

**GW - \_\_\_15\_\_\_**

**H2S CONTINGENCY  
PLAN**

**Fullerton to Linam  
Pipeline**

## Chavez, Carl J, EMNRD

---

**From:** Julie W. Gutierrez <jwg@geolex.com>  
**Sent:** Wednesday, January 14, 2015 6:17 PM  
**To:** Chavez, Carl J, EMNRD  
**Subject:** Linam to Fullerton Pipeline H2S Contingency Plan  
**Attachments:** Pipeline Rule 11 Plan Final.pdf; Map Showing Location of New Signs .pdf; Photo of New Warning Sign.pdf

Dear Carl,

Per your request, please find attached an electronic copy of the final Linam to Fullerton H2S Contingency Plan. Also, DCP has now installed new H2S warning signs as required by OCD. I am attaching a map that shows the location of the signs as well as a photograph of one of the signs so that you can see what they look like.

Please let me know if you have questions.

Julie W. Gutiérrez  
**Geolex, Inc**<sup>®</sup>  
500 Marquette Avenue, NW Suite 1350  
Albuquerque, NM 87102  
505-842-8000 Ext. 101  
505-842-7380 Fax

### **PRIVILEGED & CONFIDENTIAL**

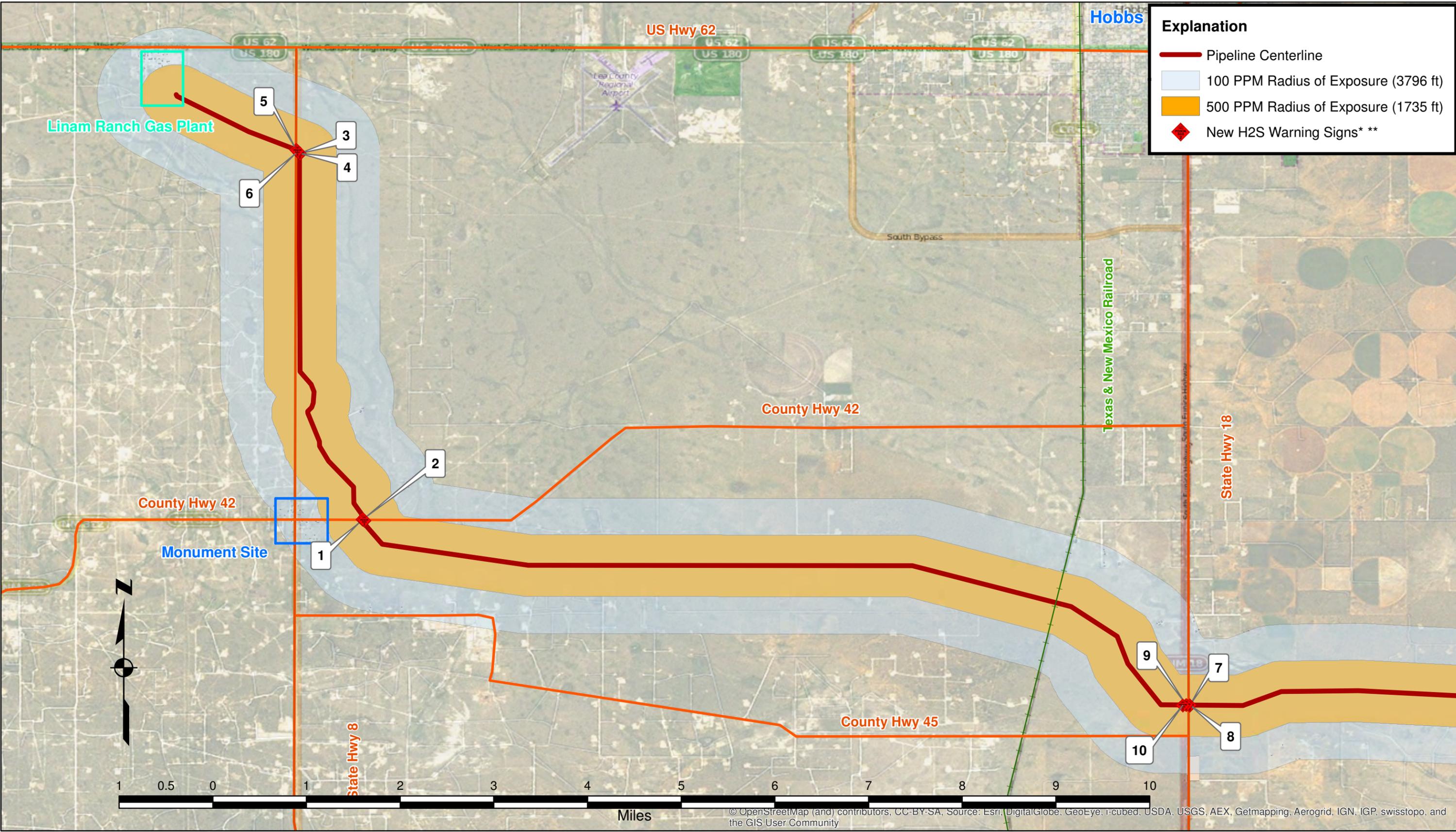
This message and attachment(s) contain confidential information belonging to the sender which is intended for the sole use of the individual(s) or entity named above. If you receive this message in error, you are hereby notified that any disclosure, copying, distribution, resending, forwarding or taking of any action in reliance on the contents of this email and/or any attachment(s) is strictly prohibited. If you have received this message in error, please notify the sender via return email and permanently delete this message and any attachment(s) from any computer(s).

**CAUTION**

**H<sub>2</sub>S**  
**POISONOUS GAS**  
**MAY BE PRESENT**

**POIS**

7



**Map of Pipeline between Fullerton, TX and Linam Ranch, NM  
500 and 100 ppm ROE with New Warning Sign Locations**



# **H<sub>2</sub>S Contingency Plan**

**Sour Gas Pipeline  
Fullerton, TX to Linam Ranch, NM  
Lea County, New Mexico**

**DCP Midstream, LP**

**September 2014**

**TABLE OF CONTENTS**

	<b>Page</b>
<b>I. Introduction</b>	
[API RP-55 7.1].....	1
<b>II. Scope</b>	
[API RP-55 7.2].....	1
<b>III. Plan Availability</b>	
[API RP-55 7.3].....	2
<b>IV. Emergency Procedures</b> .....	2
[NMAC 19.15.11.9.B (2) (a)][API RP-55 7.4 a. 29 CFR 1910.1200]	
Responsibilities and Duties of Personnel During an Emergency.....	2
Discovery and Internal Reporting.....	2
Immediate Action Plan.....	3
Level I Activation.....	4
Level II Activation.....	5
Level III Activation.....	6
Telephone Numbers, Communication Methods and Media Site.....	7
Location of Public Areas, Roads, and Medical Facilities.....	7
Public Awareness and Communication.....	8
Evacuation Routes, Emergency Evacuation Areas, and Road Block Locations.....	9
Monitoring Equipment, Alarm Systems, Safety Equipment, and Supplies.....	10
Signs and Markers NMSA 19.15.11.10.....	11
<b>V. Characteristics of Hydrogen Sulfide (H<sub>2</sub>S), Sulfur Dioxide (SO<sub>2</sub>), and Carbon Dioxide (CO<sub>2</sub>)</b> [NMAC 19.15.11.9. B(2)(b)][API RP-55 7.4 b.].....	13
Characteristics of Hydrogen Sulfide (H <sub>2</sub> S).....	13
Sulfur Dioxide (SO <sub>2</sub> ).....	14
Carbon Dioxide (CO <sub>2</sub> ).....	15
<b>VI. Radius of Exposure (ROE) – Worst Case Scenario</b> .....	16
<b>VII. Facility Description, Maps, and Drawings</b> [NMAC 19.15.11.9.B(2)(c)]	
[API RP-55 7.4 c.].....	17
Description of Pipeline.....	17
Description of Monument Booster Station.....	17
Maps.....	17
<b>VIII. Training and Drills</b>	
[NMAC 19.15.11.9.B(2)(d)][API RP-55 7.4 d.].....	18
Training DCP Personnel.....	18
Training of Emergency Response Agencies.....	18
Training of Businesses, Individuals in Public Areas and Producers.....	19
Emergency Response Drills.....	19
<b>IX. Coordination with State Emergency Plans</b> [NMAC 19.15.11.9.B(2)(e)].....	19
NM Oil Conservation Division.....	20
NM State Police/NM Hazardous Materials Emergency Response Plan.....	20

<b>X. Plan Activation</b>	
[NMAC 19.15.11.9.C][API RP-55 7.4 d.].....	20
Activation .....	20
Response Levels.....	20
Events that Could Lead to a Release.....	21
<b>XI. Submission of H<sub>2</sub>S Contingency Plans</b>	
[NMAC 19.15.11.9.D].....	21
Submission.....	21
Retention.....	21
Revisions.....	21
Annual Inventory of Contingency Plans.....	21

**APPENDICES**

**Appendix A – Maps of Pipeline and Monument Booster Station**

**Map A-1 Fullerton to Linam Pipeline**

**Map A-2 Monument Booster Station Plot Plan**

**Map A-3 Location of Linam Ranch Plant Showing AGI and Flare**

**Map A-4 Linam Ranch Plot Plan Showing Escape Routes and Emergency  
Equipment Locations**

**Appendix B – Distribution List**

**Appendix C - Response Flow Diagrams**

**Appendix D – Chronologic Record of Events Log**

**Appendix E – Telephone Numbers/Emergency Call List**

**Appendix F – Radius of Exposure (ROE) Calculations and ROE Maps**

**Table F-1 ROE Calculation**

**Map F-1 Fullerton to Linam Pipeline ROE**

**Map F-2 Linam Ranch Gas Plant ROE**

**Map F-3 Location of Businesses and Residences in ROE of Pipeline**

**Appendix G – Example of Pipeline Safety Mail-Out Guide**

**Appendix H - Photos of Poison Gas Warning Markers**

### **Location of Pipeline**

The Fullerton to Linam Ranch Gas Pipeline (hereinafter the "Pipeline") is a 37- mile pipeline, owned and operated by DCP Midstream, LP (DCP). The Pipeline gathers and transports natural gas and natural gas liquids that contains hydrogen sulfide (H<sub>2</sub>S). The pipeline originates in Andrews County, Texas at the DCP Fullerton Facility and traverses through Gaines County, Texas into Lea County, New Mexico. It crosses into New Mexico at Section 5, Township 20 South, Range 39 East in Lea County, proceeds west and north to the Monument Booster Station and finally terminates at the Linam Ranch Gas Processing Plant. The pipeline segment in New Mexico is located primarily in rural and non-populated areas of Lea County. The Pipeline consists of 19.8 miles of 12-inch pipe in Texas, 11.8 miles of 12-inch pipe in New Mexico and an additional 5.4 miles of 16-inch pipe in New Mexico. The Pipeline is buried at a minimum depth of 48 inches below grade. The 12-inch steel buried pipeline crossing public roads has a .281 wall thickness, and the 16-inch steel buried Pipeline crossing public roads has a .375 wall thickness. A map of the pipeline in its entirety is included in Appendix A (see Map A-1), and a detailed plot plan of the Monument Booster Station, which is part of the Pipeline, is also included in Appendix A (see Map A-2).

## I. INTRODUCTION [API RP-55 7.1]

DCP Midstream owns and operates a 37- mile pipeline within a permitted Right-of-Way (ROW) that gathers natural gas and natural gas liquids and transports them from Fullerton, Texas to the Linam Ranch Gas Processing Facility in Lea County. Because the natural gas that is being transported by the Pipeline contains Hydrogen Sulfide (H<sub>2</sub>S) this H<sub>2</sub>S Contingency Plan (the "H<sub>2</sub>S Plan" or "the Plan") is being submitted to document procedures that are to be followed in the event of an unintended H<sub>2</sub>S release that occurs at any location along the Pipeline in New Mexico including the Monument Booster Station. Separate H<sub>2</sub>S Contingency Plans cover the portion of the pipeline in Texas and the Linam Plant and AGI Well. This Plan covers only the portion of the Pipeline located in New Mexico. The Pipeline does not have multiple laterals gathering gas from area well sites. It originates at the DCP Fullerton Facility, has a lateral to the DCP Monument Facility and terminates at the DCP Linam Ranch Facility.

## II. SCOPE [API RP-55 7.2]

The terms used in this Plan are the same as those defined in (19.15.11.7 NMAC) unless otherwise defined herein. The term "Pipeline" as used in this plan means all parts of those physical facilities through which gas moves during transportation, including pipe, valves and other appurtenances attached to pipe, compressor units, metering stations, regulator stations, delivery stations, holders, and fabricated assemblies, including the Monument Booster Station. The term Right-of-Way (ROW) as used in this plan means an area 15 feet wide on either side of the Pipeline for a total ROW width of 30 feet with the Pipeline at its center. This Pipeline is constructed to **DOT 49 CFR 192** regulations and is buried at a depth of four feet as a minimum from top of pipe to surface. It is operated in a manner to protect the public from exposure to its contents, including H<sub>2</sub>S. The Plan complies with **New Mexico Oil Conservation Division (OCD) Rule 11 (§ 19.15.11 NMAC)**, and the Plan and operation of the Pipeline conform to standards set forth in **API RP-55 "Recommended Practices for Oil and Gas Producing and Gas Processing Plant Operations Involving Hydrogen Sulfide"** as well as **API RP 1162 "Public Awareness Programs for Pipeline Operators"**. At no location along the Pipeline are there any storage tanks in which H<sub>2</sub>S or other gas or gas products are stored, and thus, API regulations and OCD regulations (specifically 19.15.11.12.E NMAC) relative to those types of storage facilities are not applicable for this Plan.

This Plan is specific to the Pipeline and the Monument Booster Station. It contains procedures to provide an organized response to an unplanned release of H<sub>2</sub>S from the Pipeline and documents procedures that would be followed to alert and protect any members of the public, residents in surrounding areas and/or contractors working on or around the Pipeline in the event of an unplanned release. Although the Pipeline transports natural gas and natural gas liquids to the Linam Ranch Plant, this Plan does not include the Linam Ranch Facility or the Linam Ranch AGI Well. Those facilities have their own distinct H<sub>2</sub>S plan which has been submitted separately to OCD. This Plan has been prepared to minimize the hazard resulting from an H<sub>2</sub>S release at any location along the Pipeline. It will be used to inform company personnel, local emergency responders and the public of actions to be taken before, during and after an H<sub>2</sub>S release. All operations shall be performed with safety as the primary goal. The primary concern of DCP, should an H<sub>2</sub>S release occur, is to protect the public, contractors and DCP company employees; the secondary concern is to minimize the damage to DCP property and other adverse effects of the emergency. In the event of a release, any part of the Pipeline operation that might compromise the safety of potentially affected parties will cease until the operation can be re-evaluated and the proper engineering controls instituted to assure safety of all concerned. No individual should place the protection of the Pipeline or DCP property above his or her own personal safety.

In a serious situation involving an H<sub>2</sub>S release not only DCP personnel are involved, but local Fire Departments, Law Enforcement, County and even State of New Mexico agencies may be interested

parties. Cooperation will expedite all decisions. In any emergency situation involving a H<sub>2</sub>S release, delegation of duties will be made to appropriate employees and groups. These duties and procedures are reviewed on an annual basis to ensure complete understanding and facilitate a well-coordinated response by all involved personnel to the emergency situation.

### **III. PLAN AVAILABILITY [API RP-55 7.3]**

The H<sub>2</sub>S 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 Monument Booster Station and at the Permian Region Safety Manager's office in Midland, Texas. See Appendix B for the H<sub>2</sub>S Plan Distribution List, which lists all the additional entities that have been provided a copy of this Plan.

### **IV. EMERGENCY PROCEDURES [NMAC 19.15.11.9.B(2)(a)] [API RP-55 7.4 a] [29 CFR 1910.1200]**

#### **RESPONSIBILITIES AND DUTIES OF PERSONNEL DURING AN EMERGENCY**

The Plan 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). The first person to discover the problem or his designee, by default, will be the on-scene Incident Commander (IC in this Plan) until the responsibility is transferred to someone else. This responsibility should be formally transferred to the Plant or Field Supervisor as soon as practical. The IC will contact and coordinate with DCP Midstream management if an H<sub>2</sub>S emergency occurs, and notifications will be made in the following order to activate the DCP Midstream Crisis Management/H<sub>2</sub>S Contingency Plan:

- 1) Field/Plant Supervisor (IC), or designee notified first;
- 2) IC notifies Southeast NM Asset Manager.
- 3) Southeast NM Asset Manager notifies the Regional Operations Vice President;
- 4) Regional Operations Vice President contacts the South Business Unit President.

If any person in this chain of command is unavailable, the communication shall be elevated 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. See Appendix E for appropriate telephone numbers.

The Field/Plant Supervisor or his designee shall determine:

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

#### **Discovery and Internal Reporting**

1. All personnel, including contractors who perform operations, maintenance, and/or repair work on the pipeline wear H<sub>2</sub>S monitoring devices to assist them in detecting the presence of unsafe levels of H<sub>2</sub>S. When any person, while performing such work, discovers a leak or emission release they are to attempt to resolve the issue as long as H<sub>2</sub>S 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 Field/Plant Supervisor or his designee and convey, at a minimum, the following information:

- Name, telephone number, and location of person reporting the situation.
- Type and severity of the emergency.

- Location of the emergency (area/block, mile markers, latitude & longitude, or building), and the distance to surrounding equipment and/or structures.
- The cause of the leak, name and quantity of material released, and extent of the affected area including the degree of environmental hazard.
- Description of injuries and report of damage to property and structures.

IC will Initiate and maintain a Chronologic Record of Events log (see Appendix D). This record should record the time, date, and a summary of the event.

2. If any individual detects H<sub>2</sub>S levels of 10 ppm or greater either as a result of his/her personal monitoring device or the intermittent alarms from fixed monitors located at the Monument Booster Station, the pipeline operator will contact the Field/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/Pipeline Operator is responsible for notifying the Field/Plant Supervisor or his designee so that the H<sub>2</sub>S Contingency Plan can be activated, if necessary.
3. Once the Field/Plant Supervisor is contacted, he or his designee is to notify the appropriate DCP Management and Plant emergency response personnel, and advise them of the existing situation. If necessary, the Field Supervisor will then conduct the notifications of state regulatory agencies including the OCD District Office and emergency response agencies listed in Appendix E.
4. DCP operations personnel are to advise any contractor and all others working in the area of the release that H<sub>2</sub>S Plan has been activated.

### **IMMEDIATE ACTION PLAN**

The following outlines the Immediate Action Plans that will be implemented in the case of activation of the H<sub>2</sub>S Plan. Response Flow Diagrams in Appendix C also provide a summary of actions to be taken during Plan activation. These procedures and decision processes have been designed 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. Emergency response actions may be initiated for a variety of situations. The Plan is activated in progressive levels (Levels I through III), based on the concentration and duration of H<sub>2</sub>S that has been released (see page 20 of this Plan for details about activation levels). Additional or long-term response actions will be determined on a case-by-case basis, if needed, once the ICC and ICS are established following the immediate response.

## **LEVEL I ACTIVATION**

### **Level I response is activated when:**

- **Operator conducting biweekly line patrol detects H<sub>2</sub>S concentration of 10 ppm or greater.**
- **Other DCP Employees or third party (contractor, etc.) report an H<sub>2</sub>S gas leak (Odor Compliant).**

### **Actions:**

1. The responding operator will return to a safe area and notify the appropriate control room operator of the release (responsible control room operator to be determined by location of the release).
2. The control room operator will contact any DCP personnel or contractors working along the pipeline ROW, inform them of the H<sub>2</sub>S alarm on the Pipeline, and direct them to monitor air quality, especially H<sub>2</sub>S concentrations.
3. Appropriate operator helps any persons in distress, and evacuates any employees or contractors who may be working on or near the pipeline ROW to an Emergency Assembly Area, designated by the IC.
4. If deemed necessary, local emergency response service providers (see Appendix E) will be contacted by Plant personnel designated by the operator.
5. 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.
6. The Field/Plant Supervisor shall be notified of the release.
7. Responding personnel will don SCBA and help any persons in distress to evacuate, and will then determine the source of release and take corrective action.
8. If release is resolved and monitored levels of H<sub>2</sub>S along the pipeline ROW are less than 10 ppm, the Field/Plant Supervisor or his designee may declare an "All Clear" and authorize maintenance personnel return to the ROW to initiate repairs. Third parties evacuated from the ROW will be advised of the all clear.
9. If the release is not resolved and H<sub>2</sub>S levels continue to increase, Level II Response will be initiated.
10. The Field/Plant Supervisor shall notify OCD within four hours of any release that activates the Plan. Per 19.15.11.16 NMAC, notification of Contingency Plan implementation will be submitted to the OCD via form C-141 within 15-days of release.

## **LEVEL II ACTIVATION**

### **Level II Response is activated when:**

- **Level 1 response is unsuccessful**
- **H<sub>2</sub>S concentration is increasing above 10 ppm, or is detected at 20 ppm**
- **Pipeline leak is visible.**

### **Actions:**

1. The responding operator, on detecting H<sub>2</sub>S greater than or equal to 10 ppm, returns to safe area and immediately contacts the appropriate control room operator (determined by the location of the release) to shut down the pipeline.
3. The Field/Plant Supervisor will be notified.
4. The responding operator will don SCBA and will check the pipeline ROW, help any persons in distress, and evacuate any employees or contractors who may be working on or near the pipeline ROW to the Emergency Assembly Area designated by the IC. If deemed necessary, local emergency response service providers will be contacted by Pipeline personnel designated by the operator.
5. Pipeline personnel with H<sub>2</sub>S monitors and emergency trailers will be dispatched to the pipeline release area. Personnel will monitor air quality and move further away if H<sub>2</sub>S reaches 10 ppm and notify IC.
6. An Incident Command Center will be established at a designated Emergency Assembly Area, and a media staging area will be established adjacent to Assembly Area and all media will be directed to it.
7. The IC will initiate and maintain a Chronologic Record of Events Log (see Appendix D).
8. If monitored H<sub>2</sub>S levels at Emergency Assembly Area 1 exceed 10 ppm, the IC will establish a new Emergency Assembly Area, taking into account wind conditions and location of release.
9. DCP Personnel will inform any third party visibly observed near the ROW and any businesses or residences within the 500 and 100 ppm ROE of the release of the situation and instruct them to either shelter in place in their own residences or businesses or leave the area and not return until further notice, depending on wind conditions, etc. as determined by the IC.
10. Re-entry will occur in full SCBA and/or cascade breathing air systems at the direction of the IC until IC determines problem has been resolved.
11. If release is resolved and monitored levels of H<sub>2</sub>S along the pipeline ROW are less than 10 ppm, the IC or his designee may declare an "All Clear" and authorize maintenance personnel return to the ROW to initiate repairs. Third parties evacuated from the ROW will be advised of the all clear.
12. If the release is not resolved and/or H<sub>2</sub>S levels continue to increase, Level III Response will be initiated.
13. The Field/Plant Supervisor or his designee will contact the OCD district office within four hours of any release that activates the Plan. Per 19.15.11.16 NMAC, notification of Contingency Plan implementation will be submitted to the OCD via form C-141 within 15-days of release.

## **LEVEL III ACTIVATION**

### **A Level III response is initiated when:**

- **Corrective actions at Level 2 are unsuccessful**
- **H<sub>2</sub>S concentrations reach 10 ppm or greater at any public area or road.**
- **A catastrophic release occurs**

### **Actions:**

1. Appropriate operator (determined by the location of the leak) dons SCBA and helps any persons in distress.
2. Emergency trailers will be dispatched to Emergency Assembly Areas designated by the IC. If monitored H<sub>2</sub>S levels at any Emergency Assembly Area exceed 10 ppm, the IC will establish a new Emergency Assembly Area.
3. The appropriate operator will contact any personnel working along the pipeline ROW and direct them to evacuate to a designated Emergency Assembly Area. 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.
4. An Incident Command Center will be established at the designated Emergency Assembly Area. A media staging area will be established adjacent to Assembly Area, and all media will be directed to it. The IC will initiate and maintain a Chronologic Record of Events Log (see Appendix D). If monitored H<sub>2</sub>S levels at Emergency Assembly Area 1 exceed 10 ppm, evacuate to an additional Emergency Assembly Area.
5. State agencies including the OCD District Office and Emergency responders will be notified (see Appendix E).
6. Notifications to area businesses and residences within the 500 and 100 ppm ROE of the release will be initiated and will include the nature of the release and status of containment. Producers, businesses and individuals in “public areas” as defined in NMAC 19.15.11.7 will be instructed to immediately evacuate or shelter in place in their own businesses or residences (as determined by the IC) depending on wind conditions, etc. All DCP personnel, third party contractors and/or services companies working in the area and those imminently scheduled to work in the area, of the release will be instructed to immediately evacuate and not enter/or re-enter the pipeline ROW vicinity until further instruction.
7. 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.
8. Re-entry will occur in full SCBA and/or cascade breathing air systems at the direction of the IC until IC determines problem has been resolved.
9. Once release is resolved and monitored levels of H<sub>2</sub>S along the affected Pipeline ROW are less than 10 ppm, the Field/Plant Supervisor or his designee may declare an “All Clear” and authorize maintenance personnel to return to pipeline ROW to initiate repairs. All businesses, individuals in public areas and producers previously notified will be informed that the release has been resolved and advised of the current monitored H<sub>2</sub>S levels.
10. The Field/Plant Supervisor or his designee will contact the OCD district office within four hours of any release that activates the Plan. Per 19.15.11.16 NMAC, notification of implementation of the Plan will be submitted to the OCD via form C-141 within 15-days of release.

## **TELEPHONE NUMBERS, COMMUNICATION METHODS AND MEDIA SITE**

### **Telephone Numbers and Communication Methods**

In the event of activation of the Plan, emergency responders, public agencies, local government and other appropriate public authorities must be contacted. **Telephone contact information for those entities is included in Appendix E.**

### **Media Site**

- If a Level III Response occurs, the Media Site will be located adjacent to the designated Emergency Assembly Area. The Incident Commander will designate the location of the Media Site.
- The Incident Commander will designate a Media Liaison Officer or assume these duties personally.
- Under no circumstances will media personnel be allowed inside the warm or hot zone (blocked area). Media personnel will only be allowed inside the blocked area once the area has been monitored and restored to a cold zone (less than 10 ppm H<sub>2</sub>S), and the Incident Commander has approved their entry.
- Media personnel shall not be allowed to enter DCP property without the approval of the DCP Asset Manager or his designee, and shall be escorted by DCP personnel at all times.

## **LOCATION OF PUBLIC AREAS, ROADS AND MEDICAL FACILITIES**

All businesses and individuals in public areas within the 500 ppm and 100 ppm ROE will be contacted by DCP personnel as designated by the IC if the Plan is activated, based on response level of this Plan, and advised of the following:

- The nature and extent of the release/emergency along the Pipeline and recommendations for protective actions, such as evacuation or shelter-in-place options such as closing windows and shutting off any air conditioning/heating until they are notified that it is safe.
- 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.

### **Public Roads:**

The DCP Pipeline Operations group maintain current public road surveys, and in the event of activation of this plan will establish roadblocks to prevent anyone from entering the 500 or 100 ppm ROE of the pipeline (see Map F-1). Should an emergency situation occur, the local Emergency Responders, Lea County Sheriff's Department and New Mexico State Police will be contacted for assistance with the affected public.

### **Businesses and Residences:**

The DCP Pipeline Operations group maintains a list of Businesses and Producers with wells or other facilities that are located within in the 500 and 100 ppm ROE for the pipeline route (see Appendix E). A list of residences within the 500 and 100 ppm ROE (generated by Paradigm Alliance, Inc.) is included in Appendix E.

## Medical Facilities:

There are no medical facilities located within the 500 ppm or 100 ppm ROE. A list of medical facilities that could be contacted in the event of activation of the Plan is included in Appendix E.

## PUBLIC AWARENESS AND COMMUNICATION

Public awareness and communication is a primary function of the H<sub>2</sub>S Plan, and the Plan complies with public awareness and education requirements set forth in **NMSA 19.15.11.9**. The Pipeline public awareness program also complies with requirements and recommendations in **API RP 1163 “Public Awareness Programs for Pipeline Operators”** which applies to all natural gas pipelines. In order to assure compliance with API RP 1163, DCP contracts with the Paradigm Alliance Inc to assemble lists of stake-holders in areas surrounding the Pipeline and to deliver public awareness packages (printed in English and Spanish) to all of these individuals on an annual basis. In 2013, Paradigm mailed over 9,700 public awareness packages to businesses and individuals in areas that might be impacted by any kind of an emergency associated with the Pipeline. The public awareness packages (see Appendix G) contain pamphlets which are specific to certain target groups (e.g. emergency response personnel, construction companies, farmers, community businesses and organizations such as churches, and individuals). Each pamphlet is accompanied by an informational brochure from DCP Midstream, which describes the pipeline, gives instructions about what to do if a leak is discovered and shows pictures of various types of pipeline markers, including aerial markers and casing vent markers. The pamphlet also contains emergency 24-hour telephone numbers for DCP personnel and contains non-emergency contact information and a link to a DCP website where additional information concerning the Pipeline can be accessed.

In addition to the public awareness activities described above, Paradigm has also assembled a lists of businesses and residences that are located within the 500 and 100 ppm ROE of the Pipeline (see Appendix E). These individuals receive the same pamphlets and brochures as described above but also receive an additional cover memo from DCP (see Appendix G) that specifically address issues associated with potential H<sub>2</sub>S leaks. This includes information about evacuation of the 100 and 500 ppm ROE as well as various shelter-in-place options that might be instituted in the event of an H<sub>2</sub>S emergency, and contains 24-hour emergency telephone numbers for DCP personnel. Examples of these above referenced pamphlets and informational brochures from DCP Midstream are contained in Appendix G. These are mailed out annually.

Further, DCP has compiled lists of various public, state and local contacts that are to be notified individually by telephone at various phases in the event of activation of the H<sub>2</sub>S Plan (see Appendix E). The Response Flow Diagrams in Appendix C show when certain entities are to be contacted in the event the plan should be activated, and Appendix E contains a list of those entities and their telephone numbers. This H<sub>2</sub>S Plan is also distributed in its entirety to those listed in Appendix E.

The DCP Public Awareness Program will:

- Conduct an extensive annual Public Awareness Program and Damage Prevention Program.
- Participate with the Local Emergency Planning Committee to educate persons residing in the counties we operate in about the hazards associated with gas plants and pipelines.
- Participate with the DCP’s Pipeline Group to educate excavators and contractors about damage prevention to underground facilities and is a member of the New Mexico One-Call System.

- Install and maintain required pipeline markers and signs at all facilities and road crossings to identify DCP underground pipelines.

## **EVACUATION ROUTES, EMERGENCY ASSEMBLY AREAS AND ROAD BLOCK LOCATIONS**

### **Evacuation Routes and Emergency Assembly Areas**

Evacuation areas for a pipeline release will be dependent upon the location of the release along the Pipeline and will be determined at the time of the incident by the IC. All personnel not directly involved with the Emergency Response will be evacuated to a safe area. Prevailing winds for the area are from the southwest. Personnel should evacuate downwind of the release to the designated Emergency Assembly Areas. Depending on the location of the leak, some individuals may be advised to shelter-in-place, close windows and doors and turn off air conditioning and stay inside until further notice. Wind Socks are positioned at the Monument Booster site directly east of the town of Monument (see Appendix H), and flags are visible at the Post Office at the center of the city of Monument.

The responding DCP Employees will don 30-minute Self-Contained Breathing Apparatus (SCBA) and first determine if any persons are in distress and assist them to evacuate to an Emergency Assembly Area that has been designated by the IC. Emergency services (911) will be contacted if there are injuries or as otherwise deemed necessary. Evacuees will be told to check the prevailing wind direction and to proceed immediately in an upwind direction to the pre-designated Emergency Assembly Area(s) (designated by IC). At each Emergency Assembly Area, the ambient air quality will be monitored for H<sub>2</sub>S concentration to ensure it remains at less than 10 ppm. If the H<sub>2</sub>S concentration rises to 10 ppm or greater, the assembly area will be relocated, as designated by the IC.

This Plan also serves as the H<sub>2</sub>S Plan for the Monument Booster Station which is part of the Pipeline. There is a separate H<sub>2</sub>S Safety Plan for the Linam Ranch Plant itself. For informational purposes, the ROE map of the Linam Ranch Plant is included in Appendix F (Map F-2), and maps showing the location of the Linam Ranch Plant, AGI and inlet flare (Map A-3) and a map showing evacuation routes associated with the Linam Ranch Plant (Map A-4) are included in this plan. Escape routes for the Monument Booster Station are shown on Map A-2 in Appendix A.

### **Road Block Locations**

The Pipeline crosses State Highways, County Roads and a private railroad in New Mexico (see maps in Appendix A and Appendix F). If a leak occurs near any of these roads, then roadblocks will be established in order to prevent entry into those areas. The locations at which roadblocks would be established are shown on Map F-1 in Appendix F. If deemed necessary by the IC, the State or Local Police will be asked to assist with maintaining the roadblocks. As noted above, a section of the Texas New Mexico Railroad is within the 100 and 500 ppm ROE of the pipeline. Should a leak occur in proximity to the rail line, DCP will immediately notify the railroad Operations Office and tell them to keep trains out of the area until further notice (see Appendix E for Operations Office phone number).

## **MONITORING EQUIPMENT, ALARM SYSTEMS AND SAFETY EQUIPMENT**

### **Monitoring Equipment, Alarm Systems and Emergency Shutdown**

Pipeline valves are configured with a high/low pressure alarm and will be monitored 24-hours/day, 7-days/week via a Supervisory Control and Data Acquisition industrial control system (SCADA) at the

Fullerton and Linam facilities. The valves have a low pressure alarm set at 350 psi and a high pressure alarm set at 880 psi. Operation of the pipeline within the ranges of the alarm is considered to be normal operation. The valves are also automated with an Emergency Shutdown (ESD) that can be controlled at the Fullerton and Linam Control Rooms or activated in the field when the alarm indicates a high/low level situation.

The SCADA system is designed to monitor specific activities along the pipeline route such as pump pressures, pipeline volume pressures and other specific data relative to pipeline operations. The system is dependent both on human intervention and telemetry. The SCADA system is a highly integrated system developed to maintain proficient pipeline operations and to assist in the control of transmission activities along the pipeline.

In the event of a discrepancy in volumes or pressures within the pipeline, DCP Operations will immediately initiate an internal response to identify the nature and location of the discrepancy. This response includes, but is not limited to, meter verifications, pipeline surveys (drive or fly over), and pipeline shutdown if necessary based on DCP's best professional judgment. The pipeline can be isolated at valves located east of Highway 18, at the Monument Facility and at the Linam Ranch Facility (see Appendix F, Map F-1). The Linam Ranch Plant also has an ESD valve to isolate incoming and out-going gas and product streams. This system can be automatically or manually initiated, depending on pipeline operating conditions. The Fullerton to Linam Pipeline has an ESD systems designed to isolate pipeline segments to contain hydrocarbon and H<sub>2</sub>S releases. This system is automatically and/or manually initiated from either the Fullerton Plant or the Linam Ranch Plant control rooms, depending on process conditions. The ESD system is designed to prevent a Level III response. Locations of ESD/Block valves are shown on Map F-1 in Appendix F.

### **Additional Safeguards**

- Compressors have high and low pressure shutdowns. This information is transmitted to the Fullerton and Linam Control Rooms via SCADA and to the Field Operator via phone. There are fixed H<sub>2</sub>S monitors/alarms with automatic shutdown capability at the Monument booster, and the booster station is equipped with a flare to handle emergencies (see Map A-2 and Appendix H). Fire extinguishers and respiratory equipment are available at each facility site (Fullerton, Linam and Monument), and the Monument Station is fenced and gated.
- If a leak that requires the line to be shut in and depressurized is detected on the Fullerton to Linam Ranch Pipeline, the pipeline contents are routed to the Linam Ranch Plant flare so repairs can be made safely. Map A-4 shows the location of the Linam Ranch Plant and flare.
- The Pipeline sections between State Highway 18 and the Monument Facility and from the Monument Facility to Linam Ranch have high/low pressure monitoring. The lines are monitored 24-hours a day by the Fullerton and Linam Ranch facilities through SCADA.
- The 12-inch steel buried pipeline crossing public roads has a .281 wall thickness, and the 16-inch steel buried pipeline crossing public roads has a .375 wall thickness. In addition to the increased wall thickness, the wall pipe used in the road crossings is coated with 12 to 14 mills of Fusion Bond Epoxy on the bare pipe with an additional 30 mills of Powercrete or Lilly coating providing a total of 42 mills of coating in the crossings. Powercrete or Lilly coating is a highly abrasion and impact resistant coating designed and approved for use in bored crossings. This coating is designed to be resistant to scratches and coating damage during the installation process of the pipe under the public roads.

- Along the pipeline ROW the pipe is buried a minimum of 4 feet in depth to aid in preventing accidental excavation accidents. The pipe is at least 4 feet deeper than the lowest point of any road crossing.
- Corrosion Protection is utilized to ensure the integrity of the Pipeline. Corrosion protection chemicals are injected to the Pipeline and monitored for effectiveness with corrosion coupons.

## **SAFETY EQUIPMENT**

### **Respiratory Equipment**

The Fullerton, Linam Ranch and Monument Facilities have portable 30-minute SCBAs that can be transported as required in response to a Pipeline emergency. The cascade hose reel systems are available in the event of a need for long-term compressed air supply during pipeline repairs. All Plant personnel are trained and fit tested annually for use of the SCBA respirators.

### **Fire Fighting Equipment**

Field personnel are trained only for insipient stage firefighting. Fire extinguishers are located in company vehicles and are typically a 30# Ansul dry chemical fire extinguisher. Should an emergency resulting in fire occur on the Pipeline ROW, 911 will be contacted for assistance from the local fire department. DCP Midstream employees are not trained for firefighting of incidents along the pipeline ROW. Should the pipeline incur a failure requiring firefighting equipment, trained professional emergency responders will be contacted via 911.

### **First Aid Kits**

First Aid Kits are available in the following locations:

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

## **SIGNS AND MARKERS NMSA 19.15.11.10**

- Pursuant to NMSA 19.15.11.10 and 49 CFR 192.707 signs and markers have been installed at public road crossings where the 100 ppm ROE of the Pipeline intersects with those roads. The signs contain sufficient information to establish the ownership and existence of the line and indicate by the use of the words “Poison Gas” that a potential danger exists. (See Appendix H for an example such a sign.)
- The Pipeline ROE Map in Appendix F (Map F-1) shows the locations of the above referenced signs. As shown on the map, poison gas warning signs have been placed public roads (State Highways and County Roads) intersect the 100 ppm ROE of the Pipeline. All signs contain the wording, “Warning Poisonous Gas Pipeline”.
- A section of the Texas New Mexico Railroad is within the 100 and 500 ppm ROE of the pipeline. Should an actual leak occur near the rail line, the Railroad Operations Office will be notified (See

Appendix E for phone number). Signs and markers have been placed where the Railroad intersects the ROE, as shown on Map F-1.

- Warning signs are of sufficient size to be readable at a reasonable distance and contain the language “Warning” and “Poison Gas” with a black and yellow color contrast. Colors satisfy the current ANSI standard Z535.1-2002 (Safety Color Code). Signs are compatible with the regulations of the Federal Occupational Safety and Health Administration (OSHA).
- The Monument Facility is fenced and manned 24- hours/day. Appropriate markers and signs in accordance with 49 CFR 192.707 and NMAC 19.15.11.10 are installed at the facility and contain the language “Warning Poisonous Gas Pipeline”.

**V. CHARACTERISTICS OF HYDROGEN SULFIDE (H<sub>2</sub>S) and SULFUR DIOXIDE (SO<sub>2</sub>)**  
**19.15.11.9.B(2)(b)] [API RP-55 7.4 b.]**

**Hydrogen Sulfide:** H<sub>2</sub>S is a colorless, toxic and flammable gas, and has the odor of rotten eggs. It is heavier than air and presents a significant health hazard by paralyzing the respiratory system resulting in serious injury or death.

<b>Hydrogen Sulfide Properties and Characteristics</b>		
CAS No.	7783-06-4	
Molecular Formula	H <sub>2</sub> S	
Molecular Weight	34.082 g/mol	
Ceiling Concentration	20 ppm (OSHA)	
Ceiling Peak Concentration	50 ppm (OSHA)	
Threshold Limit Value (TLV)	15 ppm (ACGIH)	
Time Weighted Average (TWA)	10 ppm (NIOSH)	
Short Term Exposure Level (STEL)	15 ppm (ACGIH)	
Immediately Dangerous to Life or Health (IDLH)	100 ppm	
Specific Gravity Relative to Air (Air=1.0)	1.189	
Boiling Point	-76.5F	
Freezing Point	-121.8F	
Vapor Pressure	396 psia	
Auto-ignition Temperature	518F	
Lower Flammability Limit	4.3%	
Upper Flammability Limit	46.0%	
Stability	Stable	
pH in water	3	
Corrosivity	Reacts with metals, plastics, tissues and nerves	
<b>Physical Effects of Hydrogen Sulfide</b>		
<b>Concentration</b>		<b>Physical Effects</b>
Ppm	%	
1	0.00010	Can be smelled (rotten egg odor)
10	0.0010	Obvious & unpleasant odor; Permissible exposure level; safe for 8 hour exposure
20	0.0020	Acceptable ceiling concentration
15	.005	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 and health (IDLH) loss of sense of smell in 3-15 minutes; stinging in eyes & 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
1000	0.1000	Instant unconsciousness; followed by death within minutes

**Sulfur Dioxide (SO<sub>2</sub>):** SO<sub>2</sub> is produced as a by-product of H<sub>2</sub>S combustion. It is colorless, transparent, and is non-flammable, with a pungent odor associated with burning sulfur. SO<sub>2</sub> is heavier than air, but can be picked up by a breeze and carried downwind at elevated temperatures. It can be extremely irritating to the eyes and mucous membranes of the upper respiratory tract.

<b>Sulfur Dioxide Properties &amp; Characteristics</b>	
CAS No.	7446-09-5
Molecular Formula	SO <sub>2</sub>
Molecular Weight	64.07 g/mol
Permissible Exposure Limit (PEL)	5 ppm(OSHA)
Time Weighted Average (TWA)	2 ppm(ACGIH)
Short Term Exposure Level (STEL)	5 ppm(ACGIH)
Immediately Dangerous to Life and Health (IDLH)	100 ppm
Specific Gravity Relative to Air (Air = 1.0)	2.26
Boiling Point	14°F
Freezing Point	-103.9°F
Vapor Pressure	49.1 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
<b>Physical Effects of Sulfur Dioxide</b>	
<b>Concentration</b>	<b>Effect</b>
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 SO <sub>2</sub> 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 (IDLH)
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.

**Carbon Dioxide (CO<sub>2</sub>):** The current inlet gas streams to the Plant contain approximately 11% CO<sub>2</sub>. The current inlet to the AGI compression, pipeline and injection well contains 85.7 mole percent of CO<sub>2</sub>. CO<sub>2</sub> is a colorless, odorless and non-flammable. It is heavier than air.

<b>Carbon Dioxide Properties &amp; Characteristics</b>	
CAS No.	124-38-9
Molecular Formula	CO <sub>2</sub>
Molecular Weight	44.010 g/mol
Time Weighted Average (TWA)	5,000 ppm
Short Term Exposure Level (STEL)	30,000 ppm
Immediately Dangerous to Life and Health (IDLH)	40,000 ppm
Specific Gravity Relative to Air (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
<b>Physical Effects of Carbon Dioxide</b>	
<b>Concentration</b>	<b>Effect</b>
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

## VI. RADIUS OF EXPOSURE [NMAC 19.15.11.7. K]

**WORST CASE SCENARIOS:** The basis for worst case scenario calculations utilizes the Pasquill-Gifford derived equation as required in NMAC 19.15.11.7.K:

- The worst case ROE for this Plan has been calculated utilizing the maximum sour gas flow rate (24- hour rate) for this pipeline.
- The worst case scenario ROE assumes an uncontrolled instantaneous release of a 24-hour volume of gas from the Pipeline at all individual points along the Pipeline. Because this Pipeline is a throughput Pipeline, it is impossible that the entire 24 hour volume of the Plant could be released instantaneously as is assumed in the worst case scenario calculations of the ROE. Further, the ESD systems for the Pipeline would be activated in the event of an emergency and would stop the flow of gas through the Pipeline. However, to comply with NMAC 19.15.11, the worst case scenario calculations (assuming an instantaneous release of the 24-hour throughput volume of the Pipeline is utilized here (see Appendix F for actual calculations).
- The H<sub>2</sub>S concentration of the sour gas in the pipeline is approximately 11,000 ppm.

The formulas for calculating the two ROE are as follows:

**100 ppm ROE Calculation (as per 19 NMAC 15.11.7.K.1):**

$$X=[(1.589)(\text{hydrogen sulfide concentration})(Q)](0.6258)$$

**500 ppm ROE Calculation (as per 19 NMAC 15.11.7.K.2):**

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

Where:

X = radius of exposure in feet

“hydrogen sulfide concentration” = the decimal equivalent of the mole or volume fraction of hydrogen sulfide in the gaseous mixture

Q = 24-hour pipeline volume in cubic feet (corrected for standard conditions of 14.73 psi absolute and 60 degrees Fahrenheit)

### ROE FOR PIPELINE WORST CASE SCENARIO

**500 ppm ROE 1,735 feet**

**100 ppm ROE 3,796 feet**

Appendix F contains additional materials related to the ROE. Table F-1 is the actual ROE calculation, and Map F-1 shows the 100 and 500 ppm ROE of the Pipeline in New Mexico. Maps F-2 from the separate Linam Ranch Plant H<sub>2</sub>S Contingency Plan and is included here for reference only since the Pipeline terminates at the Linam Ranch Plant.

