routes to the Emergency Assembly Area 1. At the assembly area, all personnel will be accounted for using the plant sign in sheet and the air quality will be monitored to insure it remains less than 10 ppm H₂S. If it rises to 10 ppm, H₂S all personnel will move to Assembly Area 2.

The Dorado Transportation facility should be notified that a release is occurring and to stand by for further instructions.

The Plant Supervisor shall be notified of the release.

2. The responding operator(s), upon donning the SCBA, will first help any persons in distress evacuate to the Emergency Assembly Area. If deemed necessary, local emergency response service providers will be contacted by Plant personnel as designated by the Operator.
3. Wearing the SCBA, the responding operator(s) will determine the source of the release and if possible take corrective actions. If corrective actions are successful and the release is resolved, and the monitored H₂S levels in the Plant return to less than 10 ppm, the Plant Supervisor or his designee will signal all clear and personnel will be allowed to sign in and re-enter the plant to resume work.
4. If the release has occurred within the AGI system, the Operator will activate the AGI process shut down (PSD), which shuts down and isolates the AGI compressors and equipment and routes the acid gas to the plant acid gas flare. Activating the AGI PSD automatically sends an alarm to the Xcel Maddox Control room, (which is continuously manned).
5. If the release is contained and the monitored H₂S levels in the Plant are less than 10 ppm, the Plant Supervisor or his designee will signal all clear and personnel will be allowed to sign in and re-enter the plant to resume work. Priority will be given to restoring the AGI compressors and equipment to normal operations.
6. The Plant Supervisor or his designee will contact the OCD district office within 4 hours of the release.

If the H₂S levels continue to rise, or remain above 10 ppm for 15 minutes, the Operator will initiate Level 3 Response.

LEVEL 3 RESPONSE - PLANT

A Level 3 response occurs when

- corrective actions at Level 2 are unsuccessful
- 10 ppm of H₂S or greater is detected for greater than 15 minutes

1. Operator will activate the Plant ESD shutting off all incoming and outgoing gas and NGL product streams, shutting down all AGI compressors and equipment, as well as all plant processing equipment, and isolating AGI pipeline between Plant and AGI wellsite.

Activating the Plant ESD automatically sends an alarm to the Xcel Maddox control room.

The Plant Supervisor will be notified

2. All personnel will be evacuated from Assembly Area 1 to Assembly Area 2, where air quality will continue to be monitored for H₂S. All personnel will be accounted for using the plant sign-in list.

State agencies including the OCD District Office and Emergency responders will be notified.

3. Plant personnel with H₂S monitors and emergency trailers will be dispatched to the north plant perimeter between the plant and Highway 62/180 and will monitor for H₂S concentrations. If H₂S concentrations reach 10 ppm, plant personnel will move to the designated road block areas shown on ROE map and Highway 62/180 will be blocked.
4. Notifications to area businesses, both manned and unmanned will include the nature of the release and status of containment. Notifications will include but are not limited to the following:
 - Businesses, public receptors, and producers as listed in Appendix G. All will be instructed to immediately alert all company personnel, third party contractors and/or services companies working in the area and those imminently scheduled to work in the area, of the release and evacuation status of the Plant. They should be instructed to immediately leave and not re-enter the Plant vicinity until further instruction. All shall be informed of the road blocks on Highway 62/180.
 - Xcel Maddox and Lea Power Partners and DCP Hobbs Plant will be notified of the release and advised to be on standby for further instructions.
5. Incident Command Center will be established at the Assembly Area 2 – Hobbs Plant. Linam Ranch Plant Distributed Control System (DCS) may be available at this site to assist in monitoring Linam Ranch Plant H₂S levels)

Establish media staging area adjacent to Assembly Area 2 and direct all media to it.

The IC will initiate and maintain a Chronological Record of Events log. (Appendix I)

If monitored H₂S levels at Emergency Assembly Area 2 exceed 10 ppm, evacuate to Emergency Assembly Area 3, and initiate a Level 4 Response.

All personnel should be accounted for at Assembly Area 3 using the plant sign in sheet and air quality will be monitored for H₂S concentrations.

6. Re-entry will occur in full SCBA and cascade breathing air systems at the direction of the IC until IC determines problem has been resolved. Additional operations personnel may be directed by IC to close valves at field locations on inlet gas pipelines to ensure incoming gas is shut off.
7. If release is resolved and monitored levels of H₂S in the Plant are less than 10 ppm, the Plant Supervisor or his designee may authorize personnel to return to the Plant. All businesses, public receptors, and producers previously notified will be informed that the release has been resolved and advised of the current monitored H₂S levels. Highway traffic will be restored.

If the release is not resolved or H₂S levels continue to increase, the IC will initiate Level 4 Response.

LEVEL 4 RESPONSE - PLANT

A Level 4 response occurs when

- if corrective actions at Level 3 are unsuccessful
 - H₂S concentrations reach 10 ppm or greater at Assembly Area 2,
 - a catastrophic release occurs
1. Operators shall have activated the plant ESD system on evacuation from Plant facilities. Activating the Plant ESD automatically sends an alarm to the Xcel Maddox control room. Plant Supervisor will be notified of the release. State agencies including the OCD District Office and Emergency responders will be notified.
 2. The Incident Command Center, media staging area and all personnel shall have evacuated to Emergency Assembly Area 3. All personnel will be accounted for using the plant sign-in sheet. Initiate and maintain a Chronological Record of Events log.
 3. Plant personnel with H₂S monitors and emergency trailers will move to the designated road block areas shown on ROE map and Highway 62/180 will be blocked. Monitor air quality and move further if H₂S reaches 10 ppm and notify IC of new road block location.

4. Notifications to area businesses, both manned and unmanned will include the nature of the release and status of containment. Notifications will include but are not limited to the following:
 - Businesses, public receptors, and producers as listed in Appendix G. All will be instructed to immediately alert all company personnel, third party contractors and/or services companies working in the area and those imminently scheduled to work in the area, of the release and evacuation status of the Plant. They should be instructed to immediately leave and not re-enter the Plant vicinity until further instruction. All shall be informed of the road blocks on Highway 62/180.
 - Xcel Maddox, DCP Hobbs Plant, and Lea Power Partners facilities will be notified of the release and advised to evacuate west, avoiding Maddox Road.
 - Smith Ranch will be advised to shelter in place or evacuate east, avoiding Maddox Road.
5. If escaping vapors have been ignited, the vapors should be allowed to continue to burn unless the fire endangers personnel, the public, other property, or other equipment.
6. Re-entry will occur in full SCBA and cascade breathing air systems at the direction of the IC until IC determines problem has been resolved. Additional operations personnel may be directed by IC to close valves at field locations on inlet gas pipelines to ensure incoming gas is shut off.
7. Once release is resolved and monitored levels of H₂S in the Plant are less than 10 ppm, the Plant Supervisor or his designee may authorize personnel to return to the Plant. All businesses, public receptors, and producers previously notified will be informed that the release has been resolved and advised of the current monitored H₂S levels at the Plant.
8. Highway traffic will be restored.

ROAD CROSSING RELEASES – HWY 62/180 ROAD CROSSING

LEVEL 1 RESPONSE – ROAD CROSSING

The AGI pipeline begins at the northeast corner of the Linam Plant. The pipeline has fixed monitors located at the Highway 62/180 road crossing – monitors are located on the south and north sides of the highway (near the road bore casings vents), and a third monitor is located approximately 100 ft. north of the highway, near the Low Pressure isolation valve.

A Level 1 response occurs when

- 10 ppm of H₂S or greater is detected at road crossing fixed monitor
 - an intermittent horn and a flashing yellow light occurs
1. If a fixed monitor at the highway crossings reaches 10 ppm H₂S, the AGI process shut down is automatically initiated which shuts down and isolates the AGI compressors and equipment and routes the acid gas to the plant acid gas flare. This will also automatically close an ESD valve located immediately south of Highway 62/180 as well as a control valve located approximately 100' north of Highway 62/180.

When the AGI PSD is activated, an alarm is automatically sent to the Xcel Maddox control room.

Control room operator verifies the AGI process shut down and activates manually if necessary.

The responding operator will prepare to put on a 30 minute SCBA, the control room operator will remain in the control room and will monitor H₂S concentrations throughout the plant.

All other personnel in the Plant complex shall immediately evacuate the Plant using the evacuation routes to the Emergency Assembly Area 1 (see **Appendix D**). At the assembly area, all personnel will be accounted for and the air quality will be monitored to insure it remains less than 10 ppm H₂S. If it rises to 10 ppm H₂S, all personnel will move to Assembly Area 2.

The Plant Supervisor shall be notified of the release.

2. The responding operator, upon donning the SCBA, will first help any persons in distress evacuate to the Emergency Assembly Area. If deemed necessary, local emergency response service providers will be contacted by Plant personnel designated by the Operator.

The control room operator will contact any personnel working at the AGI wellsite, alerts them to the road crossing alarm condition, and directs them to monitor air quality using the fixed monitors at the wellsite.

3. Wearing the SCBA, the responding operator will determine the source of the release and if possible take corrective actions. If corrective actions are successful and the release is resolved, and the monitored H₂S levels in the Plant and the AGI pipeline (including the fixed

monitors at the Highway 62/180 road crossing) return to less than 10 ppm, the Plant Supervisor or his designee will signal all clear and personnel will be allowed to sign in and re-enter the plant to resume work.

4. The Plant Supervisor or his designee will contact the OCD district office within 4 hours of the release.

If the Level 1 road crossing release is not resolved and H₂S levels continue to increase, Level 3 Response is initiated.

LEVEL 2 RESPONSE – ROAD CROSSING

There is no Level 2 Response for a road crossing release.

LEVEL 3 RESPONSE – ROAD CROSSING

A Level 3 response is initiated when:

- level 1 corrective actions are unsuccessful
 - more than one AGI pipeline fixed monitor reaches 10 ppm H₂S
 - any one of the AGI pipeline fixed monitor reaches 20 ppm H₂S
1. Operator will activate the Plant ESD shutting off all incoming and outgoing gas and NGL product streams, shutting down all AGI compressors and equipment, as well as all plant processing equipment, and isolating AGI pipeline between Plant and AGI wellsite. Operator will activate the continuous H₂S alarm.

When the Plant ESD is activated, an alarm is automatically sent to the Xcel Maddox control room.

All plant personnel will be evacuated to Assembly Area 2, where air quality will continue to be monitored for H₂S.

The control room operator will contact personnel working at the AGI wellsite and direct them to evacuate to Assembly Area 2. All personnel will be accounted for using the plant sign-in list.

The Plant Supervisor will be notified

2. State agencies including the OCD District Office and Emergency responders will be notified.
3. Emergency trailers will be dispatched to block Highway 62/180 at designated locations shown on the ROE Map.
4. Notifications to area businesses, both manned and unmanned will include the nature of the release and status of containment. Notifications will include but are not limited to the following:

- Businesses (Dorado), public receptors, and producers as listed in Appendix G. All will be instructed to immediately alert all company personnel, third party contractors and/or services companies working in the area and those imminently scheduled to work in the area, of the release and evacuation status of the Plant. They should be instructed to immediately leave and not re-enter the Plant vicinity until further instruction. All shall be informed of the road blocks on Highway 62/180.
 - Xcel Maddox, DCP Hobbs Plant, and Lea Power Partners facilities will be notified of the release and advised to shelter in place or evacuate depending on wind direction.
 - Notify Smith Ranch to shelter in place or evacuate, depending on wind conditions
5. Incident Command Center will be established at the Assembly Area 2 as long as H₂S levels remain less than 10 ppm at the Assembly area. Establish media staging area adjacent to Assembly Area 2 and direct all media to it.

The IC will initiate and maintain a Chronological Record of Events log. Appendix I

If monitored H₂S levels at Emergency Assembly Area 2 rise to 10 ppm, evacuate to Emergency Assembly Area 3. Establish media staging area adjacent to Assembly Area 3 and direct all media to it.

6. Re-entry will occur in full SCBA and cascade breathing air systems at the direction of the IC until IC determines problem has been resolved. Additional operations personnel may be directed by IC to close valves at field locations on inlet gas pipelines to ensure incoming gas is shut off.
7. If release is resolved and monitored levels of H₂S in the Plant, the monitors at the Highway 62/180 road crossing, and the AGI wellsite are less than 10 ppm, the Plant Supervisor or his designee may authorize personnel to sign in and return to the Plant and wellsite. Traffic will be restored on Highway 62/180. All businesses, public receptors, and producers previously notified will be informed that the release has been resolved and advised of the current monitored H₂S levels.

If the release is not resolved and/or H₂S levels continue to increase, Level 4 Response is initiated.

LEVEL 4 RESPONSE – ROAD CROSSING

A Level 4 response occurs when

- if corrective actions at Level 3 are unsuccessful
 - H₂S concentrations reach 10 ppm or greater at Assembly Area 2,
 - a catastrophic release occurs
1. Operators shall have activated the plant ESD system on evacuation from Plant facilities. When the Plant ESD is activated, an alarm is automatically sent to the Xcel Maddox control room.

Plant Supervisor will be notified of the release. State agencies including the OCD District Office and Emergency responders will be notified.

2. The Incident Command Center, media staging area and all personnel shall have evacuated to Emergency Assembly Area 3. All personnel will be accounted for using the plant sign-in sheet. Initiate and maintain a Chronological Record of Events log. H₂S concentrations at Emergency Area 3 will be monitored.
3. Plant personnel will move to the designated road block areas shown on ROE map and Highway 62/180 will be blocked. Personnel will monitor air quality and move further away if H₂S reaches 10 ppm and notify IC of new road block location
4. Notifications to area businesses, both manned and unmanned will include the nature of the release and status of containment. Notifications will include but are not limited to the following:
 - Businesses, public receptors, and producers as listed in Appendix G. All will be instructed to immediately alert all company personnel, third party contractors and/or services companies working in the area and those imminently scheduled to work in the area, of the release and evacuation status of the Plant. They should be instructed to immediately leave and not re-enter the Plant vicinity until further instruction. All shall be informed of the road blocks on Highway 62/180.
 - Xcel Maddox Station, Lea Power Partners, and DCP Hobbs Plant will be notified of the release and advised to evacuate to the west, avoiding Maddox Road.
 - Notify Smith Ranch to evacuate to the east, avoid driving south on ranch road.
5. If escaping vapors have been ignited, the vapors should be allowed to continue to burn unless the fire endangers personnel, the public, other property, or other equipment.
6. Re-entry will occur in full SCBA and cascade breathing air systems at the direction of the IC until IC determines problem has been resolved. Additional operations personnel may be directed by IC to close valves at field locations on inlet gas pipelines to ensure incoming gas is shut off.
7. Once release is resolved and monitored levels of H₂S in the Plant, the monitors at the Highway 62/180 road crossing, road blocks, and Assembly areas are less than 10 ppm, the Plant Supervisor or his designee may authorize personnel to sign in and return to the Plant and AGI wellsite. Traffic will be restored on Highway 62/180. All businesses, public receptors, and producers previously notified will be informed that the release has been resolved and advised of the current monitored H₂S levels.

AGI PIPELINE RELEASES – PIPELINE

LEVEL 1 RESPONSE – PIPELINE

Level 1 response for the AGI pipeline occurs when:

- Operator conducting biweekly line patrol detects H₂S concentration of 10 ppm or greater.
- Third party report of H₂S gas leak.

1. The responding operator returns to safe area and notifies control room operator of release. The control room operator will contact any personnel working at the AGI wellsite, inform them of the H₂S alarm on the pipeline, and direct them to monitor air quality – H₂S concentrations, using the wellsite fixed monitors, and to evacuate to Assembly Area 1 if levels increase to 10 ppm. Control room operator (ROW), helps any persons in distress, and evacuate any employees or contractors who may be working on or near the pipeline ROW to Linam Emergency Assembly Area 1. If deemed necessary, local emergency response service providers will be contacted by Plant personnel designated by the Operator.

Any third parties observed working near the ROW will be advised verbally of the situation and instructed to leave the area and not return until further notice.

The Plant Supervisor shall be notified of the release.

2. Responding Operator dons SCBA – helps any persons in distress to evacuate ROW, then determines source & takes corrective action

If corrective actions are successful and the release is resolved, and the monitored H₂S levels on the pipeline and road crossing fixed monitors return to less than 10 ppm, the Plant Supervisor or his designee will signal all clear and personnel will be allowed to sign in and resume work on the pipeline ROW. Personnel working at the wellsite will be notified of the all clear.