## **VII. FACILITY DESCRIPTION, MAPS AND DRAWINGS [NMAC 19.15.11.9.B (2)(c)] [API RP-55 7.4 c.]**

### **Description of Pipeline**

The Fullerton to Linam Pipeline is a 37-mile pipeline that gathers natural gas and natural gas liquids and transports them from Fullerton, Texas to the Linam Ranch Gas Processing Facility in Lea County, New Mexico. The Pipeline consists of 19.8 miles of 12-inch pipe in Texas, 11.8 miles of 12-inch pipeline and 5.4 miles of 16-inch pipeline in Lea County, New Mexico. The Pipeline gathers natural gas and natural gas liquids containing H<sub>2</sub>S to be processed at the DCP Linam Ranch Facility. The Pipeline is buried at a minimum depth of 48 inches below grade, and the normal operating pressure of the 12-inch and 16-inch Pipeline is between 350-850 psig; the MAOP (Maximum Allowable Operating Pressure) is 1,440 psig with a daily volume of approximately 30 MMCF. The line has been hydrostatically tested to a pressure of 1,800 psig for an eight hour period.

The Pipeline is constructed in accordance with 49 CFR 192 design and construction requirements. The metal components of the steel pipe have been selected and manufactured so as to be resistant to H<sub>2</sub>S stress cracking under the operating conditions for which their use is intended. All materials satisfy the requirements described in the latest editions of NACE Standard MR-01-75 and API RP-14E, sections 1.7(c), 2.1(c), and 4.7. The handling and installation of materials and equipment used in H<sub>2</sub>S service are performed in such a manner so as not to induce susceptibility to sulfide stress cracking.

The pipe used is API 5L X-52 grade steel pipe with an epoxy based coating for external corrosion prevention. All valves, flanges, etc. are constructed of those metals, which have been selected and manufactured so as to be resistant to H<sub>2</sub>S stress cracking under normal operating conditions. The construction of all parts of the pipeline meets the requirements, as described in the latest edition of the NACE Standards MR-01-75 and API RP-14E, section 1.7(c), 2.1(c) and 4.7.

The 12-inch steel buried pipeline crossing public roads has a .281 wall thickness, and the 16-inch steel buried Pipeline crossing public roads has a .375 wall thickness. In addition to the increased wall thickness, the wall pipe used in the road crossings is coated with 12 to 14 mills of Fusion Bond Epoxy on the bare pipe with an additional 30 mills of Powercrete or Lilly coating providing a total of 42 mills of coating in the crossings. Powercrete or Lilly coating is a highly abrasion and impact resistant coating designed and approved for use in bored crossings. This coating is designed to be resistant to scratches and coating damage during the installation process of the pipe under the public roads.

### **Description of Monument Booster Station**

The Fullerton to Linam off-load pipeline has a tee connecting it to the Monument Booster discharge line with a pressure control valve to provide an outlet for the gas if the Linam Ranch Plant is down or experiencing a process upset. This protects the pipeline from exceeding the pressure rating of the pipeline. Concentrations of H<sub>2</sub>S at the Booster Station are the same as the pipeline, so the ROE calculations for the Booster and pipeline are the same.

### **Map of Pipeline and Monument Booster Station**

Appendix A contains a map which shows the entire Pipeline from its beginning point in Fullerton, Texas to its end-point at the Linam Ranch Gas Plant in Linam, NM (Map A-1), a plot plan of the Monument Booster Station (Map A-2), a map showing the location of the Linam Ranch Gas Plant, AGI and flare (Map A-3) and a plot plan of the Linam Ranch Gas Plant (Map A-4). A map detailing the Pipeline ROE and potential roadblock locations and locations of warning signs and block valves is included in

Appendix F (Map F-1). A map showing the Linam Ranch Gas Plant ROE is included in Appendix F (Map F-2). Locations of businesses and residences within the 100 and 500 ppm ROE of the pipeline is included in Appendix F (Map F-3). Please note that the Linam Ranch Plant maps are provided for information only. There is a separate H<sub>2</sub>S Contingency plan on file with the OCD for the Linam Ranch Plant. Please see that plan for details about Linam Ranch.

## **VIII. TRAINING AND DRILLS [NMAC 19.15.11.9.B(2)(d)] [API RP-55 7.4 d.]**

### **Training**

Training on the H<sub>2</sub>S Contingency Plan will be focused on three groups:

1. **DCP Personnel** - Training for DCP personnel shall include the Fullerton, Linam Ranch, Monument Facility and DCP Pipeline personnel work group – consisting of plant operators, mechanics, instrument and electrical technicians, Pipeline and maintenance support personnel. Plant Operators will be responsible for initiating and implementing the Plan. In addition, all Plant/Field personnel will receive:
  - Annual training on the H<sub>2</sub>S 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 H<sub>2</sub>S Contingency Plan.
  - Annual refresher training on H<sub>2</sub>S, 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 H<sub>2</sub>S training and to provide a copy of their certification card prior to obtaining permission to enter the facilities.
  - 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 Field/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 Field/Plant personnel are trained annually on the DCP requirements for 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 and copies of the H<sub>2</sub>S Contingency Plan 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 Sheriff's Department
- Hobbs Fire Department
- New Mexico Oil Conservation Division-Hobbs District Office

This training will include:

- Characteristics of H<sub>2</sub>S and safety precautions
- An overview of the Fullerton -Linam Ranch Pipeline
- A review of their roles in responding to activation of the Fullerton -Linam Pipeline H<sub>2</sub>S Plan
- Location of the ROE and how to protect the public within the ROE.
- 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.

### **3. Businesses, Residents, Producers located within the ROE**

DCP Midstream will provide annual training to businesses, residents and producers within the 500 and 100 ppm ROE, listed in Appendix E, which includes:

- An overview of the Pipeline
- Design and operating safety features on the Pipeline
- A review of the H<sub>2</sub>S alarms and significance
- Notification procedures
- Procedures for sheltering in place including options such as closing windows and shutting off any air conditioning/heating
- ROE for Pipeline
- H<sub>2</sub>S Contingency Plan procedures

### **Emergency Response Drills**

DCP will conduct, at least, a tabletop drill annually. Multiple drills during the year may be scheduled at the discretion of the Linam Plant Supervisor. The annual drill will execute this Plan and include contacting, at a minimum, the Local Emergency Response Agencies listed in above and the businesses and individuals in public areas that are identified as being within the 500 and 100 ppm ROE to make sure contact information in Appendix E is current. The drills will also include briefing of public officials on issues such as evacuation or shelter-in-place options.

Drill training will be documented and those records will be maintained at the Linam Plant. The documentation shall include at a minimum the following:

- Description or scope of the drill, including date and time
- Attendees and Participant to the drill
- Summary of activities and responses
- Post-drill debriefing and reviews

## **IX. COORDINATION WITH STATE EMERGENCY PLANS [NMAC 19.15.11.9.B(2)(e)]**

### **Notifications and Reports**

DCP has internal and external notification and reporting obligations associated with the activation of this Plan. Reporting obligations are as follows:

## **New Mexico Oil Conservation Division (OCD) [NMAC 19.15.11.16]**

As soon as possible, but no later than four hours after Plan activation OCD will be notified by the IC or the IC's designee via email or fax to the District II Office of the activation of the H<sub>2</sub>S Contingency Plan. In the event of a power failure, a phone call will be made within four hours. A full report of the incident to the OCD, utilizing Form C-141 shall be made no later than 15 days following the release.

## **New Mexico State Police/ New Mexico Hazardous Materials Emergency Response Plan**

The New Mexico State Police are responsible for overall scene management and coordination of all resources. A designated Emergency Response Officer (ERO) will establish the NIIMS and ICS and be responsible for management of all response resources on scene. Off-scene coordination of response resources will be handled through designated Headquarters Emergency Response Officers. Law enforcement-related activities will be coordinated by State Police.

## **X. PLAN ACTIVATION [NMAC 19.15.11.9.C] [API RP-55 7.4 d]**

This Plan will be activated as described in the Immediate Action Plan Section of this document (see page 3). **At a minimum, Per NMAC 19.15.11.8.C, the Plan also shall be activated whenever a release may create an H<sub>2</sub>S concentration of:**

- **more than 100 ppm in a public area,**
- **500 ppm at a public road**
- **100 ppm 3,000 feet from the site of release.**

### **Response Levels**

This Plan has three response levels that are described in detail in the Immediate Action Plan Section of this document and are outlined in the Response Flow Diagrams (see Appendix C). 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 H<sub>2</sub>S that has been released, and the physical location where the release has occurred.

- |                  |   |
|------------------|---|
| <b>Level I</b>   | Operator conducting biweekly patrol detects H <sub>2</sub> S of 10 ppm or greater; DCP employee or other third party report of H <sub>2</sub> S gas leak.   |
| <b>Level II</b>  | Level 1 response unsuccessful. H <sub>2</sub> S ≥ 10 ppm along Pipeline and increasing; H <sub>2</sub> S ≥ 20 ppm detected; Pipeline leak visible   |
| <b>Level III</b> | Corrective action at Level 2 is unsuccessful; H <sub>2</sub> S ≥ 10 ppm at any public area or road crossing; Catastrophic release; fire; explosion; 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 producers, businesses and individuals in public areas and State agencies is initiated. |

As soon as the Plan has been activated based on the criteria above the Field/Plant Supervisor, or his designee, and the NM Oil Conservation Division District Supervisor will be notified

## **Events that Could Lead to a Release of H<sub>2</sub>S**

- Inlet piping or pig catcher seal failure
- Flange/gasket leaks on exposed Pipeline sections
- Valve or seal failure or physical damage to the Pipeline
- Catastrophic damage to Pipeline as a result of inappropriate excavation

## **XI. SUBMISSION OF H<sub>2</sub>S CONTINGENCY PLANS [NMAC 19.15.11.9.D]**

### **Submission**

DCP submitted this revised H<sub>2</sub>S Contingency Plan to the OCD for initial review in August 2014 and for final approval in September 2014.

### **Retention**

DCP shall maintain a copy of this H<sub>2</sub>S Plan at the Linam and Fullerton Gas Plants, the Monument Booster Station, DCP office in Hobbs, NM and at DCP Headquarters office in Denver, CO. The Plan as approved by the OCD will be readily accessible for review by the OCD at the facilities upon request.

### **Revisions to the Plan**

The H<sub>2</sub>S Plan will be reviewed annually and revised as necessary to address changes to the Pipeline, operation of the Pipeline, training requirements, contact information and the location of public areas including roads, businesses, or residences potentially affected by the operations of the Pipeline, specifically those areas within the ROE of the Pipeline.

### **Annual Inventory of Contingency Plans**

On an annual basis, DCP will file an inventory of wells, facilities and operations for which H<sub>2</sub>S Contingency Plans are on file with the OCD with the appropriate LEPC and the State Emergency Response Commission as per NMAC 19.15.11.9H. The inventory shall include the name, address, and telephone number of a point of contact for all DCP operations for which H<sub>2</sub>S Contingency Plans are on file with the OCD.

## **APPENDIX A**

### **MAP OF PIPELINE (Map A-1)**

### **MAP/PLOT PLAN OF MONUMENT BOOSTER STATION**

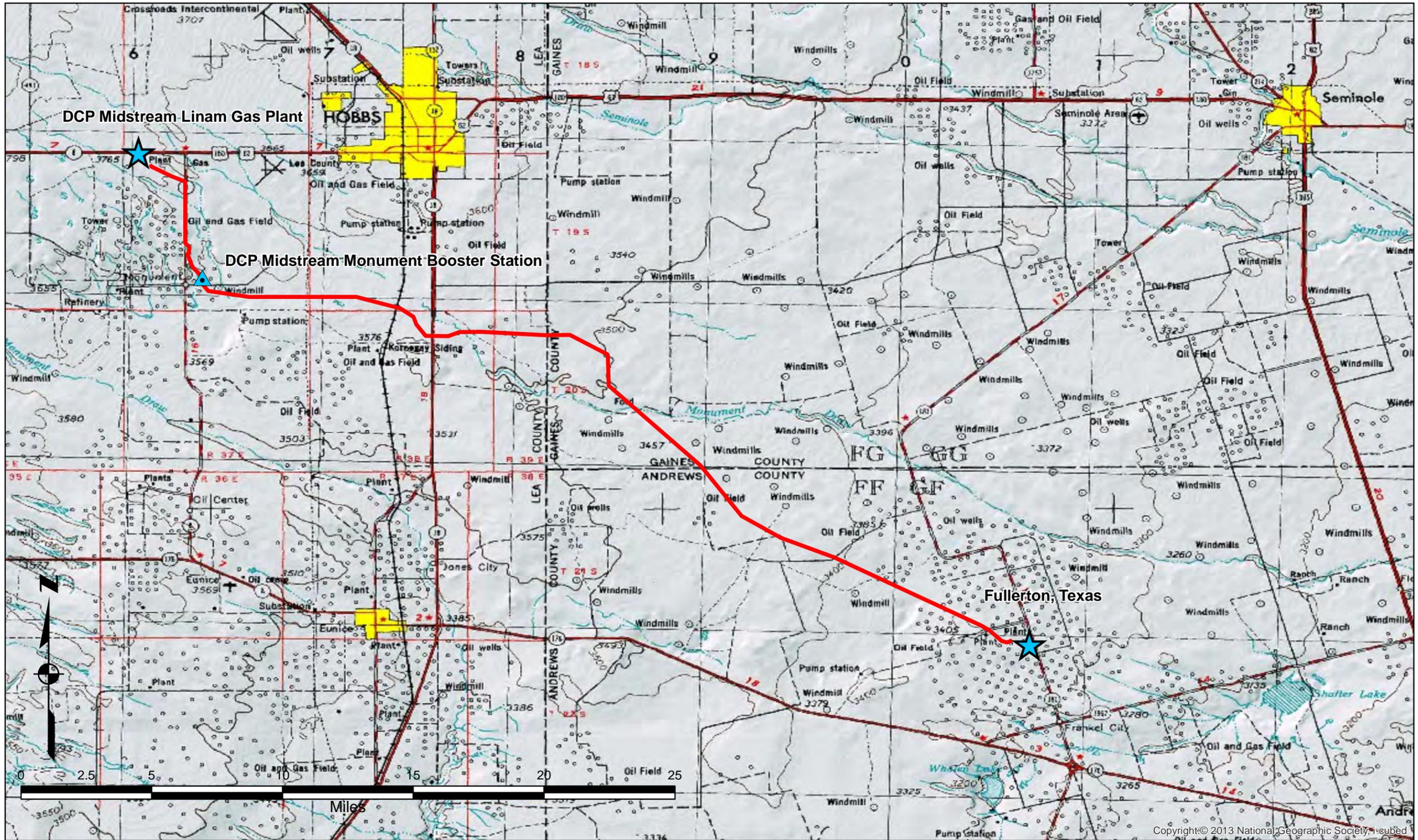
**(Showing Escape Routes)  
(Map A-2)**

### **MAP SHOWING LOCATION OF LINAM RANCH PLANT, AGI AND FLARE**

**(Map A-3)**

### **MAP/PLOT PLAN OF LINAM RANCH GAS PROCESSING PLANT**

**(Showing Escape Routes)  
(Map A-4)**

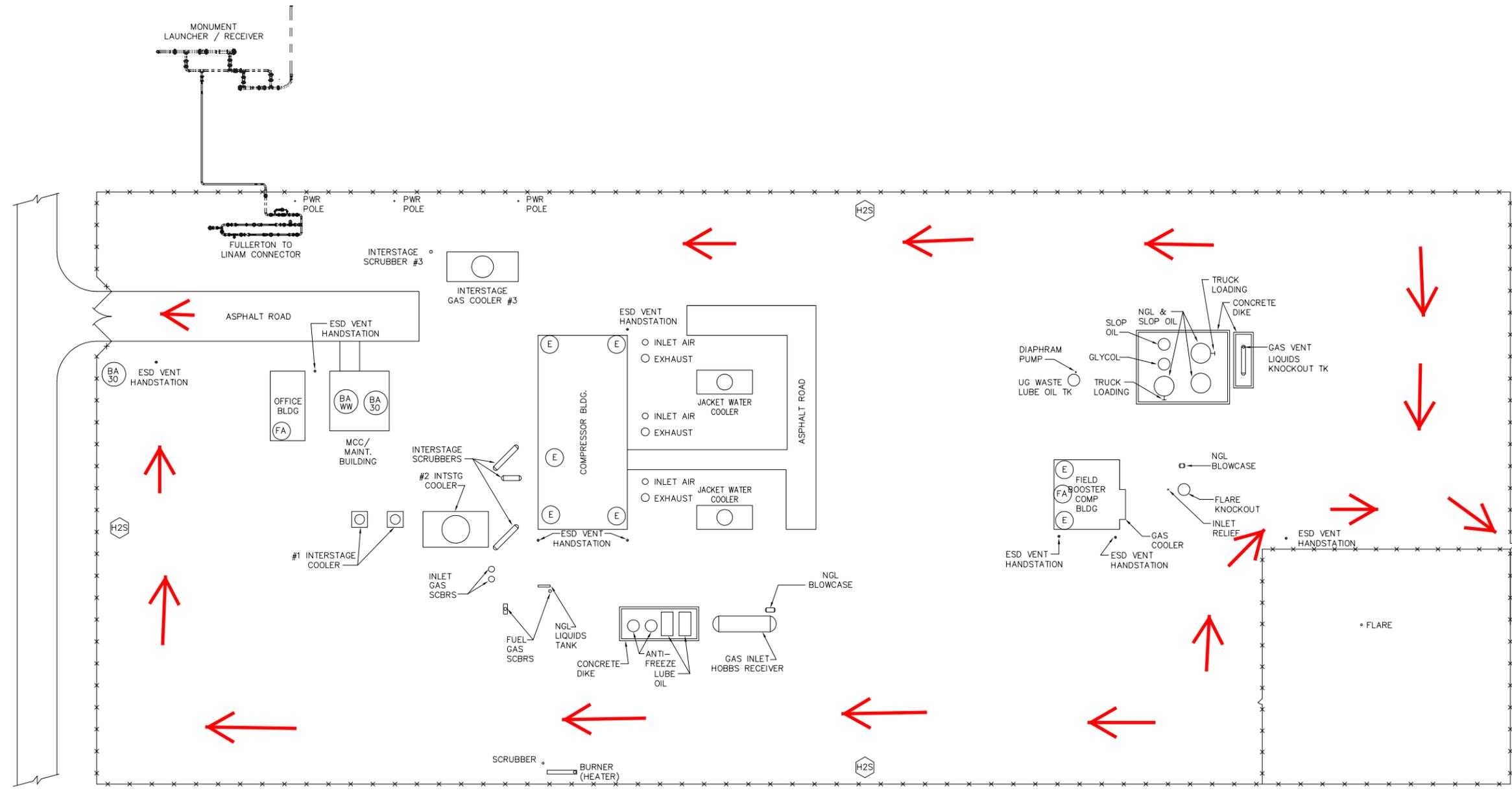


Copyright © 2013 National Geographic Society. All rights reserved.



**Map A-1: Fullerton, Texas to Linam, New Mexico Pipeline**





- BREATHING APPARATUS WORK UNIT (2 300 CU. FT. BOTTLES) (2 MASKS)
- BREATHING APPARATUS 30 MIN. SCBA
- FIRST AID
- FIRE EXTINGUISHER-30# BC
- H2S DETECTOR

Escape Routes

**NOTES**  
 1. EQUIPMENT LOCATIONS AND OTHER PHYSICAL FEATURES SHOWN ARE APPROXIMATE, BASED ON FIELD SKETCHES AND REVIEW OF EXISTING PLOT PLANS.

## Map A-2

REV.	DATE	REVISION	BY	CHK'D	ENGR.	REV.	DATE	REVISION	BY	CHK'D	ENGR.
A	9/95	ISSUED FOR APPROVAL	RCK								
1	11/95	ADDED SAFETY EQUIP. LOCATIONS	J.C.								
2	7/30/31	ADDED LAUNCHER, UPDATED TITLE BLOCK	wrt								

**VERTEX**  
Industrial Projects, Inc.

9229      AUTOCAD REL. 11



**PLOT PLAN MONUMENT BOOSTER**

SEC. 33, T195, R37E      LINAM RANCH GATHERING

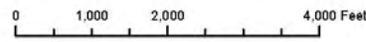
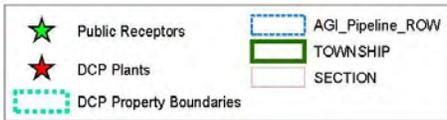
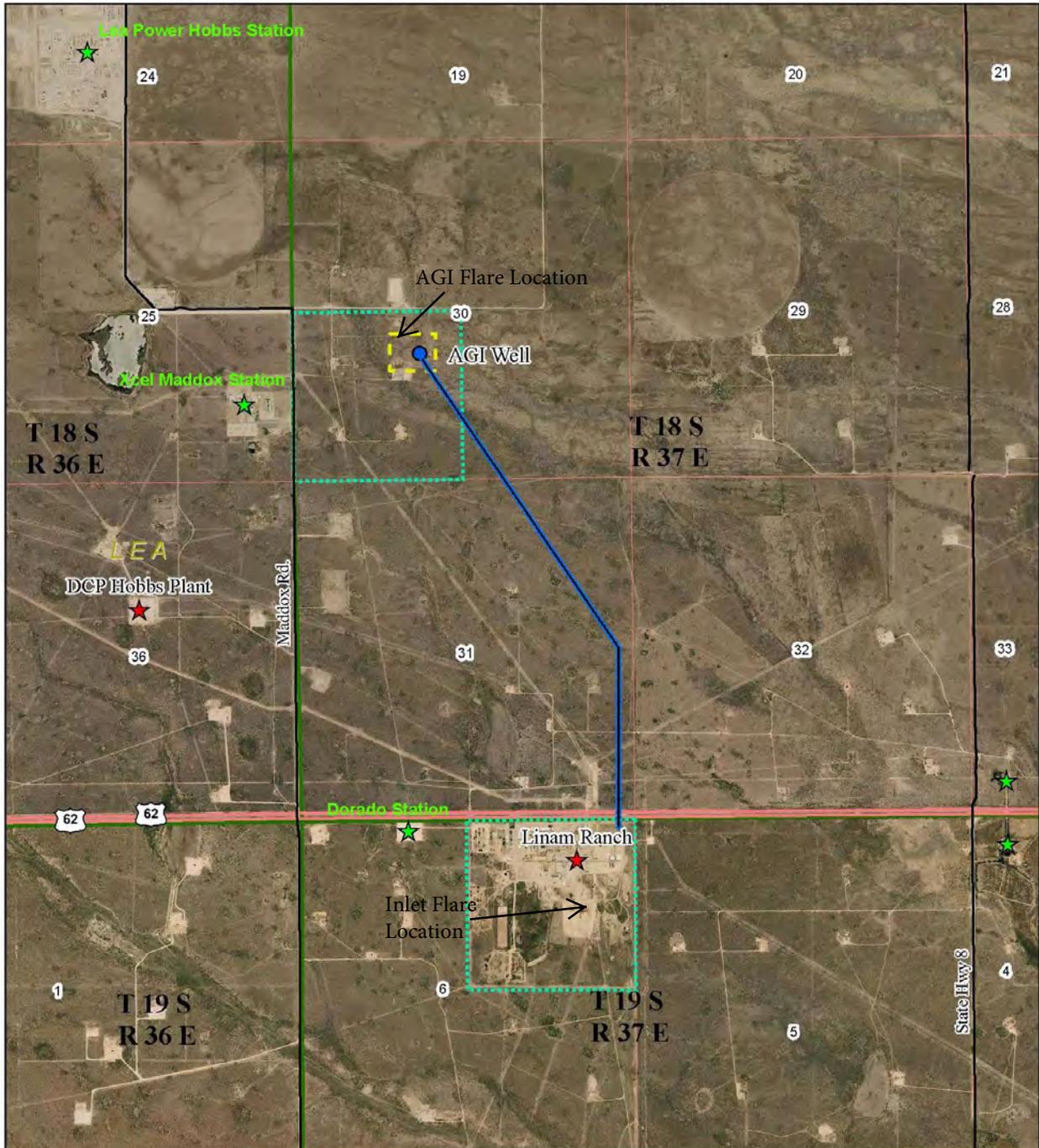
DRAWN: RCK      DATE: 8/95

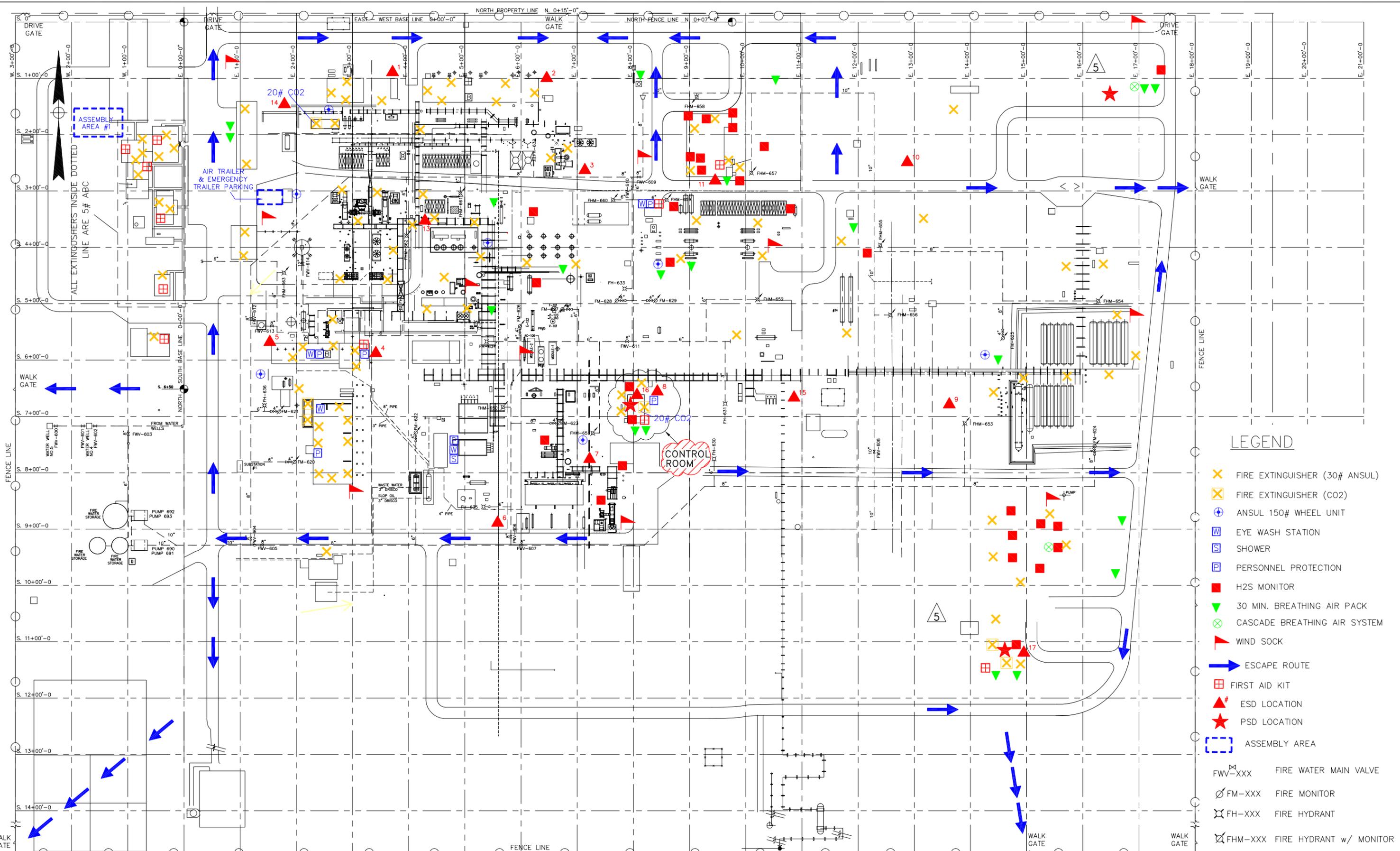
JA NO.	FILE NAME
AFE NO.	SCALE
BASE NO.	GED-1049
DWG. NO.	MP-1

PLOT TIME: July 30 2014 - 12:15 pm

# Map A-3

## Linam Ranch Gas Plant & Acid Gas Injection Property





**LEGEND**

- ✕ FIRE EXTINGUISHER (30# ANSUL)
- ✕ FIRE EXTINGUISHER (CO2)
- ⊕ ANSUL 150# WHEEL UNIT
- W EYE WASH STATION
- S SHOWER
- P PERSONNEL PROTECTION
- H2S MONITOR
- ▼ 30 MIN. BREATHING AIR PACK
- ⊗ CASCADE BREATHING AIR SYSTEM
- ▲ WIND SOCK
- ➡ ESCAPE ROUTE
- ⊞ FIRST AID KIT
- ▲ ESD LOCATION
- ★ PSD LOCATION
- ⊞ ASSEMBLY AREA
- FWM-XXX FIRE WATER MAIN VALVE
- FM-XXX FIRE MONITOR
- FH-XXX FIRE HYDRANT
- FHM-XXX FIRE HYDRANT w/ MONITOR

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	wrt			
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									

**Map A-4:**  
**Linam Ranch Escape Routes and  
 Emergency Equipment Locations**



JA NO.	FILE NAME
AFE NO.	SCALE
BASE NO.	07-3-07
DWG. NO.	M-5

PLOT TIME: October 27 2009 - 11:25 am

# **APPENDIX B**

## **H<sub>2</sub>S 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

DCP Linam Ranch Plant Office

DCP Hobbs Plant Office

DCP Linam Emergency Trailers

DCP Linam Ranch Plant Supervisor's Office

DCP Monument Booster Station

DCP Permian Region Safety Manager's Office – Midland

**APPENDIX C**

**RESPONSE FLOW DIAGRAMS**

**OPERATOR QUICK REFERENCE GUIDE**

## PIPELINE RELEASE LEVEL I RESPONSE

Operator, responding to a report of a H<sub>2</sub>S gas leak, odor complaint, or volume or pressure discrepancy, detects a gas release of H<sub>2</sub>S of 10 ppm or greater.

- Responding operator returns to safe area and notifies control room operator of release
- Control room operator alerts any personnel or Third Party Contractors on pipeline ROW

- Notify Plant Supervisor
- Verbally notify any 3<sup>rd</sup> party companies/persons observed working near ROW to leave the area

- Responding Operator dons SCBA – helps any persons in distress to evacuate ROW, then determines source & takes corrective action
- Monitor H<sub>2</sub>S levels along pipeline using portable H<sub>2</sub>S monitors

If H<sub>2</sub>S < 10 ppm

If H<sub>2</sub>S ≥ 10 ppm

Emergency Declared “All Clear”

- 3<sup>rd</sup> parties notified of “All Clear”
- Pipeline release to DCP Maintenance or qualified contractors for repairs
- Once repairs are made and monitoring results are negative, personnel may return to work

**Initiate Level 2 Response**

## PIPELINE RELEASE LEVEL II RESPONSE

Level I 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 pipeline shutdown

- Control room operator directs any personnel on pipeline ROW to leave and/or go upwind of pipeline
- Verbally notify any 3<sup>rd</sup> party companies or persons observed working near ROW to leave the area.
- Notifies Plant Supervisor
- If  $H_2S$  concentrations of 100 ppm or greater could impact public areas, initiate implementation of this  $H_2S$  Contingency Plan

- Incident Command Center sets up an Assembly Area, if necessary

- Dispatch plant personnel with emergency trailers to assist with monitoring wind direction and  $H_2S$  levels

Emergency Declared “All Clear”

- 3<sup>rd</sup> parties notified of “All Clear”
- Pipeline release to DCP Maintenance or qualified contractors for repairs
- Once repairs are made and monitoring results are negative, personnel may return to work

If  $H_2S < 10$  ppm

If  $H_2S \geq 10$  ppm

Initiate Level III Response

## PIPELINE RELEASE LEVEL III RESPONSE

- Corrective action at Level II is unsuccessful
- $H_2S \geq 10$  ppm at any public area or road
- Catastrophic release occurs

- Direct control room operator to activate Plant ESD
- Initiate implementation of  $H_2S$  Contingency Plan
- Verbally notify any 3<sup>rd</sup> 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 designated area

- Dispatch personnel with emergency trailers to designated areas along pipeline route.
- Monitor air quality and move further if  $H_2S$  reaches 10 ppm and notify IC of new location

- Additional operations personnel may be directed to close valves on gas pipelines
- Monitor  $H_2S$  levels along the pipeline

If  $H_2S < 10$  ppm

- Emergency Declared "All Clear"
- 3<sup>rd</sup> parties notified of "All Clear"
  - Pipeline release to DCP Maintenance or qualified contractors for repairs
  - Once repairs are made and monitoring results are negative, personnel may return to work

# **APPENDIX D**

## **CHRONOLOGIC RECORD OF EVENTS LOG**



**APPENDIX E**  
**EMERGENCY CALL LIST**

## BUSINESS WITHIN THE ROE

NAME	ADDRESS	PHONE NUMBER
Mark's Grocery	6801 S NM Highway 8 Monument, NM 88265	(575) 397-7291
Monument Motorcycle Accessories	7203 S NM HIGHWAY 8 Monument, NM 88265	(505) 393-2952
Targa Resources	8201 S Highway 322 Monument, NM 88265	(575) 393-2823
US Post Office	9921 W NM Highway 322 Monument, NM 88265	(575) 393 5015
Monument Café	9900 W. Highway 322 Monument, NM 88265	(575) 391-8997
JB Services, LLC	9903 W Highway 322 Monument, NM 88265	(575) 441-5074
Monument Baptist Church	6815 S NM Highway 8 Monument, NM 88265	(575) 393-7639
Apache Natural Gas	17 Hess Lane Monument, NM 88265	(505) 393-2144
El Paso Natural Gas	8501 S Highway 332 Monument, NM 88265	(505) 397-2288
West Texas and Lubbock Railway	103 N Steck Ave, Wolford, TX	806) 221-3150

## PRODUCERS WITH WELLS WITHIN THE ROE

Producer	Office Location	Contact	Contact Phone
Apache Corp	1209 Main St Lovington, NM	David Cole	575-441-3348
Burgandy	401 W. Texas Midland, TX	Ben Taylor	432-557-2684
Chesapeake	1610 W Bender Hobbs, NM	Tim Henley	575-441-1165
Chevron	2401 Ave O Eunice, NM	Thomas Harris	575-390-7207
Cimarex	2020 W. Bender Hobbs, NM	Mark Martino	575-393-1020
Citation	4200 N FM 1788 Midland, TX	Johnny Washburn	432-631-4817
Conoco Phillips	1410 W. County Rd Hobbs, NM	Shon Robinson	575-390-8873
Finley Resources	1308 Lake St Fort Worth, TX 76102	Jim Evans	575-441-5175 817-336-1924
Forrest Oil & Gas	2130 W. Bender Hobbs, NM	Bob Akin	575-738-1739
Lanexco	1309 W. Kansas Jal, NM	Mike	575-441-2056
Trilogy	PO Box 7606 Midland, TX	Johnny Parker	432-269-2566 432-631-8321
XTO	1169 Co, Rd 370 Denver City, TX	Guy Pearce	575-441-2965

## **RESIDENCES WITHIN THE ROE**

**(If the H<sub>2</sub>S Plan is activated and these residences fall within the ROE of an actual leak, DCP will dispatch personnel to instruct residents whether to evacuate or shelter in place in their own residences)**

<b>Name</b>	<b>Address</b>
Residence	7901 Monument Highway, Hobbs, NM 88240
Residence	8527 Monument Highway, Hobbs, NM 88240
Residence	8611 Monument Highway, Hobbs, NM 88240
Residence	8008 S Eunice Highway, Hobbs, NM 88240
Residence	8000 S Eunice Highway, Hobbs, NM 88240
Residence	8116 S Eunice Highway, Hobbs, NM 88240
Residence	912 Tipton Dr, Hobbs, NM 88240
Residence	900 Tipton Dr, Hobbs, NM 88240
Residence	916 Tipton Dr, Hobbs, NM 88240
Residence	906 Tipton Dr, Hobbs, NM 88240
Residence	902 Tipton Dr, Hobbs, NM 88240
Residence	916 Absher Dr., Hobbs, NM 88240
Residence	909 Absher Dr, Hobbs, NM 88240
Residence	907 Absher Dr, Hobbs, NM 88240
Residence	905 Absher Dr, Hobbs, NM 88240
Residence	806 Absher Dr, Hobbs, NM 88240
Residence	1118 Tipton Dr, Hobbs, NM 88240
Residence	1510 Tipton Dr, Hobbs, NM 88240

## DCP COMPANY INTERNAL NOTIFICATIONS

<b>Name</b>	<b>Title</b>	<b>Office No.</b>	<b>Cell No.</b>
Linam Ranch Plant	Control Room	575-391-5792 575-391-5793 575-391-5794	575-802-5187
Fullerton Gas Plant	Control Room	432-596-2711	432-556-5024
Charlie Joslin	Monument Facility Field Supervisor	575-391-5705	575-802-5101
Jacob Strickland	Linam Ranch Plant Supervisor	575-394-5003	575-973-7317
John Cook	SENM South Asset Manager	575-397-5597	432-238-8875
Russ Ortega	SENM North Asset Manager	575-397-5597	575-390-7160
Tom Thomlinson	SENM Asset Safety Coordinator	575-391-5752	575-631-5532
Steve Harless	G.M. Operations SENM		970-396-0333
Greg Smith	President Mid-Con and Permian Business Unit		720-480-4941
Glenn Bowhay	Safety Manager Permian Region	432-620-4009	432-425-7635
	DCP Gas Control – Houston, TX	800-435-1679	

## COUNTY AND LOCAL LAW ENFORCEMENT

<b>AGENCY</b>	<b>PHONE NUMBER</b>
EMERGENCY DISPATCH	911
OIL CONSERVATION DIVISION – 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 F RADIUS OF EXPOSURE**

## **TABLE F-1 RADIUS OF EXPOSURE (ROE) CALCULATION**

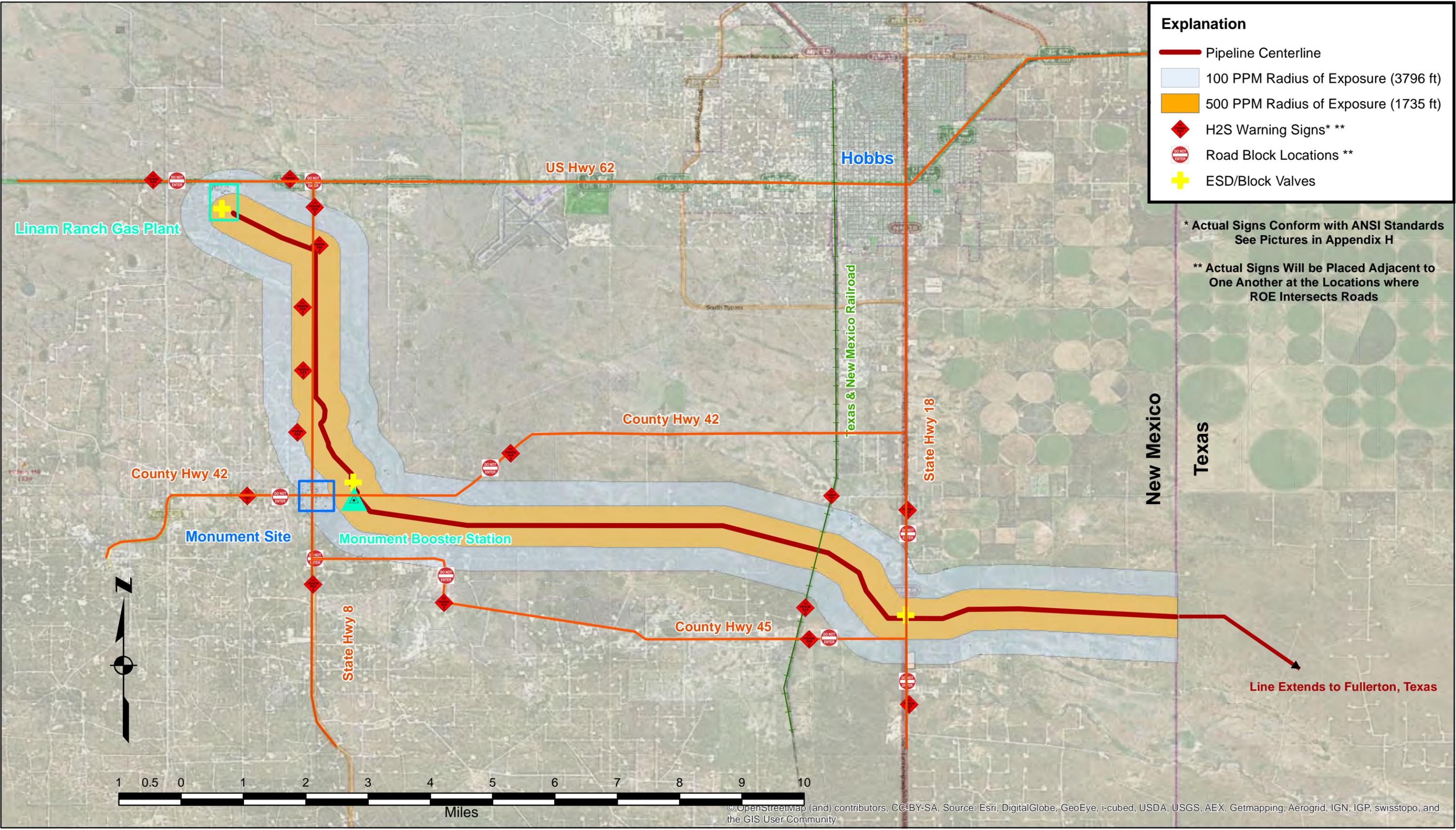
### **MAP F-1 PIPELINE ROE WITH ROADBLOCK AND WARNING SIGN LOCATIONS**

### **MAP F-2 LINAM PLANT ROE (From Linam Ranch H<sub>2</sub>S Plan)**

### **MAP F-3 BUSINESSES AND RESIDENCES LOCATED WITHIN THE ROE OF THE PIPELINE**

TABLE F-1

FULLERTON TO LINAM PIPELINE		ROE CALCULATIONS PURSUANT TO RULE 11			
<b>Enter Mole %</b>	Mole %	ppm			
Convert mole% to ppm	1.1	110000			
<b>Input Data Here</b>	H <sub>2</sub> S Concentration (ppm)	11000			
	24 Hour Throughput (MMCFD)	30			
The radius of exposure is calculated using the following equations:					
100 ppm ROE calculation (as per 19 NMAC 15.11.7.K.1)					
$X_{100\text{ppm}} = [(1.589)(\text{Conc}_{\text{H}_2\text{S}})(Q)]^{(0.6258)}$					
500 ppm ROE calculation (as per 19 NMAC 15.11.7.K.2)					
$X_{500\text{ppm}} = [(0.4546)(\text{Conc}_{\text{H}_2\text{S}})(Q)]^{(0.6258)}$					
Where:					
X = radius of exposure (ft)					
Conc <sub>H<sub>2</sub>S</sub> = the decimal equivalent of the mole or volume fraction of H <sub>2</sub> S in the gas					
Q = daily plant throughput corrected to standard conditions (SCFD)					
Plant parameters					
Q =	30	MMSCFD =	30000000	SCFD	
Conc <sub>H<sub>2</sub>S</sub> =	11000	ppm =	1.1	Mole %=	0.011 Mole Fraction
ROE calculation:					
X <sub>100ppm</sub> =	[(1.589)*(0.011)*(30000000)]^(0.6258)				
X <sub>100ppm</sub> =	3796 ft	=		0.72 miles	
X <sub>500ppm</sub> =	[(0.4546)*(0.011)*(30000000)]^(0.6258)				
X <sub>500ppm</sub> =	1735 ft	=		0.33 miles	



**Explanation**

- Pipeline Centerline
- 100 PPM Radius of Exposure (3796 ft)
- 500 PPM Radius of Exposure (1735 ft)
- ◆ H2S Warning Signs\* \*\*
- ⊘ Road Block Locations \*\*
- + ESD/Block Valves

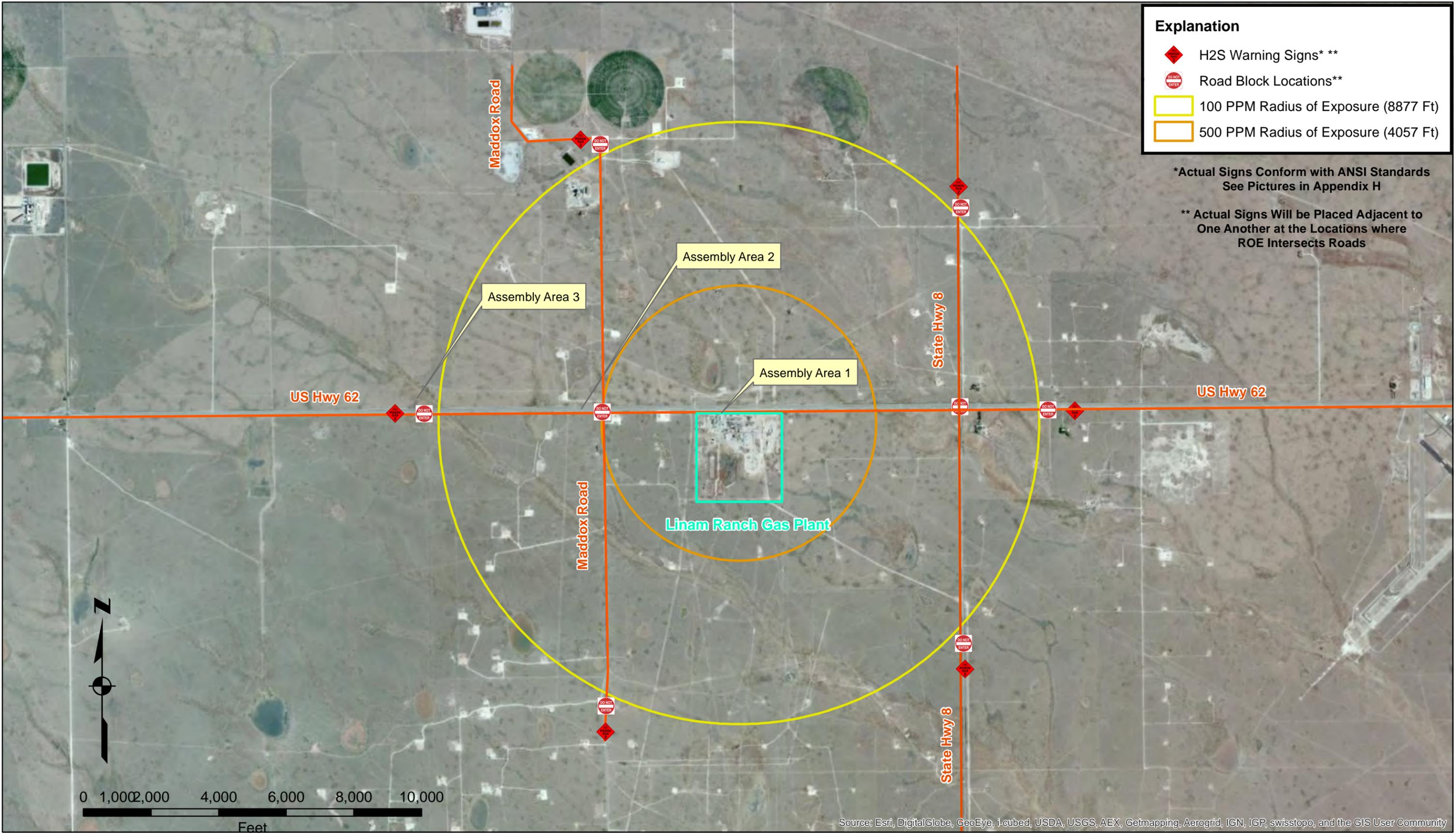
\* Actual Signs Conform with ANSI Standards  
See Pictures in Appendix H

\*\* Actual Signs Will be Placed Adjacent to  
One Another at the Locations where  
ROE Intersects Roads

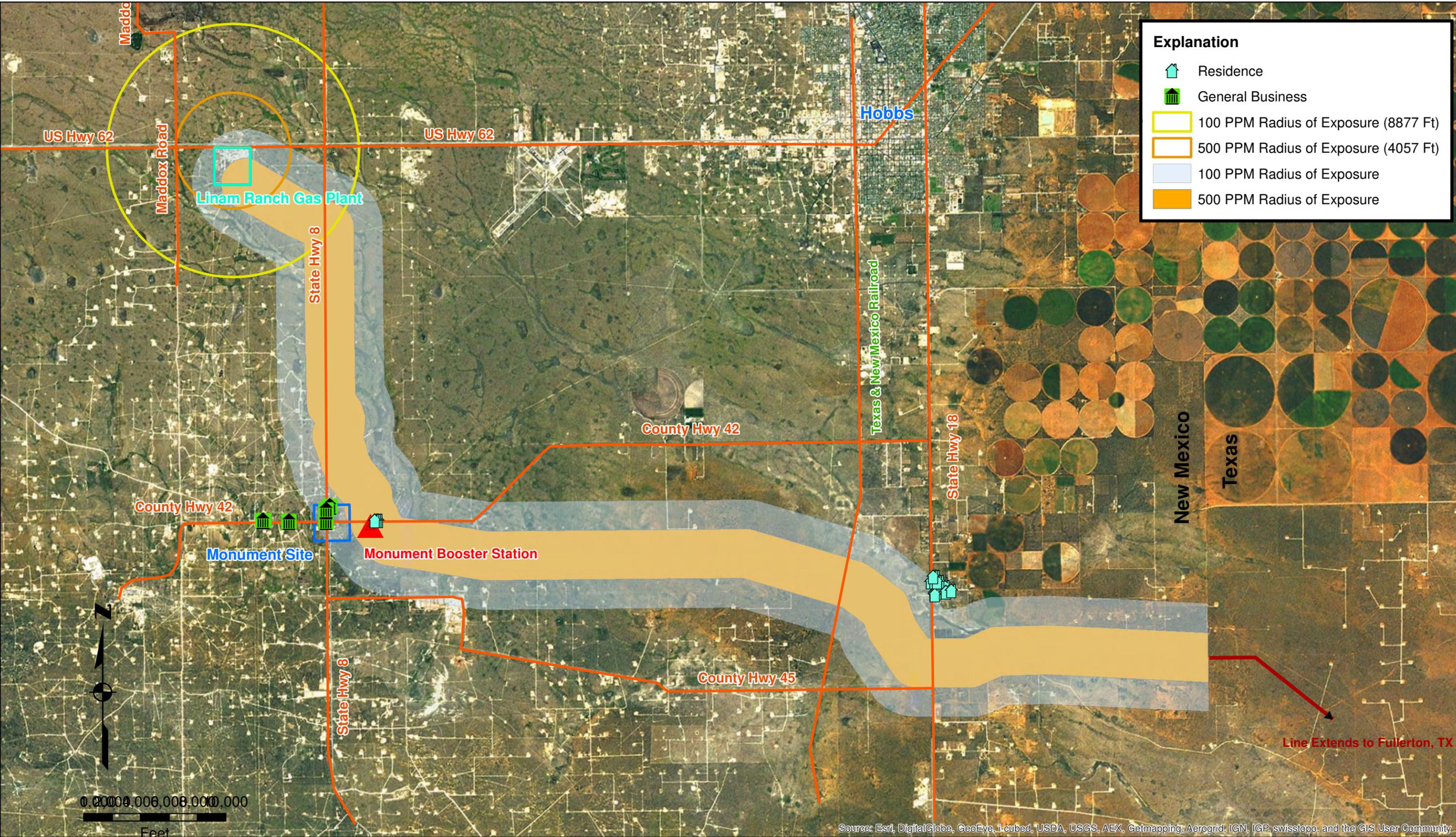
**Map F-1: Fullerton, Texas and Linam Ranch, New Mexico  
500 and 100 ppm ROE with Roadblock and Warning Sign Locations**



© OpenStreetMap (and) contributors, CC-BY-SA. Source: Esri, DigitalGlobe, GeoEye, i-cubed, USDA, USGS, AEX, Getmapping, Aerogrid, IGN, IGP, swisstopo, and the GIS User Community



**Map F-2: Linam Ranch Plant  
500 and 100 ppm ROE with Roadblock and Warning Sign Locations**



Map F-3 Businesses and Residences Within the 500 and 100 ppm ROE of the Fullerton, TX to Linam, NM Pipeline

## **APPENDIX G**

### **EXAMPLE OF PIPELINE SAFETY MAIL-OUT PACKAGES**

***SPECIAL COVER MEMO FOR ENTITIES WITHIN THE  
500 AND 100 PPM ROE OF PIPELINE  
(Sent out with Pamphlets)***

***STANDARD BROCHURE SENT OUT TO STAKEHOLDERS PER  
API RP 1163 REQUIREMENTS  
(Sent out with Pamphlets)***

***EXAMPLES OF EDUCATIONAL PAMPHLETS***



Web site: [www.dcpmidstream.com](http://www.dcpmidstream.com)

TO: Businesses, Individuals and Operators within 4,000 Feet of the DCP Fullerton, TX to Linam, NM Natural Gas Pipeline

FROM: DCP Midstream LP

You are receiving this informational package because your business, residence or other public building is located within approximately 4,000 feet of the DCP Midstream Pipeline that carries sour natural gas from Fullerton, TX to the Linam Gas Processing Plant in New Mexico. Please read the enclosed materials carefully to familiarize yourself with safety information about the Pipeline. **The natural gas transported by this pipeline contains a poisonous gas called Hydrogen Sulfide. Hydrogen Sulfide is a colorless, toxic and flammable gas, and has the odor of rotten eggs. It is heavier than air and can present a significant health hazard by paralyzing the respiratory system resulting in serious injury or death.**

The Pipeline is buried, and the right-of-way has been clearly marked with signs (as shown on right) that indicate danger, pipeline and poisonous gas. **Never dig or excavate near the Pipeline without first contacting DCP Personnel. See contact numbers below.**

DCP Midstream will contact you by mail on an annual basis and notify you of training sessions regarding Pipeline safety in which you can participate. Every precaution has been taken to insure that the Pipeline is safe and secure. However, in the unlikely event that there should be a leak or break in the Pipeline, DCP personnel as well as emergency service providers will be on site. They will advise you what to do. They might ask you to evacuate the area, or they might advise you to shelter-in-place. Shelter-in-place means that you should go inside, close all windows and doors, turn off

heating and air conditioning units and wait inside until you are advised by DCP or state emergency providers that it is safe to exit the structure you are in.

**IF YOU SUSPECT THAT THERE MAY BE A LEAK IN THE PIPELINE, CALL THE FOLLOWING DCP 24-HOUR EMERGENCY NUMBERS:**

**888-204-1781  
800-435-1679  
800-847-6427**

**IF YOU HAVE NON-EMERGENCY QUESTIONS ABOUT THE PIPELINE PLEASE CONTACT:**

**Safety Manager  
DCP Midstream - Permian Region  
432-620-4009**



***Cover memo sent out to entities within 500 and 100 ppm ROE of Pipeline along with standard Public Awareness Packages***

**24-HOUR EMERGENCY NUMBERS: 888-204-1781, 800-435-1679, 800-847-6427**

**About DCP Midstream**

DCP Midstream, headquartered in Denver, Colorado, leads the midstream segment as the second largest natural gas gatherer, the largest natural gas liquids (NGLs) producer and one of the largest NGL marketers. DCP Midstream operates in the two principal segments of the midstream natural gas industry: natural gas gathering, processing, transportation, marketing and storage; and NGL fractionation, transportation, marketing and trading. We gather raw natural gas through 64,000 miles of gathering pipeline in six of the major U.S. natural gas regions. Through our processing operations, we separate NGLs from the raw natural gas and "fractionate" the liquids into their individual ethane, propane, butane and natural gasoline components. DCP Midstream then sells its NGLs to a variety of customers, ranging from large, multi-national petrochemical and refining companies to small regional propane distributors. We store residue gas that results from processing in our 9.0 billion cubic foot storage facility, and sell it to both gas marketers and end-users, including large industrial customers and natural gas and electric utilities. DCP'S facilities are located throughout Alabama, Arkansas, Colorado, Kansas, Louisiana, Michigan, Oklahoma, New Mexico, Texas and Wyoming.

**What does DCP Midstream do if a leak occurs?**

To prepare for the event of a leak, pipeline companies regularly communicate, plan and train with local emergency responders. Upon the notification of an incident or leak the pipeline company will immediately dispatch trained personnel to assist emergency responders.

Pipeline operators and emergency responders are trained to protect life, property and facilities in the case of an emergency. Pipeline operators will also take steps to minimize the amount of product that leaks out and to isolate the pipeline emergency.

**Maintaining safety and integrity of pipelines**

At DCP Midstream, we design, install, test, operate and maintain our pipelines to meet or exceed regulatory standards. We test our pipelines to withstand a higher pressure than encountered in daily use. Our employees receive regular, thorough training to safely operate and maintain our pipeline systems. As part of our ongoing damage prevention program, we patrol our pipeline right-of-way corridors by air and periodically on foot to spot potential safety problems, such as possible leaks or unauthorized construction.

DCP Midstream is committed to the safe operation of our pipelines and the protection of our employees, the public, and the environment.

**How to get additional information**

For an overview of DCP Midstream's IMP, go to [www.dcpmidstream.com](http://www.dcpmidstream.com) or contact us at 888-492-3331.

**PIPELINE MARKERS**

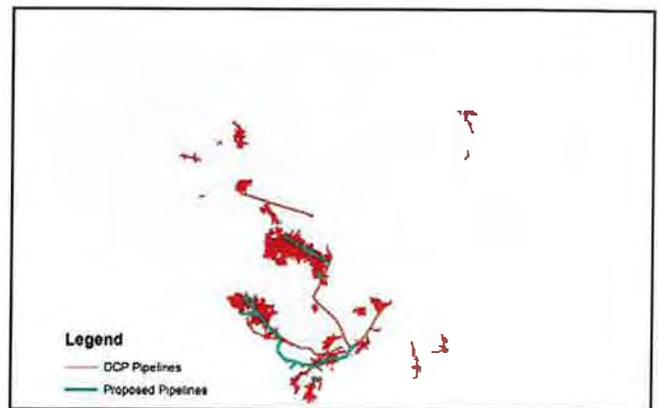


**PRODUCTS TRANSPORTED**

**PRODUCTS TRANSPORTED IN YOUR AREA**

PRODUCT	LEAK TYPE	VAPORS
HIGHLY VOLATILE LIQUIDS [SUCH AS: BUTANE, PROPANE, ETHANE, PROPYLENE, AND NATURAL GAS LIQUIDS (NGL)]	Gas/Vapor Liquid	Initially heavier than air, spread along ground and may travel to source of ignition and flash back. Product is colorless, tasteless and odorless.
<b>HEALTH HAZARDS</b>		Will be easily ignited by heat, sparks or flames and will form explosive mixtures with air. Vapors may cause dizziness or asphyxiation without warning and may be toxic if inhaled at high concentrations. Contact with gas or liquefied gas may cause burns, severe injury and/or frostbite. Fire may produce irritating and/or toxic gases.
NATURAL GAS	Gas	Lighter than air and will generally rise and dissipate. May gather in a confined space and travel to a source of ignition.
<b>HEALTH HAZARDS</b>		Will be easily ignited by heat, sparks or flames and will form explosive mixtures with air. Vapors may cause dizziness or asphyxiation without warning and may be toxic if inhaled at high concentrations. Contact with gas or liquefied gas may cause burns, severe injury and/or frostbite.

**SYSTEM MAP**

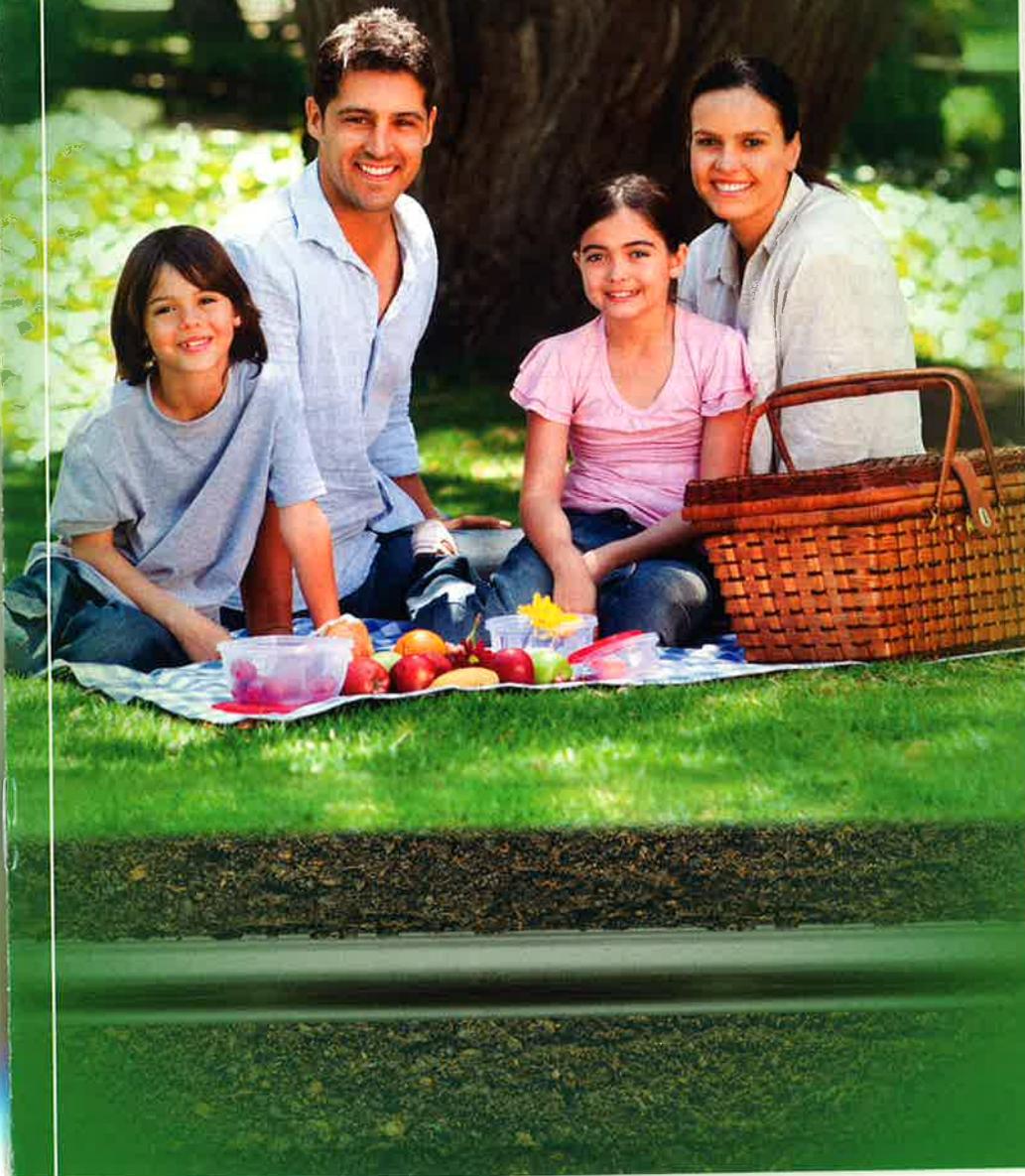


*Brochure sent out with all Public Awareness Packages*

Cover Pages from 6 Separate Safety Pamphlets

**Important Safety Message**  
*for your neighborhood*

# PIPELINE SAFETY



# Important Safety Information

*about safe excavation and digging\**

## PIPELINE SAFETY



*\*Please share this with others in your organization.*

**Important Safety Information**  
*for the farming community\**

**PIPELINE SAFETY**



*\*It took years to make it a farm... It takes one call to keep it safe.*

# Important Safety Message

*for your school and district\**



## PIPELINE SAFETY

*\*Please share this with others in your organization.*

**Important Safety Message**  
*for your community\**

# PIPELINE SAFETY

*\*Please share this with others in your organization.*

# **APPENDIX H**

## **PHOTO OF PIPELINE MARKER**

## **PHOTO OF MONUMENT BOOSTER STATION WINDSOCK AND H<sub>2</sub>S MONITOR AND ALARM**

# PHOTO OF PIPELINE MARKER



Marker on Hwy 8

PHOTO OF MONUMENT BOOSTER STATION  
SHOWING WINDSOCK AND  
H2S SENSOR AND ALARM



**H2S – 043**

# **H2S Contingency Plan**

**Fullerton TX – Linam GP  
NM**

**2014**

State of New Mexico  
Energy, Minerals and Natural Resources Department

---

**Susana Martinez**  
Governor

**David Martin**  
Cabinet Secretary

**Brett F. Woods, Ph.D.**  
Deputy Cabinet Secretary

**Jami Bailey, Division Director**  
Oil Conservation Division



**FEBRUARY 20, 2014**

Mr. Glenn Bowhay  
Safety Manager, Permian Region  
DCP Midstream, L.P.  
10 Desta Drive, Suite 400 West  
Midland, TX 79705

**RE: DCP Midstream L.P. (H2S-043): "Fullerton, TX to Linam Gas Plant Pipeline, NM" H2S Contingency Plan dated February 6, 2012, in Lea County, New Mexico**

Dear Mr. Bowhay:

The Oil Conservation Division (OCD) is in receipt of DCP Midstream L.P.'s "Fullerton to Linam Pipeline" H2S Contingency Plan (plan) dated February 6, 2012. The plan was submitted subsequent to operator receipt of the OCD "Checklist" review comments on the H2S Contingency Plan dated October 10, 2011. OCD has identified corrective action items below for your consideration and/or further communication with OCD that may result in acceptance of the plan.

**Plan Activation:**

1. OCD notices that the plan may be activated at the detection limit of 10 ppm, which does not appear to be consistent with plan activation per 19.15.11.9(C) NMAC. A detection of 10 ppm should start an investigation with corrective action(s) process by skilled and knowledgeable employees at the facility trained to wear full SCBAs to investigate the nature of the detection and implement corrective action(s) to protect public health.

**Maps:**

1. At least one map of the facility is needed in the plan to show the escape routes and road block areas around the facility with ESDs. At least one map of the entire pipeline is needed in the plan with sign locations and road block areas along the pipeline ROW where ROE<sub>100</sub> extends into a public roadway and/or public area with any ESDs. OCD thinks that the OCD approved facility H2S CP map could simply be inserted into the plan to address the facility.

**Annual Inventory:**

1. 19.15.11.9 (H) NMAC Annual Inventory: Please incorporate the requirements of this regulation into the plan including the name with contact address information of the appointed DCP Midstream, L.P. Representative into the plan.

**Signs:**

1. 19.15.11.10 NMAC Signs, Markers: Please adhere to this section of the regulation. Signs should be placed at proper locations at the facility, and along buried pipelines ROW where the ROE<sub>100</sub> transects public roadways or public areas. Road intersections that appear to transect the pipeline and where signs appear to be needed are: S. Eunice Hwy., Hwy. 322, and W. Carlsbad Hwy. 62. OCD observes on page 46 a pipeline gas line marker, but there is no indication that the line contains poisonous gas.
2. While escape routes along roadways adjacent to the pipeline ROW may be intuitively obvious, OCD needs to know where “poison gas” signs have been placed along the pipeline ROW nearby public areas, roadways, roadway intersections that the pipeline transects (see Maps section above). Therefore, the maps on pages 28 – 34 should display the location or placement of signs to warn the general public along roadways and/or public areas transected by the pipeline.

**Training:**

1. Please include the frequency of staff training and provision for “record keeping” under applicable training section(s), i.e., pages 15, 17 or 18.
2. Appendix I: “Example of Pipeline Safety Mail-Out Pocket Guide” to address public training is generic and needs to be revised to include the operator’s public safety information, i.e., shelter-in-place, evacuation, etc. related to its pipeline and provide contact information for any questions or concerns of nearby residents or the general public to the operator.
3. A list of residential addresses that the pocket guide will be mailed to on an annual basis should be specified in the plan. Appendix D includes a list of public receptor businesses, but not residents. OCD notices that Appendix G referenced on page 19 is supposed to contain a list of public receptors, but does not. The operator could reference Appendix D for the public receptor businesses and could insert the residential list in Appendix G that will receive the pocket guide.

**Duties and Responsibilities:**

1. A “Duties and Responsibilities” section appears to be missing from the plan. An Incident Command Flow Chart with duties and responsibilities is typically included to address this information. OCD notices when performing OCD checklist keyword searches for: “responsibilities”, “duties”, “hazards”, “detection”, “personal protection”, and “contingency measures” that there is little or lack of information in the plan.

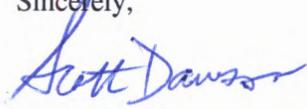
**Shelter in Place:**

1. While there are some references to “shelter-in-place”, there is not much detail on how it will actually be implemented in the plan. This could be addressed by incorporated details on evacuation and “shelter-in-place” into the pocket guide that is supposed to be mailed to residents or public receptors identified by the operator.

If you have any questions, please contact Carl Chavez of my staff at (505) 476-3490, mail at the address below, or email at [CarlJ.Chavez@state.nm.us](mailto:CarlJ.Chavez@state.nm.us). Thank you.

February 20, 2014  
Page 3

Sincerely,



Scott Dawson  
Deputy Director

SD/cjc

cc: Mr. Daniel Sanchez, OCD Santa Fe  
Mr. Glenn von Gonten, OCD Santa Fe  
OCD Hobbs District Office

**OIL CONSERVATION DIVISION  
H2S CONTINGENCY PLAN REQUIRED BY OCD RULE 19.15.11 NMAC**

DCP Midstream, L.P.  
Linam Ranch GP (GW-015) Lea Co.  
12/2/2011

Contingency Plan Requirements Checklist			
19.15.11.9.B NMAC Requirement	Included?	Page in Document?	Notes
<b>Emergency Procedures</b>			
Responsibilities & duties of personnel during emergency	Y	Appdx. "F" & "G" 9-12	Concern release resolved c. 10/11/11 Appdx "G" odors?
Immediate action plan	Y	" "	OCD Notified only if CP is activated done to RSE and pub. Area.
Evacuation and shelter in place plans	N		
Telephone numbers of emergency responders	Y	Appdx "D"	
Telephone numbers of public agencies	Y	" "	
Telephone numbers of local government	Y	" "	
Telephone numbers of appropriate public authorities	Y	" "	
Location of potentially affected public areas Also see 19.15.11.12.B & D	Y	Appdx A	Appdx A/Map not + Seals
Location of potentially affected public roads	Y	" "	" "
Proposed evacuation routes, with locations of road blocks	N	<del>Appdx</del>	No maps provided
Procedures for notifying the public	N	Appdx B D	No pub. resp. listed so call No details provided
Availability and location of safety equipment and supplies Also see 19.15.11.12.C	Y	" C 120	No detectors listed - hand held Call 911 Emergency
<b>Characteristics of hydrogen sulfide and sulfur dioxide</b>			
Discussion of characteristics	Y	5	but no SO2 discussion
<b>Maps and Drawings</b>			
Area of exposure	Y	18, 16	Need Map to Seal Appdx A
Public areas within area of exposure	Y	18, 16	Some resp. near Hwy 322 & 222 road Don't it homes?
Public roads within area of exposure	Y	" "	Hwy 18 crossing Hwy 322 Road
<b>Training and Drills</b>			
Training of personnel to include responsibilities, duties, hazards, detection, personal protection and contingency procedure	N	15	PPE is not clear DCP has PI for workers - don't list Not trained on response to big leak? <span style="float:right">Pined -</span>
Periodic drills or exercises that simulate a release	Y	15	Only table top drill annual. Rely on ER agencies
Documentation of training, drills, & attendance	Y	17	
Training of residents on protective measures	N	16	Annual Trng had Appdx B has no pub. detectors. See Map Appdx A.
Briefing of public officials on evacuation or shelter-in-place plans	N	8-9	No maps of locations shelters in detailed discussion
<b>Coordination with state emergency plans</b>			
How emergency response actions will coordinate with OCD and the state police response plans	Y	16	However, seems to be relying on other agencies for implementation of CP only notify if CP implemented <span style="float:right">NOT OK</span>
<b>Activation Levels</b>			
Activation Levels and description of events which may lead to a release in excess of activation level		9-12 Appdx F & G	Concern about resolution of < 10 ppm [this], odors & continued detection required CA (Also Quick Reference)
<b>Plan Activation</b>			
Commitment to activate contingency plan whenever H2S concentration of more than 100 ppm in a public area or 500 ppm at a public road	Y	17, 12	Does not mention shut down & seems to rely on Emg responder to implement CP. Map notify ocd when See Quick Ref. vi
Commitment to activate contingency plan whenever H2S concentration of more than 100 ppm 3000 feet from the site of release	N	12	Does not illustrate when ESD's are & that it will shut down when CP is implemented. <span style="float:right">CP implemented</span>

State of New Mexico  
Energy, Minerals and Natural Resources Department

---

**Susana Martinez**  
Governor

**David Martin**  
Cabinet Secretary

**Brett F. Woods, Ph.D.**  
Deputy Cabinet Secretary

**Jami Bailey, Division Director**  
Oil Conservation Division



**FEBRUARY 20, 2014**

Mr. Glenn Bowhay  
Safety Manager, Permian Region  
DCP Midstream, L.P.  
10 Desta Drive, Suite 400 West  
Midland, TX 79705

**RE: DCP Midstream L.P. (H2S-043): "Fullerton, TX to Linam Gas Plant Pipeline, NM" H2S Contingency Plan dated February 6, 2012, in Lea County, New Mexico**

Dear Mr. Bowhay:

The Oil Conservation Division (OCD) is in receipt of DCP Midstream L.P.'s "Fullerton to Linam Pipeline" H2S Contingency Plan (plan) dated February 6, 2012. The plan was submitted subsequent to operator receipt of the OCD "Checklist" review comments on the H2S Contingency Plan dated October 10, 2011. OCD has identified corrective action items below for your consideration and/or further communication with OCD that may result in acceptance of the plan.

**Plan Activation:**

1. OCD notices that the plan may be activated at the detection limit of 10 ppm, which does not appear to be consistent with plan activation per 19.15.11.9(C) NMAC. A detection of 10 ppm should start an investigation with corrective action(s) process by skilled and knowledgeable employees at the facility trained to wear full SCBAs to investigate the nature of the detection and implement corrective action(s) to protect public health.

**Maps:**

1. At least one map of the facility is needed in the plan to show the escape routes and road block areas around the facility with ESDs. At least one map of the entire pipeline is needed in the plan with sign locations and road block areas along the pipeline ROW where ROE<sub>100</sub> extends into a public roadway and/or public area with any ESDs. OCD thinks that the OCD approved facility H2S CP map could simply be inserted into the plan to address the facility.

**Annual Inventory:**

1. 19.15.11.9 (H) NMAC Annual Inventory: Please incorporate the requirements of this regulation into the plan including the name with contact address information of the appointed DCP Midstream, L.P. Representative into the plan.

**Signs:**

1. 19.15.11.10 NMAC Signs, Markers: Please adhere to this section of the regulation. Signs should be placed at proper locations at the facility, and along buried pipelines ROW where the ROE<sub>100</sub> transects public roadways or public areas. Road intersections that appear to transect the pipeline and where signs appear to be needed are: S. Eunice Hwy., Hwy. 322, and W. Carlsbad Hwy. 62. OCD observes on page 46 a pipeline gas line marker, but there is no indication that the line contains poisonous gas.
2. While escape routes along roadways adjacent to the pipeline ROW may be intuitively obvious, OCD needs to know where “poison gas” signs have been placed along the pipeline ROW nearby public areas, roadways, roadway intersections that the pipeline transects (see Maps section above). Therefore, the maps on pages 28 – 34 should display the location or placement of signs to warn the general public along roadways and/or public areas transected by the pipeline.

**Training:**

1. Please include the frequency of staff training and provision for “record keeping” under applicable training section(s), i.e., pages 15, 17 or 18.
2. Appendix I: “Example of Pipeline Safety Mail-Out Pocket Guide” to address public training is generic and needs to be revised to include the operator’s public safety information, i.e., shelter-in-place, evacuation, etc. related to its pipeline and provide contact information for any questions or concerns of nearby residents or the general public to the operator.
3. A list of residential addresses that the pocket guide will be mailed to on an annual basis should be specified in the plan. Appendix D includes a list of public receptor businesses, but not residents. OCD notices that Appendix G referenced on page 19 is supposed to contain a list of public receptors, but does not. The operator could reference Appendix D for the public receptor businesses and could insert the residential list in Appendix G that will receive the pocket guide.

**Duties and Responsibilities:**

1. A “Duties and Responsibilities” section appears to be missing from the plan. An Incident Command Flow Chart with duties and responsibilities is typically included to address this information. OCD notices when performing OCD checklist keyword searches for: “responsibilities”, “duties”, “hazards”, “detection”, “personal protection”, and “contingency measures” that there is little or lack of information in the plan.

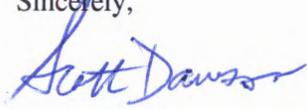
**Shelter in Place:**

1. While there are some references to “shelter-in-place”, there is not much detail on how it will actually be implemented in the plan. This could be addressed by incorporated details on evacuation and “shelter-in-place” into the pocket guide that is supposed to be mailed to residents or public receptors identified by the operator.

If you have any questions, please contact Carl Chavez of my staff at (505) 476-3490, mail at the address below, or email at [CarlJ.Chavez@state.nm.us](mailto:CarlJ.Chavez@state.nm.us). Thank you.

February 20, 2014  
Page 3

Sincerely,



Scott Dawson  
Deputy Director

SD/cjc

cc: Mr. Daniel Sanchez, OCD Santa Fe  
Mr. Glenn von Gonten, OCD Santa Fe  
OCD Hobbs District Office



**DCP Midstream**  
10 Desta Drive, Suite 400 West  
Midland, TX 79705  
432-620-4000

Certified Mail: 7009 3410 0000 0979 0906

February 6, 2012

RECEIVED OCD  
2012 FEB 13 P 12:45

Mr. Carl J. Chavez  
Environmental Engineer  
New Mexico Energy, Minerals and Natural  
Resources Department  
Oil Conservation Division  
1220 South St. Francis Drive  
Santa Fe, NM 87505

Re: **Fullerton to Linam Pipeline  
H<sub>2</sub>S Contingency Plan  
Lea County**

Dear Mr. Chavez,

Attached please find a revised H<sub>2</sub>S Contingency Plan (Plan) for the DCP Midstream Fullerton to Linam Pipeline. Your follow up letter dated December 22, 2011, and OCD H<sub>2</sub>S checklist was reviewed and considered while revising the plan and we feel that we have addressed all of your concerns. DCP Midstream has reviewed the attached plan and is satisfied that it meets the regulatory requirements.

DCP Midstream's core value is that we continue to be an outstanding Industrial neighbor who is environmentally friendly and places the highest value on human life, and feel that this plan achieves this objective.

Sincerely,

Glenn Bowhay  
Safety Manager, Permian Region  
DCP Midstream, LP



## **H<sub>2</sub>S CONTINGENCY PLAN**

**Sour Gas Pipeline  
Fullerton – Linam Ranch  
Lea County, New Mexico**

**DCP Midstream, LP.**

**February 2012**

## TABLE OF CONTENTS

OPERATOR QUICK REFERENCE GUIDE.....	iv
I. INTRODUCTION .....	1
A. DESCRIPTION & MAP (APPENDIX A).....	2
B. PIPELINE CONSTRUCTION .....	2
C. SAFEGUARDS AVAILABLE.....	3
D. SECURITY & SIGN PROVISION .....	3
II. THE PLAN .....	5
A. RESPONSIBILITY FOR CONFORMANCE WITH THE H <sub>2</sub> S PLAN .....	5
B. REVISIONS TO THE PLAN.....	5
C. AVAILABILITY OF THE H <sub>2</sub> S PLAN.....	5
D. CONTENT OF THE PLAN .....	5
III. PLAN DESIGN CONSIDERATIONS .....	6
A. CHARACTERISTICS OF H <sub>2</sub> S AND SO <sub>2</sub> .....	6
B. RADII OF EXPOSURE (ROE).....	8
IV. EMERGENCY ACTION PROCEDURES .....	9
A. EMERGENCY RESPONSE ORGANIZATION .....	9
NOTIFICATION OF THE OIL CONSERVATION COMMISSION .....	9
B. EMERGENCY RESPONSE.....	10
1. OBJECTIVE .....	10
2. EVACUATION AND EMERGENCY ASSEMBLY AREAS.....	11
3. IMMEDIATE ACTION PLANS/ INITIAL RESPONSES .....	11
4. EMERGENCY SHUT DOWN SYSTEM .....	14
5. NOTIFICATIONS AND REPORTS.....	14
DCP PUBLIC AWARENESS PROGRAM .....	15
V. TRAINING AND DRILLS.....	18
A. TRAINING .....	18
B. EMERGENCY RESPONSE DRILLS.....	19

## **APPENDICES**

Appendix A – Radius of Exposure (ROE) Maps

Appendix B - Calculations for Radius of Exposure

Appendix C – Description of Emergency Response Equipment

Appendix D – Emergency Call List

Appendix E – H<sub>2</sub>S Plan Distribution List

Appendix F – Chronological Record of Events Log

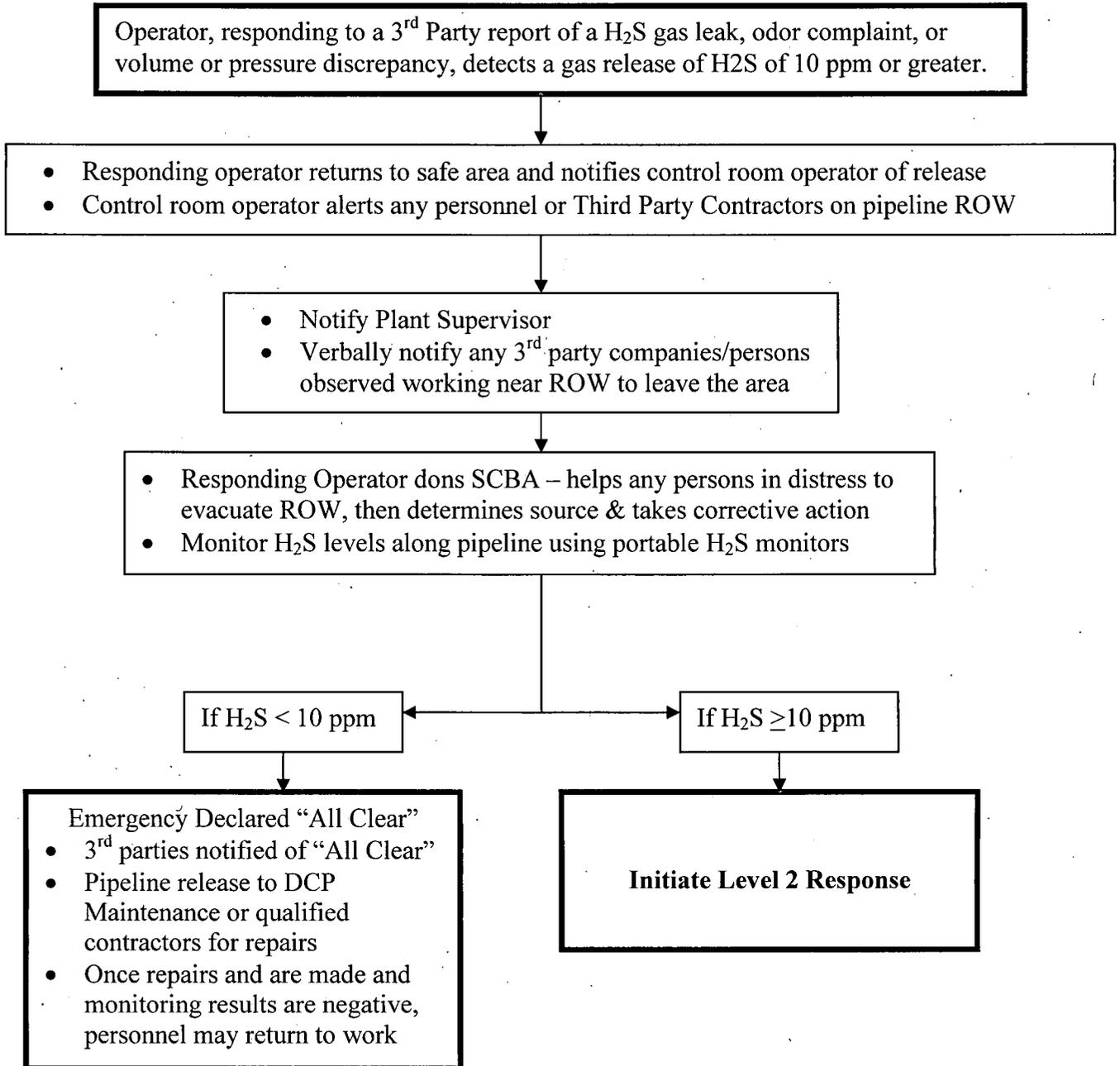
Appendix G – Response Flow Diagrams

Appendix H – Photos of ROW Markers, Hi-Lo Valves (ESDs), Road Crossings, Wind Socks and Flags, etc.

Appendix I – Example of Pipeline Safety Mail Out Pocket Guide

# OPERATOR QUICK REFERENCE GUIDE

## PIPELINE RELEASE LEVEL 1 RESPONSE



See Page 11 for Details

## PIPELINE RELEASE LEVEL 2 RESPONSE

Level 1 response unsuccessful  
H<sub>2</sub>S > 10 ppm along pipeline and increasing  
H<sub>2</sub>S > 20 ppm detected  
Pipeline leak is visible

- Responding operator returns to safe area and directs the control room operator to activate the pipeline ESD

- Control room operator directs any personnel on pipeline ROW to leave and/or go upwind of pipeline
- Verbally notify any 3<sup>rd</sup> party companies or persons observed working near ROW to leave the area.
- Notifies Plant Supervisor
- If H<sub>2</sub>S concentrations of 100 ppm or greater could impact public areas, initiate full implementation of this H<sub>2</sub>S Contingency Plan

- Incident Command Center set ups an Assembly Area, if necessary

- Dispatch plant personnel with emergency trailers to assist with monitoring wind direction and H<sub>2</sub>S levels

### Emergency Declared "All Clear"

- 3<sup>rd</sup> parties notified of "All Clear"
- Pipeline release to DCP Maintenance or qualified contractors for repairs
- Once repairs are made and monitoring results are negative, personnel may return to work

If H<sub>2</sub>S < 10 ppm

If H<sub>2</sub>S ≥ 10 ppm

Initiate Level 4 Response

See page 12 for Details

## PIPELINE RELEASE LEVEL 4 RESPONSE

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

- Corrective action at Level 2 is unsuccessful
- $H_2S \geq 10$  ppm at any public area or road
- Catastrophic release occurs

- Direct control room operator to activate Plant Inlet Pipeline ESD if necessary.
- Initiate full implementation of this  $H_2S$  Contingency Plan
- Verbally notify any 3<sup>rd</sup> 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 designated area

- Dispatch personnel with emergency trailers to designated areas along pipeline route.
- Monitor air quality and move further if  $H_2S$  reaches 10 ppm and notify IC of new location

- Additional operations personnel may be directed to close valves on gas pipelines
- Monitor  $H_2S$  levels along the pipeline

If  $H_2S < 10$  ppm

Emergency Declared "All Clear"

- 3<sup>rd</sup> parties notified of "All Clear"
- Pipeline release to DCP Maintenance or qualified contractors for repairs
- Once repairs are made and monitoring results are negative, personnel may return to work

See page 13 for Details

## I. INTRODUCTION

The Fullerton to Linam Ranch Gas Pipeline (hereinafter the "Pipeline") is a pipeline constructed of 5.4 miles of 16-inch and 11.8 miles of 12-inch high pressure pipeline in Lea County, New Mexico. This pipeline will gather natural gas containing hydrogen sulfide and begins at the DCP Fullerton facility in Andrews County, Texas. The pipeline continues into New Mexico, Lea County at Section 5, Township 20 South, Range 39 East in Lea County and can be isolated at a valve located east of Highway 18, at the Monument Facility and at the Linam Ranch Facility.

The Linam Ranch Plant has an Emergency Shut Down (ESD) valve to isolate incoming and out-going gas and product streams. This system can be automatically or manually initiated, depending on pipeline operating conditions. The ESD system is designed to prevent a Level 4 response

The valves are configured with a high/low pressure alarm and will be monitored 24 hours/day, 7 days/week via a SCADA system at the Fullerton and Linam facilities. The valves have a low pressure alarm set at 350 psi and a high pressure alarm set at 880 psi. Operation of the pipeline within the ranges of the alarm is considered to be normal operations. The valves are also automated with an ESD that can be controlled at the Control Room or activated in the field when the pressure switch indicates a high/low level situation.

SCADA is a Supervisory Control and Data Acquisition industrial control system. The SCADA system is designed to monitor specific activities along the pipeline route such as pump pressures, pipeline volumes pressures and other specific data relative to pipeline operations. The system is dependent both on human intervention and telemetry. The SCADA system is a highly integrated system developed to maintain proficient pipeline operations and to assist in the control of transmission activities along the pipeline right-of-way.

In the event of a discrepancy in volumes or pressures within the pipeline, DCP Operations will immediately initiate an internal response to identify the nature and location of the discrepancy. This response includes, but not limited to, meter verifications, pipeline surveys (drive or fly over), and pipeline shutdown if necessary based on DCP's best professional judgment.

The Pipeline will have a normal operating pressure between 350 and 850 psig and will gather natural gas containing hydrogen sulfide gas to be processed at the DCP Linam Ranch Facility with a volume of approximately 30,000 MCFD. The hydrogen sulfide concentration is approximately 11,000 ppm with a projected 100 ppm radius-of-exposure (ROE) to extend 3,796 feet and the 500 ppm ROE to extend 1,735 feet. The pipeline does not have multiple laterals gathering gas from area well sites. The pipeline originates at the DCP Fullerton facility, has a lateral to the DCP Monument facility and terminates at the DCP Linam Ranch facility.

This pipeline was constructed to DOT 49 CFR 192 regulations and is buried at a depth of four feet as a minimum from top of pipe to surface. This pipeline will be operated in a manner to protect the public from exposure to hydrogen sulfide gas; therefore this Hydrogen Sulfide Contingency Plan (the "H<sub>2</sub>S Plan" or "the Plan") has been developed:

- 1) to satisfy the New Mexico Oil Conservation Division (OCD) Part 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 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 "Area of Exposure" means the area within a circle constructed with a point of escape at its center and the radius of exposure as its radius

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

From 49 CFR 192.3, the definition of a Pipeline:

The term "Pipeline" means all parts of those physical facilities through which gas moves in transportation, including pipe, valves, and other appurtenance attached to pipe, compressor units, metering stations, regulator stations, delivery stations, holders, and fabricated assemblies

## **A. DESCRIPTION & MAP (APPENDIX A)**

The Pipeline originates in Andrews County, Texas at the DCP Fullerton Facility and traverses through Gaines County, Texas into Lea County, New Mexico and terminates at the Linam Facility. The pipeline consists of 19.8 miles of 12-inch pipe in Texas, 11.8 miles of 12-inch pipe and 5.4 miles of 16-inch pipe in New Mexico. The Pipeline is owned and operated by DCP Midstream LP.

The pipeline located in Lea County, New Mexico is located in rural and non-populated areas. The pipeline originates at the Fullerton Facility and will cross the following public roads in New Mexico: State Highway 8 and State Highway 18. The roads are identified to be located within the radius of exposure.

## **B. PIPELINE CONSTRUCTION**

The pipeline was constructed in accordance with 49 CFR 192 design and construction requirements. The metal components of the steel pipe have been selected and manufactured so as to be resistant to hydrogen sulfide stress cracking under the operating conditions for which their use is intended. All materials will satisfy the requirements described in the latest editions of NACE Standard MR-01-75 and API RP-14E, sections 1.7(c), 2.1(c), and 4.7. The handling and installation of materials and equipment used in hydrogen sulfide service are to be performed in such a manner so as not to induce susceptibility to sulfide stress cracking.

The pipe used will be API 5L X-52 grade steel pipe with an epoxy based coating for external corrosion prevention. All valves, flanges, etc. shall be constructed of those metals, which have been selected and manufactured so as to be resistant to Hydrogen Sulfide stress cracking under normal operating conditions. The requirements, as described in the latest edition of the NACE Standards MR-01-75 and API RP-14E, section 1.7(c), 2.1(c) and 4.7, shall determine the appurtenances used in construction of any part of the pipeline.