3. The Plant Supervisor or his designee will contact the OCD district office within 4 hours of the release.

If the release is not resolved and H₂S levels continue to increase, Level 2 Response is initiated.

LEVEL 2 RESPONSE – PIPELINE

Level 2 Response occurs when:

- Level 1 response is unsuccessful
- H₂S concentration is increasing above 10 ppm, or is detected at 20 ppm
- Pipeline leak is visible.

1. The responding operator, on detecting H₂S \geq 10 ppm, returns to safe area and immediately contacts the control room operator to activate the AGI process shut down,

which shuts down and isolates the AGI compressors and equipment and routes the acid gas to the plant acid gas flare.

When the AGI PSD is activated, an alarm is automatically sent to the Xcel Maddox control room.

The control room operator will contact personnel working at the AGI wellsite and direct them to evacuate to Emergency Assembly Area 1.

Any third party visibly observed working near the ROW will be advised verbally of the situation and instructed to leave the area and not return until further notice.

The Plant Supervisor will be notified.

2. The control room operator will direct that the manual valves at both the Linam Ranch Plant pig launcher and the AGI wellsite pig receiver be opened, and the pipeline will be depressurized into the acid gas flares located at both sites. The responding operator may, if no personnel are present at the wellsite, proceed to the wellsite, using H₂S monitors to insure his safety, to open the manual valve at the pig receiver.
3. The responding operator, upon donning the SCBA, will check the pipeline ROW, help any persons in distress, and evacuate any employees or contractors persons who may be working on or near the pipeline ROW to Linam Emergency Assembly Area 1. If deemed necessary, local emergency response service providers will be contacted by Plant personnel designated by the Operator.
4. Plant personnel with H₂S monitors and emergency trailers will be dispatched to the Highway 62/180 pipeline crossing and to the Xcel power plant on Maddox Road. Personnel will monitor air quality and move further away if H₂S reaches 10 ppm and notify IC of new road block location.

If H₂S concentrations reach 10 ppm at Highway 62/180, the Assembly Area 1, or at Xcel power plant on Maddox Road, a Level 4 response is initiated. Xcel Maddox Station, Lea Power Partners and DCP Hobbs Plant will be advised to evacuate to the west, avoiding Maddox Road. The Smith Ranch will be notified to evacuate east, avoiding driving south.

5. Incident Command Center will be established at the Plant Assembly Area 1. Establish media staging area adjacent to Assembly Area 1 and direct all media to it. The IC will initiate and maintain a Chronological Record of Events log. (Appendix I) If monitored H₂S levels at Emergency Assembly Area 1 exceed 10 ppm, evacuate to Emergency Assembly Area 3.
6. Re-entry will occur in full SCBA and cascade breathing air systems at the direction of the IC until IC determines problem has been resolved.

If release is resolved and monitored levels of H₂S in the Plant, the monitors at the Highway 62/180 road crossing, the pipeline ROW, and the AGI wellsite are less than 10 ppm, the Plant Supervisor or his designee may authorize personnel to sign in and return to the Plant and AGI wellsite. Third parties evacuated from the ROW will be advised of the all clear.

The Plant Supervisor or his designee will contact the OCD district office within 4 hours of the release

If the release is not resolved and/or H₂S levels continue to increase, Level 4 Response is initiated.

LEVEL 3 RESPONSE – PIPELINE

There is no level 3 for a pipeline response.

LEVEL 4 RESPONSE – PIPELINE

A Level 4 response occurs when

- if corrective actions at Level 2 are unsuccessful
 - H₂S concentrations reach 10 ppm or greater at - the Xcel Power Plant, Highway 62/180, or any other public area or road.
 - a catastrophic release occurs
1. Emergency trailers will be dispatched to block Highway 62/180 at designated locations shown on the ROE Map. Personnel will monitor air quality and move further away if H₂S reaches 10 ppm and notify IC of new road block location.

Plant operators will activate the plant ESD system. When the Plant ESD is activated, an alarm is automatically sent to the Xcel Maddox control room.

The operator will contact any personnel working at the AGI wellsite and direct them to evacuate to Emergency Assembly Area 3. Any third parties observed working near the ROW will be advised verbally of the situation and instructed to leave the area and not return until further notice.

2. The Incident Command Center will be relocated to Emergency Assembly Area 3. All personnel shall evacuate to Assembly Area 3. All personnel will be accounted for using the plant sign-in sheet. Initiate and maintain a Chronological Record of Event log.
3. State agencies including the OCD District Office and Emergency responders will be notified.
4. Notifications to area businesses, both manned and unmanned will include the nature of the release and status of containment. Notifications will include but are not limited to the following:
 - Businesses, public receptors, and producers as listed in Appendix G. All will be instructed to immediately alert all company personnel, third party contractors and/or

services companies working in the area and those imminently scheduled to work in the area, of the release and evacuation status. They should be instructed to immediately leave and not enter/or re-enter the pipeline ROW vicinity until further instruction. All shall be informed of the road blocks on Highway 62/180.

- Xcel Maddox Station, Lea Power Partners and DCP Hobbs Plant will be notified of the release and advised to evacuate to the west, avoiding Maddox Road.
 - Smith Ranch will be notified to evacuate east, and to avoid driving south.
5. If escaping vapors have been ignited, the vapors should be allowed to continue to burn unless the fire endangers personnel, the public, other property, or other equipment.
 6. Re-entry will occur in full SCBA and cascade breathing air systems at the direction of the IC until IC determines problem has been resolved.
 7. Once release is resolved and monitored levels of H₂S in the Plant, the monitors at the Highway 62/180 road crossing, the pipeline ROW, and the AGI wellsite are less than 10 ppm, the Plant Supervisor or his designee may authorize personnel to sign in and return to the Plant, AGI wellsite, and pipeline ROW. Traffic will be restored on Highway 62/180. All businesses, public receptors, and producers previously notified will be informed that the release has been resolved and advised of the current monitored H₂S levels.

AGI WELLSITE RELEASES:

LEVEL 1 RESPONSE – AGI WELLSITE

A Level 1 response occurs when

- 10 ppm of H₂S or greater is detected at an **interior** fixed monitor
 - 10 ppm of H₂S or greater is detected on a personal monitor
 - an intermittent horn and a flashing yellow light occurs
1. The operator and all other personnel in the wellsite shall immediately evacuate the wellsite using the evacuation routes to the Wellsite Assembly Area (see **Appendix D**). At the assembly area, all personnel will be accounted for using the sign in sheet, and the air quality will be monitored to insure it remains less than 10 ppm H₂S. If it rises to 10 ppm H₂S, all personnel will move to Linam Ranch Plant Assembly Area 1.

The control room operator and Plant Supervisor shall be notified of the release.

2. The responding operator, upon donning the SCBA, will first help any persons in distress evacuate to the Wellsite Assembly Area. If deemed necessary, local emergency response service providers will be contacted by Plant personnel designated by the Operator.

Linam Plant Control room operator monitors H₂S levels and communicates with responding operator.

3. Wearing the SCBA, the operator will attempt to fix the cause of the release. If the release is contained and the monitored H₂S levels in the wellsite are less than 10 ppm, the Plant Supervisor or his designee will signal all clear and personnel will be allowed to sign in and re-enter the wellsite to resume work.
4. The Plant Supervisor or his designee will contact the OCD district office within 4 hours of the release.

If the release is not resolved and H₂S levels continue to increase, Level 2 Response is initiated.

LEVEL 2 RESPONSE – AGI WELLSITE

A Level 2 response occurs when

- Corrective actions at Level 1 were unsuccessful
 - 20 ppm of H₂S or greater is detected at an interior fixed monitor
 - a continuous horn and a flashing yellow light occurs
1. At the initial sound of the continuous alarm or observance of the flashing yellow beacons, the operators and all other personnel in the wellsite will evacuate using the evacuation routes to the Wellsite Assembly Area (see **Appendix D**). At the assembly area, all personnel will be accounted for using the sign in sheet, and the air quality will be monitored to insure it remains less than 10 ppm H₂S. If it rises to 10 ppm H₂S, all personnel will move to Assembly Area 1.

The control room operator and Plant Supervisor shall be notified of the release.

2. The operator, upon donning the SCBA, will first help any persons in distress evacuate to the Emergency Assembly Area. If deemed necessary, local emergency response service providers will be contacted by Plant personnel as designated by the Operator
3. Wearing the SCBA, the operator(s) will attempt to fix the cause of the release. If the operators are unsuccessful in containing the release and H₂S levels continue to rise, or remain above 20 ppm for 15 minutes, the Operator will manually activate the AGI process shut down, which shuts down the AGI compressors and equipment, closes the pipeline and injection well isolation valves, and depressurizes the wellsite equipment and piping to the wellsite flare. At Linam Ranch Plant, the acid gas stream from the amine system is routed to the plant acid gas flare.

When the AGI PSD is activated, an alarm is automatically sent to the Xcel Maddox control room. (The Xcel Maddox control room is manned continuously, and will receive an audible and visual signal on their DCS system of the DCP alarms.)

If the release is contained and the monitored H₂S levels in the wellsite are less than 10 ppm, the Plant Supervisor or his designee will signal all clear and personnel will be allowed to sign in and re-enter the wellsite to resume work. Priority will be given to restoring the AGI compressors and equipment to normal operations.

4. If the wellsite perimeter monitors reach 10 ppm, initiate a Level 3 Response.

If the release is not resolved and H₂S levels continue to increase, Level 3 Response is initiated.

LEVEL 3 RESPONSE – AGI WELLSITE

A Level 3 response is initiated when:

- level 2 corrective actions are unsuccessful
- when a wellsite perimeter monitor has reached 10 ppm H₂S
- Continuous horn alarm & flashing yellow beacons

1. The AGI process shut down will be automatically activated when a perimeter monitor reaches 10 ppm H₂S, shutting down the compressor equipment, closes pipeline and injection well isolation valves, and depressurizes the wellsite equipment and piping to the wellsite acid gas flare. At Linam Ranch Plant, the acid gas stream from the amine treater is routed to the Linam Ranch Plant acid gas flare. When the AGI PSD is activated, an alarm is automatically sent to the Xcel Maddox control room.

An H₂S alarm signal is also automatically sent to the Xcel Maddox Station, alerting their control room of the 10 ppm H₂S concentration at the DCP AGI wellsite perimeter.

Flashing Poison Gas signals are activated along Maddox road & Smith Ranch road as shown on Appendix C to alert approaching vehicles and personnel of potential danger.

2. All personnel will be evacuated from the Wellsite Assembly Area to the Linam Ranch Plant Assembly Area 1. At the assembly area, all personnel will be accounted for using the sign in sheet, and the air quality will be monitored to insure it remains less than 10 ppm H₂S. If it rises to 10 ppm H₂S, all personnel will move to Assembly Area 3.

The Plant Supervisor shall be notified of the release.

3. Personnel with emergency trailers will be dispatched to monitor H₂S concentration on Maddox road at the Xcel Maddox Power Plant.

If H₂S concentrations reach 10 ppm at the Maddox Road and Xcel Maddox Station, Xcel Maddox, DCP Hobbs Plant, and Lea Power Partners will be advised to evacuate west, avoiding Maddox Road, and a Level 4 will be initiated. The Smith Ranch will be notified to evacuate east, and to avoid driving south.

4. State agencies including the OCD District Office and Emergency responders will be notified.
5. Notifications to area businesses, both manned and unmanned will include the nature of the release and status of containment. Notifications will include but are not limited to the following:

- Businesses, public receptors, and producers as listed in Appendix G. All will be instructed to immediately alert all company personnel, third party contractors and/or services companies working in the area and those imminently scheduled to work in the area of the release. They should be advised to immediately leave the vicinity of the AGI wellsite until further notified..
- Xcel Maddox Station, DCP Hobbs Plant and Lea Power Partners facilities will be notified of the release and advised to shelter in place or evacuate depending on wind direction.
- The Smith Ranch will be notified of the release and advised to shelter in place (depending on wind direction), or evacuate east, avoiding driving south.

6. Incident Command Center will be established at the Linam Ranch Plant Assembly Area 1. – Establish media staging area adjacent to Linam Ranch Plant Assembly Area 1 and direct all media to it. The IC will initiate and maintain a Chronological Record of Events log.
Appendix I

If monitored H₂S levels rise to 10 ppm at Linam Ranch Plant Emergency Assembly Area 1 or at the pipeline road crossing, initiate a Level 4 response and evacuate to Assembly Area 3. Establish Incident Command Center and media staging area adjacent to Assembly Area 3 and direct media to it.

Plant personnel with emergency trailers will move to the designated road block areas shown on ROE map and Highway 62/180 will be blocked.

7. Re-entry will occur in full SCBA and cascade breathing air systems at the direction of the IC until IC determines problem has been resolved. Additional operations personnel may be directed by IC to close valves on AGI pipeline.

If release is resolved and monitored levels of H₂S in the AGI wellsite are less than 10 ppm, Plant Supervisor or his designee will signal all clear and personnel will be allowed to sign in and re-enter the wellsite to resume work.

All businesses, public receptors, and producers previously notified will be informed that the release has been resolved and advised of the current monitored H₂S levels.

If release is not resolved, a Level 4 response is initiated

LEVEL 4 RESPONSE – AGI WELLSITE

A Level 4 response occurs when

- if corrective actions at Level 3 are unsuccessful
 - H₂S concentrations reach 10 ppm or greater at the Linam Ranch Plant
 - H₂S concentrations reach 10 ppm or greater at the Xcel Maddox Station
 - H₂S detectors at pipeline road crossing indicate 10 ppm H₂S from an AGI wellsite release
 - Or a catastrophic release occurs
1. Operators shall have activated the plant ESD system on evacuation from Plant facilities. When the Plant ESD is activated, an alarm is automatically sent to the Xcel Maddox control room. Plant Supervisor will be notified of the release. State agencies including the OCD District Office and Emergency responders will be notified.
 2. The Incident Command Center, media staging area and all personnel shall have evacuated to Emergency Assembly Area 3. All personnel will be accounted for using the plant sign-in sheet. Initiate and maintain a Chronological Record of Events log.
 3. Plant personnel with emergency trailers will move to the designated road block areas shown on ROE map and Highway 62/180 will be blocked. Personnel will monitor air quality and move further if H₂S reaches 10 ppm and notify IC of new road block.
 4. Notifications to area businesses, both manned and unmanned will include the nature of the release and status of containment. Notifications will include but are not limited to the following:
 - Businesses, public receptors, and producers as listed in Appendix G. All will be instructed to immediately alert all company personnel, third party contractors and/or

services companies working in the area and those imminently scheduled to work in the area, of the release. They should be instructed to immediately leave and not enter/or re-enter the AGI Wellsite vicinity until further instruction. All shall be informed of the road blocks on Highway 62/180.

- Xcel Maddox Station, Lea Power Partners and DCP Hobbs Plant will be notified of the release and advised to evacuate to the west, avoiding Maddox Road.
 - Notify Smith residence that the access road to their property is closed and to use an alternate evacuation road to the east, avoiding driving south.
5. If escaping vapors have been ignited, the vapors should be allowed to continue to burn unless the fire endangers personnel, the public, other property, or other equipment.
 6. Re-entry will occur in full SCBA and cascade breathing air systems at the direction of the IC until IC determines problem has been resolved. Additional operations personnel may be directed by IC to close valves at field locations on inlet gas pipelines to ensure incoming gas is shut off.
 7. Once resolved and all monitored levels of H₂S in the AGI wellsite and Plant are less than 10 ppm H₂S, the Plant Supervisor will signal all clear and allow personnel to sign in and re-enter the Plant site and AGI wellsite. All businesses previously notified will be informed that the release had been resolved and advised of the current monitored H₂S levels at the AGI wellsite and Plant.
 8. Highway traffic will be restored.

4. EMERGENCY SHUT DOWN SYSTEM

The Linam Ranch Plant and AGI wellsite have extensive Emergency Shut Down (ESD) and Process Shut Down (PSD) systems designed to isolate incoming and out-going gas and product streams, contain hydrocarbon and H₂S releases, and safely depressurize equipment to flares. These systems are automatically and manually initiated, depending on process conditions. There are manually activated ESD buttons located at exit locations at the Plant and the AGI wellsite as shown on Appendix D. The ESD systems are designed to prevent a Level 4 response. See **Appendix E** for a more detailed description of the ESD systems.