The pipeline is buried at a minimum depth of 48 inches below grade and the normal operating pressure of the 12-inch and 16-inch pipeline will be between 450-750 psig and the MAOP (Maximum Allowable Operating Pressure) is 1440 psig. The hydrostatic test pressure for the 12-inch and 16-inch steel line will be 1800 psig for an eight hour period.

### **C. SAFEGUARDS AVAILABLE**

- Compressors will have high and low pressure shutdowns. This information will be transmitted to the Fullerton and Linam Control Rooms via SCADA and to the Field Operator via phone. There are fixed H2S monitors/alarms with automatic shutdown capability at the booster. The site is equipped with a flare to handle emergencies. Fire extinguishers and respiratory equipment will be at each facility site and the station is fenced and gated.
- The line sections will between State Highway 18 and Monument Facility and from Monument Facility and Linam Ranch will have Hi/Low pressure monitoring. The lines will be continuously monitored 24-hours a day by the Fullerton and Linam Ranch facilities through SCADA (see ROE map in Appendix A)
- The 12-inch steel buried pipeline crossing public roads will have a .281 wall thickness and the 16-inch steel buried pipeline crossing public roads will have a .375 wall thickness. In addition to the increased wall thickness, the wall pipe used in the road crossings will be coated with 12 to 14 mills of Fusion Bond Epoxy on the bare pipe with an additional 30 mills of Powercrete or Lilly coating providing a total of 42 mills of coating in the crossings. Powercrete or Lilly coating is a highly abrasion and impact resistant coating designed and approved for use in bored crossings. This coating is designed to be resistant to scratches and coating damage during the installation process of the pipe under the public roads.
- Along the pipeline rights-of- way the pipe will be buried a minimum of 4 feet in depth to aid in preventing accidental excavation accidents. The pipe will be at least 4 feet deeper than the lowest point of any road crossing.
- Corrosion Protection will be utilized to ensure the integrity of the 12 and 16-inch lines. Pipelines will be continuously chemically treated for corrosion protection and monitored with corrosion coupons.

### **D. SECURITY & SIGN PROVISION**

The Linam Ranch and Monument Facilities are manned 24 hours/day and are fenced.

For buried pipelines DCP will comply with the following:

- A marker sign will be installed at public road crossings and will contain sufficient information to establish the ownership and existence of the line and will indicate by the use of the words "Poison Gas" that a potential danger exists. The signs will be placed in accordance with 49 CFR 192.707 and NMAC 19.15.11.10.

- Marker signs will be installed along the line, when it is located within a public area or along a public road, at intervals frequent enough in the judgment of the operator so as to provide warning to avoid the accidental rupturing of line by excavation.

Sign requirement (see Appendix H):

- Sign will be of sufficient size to be readable at a reasonable distance from the facility.
- Signs will be constructed and use the language of "Caution" and "Poison Gas" with a black and yellow color contrast. Colors will satisfy Table I of American National Standard Institute Standard 253.1-1967. Signs will be compatible with the regulations of the federal Occupational Safety and Health Administration.

## **II. THE PLAN**

### **A. RESPONSIBILITY FOR CONFORMANCE WITH THE H<sub>2</sub>S PLAN**

It is the responsibility of all pipeline personnel to follow the safety and emergency procedures outlined in the Hydrogen Sulfide Contingency Plan (the H<sub>2</sub>S Plan) as well as the following document:

- DCP Midstream (DCP) Safe Work Practices and Procedures

### **B. REVISIONS TO THE PLAN**

The H<sub>2</sub>S Plan will be reviewed annually and revised at that time as necessary to address changes to the pipeline facility and operation of the pipeline, or training requirements, contact information and the public areas including roads, businesses, or residents potentially affected by the operations of the pipeline, specifically those areas within the radii-of-exposure.

### **C. AVAILABILITY OF THE H<sub>2</sub>S PLAN**

The H<sub>2</sub>S 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 and at the Western Region Safety Manager's office in Midland, Texas. See Appendix E for the H<sub>2</sub>S Plan Distribution List, which lists all the additional entities that have been provided a copy of the H<sub>2</sub>S Plan.

### **D. CONTENT OF THE PLAN**

At a minimum, the H<sub>2</sub>S Plan will contain information regarding:

- 1) the emergency procedures to be followed in the event of an hydrogen sulfide (H<sub>2</sub>S) release that may pose a threat to the public or public areas,
- 2) the characteristics of H<sub>2</sub>S and SO<sub>2</sub>
- 3) a pipeline route 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 H<sub>2</sub>S,

##### 1. Hydrogen Sulfide (H<sub>2</sub>S)

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 <sub>2</sub> 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		Physical Effect
ppm	%	
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 (SO<sub>2</sub>)

Sulfur dioxide is produced as a by-product of H<sub>2</sub>S combustion. If a leak is detected on the Fullerton to Linam Ranch pipeline that requires the line to be shut in and depressured, the pipeline product is routed to the Linam Ranch Plant flare so repairs can be safely made.

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.

<b>Sulfur Dioxide Properties and Characteristics</b>	
CAS No.	7446-09-05
Molecular Formula	SO <sub>2</sub>
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

<b>Physical Effects of Sulfur Dioxide</b>	
<b>Concentration</b>	<b>Effect</b>
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 my result unless rescued promptly

### **B. RADII OF EXPOSURE (ROE)**

For the Fullerton - Linam pipeline, the "Radius of Exposure" for both 500-ppm and 100-ppm of H<sub>2</sub>S gas was determined using the "escape rate", which is calculated using the maximum daily rate of the gaseous mixture that may be in the pipeline. The rates and other variables used to calculate the ROE is discussed in greater detail in Appendix B – ROE calculations. Also refer to Appendix A - map showing 500-ppm ROE and the 100- ppm ROE.

	<u>500-ppm ROE</u>	<u>100-ppm ROE</u>
<b>Pipeline</b>	<b>1,735 ft.</b>	<b>3,796 ft.</b>

## **IV. EMERGENCY ACTION PROCEDURES**

### **A. EMERGENCY RESPONSE ORGANIZATION**

The Pipeline 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).

The Hydrogen Sulfide Reaction Plan will be activated when the IC believes that a release creates a concentration of hydrogen sulfide that exceeds or is likely to exceed the following activation levels:

- 100 ppm radius of exposure is in excess of 50 feet and includes any part of a "public area" except a public road;
- 500 ppm radius of exposure is greater than 50 feet and includes any part of a public road;
- 100 ppm radius of exposure is greater than 3,000 feet.

In the event of an accidental release that results in the activation of the H<sub>2</sub>S Plan and all personnel have been evacuated out of the affected area, the first person to discover the problem is, by default, or his designee, will be the On-Scene Incident Commander (IC in this Plan) until the responsibility is transferred to someone else. This responsibility should be formally transferred to the Plant or Field Supervisor as soon as practical. The IC will contact and coordinate with DCP Midstream management.

The Field/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 Field/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 Field/Plant Supervisor, or his designee, shall be notified first. The Field/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.

### **NOTIFICATION OF THE NEW MEXICO OIL CONSERVATION DIVISION**

The Oil Conservation Division shall be notified immediately as follows:

- immediately in the case of an accidental release if the public could be or is affected;
- immediately in the case of an accidental release results in an ROE <sub>100 ppm</sub> impact on a public area:

- immediately in the case of any hydrogen sulfide related accident;
- as soon as possible before or after an unplanned intentional release made in an emergency situation to prevent a possible uncontrolled release but no more than 4 hours after plan activation;

A written report shall be provided to the Division 1 office within 15 days of release of hydrogen sulfide gas, whether it is a result from an accidental or intentional release.

NM Oil Conservation Division District Supervisor  
Office 575-393-6161 ext. 102 M-F  
Mobile 575-370-3186 24/7

## **B. EMERGENCY RESPONSE**

This section explains the procedures and decision process to be used in the event of an H<sub>2</sub>S 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**

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 H<sub>2</sub>S that has been released, and the physical location where the release has occurred.

#### **Response Levels**

The Plan has four (3) activation levels that are described in detail below and in outline form in the Response Flow diagrams in Appendix F.

**Level 1** – Operator conducting biweekly patrol detects H<sub>2</sub>S of 10 ppm or greater; 3<sup>rd</sup> party report of H<sub>2</sub>S gas leak.

**Level 2** – Level 1 response unsuccessful. H<sub>2</sub>S > 10 ppm along pipeline and increasing; H<sub>2</sub>S >20 ppm detected; Pipeline leak visible

**Level 3** – No level 3 response for pipeline – directly to level 4.

**Level 4** – Corrective action at Level 2 is unsuccessful; H<sub>2</sub>S ≥ 10 ppm at any public area or road crossing; Catastrophic release; fire; explosion; 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 Field/Plant Supervisor, or his designee, and the NM Oil Conservation Division District Supervisor should be notified.

## **2. EVACUATION AND EMERGENCY ASSEMBLY AREAS**

Evacuation areas for a pipeline release will be dependent upon the location of the release and will be determined at the time of the incident. All personnel not directly involved with the Emergency Response will be evacuated to a safe area.

The responding DCP Employees 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 defined Emergency Assembly Area. Emergency services (911) will be contacted if there are injuries or as otherwise deemed necessary. Upon delineating the H<sub>2</sub>S boundary, Emergency assistance will be requested for assistance in quarantining the area. Check the prevailing wind direction and immediately proceed along upwind to the pre-designated Emergency Assembly Area(s).

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, then all evacuees should proceed perpendicular and then upwind to the Emergency Assembly Areas. Wind Socks are positioned at the Monument Booster site directly east of the town of Monument and are easily visible during daylight hours, and flags are visible at the Post Office at the center of the city of Monument.

Also at each Emergency Assembly Area, the ambient air quality will be monitored for H<sub>2</sub>S concentration to ensure the area remains at less than 10 ppm. If the H<sub>2</sub>S 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**

The following outlines the immediate action plans that are illustrated by flow diagrams in Appendix F. 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.

### **LEVEL 1 RESPONSE – PIPELINE**

Level 1 response for the pipeline occurs when:

- Operator conducting biweekly line patrol detects H<sub>2</sub>S concentration of 10 ppm or greater.
  - Third party report of H<sub>2</sub>S gas leak (Odor Compliant).
1. The responding operator returns to safe area and notifies control room operator of release. The control room operator will contact any personnel working along the pipeline right-of-way, inform them of the H<sub>2</sub>S alarm on the pipeline, and direct them to monitor air quality – H<sub>2</sub>S concentrations. 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 designated Emergency Assembly

Area. 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 Field/Plant Supervisor shall be notified of the release.

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

If release is resolved and monitored levels of H<sub>2</sub>S along the pipeline ROW are less than 10 ppm, the Field/Plant Supervisor or his designee may declare an "All Clear" and authorize maintenance personnel return to the ROW to initiate repairs. Third parties evacuated from the ROW will be advised 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 H<sub>2</sub>S levels continue to increase, Level 2 Response is initiated.

## **LEVEL 2 RESPONSE – PIPELINE**

Level 2 Response occurs when:

- Level 1 response is unsuccessful
- H<sub>2</sub>S concentration is increasing above 10 ppm, or is detected at 20 ppm
- Pipeline leak is visible.

The responding operator, on detecting H<sub>2</sub>S  $\geq$  10 ppm, returns to safe area and immediately contacts the control room operator to shut down the pipeline.

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 Field/Plant Supervisor will be notified.

If H<sub>2</sub>S concentrations of 100 ppm or greater could impact public areas, initiate full implementation of this H<sub>2</sub>S Contingency Plan.

1. 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 a designated Emergency Assembly Area. If deemed necessary, local emergency response service providers will be contacted by Pipeline personnel designated by the Operator.
2. Pipeline personnel with H<sub>2</sub>S monitors and emergency trailers will be dispatched to the pipeline release area. Personnel will monitor air quality and move further away if H<sub>2</sub>S reaches 10 ppm and notify IC.

3. Incident Command Center will be established at a designated Assembly Area. Establish media staging area adjacent to Assembly Area and direct all media to it. The IC will initiate and maintain a Chronological Record of Events log. (Appendix I) If monitored H<sub>2</sub>S levels at Emergency Assembly Area 1 exceed 10 ppm, evacuate to an additional Emergency Assembly Area.
4. 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 H<sub>2</sub>S along the pipeline ROW are less than 10 ppm, the Field/Plant Supervisor or his designee may declare an "All Clear" and authorize maintenance personnel return to the ROW to initiate repairs. Third parties evacuated from the ROW will be advised of the all clear.

The Field/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 H<sub>2</sub>S 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
- H<sub>2</sub>S concentrations reach 10 ppm or greater any public area or road.
- a catastrophic release occurs

1. Emergency trailers will be dispatched to designated locations, identified upon incident notification. Personnel will monitor air quality and move further away if H<sub>2</sub>S reaches 10 ppm and notify IC.

The operator will contact any personnel working along the pipeline ROW and direct them to evacuate to a designated Emergency Assembly Area. 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.

Initiate full implementation of the H<sub>2</sub>S Contingency Plan.

2. The Incident Command Center will be located to a designated Emergency Assembly Area. All personnel shall evacuate to designated Assembly Area. 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. 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. *Currently, there are no businesses identified in the pipeline radius of exposure.*

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 H<sub>2</sub>S along pipeline ROW are less than 10 ppm, the Field/Plant Supervisor or his designee may declare an "All Clear" and authorize maintenance personnel to return to pipeline ROW to initiate repairs. All businesses, public receptors, and producers previously notified will be informed that the release has been resolved and advised of the current monitored H<sub>2</sub>S levels.

#### **4. EMERGENCY SHUT DOWN SYSTEM**

The Fullerton - Linam pipeline has an Emergency Shut Down (ESD) systems designed to isolate pipeline segments to contain hydrocarbon and H<sub>2</sub>S releases. This system is automatically and manually initiated from either the Fullerton Plant or the Linam Ranch Plant control rooms, depending on process conditions.

#### **5. NOTIFICATIONS AND REPORTS**

The Pipeline has various notification and reporting obligations. The NMOCD will be notified as soon as possible but no later than 4 hours following a release of H<sub>2</sub>S 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 on the pipeline wear H<sub>2</sub>S monitoring devices to assist them in detecting the presence of unsafe levels of H<sub>2</sub>S. When any personnel while performing such work discovers a leak or emission release they are to attempt to resolve the issue as long as H<sub>2</sub>S 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 Field/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 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 H<sub>2</sub>S levels of 10 ppm or greater either as a result of his/her personal monitoring device or the intermittent alarms from fixed monitors, the pipeline operator will contact the Field/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/Pipeline Operator is responsible for notifying the Field/Plant Supervisor or his designee so that the H<sub>2</sub>S Contingency Plan can be activated, if necessary.
  3. Once the Field/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 Field Supervisor will then conduct the notifications to state regulatory agencies including the OCD District Office and emergency response agencies as detailed in Appendix D.
  4. DCP operations personnel are to advise any contractor and all others on-site or attempting to enter the Plant that the H<sub>2</sub>S Plan has been activated.

## **B. PUBLIC AWARENESS AND COMMUNICATION**

Public awareness and communication is a primary function of the H<sub>2</sub>S 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 G that indicates when certain entities are to be contacted in event of activation of this Plan. Appendix D is a listing of the entities to be contacted and Appendix E 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 A.

### **DCP PUBLIC AWARENESS PROGRAM**

- Participates in an extensive annual Public Awareness Program and Damage Prevention Program.
- Participates with the Local Emergency Planning Committee to educate persons residing in the counties we operate in about the hazards associated with gas plants and pipelines.
- Participates with the Pipeline Group to educate excavators and contractors about Damage Prevention to underground facilities and is a member of the New Mexico One-Call System.
- Installs and maintains pipeline markers and signs at all facilities and road crossings to identify DCP underground pipelines.

Annually, residents and businesses located within the ROE of the Fullerton-Linam Ranch pipeline system will receive a Public Awareness brochure (see Appendix I) that explains DCP's Public Awareness and Damage Prevention program. This brochure is printed in both English and Spanish. It contains visual documentation of pipeline markers, aerial markers and casing vent markers. Residents and businesses are encouraged to report any damage or vandalism to these markers.

This brochure also educates the public on how to respond to a pipeline emergency and includes a 24 hour/7 day week emergency telephone number.

## **DCP PUBLIC AWARENESS BROCHURES WILL BE PRESENTED TO EACH RESIDENT LIVING WITHIN THE RADIUS OF EXPOSURE.**

### **C. PUBLIC AREAS, NEARBY BUSINESSES AND RESIDENTS**

All businesses and public places within the 500 ppm and 100 ppm radius of exposure will be contacted by Pipeline personnel as designated by Field/Plant Supervisor if the Plan is activated and based on response level of this Plan and advised of the following:

- The nature and extent of the release/emergency along the Pipeline 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:**

The Pipeline Operations group will maintain current residential structure surveys and identify those individuals regarding the pipeline and its characteristics. This is a component of the annual public education conducted by DCP Midstream for residents along the pipeline right-of-way.

Should an emergency situation occur, the local Emergency Responders, Lea County Sheriff's Department and New Mexico State Police will be contacted for assistance with the affected public.

#### **2. Businesses or Other Public Areas:**

A list of Businesses and Producers with wells that are in the radius of exposure for the pipeline route is contained in Appendix D.

#### **D. FIRST-AID STATION**

The first aid station will be located at the designated 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

#### **E. MEDIA SITE**

- A. If a Level 4 Response occurs, the Media Site will be located adjacent to the designated Emergency Assembly Area. 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 (blocked area). Media personnel will only be allowed inside the blocked area once the area has been monitored and restored to a cold zone (less than 10 ppm H<sub>2</sub>S), 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.

#### **F. EMERGENCY AND SAFETY EQUIPMENT**

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

## V. TRAINING AND DRILLS

### A. TRAINING

Training on the H<sub>2</sub>S Contingency Plan will be focused on three groups:

1. **DCP Personnel** - Training for DCP personnel shall include the Linam Ranch, Monument Facility and DCP Pipeline personnel work group – consisting of plant operators, mechanics, instrument and electrical technicians, pipeline and maintenance support personnel. Plant Operators will be responsible for initiating and implementing the Plan. In addition, all Plant/Field personnel will receive:
  - Annual training on the H<sub>2</sub>S 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 H<sub>2</sub>S Contingency Plan.
  - Annual refresher training on hydrogen sulfide, 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 a copy of their certification card prior to obtaining permission to enter the facilities.
  - 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 Field/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 Field/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 H<sub>2</sub>S Contingency Plan.

This training will include:

- Characteristics of H<sub>2</sub>S and safety precautions

- An overview of the Fullerton -Linam Ranch Pipeline
- A review of their roles in responding to activation of the Fullerton -Linam Pipeline H<sub>2</sub>S 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 Fullerton Linam Pipeline and Linam Ranch Plant H<sub>2</sub>S 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 Fullerton Linam pipeline
- Design and operating safety features on the Fullerton Linam pipeline
- A review of the H<sub>2</sub>S alarms and significance
- Notification procedures
- Procedures for sheltering in place
- Radii of exposure

**B. EMERGENCY RESPONSE DRILLS**

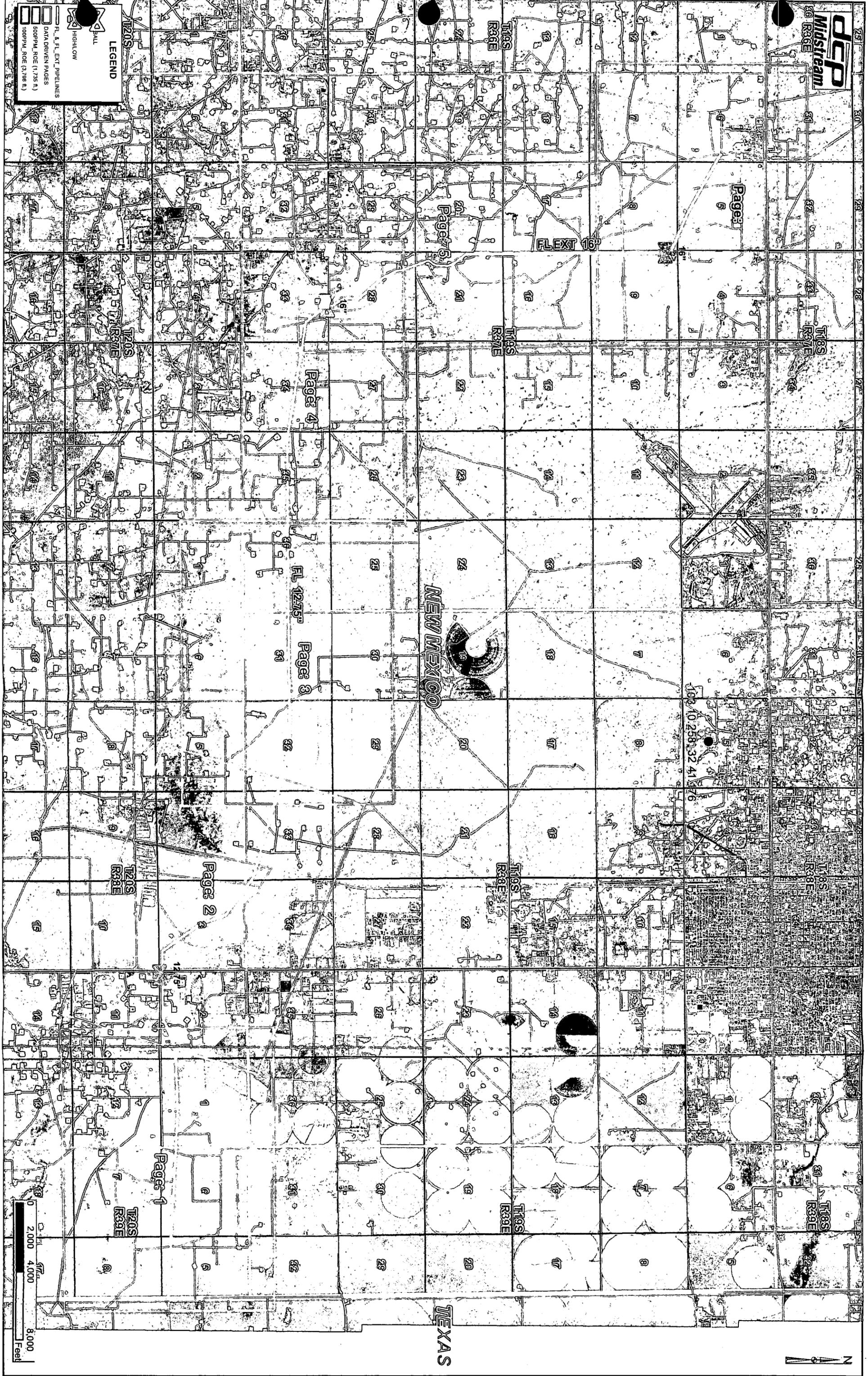
1. The Plant will conduct, at least, a tabletop drill annually. Multiple drills during the year may be scheduled at the discretion of the Plant Supervisor. The Plant drills may incorporate a Pipeline drill.
2. The annual drill will execute this Plan and include, at a minimum, the Local Emergency Response 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 D. 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  
RADIUS OF EXPOSURE MAPS

**LEGEND**

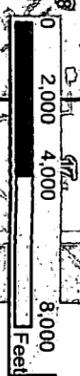
- FL, FL EXT PIPELINES
- DATA DRIVEN PAGES
- 500PPM ROE (1.735 R)
- 100PPM ROE (3.798 R)

HIGHLIGHT



NEW MEXICO

TEXAS

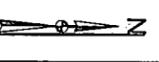


T19S  
R38E

Unamed Street

T19S  
R39E

32



**LEGEND**

- MAIL
- HIGHLOW
- FL. & FL. EXT. PIPELINES
- 500PPM, ROE (1,725 ft)
- 100PPM, ROE (3,788 ft)

NEW MEXICO

TEXAS

FL 1275'

T20S  
R38E

T20S  
R39E

Unamed Street

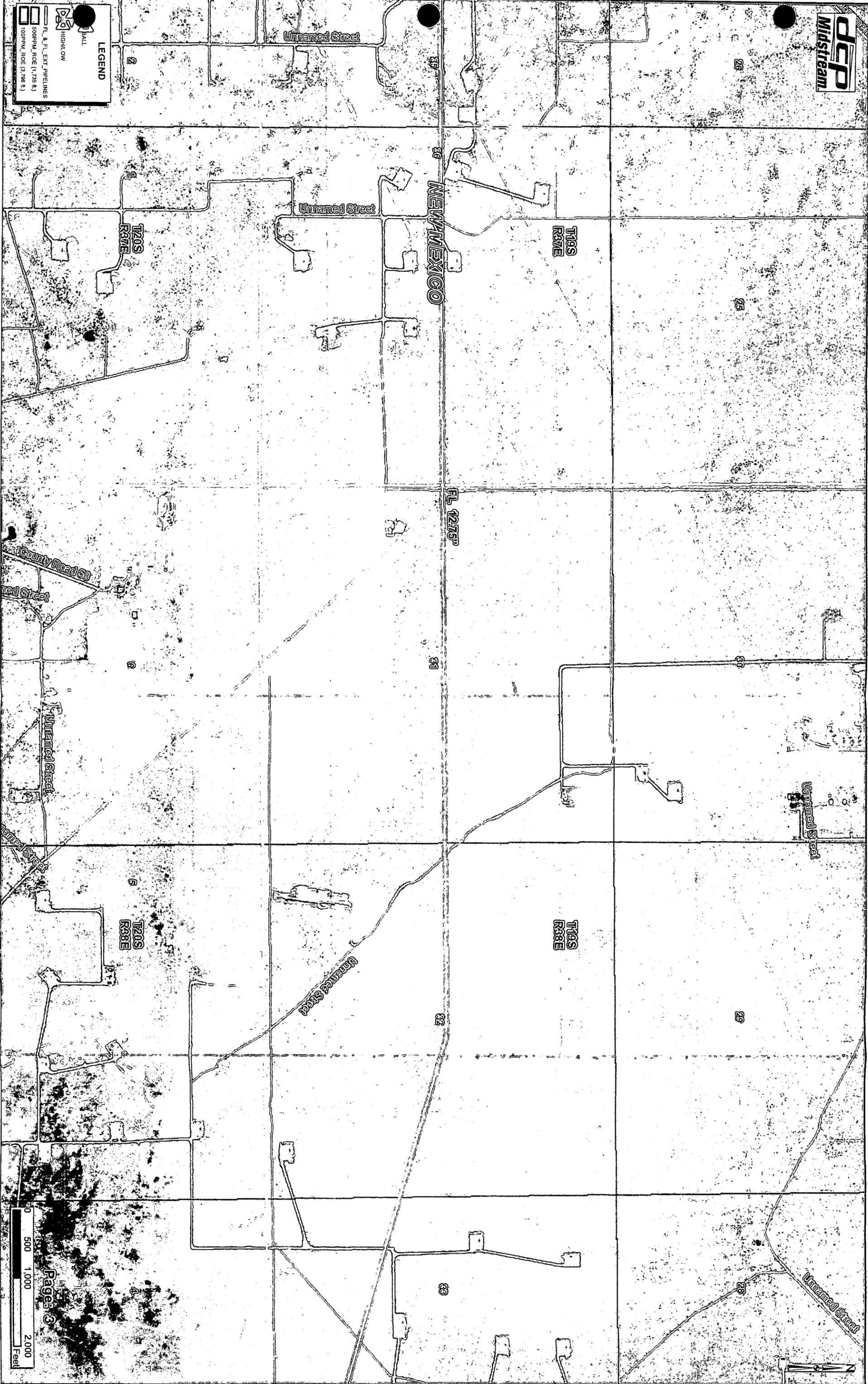
Unamed Street





**LEGEND**

- BALL
- HIGHLOW
- FL & FL EXT PIPELINES
- 500PPM, ROE (1.735 R)
- 100PPM, ROE (3.768 R)

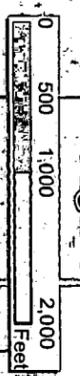
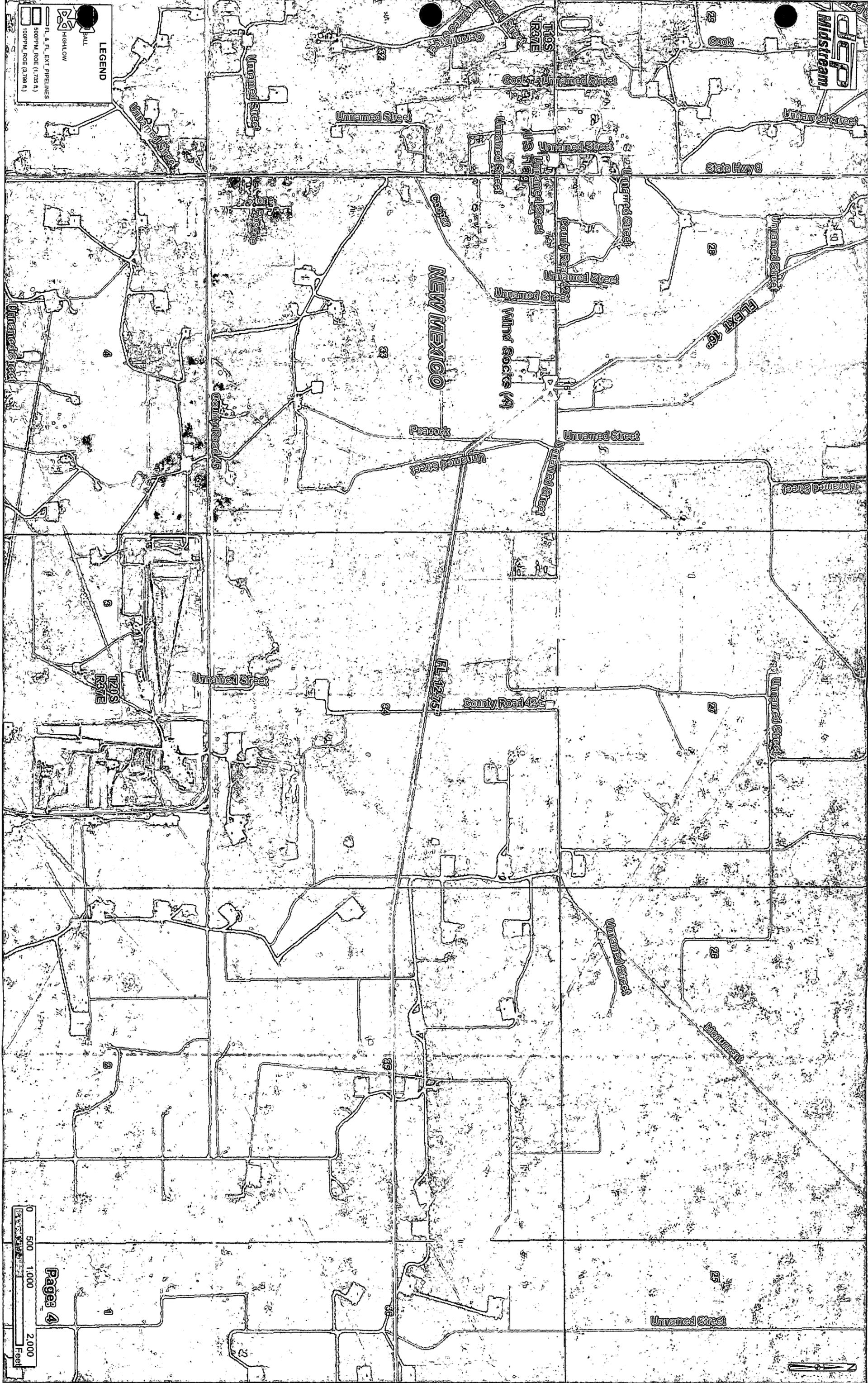


0 500 1,000 2,000 Feet



**LEGEND**

- BALL
- HIGHLOW
- FL. & FL. EXT. PIPELINES
- ▭ 300PPM, ROE (1.735 ft)
- ▭ 300PPM, ROE (3.788 ft)



TRIGS R37E  
NEW MEXICO

FL EXT 16"

Salt Hwy

Unnamed Street

Unnamed Street

Unnamed Street

Unnamed Street

Unnamed Street

Unnamed Street

Monument

FL 12.75"

**LEGEND**

- FL & FL EXT PIPELINES
- 500PPM, ROE (1,735 ft)
- 1000PPM, ROE (3,766 ft)
- HIGHWAY
- WELL

Stoffer  
Payson  
Page: 5

487.5 975 1,950 Feet



T19S  
R36E  
36

T18S  
R37E

T19S  
R36E

T19S  
R37E

LEGEND

-  1/2" FALL
-  FL & FL EXT PIPELINES
-  500PPM, ROE (1,735 ft)
-  100PPM, ROE (3,796 ft)



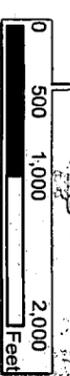
FL EXT 16"

State Hwy 8

Connecting Road

Cristobal

Cristobal



## APPENDIX B RADIUS OF EXPOSURE CALCULATIONS

Source	Volume (MCFD)	H2S PPM	(FT)	
			100 PPM ROE	500 PPM ROE
Fullerton Gas	30000	11000	3796	1735

The radius of exposure is that radius constructed with the point of escape as its starting point and its length calculated using the following Pasquill-Gifford derived equation, or by such other method as may be approved by the division:

For determining the 100-ppm radius of exposure:  $X = [(1.589)(\text{hydrogen sulfide concentration})(Q)]^{(0.6258)}$ , where "X" is the radius of exposure in feet, the "hydrogen sulfide concentration" is the decimal equivalent of the mole or volume fraction of hydrogen sulfide in the gaseous mixture, and "Q" is the escape rate expressed in cubic feet per day (corrected for standard conditions of 14.73 psia and 60 degrees F).

For determining the 500-ppm radius of exposure:  $X = [(0.4546)(\text{hydrogen sulfide concentration})(Q)]^{(0.6258)}$ , where "X" is the radius of exposure in feet, the "hydrogen sulfide concentration" is the decimal equivalent of the mole or volume fraction of hydrogen sulfide in the gaseous mixture, and "Q" is the escape rate expressed in cubic feet per day (corrected for standard conditions of 14.73 psia and 60 degrees F).

# APPENDIX C

## DESCRIPTION OF EMERGENCY EQUIPMENT

### A. RESPIRATORS

1. The Linam Ranch Facility has 30 minute Self-Contained Breathing Apparatus (SCBA) respirators and cascade hose reel systems strategically located throughout the Plant.

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

### B. FIRE FIGHTING EQUIPMENT

1. The Field personnel are trained only for insipient stage firefighting.
2. The fire extinguishers are located in company vehicles are typically a 30# Ansul dry chemical fire extinguisher.
3. Should an emergency resulting in fire occur on the pipeline right-of-way, 911 will be contacted for assistance from the local fire department. DCP Midstream employees are not trained for firefighting of incidents along the pipeline right-of-way.

Should the pipeline incur a failure requiring firefighting equipment, trained professional emergency responders will be contacted via 911.

# APPENDIX D EMERGENCY CALL LIST FULLERTON LINAM PIPELINE

## BUSINESSES AND PUBLIC RECEPTORS WITHIN THE ROE

NAME	ADDRESS	CONTACT	PHONE NUMBER
MARK'S GROCERY	6801 S NM HIGHWAY 8 Monument, NM 88265		(575) 397-7291
MONUMENT MOTORCYCLE ACCESSORIES	7203 S NM HIGHWAY 8 Monument, NM 88265		(505) 393-2952
TARGA RESOURCES	8201 S HIGHWAY 322 Monument, NM 88265		(575) 393-2823
US POST OFFICE	9921 W NM HIGHWAY 322 Monument, NM 88265	JESSICA PRUIT	(575) 393 5015
MONUMENT BAPTIST CHURCH	6815 S NM HIGHWAY 8 Monument, NM 88265		(575) 393-7639
EL PASO NATURAL GAS	8801 S HIGHWAY 332 Monument, NM 88265	KENNY MORROW	(575) 492-2380
APACHE NATURAL GAS	17 HESS LANE MONUMENT, NM 88265	MIKE WARREN	(575) 393-2144

## PRODUCERS WITH WELLS WITHIN THE ROE

Producer	Office Location	Contact	Office Phone	Contact Phone
Apache Corp	1209 Main St. Lovington NM	David Cole		575-441-3348
Burgandy	401 W. Texas Midland TX	Ben Taylor		432-557-2684
Chesapeake	1610 W Bender Hobbs NM	Tim Henley		575-441-1165
Chevron	2401 Ave O Eunice NM	Thomas Harris		575-390-7207
Cimarex	2020 W. Bender Hobbs NM	Mark Martino		575-393-1020
Citation	4200 N FM 1788 Midland TX	Johnny Washburn		432-631-4817
Conoco Phillips	1410 W. County Rd Hobbs NM	Shon Robinson		575-390-8873
Finley Resources		Jim Evans		575-441-5175
Forrest Oil & Gas	2130 W. Bender Hobbs NM	Bob Akin		575-738-1739
Lanexco	1309 W. Kansas Jal NM	Mike		575-441-2056
Trilogy	PO Box 7606 Midland TX	Johnny Rarker		432-269-2566
XTO	1169 Co. Rd 370 Denver City TX	Guy Pearce		575-441-2965

**A. DCP COMPANY INTERNAL NOTIFICATIONS**

<b>Name</b>	<b>Title</b>	<b>Office No.</b>	<b>Cell No.</b>
Linam Ranch Plant	Control Room	575-391-5792 575-391-5793 575-391-5794	575-802-5187
Fullerton Gas Plant	Control Room	432-596-2711	432-556-5024
Polo Rendon	Monument Facility Field Supv.	575-391-5720	575-390-5707
Steve Boatenhamer	Linam Ranch Plant Supervisor	575-394-5003	575-802-5215
Mike Betz	SENM Asset Manager	575-397-5597	432-238-8875
Amancio Cruz	SENM Asset Safety Coordinator	575-391-5710	575-802-5222
David Ledonne	V.P. Operations Western Region	432-620-4066	903-263-6064
Wouter Van Kempen	President Mid-Con and Permian Business Unit	303-605-1610	704-756-7809
Glenn Bowhay	Safety Manager Permian Region	432-620-4009	432-425-7635
	DCP Gas Control – Houston, TX	800-435-1679	

**B. COUNTY AND LOCAL LAW ENFORCEMENT**

<b>AGENCY</b>	<b>PHONE NUMBER</b>
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 E H<sub>2</sub>S 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



APPENDIX G  
RESPONSE FLOW DIAGRAMS

# OPERATOR QUICK REFERENCE GUIDE

## PIPELINE RELEASE LEVEL 1 RESPONSE

Operator, responding to a 3<sup>rd</sup> Party report of a H<sub>2</sub>S gas leak, odor complaint, or volume or pressure discrepancy, detects a gas release of H<sub>2</sub>S of 10 ppm or greater.

- Responding operator returns to safe area and notifies control room operator of release
- Control room operator alerts any personnel or Third Party Contractors on pipeline ROW

- Notify Plant Supervisor
- Verbally notify any 3<sup>rd</sup> party companies/persons observed working near ROW to leave the area

- Responding Operator dons SCBA – helps any persons in distress to evacuate ROW, then determines source & takes corrective action
- Monitor H<sub>2</sub>S levels along pipeline using portable H<sub>2</sub>S monitors

If H<sub>2</sub>S < 10 ppm

If H<sub>2</sub>S ≥ 10 ppm

Emergency Declared “All Clear”

- 3<sup>rd</sup> parties notified of “All Clear”
- Pipeline release to DCP Maintenance or qualified contractors for repairs
- Once repairs are made and monitoring results are negative, personnel may return to work

**Initiate Level 2 Response**

See Page 11 for Details

## PIPELINE RELEASE LEVEL 2 RESPONSE

Level 1 response unsuccessful  
H<sub>2</sub>S > 10 ppm along pipeline and increasing  
H<sub>2</sub>S > 20 ppm detected  
Pipeline leak is visible

- Responding operator returns to safe area and directs the control room operator to activate the pipeline shutdown

- Control room operator directs any personnel on pipeline ROW to leave and/or go upwind of pipeline
- Verbally notify any 3<sup>rd</sup> party companies or persons observed working near ROW to leave the area.
- Notifies Plant Supervisor
- If H<sub>2</sub>S concentrations of 100 ppm or greater could impact public areas, initiate full implementation of this H<sub>2</sub>S Contingency Plan

- Incident Command Center set ups an Assembly Area, if necessary

- Dispatch plant personnel with emergency trailers to assist with monitoring wind direction and H<sub>2</sub>S levels

Emergency Declared "All Clear"

- 3<sup>rd</sup> parties notified of "All Clear"
- Pipeline release to DCP Maintenance or qualified contractors for repairs
- Once repairs are made and monitoring results are negative, personnel may return to work

See Page 12 for Details

If H<sub>2</sub>S < 10 ppm

If H<sub>2</sub>S ≥ 10 ppm

Initiate Level 4 Response

## PIPELINE RELEASE LEVEL 4 RESPONSE

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

- Corrective action at Level 2 is unsuccessful
- $H_2S \geq 10$  ppm at any public area or road
- Catastrophic release occurs

- Direct control room operator to activate Plant ESD
- Initiate full implementation of this  $H_2S$  Contingency Plan
- Verbally notify any 3<sup>rd</sup> 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 designated area

- Dispatch personnel with emergency trailers to designated areas along pipeline route.
- Monitor air quality and move further if  $H_2S$  reaches 10 ppm and notify IC of new location

- Additional operations personnel may be directed to close valves on gas pipelines
- Monitor  $H_2S$  levels along the pipeline

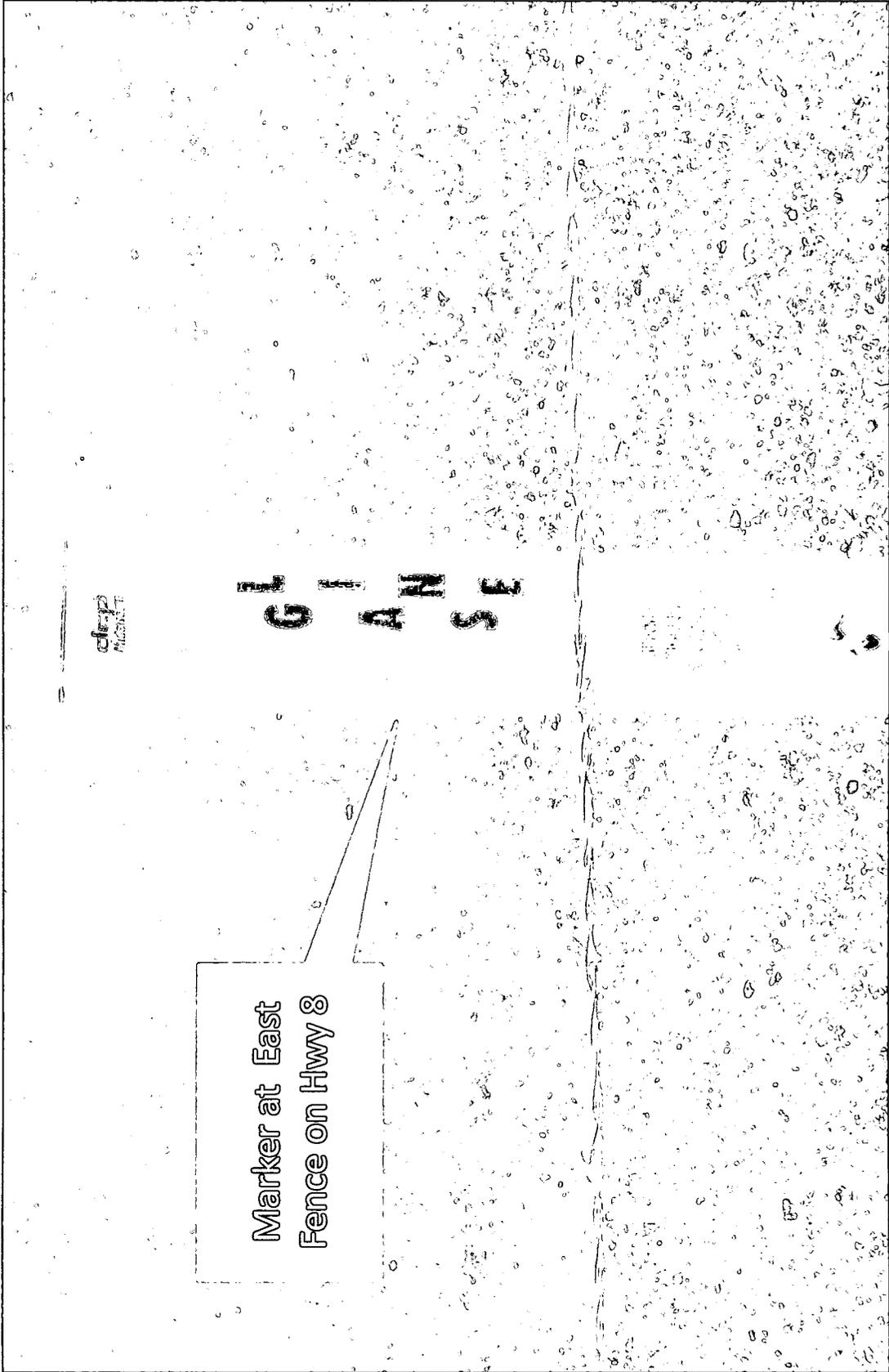
If  $H_2S < 10$  ppm

- Emergency Declared "All Clear"
- 3<sup>rd</sup> parties notified of "All Clear"
  - Pipeline release to DCP Maintenance or qualified contractors for repairs
  - Once repairs are made and monitoring results are negative, personnel may return to work

See page 13 for Details

APPENDIX H  
Photos of ROW Markers, Road Crossings, Hi-Lo Valves, Wind  
Socks and Flags, (ESDs)

FL line Fullerton to Linam

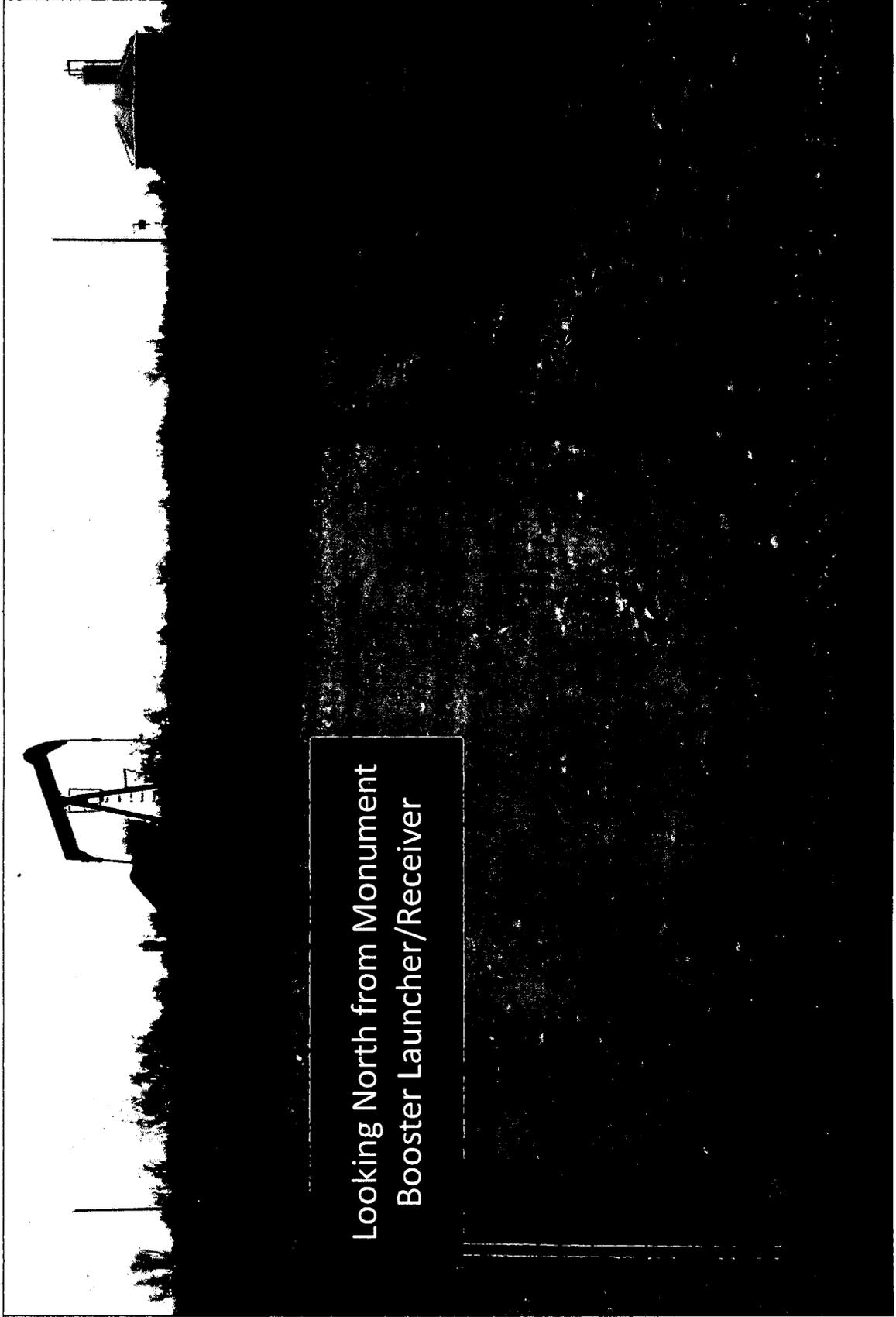


Marker at East  
Fence on Hwy 8

GLANSE

drip  
MICROFILM

FL line Fullerton to Linam

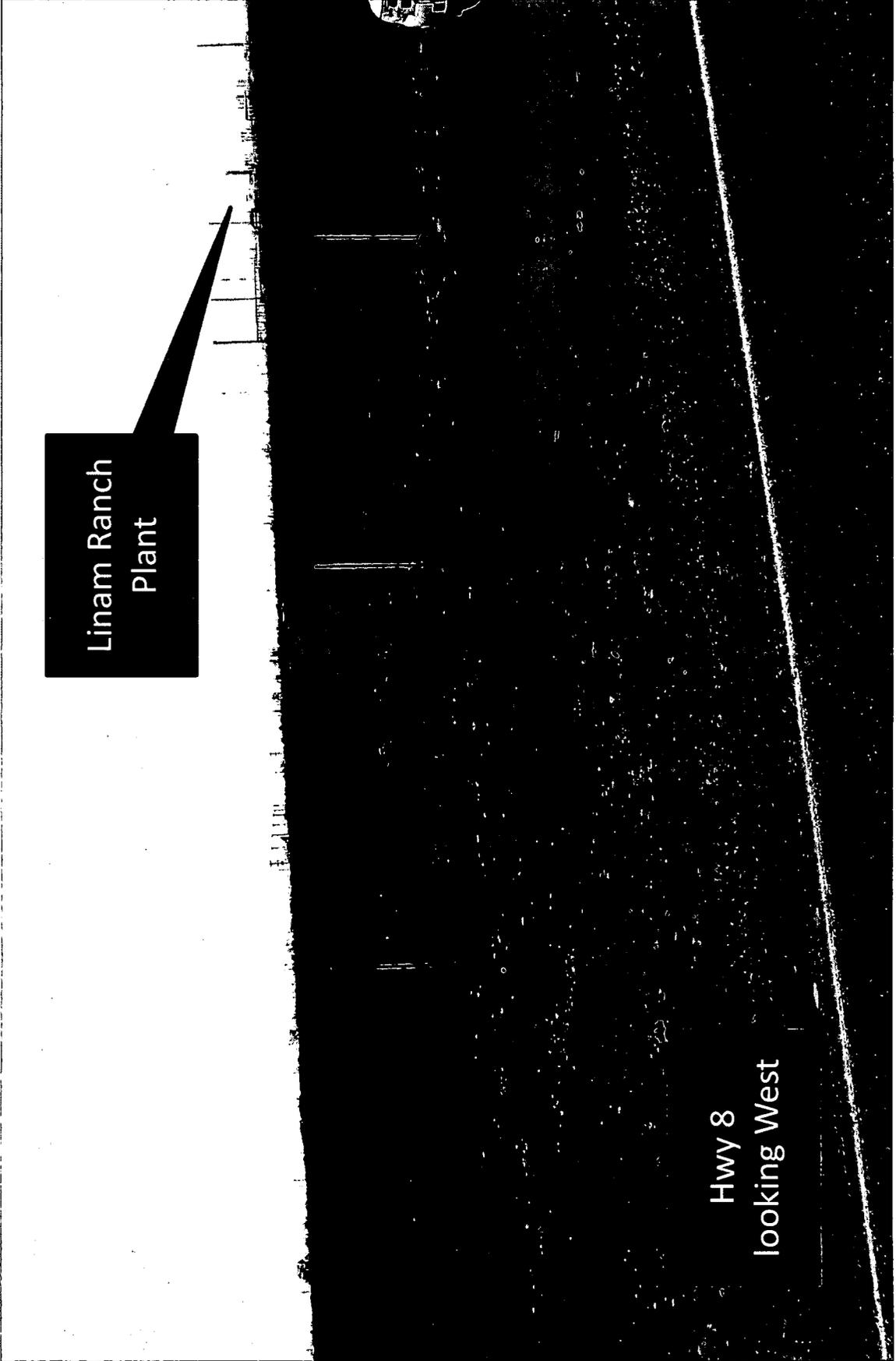


Looking North from Monument  
Booster Launcher/Receiver

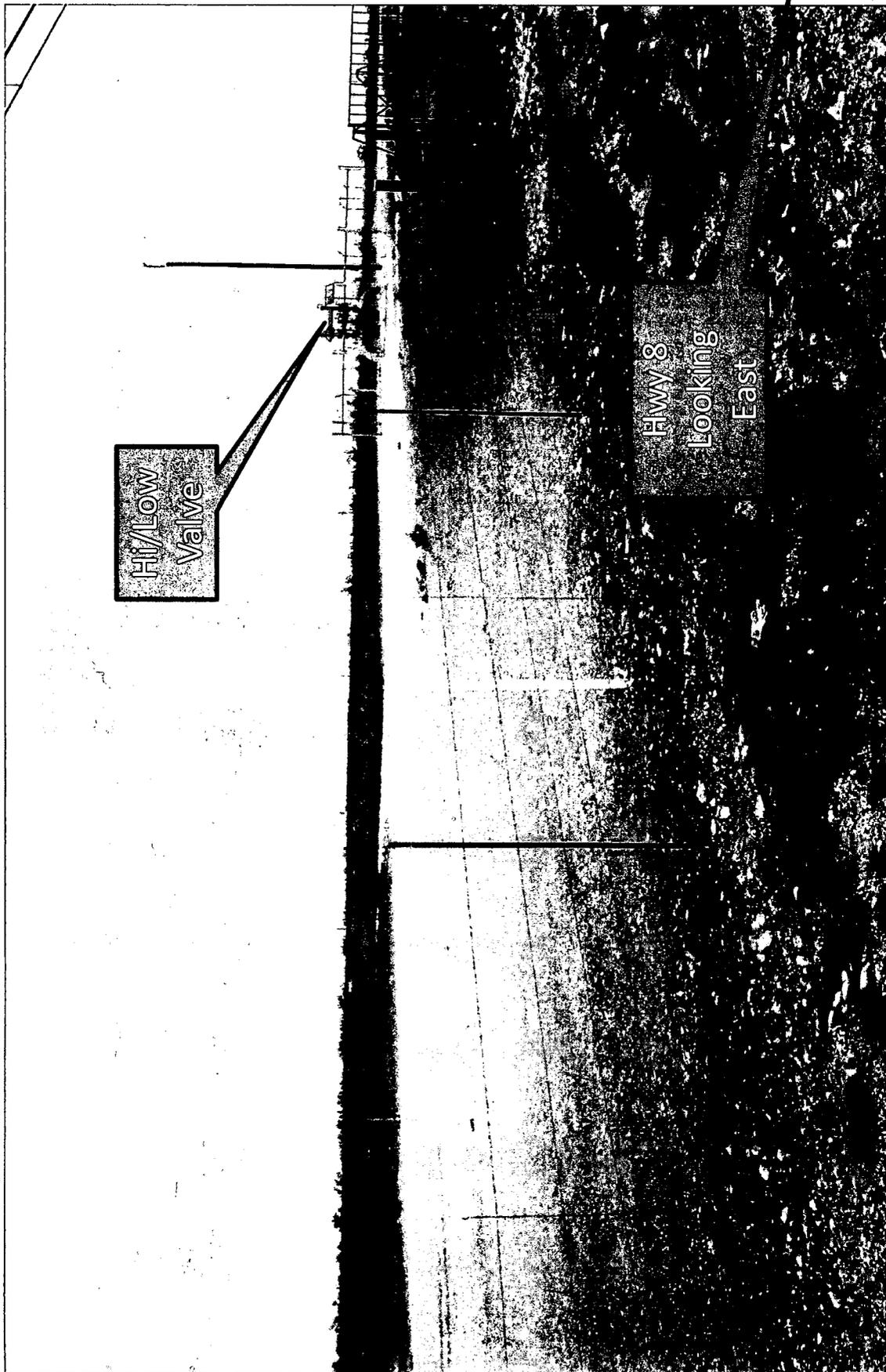
FL line Fullerton to Linam

Linam Ranch  
Plant

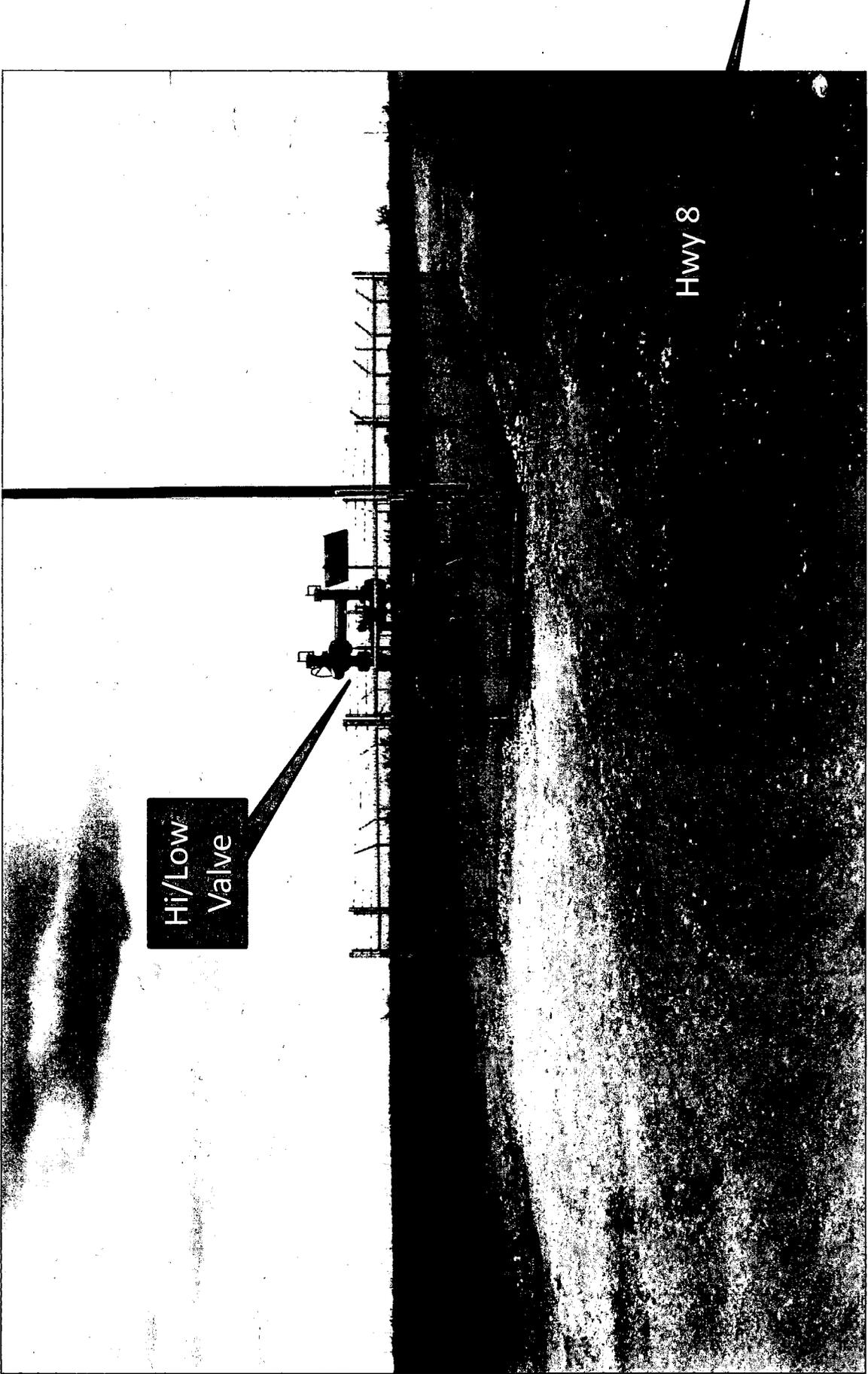
Hwy 8  
looking West



FL line Fullerton to Linam



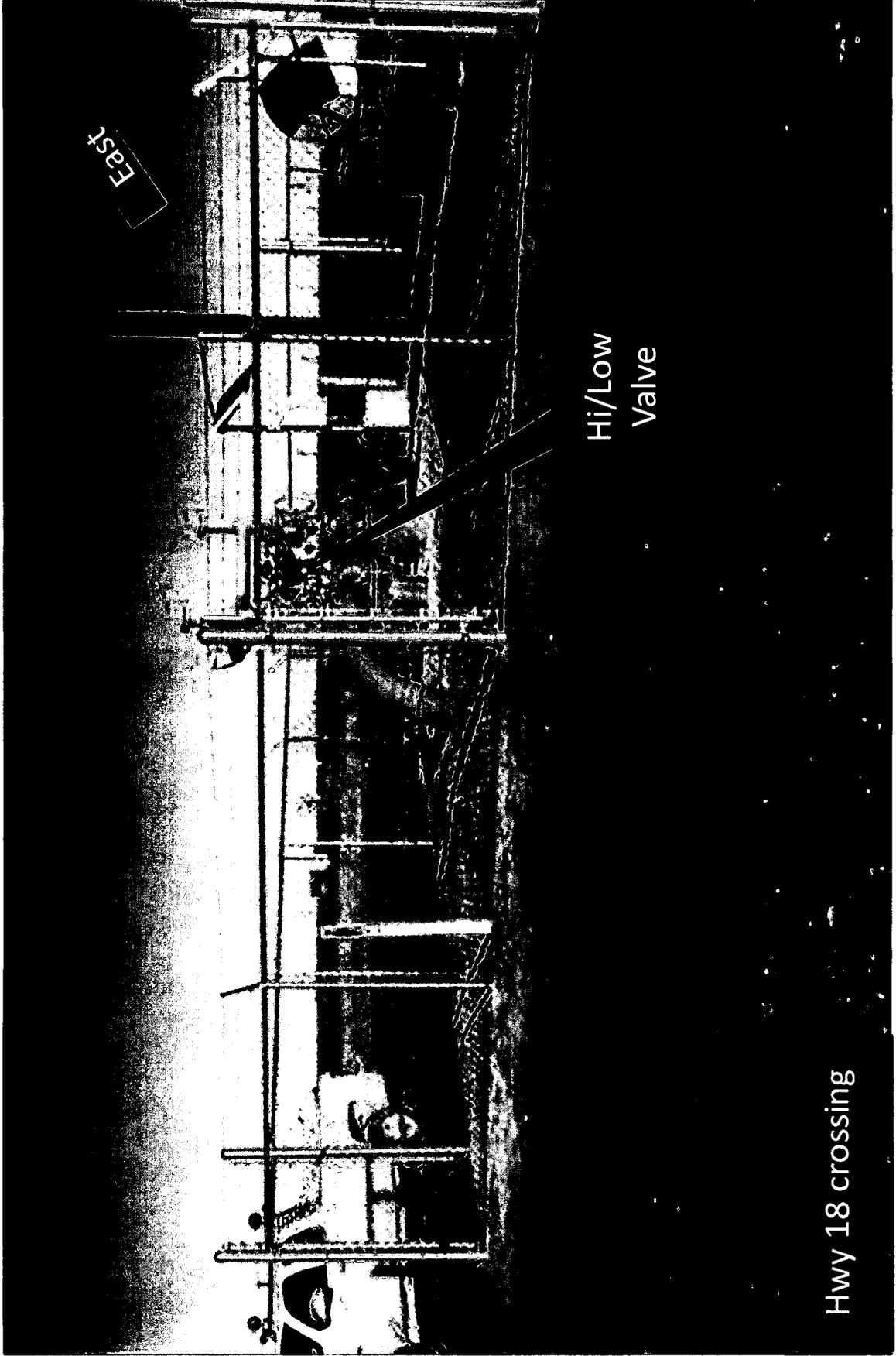
FL line Fullerton to Linam



Hi/Low  
Valve

Hwy 8

FL line Fullerton to Linam

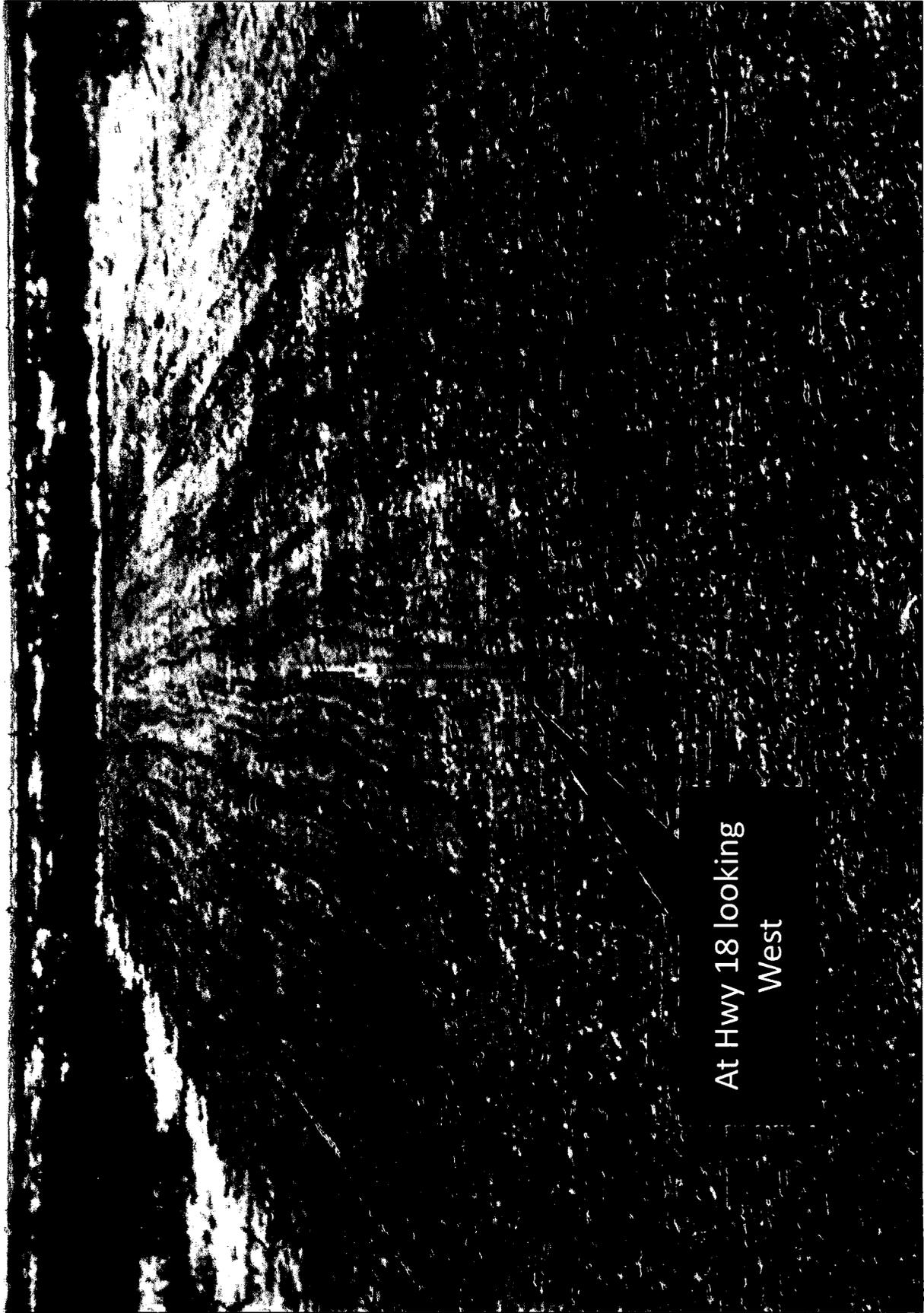


East

Hi/Low  
Valve

Hwy 18 crossing

FL line Fullerton to Linam

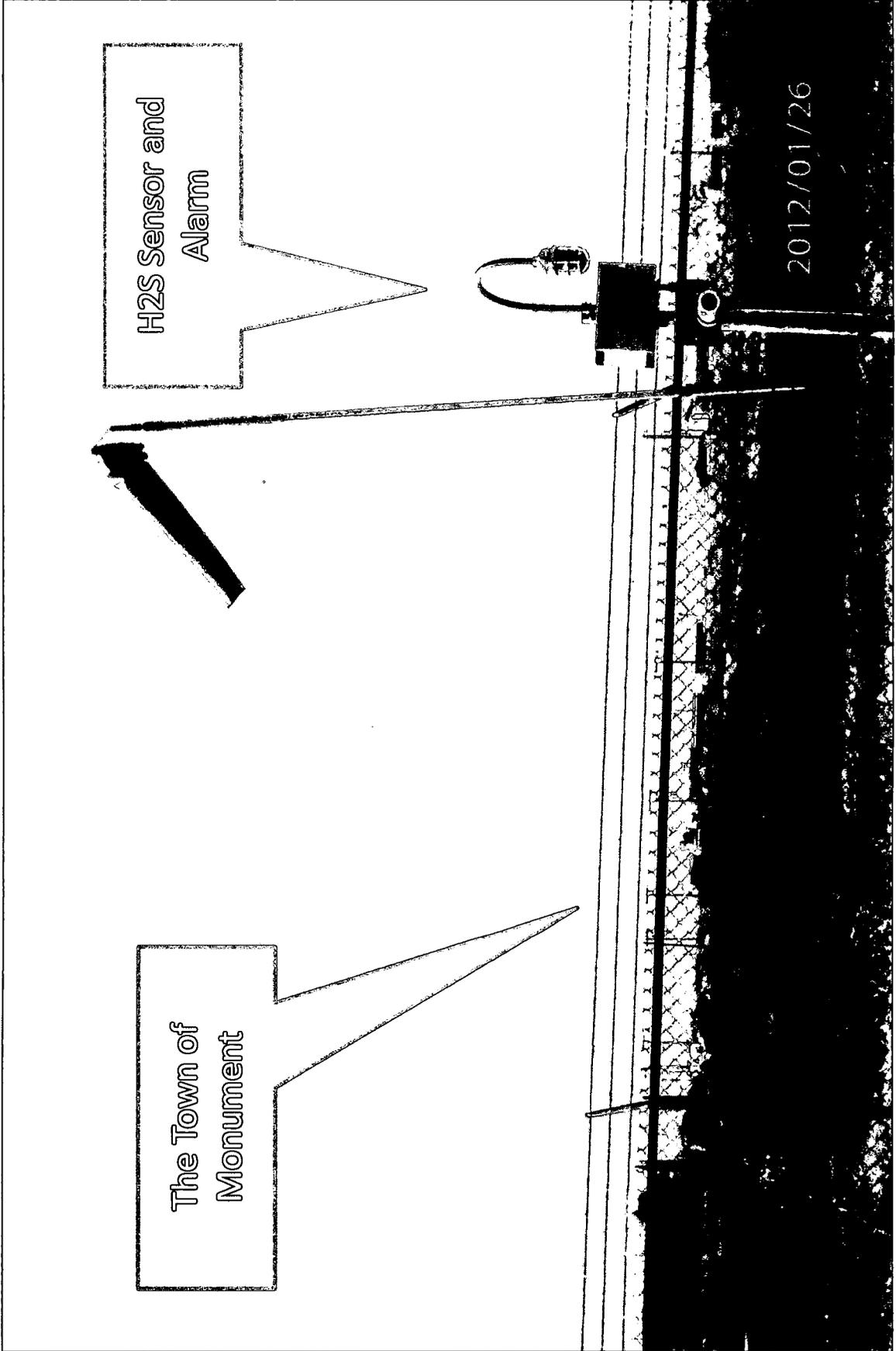


At Hwy 18 looking  
West

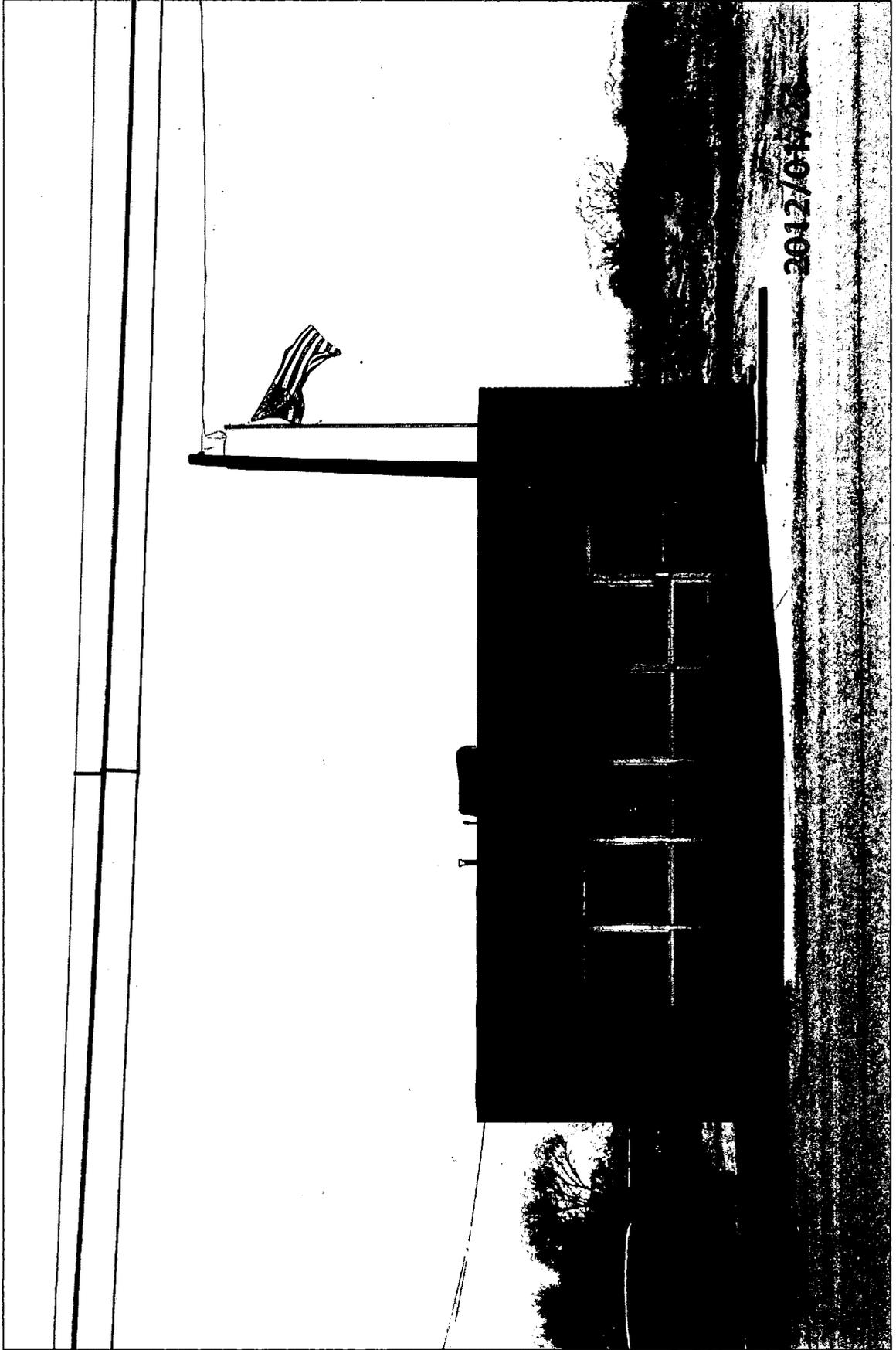
Wind Sock at Monument Booster



Wind Sock at Monument Booster



Flag at Monument Post Office



APPENDIX I  
Example of Pipeline Safety Mail Out Pocket Guide



¡SCOUTA UNO DE LOS SIGUENTES PUNTO DE REUNIÓN PARA ENCONTRAR A PIPELINES QUE PUEDAN TENER TUBERÍA BIEN LOCALIZADA Y VERIFICAR SI ESTÁN BIEN MANTENIDAS!

- LOOK FOR THESE SIGNS:
- Location near water, utility, and along the pipeline right-of-way
  - Marker for pipeline safety phone
  - Reference coding sign
  - Painted metal plate or flagpost post

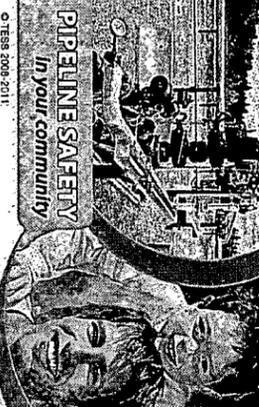
¡SI VUELVES A VER UNO DE ESTOS SIGUENTES PUNTO DE REUNIÓN, POR FAVOR, CONTACTA A TU SUPERVISOR:

**BUSINESS REPLY MAIL**  
FIRST CLASS MAIL PERMIT NO. 3088 TAMPA FL 33601

**CELENTAS WORKS**  
7101 COLLEGE BLVD STE 500  
CHICAGO, ILL 60648-1908

Responde en la información en este folleto por favor contesta lo siguiente:

- ¿Por qué es importante el mantenimiento de los pipelines?  No  Sí
- ¿Por qué es importante el mantenimiento de los pipelines?  No  Sí
- ¿Por qué es importante el mantenimiento de los pipelines?  No  Sí
- ¿Por qué es importante el mantenimiento de los pipelines?  No  Sí
- ¿Por qué es importante el mantenimiento de los pipelines?  No  Sí
- ¿Por qué es importante el mantenimiento de los pipelines?  No  Sí
- ¿Por qué es importante el mantenimiento de los pipelines?  No  Sí
- ¿Por qué es importante el mantenimiento de los pipelines?  No  Sí



**PIPELINE SAFETY**  
In your community

Rated on the information in this brochure, please answer the following:

- What do you know about pipeline safety?
- Do you know how to recognize pipeline safety signs?
- Do you know what to do in the event of a pipeline emergency?
- Have you ever been to a pipeline safety meeting?
- Has the location of the pipeline in your area caused you concern or difficulty?
- Has the location of the pipeline in your area caused you concern or difficulty?
- Has the location of the pipeline in your area caused you concern or difficulty?
- Has the location of the pipeline in your area caused you concern or difficulty?

2. Have you ever used your safety phone?  No  Sí

Would you like a pipeline safety phone in your home?  No  Sí

Address: \_\_\_\_\_  
City: \_\_\_\_\_  
State: \_\_\_\_\_  
Zip: \_\_\_\_\_

State Regulating Agency  
New Mexico Public Regulation Commission  
Phone Number: (505) 827-5540  
Website: www.nmprc.state.nm.us

New Mexico One Call System, Inc.  
Phone Number: (505) 241-2537 or 811  
Website: www.nmonecall.org

**NOTICE REQUIRED:**  
Please call 2 working days before you begin excavation.



**KIDS' CORNERS**  
Have Fun!  
Learn!

Company Website  
DCP Midstream, LP  
Phone Number: (800) 433-0739 or (888) 204-1781  
Website: www.dcpmidstream.com

DCP Midstream, LP  
Phone Number: (800) 433-0739 or (888) 204-1781  
Website: www.dcpmidstream.com

**811**  
Know what's below.  
Call before you dig.

GO TO [www.digress.org/passurvey](http://www.digress.org/passurvey)  
to take the Pipeline Safety Survey and enter for a chance to win a \$500 Gift Card

TEKAS EXCAVATION  
SAFETY SYSTEM  
1800 Cambridge Ave  
Dallas, TX 75233  
Phone: (972) 280-8636

**PIPELINE SAFETY**  
In your community

**CAUTION**  
HIGH PRESSURE GAS LINE  
Know what's below.  
Call before you dig.

GO TO [www.digress.org/passurvey](http://www.digress.org/passurvey)  
to take the Pipeline Safety Survey and enter for a chance to win a \$500 Gift Card

¡Por favor compartes esta información con otros en su domicilio.

**Tuberías...**  
Hay más de 200,000 millas de tuberías de petróleo y gas en los Estados Unidos. Según la estadística de la Junta de Seguridad y Energía Nuclear, el 90% de las tuberías de gas y petróleo en los Estados Unidos son propiedad de compañías privadas.

**How to Recognize a Suspected Leak:**  
Using your sense of sight, smell and sound will help you in recognizing a suspected leak.

**Sight**  
A large, dark, irregular, or unusual stain on the ground, or a change in the color of the ground, may indicate a leak.

**Smell**  
Natural gas is odorless, but a substance called mercaptan is added to it to give it a strong, sulfur-like odor.

**Sound**  
When passing or running near a pipeline, you may hear a hissing or whistling sound.

**What NOT to do:**  
DO NOT touch, breathe, or make contact with the leak.  
DO NOT light a match, turn on an electrical switch, or do anything that may create a spark.  
DO NOT attempt to operate any valve.

**What to DO:**  
Do leave the home, building, and area of any suspected leak.  
Do call 811, once safety out of the area to notify police and fire officials.  
Do not return to the area until notified by the appropriate authorities.

**What to do when a Suspected Leak Occurs:**  
If you suspect a leak, call 811 or your local emergency response number and the pipeline company. Call 811, if you are unsure of the location of the leak, or if you are unsure of the type of pipeline.

**Reconociendo una Fuga en una tubería:**  
Un caso de fugas puede ser el signo de una tubería que está suelta o dañada. Si ve una fuga, una mancha oscura o un olor extraño, llame al 811 o al número de emergencia de su compañía de tuberías.

**What NOT to do if You Suspect a Leak:**  
DO NOT touch, breathe, or make contact with the leaking liquid or gas. Stay upwind if possible.  
DO NOT light a match, turn on an electrical switch, or do anything that may create a spark.  
DO NOT attempt to operate any valve.

**What to DO:**  
Do leave the home, building, and area of any suspected leak.  
Do call 811, once safety out of the area to notify police and fire officials.  
Do not return to the area until notified by the appropriate authorities.

## ¿Que Debe Hacer si una Tuberia es Dañada o Alterada?

Aunque usted cuide lo que parece ser solamente un daño mínimo a la tubería, cualquier modificación a la tubería, ya sea por un propietario o un contratista, puede ser un riesgo para la seguridad de la tubería. Los propietarios de tuberías deben estar conscientes de la existencia de cualquier modificación de tubería en su propiedad y de cualquier modificación que se haya hecho en el pasado. Los propietarios de tuberías deben estar conscientes de cualquier modificación que se haya hecho en el pasado. Los propietarios de tuberías deben estar conscientes de cualquier modificación que se haya hecho en el pasado.



## Demografía lo que es bajo tierra. Llame antes de excavar.

Los marcadores de las tuberías son reportados para la seguridad del público en general. Es un delito federal hacer cualquier modificación a la tubería sin el consentimiento de la compañía de tubería. Llame al 811 antes de cualquier modificación de tubería. Llame al 811 antes de cualquier modificación de tubería.

## ¡Llame 811 Antes de Cavari!

Antes de cavar o excavar, llame al estado de su estado. El 811 es un servicio de emergencia que le ayuda a encontrar tuberías y servicios públicos antes de cavar. Llame al 811 antes de cualquier modificación de tubería. Llame al 811 antes de cualquier modificación de tubería.

## Que Hacer Si Sospecha de una Fuga

1. Si es posible, apague cualquier equipo eléctrico que esté conectado a la tubería sospechada. Aislar cualquier equipo que esté conectado a la tubería sospechada.
2. Si es posible, llame al 811 o al número de emergencia de su estado. Llame al 811 o al número de emergencia de su estado.
3. Si es posible, llame al 811 o al número de emergencia de su estado. Llame al 811 o al número de emergencia de su estado.
4. Si es posible, llame al 811 o al número de emergencia de su estado. Llame al 811 o al número de emergencia de su estado.

## Lo que NO Debe Hacer Si Sospecha de una Fuga

1. No toque, ajuste ni entre en contacto con las tuberías o gases de la fuga.
2. No encienda ningún equipo, ni prenda ningún motor, ni use ningún equipo, ni prenda ningún equipo.
3. No intente hacer reparaciones a la tubería sospechada.
4. No intente hacer reparaciones a la tubería sospechada.
5. No intente hacer reparaciones a la tubería sospechada.

## Pueden Propietarios Construir o Cavar Sobre un Derecho de Paso?

El derecho de paso de la tubería debe ser preservado para proporcionar el acceso a las tuberías y servicios públicos. Los propietarios de tuberías deben estar conscientes de cualquier modificación de tubería en su propiedad y de cualquier modificación que se haya hecho en el pasado. Los propietarios de tuberías deben estar conscientes de cualquier modificación que se haya hecho en el pasado.

## Áreas de Consecuencia Alta

De acuerdo con regulaciones federales, algunas áreas de tubería han sido designadas como áreas de consecuencia alta. Estas áreas incluyen tuberías que transportan gases inflamables, gases tóxicos o gases que pueden causar explosión.

## CGA

CGA es una organización que promueve la seguridad de las tuberías. CGA ofrece servicios de inspección y mantenimiento de tuberías. CGA ofrece servicios de inspección y mantenimiento de tuberías.

## Necesitamos Su Ayuda.

La información nacional, incluyendo las tuberías, son un asunto de seguridad nacional. Si usted es dueño de una actividad sospechosa sobre el derecho de paso de una tubería, por favor informe a las autoridades competentes. Si usted es dueño de una actividad sospechosa sobre el derecho de paso de una tubería, por favor informe a las autoridades competentes.

## Passes Share this Information with your household.

When agreements or easements between pipeline companies allow pipeline companies to contract and maintain their rights to any access privately owned property, it is critical that all household members be aware of the location of any pipeline on or near your property. Household members should be aware of the location of any pipeline on or near your property.

## Pipeline Monitoring

Pipeline monitoring is a process of detecting and identifying pipeline leaks. Pipeline monitoring is a process of detecting and identifying pipeline leaks. Pipeline monitoring is a process of detecting and identifying pipeline leaks.

## Recognizing a Pipeline Leak

A pipeline leak is a release of gas or liquid from a pipeline. A pipeline leak is a release of gas or liquid from a pipeline. A pipeline leak is a release of gas or liquid from a pipeline.

## What To Do if a Pipeline is Damaged or Disturbed

If you are aware of a pipeline on or near your property, it is critical that you be aware of the location of any pipeline on or near your property. If you are aware of a pipeline on or near your property, it is critical that you be aware of the location of any pipeline on or near your property.

## Potential Hazards of Pipeline Products

Pipeline products can be hazardous to health and safety. Pipeline products can be hazardous to health and safety. Pipeline products can be hazardous to health and safety.

## What To Do if You Suspect a Leak

If you suspect a pipeline leak, it is critical that you be aware of the location of any pipeline on or near your property. If you suspect a pipeline leak, it is critical that you be aware of the location of any pipeline on or near your property.

## Pipeline Operator's Actions During an Emergency

When an emergency occurs, pipeline operators will take actions to protect the public and the environment. When an emergency occurs, pipeline operators will take actions to protect the public and the environment.

## High Consequence Areas

High consequence areas are areas where a pipeline leak could result in significant damage to life and property. High consequence areas are areas where a pipeline leak could result in significant damage to life and property.

## Can Owners Build or Dig on a Right-Of-Way?

Owners of property on a pipeline right-of-way must be aware of the location of any pipeline on or near their property. Owners of property on a pipeline right-of-way must be aware of the location of any pipeline on or near their property.

## We Need Your Help

The National Transportation Safety Board (NTSB) is a federal agency that investigates transportation accidents. The NTSB is a federal agency that investigates transportation accidents.

## Suspect a Leak

If you suspect a pipeline leak, it is critical that you be aware of the location of any pipeline on or near your property. If you suspect a pipeline leak, it is critical that you be aware of the location of any pipeline on or near your property.

## What NOT to Do if You Suspect a Leak

If you suspect a pipeline leak, it is critical that you be aware of the location of any pipeline on or near your property. If you suspect a pipeline leak, it is critical that you be aware of the location of any pipeline on or near your property.

# Pocket Glue

# Emergency Response Capabilities Survey

**Agency Information (Please Print)**

First Name	Last Name	Title	Designated Rep
JEFFREY	A.	BROOM	<input type="checkbox"/>
Agency Name		Area/ County of Responsibility	
LEA COUNTY EMERGENCY MANAGEMENT		LEA COUNTY	
Agency Address	City	State	Zip
100 N. MAIN	LIVINGSTON	NM	88260
Agency Email	Non 911 Phone #	Fax #	24hr Emergency Phone #
JABROOM@LEACOUNTY.NET	575.396.1225		575.725.8635
Department Chief	Chief's Phone		
LORENZO VELASQUEZ	575.396.8607		

**I acknowledge receipt of the Emergency Response Manual:**

Signature	First Name	Last Name	Date
<i>Jeff Broom</i>	JEFF	BROOM	9-1-11

**Agency Type**

Fire - Public Protection Classification (PPC) Rating: 1  2  3  4  5  6  7  8/9  10  NA  
 Emergency Planning Committee  
  Emergency Response Dispatch  
  Regulator (Pipeline)  
  Hazmat  
  Medical  
  Law Enforcement

**Station Type:**  
 Fulltime  
  Volunteer  
  Fulltime/Volunteer  
  Industrial  
  Military  
  Airport  
  Other

Total number of personnel: Fulltime 10 Volunteer 74

**Survey of Emergency Response Capabilities**

**EQUIPMENT**

- Total number of operational trucks: Pumper 12 Tanker 3
- Total number of ladders/aerial trucks: 0
- Does your agency have firefighting equipment (i.e. foam) suitable for oil, natural gas, liquid petroleum, or any other types of pipeline fires?  Yes  No  N/A  
If yes, please list: AFFF, MICROBLAZE.
- Can your organization provide, or have access to, air evacuation services?  Yes  No  N/A
- Does your agency have, or have access to, ambulance services?  Yes  No  N/A
- Does your agency have, or have access to, earth moving equipment that could be utilized in the event of an emergency?  Yes  No  N/A

**MUTUAL AID**

- Does your agency have Mutual Aid Agreements?  Yes  No  N/A  
If yes, with whom? ALL 8 FIRE DEPARTS IN LEA COUNTY

Survey of Emergency Response Capabilities

COMMUNICATIONS

- 1. Can you communicate by radio on an incident scene with your federal, state, and local emergency response partners?  Yes  No  Don't know
- 2. Who has primary responsibility for dispatch operations?  Fire Dept  Police Dept  Private Company
- 3. Are your radios safe for operation in a hazardous atmosphere (intrinsically safe)?  Yes  No  Don't know

CAPABILITIES

- 1. Has your agency ever responded to a pipeline incident?  Yes  No  N/A
- 2. If a pipeline incident did occur, would your agency respond?  Yes  No  N/A
- 3. Has your agency performed any practical training (hands on, mock drill, tabletop) on how to respond to a pipeline emergency?  Yes  No  N/A
- 4. Has your agency received training in regards to pipeline safety prior to this class?  Yes  No  N/A
- 5. Can your organization assist with traffic control on state and interstate highways?  Yes  No  N/A
- 6. Can your organization provide medical assistance?  Yes  No  N/A
- 7. Does your organization have personnel that are trained to fight oil, natural gas, liquid petroleum, and other types of pipeline fires?  Yes  No  N/A
- 8. Does your organization have personnel that are certified Hazardous Materials/HAZWOPER responders?  
If so, what level?  Awareness  Operational  Technical  Yes  No  N/A
- 9. Can your organization assist with public evacuation?  Yes  No  N/A
- 10. Does your organization have a plan for public evacuation?  Yes  No  N/A
- 11. Does your organization have a hazardous spill contingency plan?  Yes  No  N/A
- 12. Do you feel that your agency has the necessary training for a response in the event of a pipeline emergency?  Yes  No  N/A
- 13. Can you provide communications and assistance with public evacuation?  Yes  No  N/A

FAX to Toll Free 877-280-8637

We appreciate and value your input, and in an effort to continuously improve our program, please provide any other information you feel would be beneficial to us. Thank you!