5. NOTIFICATIONS AND REPORTS

The Plant has various notification and reporting obligations. Some are related to its state air quality permit that is overseen by NMED as well as state and federal spill reporting obligations. In addition to the regulatory obligations noted above, Plant personnel also have internal and external notification and reporting obligations associated with the activation of this Plan.

The NMOCD will be notified as soon as possible but no later than 4 hours following a release of H₂S requiring activation of this Plan. This shall be followed up with a full report of the incident using the NMOCD's C-141 form no later than 15 days following the release.

A. DISCOVERY AND INTERNAL REPORTING

1. All personnel, including contractors who perform operations, maintenance, and/or repair work in sour gas areas within the Plant, AGI pipeline, and AGI wellsite wear H₂S monitoring devices to assist them in detecting the presence of unsafe levels of H₂S. When any personnel while performing such work discovers a leak or emission release they are to attempt to resolve the issue as long as H₂S levels remain below 10 ppm. The personal monitoring devices they wear will give off an audible alarm at 10 ppm. If the response action needed to resolve the issue is more than simply closing a valve or stopping a small leak, the personnel shall notify the Plant Supervisor, or his designee and convey, at a minimum, the following information:
 - Name, telephone number, and location of person reporting the situation; and
 - Type and severity of the emergency; and
 - Location of the emergency (area/block, mile markers, latitude & longitude, or building), and the distance to surrounding equipment and/or structures; and
 - The cause of the spill or leak, name and quantity of material released, and extent of the affected area including the degree of environmental hazard; and
 - Description of injuries and report of damage to property and structures; and
 - Initiate and maintain a Chronological Record of Events log. This record should record the time, date, and a summary of the event.
2. If any personnel detects H₂S levels of 10 ppm or greater either as a result of his/her personal monitoring device or the intermittent alarms and/or yellow flashing beacons from fixed monitors, the Control Room operator will contact the Plant Supervisor for assistance and the

responding operator will put on the 30-min SCBA. All non essential persons shall be notified of the release and evacuated from the area. The responding Operator wearing the SCBA will first assist any persons requiring assistance during the evacuation, then attempt to resolve the issue. The Control Room Operator is responsible for notifying the Plant Supervisor or his designee so that the H₂S Contingency Plan can be activated, if necessary.

3. Once the Plant Supervisor is contacted, he or his designee is to notify the appropriate DCP management, EHS personnel, Plant emergency response personnel, and advise them of the existing situation. If necessary, the Control Room Operator will then conduct the notifications to state regulatory agencies including the OCD District Office and emergency response agencies as detailed in Appendix G (Page 65).
4. DCP operations personnel are to advise any contractor and all others on-site or attempting to enter the Plant that the H₂S Plan has been activated.

B. PUBLIC AWARENESS AND COMMUNICATION

Public awareness and communication is a primary function of the H₂S Plan. DCP has compiled a list of various public, private, state, and local contacts that are to be notified at various phases during the activation of the Plan. Refer to the Response Flow diagram in Appendix F that indicates when certain entities are to be contacted in event of activation of this Plan. **Appendix G** is a listing of the entities to be contacted and **Appendix H** is a list of organizations that have received a copy of the Plan. DCP will inform all state and local response organizations on its Plan as well as those businesses and residences that fall within its 500-ppm and 100-ppm ROE as illustrated in **Appendix C**.

C. PUBLIC AREAS, NEARBY BUSINESSES AND RESIDENTS

The contact information for all residents, businesses and public areas is contained in **Appendix G**. All businesses and public places within the 500 ppm and 100 ppm radius of exposure will be contacted by Plant personnel as designated by Plant Supervisor if the Plan is activated and based on response level as described in the **Plant, Road Crossing, Pipeline, and AGI Wellsite Response** sections of this Plan and advised of the following:

- The nature and extent of the release/emergency at the Plant, Pipeline or AGI wellsite and recommendations for protective actions, such as evacuation or shelter-in-place
- Any other event specific information that is necessary to protect the public
- Updates as to the status of the release and continued safety measures to be taken, including but not limited to when to evacuate and/or when it is safe to return to the area.

1. Residences or Public roads:

There are no residences located within 500 ppm radius of exposures. There are 2 residences within the 100 ppm radius of exposure located east of the plant site on US Highway 62-180.

Also, there are two residences located just outside of the 100 ppm radius of exposure, the Smith Ranch, and the Handley residence. These residences are included on all response notifications and their contact information is listed in Appendix G.

There are 2 public roads and 1 private ranch road (Smith Ranch) located within the 500 ppm radius of exposure. US Highway 62-180 is located adjacent to the Plant site and the AGI Pipeline also crosses the Highway adjacent to the Plant site. County Road 41 (Maddox Road) is located within the 500 ppm radius of the AGI wellsite and the pipeline. Both of these roads also have sections within the 100 ppm radius of exposure of the AGI wellsite, pipeline and Plant site. Additionally, a portion of NM Highway 8, south of US Highway 62-180, lies within the 100 ppm radius of exposure of the AGI Pipeline and Plant site.

There are 2 automated, flashing warning signs located adjacent to County Road 41 (Maddox Road) and 2 automated, flashing warning signs located adjacent to the private ranch road (Smith road) to alert the public of hazardous conditions. There are two emergency trailers, equipped with flashing lights, windsocks, and roadblock signs for use in alerting the public of hazardous conditions on Highway 62/180 and the pipeline road crossing.

2. Businesses or Other Public Areas:

There is one 24 - hour manned business within the 500 ppm radius of exposure. The Xcel Maddox Power Plant is located southwest of the AGI wellsite and within the 500 ppm radius of exposure of the AGI wellsite and the AGI pipeline. The Dorado pump station, normally manned from 6 am to 6 pm, is located west of the Plant site and is within the 500 ppm radius of exposure of the Plant Site and the AGI pipeline.

There are 2 additional manned businesses within the 100 ppm radius of exposures. The Lea Power Partners Power Plant lies northwest of the AGI wellsite and within the 100 ppm radius of exposure of the AGI wellsite and the AGI Pipeline. The DCP Hobbs Gas Plant lies within the 100 ppm radius of exposures of the AGI wellsite, AGI Pipeline and the Plant site.

All businesses on this list will be provided with a copy of the H₂S Plan and will be contacted about participation when local emergency response training events or drills occur.

Due to the overlapping nature of the radius of exposures for the plant, pipeline, AGI wellsite, all residences, manned and unmanned businesses, and producers listed on Appendix G will be notified if the Plan is enacted.

6. SITE SECURITY

- A. In order to have an accurate listing of all personnel on-site in the event of an emergency, a daily sign-in log sheet shall be utilized. The sign-in log sheet shall include at a minimum the person's name, the company name, the time of arrival, and the time of departure. All personnel are required to sign in at the Linam Ranch Plant Office and Control Room.

- B. The Incident Commander shall be responsible to assure that all personnel sign-in upon arrival and sign-out upon departure from the job site.
- C. The Incident Commander may at his discretion assign the responsibilities for the daily sign-in log sheet to the individual designated as the Record Keeper or another designee.
- D. At the discretion of the Incident Commander, a security coordinator and/or a security team may be established, and the access to the job site restricted.
- E. Road blocks will occur as outlined in the Response Level detail for Plant, road crossing, pipeline, or AGI wellsite releases.

7. SIGNS & MARKERS

The Plant, AGI wellsite, and AGI pipeline have numerous warning signs indicating the presence of H₂S/Poisonous Gas and high pressure gas at the entrances to the Plant, the AGI wellsite, at road crossings, and along the pipeline right of way. Emergency response phone numbers are posted at the entrance to the Plant and AGI wellsite. AGI pipeline markers also include emergency response numbers.

Signs are located at the Plant and AGI wellsite gate entrances indicating that all visitors are to sign in at the Plant office.

Warning signs equipped with flashing lights have been installed adjacent to Maddox Road and the Smith Ranch private road to alert the public of hazardous conditions. These flashing signs are activated by the H₂S monitor systems for the well site.

Emergency trailers, equipped with flashing lights and windsocks are utilized at the Hwy 62/180 pipeline road crossing to alert the public of hazardous conditions.

8. FIRST-AID STATION

The first aid station will be located at the Emergency Assembly Area.

FIRST AID KITS are located:

- Plant Superintendent Office Building,
- Maintenance/Safety Office Building, and
- Each company vehicle
- Plant Supervisors office
- Linam Ranch Plant Control Room
- Emergency trailers

9. MEDIA SITE

- A. If a Level 3 Response occurs, the Media Site will be located adjacent to Emergency Assembly Area 2. If the release is at the AGI Wellsite the Media Site will be at the Emergency Assembly Area 1. The Incident Commander will designate the Media Site adjacent to the Emergency Assembly Area.
- B. If a Level 4 Response occurs, the Media Site will be located adjacent to Emergency Assembly Area 3. The Incident Commander will designate a media Site adjacent to the Emergency Assembly Area.
- C. The Incident Commander will designate a Media Liaison Officer or assume these duties personally.

- D. Under no circumstances will media personnel be allowed inside the warm or hot zone (road blocked area). Media personnel will only be allowed inside the road blocked area once the area has been monitored and restored to a cold zone (less than 10 ppm H₂S), and the Incident Commander has approved their entry.
- E. Media personnel shall not be allowed to enter DCP Midstream property without the approval of the DCP Midstream Asset Manager or his designee, and shall be escorted by DCP Midstream personnel at all times.

10. EMERGENCY AND SAFETY EQUIPMENT

Refer to **Appendix E** for information pertaining to the Plant's emergency and Safety equipment.

V. TRAINING AND DRILLS

A. TRAINING

Training on the H₂S Contingency Plan will be focused on three groups:

1. **DCP Personnel** - Training for DCP personnel shall include the Linam Ranch (Plant personnel) work group – consisting of plant operators, mechanics, instrument and electrical technicians, and maintenance support personnel. Plant Operators will be responsible for initiating and implementing the Plan. In addition, all Plant personnel will receive:
 - All Plant personnel will receive annual training on the H₂S Contingency Plan. This training will include a review of all aspects of the Plan and will include, at a minimum, one table top drill involving activation of the H₂S Contingency Plan.
 - Plant Orientation Training - All Plant personnel, visitors, and contractors must attend a Plant overview orientation prior to obtaining permission to enter the Plant. A refresher course on this training is required annually for all persons. Included as part of this orientation is how to respond and evacuate safely in the event of a H₂S alarm or release. This training also complies with the requirements of the DCP and Linam Ranch Plant's Process Safety Management Program and Procedures Manuals.
 - All Plant personnel are also trained annually on the Linam Ranch Emergency Response Plan.
 - Hydrogen Sulfide and Sulfur Dioxide Training - All Plant personnel receive annual refresher training on hydrogen sulfide and sulfur dioxide, which is conducted by DCP personnel. If an individual is unable to attend, they may be required to attend a third party training session. All contract employees are required to have had hydrogen sulfide training and to provide the Plant a copy of their certification card prior to obtaining permission to enter the Plant.
 - Respirators - All Plant personnel are trained annually on the proper use of respirators. In addition to the annual training, all Plant personnel are fit tested annually on the respirators. All Plant personnel must have medical clearance for respirator use.

- Hazard Communication - All Plant personnel are trained annually on Hazard Communication. The annual training includes, at a minimum, the use of material safety data sheets (MSDS) for those materials that are present at the Plant.
- Personal Protective Equipment (PPE) - All Plant personnel are trained annually on the DCP requirements for personal protective equipment (PPE). The training includes, at a minimum, a review of all the types and levels of personal protective equipment and how to select the correct equipment for the job.

2. **Emergency Response Agencies**

DCP Midstream will provide annual training to the following Emergency Response Agencies:

- NM State Police-Hobbs Office
- Lea County 911 Emergency Response
- Lea County Emergency Planning Committee
- Hobbs Police Department
- Lea County Sherriff's Department
- Hobbs Fire Department
- New Mexico Oil Conservation Division-Hobbs District Office

All of these entities will have copies of the H₂S Contingency Plan

This training will include:

- Characteristics of H₂S and safety precautions
- An overview of the Linam Ranch Plant and AGI operations
- A review of their roles in responding to activation of the Linam Ranch Plant H₂S Contingency Plan
- Location of the Radii of Exposure and how to protect the public within the Radii of Exposure
- Potential roadblock locations, potential evacuation routes, and how they can assist in implementing the Plan.

DCP Midstream will also conduct, at a minimum, one annual tabletop drill involving the Emergency Response Organizations listed above on the activation of the Linam Ranch Plant H₂S Contingency Plan.

3. **Business, Public Receptors, and Producers** located within the radii of exposure

DCP Midstream will provide annual training to the businesses, public receptors and producers listed in Appendix G. that includes:

- An overview of the Linam Ranch Plant and AGI operations
- Design and operating safety features on the Linam Ranch Plant
- A review of the H₂S alarms and significance
- Notification procedures
- Roadblock locations

- Potential evacuation routes,
- Procedures for sheltering in place
- Radii of exposure

B. EMERGENCY RESPONSE DRILLS

1. The Plant will conduct, at least, a tabletop drill annually. Multiple drills during the year may be scheduled at the discretion of the Plant Supervisor.
2. The annual drill will execute this Plan and include, at a minimum, the Local Emergency Response Agencies listed in Section A above and contacting the entities that are identified as being within the 500 ppm and 100-ppm ROE to make sure contact information is current on **Appendix G**. The drills will also include briefing of public officials on issues such as evacuation or shelter-in-place plans.
3. Drill training will be documented and those records will be maintained at the Plant. The documentation shall include at a minimum the following:
 - a. Description or scope of the drill, including date and time
 - b. Attendees and Participant to the drill
 - c. Summary of activities and responses
 - d. Post-drill debriefing and reviews

APPENDIX A

WORST CASE SCENARIO

The basis for Linam Ranch Plant worst case calculations is 5700 parts per million (ppm) or 0.57 mole percent of hydrogen sulfide in the inlet gas to the Linam Gas Plant and a maximum daily (24 hour) processing volume of 225,000 Mscf. The ROE assumes an uncontrolled instantaneous release from the area near the amine contact towers of the referenced volume and concentration. Calculations using the ROE formula pursuant to NMAC 19.15.1 1 are provided in **Appendix B**.

It should be noted that this rate, though used as worst case, would unlikely be released due to the Plant emergency shut down (ESD) systems that when activated shuts down the Plant. ESD valves on the inlet pipelines to prevent gas from entering the Plant. In addition, each inlet pipeline has field located shut down valves as follows:

- Eddy Co. Line – pipeline shut down valve, capable of remote or manual closing, 300 ft. north of Hwy 62/180. Second pipeline shut down valve, manual closing, 5 miles west of Linam Ranch Plant.
- Buckeye Line – pipeline shut down valve, manual closing, 300 ft. north of Hwy 62/180. Second pipeline shut down valve 7 miles northwest of Linam Ranch Plant.
- Shell 12' Line – pipeline shut down valve, manual closing at south fence line of Linam Ranch Plant. Second pipeline shut down valve 7 miles southwest of Linam Ranch Plant.

The secondary, “outside-of-the ROE” valve locations are shown with roads on Figure 2 in Appendix C. These valves, when closed, shut off all gas from the gathering systems flowing into Linam Ranch Plant.

These valves would be closed as directed by the IC in the event that Plant ESD valves failed to function properly.

The basis for AGI pipeline and wellsite for worst case calculations is 28.06 mole percent of hydrogen sulfide in the acid gas from the Linam Gas Plant and a maximum daily (24 hour) volume of 4,600 Mscf. The ROE assumes an uncontrolled instantaneous release from the wellsite or pipeline of the referenced volume and concentration. Calculations using the ROE formula pursuant to NMAC 19.15.11 are provided in **Appendix B**.

It should be noted that this rate, though used as worst case, would unlikely be released due to:

1. The AGI process shut down (PSD), which when activated, shuts down and isolates the AGI compressors and equipment and routes the acid gas safely to the plant acid gas flare.
2. The Plant emergency shut down (ESD) systems, that when activated shuts down the Plant and closes ESD valves on the inlet pipelines preventing all gas from entering the Plant.