Additional Remarks (Please Print)

[Empty box for additional remarks]

FOR ADMINISTRATIVE USE ONLY

Contact Method

- Meeting
- Face to Face
- Mail
- Telephone
- Fax
- Email



# Emergency Response Capabilities Survey

### Agency Information (Please Print)

First Name	Last Name	Title	Designated Rep
Curry	Pruit	Fire Chief	<input checked="" type="checkbox"/>
Agency Name		Area/County of Responsibility	
Maljamar Fire Department		Lea Co. NM	
Agency Address	City	State	Zip
P.O. Box 157	Maljamar	NM	88264
Agency Email	Non 911 Phone #	Fax #	24hr Emergency Phone #
maljfire@leaco.net	5756764100	5756764009	911
Department Chief	Chief's Phone		
Curry Pruit	575-370-4362		

### I acknowledge receipt of the Emergency Response Manual:

Signature	First Name	Last Name	Date
<i>Curry Pruit</i>	Curry	Pruit	9-1-11

### Agency Type

Fire - Public Protection Classification (PPC) Rating:  1  2  3  4  5  6  7  8  9  10  NA

Emergency Planning Committee  
 Emergency Response Dispatch  
 Regulator (Pipeline)  
 Hazmat  
 Medical  
 Law Enforcement

Station Types:

Fulltime  
 Volunteer  
 Fulltime/Volunteer  
 Industrial  
 Military  
 Airport  
 Other

Total number of personnel: Fulltime \_\_\_\_\_ Volunteer 18

### Survey of Emergency Response Capabilities

**EQUIPMENT**

1. Total number of operational trucks: Pumper 3 Tanker 1

2. Total number of ladders/aerial trucks: 0

3. Does your agency have firefighting equipment (i.e. foam) suitable for oil, natural gas, liquid petroleum, or any other types of pipeline fires?  Yes  No  N/A  
If yes, please list: Class A 1250 gpm pumper

4. Can your organization provide, or have access to, air evacuation services?  Yes  No  N/A

5. Does your agency have, or have access to, ambulance services?  Yes  No  N/A

6. Does your agency have, or have access to, earth moving equipment that could be utilized in the event of an emergency?  Yes  No  N/A

### MUTUAL AID

1. Does your agency have Mutual Aid Agreements?  Yes  No  N/A  
If yes, with whom? Eddy County

**Survey of Emergency Response Capabilities**

**COMMUNICATIONS**

- 1. Can you communicate by radio on an incident scene with your federal, state, and local emergency response partners?  Yes  No  Don't know
- 2. Who has primary responsibility for dispatch operations?  Fire Dept  Police Dept  Private Company *Consolidated Dispatch*
- 3. Are your radios safe for operation in a hazardous atmosphere (intrinsically safe)?  Yes  No  Don't know

**CAPABILITIES**

- 1. Has your agency ever responded to a pipeline incident?  Yes  No  N/A
- 2. If a pipeline incident did occur, would your agency respond?  Yes  No  N/A
- 3. Has your agency performed any practical training (hands on, mock drill, tabletop) on how to respond to a pipeline emergency?  Yes  No  N/A
- 4. Has your agency received training in regards to pipeline safety prior to this class?  Yes  No  N/A
- 5. Can your organization assist with traffic control on state and interstate highways?  Yes  No  N/A
- 6. Can your organization provide medical assistance?  Yes  No  N/A
- 7. Does your organization have personnel that are trained to fight oil, natural gas, liquid petroleum, and other types of pipeline fires?  Yes  No  N/A
- 8. Does your organization have personnel that are certified Hazardous Materials/HAZWOPER responders?  
If so, what level?  Awareness  Operational  Technical  Yes  No  N/A
- 9. Can your organization assist with public evacuation?  Yes  No  N/A
- 10. Does your organization have a plan for public evacuation?  Yes  No  N/A
- 11. Does your organization have a hazardous spill contingency plan?  Yes  No  N/A
- 12. Do you feel that your agency has the necessary training for a response in the event of a pipeline emergency?  Yes  No  N/A
- 13. Can you provide communications and assistance with public evacuation?  Yes  No  N/A

We appreciate and value your input, and in an effort to continuously improve our program, please provide any other information you feel would be beneficial to us. Thank you!

**Additional Remarks (Please Print)**

**FOR ADMINISTRATIVE USE ONLY**

Contact Method

Meeting  Face to Face  Mail  Telephone  Fax  Email



# Emergency Response Capabilities Survey

### Agency Information (Please Print)

First Name <i>Donald</i>	Last Name <i>Higgins</i>	Title <i>District Chief</i>	Designated Rep. <input type="checkbox"/>
Agency Name <i>Hobbs Fire</i>		Area/County of Responsibility <i>Lea</i>	
Agency Address <i>301 E White</i>		City <i>Hobbs</i>	State <i>NM</i>
		Zip <i>88240</i>	
Agency Email <i>dhiggins@hobbsnm.org</i>	Non 911 Phone # <i>575-397-9308</i>	Fax # <i>575-397-9331</i>	24hr Emergency Phone # <i>911</i>
Department Chief <i>Manny Gomez</i>	Chief's Phone <i>575-397-9308</i>		

### I acknowledge receipt of the Emergency Response Manual:

Signature <i>Donald Higgins</i>	First Name <i>Donald</i>	Last Name <i>Higgins</i>	Date <i>9/1/11</i>
------------------------------------	-----------------------------	-----------------------------	-----------------------

### Agency Type

Fire - Public Protection Classification (PPC) Rating:  1  2  3  4  5  6  7  8  9  10  NA  
 Emergency Planning Committee   
 Emergency Response Dispatch   
 Regulator (Pipeline)   
 Hazmat   
 Medical   
 Law Enforcement

**Station Types:**  
 Fulltime   
 Volunteer   
 Fulltime/Volunteer   
 Industrial   
 Military   
 Airport   
 Other

Total number of personnel: Fulltime *68* Volunteer *0*

### Survey of Emergency Response Capabilities

**EQUIPMENT**

- Total number of operational trucks: Pumper *3* Tanker *1*
- Total number of ladders/aerial trucks: *2*
- Does your agency have firefighting equipment (i.e. foam) suitable for oil, natural gas, liquid petroleum, or any other types of pipeline fires?  Yes  No  N/A  
If yes, please list: *Truck mounted foam system*
- Can your organization provide, or have access to, air evacuation services?  Yes  No  N/A
- Does your agency have, or have access to, ambulance services?  Yes  No  N/A
- Does your agency have, or have access to, earth moving equipment that could be utilized in the event of an emergency?  Yes  No  N/A

**MUTUAL AID**

- Does your agency have Mutual Aid Agreements?  Yes  No  N/A  
If yes, with whom? *Lovington, Finice, Monmouth, Knowles*

**Survey of Emergency Response Capabilities**

**COMMUNICATIONS**

1. Can you communicate by radio on an incident scene with your federal, state, and local emergency response partners?  Yes  No  Don't know
2. Who has primary responsibility for dispatch operations?  Fire Dept  Police Dept  Private Company
3. Are your radios safe for operation in a hazardous atmosphere (intrinsically safe)?  Yes  No  Don't know

**CAPABILITIES**

1. Has your agency ever responded to a pipeline incident?  Yes  No  N/A
2. If a pipeline incident did occur, would your agency respond?  Yes  No  N/A
3. Has your agency performed any practical training (hands on, mock drill, tabletop) on how to respond to a pipeline emergency?  Yes  No  N/A
4. Has your agency received training in regards to pipeline safety prior to this class?  Yes  No  N/A
5. Can your organization assist with traffic control on state and interstate highways?  Yes  No  N/A
6. Can your organization provide medical assistance?  Yes  No  N/A
7. Does your organization have personnel that are trained to fight oil, natural gas, liquid petroleum, and other types of pipeline fires?  Yes  No  N/A
8. Does your organization have personnel that are certified Hazardous Materials/HAZWOPER responders?  
If so, what level?  Awareness  Operational  Technical
9. Can your organization assist with public evacuation?  Yes  No  N/A
10. Does your organization have a plan for public evacuation?  Yes  No  N/A
11. Does your organization have a hazardous spill contingency plan?  Yes  No  N/A
12. Do you feel that your agency has the necessary training for a response in the event of a pipeline emergency?  Yes  No  N/A
13. Can you provide communications and assistance with public evacuation?  Yes  No  N/A

We appreciate and value your input, and in an effort to continuously improve our program, please provide any other information you feel would be beneficial to us. Thank you!

**Additional Remarks (Please Print)**

Empty box for additional remarks.

**FOR ADMINISTRATIVE USE ONLY**

**Contact Method**

- Meeting  Face to Face  Mail  Telephone  Fax  Email



# Emergency Response Capabilities Survey

### Agency Information (Please Print)

First Name <b>Laurie</b>	Last Name <b>GREEN</b>	Title <b>DISPATCH SUPERVISOR</b>	Designated Rep <input checked="" type="checkbox"/>
Agency Name <b>JAL POLICE DEPT.</b>		Area/County of Responsibility <b>JAL / LEA</b>	
Agency Address <b>3421 ST. Rd. 18   P.O. Drawer W</b>		City <b>JAL</b>	State <b>NM</b>
		Zip <b>88252</b>	
Agency Email <b>Lauriegreen@jalpd.com</b>	Non 911 Phone # <b>575-395-2501</b>	Fax # <b>395-3473</b>	24hr Emergency Phone # <b>395-2501</b>
Department Chief <b>LARRY D. BURNS</b>	Chief's Phone <b>575-395-2501</b>		

### I acknowledge receipt of the Emergency Response Manual:

Signature <i>Laurie Green</i>	First Name <b>Laurie</b>	Last Name <b>GREEN</b>	Date <b>9/1/11</b>
----------------------------------	-----------------------------	---------------------------	-----------------------

### Agency Type

Fire - Public Protection Classification (PPC) Rating:  1  2  3  4  5  6  7  8  9  10  NA

Emergency Planning Committee  
  Emergency Response Dispatch  
  Regulator (Pipeline)  
  Hazmat  
  Medical  
  Law Enforcement

Station Type:  
 Fulltime  
 Volunteer  
 Fulltime/Volunteer  
 Industrial  
 Military  
 Airport  
 Other

Total number of personnel: Fulltime 10 Volunteer \_\_\_\_\_

### Survey of Emergency Response Capabilities

**EQUIPMENT**

- Total number of operational trucks: Pumper \_\_\_\_\_ Tanker \_\_\_\_\_
- Total number of ladders/aerial trucks: \_\_\_\_\_
- Does your agency have firefighting equipment (i.e. foam) suitable for oil, natural gas, liquid petroleum, or any other types of pipeline fires?  Yes  No  N/A  
If yes, please list: \_\_\_\_\_
- Can your organization provide, or have access to, air evacuation services?  Yes  No  N/A
- Does your agency have, or have access to, ambulance services?  Yes  No  N/A
- Does your agency have, or have access to, earth moving equipment that could be utilized in the event of an emergency?  Yes  No  N/A

**MUTUAL AID**

- Does your agency have Mutual Aid Agreements?  Yes  No  N/A  
If yes, with whom? Eunice Pol. Dept.

**Survey of Emergency Response Capabilities**

**COMMUNICATIONS**

1. Can you communicate by radio on an incident scene with your federal, state, and local emergency response partners?  Yes  No  Don't know
2. Who has primary responsibility for dispatch operations?  Fire Dept  Police Dept  Private Company
3. Are your radios safe for operation in a hazardous atmosphere (intrinsically safe)?  Yes  No  Don't know

**CAPABILITIES**

1. Has your agency ever responded to a pipeline incident?  Yes  No  N/A
2. If a pipeline incident did occur, would your agency respond?  Yes  No  N/A
3. Has your agency performed any practical training (hands on, mock drill, tabletop) on how to respond to a pipeline emergency?  Yes  No  N/A
4. Has your agency received training in regards to pipeline safety prior to this class?  Yes  No  N/A
5. Can your organization assist with traffic control on state and interstate highways?  Yes  No  N/A
6. Can your organization provide medical assistance?  Yes  No  N/A
7. Does your organization have personnel that are trained to fight oil, natural gas, liquid petroleum, and other types of pipeline fires?  Yes  No  N/A
8. Does your organization have personnel that are certified Hazardous Materials/HAZWOPER responders?  
If so, what level?  Awareness  Operational  Technical  Yes  No  N/A
9. Can your organization assist with public evacuation?  Yes  No  N/A
10. Does your organization have a plan for public evacuation?  Yes  No  N/A
11. Does your organization have a hazardous spill contingency plan?  Yes  No  N/A
12. Do you feel that your agency has the necessary training for a response in the event of a pipeline emergency?  Yes  No  N/A
13. Can you provide communications and assistance with public evacuation?  Yes  No  N/A

We appreciate and value your input, and in an effort to continuously improve our program, please provide any other information you feel would be beneficial to us. Thank you!

**Additional Remarks (Please Print)**

[Empty box for additional remarks]

**FOR ADMINISTRATIVE USE ONLY**

**Contact Method**

- Meeting  Face to Face  Mail  Telephone  Fax  Email



# Emergency Response Capabilities Survey

Agency Information (Please Print) JAL FIRE DEPT.

First Name <u>RAMON</u>	Last Name <u>ZAMONA</u>	Title <u>FIRE FIGHTER</u>	Designated Rep <input checked="" type="checkbox"/>
----------------------------	----------------------------	------------------------------	---

Agency Name <u>JAL VOL. FIRE DEPT</u>	Area/County of Responsibility <u>LEA</u>
--	---

Agency Address <u>44 W PANTHER</u>	City <u>JAL</u>	State <u>N.M</u>	Zip <u>88252</u>
---------------------------------------	--------------------	---------------------	---------------------

Agency Email	Non 911 Phone #	Fax #	24hr Emergency Phone # <u>575-395-2221</u>
--------------	-----------------	-------	---

Department Chief <u>RONNIE WALLS</u>	Chief's Phone <u>575-395-3303</u>
---	--------------------------------------

I acknowledge receipt of the Emergency Response Manual:

Signature <u>Ramon Zamona</u>	First Name <u>RAMON</u>	Last Name <u>ZAMONA</u>	Date <u>1 Sept 11</u>
----------------------------------	----------------------------	----------------------------	--------------------------

Agency Type

Fire - Public Protection Classification (PPC) Rating: 1 2 3 4 5 6 7 8 9 10 NA   
 Emergency Planning Committee  
 Emergency Response Dispatch  
 Regulator (Pipeline)  
 Hazmat  
 Medical  
 Law Enforcement

Station Types

Fulltime  
 Volunteer  
 Fulltime/Volunteer  
 Industrial  
 Military  
 Airport  
 Other

Total number of personnel: Fulltime \_\_\_\_\_ Volunteer 26

## Survey of Emergency Response Capabilities

### EQUIPMENT

- Total number of operational trucks: Pumper 3 Tanker 2
- Total number of ladders/aerial trucks: 2
- Does your agency have firefighting equipment (i.e. foam) suitable for oil, natural gas, liquid petroleum, or any other types of pipeline fires?  Yes  No  N/A  
If yes, please list FOAM
- Can your organization provide, or have access to, air evacuation services?  Yes  No  N/A
- Does your agency have, or have access to, ambulance services?  Yes  No  N/A
- Does your agency have, or have access to, earth moving equipment that could be utilized in the event of an emergency?  Yes  No  N/A

### MUTUAL AID

- Does your agency have Mutual Aid Agreements?  Yes  No  N/A  
If yes, with whom? EUNICE Hobbs,

**Survey of Emergency Response Capabilities**

**COMMUNICATIONS**

1. Can you communicate by radio on an incident scene with your federal, state, and local emergency response partners?  Yes  No  Don't know
2. Who has primary responsibility for dispatch operations?  Fire Dept  Police Dept  Private Company
3. Are your radios safe for operation in a hazardous atmosphere (intrinsically safe)?  Yes  No  Don't know

**CAPABILITIES**

1. Has your agency ever responded to a pipeline incident?  Yes  No  N/A
2. If a pipeline incident did occur, would your agency respond?  Yes  No  N/A
3. Has your agency performed any practical training (hands on, mock drill, tabletop) on how to respond to a pipeline emergency?  Yes  No  N/A
4. Has your agency received training in regards to pipeline safety prior to this class?  Yes  No  N/A
5. Can your organization assist with traffic control on state and interstate highways?  Yes  No  N/A
6. Can your organization provide medical assistance?  Yes  No  N/A
7. Does your organization have personnel that are trained to fight oil, natural gas, liquid petroleum, and other types of pipeline fires?  Yes  No  N/A
8. Does your organization have personnel that are certified Hazardous Materials/HAZWOPER responders?  
If so, what level?  Awareness  Operational  Technical
9. Can your organization assist with public evacuation?  Yes  No  N/A
10. Does your organization have a plan for public evacuation?  Yes  No  N/A
11. Does your organization have a hazardous spill contingency plan?  Yes  No  N/A
12. Do you feel that your agency has the necessary training for a response in the event of a pipeline emergency?  Yes  No  N/A
13. Can you provide communications and assistance with public evacuation?  Yes  No  N/A

We appreciate and value your input, and in an effort to continuously improve our program, please provide any other information you feel would be beneficial to us. Thank you!

**Additional Remarks (Please Print)**

Empty box for additional remarks.

**FOR ADMINISTRATIVE USE ONLY**

**Contact Method**

- Meeting  Face to Face  Mail  Telephone  Fax  Email



# Emergency Response Capabilities Survey

**Agency Information (Please Print)**

First Name <u>Doyle</u>	Last Name <u>Pharr</u>	Title <u>Deputy Chief</u>	Designated Rep <input type="checkbox"/>
Agency Name <u>Knowles Fire Dept</u>		Area/County of Responsibility <u>Lea</u>	
Agency Address <u>515 East Pinson</u>		City <u>Hobbs</u>	State <u>N.M</u>
		Zip <u>88242</u>	
Agency Email	Non 911 Phone #	Fax #	24hr Emergency Phone #
Department Chief <u>Mike Singloron</u>		Chief's Phone <u>575-392-4354</u>	

**I acknowledge receipt of the Emergency Response Manual:**

Signature <u>Doyle Pharr</u>	First Name <u>Doyle</u>	Last Name <u>Pharr</u>	Date <u>8-11</u>
---------------------------------	----------------------------	---------------------------	---------------------

**Agency Type**

Fire - Public Protection Classification (PPC) Rating:  1  2  3  4  5  6  7  8  9  10  NA  
 Emergency Planning Committee  Emergency Response Dispatch  Regulator (Pipeline)  Hazmat  Medical  Law Enforcement  
 Station Type:  
 Fulltime  Volunteer  Fulltime/Volunteer  Industrial  Military  Airport  Other  
 Total number of personnel: Fulltime \_\_\_\_\_ Volunteer 28

**Survey of Emergency Response Capabilities**

**EQUIPMENT**

- Total number of operational trucks: Pumper 4 Tanker 2
- Total number of ladders/aerial trucks: 0
- Does your agency have firefighting equipment (i.e. foam) suitable for oil, natural gas, liquid petroleum, or any other types of pipeline fires?  Yes  No  N/A  
 If yes, please list: FFFF Foam, Truck mounted monitor
- Can your organization provide, or have access to, air evacuation services?  Yes  No  N/A
- Does your agency have, or have access to, ambulance services?  Yes  No  N/A
- Does your agency have, or have access to, earth moving equipment that could be utilized in the event of an emergency?  Yes  No  N/A

**MUTUAL AID**

- Does your agency have Mutual Aid Agreements?  Yes  No  N/A  
 If yes, with whom? Hobbs, Lovington & all Lea county FD

**Survey of Emergency Response Capabilities**

**COMMUNICATIONS**

- 1. Can you communicate by radio on an incident scene with your federal, state, and local emergency response partners?  Yes  No  Don't know
- 2. Who has primary responsibility for dispatch operations?  Fire Dept  Police Dept  Private Company
- 3. Are your radios safe for operation in a hazardous atmosphere (intrinsically safe)?  Yes  No  Don't know

**CAPABILITIES**

- 1. Has your agency ever responded to a pipeline incident?  Yes  No  N/A
- 2. If a pipeline incident did occur, would your agency respond?  Yes  No  N/A
- 3. Has your agency performed any practical training (hands on, mock drill, tabletop) on how to respond to a pipeline emergency?  Yes  No  N/A
- 4. Has your agency received training in regards to pipeline safety prior to this class?  Yes  No  N/A
- 5. Can your organization assist with traffic control on state and interstate highways?  Yes  No  N/A
- 6. Can your organization provide medical assistance?  Yes  No  N/A
- 7. Does your organization have personnel that are trained to fight oil, natural gas, liquid petroleum, and other types of pipeline fires?  Yes  No  N/A
- 8. Does your organization have personnel that are certified Hazardous Materials/HAZWOPER responders?  
If so, what level?  Awareness  Operational  Technical  Yes  No  N/A
- 9. Can your organization assist with public evacuation?  Yes  No  N/A
- 10. Does your organization have a plan for public evacuation?  Yes  No  N/A
- 11. Does your organization have a hazardous spill contingency plan?  Yes  No  N/A
- 12. Do you feel that your agency has the necessary training for a response in the event of a pipeline emergency?  Yes  No  N/A
- 13. Can you provide communications and assistance with public evacuation?  Yes  No  N/A

We appreciate and value your input, and in an effort to continuously improve our program, please provide any other information you feel would be beneficial to us. Thank you!

**Additional Remarks (Please Print)**

Empty box for additional remarks.

**FOR ADMINISTRATIVE USE ONLY**

**Contact Method**

- Meeting
- Face to Face
- Mail
- Telephone
- Fax
- Email



# Emergency Response Capabilities Survey

### Agency Information (Please Print)

First Name <i>Terrance</i>	Last Name <i>Lizardo</i>	Title <i>Fire Inspector</i>	Designated Rep <input type="checkbox"/>
Agency Name <i>Livingston Fire Dept.</i>		Area/County of Responsibility <i>Lea</i>	
Agency Address <i>213 South Love</i>		City <i>Livingston</i>	State <i>NM</i>
		Zip <i>88260</i>	
Agency Email <i>tlizardo@livingston.org</i>	Non 911 Phone # <i>575-396-3339</i>	Fax # <i>396-7380</i>	24hr Emergency Phone #
Department Chief <i>James Williams</i>	Chief's Phone		

### I acknowledge receipt of the Emergency Response Manual:

Signature <i>[Signature]</i>	First Name <i>Terrance</i>	Last Name <i>Lizardo</i>	Date <i>9-1-11</i>
---------------------------------	-------------------------------	-----------------------------	-----------------------

### Agency Type

Fire - Public Protection Classification (PPC) Rating:  1  2  3  4  5  6  7  8  9  10  NA  
 Emergency Planning Committee  Emergency Response Dispatch  Regulator (Pipeline)  Hazmat  Medical  Law Enforcement

Station Types:  
 Fulltime  Volunteer  Fulltime/Volunteer  Industrial  Military  Airport  Other

Total number of personnel: Fulltime 24 Volunteer \_\_\_\_\_

### Survey of Emergency Response Capabilities

**EQUIPMENT**

- Total number of operational trucks: Pumper 4 Tanker 1
- Total number of ladders/aerial trucks: 1
- Does your agency have firefighting equipment (i.e. foam) suitable for oil, natural gas, liquid petroleum, or any other types of pipeline fires?  
If yes, please list: \_\_\_\_\_  
 Yes  No  N/A
- Can your organization provide, or have access to, air evacuation services?  
 Yes  No  N/A
- Does your agency have, or have access to, ambulance services?  
 Yes  No  N/A
- Does your agency have, or have access to, earth moving equipment that could be utilized in the event of an emergency?  
 Yes  No  N/A

**MUTUAL AID**

- Does your agency have Mutual Aid Agreements?  
If yes, with whom? All Lea County  
 Yes  No  N/A

**Survey of Emergency Response Capabilities**

**COMMUNICATIONS**

- 1. Can you communicate by radio on an incident scene with your federal, state, and local emergency response partners?  Yes  No  Don't know
- 2. Who has primary responsibility for dispatch operations?  Fire Dept  Police Dept  Private Company
- 3. Are your radios safe for operation in a hazardous atmosphere (inherently safe)?  Yes  No  Don't know

**CAPABILITIES**

- 1. Has your agency ever responded to a pipeline incident?  Yes  No  N/A
- 2. If a pipeline incident did occur, would your agency respond?  Yes  No  N/A
- 3. Has your agency performed any practical training (hands on, mock drill, tabletop) on how to respond to a pipeline emergency?  Yes  No  N/A
- 4. Has your agency received training in regards to pipeline safety prior to this class?  Yes  No  N/A
- 5. Can your organization assist with traffic control on state and interstate highways?  Yes  No  N/A
- 6. Can your organization provide medical assistance?  Yes  No  N/A
- 7. Does your organization have personnel that are trained to fight oil, natural gas, liquid petroleum, and other types of pipeline fires?  Yes  No  N/A
- 8. Does your organization have personnel that are certified Hazardous Materials/HAZWOPER responders?  
If so, what level?  Awareness  Operational  Technical  Yes  No  N/A
- 9. Can your organization assist with public evacuation?  Yes  No  N/A
- 10. Does your organization have a plan for public evacuation?  Yes  No  N/A
- 11. Does your organization have a hazardous spill contingency plan?  Yes  No  N/A
- 12. Do you feel that your agency has the necessary training for a response in the event of a pipeline emergency?  Yes  No  N/A
- 13. Can you provide communications and assistance with public evacuation?  Yes  No  N/A

We appreciate and value your input, and in an effort to continuously improve our program, please provide any other information you feel would be beneficial to us. Thank you!

**Additional Remarks (Please Print)**

[Empty box for additional remarks]

**FOR ADMINISTRATIVE USE ONLY**

**Contact Method**

- Meeting
- Face to Face
- Mail
- Telephone
- Fax
- Email



# Emergency Response Capabilities Survey

### Agency Information (Please Print)

First Name	Last Name	Title	Designated Rep	
Phillip	Jones	Fire Chief	<input checked="" type="checkbox"/>	
Agency Name		Area/County of Responsibility		
Tatum Vol Fire Dept		Lea		
Agency Address	City	State	Zip	
P.O. Box 828	Tatum	NM	85267	
Agency Email	Non 911 Phone #	Fax #	24hr Emergency Phone #	
tatumfd@leaco.net	575-378-2154	575-378-2258	911	
Department Chief	Chief's Phone			
Phillip Jones	575-369-5005			

### I acknowledge receipt of the Emergency Response Manual:

Signature	First Name	Last Name	Date
<i>Phillip Jones</i>	Phillip	Jones	9-1-2011

### Agency Type

Fire - Public Protection Classification (PPC) Rating:  1  2  3  4  5  6  7  8  9  10  NA  
 Emergency Planning Committee  Emergency Response Dispatch  Regulator (Pipeline)  Hazmat  Medical  Law Enforcement

**Station Types:**  
 Fulltime  Volunteer  Fulltime/Volunteer  Industrial  Military  Airport  Other

Total number of personnel: Fulltime 0 Volunteer 14

### Survey of Emergency Response Capabilities

**EQUIPMENT**

- Total number of operational trucks: Pumper 1 Tanker 2
- Total number of ladders/aerial trucks: 0
- Does your agency have firefighting equipment (i.e. foam) suitable for oil, natural gas, liquid petroleum, or any other types of pipeline fires?  
If yes, please list: \_\_\_\_\_  
 Yes  No  N/A
- Can your organization provide, or have access to, air evacuation services?  
 Yes  No  N/A
- Does your agency have, or have access to, ambulance services?  
 Yes  No  N/A
- Does your agency have, or have access to, earth moving equipment that could be utilized in the event of an emergency?  
 Yes  No  N/A

**MUTUAL AID**

- Does your agency have Mutual Aid Agreements?  
If yes, with whom? Livingston, Maljamar Hobbs  
 Yes  No  N/A

**Survey of Emergency Response Capabilities**

**COMMUNICATIONS**

1. Can you communicate by radio on an incident scene with your federal, state, and local emergency response partners?  Yes  No  Don't know
2. Who has primary responsibility for dispatch operations?  Fire Dept  Police Dept  Private Company
3. Are your radios safe for operation in a hazardous atmosphere (intrinsically safe)?  Yes  No  Don't know

**CAPABILITIES**

1. Has your agency ever responded to a pipeline incident?  Yes  No  N/A
2. If a pipeline incident did occur, would your agency respond?  Yes  No  N/A
3. Has your agency performed any practical training (hands on, mock drill, tabletop) on how to respond to a pipeline emergency?  Yes  No  N/A
4. Has your agency received training in regards to pipeline safety prior to this class?  Yes  No  N/A
5. Can your organization assist with traffic control on state and interstate highways?  Yes  No  N/A
6. Can your organization provide medical assistance?  Yes  No  N/A
7. Does your organization have personnel that are trained to fight oil, natural gas, liquid petroleum, and other types of pipeline fires?  Yes  No  N/A
8. Does your organization have personnel that are certified Hazardous Materials/HAZWOPER responders?  
If so, what level?  Awareness  Operational  Technical  N/A
9. Can your organization assist with public evacuation?  Yes  No  N/A
10. Does your organization have a plan for public evacuation?  Yes  No  N/A
11. Does your organization have a hazardous spill contingency plan?  Yes  No  N/A
12. Do you feel that your agency has the necessary training for a response in the event of a pipeline emergency?  Yes  No  N/A
13. Can you provide communications and assistance with public evacuation?  Yes  No  N/A

We appreciate and value your input, and in an effort to continuously improve our program, please provide any other information you feel would be beneficial to us. Thank you!

**Additional Remarks (Please Print)**

[Empty box for additional remarks]

**FOR ADMINISTRATIVE USE ONLY**

**Contact Method**

- Meeting  Face to Face  Mail  Telephone  Fax  Email

## Chavez, Carl J, EMNRD

---

**From:** Chavez, Carl J, EMNRD  
**Sent:** Thursday, February 02, 2012 4:09 PM  
**To:** 'Bowhay, Glenn A'  
**Cc:** Sanchez, Daniel J., EMNRD; VonGonten, Glenn, EMNRD  
**Subject:** FW: OCD H2S Contingency Plan Review Letter dated 12/22/2011  
**Attachments:** OCD Review Letter 12-22-2011.pdf

Glenn:

Good afternoon. Based on our discussion of the map issue in your final contingency plan, please submit your final H2S CP to me by Friday, February 10, 2012.

Thank you.

Carl J. Chavez, CHMM  
New Mexico Energy, Minerals & Natural Resources Dept.  
Oil Conservation Division, Environmental Bureau  
1220 South St. Francis Dr., Santa Fe, New Mexico 87505  
Office: (505) 476-3490  
Fax: (505) 476-3462  
E-mail: [CarlJ.Chavez@state.nm.us](mailto:CarlJ.Chavez@state.nm.us)

Website: <http://www.emnrd.state.nm.us/ocd/>

"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>)

---

**From:** Bowhay, Glenn A [<mailto:GABowhay@dcpmidstream.com>]  
**Sent:** Friday, December 23, 2011 1:06 PM  
**To:** Chavez, Carl J, EMNRD  
**Cc:** Ledonne, David A; Cook, John W; Sanchez, Daniel J., EMNRD; Gonzales, Elidio L, EMNRD  
**Subject:** FW: OCD H2S Contingency Plan Review Letter dated 12/22/2011

Carl,

Thank you for the review and look forward to working with you to bring this plan into compliance.

I do however, ask that your 30 days resolution date be extended by 2 weeks. Receiving this 3 days before the Christmas and New Year Holidays will greatly hinder our efforts to provide a thorough review of your recommendations and provide an effectively revised Plan.

Thanks in advance and Merry Christmas,

Glenn Bowhay  
Health and Safety Manager  
DCP Midstream - Permian Region  
432-620-4009 - Office  
432-425-7635 - Cell  
432-620-4160 - Fax  
[gabowhay@dcpmidstream.com](mailto:gabowhay@dcpmidstream.com)

---

**From:** Chavez, Carl J, EMNRD [<mailto:CarlJ.Chavez@state.nm.us>]  
**Sent:** Thursday, December 22, 2011 2:26 PM  
**To:** Bowhay, Glenn A

**Cc:** Sanchez, Daniel J., EMNRD; Gonzales, Elidio L, EMNRD  
**Subject:** OCD H2S Contingency Plan Review Letter dated 12/22/2011

Mr. Bowhay:

Good afternoon. The OCD has completed its review of DCP Midstream, L.P.'s H2S Contingency Plan (See attached letter).

A hard copy is being sent via mail. Please contact me if you have questions. Thank you.

Carl J. Chavez, CHMM  
New Mexico Energy, Minerals & Natural Resources Dept.  
Oil Conservation Division, Environmental Bureau  
1220 South St. Francis Dr., Santa Fe, New Mexico 87505  
Office: (505) 476-3490  
Fax: (505) 476-3462  
E-mail: [CarlJ.Chavez@state.nm.us](mailto:CarlJ.Chavez@state.nm.us)

Website: <http://www.emnrd.state.nm.us/ocd/>

"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>)

## Chavez, Carl J, EMNRD

---

**From:** Bowhay, Glenn A [GABowhay@dcpmidstream.com]  
**Sent:** Friday, December 23, 2011 1:06 PM  
**To:** Chavez, Carl J, EMNRD  
**Cc:** Ledonne, David A; Cook, John W; Sanchez, Daniel J., EMNRD; Gonzales, Elidio L, EMNRD  
**Subject:** FW: OCD H2S Contingency Plan Review Letter dated 12/22/2011  
**Attachments:** OCD Review Letter 12-22-2011.pdf

Carl,

Thank you for the review and look forward to working with you to bring this plan into compliance.

I do however, ask that your 30 days resolution date be extended by 2 weeks. Receiving this 3 days before the Christmas and New Year Holidays will greatly hinder our efforts to provide a thorough review of your recommendations and provide an effectively revised Plan.

Thanks in advance and Merry Christmas,

Glenn Bowhay  
Health and Safety Manager  
DCP Midstream - Permian Region  
432-620-4009 - Office  
432-425-7635 - Cell  
432-620-4160 - Fax  
[gabowhay@dcpmidstream.com](mailto:gabowhay@dcpmidstream.com)

---

**From:** Chavez, Carl J, EMNRD [<mailto:CarlJ.Chavez@state.nm.us>]  
**Sent:** Thursday, December 22, 2011 2:26 PM  
**To:** Bowhay, Glenn A  
**Cc:** Sanchez, Daniel J., EMNRD; Gonzales, Elidio L, EMNRD  
**Subject:** OCD H2S Contingency Plan Review Letter dated 12/22/2011

Mr. Bowhay:

Good afternoon. The OCD has completed its review of DCP Midstream, L.P.'s H2S Contingency Plan (See attached letter).

A hard copy is being sent via mail. Please contact me if you have questions. Thank you.

Carl J. Chavez, CHMM  
New Mexico Energy, Minerals & Natural Resources Dept.  
Oil Conservation Division, Environmental Bureau  
1220 South St. Francis Dr., Santa Fe, New Mexico 87505  
Office: (505) 476-3490  
Fax: (505) 476-3462  
E-mail: [CarlJ.Chavez@state.nm.us](mailto:CarlJ.Chavez@state.nm.us)

Website: <http://www.emnrd.state.nm.us/ocd/>

"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>

**OIL CONSERVATION DIVISION  
H2S CONTINGENCY PLAN REQUIRED BY OCD RULE 19.15.11 NMAC**

DCP Midstream, L.P.  
Linam Ranch GP (GW-015) Lea Co.  
12/2/2011

Contingency Plan Requirements Checklist			
19.15.11.9.B NMAC Requirement	Included?	Page in Document?	Notes
<b>Emergency Procedures</b>			
Responsibilities & duties of personnel during emergency	Y	Appdx. "F" & "G" 9-12	Concern release resulted c. 10/11/11 Appdx "G" odors?
Immediate action plan	Y	"	OCD notified only if CP is activated due to R.O.'s in pub. Area.
Evacuation and shelter in place plans	N		
Telephone numbers of emergency responders	Y	Appdx "D"	
Telephone numbers of public agencies	Y	"	
Telephone numbers of local government	Y	"	
Telephone numbers of appropriate public authorities	Y	"	
Location of potentially affected public areas Also see 19.15.11.12.B & D	Y	Appdx A	Appdx A/imp met + seals
Location of potentially affected public roads	Y	"	"
Proposed evacuation routes, with locations of road blocks	N	<del>Appdx B</del>	No imp provided
Procedures for notifying the public	N	Appdx B D	No pub. resp. listed to call No details provided
Availability and location of safety equipment and supplies Also see 19.15.11.12.C	Y	" C, 20	No detectors listed - hand held Call 911 Emergency
<b>Characteristics of hydrogen sulfide and sulfur dioxide</b>			
Discussion of characteristics	Y	5	but no SO2 discussion
<b>Maps and Drawings</b>			
Area of exposure	Y	18, 16	Need map to seal Appdx A
Public areas within area of exposure	Y	18, 16	Some resp. need things to be done Don't id homes!
Public roads within area of exposure	Y	"	They 18 Crossing Liberty St + Rwy
<b>Training and Drills</b>			
Training of personnel to include responsibilities, duties, hazards, detection, personal protection and contingency procedure	N	15	PPE is not clear DCP has PI for workers - don't fight fires - Not trained to respond to hys conditions?
Periodic drills or exercises that simulate a release	Y	15	Only table top drill annual. Rely on ER agencies
Documentation of training, drills, & attendance	REY	17	
Training of residents on protective measures	N	16	Annual Trng but Appdx B has no pub. receptors. See Map Appdx A.
Briefing of public officials on evacuation or shelter-in-place plans	N	8-9	No maps of location shelters in detailed discussion
<b>Coordination with state emergency plans</b>			
How emergency response actions will coordinate with OCD and the state police response plans	Y	16	However, seems to be relying on other agencies for implementation of CP. Only notify if CP implemented
<b>Activation Levels</b>			
Activation Levels and description of events which may lead to a release in excess of activation level		9-12 Appdx F & G	Concern about irrogation at < 10 ppm [this], odors & continued detection required CA (Also Quick Reference)
<b>Plan Activation</b>			
Commitment to activate contingency plan whenever H2S concentration of more that 100 ppm in a public area or 500 ppm at a public road	Y	17, 12	Does not mention shut down & seem to rely on Emg Responder to implement CP. Must notify OCD when see Quick Ref. brief.
Commitment to activate contingency plan whenever H2S concentration of more that 100 ppm 3000 feet from the site of release	N	12	Does not illustrate when 3000 ft & that it will shut-down when CP is implemented.

CP implemented

NOT AC

CP implemented

## Chavez, Carl J, EMNRD

---

**From:** Chavez, Carl J, EMNRD  
**Sent:** Thursday, October 13, 2011 4:56 PM  
**To:** 'Bowhay, Glenn A'  
**Subject:** Fullerton to Linam Pipeline H2S CP

Mr. Bowhay:

Good afternoon. The OCD is in receipt of your above subject submittal today and it is schedule for review soon.

Thank you.

Carl J. Chavez, CHMM  
New Mexico Energy, Minerals & Natural Resources Dept.  
Oil Conservation Division, Environmental Bureau  
1220 South St. Francis Dr., Santa Fe, New Mexico 87505  
Office: (505) 476-3490  
Fax: (505) 476-3462  
E-mail: [CarlJ.Chavez@state.nm.us](mailto:CarlJ.Chavez@state.nm.us)

Website: <http://www.emnrd.state.nm.us/oed/>

"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/oed/environmental.htm#environmental>)



DCP MIDSTREAM  
10 Desta Drive, Suite 400-West  
Midland, TX 79705

RECEIVED OGD 432 620 4000

2011 OCT 14 A 12:56

Certified Mail: 7008 1830 0004 2534 4315

October 10, 2011

Mr. Carl J. Chavez  
Environmental Engineer  
New Mexico Energy, Minerals and Natural  
Resources Department  
Oil Conservation Division  
1220 South St. Francis Drive  
Santa Fe, NM 87505

Re: **Fullerton to Linam Pipeline  
H<sub>2</sub>S Contingency Plan  
Lea County**

Dear Mr. Chavez,

Attached please find a revised H<sub>2</sub>S Contingency Plan (Plan) for the DCP Midstream Fullerton to Linam Pipeline. Your letter dated August 11, 2011 was reviewed and considered while revising the plan.

A concern was noted regarding "leaky" pipelines and/or pinhole leaks. DCP Midstream conducted an evaluation regarding a potential "pinhole" leak on the pipeline. Based on a hole size of 0.5 mm (the size of a mechanical lead pencil) and normal pipeline pressures the gas released would be approximately 4 MCFD. The radius-of-exposure for this type of release would be 14 feet for 100 ppm H<sub>2</sub>S. This type of release would not impact any nearby residents and would not require additional detection methods. The current leak detection methods utilized for the safe operation of the newly constructed pipeline would be adequate for small leaks of this nature.

DCP has a strict measurement analysis system in place to verify gas volume going into the pipeline which is verified through multiple metering systems both on the delivery and receipt ends of the pipeline. Should there be a discrepancy identified in the gas metering tabulations, DCP will conduct an investigation to determine if the cause of discrepancy.

Upon approval, large scale maps along with the Plan will be distributed to the parties identified in the Emergency Responder list.



**DCP MIDSTREAM**  
10 Desta Drive, Suite 400-West  
Midland, TX 79705  
**432 620 4000**

DCP would like to formally request an exemption from 19.15.11.12 C – regarding wind direction indicators along the pipeline route. Wind socks are located at the Linam Ranch and Monument Facilities and should there be an incident, the wind direction will be communicated to affected Emergency Response and DCP Personnel. 19.15.11.15 allows for the request of this particular exemption.

DCP Midstream has reviewed the attached plan and is satisfied that it meets the regulatory requirements. DCP Midstream is diligent in its communications with local Emergency Responders and Excavators in the area. In addition, this pipeline is not similar to the pipeline at the Linam Ranch facility for the AGI injection well. Please do not hesitate to contact me if you should have additional questions or concerns.

Sincerely,

A handwritten signature in black ink that reads 'Glenn Bowhay'.

Glenn Bowhay  
Safety Manager, Western Region



## **H<sub>2</sub>S CONTINGENCY PLAN**

**Sour Gas Pipeline  
Fullerton – Linam Ranch  
Lea County, New Mexico**

**DCP Midstream, LP.**

**October 2011**

## TABLE OF CONTENTS

OPERATOR QUICK REFERENCE GUIDE .....	iv
I. INTRODUCTION.....	1
A. DESCRIPTION & MAP (APPENDIX A) .....	2
B. PIPELINE CONSTRUCTION .....	2
C. SAFEGUARDS AVAILABLE .....	3
D. SECURITY & SIGN PROVISION.....	3
II. THE PLAN .....	4
A. RESPONSIBILITY FOR CONFORMANCE WITH THE H <sub>2</sub> S PLAN.....	4
B. REVISIONS TO THE PLAN .....	4
C. AVAILABILITY OF THE H <sub>2</sub> S PLAN.....	4
D. CONTENT OF THE PLAN .....	4
III. PLAN DESIGN CONSIDERATIONS .....	5
A. CHARACTERISTICS OF H <sub>2</sub> S, .....	5
B. RADII OF EXPOSURE (ROE).....	6
IV. EMERGENCY ACTION PROCEDURES .....	6
A. EMERGENCY RESPONSE ORGANIZATION .....	6
NOTIFICATION OF THE OIL CONSERVATION COMMISSION.....	7
B. EMERGENCY RESPONSE .....	8
1. OBJECTIVE .....	8
2. EVACUATION AND EMERGENCY ASSEMBLY AREAS.....	8
3. IMMEDIATE ACTION PLANS/INITIAL RESPONSES .....	9
4. EMERGENCY SHUT DOWN SYSTEM.....	12
5. NOTIFICATIONS AND REPORTS.....	12
DCP PUBLIC AWARENESS PROGRAM .....	13
V. TRAINING AND DRILLS.....	15
A. TRAINING.....	15
B. EMERGENCY RESPONSE DRILLS.....	16

## **APPENDICES**

Appendix A – Radius of Exposure (ROE) Maps

Appendix B - Calculations for Radius of Exposure

Appendix C – Description of Emergency Response Equipment

Appendix D – Emergency Call List

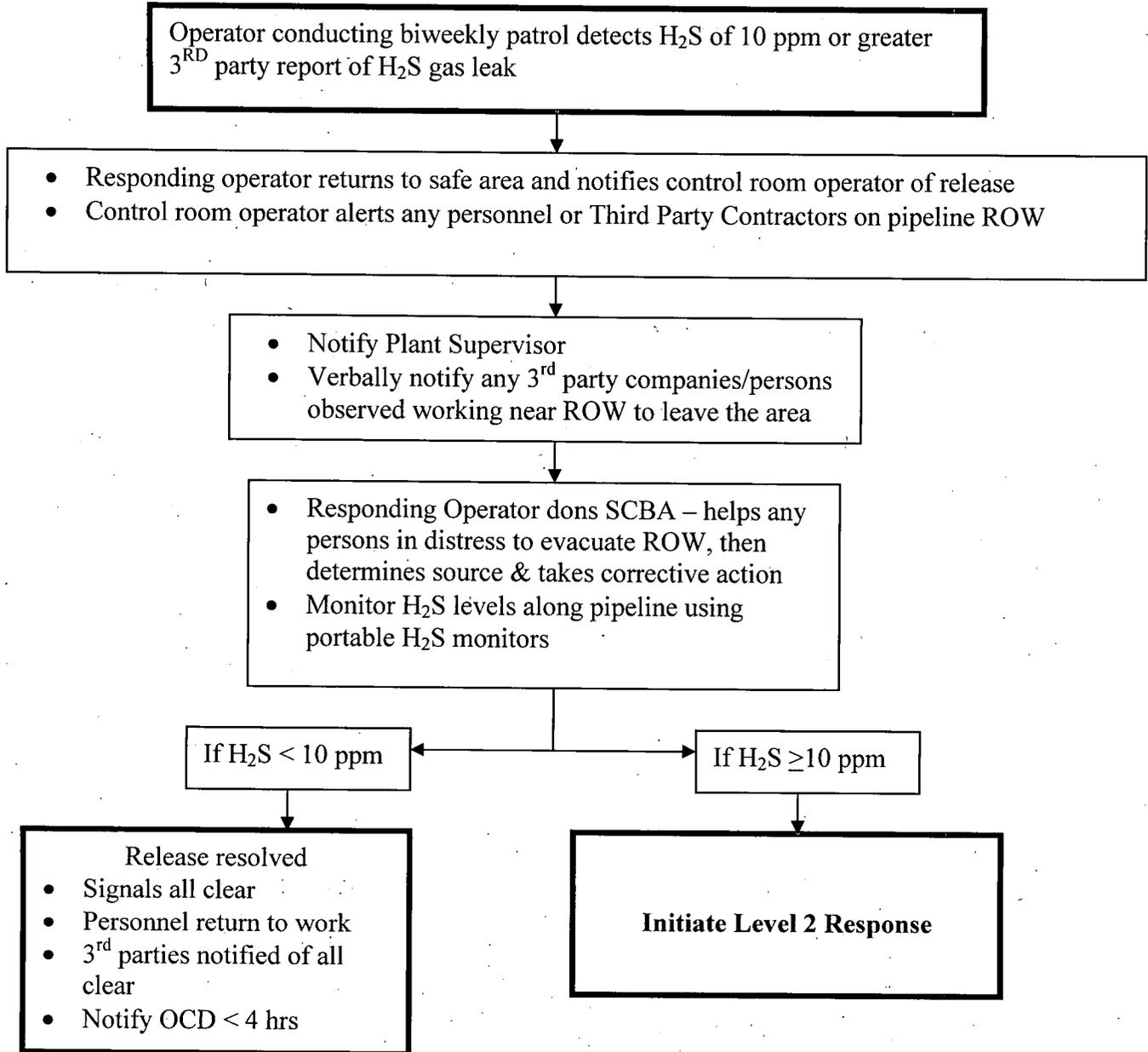
Appendix E – H<sub>2</sub>S Plan Distribution List

Appendix F – Chronological Record of Events Log

Appendix G – Response Flow Diagrams

# OPERATOR QUICK REFERENCE GUIDE

## PIPELINE RELEASE LEVEL 1 RESPONSE



See Page 9 for Details

## PIPELINE RELEASE LEVEL 2 RESPONSE

Level 1 response unsuccessful  
H<sub>2</sub>S > 10 ppm along pipeline and increasing  
H<sub>2</sub>S > 20 ppm detected  
Pipeline leak is visible

- Responding operator returns to safe area and directs the control room operator to activate the pipeline shutdown

- Control room operator directs any personnel on pipeline ROW to leave and/or go upwind of pipeline
- Verbally notify any 3<sup>rd</sup> party companies or persons observed working near ROW to leave the area.
- Notifies Plant Supervisor

- Incident Command Center set ups an Assembly Area, if necessary

- Dispatch plant personnel with emergency trailers to assist with monitoring wind direction and H<sub>2</sub>S levels

See page 10 for Details

- Release resolved
- Signals all clear
  - Personnel return to work
  - Notify 3<sup>rd</sup> parties of all clear
  - Notify OCD < 4 hrs

If H<sub>2</sub>S < 10 ppm

If H<sub>2</sub>S ≥ 10 ppm

Initiate Level 4 Response

## PIPELINE RELEASE LEVEL 4 RESPONSE

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

- Corrective action at Level 2 is unsuccessful
- $H_2S \geq 10$  ppm at any public area or road
- Catastrophic release occurs

- Direct control room operator to activate Plant Inlet Pipeline ESD if necessary.
- Verbally notify any 3<sup>rd</sup> 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 designated area

- Dispatch personnel with emergency trailers to designated areas along pipeline route.
- Monitor air quality and move further if  $H_2S$  reaches 10 ppm and notify IC of new location

- Additional operations personnel may be directed to close valves on gas pipelines
- Monitor  $H_2S$  levels along the pipeline

- When  $H_2S < 10$  ppm -Release resolved
  - Signals all clear
  - Personnel return to work
  - Notify affected parties of all clear

See page 11 for Details

## I. INTRODUCTION

The Fullerton to Linam Ranch Gas Pipeline (hereinafter the "Pipeline") is a pipeline constructed of 5.4 miles of 16-inch and 11.8 miles of 12-inch high pressure pipeline in Lea County, New Mexico. This pipeline will gather natural gas containing hydrogen sulfide and begins at the DCP Fullerton facility in Andrews County, Texas. The pipeline continues into New Mexico, Lea County at Section 5, Township 20 South, Range 39 East in Lea County and can be isolated at a valve located east of Highway 18, at the Monument Facility and at the Linam Ranch Facility.

The Linam Ranch Plant has an Emergency Shut Down (ESD) valve to isolate incoming and out-going gas and product streams. This system can be automatically or manually initiated, depending on pipeline operating conditions. The ESD system is designed to prevent a Level 4 response

The valves are configured with a high/low pressure alarm and will be monitored 24 hours/day, 7 days/week via a SCADA system at the Fullerton and Linam facilities. The valves have a low pressure alarm set at 350 psi and a high pressure alarm set at 880 psi. Operation of the pipeline within the ranges of the alarm is considered to be normal operations. The valves are also automated with an ESD that can be controlled at the Control Room or activated in the field when the pressure switch indicates a high/low level situation.

SCADA is a Supervisory Control and Data Acquisition industrial control system. The SCADA system is designed to monitor specific activities along the pipeline route such as pump pressures, pipeline pressures and other specific data relative to pipeline operations. The system is dependent both on human intervention and telemetry. The SCADA system is a highly integrated system developed to maintain proficient pipeline operations and to assist in the control of transmission activities along the pipeline right-of-way.

The Pipeline will have a normal operating pressure between 350 and 850 psig and will gather natural gas containing hydrogen sulfide gas to be processed at the DCP Linam Ranch Facility with a volume of approximately 30,000 MCFD. The hydrogen sulfide concentration is approximately 11,000 ppm with a projected 100 ppm radius-of-exposure (ROE) to extend 3,796 feet and the 500 ppm ROE to extend 1,735 feet. The pipeline does not have multiple laterals gathering gas from area well sites. The pipeline originates at the DCP Fullerton facility, has a lateral to the DCP Monument facility and terminates at the DCP Linam Ranch facility.

This pipeline was constructed to DOT 49 CFR 192 regulations and is buried at a depth of four feet as a minimum from top of pipe to surface. This pipeline will be operated in a manner to protect the public from exposure to hydrogen sulfide gas; therefore this Hydrogen Sulfide Contingency Plan (the "H<sub>2</sub>S Plan" or "the Plan") has been developed:

- 1) to satisfy the New Mexico Oil Conservation Division (OCD) Part 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 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 "Area of exposure" means the area within a circle constructed with a point of escape at its center and the radius of exposure as its radius

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

From 49 CFR 192.3, the definition of a Pipeline:

The term "Pipeline" means all parts of those physical facilities through which gas moves in transportation, including pipe, valves, and other appurtenance attached to pipe, compressor units, metering stations, regulator stations, delivery stations, holders, and fabricated assemblies

## **A. DESCRIPTION & MAP (APPENDIX A)**

The Pipeline originates in Andrews County, Texas at the DCP Fullerton Facility and traverses through Gaines County, Texas into Lea County, New Mexico and terminates at the Linam Facility. The pipeline consists of 19.8 miles of 12-inch pipe in Texas, 11.8 miles of 12-inch pipe and 5.4 miles of 16-inch pipe in New Mexico. The Pipeline is owned and operated by DCP Midstream LP.

The pipeline located in Lea County, New Mexico is located in rural and non-populated areas. The pipeline originates at the Fullerton Facility and will cross the following public roads in New Mexico: State Highway 8 and State Highway 18. The roads are identified to be located within the radius of exposure.

## **B. PIPELINE CONSTRUCTION**

The pipeline was constructed in accordance with 49 CFR 192 design and construction requirements. The metal components of the steel pipe have been selected and manufactured so as to be resistant to hydrogen sulfide stress cracking under the operating conditions for which their use is intended. All materials will satisfy the requirements described in the latest editions of NACE Standard MR-01-75 and API RP-14E, sections 1.7(c), 2.1(c), and 4.7. The handling and installation of materials and equipment used in hydrogen sulfide service are to be performed in such a manner so as not to induce susceptibility to sulfide stress cracking.

The pipe used will be API 5L X-52 grade steel pipe with an epoxy based coating for external corrosion prevention. All valves, flanges, etc. shall be constructed of those metals, which have been selected and manufactured so as to be resistant to Hydrogen Sulfide stress cracking under normal operating conditions. The requirements, as described in the latest edition of the NACE Standards MR-01-75 and API RP-14E, section 1.7(c), 2.1(c) and 4.7, shall determine the appurtenances used in construction of any part of the pipeline.

The pipeline is buried at a minimum depth of 48 inches below grade and the normal operating pressure of the 12-inch and 16-inch pipeline will be between 450-750 psig and the MAOP (Maximum Allowable Operating

Pressure) is 1440 psig. They hydrostatic test pressure for the 12-inch and 16-inch steel line will be 1800 psig for an eight hour period.

### **C. SAFEGUARDS AVAILABLE**

- Compressors will have high and low pressure shutdowns. This information will be transmitted to the Fullerton and Linam Control Rooms via SCADA and to the Field Operator via phone. There will be fixed H2S monitors/alarms with automatic shutdown capability at the booster. The site is equipped with a flare to handle emergencies. Fire extinguishers and respiratory equipment will be at each facility site and the station is fenced and gated.
- The line sections will between State Highway 18 and Monument Facility and Monument Facility and Linam Ranch will have Hi/Low pressure monitoring. The lines will be continuously monitored 24-hours a day by the Fullerton and Linam Ranch facilities through SCADA (see ROE map in Appendix A)
- The 12-inch steel buried pipeline crossing public roads will have a .281 wall thickness and the 16-inch steel buried pipeline crossing public roads will have a .375 wall thickness. In addition to the increased wall thickness, the wall pipe used in the road crossings will be coated with 12 to 14 mills of Fusion Bond Epoxy on the bare pipe with an additional 30 mills of Powercrete or Lilly coating providing a total of 42 mills of coating in the crossings. Powercrete or Lilly coating is a highly abrasion and impact resistant coating designed and approved for use in bored crossings. This coating is designed to be resistant to scratches and coating damage during the installation process of the pipe under the public roads.
- Along the pipeline rights-of- way the pipe will be buried a minimum of 4 feet in depth to aid in preventing accidental excavation accidents. The pipe will be at least 4 feet deeper than the lowest point of any road crossing.
- Corrosion Protection will be utilized to ensure the integrity of the 12 and 16-inch lines. Pipelines will be continuously chemically treated for corrosion protection and monitored with corrosion coupons.

### **D. SECURITY & SIGN PROVISION**

The Linam Ranch and Monument Facilities are manned 24 hours/day and are fenced.

For buried pipelines DCP will comply with the following:

- A marker sign will be installed at public road crossings and will contain sufficient information to establish the ownership and existence of the line and will indicate by the use of the words "Poison Gas" that a potential danger exists. The signs will be placed in accordance with 49 CFR 192.707 and NMAC 19.15.11.10.
- Marker signs will be installed along the line, when it is located within a public area or along a public road, at intervals frequent enough in the judgment of the operator so as to provide warning to avoid the accidental rupturing of line by excavation.

Sign requirement:

- Sign will be of sufficient size to be readable at a reasonable distance from the facility.
- Signs will be constructed and use the language of "Caution" and "Poison Gas" with a black and yellow color contrast. Colors will satisfy Table I of American National Standard Institute Standard 253.1-1967. Signs will be compatible with the regulations of the federal Occupational Safety and Health Administration.

## **II. THE PLAN**

### **A. RESPONSIBILITY FOR CONFORMANCE WITH THE H<sub>2</sub>S PLAN**

It is the responsibility of all pipeline personnel to follow the safety and emergency procedures outlined in the Hydrogen Sulfide Contingency Plan (the H<sub>2</sub>S Plan) as well as the following document:

- DCP Midstream (DCP) Safe Work Practices

### **B. REVISIONS TO THE PLAN**

The H<sub>2</sub>S Plan will be reviewed annually and revised at that time as necessary to address changes to the pipeline facility and operation of the pipeline, or training requirements, contact information and the public areas including roads, businesses, or residents potentially affected by the operations of the pipeline, specifically those areas within the radii-of-exposure.

### **C. AVAILABILITY OF THE H<sub>2</sub>S PLAN**

The H<sub>2</sub>S 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 and at the Western Region Safety Manager's office in Midland, Texas. See Appendix E for the H<sub>2</sub>S Plan Distribution List, which lists all the additional entities that have been provided a copy of the H<sub>2</sub>S Plan.

### **D. CONTENT OF THE PLAN**

At a minimum, the H<sub>2</sub>S Plan will contain information regarding:

- 1) the emergency procedures to be followed in the event of an hydrogen sulfide (H<sub>2</sub>S) release that may pose a threat to the public or public areas,
- 2) the characteristics of H<sub>2</sub>S
- 3) a pipeline route 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 H<sub>2</sub>S,

##### 1. Hydrogen Sulfide (H<sub>2</sub>S)

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 <sub>2</sub> 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

<b>Physical Effects of Hydrogen Sulfide</b>		
<b>Concentration</b>		<b>Physical Effect</b>
<b>ppm</b>	<b>%</b>	
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

## **B. RADII OF EXPOSURE (ROE)**

For the Fullerton - Linam pipeline, the "Radius of Exposure" for both 500-ppm and 100-ppm of H<sub>2</sub>S gas was determined using the "escape rate", which is calculated using the maximum daily rate of the gaseous mixture that may be in the pipeline. The rates and other variables used to calculate the ROE is discussed in greater detail in Appendix B – ROE calculations. Also refer to Appendix A - map showing 500-ppm ROE and the 100- ppm ROE.

	<u><b>500-ppm ROE</b></u>	<u><b>100-ppm ROE</b></u>
<b>Pipeline</b>	<b>1,735 ft.</b>	<b>3,796 ft.</b>

## **IV. EMERGENCY ACTION PROCEDURES**

### **A. EMERGENCY RESPONSE ORGANIZATION**

The Pipeline 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).

The Hydrogen Sulfide Reaction Plan will be activated when the IC believes that a release creates a concentration of hydrogen sulfide that exceeds or is likely to exceed the following activation levels:

- 100 ppm radius of exposure is in excess of 50 feet and includes any part of a "public area" except a public road;
- 500 ppm radius of exposure is greater than 50 feet and includes any part of a public road;
- 100 ppm radius of exposure is greater than 3,000 feet.

In the event of an accidental release that results in the activation of the H<sub>2</sub>S Plan and all personnel have been evacuated out of the affected area, the first person to discover the problem is, by default, or his designee, will be the On-Scene Incident Commander (IC in this Plan) until the responsibility is transferred to someone else. This responsibility should be formally transferred to the Plant or Field Supervisor as soon as practical. The IC will contact and coordinate with DCP Midstream management.

The Field/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 Field/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 Field/Plant Supervisor, or his designee, shall be notified first. The Field/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.

#### **NOTIFICATION OF THE OIL CONSERVATION COMMISSION**

The Oil Conservation Commission shall be notified immediately as follows:

- immediately in the case of an accidental release if the public could be or is affected;
- immediately in the case of any hydrogen sulfide related accident;
- as soon as possible before or after an unplanned intentional release made in an emergency situation to prevent a possible uncontrolled release but no more than 4 hours after plan activation;

A written report shall be provided to the Division 1 office within 15 days of release of hydrogen sulfide gas, whether it be from an accidental or intentional release.

NM Conservation Commission District Office 575-370-3186 24/7
--

## **B. EMERGENCY RESPONSE**

This section explains the procedures and decision process to be used in the event of an H<sub>2</sub>S 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**

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 H<sub>2</sub>S that has been released, and the physical location where the release has occurred.

#### **Response Levels**

The Plan has four (3) activation levels that are described in detail below and in outline form in the Response Flow diagrams in Appendix F.

**Level 1** – Operator conducting biweekly patrol detects H<sub>2</sub>S of 10 ppm or greater; 3<sup>rd</sup> party report of H<sub>2</sub>S gas leak.

**Level 2** – Level 1 response unsuccessful. H<sub>2</sub>S > 10 ppm along pipeline and increasing; H<sub>2</sub>S >20 ppm detected; Pipeline leak visible

**Level 3** – No level 3 response for pipeline – directly to level 4.

**Level 4** – Corrective action at Level 2 is unsuccessful; H<sub>2</sub>S ≥ 10 ppm at any public area or road crossing; Catastrophic release; fire; explosion; 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 Field/Plant Supervisor, or his designee, should be notified.

### **2. EVACUATION AND EMERGENCY ASSEMBLY AREAS**

Evacuation areas for a pipeline release will be dependent upon the location of the release and will be determined at the time of the incident. All personnel not directly involved with the Emergency Response will be evacuated to a safe area.

The responding DCP Employees 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 defined Emergency Assembly Area. Emergency services (911) will be contacted if there are injuries or

as otherwise deemed necessary. Upon delineating the H<sub>2</sub>S boundary, Emergency assistance will be requested for assistance in quarantining the area. Check the prevailing wind direction and immediately proceed along upwind to the pre-designated Emergency Assembly Area(s).

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, then all evacuees should proceed perpendicular and then upwind to the Emergency Assembly Areas.

Also at each Emergency Assembly Area, the ambient air quality will be monitored for H<sub>2</sub>S concentration to ensure the area remains at less than 10 ppm. If the H<sub>2</sub>S 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**

The following outlines the immediate action plans that are illustrated by flow diagrams in Appendix F. 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.

#### **PIPELINE**

##### **LEVEL 1 RESPONSE – PIPELINE**

Level 1 response for the pipeline occurs when:

- Operator conducting biweekly line patrol detects H<sub>2</sub>S concentration of 10 ppm or greater.
- Third party report of H<sub>2</sub>S 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 along the pipeline right-of-way, inform them of the H<sub>2</sub>S alarm on the pipeline, and direct them to monitor air quality – H<sub>2</sub>S concentrations. 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 designated Emergency Assembly Area. 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 Field/Plant Supervisor shall be notified of the release.

2. Responding Personnel 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, 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.

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 H<sub>2</sub>S levels continue to increase, Level 2 Response is initiated.

## **LEVEL 2 RESPONSE – PIPELINE**

Level 2 Response occurs when:

- Level 1 response is unsuccessful
- H<sub>2</sub>S concentration is increasing above 10 ppm, or is detected at 20 ppm
- Pipeline leak is visible.

The responding operator, on detecting H<sub>2</sub>S  $\geq$  10 ppm, returns to safe area and immediately contacts the control room operator to shut down the pipeline.

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 Field/Plant Supervisor will be notified.

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 a designated Emergency Assembly Area. If deemed necessary, local emergency response service providers will be contacted by Pipeline personnel designated by the Operator.
2. Pipeline personnel with H<sub>2</sub>S monitors and emergency trailers will be dispatched to the pipeline release area. Personnel will monitor air quality and move further away if H<sub>2</sub>S reaches 10 ppm and notify IC.
3. Incident Command Center will be established at a designated Assembly Area. Establish media staging area adjacent to Assembly Area and direct all media to it. The IC will initiate and maintain a Chronological Record of Events log. (Appendix I) If monitored H<sub>2</sub>S levels at Emergency Assembly Area 1 exceed 10 ppm, evacuate to an additional Emergency Assembly Area.
4. 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 H<sub>2</sub>S along the pipeline ROW are less than 10 ppm, the Field/Plant Supervisor or his designee may authorize personnel return to the ROW. Third parties evacuated from the ROW will be advised of the all clear.

The Field/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 H<sub>2</sub>S 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
- H<sub>2</sub>S concentrations reach 10 ppm or greater any public area or road.
- a catastrophic release occurs

1. Emergency trailers will be dispatched to designated locations, identified upon incident notification. Personnel will monitor air quality and move further away if H<sub>2</sub>S reaches 10 ppm and notify IC.

The operator will contact any personnel working along the pipeline ROW and direct them to evacuate to a designated Emergency Assembly Area. 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 located to a designated Emergency Assembly Area. All personnel shall evacuate to designated Assembly Area. 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. 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.

*Currently, there are no businesses identified in the pipeline radius of exposure.*

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 H<sub>2</sub>S along pipeline ROW are less than 10 ppm, the Field/Plant Supervisor or his designee may authorize personnel to return to pipeline ROW. All businesses, public receptors, and producers previously notified will be informed that the release has been resolved and advised of the current monitored H<sub>2</sub>S levels.

#### **4. EMERGENCY SHUT DOWN SYSTEM**

The Fullerton - Linam pipeline has an Emergency Shut Down (ESD) systems designed to isolate pipeline segments to contain hydrocarbon and H<sub>2</sub>S releases. This system is automatically and manually initiated, depending on process conditions.

#### **5. NOTIFICATIONS AND REPORTS**

The Pipeline has various notification and reporting obligations. The NMOCD will be notified as soon as possible but no later than 4 hours following a release of H<sub>2</sub>S 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 on the pipeline wear H<sub>2</sub>S monitoring devices to assist them in detecting the presence of unsafe levels of H<sub>2</sub>S. When any personnel while performing such work discovers a leak or emission release they are to attempt to resolve the issue as long as H<sub>2</sub>S 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 Field/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 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 H<sub>2</sub>S levels of 10 ppm or greater either as a result of his/her personal monitoring device or the intermittent alarms from fixed monitors, the pipeline operator will contact the Field/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/Pipeline Operator is responsible for notifying the Field/Plant Supervisor or his designee so that the H<sub>2</sub>S Contingency Plan can be activated, if necessary.
3. Once the Field/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 Field Supervisor will then conduct the notifications to state regulatory

agencies including the OCD District Office and emergency response agencies as detailed in Appendix D.

4. DCP operations personnel are to advise any contractor and all others on-site or attempting to enter the Plant that the H<sub>2</sub>S Plan has been activated.

## **B. PUBLIC AWARENESS AND COMMUNICATION**

Public awareness and communication is a primary function of the H<sub>2</sub>S 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 G that indicates when certain entities are to be contacted in event of activation of this Plan. Appendix D is a listing of the entities to be contacted and Appendix E 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 A.

### **DCP PUBLIC AWARENESS PROGRAM**

- Participates in an extensive annual Public Awareness Program and Damage Prevention Program.
- Participates with the Local Emergency Planning Committee to educate persons residing in the counties we operate in about the hazards associated with gas plants and pipelines.
- Participates with the Pipeline Group to educate excavators and contractors about Damage Prevention to underground facilities and is a member of the New Mexico One-Call System.
- Installs and maintains pipeline markers and signs at all facilities and road crossings to identify DCP underground pipelines.

Annually, residents and businesses located within the ROE of the Fullerton-Linam Ranch pipeline system will receive a Public Awareness brochure that explains DCP's Public Awareness and Damage Prevention program. This brochure is printed in both English and Spanish. It contains visual documentation of pipeline markers, aerial markers and casing vent markers. Residents and businesses are encouraged to report any damage or vandalism to these markers.

This brochure also educates the public on how to respond to a pipeline emergency and includes a 24 hour/7 day week emergency telephone number.

**DCP PUBLIC AWARENESS BROCHURES WILL BE PRESENTED TO EACH RESIDENT LIVING WITHIN THE RADIUS OF EXPOSURE.**

### C. PUBLIC AREAS, NEARBY BUSINESSES AND RESIDENTS

All businesses and public places within the 500 ppm and 100 ppm radius of exposure will be contacted by Pipeline personnel as designated by Field/Plant Supervisor if the Plan is activated and based on response level of this Plan and advised of the following:

- The nature and extent of the release/emergency along the Pipeline 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:

The Pipeline Operations group will maintain current residential structure surveys and identify those individuals regarding the pipeline and its characteristics. This is a component of the annual public education conducted by DCP Midstream for residents along the pipeline right-of-way.

Should an emergency situation occur, the local Emergency Responders and New Mexico State Police will be contacted for assistance with the affected public.

#### 2. Businesses or Other Public Areas:

Currently, no businesses are in the radius of exposure for the pipeline route.

### D. FIRST-AID STATION

The first aid station will be located at the designated 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

### E. MEDIA SITE

- A. If a Level 4 Response occurs, the Media Site will be located adjacent to the designated Emergency Assembly Area. 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 (blocked area). Media personnel will only be allowed inside the blocked area once the area has been monitored and restored to a cold zone (less than 10 ppm H<sub>2</sub>S), 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.

## **F. EMERGENCY AND SAFETY EQUIPMENT**

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

## **V. TRAINING AND DRILLS**

### **A. TRAINING**

Training on the H<sub>2</sub>S Contingency Plan will be focused on three groups:

1. **DCP Personnel** - Training for DCP personnel shall include the Linam Ranch, Monument Facility and DCP Pipeline personnel work group – consisting of plant operators, mechanics, instrument and electrical technicians, pipeline and maintenance support personnel. Plant Operators will be responsible for initiating and implementing the Plan. In addition, all Plant/Field personnel will receive:
  - All Field/Plant personnel will receive annual training on the H<sub>2</sub>S 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 H<sub>2</sub>S Contingency Plan.
  - Hydrogen Sulfide - All Field/Plant personnel receive annual refresher training on hydrogen sulfide, 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 a copy of their certification card prior to obtaining permission to enter the facilities.
  - 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 Field/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 Field/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 H<sub>2</sub>S Contingency Plan

This training will include:

- Characteristics of H<sub>2</sub>S and safety precautions
- An overview of the Fullerton -Linam Ranch Pipeline
- A review of their roles in responding to activation of the Fullerton -Linam Pipeline H<sub>2</sub>S 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 Fullerton Linam Pipeline and Linam Ranch Plant H<sub>2</sub>S Contingency Plan.

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

*Currently, no businesses have been identified to be within the radius-of-exposure. The plan will be reviewed annually and updated if a business is identified.*

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

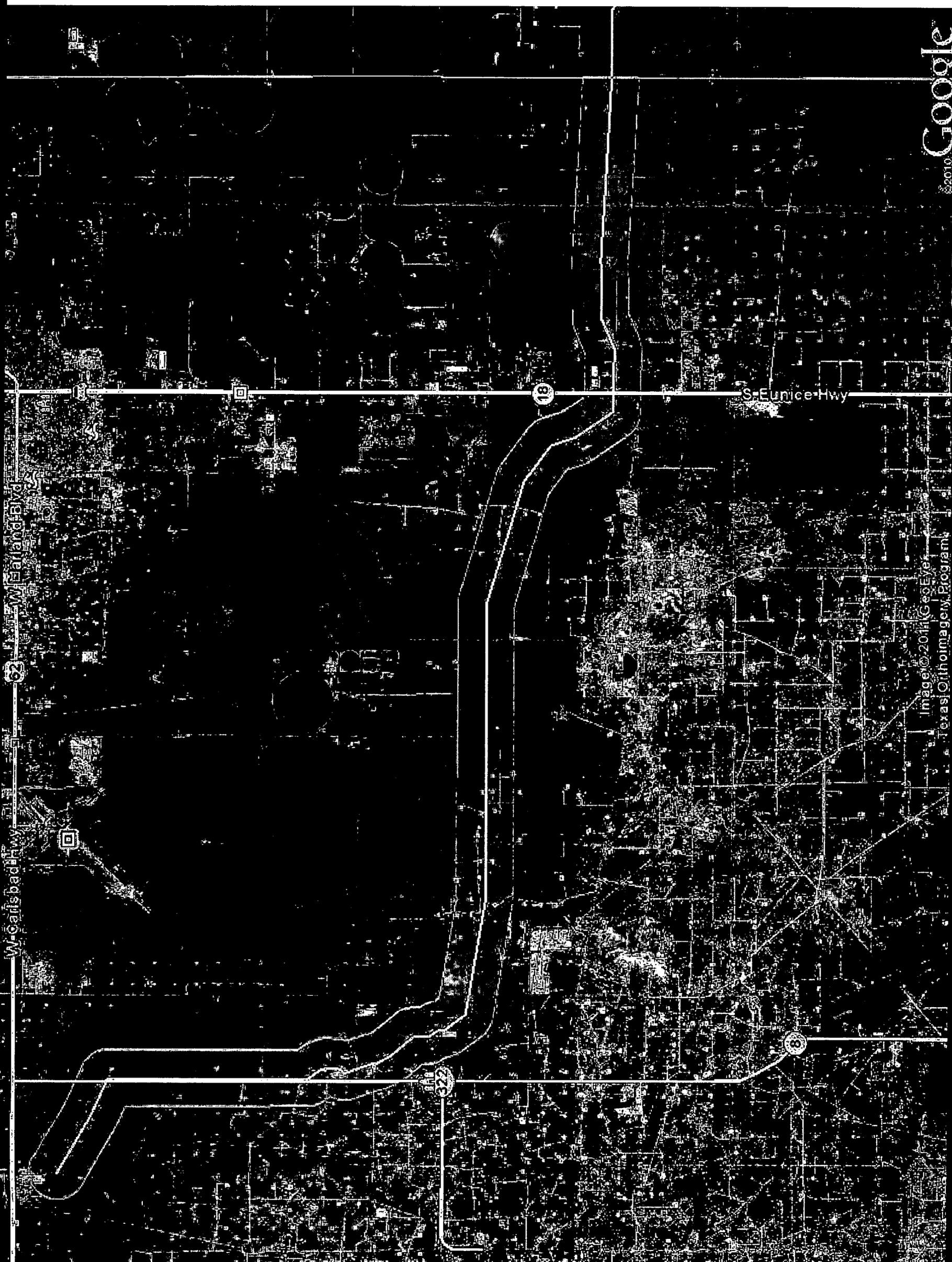
- An overview of the Fullerton Linam pipeline
- Design and operating safety features on the Fullerton Linam pipeline
- A review of the H<sub>2</sub>S alarms and significance
- Notification procedures
- Procedures for sheltering in place
- Radii of exposure

## 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. The Plant drills may incorporate a Pipeline drill.

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 D. 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**  
**RADIUS OF EXPOSURE MAPS**



## APPENDIX B RADIUS OF EXPOSURE CALCULATIONS

Source	Volume (MCFD)	H2S PPM	(FT)	
			100 PPM ROE	500 PPM ROE
Fullerton Gas	30000	11000	3796	1735

The radius of exposure is that radius constructed with the point of escape as its starting point and its length calculated using the following Pasquill-Gifford derived equation, or by such other method as may be approved by the division:

For determining the 100-ppm radius of exposure:  $X = [(1.589)(\text{hydrogen sulfide concentration})(Q)]^{(0.6258)}$ , where "X" is the radius of exposure in feet, the "hydrogen sulfide concentration" is the decimal equivalent of the mole or volume fraction of hydrogen sulfide in the gaseous mixture, and "Q" is the escape rate expressed in cubic feet per day (corrected for standard conditions of 14.73 psia and 60 degrees F).

For determining the 500-ppm radius of exposure:  $X = [(0.4546)(\text{hydrogen sulfide concentration})(Q)]^{(0.6258)}$ , where "X" is the radius of exposure in feet, the "hydrogen sulfide concentration" is the decimal equivalent of the mole or volume fraction of hydrogen sulfide in the gaseous mixture, and "Q" is the escape rate expressed in cubic feet per day (corrected for standard conditions of 14.73 psia and 60 degrees F).

# APPENDIX C

## DESCRIPTION OF EMERGENCY EQUIPMENT

### A.. RESPIRATORS

1. The Linam Ranch Facility has 30 minute Self-Contained Breathing Apparatus (SCBA) respirators and cascade hose reel systems strategically located throughout the Plant.

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

### B. FIRE FIGHTING EQUIPMENT

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

2. The fire extinguishers are located in company vehicles are typically a 30# Ansul dry chemical fire extinguisher.

3. Should an emergency resulting in fire occur on the pipeline right-of-way, 911 will be contacted for assistance from the local fire department. DCP Midstream employees are not trained for fire fighting of incidents along the pipeline right-of-way.

Should the pipeline incur a failure requiring fire fighting equipment, trained professional emergency responders will be contacted via 911.



**A. DCP COMPANY INTERNAL NOTIFICATIONS**

<b>Name</b>	<b>Title</b>	<b>Office No.</b>	<b>Cell No.</b>
	Linam Ranch Plant Operators	575-391-5792 575-391-5793 575-391-5794	575-802-5187
Fullerton Gas Plant (Brent Sharp)		432-596-2704	432-556-5774
Monument Facility (Polo Rendon)		575-391-5720	575-390-5707
Matt Hendricks	Linam Ranch Plant Supervisor	575-391-5701	575-973-8691
Kelly Jamerson	SENM Asset Manager	575-397-5539	325-226-3357
Amancio Cruz	SENM Asset Safety Coordinator	575-391-5710	575-802-5222
David Ledonne	V.P. Operations Western Region	432-620-4066	903-263-6064
Wouter Van Kempen	President Mid-Con and Permian Business Unit	303-605-1610	704-756-7809
Glenn Bowhay	Safety Manager Western Region	432-620-4009	432-425-7635
	DCP Gas Control – Houston, TX	800-435-1679	

**B. COUNTY AND LOCAL LAW ENFORCEMENT**

<b>AGENCY</b>	<b>PHONE NUMBER</b>
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 E

# H<sub>2</sub>S 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

APPENDIX F  
CHRONOLOGICAL RECORD LOG

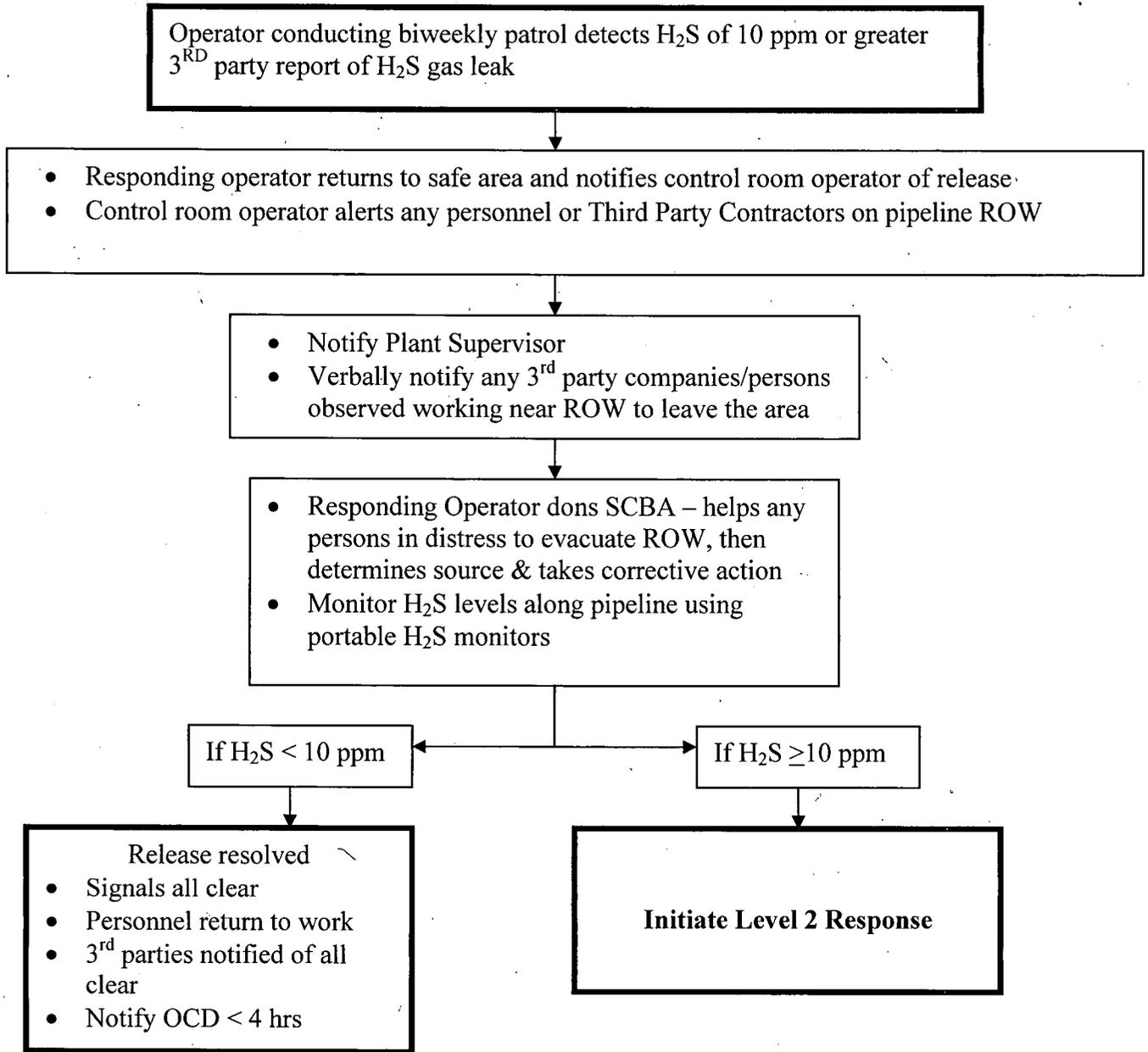


# APPENDIX G RESPONSE FLOW DIAGRAMS

# OPERATOR QUICK REFERENCE GUIDE

## PIPELINE RELEASE

### LEVEL 1 RESPONSE



See Page 9 for Details

## PIPELINE RELEASE LEVEL 2 RESPONSE

Level 1 response unsuccessful  
H<sub>2</sub>S > 10 ppm along pipeline and increasing  
H<sub>2</sub>S > 20 ppm detected  
Pipeline leak is visible

- Responding operator returns to safe area and directs the control room operator to activate the pipeline shutdown

- Control room operator directs any personnel on pipeline ROW to leave and/or go upwind of pipeline
- Verbally notify any 3<sup>rd</sup> party companies or persons observed working near ROW to leave the area.
- Notifies Plant Supervisor

- Incident Command Center set ups an Assembly Area, if necessary

- Dispatch plant personnel with emergency trailers to assist with monitoring wind direction and H<sub>2</sub>S levels

See page 10 for Details

- Release resolved
- Signals all clear
  - Personnel return to work
  - Notify 3<sup>rd</sup> parties of all clear
  - Notify OCD < 4 hrs

If H<sub>2</sub>S < 10 ppm

If H<sub>2</sub>S ≥ 10 ppm

Initiate Level 4 Response

## PIPELINE RELEASE LEVEL 4 RESPONSE

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

- Corrective action at Level 2 is unsuccessful
- $H_2S \geq 10$  ppm at any public area or road
- Catastrophic release occurs.

- Direct control room operator to activate Plant ESD
- Verbally notify any 3<sup>rd</sup> 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 designated area

- Dispatch personnel with emergency trailers to designated areas along pipeline route.
- Monitor air quality and move further if  $H_2S$  reaches 10 ppm and notify IC of new location

- Additional operations personnel may be directed to close valves on gas pipelines
- Monitor  $H_2S$  levels along the pipeline

- When  $H_2S < 10$  ppm -Release resolved
- Signals all clear
  - Personnel return to work
  - Notify affected parties of all clear

See page 11 for Details

## Chavez, Carl J, EMNRD

---

**Subject:** DCP Fullerton to Linam Pipeline H2S CP  
**Location:** Tele Conference Call

**Start:** Thu 8/11/2011 3:00 PM  
**End:** Thu 8/11/2011 4:00 PM  
**Show Time As:** Tentative

**Recurrence:** (none)

**Meeting Status:** Not yet responded

**Organizer:** Chavez, Carl J, EMNRD  
**Required Attendees:** 'Gonzales, Carl I'; Rebecca Voss; VonGonten, Glenn, EMNRD  
**Optional Attendees:** Bowhay, Glenn A

Mr. Bowhay, et al.:



H2S CP Fullerton to  
Linam Pipe...

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  
New Mexico Energy, Minerals & Natural Resources Dept.  
Oil Conservation Division, Environmental Bureau  
1220 South St. Francis Dr., Santa Fe, New Mexico 87505  
Office: (505) 476-3490  
Fax: (505) 476-3462  
E-mail: CarlJ.Chavez@state.nm.us

Website: <http://www.emnrd.state.nm.us/ocd/index.htm>

"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>)

### **Glenn von Gonten**

Senior Hydrologist  
Environmental Bureau, Acting Bureau Chief  
Oil Conservation Division  
Energy, Minerals and Natural Resources Department  
1220 South St. Francis Drive  
Santa Fe, New Mexico 87505  
505-476-3488  
Fax-476-3462  
[glenn.vongonten@state.nm.us](mailto:glenn.vongonten@state.nm.us)  
<http://www.emnrd.state.nm.us/ocd/>



# New Mexico Energy, Minerals and Natural Resources Department

**Susana Martinez**  
Governor

John H. Bemis  
Cabinet Secretary-Designate

Brett F. Woods, Ph.D.  
Deputy Cabinet Secretary

Jami Bailey  
Division Director  
Oil Conservation Division



**DRAFT No. 2**  
**August 11, 2011**

Mr. Carl Gonzales, Pipeline Compliance Specialist  
DCP Midstream  
1625 West Marland Street  
Hobbs, New Mexico 88240

Dear Mr. Gonzales:

**Re: Fullerton to Linam Pipeline H<sub>2</sub>S Contingency Plan (Lea County)**

The Oil Conservation Division (OCD) is in receipt of DCP Midstream's letter dated September 22, 2010 and attached H<sub>2</sub>S Contingency Plan (CP) dated September 2010 for the "**Fullerton to Linam Pipeline**".

The OCD has completed its review of the CP and has determined that the CP does not address all of the H<sub>2</sub>S "Hydrogen Sulfide" Regulations (19.1.11 NMAC). In general, there are still H<sub>2</sub>S monitoring, CP activation, multiple agency "who does what" during an emergency, and training issues that need to be addressed.

OCD CP observations, comments, concerns and/or recommendations are as follows:

**General Observations:**

- 1) One ESD low-high pressure valve along the pipeline as the monitoring system for the pipeline does not satisfy the OCD Hydrogen Sulfide Regulations. There are no H<sub>2</sub>S monitors to satisfy the "activation limit" and to determine when the H<sub>2</sub>S CP must be implemented. The ROE<sub>100</sub> appears to either encompass major public roadways and/or threaten a few residential areas along the pipeline transect.
- 2) The ROE<sub>500</sub> and ROE<sub>100</sub> appear to be accurate based on the 30K MCFD and 1.1% H<sub>2</sub>S concentration.
- 3) Residential areas relative to the pipeline were not depicted on the map and public training was not mentioned. GIS observations of the pipeline transect indicates that some residences could be threatened by a leaky pipeline. Better quality maps to scale displaying the ROE 100 ppm vs. 500 ppm relative to public areas along the pipeline transects are required. The map in Appendix A is not discernable.

- 4) One low (350 psi) – high (880 psi) pressure valve emergency shut-off device does not address the magnitude of a pressure drop indicating that there is a pipeline leak in the system. The leak detection pressure drop tolerance or threshold that would trigger the shut-down other than significant pressure deviations.
- 5) The “Table of Contents” should be completed similar to the OCD approved H<sub>2</sub>S CP for “Linam Ranch Gas Plant and AGI Well Site” (GW-015) dated November 9, 2009.
- 6) The fluid type is gas in the pipeline and consists primarily of natural gas and 1.1% [H<sub>2</sub>S].
- 7) In the event of a release, or shut-down, the entire pipeline must be shut-in and a drive-by with gas monitoring device(s) would be implemented to locate the source(s) of the leak based on an unknown threshold pressure drop at the one low-high pressure valve.
- 8) More details about the pipeline design and construction with monitoring devices, etc. are required to assess public safety along the pipeline.
- 9) Why is there no MIT or ultrasonic testing of the pipeline over time to prevent leaks attributable to corrosion?
- 10) The call list is important, but designated 24/7 emergency responders are needed to take quick assessments of elevated levels of [H<sub>2</sub>S] during emergencies with emergency response measures. This needs to be incorporated into CP actions. The NM State Police are the first responders in NM once they arrive and the Fire Department Fire Marshal or LEPC is the chief incident commander during emergencies in NM once he/she arrives.
- 11) The level of detail on implementation of the CP once activated with diagrams to displays areas of evacuation, road barricades, etc. is lacking.
- 12) Emergency workers and responders beyond the activation level to identify the source of elevated H<sub>2</sub>S and also who is prepared to work under hazardous conditions is not specified to prevent or in the event of a worse case condition.
- 13) The brochure in Appendix B of the CP is not adequate as a means of public training. Public training should consist of what exact action steps will be taken in the event of a release and implementation of the pipeline CP to protect human life from a toxic gas like H<sub>2</sub>S? Residents proximal to the pipeline should know how public health will be safeguarded.

**General Comments:**

- 1) A 24/7 pipeline pressure monitoring system with automatic audio and visual alarm system positioned along stretches of the pipeline would extend the period between MITs or other non-intrusive types of ultra-sonic wall thickness monitoring requirements under the OCD Discharge Permit.
- 2) ASTM, GPA and/or API Standards should be referenced in the CP. For the pipeline design, a diagram and reference to any construction standard(s), i.e., Department of

Transportation (DOT) would confirm some acceptable standard for pipeline design and construction is being proposed that will address monitoring and public safety concerns.

- 3) Designated emergency responders for all emergencies should be available to respond and this should not be a call list? The call list is important, but designated 24/7 emergency responders are needed to take quick assessments of elevated levels of [H<sub>2</sub>S] during emergencies with emergency response measures. This needs to be incorporated into CP actions. The NM State Police are the first responders in NM once they arrive and the Fire Department Fire Marshal or LEPC is the chief incident commander during emergencies in NM once he/she arrives.
- 4) Discovery and Internal Reporting should occur at the 30 ppm Activation Level for determining the source of gases. However, 10 ppm is conservative and a good level to dawn SCBA, PPE, etc. in order to take prompt corrective actions to prevent CP Activation situation. CP activation should occur when 100 ppm [H<sub>2</sub>S] is detected in a public area, i.e., highway.
- 5) An H<sub>2</sub>S Plan Distribution List should also be sent to the NM State Police, since they are usually first to arrive at the scene. Another suggestion would be the Eunice Public Library for the general public to have access to it.
- 6) Pipeline shall be buried below the ground frost line depth as prescribed by the U.S. Department of Agriculture Soil Conservation Service reference for the area.