APPENDIX B

RADIUS OF EXPOSURE CALCULATIONS

The formulas for calculating the two ROEs (as specified by the regulations) are as follows:

500-ppm RADIUS OF EXPOSURE CALCULATION

$$X = [(0.4546)(\text{hydrogen sulfide conc.})(Q)]^{(0.6258)}$$

Where:

X = Radius of exposure in feet

Hydrogen Sulfide Conc = Decimal equivalent of mole or volume fraction of hydrogen sulfide in the gaseous mixture

Q = Escape rate expressed in cubic feet per day (corrected for standard conditions of 14.73 psi absolute and 60 degrees Fahrenheit)

LINAM RANCH PLANT

a) For existing facilities or operations, the escape rate (Q) is the maximum daily rate of the gaseous mixture produced or handled or the best estimate thereof. For the Linam Gas Plant the Company is using for contingency planning purposes an "escape rate" equal to the inlet gas volume of 225,000 MCFD. The inlet gas volume at the Plant is somewhat variable and is continuously metered. The Plant records daily inlet gas volumes and prepares a daily volume report. The volume of 225,000 MCFD of inlet gas has been selected as the escape rate since it is the highest volume that the Plant would handle under its current operations and is considered worst case interpretation of the volume of gas.

As to hydrogen sulfide concentration of the inlet gas, daily monitoring data indicates variable concentrations with an average for 2009 of 4700 ppm, however 5700 ppm (0.57 mole percent) is a worst case scenario. Thus, the Plant has used a hydrogen sulfide concentration of 5700 ppm for its contingency planning purposes.

Using:

Q = 225,000,000

H₂S conc = 5700 ppm or 0.57 mole%

$$\begin{aligned} & [(0.4546)(\text{H}_2\text{S concentration})(\text{gas volume (Q)})]^{0.6258} \\ & [(0.4546)(5700 \cdot 0.000001)(225,000,000)]^{0.6258} \end{aligned}$$

500-ppm ROE = 4,057 feet

100-ppm RADIUS OF EXPOSURE CALCULATION

$$\frac{[(1.589) * (\text{H}_2\text{S concentration}) * (\text{gas volume (Q)})] 0.6258}{[(1.589) * (5700 * .000001) * (225,000,000)] 0.6258}$$

$$\text{100-ppm ROE} = 8,877 \text{ feet}$$

AGI PIPELINE AND WELLSITE

a) For existing facilities or operations, the escape rate (Q) is the maximum daily rate of the gaseous mixture produced or handled or the best estimate thereof. For the Linam AGI pipeline and wellsite, the Company is using for contingency planning purposes an "escape rate" equal to the acid gas volume of 4,600 MCFD. The volume of 4,600 MCFD of acid gas has been selected as the escape rate since it is the highest volume that the Plant would handle under its current operations and is considered worst case interpretation of the volume of gas.

As to hydrogen sulfide concentration of the inlet gas, daily monitoring data indicates variable concentrations with an average for 2009 of 23.39 mole percent; however 28.06 mole percent is a worst case scenario. Thus, the Plant has used a hydrogen sulfide concentration of 28.06 mole percent for its contingency planning purposes.

Using:

$$Q = 4,600,000$$

$$\text{H}_2\text{S conc} = 28.06 \text{ mole\%}$$

$$\frac{[(0.4546) * (\text{H}_2\text{S concentration}) * (\text{gas volume (Q)})] 0.6258}{[(0.4546) * (0.2806) * (4,600,000)] 0.6258}$$

$$\text{500-ppm ROE} = 4,073 \text{ feet}$$

100-ppm RADIUS OF EXPOSURE CALCULATION

$$\frac{[(1.589) * (\text{H}_2\text{S concentration}) * (\text{gas volume (Q)})] 0.6258}{[(1.589) * (0.2806) * (4,600,000)] 0.6258}$$

$$\text{100-ppm ROE} = 8,914 \text{ feet}$$

APPENDIX C
100-PPM AND 500-PPM
RADIUS OF EXPOSURE MAP



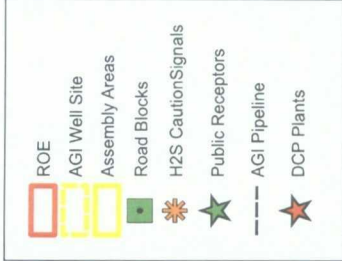
Linam Ranch Gas Plant
H2S Contingency Plan
Radius of Exposure

- ROE
- Public Receptors
- H2S Monitors
- AGI Pipeline
- AGI Well Site
- Assembly Areas
- Road Blocks
- DCP Plants





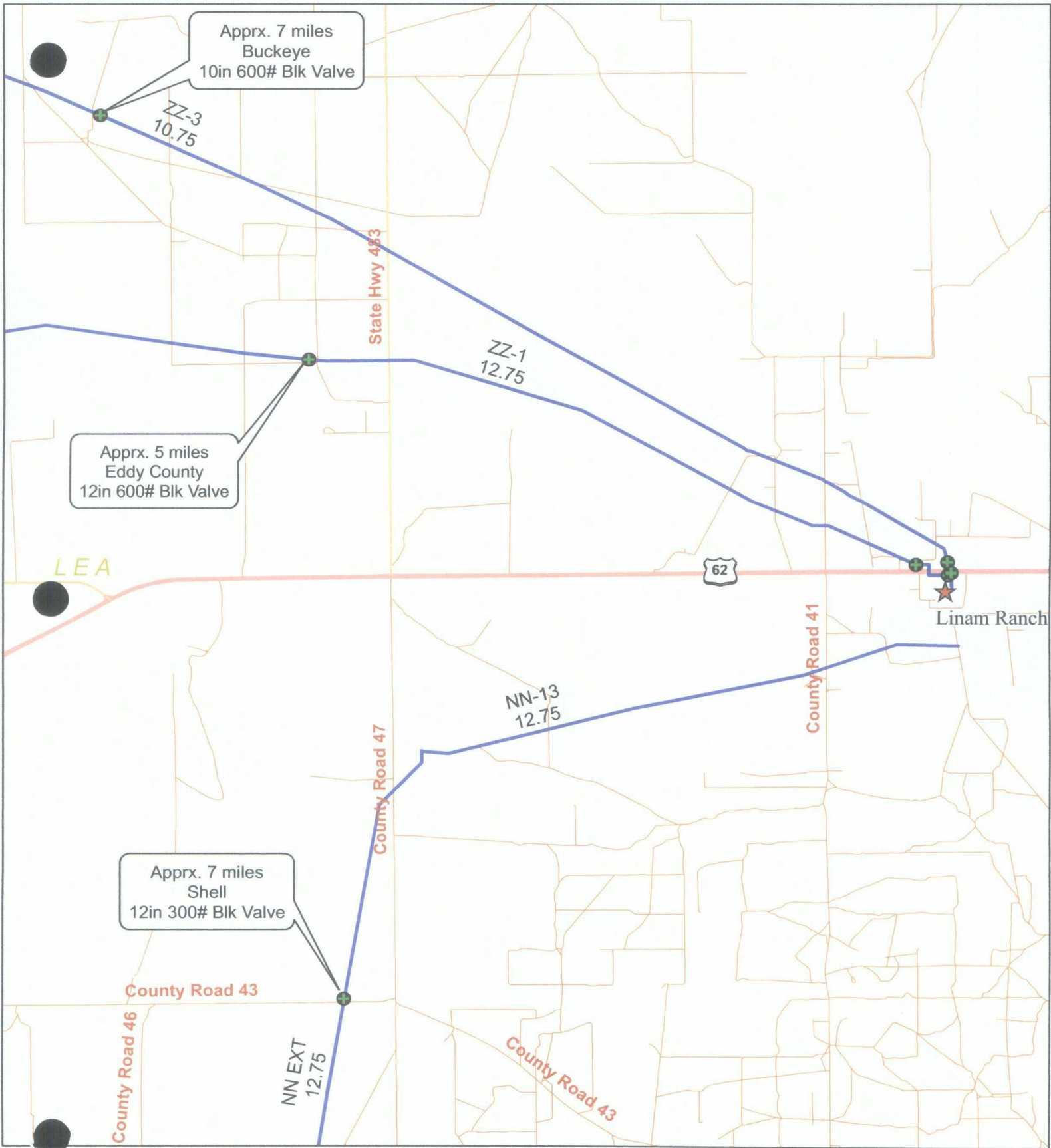
AGI Well Site
H2S Contingency Plan
Radius of Exposure



dcp
Midstream



Figure 2



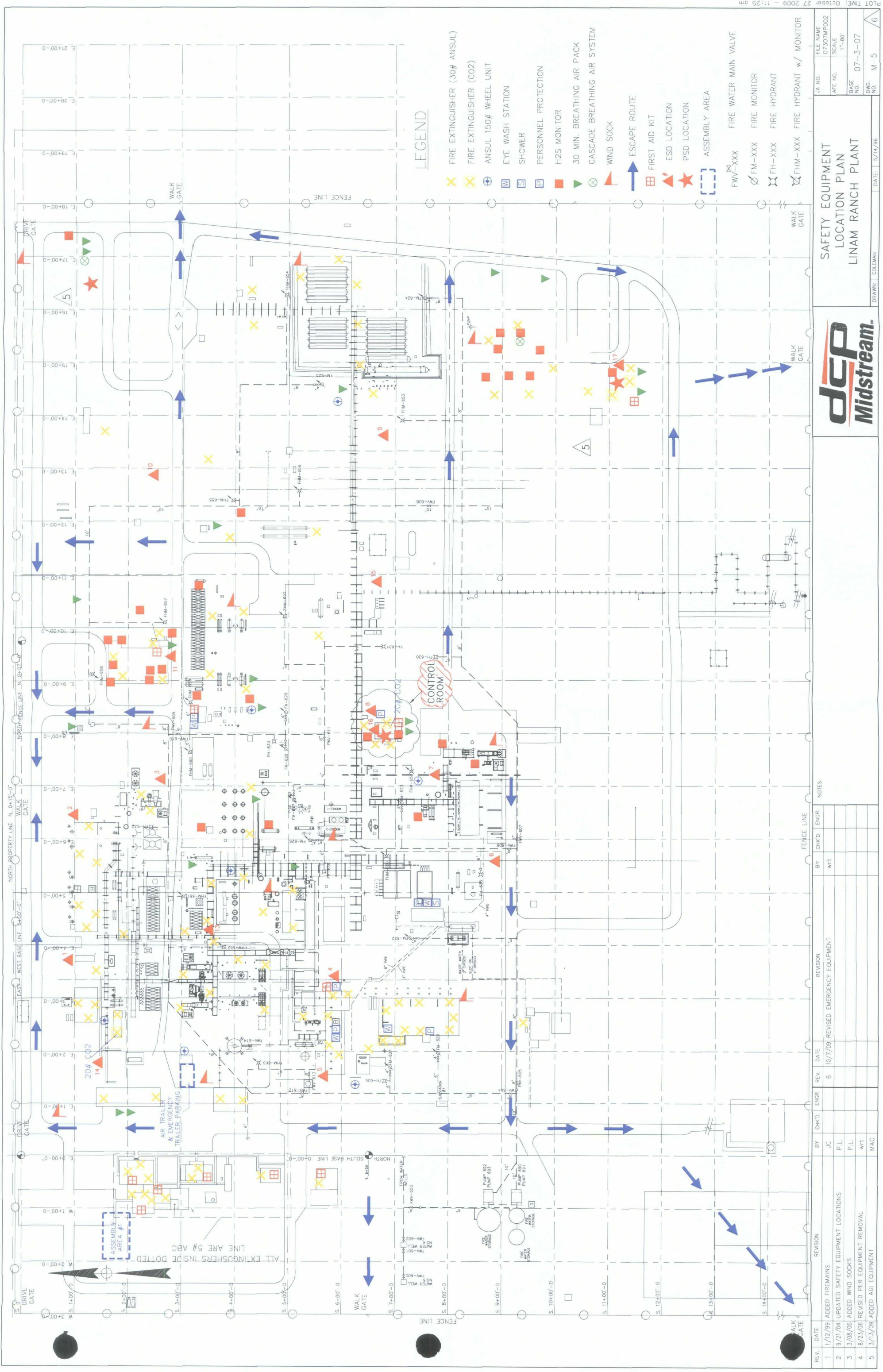
Block Valves

DCP Midstream Gas Plant

DCP Midstream Pipelines



APPENDIX D
PLANT DIAGRAM WITH
EVACUATION ROUTES & EMERGENCY
EQUIPMENT LOCATIONS



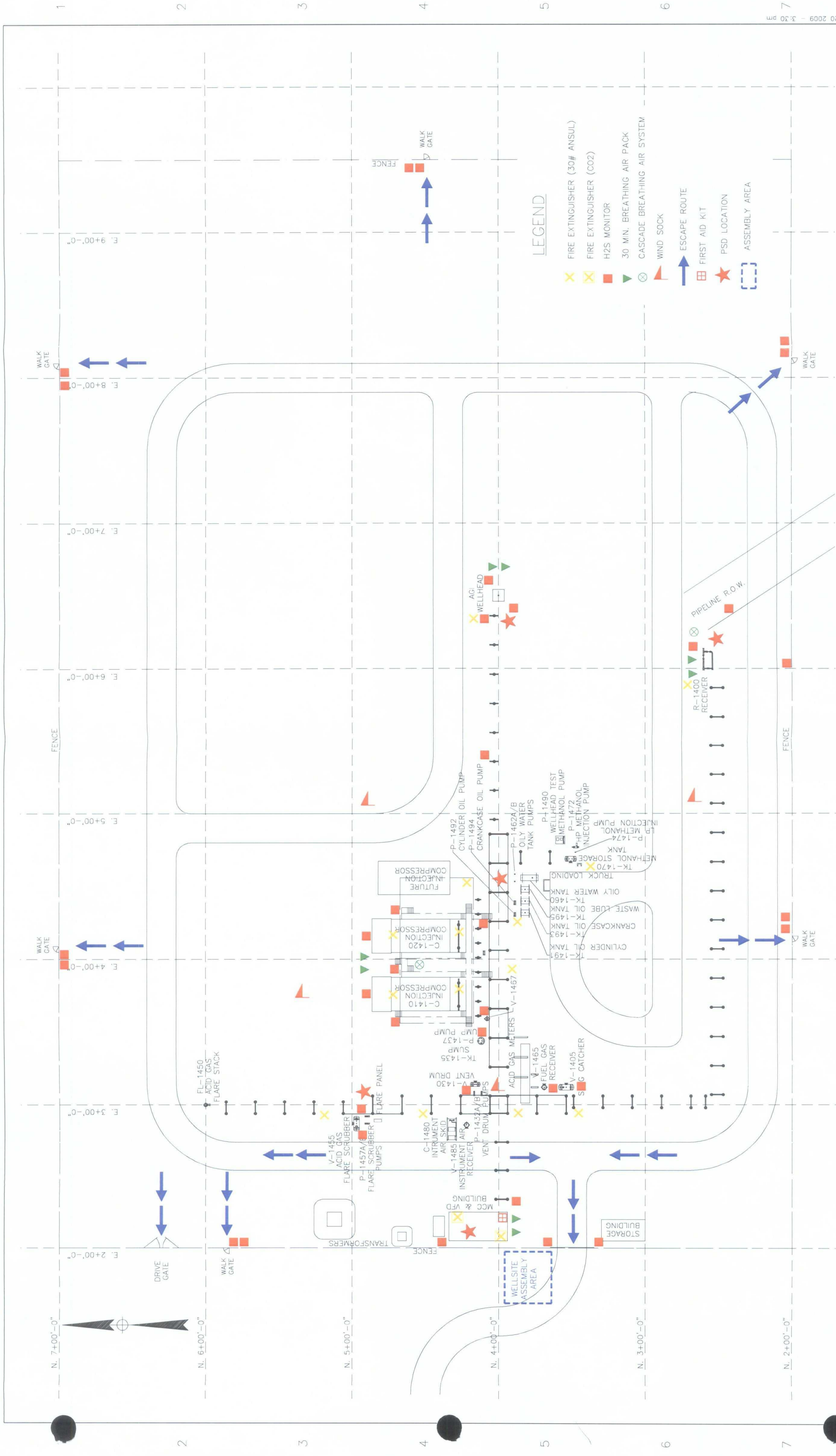
REV.	DATE	REVISION	BY	CHK'D	ENGR.	REV.	DATE	REVISION	BY	CHK'D	ENGR.	NOTES
1	1/12/99	ADDED FIREMAINS	JC			6	10/7/09	REVISED EMERGENCY EQUIPMENT				
2	9/21/04	UPDATED SAFETY EQUIPMENT LOCATIONS	P.L.									
3	3/08/06	ADDED WIND SOCKS	P.L.									
4	8/23/06	REVISED PER EQUIPMENT REMOVAL	WRT									
5	3/13/09	ADDED AGI EQUIPMENT	MAC									



SAFETY EQUIPMENT
LOCATION PLAN
LINAM RANCH PLANT

FILE NAME: 07307MPO02
SCALE: 1"=80'
BASE NO.: 07-3-07
DWG. NO.: M-5
DATE: 5/14/96
DRAWN: COLEMAN

PLOT TIME: October 27 2009 - 11:25 am



REV.	DATE	REVISION	BY	CHK'D	ENGR	REV.	DATE	REVISION	BY	CHK'D	ENGR	NOTES:
0	03/24/09	ISSUED FOR CONSTRUCTION	MAC									
1	5/18/09	ADDED ADDITIONAL PERMITTER H2S MONITORS	MAC									
2	10/7/09	REVISED ESD EQUIPMENT	wjt									

PREPARED BY



ZAP
ENGINEERS & CONSTRUCTION SERVICES, INC.
12567 W. Cedar Drive, Suite 1200
Lakewood, CO 80228
ZAP-ECS.com

dcp
Midstream

FILE NAME
M14-006
SCALE
1"=30'

J.A. NO.
A.E. NO.
BASE NO.

DWG. NO. M14-006/2

SAFETY EQUIPMENT LOCATION
ACID GAS INJECTION
WELL SITE

LINAM RANCH PLANT
DRAWN: MAC DATE: 07/18/08

PLOT TIME: October 2009

DATE: 07/18/08

APPENDIX E

DESCRIPTION OF H₂S MONITORING & ALARM SYSTEMS

AGI PIPELINE

The following AGI pipeline parameters will be monitored from the Linam Ranch Plant control room DCS:

1. Pipeline flow differential alarm. Should the measured acid gas flow rate at the plant site (beginning of pipeline) vary from the measured flow rate at the AGI wellsite (end of pipeline) by more than the setpoint (10%), the pipeline inlet ESD valve will be closed and the acid gas stream will be diverted to the plant acid gas flare.
2. Pipeline Low Pressure alarm. The pipeline normal operating pressure is projected to be 80 psig. Should the flowing pressure decrease below the setpoint (50 psig), a low pressure shut down switch will automatically close the inlet ESD valve and the acid gas stream will be diverted to the plant acid gas flare.

When the pipeline ESD valve closes, the AGI wellsite compressor will be automatically shut down on a low suction pressure signal. Similarly, at the plant booster compressor, when the pipeline ESD valve is closed, the plant AGI booster compressor will be automatically shutdown on a high discharge pressure signal.

3. An alarm signal is automatically sent to the Xcel Maddox control when the AGI process shutdown is activated and when the Linam Plant ESD, emergency shut down is activated.

A. EMERGENCY SHUT DOWN SYSTEMS

LINAM RANCH PLANT

There are 17 Emergency Shut Down (ESD) manual stations located at various points in the facility (Appendix D). These Plant ESD stations also activate the AGI Process Shut Down (PSD). Activation of these shutdown systems automatically sends an alarm to the Xcel Maddox control. These alarm signals, and the AGI wellsite H₂S monitor alarms are sent via buried fiber optic cable to the wellsite, where the signal is sent via a dedicated radio system to the Xcel control room. The radio system utilizes a self polling feature to ensure that communication is maintained at all times. (DCP and Xcel worked jointly on the hardware selection and installation and feel this is the most reliable means of sharing the alarm and monitor information.)

The Plant ESD can be activated at any time by the Linam Ranch Plant Operators and is to be activated based on this Plan after 20 ppm H₂S has been detected in the Plant and efforts to resolve the issue for 15 minutes have failed, or a catastrophic release has occurred.

When any of the 17 manual stations are activated, the Plant equipment will be shut down, the natural gas inlets, outlets, and NGL product pipelines will be blocked. The AGI equipment will be automatically shut down and the acid gas will be diverted to the plant acid gas flare. The pipeline will be automatically blocked in on both ends, and the AGI well wing valve will be automatically closed. The AGI wellsite equipment will be automatically depressurized to the wellsite acid gas flare. An alarm signal is automatically sent to the Xcel Maddox control room when the ESD system is activated.

Activating the ESD system should allow the Plant to avoid a Level 3 or Level 4 response.

Additional isolating block valves outside the Plant perimeter on the Eddy County, Buckeye, and Shell 12" lines can be closed to prevent further gas flow into the Plant. These lines can be isolated even further upstream as shown on Figure 2 in Appendix C. These block valves furthest upstream isolate the entire system from the field gathering lines coming into the Plant.

AGI WELLSITE

There are 5 AGI Process Shut Down (PSD) stations located at various points in the AGI wellsite (Appendix D).

The AGI Process Shut Down can be activated at any time by the Linam Ranch Plant Operators and must be manually activated after 20 ppm H₂S has been detected at the interior fixed monitors at the AGI wellsite and efforts to resolve the issue for 15 minutes have failed. The AGI Process shut down is automatically activated if the perimeter monitors reach 10 ppm H₂S. Activation of the AGI Process Shut Down automatically sends an alarm signal to the Xcel Maddox control room.

The AGI wellsite interior monitors do not automatically activate an AGI Process Shut Down.

The AGI Process Shut Down system shuts down the AGI compressors and equipment, closes the pipeline and injection well isolation valves, the subsurface safety valve, and depressurizes the wellsite equipment and piping to the wellsite flare. (There are also 3 AGI Process Shut Down stations located within the Linam Ranch Plant)

B. PLANT ALARMS, VISIBLE BEACONS & WIND INDICATORS

LINAM RANCH PLANT

1. Colored beacons, horns, and wind direction indicators are located in various locations throughout the Plant and are indicated on **Appendix D**.
2. The audible signal for an emergency response and Plant evacuation is a repeating intermittent alarm that sounds at 10 ppm H₂S. The alarm will become continuous when the concentration of the H₂S release is 20 ppm or higher. At the initial sound of this intermittent alarm, the responding Plant operator will put on a SCBA and all other personnel in the Plant complex shall immediately proceed

in a safe manner to the Emergency Assembly Areas as prescribed by the Emergency Action Plan on page 14 of this Plan.

3. A flashing yellow beacon signifies an H₂S release of 10 ppm and all personnel in the Plant complex shall immediately proceed in a safe manner to the Emergency Assembly Area 1 located north of the main office. If this area is not determined to be safe all personnel will move to Assembly Area 2 which is at the Hobbs Plant, located approximately 1.5 miles northwest of Linam Ranch Plant off Maddox Road. Evacuation routes and Assembly Area 1 are indicated on **Appendix D**.

4. Wind direction indicators are installed throughout the Plant and near the Plant Office Building. At least one wind direction indicator can be seen at any location within the Plant complex, as well as, from any point on the perimeter of the Plant.

AGI WELLSITE

1. Colored beacons, horns, and wind direction indicators are located in various locations throughout the AGI wellsite and are indicated on **Appendix D**.
2. The audible signal for an emergency response and wellsite evacuation is a repeating intermittent alarm that sounds at 10 ppm H₂S. The alarm will become continuous when the concentration of the H₂S release is 20 ppm or higher. At the initial sound of this intermittent alarm, the operator will put on a SCBA and all other personnel in the wellsite shall immediately proceed in a safe manner to the Emergency Assembly Areas as prescribed by the Emergency Action Plan on page 23 of this Plan.
3. A flashing yellow beacon signifies an H₂S release of 10 ppm and all personnel in the Plant complex shall immediately proceed in a safe manner to the Wellsite Emergency Assembly Area located west of the main gate. If this area is not determined to be safe, all will move to Assembly Area 1 which is at the Linam Ranch Plant.
4. Wind direction indicators are installed throughout the wellsite. At least one wind direction indicator can be seen at any location within the wellsite, as well as, from any point on the perimeter of the wellsite.
5. Poison gas warning signs, two - located on Maddox Road, and two located adjacent to the private ranch road (north of the AGI wellsite) alert the public of hazardous conditions near the wellsite. The flashing lights on these signs are activated when the wellsite perimeter H₂S monitors detect a concentration of 10 ppm or greater. The locations of these signs are shown in Appendix C.

GAS DETECTION EQUIPMENT

1. The Plant and AGI wellsite areas utilize Det-tronics Remote H₂S Sensors. These sensors are a fixed point monitor to detect the presence of hydrogen sulfide in ambient air. The sensors are connected to Det-tronics alarm panel PLC's, and then to the Linam Distributed Control System (DCS). The monitors are equipped with a yellow flashing beacon. The yellow flashing beacon is activated at 10 ppm. The plant and AGI wellsite horns are activated with an intermittent alarm at 10 ppm and a continuous alarm at 20 ppm.
2. The fixed hydrogen sulfide monitors are strategically located throughout the Plant and AGI wellsite to detect an uncontrolled released of hydrogen sulfide. The Plant operators are able to monitor the ppm level of H₂S of all the Plant and AGI wellsite sensors on the DCS located in the control room. The AGI system monitors can also be viewed on the Det-tronics PLC displays located in the Plant and AGI wellsite motor control center buildings. These sensors are all located on the plot plans on **Appendix D**. These sensors all have to be acknowledged and will not clear themselves. This requires immediate action for any occurrence or malfunction. All H₂S sensors are calibrated monthly.
3. Hand held gas detection monitors are available to plant personnel to check specific areas and equipment prior to initiating maintenance or work on the process or equipment. There are 4 handheld monitors in the control room that are used by individuals for special projects and maintenance work.

All personnel working in Linam Ranch Plant and the AGI wellsite wear personal H₂S monitors. The hand held gas detectors have sensors for oxygen, LEL (explosive hydrocarbon atmospheres), hydrogen sulfide, and carbon dioxide. The personal monitors are set to alarm and vibrate at 10 ppm.

D. RESPIRATORS

1. The Plant and AGI Wellsite have 30 minute Self-Contained Breathing Apparatus (SCBA) respirators and cascade hose reel systems strategically located throughout the Plant and Wellsite.

The cascade hose reel systems have 2-4 compressed air cylinders hooked up in series to provide a sustained supply of breathing air for extended work time in a hazardous atmosphere. Each cylinder will supply a person 6-8 hours of breathing air at normal work loads or 3 hours at medium/heavy work loads. Several hose reels and masks may be attached to a cascade system. The system is equipped with a low pressure alarm to allow workers to safely exit the hazardous area with plenty of reserve air capacity.

2. The respirator containers and equipment are identified in the process area and the locations are shown on **Appendix D**.

3. All Plant personnel are trained and fit tested annually to use the SCBA respirators.

E. PROCESS PURGE SYSTEM

All vessels, pumps, compression equipment, and piping in the acid gas injection process is designed and equipped to allow purging with pipeline quality gas to remove the acid gas prior to conducting maintenance or inspection work. The purge gas stream with residual acid gas is routed safely into the acid gas flares located at the plant and the wellsite. Operating procedures include this purging of all equipment to avoid acid gas exposure to personnel and to prevent acid gas from escaping to the environment.

F. FIRE FIGHTING EQUIPMENT

1. The Plant personnel are trained only for insipient stage fire fighting.

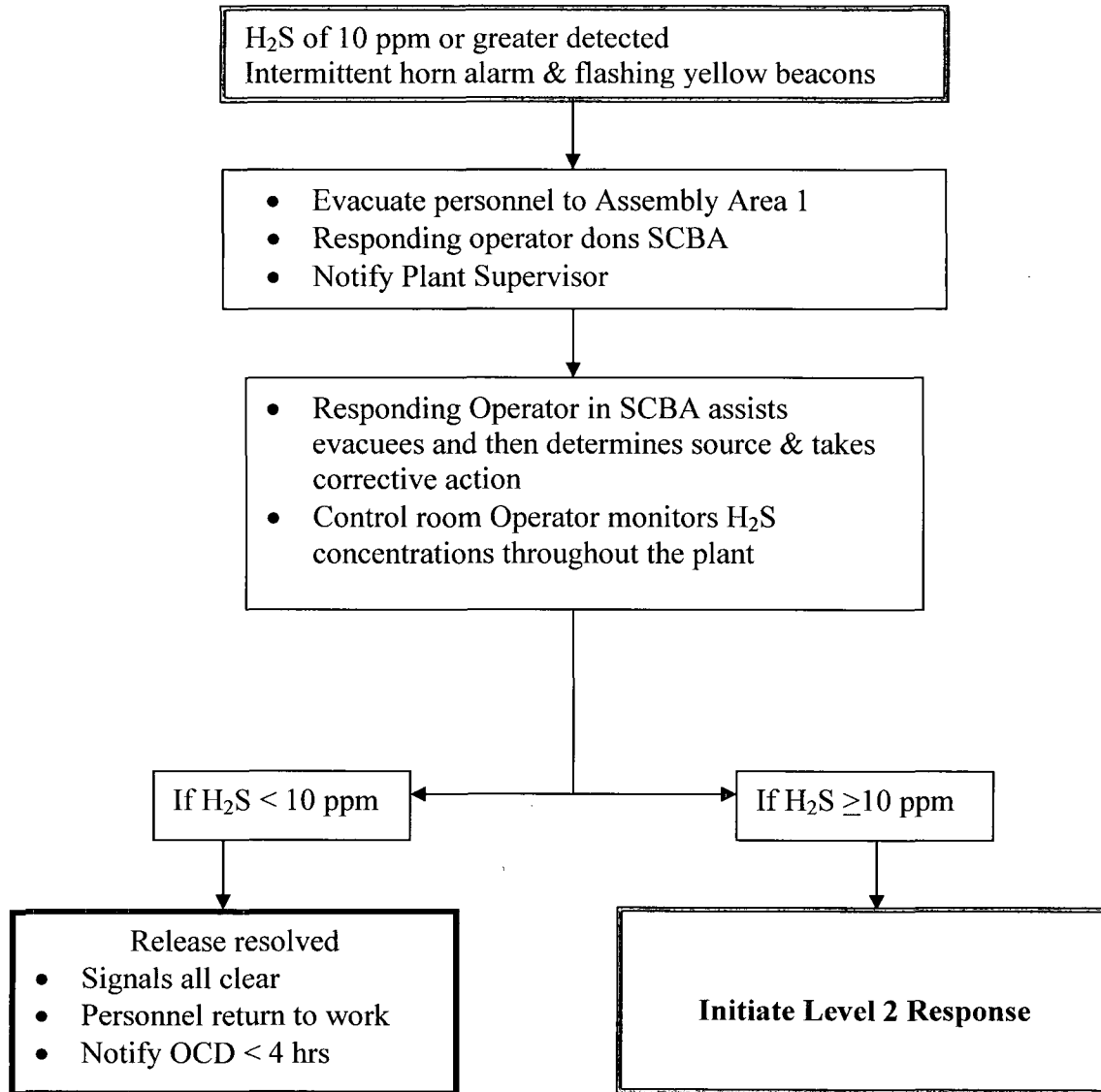
2. The fire extinguishers located in the Plant process areas, compressor buildings, process buildings, and company vehicles are typically a 30# Ansul dry chemical fire extinguisher. **See Appendix D**.

3. The Plant does have a fire water system, utilized primarily at fixed monitors for equipment protection.

APPENDIX F

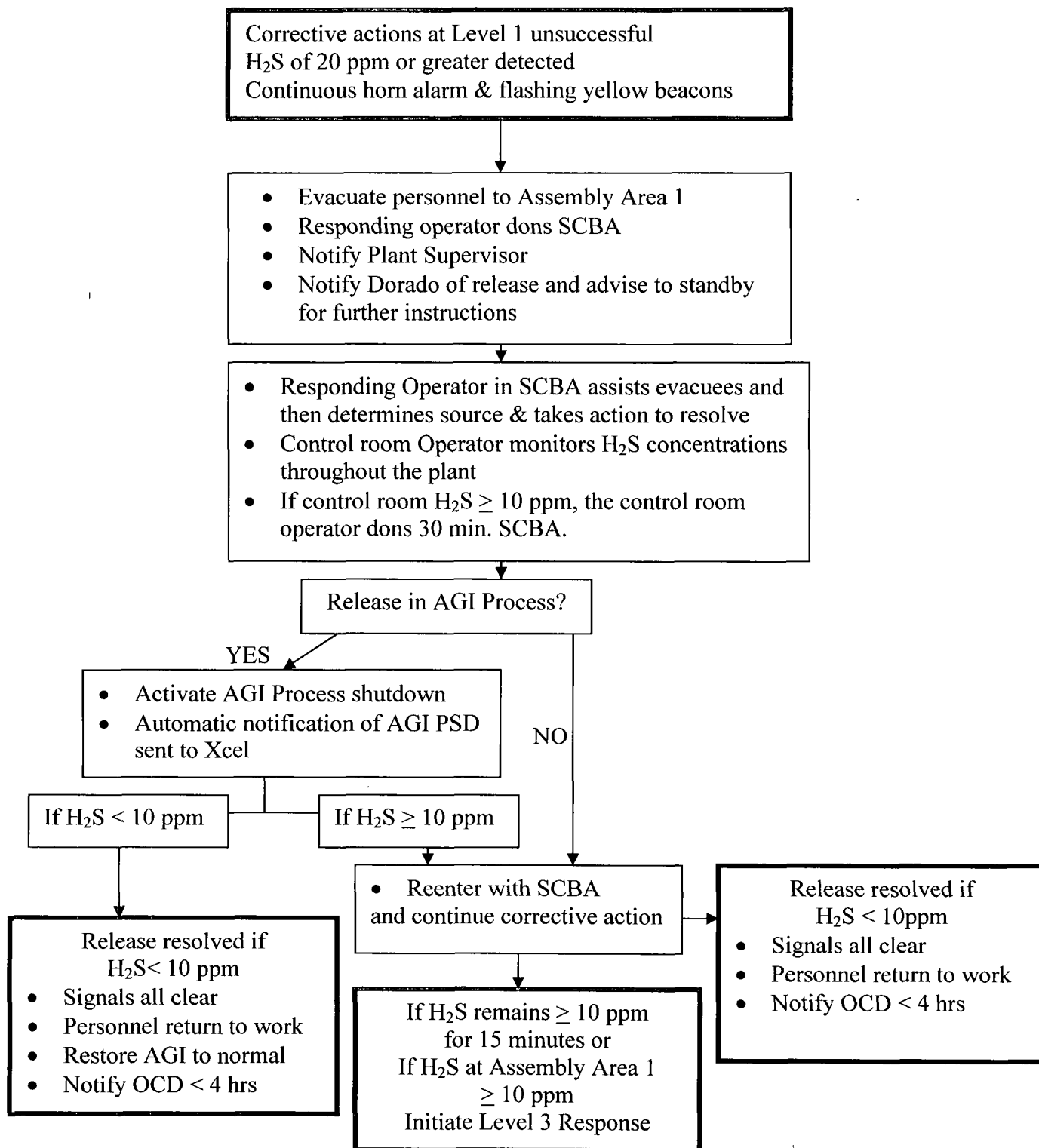
H₂S CONTINGENCY PLAN FLOW DIAGRAMS

LINAM RANCH PLANT RELEASE LEVEL 1 RESPONSE



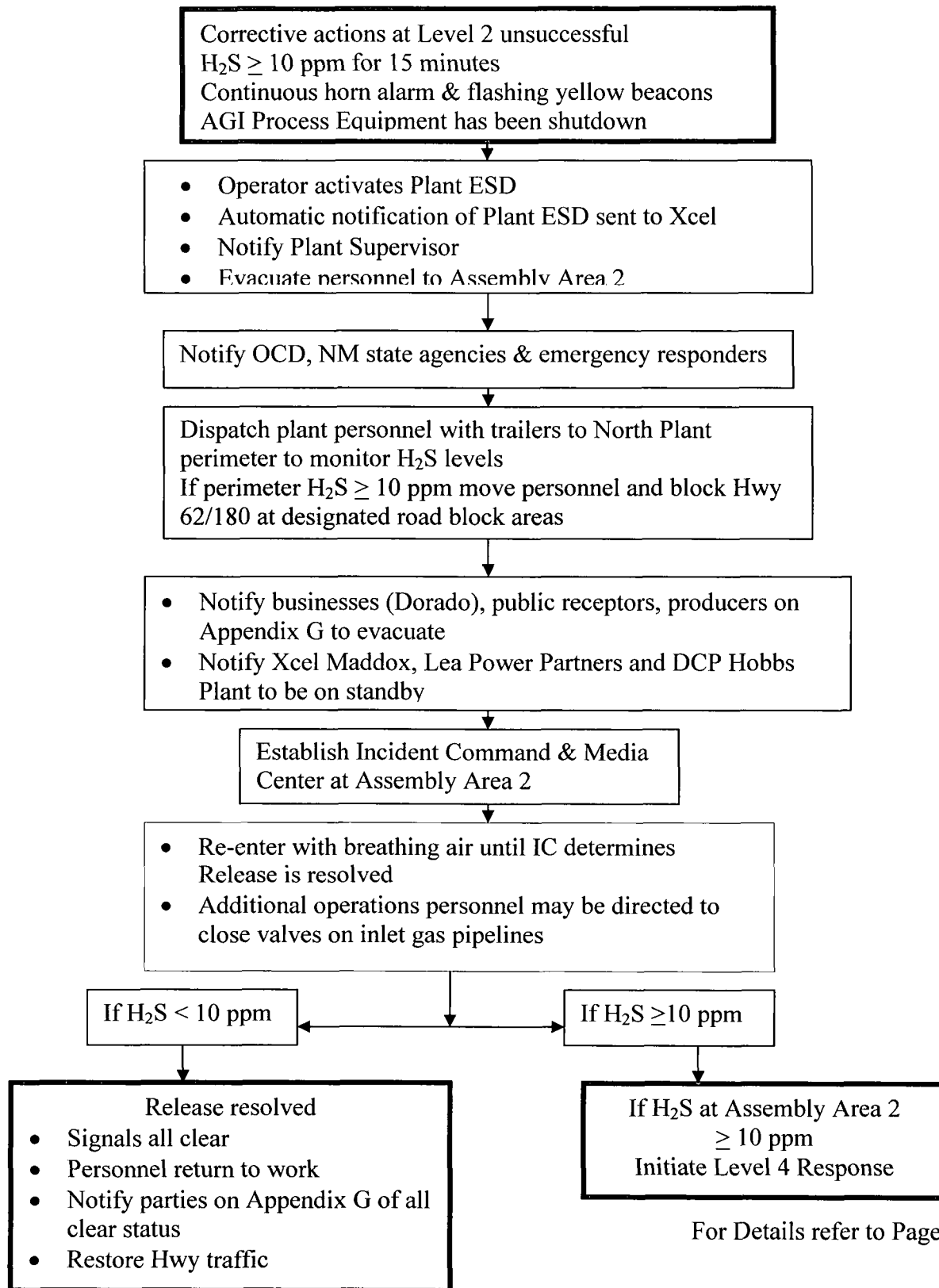
For Details refer to Page 14

LINAM RANCH PLANT RELEASE LEVEL 2 RESPONSE



For Details refer to Page 15

LINAM RANCH PLANT RELEASE LEVEL 3 RESPONSE



For Details refer to Pages 16 - 17

LINAM RANCH PLANT RELEASE LEVEL 4 RESPONSE

Corrective actions at Level 3 unsuccessful
 $H_2S \geq 10$ ppm at Assembly Area 2
Continuous horn alarm & flashing yellow beacons
Catastrophic release has occurred

- Activate Plant ESD
- Automatic notification of Plant ESD sent to Xcel
- Notify Plant Supervisor
- Notify OCD, NM state agencies & emergency responders

- Establish Incident Command & Media Center at Assembly Area 3
- Evacuate all personnel to Assembly Area 3.

- Plant personnel move to designated road block areas
- Monitor air quality and move further if H_2S reaches 10 ppm and notify IC of new road block location

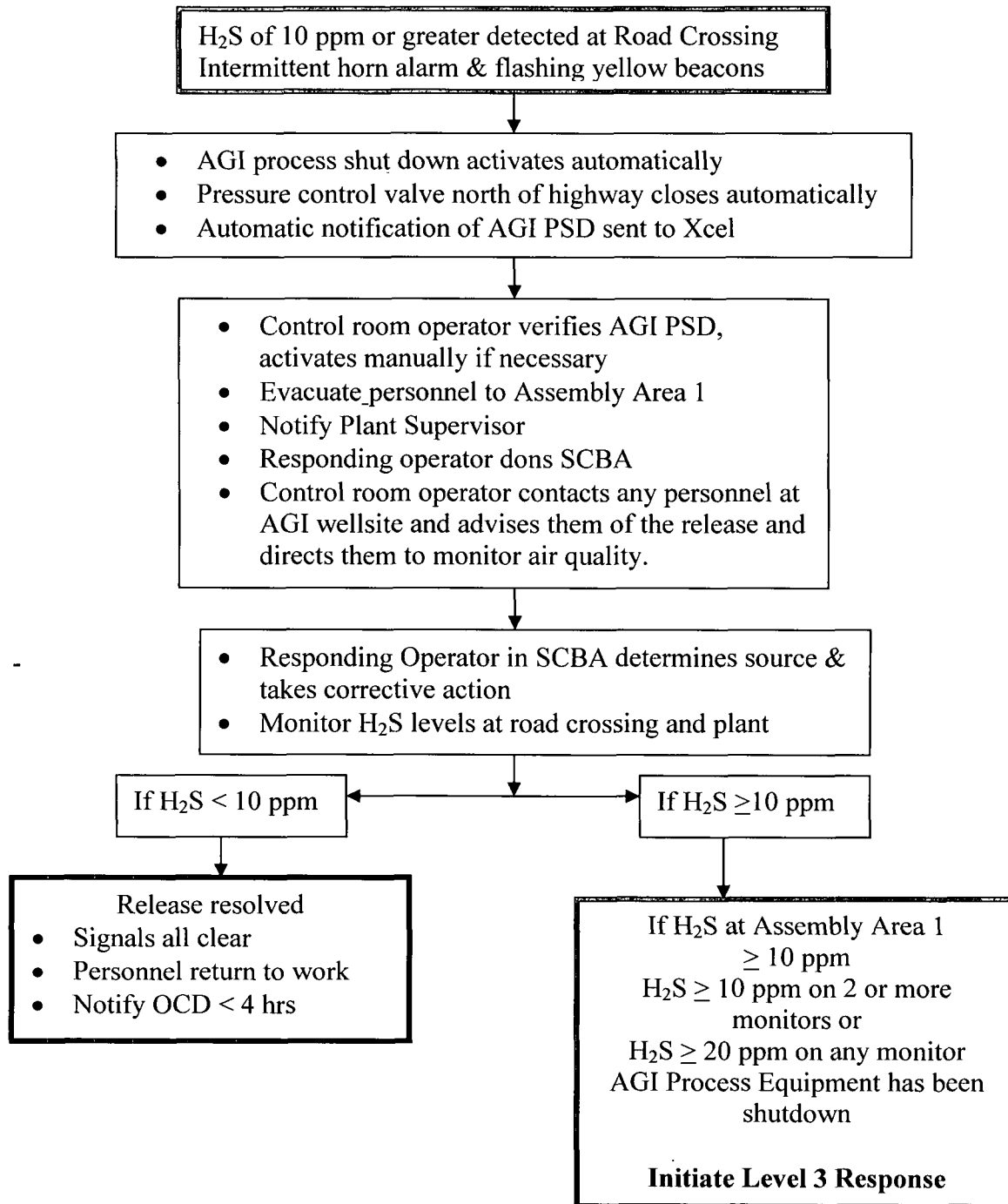
- Notify businesses, public receptors, producers on Appendix G to evacuate
- Advise Xcel Maddox, Lea Power Partners and DCP Hobbs Plant to evacuate west, avoiding Maddox Road
- Notify Smith Ranch to shelter in place or evacuate east, avoiding Maddox Road.

- Re-enter with breathing air until IC determines release is resolved
- Additional operations personnel may be directed to close valves on inlet gas pipelines

- When $H_2S < 10$ ppm
Release resolved
- Signals all clear
 - Personnel return to work
 - Notify parties on Appendix G of all clear status
 - Restore Hwy traffic

For Details refer to Pages 17 - 18

ROAD CROSSING RELEASE LEVEL 1 RESPONSE



For Details refer to Page 19

ROAD CROSSING RELEASE LEVEL 3 RESPONSE

Note: There is no LEVEL 2 Response for Road Crossing Release

Corrective actions at Level 1 unsuccessful
 $H_2S \geq 10$ ppm on 2 or more monitors
 $H_2S \geq 20$ ppm on any monitor
AGI Process Equipment has been shutdown
Intermittent horn alarm & flashing yellow beacons

- Operator activates Plant ESD and continuous H_2S alarm if necessary
- Automatic notification of Plant ESD sent to Xcel
- Evacuate personnel including all at AGI wellsite to Assembly Area 2
- Notify Plant Supervisor
- Notify Dorado to evacuate

Notify OCD, NM state agencies & emergency responders

Dispatch plant personnel with trailers to North Plant perimeter to block Hwy 62/180 at designated road block locations (Appendix C)

- Notify businesses, public receptors, producers on Appendix G to leave area
- Notify Xcel Maddox, DCP Hobbs Plant, and Lea Power Partners to shelter in place or evacuate, depending on wind direction.
- Notify Smith Ranch to shelter in place or evacuate, depending on wind conditions

Establish Incident Command & Media Center at Assembly Area 2

- Re-enter with breathing air until IC determines Release is resolved
- Additional operations personnel may be directed to close valves on inlet gas pipelines
- Monitor H_2S levels at road crossing and plant

If $H_2S < 10$ ppm

If $H_2S \geq 10$ ppm

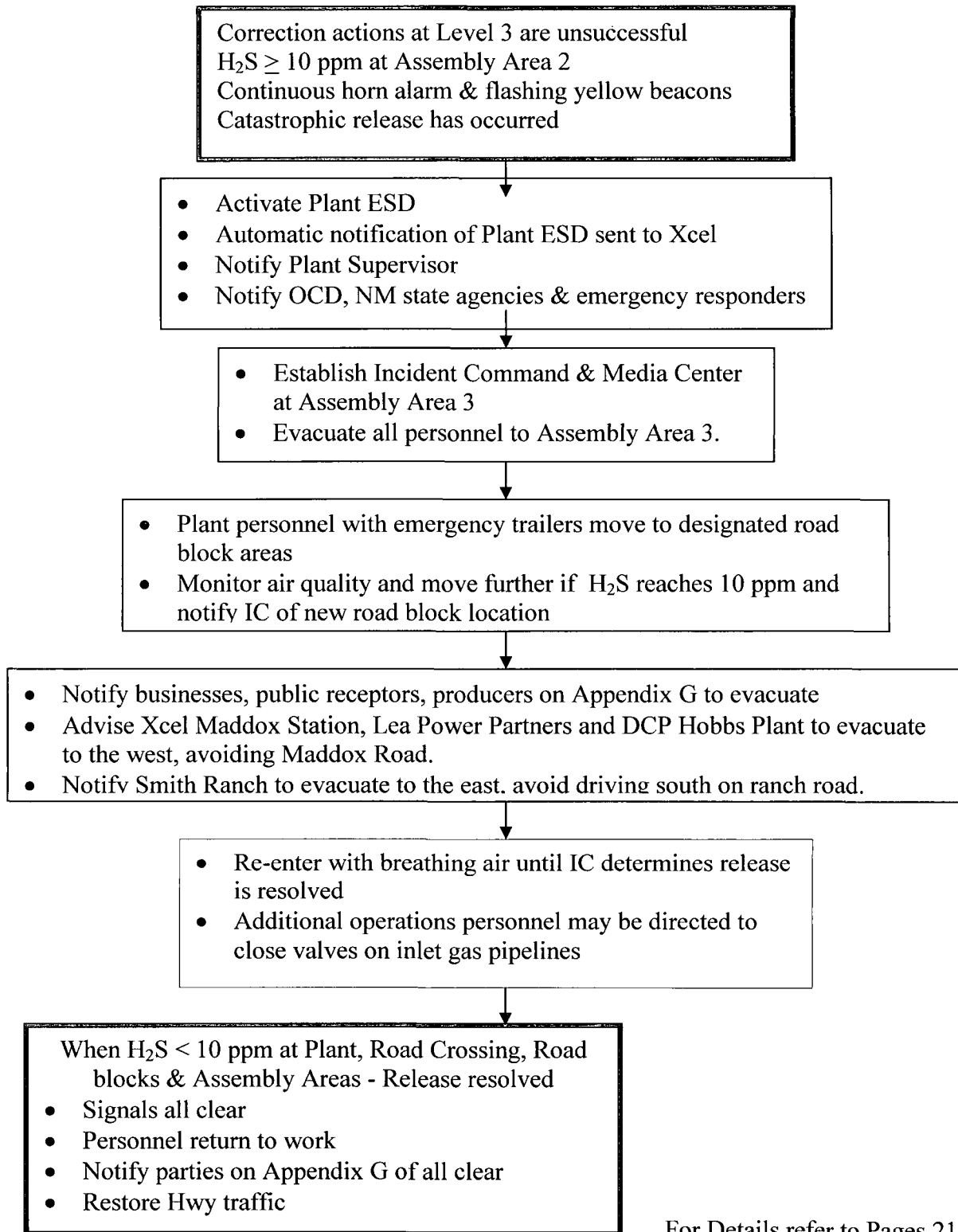
Release resolved

- Signals all clear
- Personnel return to work
- Notify parties on Appendix G of all clear status
- Restore Hwy traffic

If H_2S at Assembly Area 2 ≥ 10 ppm
Initiate Level 4 Response

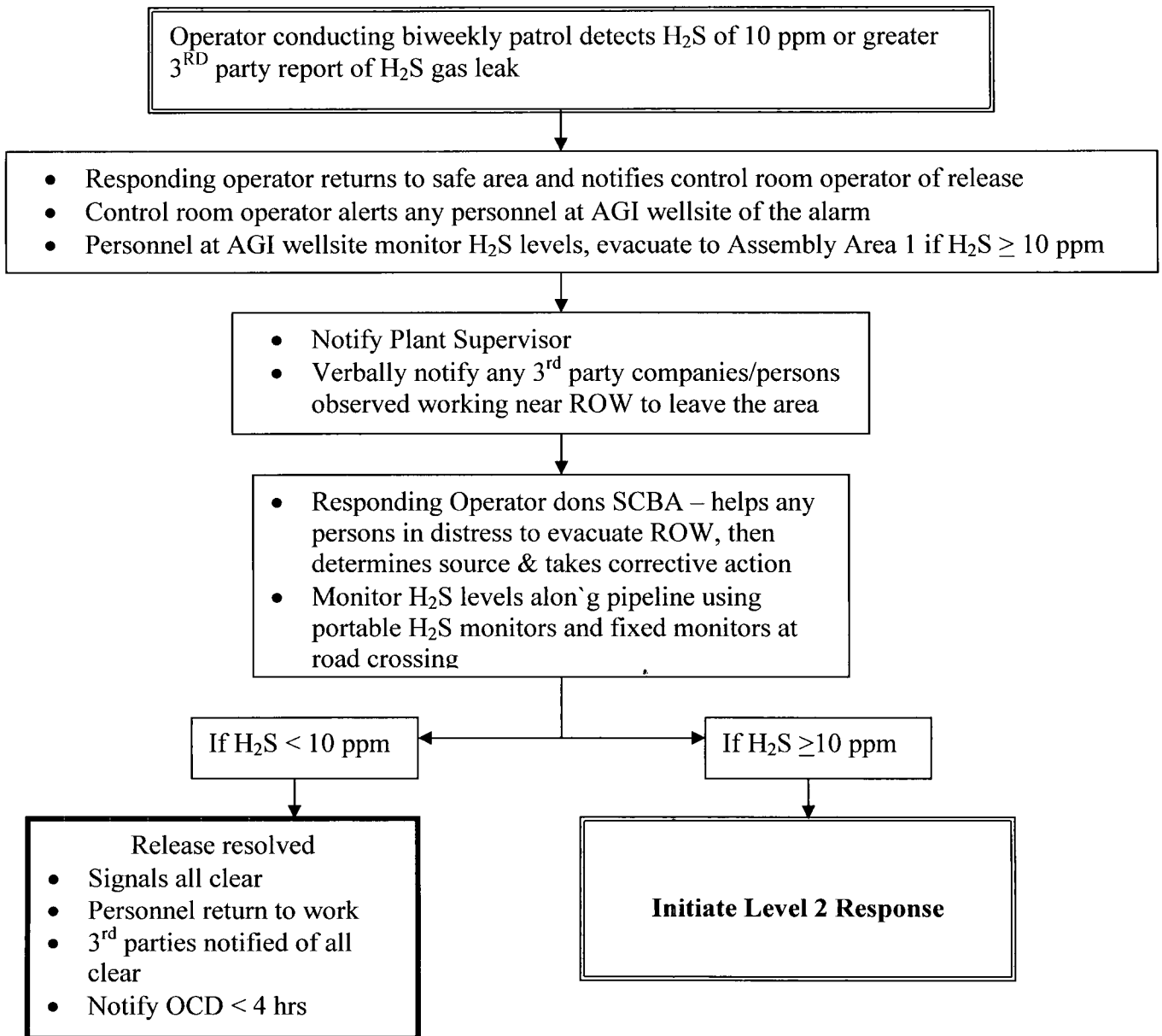
For Details refer to Pages 20 - 21

ROAD CROSSING RELEASE LEVEL 4 RESPONSE



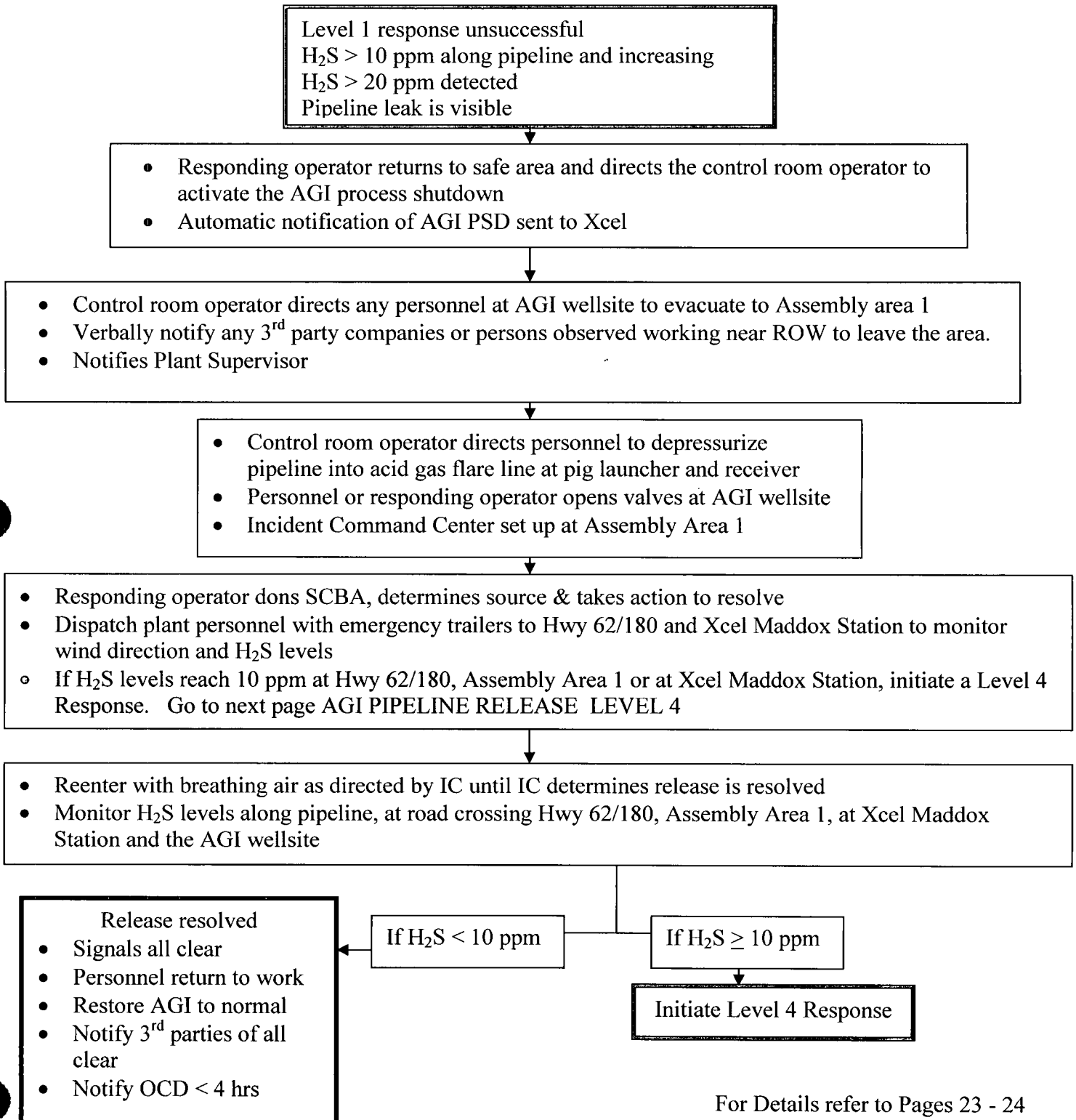
For Details refer to Pages 21 - 22

AGI PIPELINE RELEASE LEVEL 1 RESPONSE



For Details refer to Page 23

AGI PIPELINE RELEASE LEVEL 2 RESPONSE



For Details refer to Pages 23 - 24

AGI PIPELINE RELEASE LEVEL 4 RESPONSE

Note: There is no Level 3 Release for the AGI Pipeline

- Corrective action at Level 2 is unsuccessful
- $H_2S \geq 10$ ppm at Xcel Maddox Station, Hwy 62/180, at Assembly Area 1, or any public area or road
- Catastrophic release occurs

- Direct control room operator to activate Plant ESD
- Automatic notification of Plant ESD sent to Xcel
- Verbally notify any 3rd party companies or persons observed working near ROW to leave the area.
- Notify Plant Supervisor
- Notify OCD, NM state agencies & emergency responders

- Establish Incident Command & Media Center at Assembly Area 3
- Evacuate all personnel to Assembly Area 3.

- Dispatch personnel with emergency trailers to designated road block areas on Hwy 62/180.
- Monitor air quality and move further if H_2S reaches 10 ppm and notify IC of new road block location

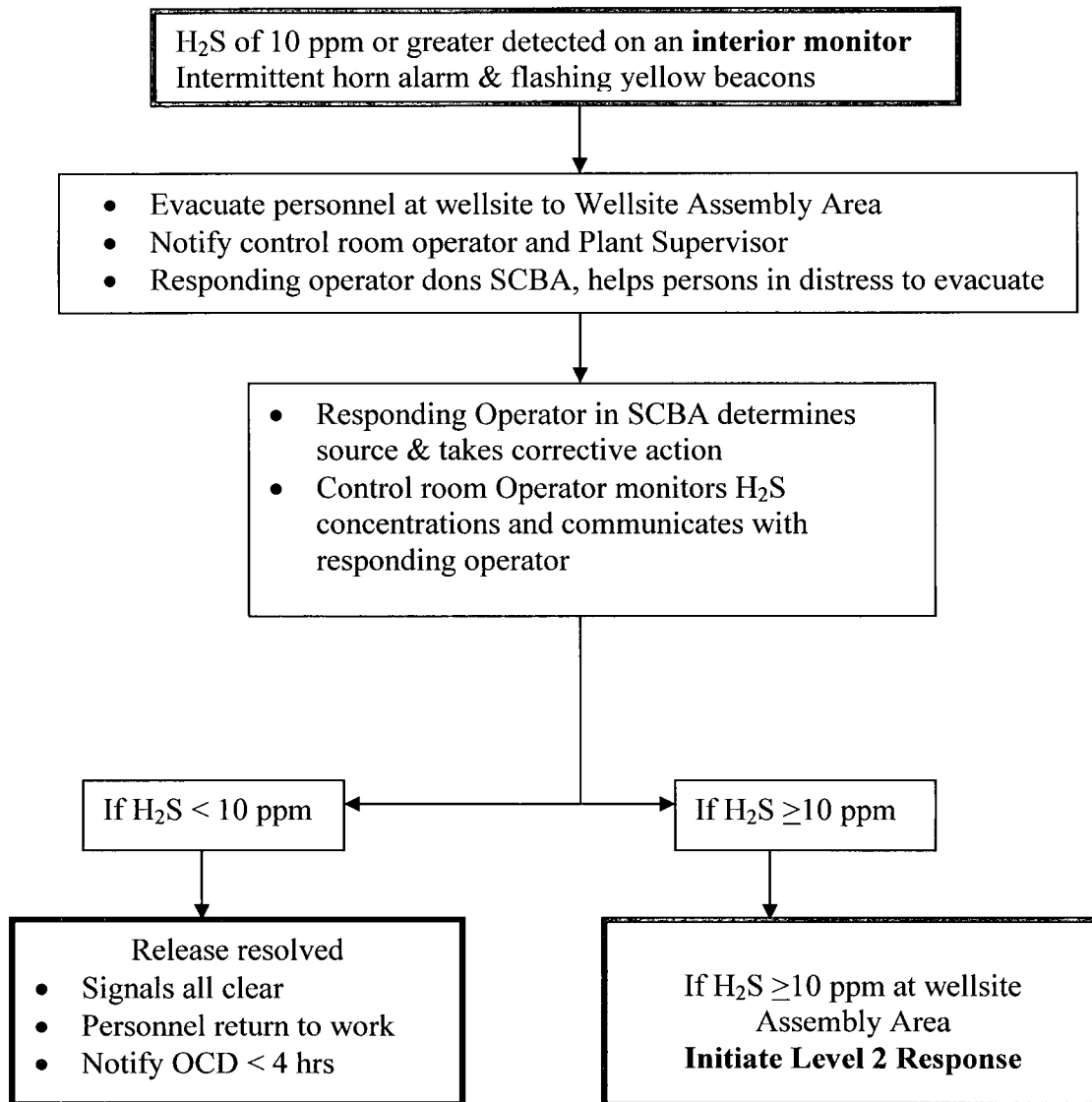
- Notify businesses, public receptors, producers on Appendix G to evacuate
 - Advise Xcel Maddox Station, Lea Power Partners and DCP Hobbs Plant to evacuate to the west, avoiding Maddox Road
 - Notify Smith Ranch to evacuate to the east, avoid driving south

- Re-enter with breathing air until IC determines release is resolved
- Additional operations personnel may be directed to close valves on inlet gas pipelines
- Monitor H_2S levels in Linam Ranch Plant, Hwy 62/180 road crossing, AGI wellsite and along the pipeline

- When $H_2S < 10$ ppm -Release resolved
- Signals all clear
 - Personnel return to work
 - Notify parties on Appendix G of all clear
 - Restore Hwy traffic

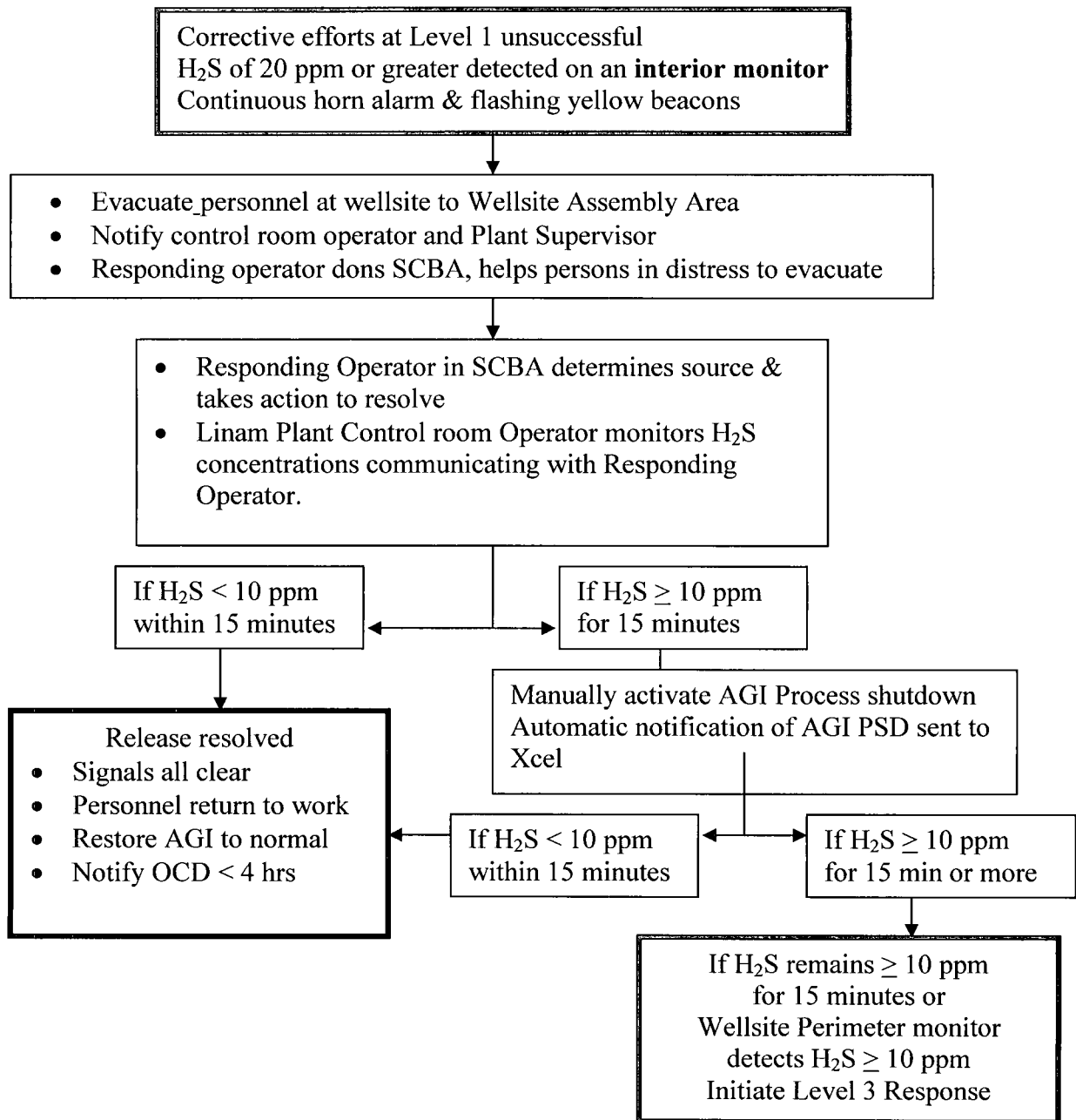
For Details refer to Pages 25 - 26

AGI WELLSITE RELEASE LEVEL 1 RESPONSE



For Details refer to Page 27

AGI WELLSITE RELEASE LEVEL 2 RESPONSE



For Details refer to Pages 27 - 28

AGI WELLSITE RELEASE LEVEL 3 RESPONSE

Level 2 corrective actions unsuccessful
 $H_2S \geq 10$ ppm on PERIMETER monitor
Continuous horn alarm & flashing yellow beacons

- AGI Process shut down activates automatically when perimeter monitor detects $H_2S \geq 10$ ppm
- Automatic notification of AGI PSD sent to Xcel
- Flashing Poison Gas signs activated along Maddox road & Smith Ranch road as shown on Appendix C

- Evacuate all wellsite personnel to Linam Ranch Plant Assembly Area 1
- Notify Plant Supervisor

- Dispatch plant personnel with emergency trailer to Maddox Road and Xcel Maddox Station to monitor H_2S levels
If $H_2S \geq 10$ ppm, initiate Level 4 response Go to next page AGI WELLSITE RELEASE LEVEL 4

- Notify OCD, NM state agencies & emergency responders
- Notify businesses, public receptors, producers on Appendix G of the wellsite release and advise them to immediately leave the vicinity of the AGI Wellsite until further notified
- Notify Xcel Maddox Station, Lea Power Partners and DCP Hobbs Plant of the release and advise to standby for further instructions
- Notify Smith residence of the release and advise to shelter in place (depending on wind direction), or evacuate east, avoiding driving south

Establish Incident Command & Media Center at Assembly Area 1

- Re-enter with breathing air until IC determines release is resolved
- Monitor H_2S concentrations at wellsite using perimeter and interior monitors

If $H_2S < 10$ ppm

Release resolved

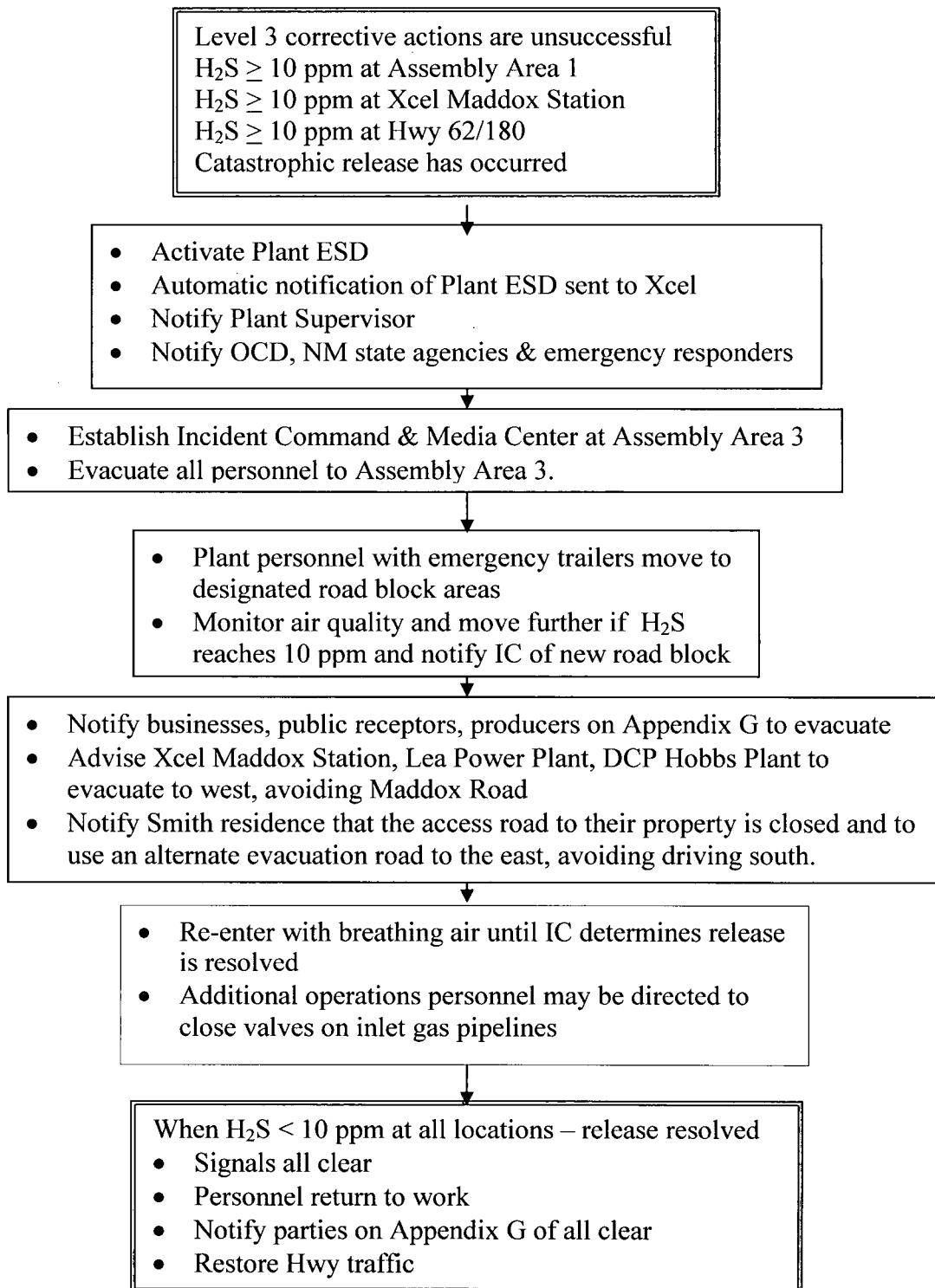
- Signals all clear
- Personnel return to work
- Notify parties on Appendix G of all clear

If $H_2S \geq 10$ ppm

If $H_2S \geq 10$ ppm at Xcel Maddox,
Hwy 62/180, or Assembly Area 1
Initiate Level 4 Response

For Details refer to Pages 28 - 30

AGI WELLSITE RELEASE LEVEL 4 RESPONSE



For Details refer to Pages 30 - 31

APPENDIX G

EMERGENCY CALL LIST

LINAM RANCH AND AGI COMPLEX

BUSINESSES AND PUBLIC RECEPTORS WITHIN THE ROE

NAME	ADDRESS	CONTACT	PHONE NUMBER
Xcel Maddox Station On border of ROE	9 Miles W of Hobbs on Hwy 62/180	Maddox Control	575-391-3410 or 575-391-3411
		Maddox Cell	575-631-4966
		Cunningham Control Room	575-391-3711 or 575-391-3710
		Cunningham Cell	575-631-4967
DCP Hobbs Plant	139 W. US Hwy 62-180 Hobbs, NM	Control Room	575-393-5826
Bill Carlin	9800 W. Carlsbad Hwy., Hobbs, NM		575-393-2766
L.S. Webber	9801 W. Carlsbad Hwy., Hobbs, NM		575-393-4784
Lea Power Partners – Hobbs Generating Station	98 N. Twombly Lane Hobbs, NM 88242	Control Room	575-397-6788 or 575-779-5037
		Roger Schnabel	575-397-6706 or 801-360-4189
Dorado Transportation	169 W. US Hwy 62-180 Hobbs, NM 88240	Richard Lentz Hobbs Michael Brandon Midland	575-399-4070 432-269-8120
El Paso	2316 Bender Blv Hobbs, NM	Kenny Morrow Bill Havenan Tim Howell	575-492-2380 (o) 575-390-3716 (c) 806-592-4150 (o) 806-893-1479 (c) 575-492-3128 (o) 575-390-7980 (c)
Northern Natural	801 South Fillmore Suite 210 Amarillo, Tx 79101	Control Center Randy Lebeau	888-367-6671 (24 hr) 402-530-3501 (o) 806-679-3650 (c)
Targa	P.O. Box 1909 Eunice, NM 88231	James Lingnau	575-602-0251
Joe Handley (Located on border of ROE)	9201 W. Carlsbad Hwy., Hobbs, NM		575-397-6546
Randy & Naomi Smith	NNE of Maddox Road Hobbs NM (Sec 18, 18S,37E)		575-885-9011 575-361-1512 (cell)

PRODUCERS WITH WELLS WITHIN THE ROE

Producer	Office Location	Contact	Office Phone	Contact Phone
Oxy USA	1017 W Stanolind Rd., Hobbs, NM 88240	Steve Bishop Herbie Bruton	575-397-8237	575-390-4784 432-634-6152
Bradley McInroe	P.O. Box 669, Levelland 79336	Bradley McInroe	806-894-1511	806-778-4705
Apache Corp.	800 W Broadway, Hobbs, NM 88240	Tony Chanault	575-394-2743	432-556-1774
Morexco, Inc.	306 W. Wall, Midland, TX 79701	Willie Dean	432-684-4344	575-631-6730
Alternate (Owner)		Deeg Becker		432-934-7042
Lanexco, Inc.	Jal, NM 88252	Robert Lansford	575-395-3056	
Lewis B. Burleson, Inc.	200 N. Loraine, Midland, TX 70701	Buddy Raymond	432-683-4747	575-631-9301
Alternate (Field Sup)		Wayne Jarvis		432-557-5559
XTO Energy, Inc.	200 N. Loraine, Midland, TX 70701	Jerry Parker	432-682-8873	575-441-1628
Chevron USA	Eunice, NM 88231	Larry Williams	575-394-2764	575-390-7165
Sahara Operating Co.	306 W Wall, Midland, TX 79701	Buddy Raymond	432-697-0967	575-631-9301
Mack Energy Corp.	11367 Lovington Hwy., Artesia, NM 88210	Mark Brewer	575-748-1288	575-748-7794
Westbrook Oil Corp.	1320 NW County Rd., Hobbs, NM 88240	Pat Westbrook	575-393-9714	
ConocoPhillips	1410 NW Co. Rd., Hobbs, NM 88240	Kenny Kidd	575-393-2153	575-391-3107
Southwest Royalties, Inc.	1708 N. Dal Paso, Hobbs, NM 88240	Al Perry	575-393-5577	575-390-0194

A. DCP COMPANY INTERNAL NOTIFICATIONS

Name	Title	Office No.	Cell No.
	Linam Ranch Plant Operators	575-391-5792 575-391-5793 575-391-5794	575-390-6299
Harvey Hargrove	Linam Ranch Plant Operator III	575-391-5703	575-602-1656
Matt Hendricks	Linam Ranch Plant Supervisor	575-391-5701	575-390-0292
Kelly Jamerson	SENM Asset Manager	575-397-5539	325-226-3357
Lewis Hill	SENM Manager Area Operations	575-234-6405	575-706-1442
Sandy Ballard	SENM Asset Safety Coordinator	575-785-2020	575-390-6064
Charlie Powell	SENM Asset Safety Coordinator	575-234-6403	575-706-2003
Ronnie Trammel	V.P. Operations Western Region	432-620-4066	432-557-6898
Rick Cargile	President Southern Business Unit	713-735-3700	713-416-4003
Ken Duncan	Safety Manager Western Region	432-620-4148	432-664-9324
	DCP Gas Control – Houston, TX	800-435-1679	

B. COUNTY AND LOCAL LAW ENFORCEMENT

AGENCY	PHONE NUMBER
EMERGENCY DISPATCH	911
OIL CONSERVATION DIVISON – DISTRICT 1 LEA CO.	575-393-6161
LEPC	575-605-6561
NEW MEXICO STATE POLICE	575-392-5588
LEA COUNTY SHERIFF'S OFFICE	575-396-3611
STATE EMERGENCY RESPONSE COMMISSION	505-476-9681
NEW MEXICO OFFICE OF EMERGENCY MANAGEMENT	505-476-9600

APPENDIX H

H₂S PLAN DISTRIBUTION LIST

New Mexico Oil & Gas Conservation Division

New Mexico Environment Department

New Mexico Department of Public Safety (Hobbs Office)

New Mexico Department of Public Safety (State Office)

Hobbs Fire Department

Lea County Fire Department

Lea County Sheriff Department

Lea County Emergency Manager

Lea County LEPC

Hobbs Police

Lea County Regional Medical Center

Linam Ranch Plant Office

DCP Hobbs Plant Office

Linam Emergency Trailers

Linam Ranch Plant Supervisor's Office

AGI Wellsite MCC Building

Xcel Maddox Power Plant

Lea Power Partners Hobbs Plant



District I
1625 N. French Dr., Hobbs, NM 88240
District II
1301 W. Grand Avenue, Artesia, NM 88210
District III
1000 Rio Brazos Road, Aztec, NM 87410
District IV
1220 S. St. Francis Dr., Santa Fe, NM 87505

State of New Mexico
Energy Minerals and Natural Resources
Oil Conservation Division
1220 South St. Francis Dr.
Santa Fe, NM 87505

Form C-141
Revised October 10, 2003

Submit 2 Copies to appropriate
District Office in accordance
with Rule 116 on back
side of form

Release Notification and Corrective Action

OPERATOR

☐ Initial Report ☐ Final Report

Name of Company	Contact	
Address	Telephone No.	
Facility Name	Facility Type	
Surface Owner	Mineral Owner	Lease No.

LOCATION OF RELEASE

Unit Letter	Section	Township	Range	Feet from the	North/South Line	Feet from the	East/West Line	County
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Latitude _____ Longitude _____

NATURE OF RELEASE

Type of Release	Volume of Release	Volume Recovered
Source of Release	Date and Hour of Occurrence	Date and Hour of Discovery
Was Immediate Notice Given? <input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Not Required	If YES, To Whom?	
By Whom?	Date and Hour	
Was a Watercourse Reached? <input type="checkbox"/> Yes <input type="checkbox"/> No	If YES, Volume Impacting the Watercourse.	

If a Watercourse was Impacted, Describe Fully.*

Describe Cause of Problem and Remedial Action Taken.*

Describe Area Affected and Cleanup Action Taken.*

I hereby certify that the information given above is true and complete to the best of my knowledge and understand that pursuant to NMOCD rules and regulations all operators are required to report and/or file certain release notifications and perform corrective actions for releases which may endanger public health or the environment. The acceptance of a C-141 report by the NMOCD marked as "Final Report" does not relieve the operator of liability should their operations have failed to adequately investigate and remediate contamination that pose a threat to ground water, surface water, human health or the environment. In addition, NMOCD acceptance of a C-141 report does not relieve the operator of responsibility for compliance with any other federal, state, or local laws and/or regulations.

Signature:		<u>OIL CONSERVATION DIVISION</u>	
Printed Name:		Approved by District Supervisor:	
Title:	Approval Date:	Expiration Date:	
E-mail Address:	Conditions of Approval:		Attached <input type="checkbox"/>
Phone:			

* Attach Additional Sheets If Necessary