### H<sub>2</sub>S Regulatory Comments

- 1) 19.15.11.9(B)(2)(a): Emergency procedures followed in the event of a major release (>100 ppm in public area) with duties and responsibilities of the Operator and agencies. A team of workers that can work in a high [H<sub>2</sub>S] environment is not specified, but needs to be.
- 2) 19.15.11.9(B)(2)(c): Maps and diagrams would greatly enhance the plan and could be referenced from applicable sections of the plan. Maps and/or diagrams depicting evacuation, roadblock locations, monitor locations (with prevailing wind consideration), procedure for notification of public for evacuation, i.e., specific siren with public training, etc.
- 3) 19.15.11.9(B)(2)(d): No discussion on workers trained to work and undertake corrective actions in high H<sub>2</sub>S environment could be discerned. Also, public training on evacuation, siren, etc. not discussed.
- 4) 19.15.11.9(B)(2)(e): No discussion on coordination of the plan with New Mexico Hazardous Materials Emergency Response Plan was made. This is important for evacuation procedures and being consistent with a uniform emergency responder chain-of-command system. In New Mexico, the State Police are usually the first responder with the Fire Department Chief or LEPC becoming the Incident Commander upon arrival.

- 5) 19.15.11.9(B)(2)(f): The "Activation Level" (AL) for identifying when H<sub>2</sub>S levels indicate a possible leak or release is not specified. An AL of 10 - 30 ppm has been specified in past plans.
- 6) 19.15.11.9(C): The CP "Activation Level" should be specified in the plan to be 100 and 500 ppm concentrations in public road or 100 ppm 3000 ft. from location of release. The distinction between the AL above and the CP "Activation Level" activates immediate action steps performed by the owner/operator (see CP comments below) to protect public safety in the event of an emergency.
- 7) 19.15.11.10: Section 4.7 needs to reflect that sign will have "Poison Gas" demarcation. The sign and marker requirements must be addressed.
- 8) 19.15.11.12(D)(1): Safety devices such as automatic shut-down devices to prevent H<sub>2</sub>S escape or safety procedure to accomplish same purpose is required. Questions about the design and construction of the pipeline become apparent with leak detection monitoring and shut-down in the event of an emergency. H<sub>2</sub>S is a toxic gas in addition to being flammable and explosive. There may be flaring at the Booster Station? Shut-in of the pipeline occurs when the valve closes? Once a leak is located, can sections of the pipeline should be shut-in for repair. Would monitors automatically detect a pressure drop across the 16 inch pipeline and activate an audio-visual warning system for roadway travelers?
- 9) 19.15.11.13: Personnel protection and training are of concern when it comes to workers at the plant trained to quickly respond to stop H<sub>2</sub>S leaks and take immediate corrective actions to prevent CP from activation for protection of public safety.

### H<sub>2</sub>S Questions:

- 1) Can the proposed pipeline design be referenced under existing pipeline regulations, i.e., DOT or is the design a custom or non-conventional type of pipeline engineering design?
- 2) Based on the current design of the pipeline system, the operator may not quickly recognize when the gas in the pipeline is leaking out and/or locate a leak(s) anywhere along the pipeline to make repairs unless the leak is noticeable?
- 3) The operator does not appear to have a trained H<sub>2</sub>S first responder team (Hazwoper: SCBA Level A and/or B) that will take immediate actions to fix or repair leaks in an emergency situation and appears to be relying on other responders.
- 4) The flare system with auto ignition located at the Booster Station along the pipeline transect in the event of a "worst case scenario" that would be activated under an emergency situation that requires flaring of H<sub>2</sub>S and emission information on SO<sub>2</sub> in the CP. H<sub>2</sub>S and SO<sub>2</sub> monitoring around this flare stack and down gradient is required to address public safety issues to nearby workers, residential populations and/or roadways. An NMED- Air Quality Bureau permit to discharge may be required for any pipeline discharge to ambient air?
- 5) How was flow rate and concentration estimated for the ROE calculations?

- 6) Not clear if trained plant workers trained to work in high [H<sub>2</sub>S] environment will be deployed during emergency situations where the release must be identified, monitored, stopped, and repaired.
- 7) Will there be red warning lights with sirens that would sound that would warn travelers to stop and go back? How would the public be trained and not everyone is local to the area, but there may be out-of-state travelers moving through that area?
- 8) How do you provide training to the public and/or provide SCBA so they may quickly don the equipment needed to escape from the area?
- 9) Could a family theoretically survive staying inside while a plume of H<sub>2</sub>S migrates across the area under minimal or stagnant weather condition?
- 10) Will there be at least one staff person monitoring the SCADA at a control room 24 hrs/day?

The OCD provides Notice of Deficiency (NOD) comments, observations, concerns, and/or recommendations herein that need to be considered and resolved in order for the CP to be approved by the OCD.

**NOD:**

- 1) The pipeline design and controls for automatic shut-down are not discussed.
- 2) An equipment inventory list with inventory and detailed description of equipment that will address CP is needed in the plan.
- 3) Show OCD where the "Poison Gas" signs will be positioned along roadways where pipeline runs and near residences where the ROE<sub>100</sub> extends. ANSI compliant signs are required as specified under the hydrogen sulfide regulations.
- 4) In the event of an emergency shut-down, based on the flow rate used in the ROE calculations, how long would it take to shut-in flow through the pipeline? Can flow be shut down at sections of the pipeline? Are there many gas gathering lines that feed into the Eunice Middle Plant pipeline that would prevent immediate shut-in of flow? How long would it take to immediately shut-in flow through the pipeline?
- 5) Where is the map(s) of the detectors, windsocks, shelters, poison gas signs, etc. that should be referenced in the event of an emergency and CP text referencing locations of detectors, shelters, etc. and who does what?
- 6) A schematic of the ESD system is requested to know the exact shut-in valve locations during an emergency.

- 7) In addition to signs, and for public safety, an audible alarm system with flashing red light emergency system along the pipeline is required as an early warning to motorists and/or persons on foot along the roadways to turn back or evacuate the area until the situation is corrected. The pipeline right-of-way (ROW) has warning signs containing the words "poison gas" to warn the public that a potential hazardous danger condition exists.
- 8) Wind socks equipped with lights for night time visual perception of wind direction are required along the buried pipeline for persons at risk to know what direction to move to escape hazardous vapors. Wind direction indicators known as wind socks are located at the compressor/injection site so that they are visible from all principal working areas and pipeline at all times.
- 9) Public training on the H<sub>2</sub>S CP shall be conducted on an annual basis in an acceptable meeting area that will facilitate all persons including those with handicaps that can be reasonably accommodated for public safety. The operator is proposing to send brochures to residents in the area, but that does not address the overall population at large, etc. Annual public meetings to discuss the CP "who does what" is more appropriate and would complement the brochures to educate the public.
- 10) Should contain training information for personnel to review and mock drills to personnel so they will know how to coordinate and respond during a dangerous release.
- 11) Shouldn't emergency response action be more immediate, i.e., evacuation of the residences in the area, roadway closure, emergency phone and plan for residents-prevailing winds and movement to upwind area, etc.? Could be policeman w/ siren and voice megaphone evacuation and public training should address the warning siren type, evacuation, etc.
- 12) Items should be included in Section 3.2.1 above. Saving lives should not rest on the availability of an area manager to be present, the plan should be implemented w/o an FIC being present? Worst case scenario should be the precedent because of the ROEs identified in the H<sub>2</sub>S CP. We need to remember that the H<sub>2</sub>S activation limit starts the CP implementation and not a FIC determination.... This section is getting ready to implement the CP, but this should contain immediate actions to save human life based on the ROEs calculated in the CP.
- 13) Some items do not appear in sequence and map to reference would be helpful for personnel during an emergency, i.e., where are emergency assembly areas located? How will pipeline be shut-in to fix leaks? How long will it take to shut-in entire pipeline versus section of pipeline where release is located? Will pipeline be under constant pressure to detect when a leak has occurred along the pipeline or can locations of pressure loss be quickly identified by monitor system? Will workers trained to work in high H<sub>2</sub>S environment be deployed to fix leaks or stop the release?
- 14) Should identify roadways to be closed during immediate action steps and how will traffic be stopped along roadway adjacent to pipeline during an emergency situation. *Issue is operator wants to defer to FD/Police Dept. to position barricades....*

- 15) Will there be a special siren sound that informs the public when a major release has occurred along the pipeline? Will there be a State Police Siren with megaphone announcement made in the community to implement quick emergency evacuation procedures? The public should be trained to know when an emergency requiring evacuation occurs and which direction to move depending on the location of the release?
- 16) Barricades should be listed under an equipment list in the plan that identifies the inventory and description of the equipment.
- 17) Emergency procedures need to be itemized and outlined so persons receiving the CP know exactly what steps to follow. The current emergency response is not written to follow easy action step instructions. This needs to be corrected as emergency personnel just need to know the action steps that are in place when => 100 ppm H<sub>2</sub>S is present in a public area(s) it is CP Activation. And there is a difference between 30 ppm and the term "Activation Level" to determine what is causing elevated H<sub>2</sub>S and to fix it before it becomes a life threatening situation, i.e., H<sub>2</sub>S at greater than 100 ppm in public areas. DCP Midstream must have responders who can quickly assemble to address or take proper corrective actions at the activation and CP implementation levels. Evacuation should be based on the ROE<sub>100 ppm</sub>, and the alerting system should be setup to evacuate all persons in the vicinity of the release. For example, with proper public training, when the certain alarm is heard, all persons should when to evacuate or "shelter in place" to prevent loss of life. *Issue is operator has no detectors along pipeline, but has 1 high-low pressure shut-off valves along pipeline that will activate an ESD, but the operator cannot explain how this device will identify a leak along the pipeline because operating pressures each hour can fluctuate. Operator indicated a human may notice a pressure drop at the SCADA? But small leaks may not be noticeable and the methane and H<sub>2</sub>S (11,000 ppm or 1.1%) could be released?*
- 18) Emergency Shutdown System (ESD) needs much more detail, a diagram with areas that shut down and time frame and what would trigger an emergency shutdown. Also, the diagram may be a good figure to show where CGI and H<sub>2</sub>S monitoring will be positioned with wind socks and alarm level settings and whether a leak or problem anywhere along the pipeline is automated so operator first responders can quickly shut down and fix a leak. *Issue here is there is no H<sub>2</sub>S monitoring devices along the pipeline, but a low-high shut-off valve; consequently, the question of how a pressure drop within operational range may not be detected by this type of system. Also, there is no activation level other than the ESD activating out of the pressure range. This is not good enough....*
- 19) Emergency action procedures should include a warning system to roadway ROW so travelers (walking/transportation) may be alerted of an impending poison gas danger (i.e., flashing red beacons should be positioned along roadways and residences) to turn back or evacuate the area at the minimum "Activation Level" (i.e., 10 - 30 ppm).
- 20) H<sub>2</sub>S detectors with alarm systems should be displayed on the map(s) to scale. Also, it is apparent from the plan that H<sub>2</sub>S gas detectors are needed for public safety where residences are encompassed and/or near the ROE<sub>100</sub>. If prevailing winds are from the south, H<sub>2</sub>S detectors should be biased and downwind of point source locations, and/or just upwind from residential areas, etc. Wind socks near residences may assist persons in moving upwind during emergency release situations.

- 21) "Intentional Releases" of toxic gases (i.e., H<sub>2</sub>S and SO<sub>2</sub>) should be removed from the CP. Instead, the H<sub>2</sub>S CP should alert the general public of dangerous conditions. Consequently, this language needs to be removed and annual public training should be provided by the operator with any advanced notification of when this may occur. The operator may want to meet residents in order to assess persons with disabilities (i.e., sight, hearing, paraplegic, etc.) that may need to be taken into account to protect all persons from releases from the pipeline.
- 22) The CP should state how the operator will provide annual training to the general public on CP Activation. Again, any concentration at or above 100 ppm H<sub>2</sub>S should require evacuation or other procedure to notify all persons to give everybody in the vicinity of the leak a chance to escape or shelter in place depending on the site-specific response by the operator in the event of a detected leak in the pipeline. It could be an automated phone message to all residents threatened by the ROE<sub>100</sub>, but remember that not all person's answer their phones when they ring or may have disabilities that prevent them from answering his/her phone.
- 23) Because there are no action steps to follow during an "Activation Level", there appears to be some confusion of whose responsibility it is for placement of barricades along roadways, alerting the public of an evacuation, and or implementing response measures. For example, the CP should state who does what with applicable agency concurrence and should not assume other agencies will be responsible for placement of roadway barricades, etc., in order to prevent loss of life. The CP should tell all responders "who does what" to prevent miscommunication during an emergency. The reference to Incident Command System (ICS) under FEMA is helpful, but this places the responsibility for DCP's pipeline on the local fire departments and police, which they may not be in agreement.
- 24) The CP should state how the operator will provide annual training to the general public on CP Activation. Again, any concentration at or above 100 ppm H<sub>2</sub>S should require evacuation or other procedure to notify all persons to give everybody in the vicinity of the leak a chance to escape or shelter in place depending on the site-specific response by the operator in the event of a detected leak in the pipeline. It could be an automated phone message to all residents threatened by the ROE<sub>100</sub>, but remember that not all person's answer their phones when they ring or may have disabilities that prevent them from answering his/her phone.
- 25) Residences or Public Roads: This section should be used to refer to the roadway map and locations of barricades (along roadway ROW and nearby residences) that would be erected upon implementation of the CP (100 ppm detected in a public area). Currently, since the operator has no H<sub>2</sub>S monitors, there would never be a detection that would initiate the CP.
- 26) Signs and Markers: The operator shall install and maintain signs or markers that conform to the current ANSI standard Z535-1-2002 (Safety Color Code), or some other division-approved standard. The sign or marker shall be readily readable, and shall contain the words "poison gas" and other information sufficient to warn the public that a potential danger exists. The person shall prominently post signs or markers at locations, including entrance points and pipeline road crossings and/or ROW, sufficient to alert the public that a potential danger exists.

- 27) State and Local Agencies & Contractors should include any private emergency responders trained to work in a hazardous work environment and implement corrective actions during activation level or emergency situations.

**Recommendations:**

- 1) H<sub>2</sub>S monitors with alerting system and wind socks should be positioned along nearby residences and roadway ROWs to prevent loss of life in the event of a major release.
- 2) Weather conditions, i.e., temperature inversions, could affect the location of H<sub>2</sub>S near population centers during a major release. Ambient air monitoring may need to be stepped up based on the weather conditions during the day and/or night time to protect public health. For example, H<sub>2</sub>S is denser than air and could migrate downward into low-lying areas that also need to be considered in the CP based on the topographic map.
- 3) Availability of the H<sub>2</sub>S Plan: it should also be distributed to nearby residences in ROE100 ppm public access areas.
- 4) The LEPC or Fire Marshall and State Police should receive copy of plan.

Please contact me at (505) 476-3490 if you have questions. Thank you.

Sincerely,

Carl J. Chavez  
Environmental Engineer

File: GW-015 (H<sub>2</sub>S Contingency Plan)

CJC/cjc

CC: OCD Hobbs District Office



# New Mexico Energy, Minerals and Natural Resources Department

**Susana Martinez**  
Governor

**John H. Bemis**  
Cabinet Secretary-Designate

**Brett F. Woods, Ph.D.**  
Deputy Cabinet Secretary

**Jami Bailey**  
Division Director  
Oil Conservation Division



**DRAFT No. 2**  
**August 11, 2011**

Mr. Carl Gonzales, Pipeline Compliance Specialist  
DCP Midstream  
1625 West Marland Street  
Hobbs, New Mexico 88240

Dear Mr. Gonzales:

**Re: Fullerton to Linam Pipeline H<sub>2</sub>S Contingency Plan (Lea County)**

The Oil Conservation Division (OCD) is in receipt of DCP Midstream's letter dated September 22, 2010 and attached H<sub>2</sub>S Contingency Plan (CP) dated September 2010 for the "**Fullerton to Linam Pipeline**".

The OCD has completed its review of the CP and has determined that the CP does not address all of the H<sub>2</sub>S "Hydrogen Sulfide" Regulations (19.1.11 NMAC). In general, there are still H<sub>2</sub>S monitoring, CP activation, multiple agency "who does what" during an emergency, and training issues that need to be addressed.

OCD CP observations, comments, concerns and/or recommendations are as follows:

**General Observations:**

- 1) One ESD low-high pressure valve along the pipeline as the monitoring system for the pipeline does not satisfy the OCD Hydrogen Sulfide Regulations. There are no H<sub>2</sub>S monitors to satisfy the "activation limit" and to determine when the H<sub>2</sub>S CP must be implemented. The ROE<sub>100</sub> appears to either encompass major public roadways and/or threaten a few residential areas along the pipeline transect.
- 2) The ROE<sub>500</sub> and ROE<sub>100</sub> appear to be accurate based on the 30K MCFD and 1.1% H<sub>2</sub>S concentration.
- 3) Residential areas relative to the pipeline were not depicted on the map and public training was not mentioned. GIS observations of the pipeline transect indicates that some residences could be threatened by a leaky pipeline. Better quality maps to scale displaying the ROE 100 ppm vs. 500 ppm relative to public areas along the pipeline transects are required. The map in Appendix A is not discernable.

- 4) One low (350 psi) – high (880 psi) pressure valve emergency shut-off device does not address the magnitude of a pressure drop indicating that there is a pipeline leak in the system. The leak detection pressure drop tolerance or threshold that would trigger the shut-down other than significant pressure deviations.
- 5) The “Table of Contents” should be completed similar to the OCD approved H2S CP for “Linam Ranch Gas Plant and AGI Well Site” (GW-015) dated November 9, 2009.
- 6) The fluid type is gas in the pipeline and consists primarily of natural gas and 1.1% [H<sub>2</sub>S].
- 7) In the event of a release, or shut-down, the entire pipeline must be shut-in and a drive-by with gas monitoring device(s) would be implemented to locate the source(s) of the leak based on an unknown threshold pressure drop at the one low-high pressure valve.
- 8) More details about the pipeline design and construction with monitoring devices, etc. are required to assess public safety along the pipeline.
- 9) Why is there no MIT or ultrasonic testing of the pipeline over time to prevent leaks attributable to corrosion?
- 10) The call list is important, but designated 24/7 emergency responders are needed to take quick assessments of elevated levels of [H<sub>2</sub>S] during emergencies with emergency response measures. This needs to be incorporated into CP actions. The NM State Police are the first responders in NM once they arrive and the Fire Department Fire Marshal or LEPC is the chief incident commander during emergencies in NM once he/she arrives.
- 11) The level of detail on implementation of the CP once activated with diagrams to displays areas of evacuation, road barricades, etc. is lacking.
- 12) Emergency workers and responders beyond the activation level to identify the source of elevated H<sub>2</sub>S and also who is prepared to work under hazardous conditions is not specified to prevent or in the event of a worse case condition.
- 13) The brochure in Appendix B of the CP is not adequate as a means of public training. Public training should consist of what exact action steps will be taken in the event of a release and implementation of the pipeline CP to protect human life from a toxic gas like H<sub>2</sub>S? Residents proximal to the pipeline should know how public health will be safeguarded.

**General Comments:**

- 1) A 24/7 pipeline pressure monitoring system with automatic audio and visual alarm system positioned along stretches of the pipeline would extend the period between MITs or other non-intrusive types of ultra-sonic wall thickness monitoring requirements under the OCD Discharge Permit.
- 2) ASTM, GPA and/or API Standards should be referenced in the CP. For the pipeline design, a diagram and reference to any construction standard(s), i.e., Department of

Transportation (DOT) would confirm some acceptable standard for pipeline design and construction is being proposed that will address monitoring and public safety concerns.

- 3) Designated emergency responders for all emergencies should be available to respond and this should not be a call list? The call list is important, but designated 24/7 emergency responders are needed to take quick assessments of elevated levels of [H<sub>2</sub>S] during emergencies with emergency response measures. This needs to be incorporated into CP actions. The NM State Police are the first responders in NM once they arrive and the Fire Department Fire Marshal or LEPC is the chief incident commander during emergencies in NM once he/she arrives.
- 4) Discovery and Internal Reporting should occur at the 30 ppm Activation Level for determining the source of gases. However, 10 ppm is conservative and a good level to dawn SCBA, PPE, etc. in order to take prompt corrective actions to prevent CP Activation situation. CP activation should occur when 100 ppm [H<sub>2</sub>S] is detected in a public area, i.e., highway.
- 5) An H<sub>2</sub>S Plan Distribution List should also be sent to the NM State Police, since they are usually first to arrive at the scene. Another suggestion would be the Eunice Public Library for the general public to have access to it.
- 6) Pipeline shall be buried below the ground frost line depth as prescribed by the U.S. Department of Agriculture Soil Conservation Service reference for the area.

### H<sub>2</sub>S Regulatory Comments

- 1) 19.15.11.9(B)(2)(a): Emergency procedures followed in the event of a major release (>100 ppm in public area) with duties and responsibilities of the Operator and agencies. A team of workers that can work in a high [H<sub>2</sub>S] environment is not specified, but needs to be.
- 2) 19.15.11.9(B)(2)(c): Maps and diagrams would greatly enhance the plan and could be referenced from applicable sections of the plan. Maps and/or diagrams depicting evacuation, roadblock locations, monitor locations (with prevailing wind consideration), procedure for notification of public for evacuation, i.e., specific siren with public training, etc.
- 3) 19.15.11.9(B)(2)(d): No discussion on workers trained to work and undertake corrective actions in high H<sub>2</sub>S environment could be discerned. Also, public training on evacuation, siren, etc. not discussed.
- 4) 19.15.11.9(B)(2)(e): No discussion on coordination of the plan with New Mexico Hazardous Materials Emergency Response Plan was made. This is important for evacuation procedures and being consistent with a uniform emergency responder chain-of-command system. In New Mexico, the State Police are usually the first responder with the Fire Department Chief or LEPC becoming the Incident Commander upon arrival.

- 5) 19.15.11.9(B)(2)(f): The “Activation Level” (AL) for identifying when H<sub>2</sub>S levels indicate a possible leak or release is not specified. An AL of 10 - 30 ppm has been specified in past plans.
- 6) 19.15.11.9(C): The CP “Activation Level” should be specified in the plan to be 100 and 500 ppm concentrations in public road or 100 ppm 3000 ft. from location of release. The distinction between the AL above and the CP “Activation Level” activates immediate action steps performed by the owner/operator (see CP comments below) to protect public safety in the event of an emergency.
- 7) 19.15.11.10: Section 4.7 needs to reflect that sign will have “Poison Gas” demarcation. The sign and marker requirements must be addressed.
- 8) 19.15.11.12(D)(1): Safety devices such as automatic shut-down devices to prevent H<sub>2</sub>S escape or safety procedure to accomplish same purpose is required. Questions about the design and construction of the pipeline become apparent with leak detection monitoring and shut-down in the event of an emergency. H<sub>2</sub>S is a toxic gas in addition to being flammable and explosive. There may be flaring at the Booster Station? Shut-in of the pipeline occurs when the valve closes? Once a leak is located, can sections of the pipeline should be shut-in for repair. Would monitors automatically detect a pressure drop across the 16 inch pipeline and activate an audio-visual warning system for roadway travelers?
- 9) 19.15.11.13: Personnel protection and training are of concern when it comes to workers at the plant trained to quickly respond to stop H<sub>2</sub>S leaks and take immediate corrective actions to prevent CP from activation for protection of public safety.

### **H<sub>2</sub>S Questions:**

- 1) Can the proposed pipeline design be referenced under existing pipeline regulations, i.e., DOT or is the design a custom or non-conventional type of pipeline engineering design?
- 2) Based on the current design of the pipeline system, the operator may not quickly recognize when the gas in the pipeline is leaking out and/or locate a leak(s) anywhere along the pipeline to make repairs unless the leak is noticeable?
- 3) The operator does not appear to have a trained H<sub>2</sub>S first responder team (Hazwoper: SCBA Level A and/or B) that will take immediate actions to fix or repair leaks in an emergency situation and appears to be relying on other responders.
- 4) The flare system with auto ignition located at the Booster Station along the pipeline transect in the event of a “worst case scenario” that would be activated under an emergency situation that requires flaring of H<sub>2</sub>S and emission information on SO<sub>2</sub> in the CP. H<sub>2</sub>S and SO<sub>2</sub> monitoring around this flare stack and down gradient is required to address public safety issues to nearby workers, residential populations and/or roadways. An NMED- Air Quality Bureau permit to discharge may be required for any pipeline discharge to ambient air?
- 5) How was flow rate and concentration estimated for the ROE calculations?

- 6) Not clear if trained plant workers trained to work in high [H<sub>2</sub>S] environment will be deployed during emergency situations where the release must be identified, monitored, stopped, and repaired.
- 7) Will there be red warning lights with sirens that would sound that would warn travelers to stop and go back? How would the public be trained and not everyone is local to the area, but there may be out-of-state travelers moving through that area?
- 8) How do you provide training to the public and/or provide SCBA so they may quickly dawn the equipment needed to escape from the area?
- 9) Could a family theoretically survive staying inside while a plume of H<sub>2</sub>S migrates across the area under minimal or stagnant weather condition?
- 10) Will there be at least one staff person monitoring the SCADA at a control room 24 hrs/day?

The OCD provides Notice of Deficiency (NOD) comments, observations, concerns, and/or recommendations herein that need to be considered and resolved in order for the CP to be approved by the OCD.

**NOD:**

- 1) The pipeline design and controls for automatic shut-down are not discussed.
- 2) An equipment inventory list with inventory and detailed description of equipment that will address CP is needed in the plan.
- 3) Show OCD where the "Poison Gas" signs will be positioned along roadways where pipeline runs and near residences where the ROE<sub>100</sub> extends. ANSI compliant signs are required as specified under the hydrogen sulfide regulations.
- 4) In the event of an emergency shut-down, based on the flow rate used in the ROE calculations, how long would it take to shut-in flow through the pipeline? Can flow be shut down at sections of the pipeline? Are there many gas gathering lines that feed into the Eunice Middle Plant pipeline that would prevent immediate shut-in of flow? How long would it take to immediately shut-in flow through the pipeline?
- 5) Where is the map(s) of the detectors, windsocks, shelters, poison gas signs, etc. that should be referenced in the event of an emergency and CP text referencing locations of detectors, shelters, etc. and who does what?
- 6) A schematic of the ESD system is requested to know the exact shut-in valve locations during an emergency.

- 7) In addition to signs, and for public safety, an audible alarm system with flashing red light emergency system along the pipeline is required as an early warning to motorists and/or persons on foot along the roadways to turn back or evacuate the area until the situation is corrected. The pipeline right-of-way (ROW) has warning signs containing the words "poison gas" to warn the public that a potential hazardous danger condition exists.
- 8) Wind socks equipped with lights for night time visual perception of wind direction are required along the buried pipeline for persons at risk to know what direction to move to escape hazardous vapors. Wind direction indicators known as wind socks are located at the compressor/injection site so that they are visible from all principal working areas and pipeline at all times.
- 9) Public training on the H<sub>2</sub>S CP shall be conducted on an annual basis in an acceptable meeting area that will facilitate all persons including those with handicaps that can be reasonably accommodated for public safety. The operator is proposing to send brochures to residents in the area, but that does not address the overall population at large, etc. Annual public meetings to discuss the CP "who does what" is more appropriate and would complement the brochures to educate the public.
- 10) Should contain training information for personnel to review and mock drills to personnel so they will know how to coordinate and respond during a dangerous release.
- 11) Shouldn't emergency response action be more immediate, i.e., evacuation of the residences in the area, roadway closure, emergency phone and plan for residents-prevailing winds and movement to upwind area, etc.? Could be policeman w/ siren and voice megaphone evacuation and public training should address the warning siren type, evacuation, etc.
- 12) Items should be included in Section 3.2.1 above. Saving lives should not rest on the availability of an area manager to be present, the plan should be implemented w/o an FIC being present? Worst case scenario should be the precedent because of the ROEs identified in the H<sub>2</sub>S CP. We need to remember that the H<sub>2</sub>S activation limit starts the CP implementation and not a FIC determination.... This section is getting ready to implement the CP, but this should contain immediate actions to save human life based on the ROEs calculated in the CP.
- 13) Some items do not appear in sequence and map to reference would be helpful for personnel during an emergency, i.e., where are emergency assembly areas located? How will pipeline be shut-in to fix leaks? How long will it take to shut-in entire pipeline versus section of pipeline where release is located? Will pipeline be under constant pressure to detect when a leak has occurred along the pipeline or can locations of pressure loss be quickly identified by monitor system? Will workers trained to work in high H<sub>2</sub>S environment be deployed to fix leaks or stop the release?
- 14) Should identify roadways to be closed during immediate action steps and how will traffic be stopped along roadway adjacent to pipeline during an emergency situation. *Issue is operator wants to defer to FD/Police Dept. to position barricades....*

- 15) Will there be a special siren sound that informs the public when a major release has occurred along the pipeline? Will there be a State Police Siren with megaphone announcement made in the community to implement quick emergency evacuation procedures? The public should be trained to know when an emergency requiring evacuation occurs and which direction to move depending on the location of the release?
- 16) Barricades should be listed under an equipment list in the plan that identifies the inventory and description of the equipment.
- 17) Emergency procedures need to be itemized and outlined so persons receiving the CP know exactly what steps to follow. The current emergency response is not written to follow easy action step instructions. This needs to be corrected as emergency personnel just need to know the action steps that are in place when => 100 ppm H<sub>2</sub>S is present in a public area(s) it is CP Activation. And there is a difference between 30 ppm and the term "Activation Level" to determine what is causing elevated H<sub>2</sub>S and to fix it before it becomes a life threatening situation, i.e., H<sub>2</sub>S at greater than 100 ppm in public areas. DCP Midstream must have responders who can quickly assemble to address or take proper corrective actions at the activation and CP implementation levels. Evacuation should be based on the ROE<sub>100 ppm</sub>, and the alerting system should be setup to evacuate all persons in the vicinity of the release. For example, with proper public training, when the certain alarm is heard, all persons should know when to evacuate or "shelter in place" to prevent loss of life. *Issue is operator has no detectors along pipeline, but has 1 high-low pressure shut-off valves along pipeline that will activate an ESD, but the operator cannot explain how this device will identify a leak along the pipeline because operating pressures each hour can fluctuate. Operator indicated a human may notice a pressure drop at the SCADA? But small leaks may not be noticeable and the methane and H<sub>2</sub>S (11,000 ppm or 1.1%) could be released?*
- 18) Emergency Shutdown System (ESD) needs much more detail, a diagram with areas that shut down and time frame and what would trigger an emergency shutdown. Also, the diagram may be a good figure to show where CGI and H<sub>2</sub>S monitoring will be positioned with wind socks and alarm level settings and whether a leak or problem anywhere along the pipeline is automated so operator first responders can quickly shut down and fix a leak. *Issue here is there is no H<sub>2</sub>S monitoring devices along the pipeline, but a low-high shut-off valve; consequently, the question of how a pressure drop within operational range may not be detected by this type of system. Also, there is no activation level other than the ESD activating out of the pressure range. This is not good enough...*
- 19) Emergency action procedures should include a warning system to roadway ROW so travelers (walking/transportation) may be alerted of an impending poison gas danger (i.e., flashing red beacons should be positioned along roadways and residences) to turn back or evacuate the area at the minimum "Activation Level" (i.e., 10 - 30 ppm).
- 20) H<sub>2</sub>S detectors with alarm systems should be displayed on the map(s) to scale. Also, it is apparent from the plan that H<sub>2</sub>S gas detectors are needed for public safety where residences are encompassed and/or near the ROE<sub>100</sub>. If prevailing winds are from the south, H<sub>2</sub>S detectors should be biased and downwind of point source locations, and/or just upwind from residential areas, etc. Wind socks near residences may assist persons in moving upwind during emergency release situations.

- 21) "Intentional Releases" of toxic gases (i.e., H<sub>2</sub>S and SO<sub>2</sub>) should be removed from the CP. Instead, the H<sub>2</sub>S CP should alert the general public of dangerous conditions. Consequently, this language needs to be removed and annual public training should be provided by the operator with any advanced notification of when this may occur. The operator may want to meet residents in order to assess persons with disabilities (i.e., sight, hearing, paraplegic, etc.) that may need to be taken into account to protect all persons from releases from the pipeline.
- 22) The CP should state how the operator will provide annual training to the general public on CP Activation. Again, any concentration at or above 100 ppm H<sub>2</sub>S should require evacuation or other procedure to notify all persons to give everybody in the vicinity of the leak a chance to escape or shelter in place depending on the site-specific response by the operator in the event of a detected leak in the pipeline. It could be an automated phone message to all residents threatened by the ROE<sub>100</sub>, but remember that not all person's answer their phones when they ring or may have disabilities that prevent them from answering his/her phone.
- 23) Because there are no action steps to follow during an "Activation Level", there appears to be some confusion of whose responsibility it is for placement of barricades along roadways, alerting the public of an evacuation, and or implementing response measures. For example, the CP should state who does what with applicable agency concurrence and should not assume other agencies will be responsible for placement of roadway barricades, etc., in order to prevent loss of life. The CP should tell all responders "who does what" to prevent miscommunication during an emergency. The reference to Incident Command System (ICS) under FEMA is helpful, but this places the responsibility for DCP's pipeline on the local fire departments and police, which they may not be in agreement.
- 24) The CP should state how the operator will provide annual training to the general public on CP Activation. Again, any concentration at or above 100 ppm H<sub>2</sub>S should require evacuation or other procedure to notify all persons to give everybody in the vicinity of the leak a chance to escape or shelter in place depending on the site-specific response by the operator in the event of a detected leak in the pipeline. It could be an automated phone message to all residents threatened by the ROE<sub>100</sub>, but remember that not all person's answer their phones when they ring or may have disabilities that prevent them from answering his/her phone.
- 25) Residences or Public Roads: This section should be used to refer to the roadway map and locations of barricades (along roadway ROW and nearby residences) that would be erected upon implementation of the CP (100 ppm detected in a public area). Currently, since the operator has no H<sub>2</sub>S monitors, there would never be a detection that would initiate the CP.
- 26) Signs and Markers: The operator shall install and maintain signs or markers that conform to the current ANSI standard Z535.1-2002 (Safety Color Code), or some other division-approved standard. The sign or marker shall be readily readable, and shall contain the words "poison gas" and other information sufficient to warn the public that a potential danger exists. The person shall prominently post signs or markers at locations, including entrance points and pipeline road crossings and/or ROW, sufficient to alert the public that a potential danger exists.

- 27) State and Local Agencies & Contractors should include any private emergency responders trained to work in a hazardous work environment and implement corrective actions during activation level or emergency situations.

**Recommendations:**

- 1) H<sub>2</sub>S monitors with alerting system and wind socks should be positioned along nearby residences and roadway ROWs to prevent loss of life in the event of a major release.
- 2) Weather conditions, i.e., temperature inversions, could affect the location of H<sub>2</sub>S near population centers during a major release. Ambient air monitoring may need to be stepped up based on the weather conditions during the day and/or night time to protect public health. For example, H<sub>2</sub>S is denser than air and could migrate downward into low-lying areas that also need to be considered in the CP based on the topographic map.
- 3) Availability of the H<sub>2</sub>S Plan: it should also be distributed to nearby residences in ROE100 ppm public access areas.
- 4) The LEPC or Fire Marshall and State Police should receive copy of plan.

Please contact me at (505) 476-3490 if you have questions. Thank you.

Sincerely,

Carl J. Chavez  
Environmental Engineer

File: GW-015 (H<sub>2</sub>S Contingency Plan)

CJC/cjc

CC: OCD Hobbs District Office

## Chavez, Carl J, EMNRD

---

**Subject:** H2S CP Meeting Fullerton TX to Linam Ranch NM  
**Location:** Telephone Conf. Call

**Start:** Fri 7/29/2011 1:00 PM  
**End:** Fri 7/29/2011 2:00 PM

**Recurrence:** (none)

**Meeting Status:** Meeting organizer

**Organizer:** Chavez, Carl J, EMNRD

**Required Attendees:** cigonzales@dcpmidstream.com; Chavez, Carl J, EMNRD

OCD will call Carl Gonzales at 432-557-3416 at 1 p.m. Mountain Time (2 p.m. Eastern Time).

Will send draft correspondence with Acrobat Reader file of CP w/ OCD comments superimposed on document at 9 a.m. before meeting in p.m.

Discuss OCD review of Contingency Plan to narrow down focus of an amended H2S CP that we can agree on. Ok.



RECEIVED OCD

September 22, 2010

2010 OCT -7 P 1:20

New Mexico Oil Conservation Division  
1220 South St. Francis Dr.  
Santa Fe, NM 87505

Return Receipt Requested 7005 0390 0002 9917 1805

Re: **Hydrogen Sulfide Contingency Plan**  
**Lea County**  
**Fullerton to Linam Pipeline**

To Whom it May Concern:

DCP Midstream, LP (DCP) is submitting a Hydrogen Sulfide Contingency Plan to the New Mexico Oil Conservation Division in accordance with New Mexico Regulation 19.15.11.9(1) for operation of a 12-inch and 18-inch sour gas pipeline in Lea County.

DCP is planning to begin construction on the referenced line November 1, 2010. The pipeline route is shown in Appendix A of the plan and the plan was developed in accordance with API RP-55, *Recommended Practice for Oil and Gas Producing and Gas Processing Plant Operations Involving Hydrogen Sulfide*. DCP intends to construct, maintain, and operate this pipeline facility in accordance with the rules and regulations of the State.

Please do not hesitate to contact Carl Gonzales at (432) 620-4017 or Rebecca Voss at (979) 820-5100 should you have any questions regarding the submittal.

Sincerely,  
DCP Midstream, LP

A handwritten signature in black ink, appearing to read "Carl Gonzales", written in a cursive style.

Carl Gonzales  
Pipeline Compliance Specialist

Attachment



## Hydrogen Sulfide Contingency Plan

TITLE 19 NATURAL RESOURCES AND WILDLIFE  
CHAPTER 15: OIL AND GAS  
PART 11: HYDROGEN SULFIDE GAS

*19.15.11.9: HYDROGEN SULFIDE CONTINGENCY PLAN*

Proposed Installation of 5.4 miles of 16-inch  
Proposed Installation of 11.8 miles of 12-inch  
Sour Gas Pipeline

Fullerton to Linam Ranch  
Lea County, New Mexico

September 2010



PLAN DISTRIBUTION LIST

New Mexico Oil Conservation Commission	1 Copy
Lea County Sheriff Department	1 Copy
DCP Linam Ranch Plant Supervisor	1 Copy
DCP Monument Plant Supervisor	1 Copy
DCP Linam Ranch Plant Control Room	1 Copy
DCP Linam Ranch Plant Coordinator	1 Copy
DCP Linam Ranch Plant Asset Manager	1 Copy
DCP Houston Gas Control Room	1 Copy
DCP Fullerton Control Room	1 Copy
DCP Monument Control Room	1 Copy
DCP Safety Specialist	1 Copy
DCP H&S Manager	1 Copy

**TABLE OF CONTENTS**

**PLAN DISTRIBUTION LIST** ..... 2

**PROJECT DESCRIPTION** ..... 2

**PUBLIC EXPOSURE** ..... 2

**PUBLIC EFFECT** ..... 3

**DCP PUBLIC AWARENESS PROGRAM** ..... 3

**ENGINEERING DESIGN & SAFE PRACTICES** ..... 4

**MATERIALS PROVISION** ..... 4

**SAFEGUARDS AVAILABLE** ..... 4

**SECURITY & SIGN PROVISION** ..... 5

**EMERGENCY NOTIFICATIONS** ..... 6

**PLAN ACTIVATION** ..... 6

**NOTIFICATION OF THE OIL CONSERVATION COMMISSION** ..... 6

**COORDINATION WITH LOCAL RESPONDERS** ..... 6

**OUTSIDE AGENCY EMERGENCY CONTACT NUMBERS** ..... 7

**DCP EMPLOYEE EMERGENCY CONTACT NUMBERS** ..... 8

**RESPONSE PROCEDURES FOR INTENTIONAL RELEASES** ..... 9

**RESPONSE PROCEDURES FOR UNINTENTIONAL / ACCIDENTAL RELEASES** ..... 10

**EMERGENCY INCIDENT MANAGEMENT AND RESPONSE** ..... 11

**TRAINING AND DRILLS** ..... 12

**CHARACTERISTICS OF HYDROGEN SULFIDE** ..... 12

**DCP EVACUATION PROCEDURE** ..... 13

**DCP EMERGENCY SHUTDOWN EQUIPMENT** ..... 14

**DCP Vehicles and Equipment** ..... 14

**APPENDIX A** ..... 15

**APPENDIX B** ..... 16

## **PROJECT DESCRIPTION**

The purpose of this plan is to develop a plan of action for alerting and protecting the public prior to an intentional release or following the accidental release of a potentially hazardous volume of hydrogen sulfide (H<sub>2</sub>S). This plan contains written guidelines to evaluate and to respond to an incident, and to prevent or to minimize personal injury or loss, to avoid environmental hazards, and to reduce damage to personal property.

DCP Midstream (DCP) is proposing to construct 5.4 miles of 16-inch and 11.8 miles of 12-inch high pressure pipeline in Lea County, New Mexico. This pipeline will gather natural gas containing hydrogen sulfide gas and will begin in Section 5, Township 20 South, Range 39 East in Lea County and can be isolated at a valves located east of HWY 18, the Monument Facility and the Linam Ranch Facilities. The valve located at HWY 18 is configured with a high/low alarm and will be monitored via a SCADA system at the Fullerton and Linam facilities. The high/low alarms are set at the following pressures:

Low Pressure Alarm: 350 psi  
High Pressure Alarm: 880 psi

This pipeline will have a normal operating pressure between 350 to 850 psig and will gather natural gas containing hydrogen sulfide gas to be processed at the DCP Linam Ranch Facility with a volume of approximately 30,000 MCFD. The hydrogen sulfide concentration is approximately 11,000 ppm with a projected 100 ppm ROE to extend 3,796 feet and the 500 ppm ROE to extend 1,735 feet.

## **PUBLIC EXPOSURE**

The pipeline is located in rural and non-populated areas. The pipeline originates at the Fullerton facility and will cross the following public roads in New Mexico: County Road 42, State Hwy 8 and State Hwy 18. The roads are identified to be within the radius of exposure.

A total of three (3) valves are located on the pipeline route between approximately 15 miles of pipe. All valves will have hi/low alarms and will be monitored 24/7 at the Fullerton and Linam Ranch facilities. The valves are located at Hwy 18, Monument Facility and the Linam Ranch Facility.

A map is provided in Appendix A that outlines the pipeline route and radius of exposure.

## **PUBLIC EFFECT**

### **DCP PUBLIC AWARENESS PROGRAM**

- In the event of a release that could be hazardous to the public, the DCP Incident Commander in conjunction with the County Incident Commander will either assist with evacuation of the public or advise the public to shelter in place.
- Participates in an extensive annual Public Awareness Program and Damage Prevention Program.
- Participates with the Local Emergency Planning Committee to educate persons residing in the counties we operate in about the hazards associated with gas plants and pipelines.
- Participates with the Pipeline Group to educate excavators and contractors about Damage Prevention to underground facilities and is a member of the Texas One-Call System.
- Installs and maintains pipeline markers and signs at all facilities and road crossings to identify DCP underground pipelines.

Annually, residents and businesses located within the ROE of the Fullerton-Linam Ranch pipeline system will receive a Public Awareness brochure that explains DCP's Public Awareness and Damage Prevention program (See Appendix B for a copy of the brochure). This brochure is printed in both English and Spanish. It contains visual documentation of pipeline markers, aerial markers and casing vent markers. Residents and businesses are encouraged to report any damage or vandalism to these markers in their neighborhood. This brochure also educates the public on how to respond to a pipeline emergency and includes a 24 hour/7 day week emergency telephone number.

**DCP PUBLIC AWARENESS BROCHURES WILL BE PRESENTED TO EACH RESIDENT LIVING WITHIN THE RADIUS OF EXPOSURE.**

## **ENGINEERING DESIGN & SAFE PRACTICES**

### **MATERIALS PROVISION**

DCP will follow the "Materials and Equipment" provision and "Control and Equipment" provision of Rule 36 as a minimum criterion for installing pipelines in sour gas service. The metal components shall be those metals, which have been selected and manufactured so as to be resistant to hydrogen sulfide stress cracking under the operating conditions for which their use is intended. All materials will satisfy the requirements described in the latest editions of NACE Standard MR-01-75 and API RP-14E, sections 1.7(c), 2.1(c), and 4.7. The handling and installation of materials and equipment used in hydrogen sulfide service are to be performed in such a manner so as not to induce susceptibility to sulfide stress cracking.

The pipe used will be API 5L X-52 grade steel pipe with an epoxy based coating for external corrosion prevention. All valves, flanges, etc. shall be constructed of those metals, which have been selected and manufactured so as to be resistant to Hydrogen Sulfide stress cracking under normal operating conditions. The requirements, as described in the latest edition of the NACE Standards MR-01-75 and API RP-14E, section 1.7(c), 2.1(c) and 4.7, shall determine the appúrtenances used in construction of any part of this pipeline.

The normal operating pressure of the 12-inch and 16-inch pipeline will be between 450-750 psig and the MAOP is 1440 psig. The hydro test pressure for the 12-inch steel line will be 1,800 psig for an eight hour period.

---

### **SAFEGUARDS AVAILABLE**

- Compressors will have high and low pressure shutdowns. This information will be transmitted to the Fullerton and Linam Control Rooms via SCADA and to the Field Operator via phone. There will be fixed H<sub>2</sub>S monitors/alarms with automatic shutdown capability at the booster. The site is equipped with a flare to handle emergencies. Fire extinguishers and respiratory equipment will be on site and the station is fenced and gated.
- The line sections will between State Highway 18 and Monument Facility and between the Monument Facility and Linam Ranch will have Hi/Low pressure monitoring. The lines will be continuously monitored 24-hours a day by the Fullerton and Linam Ranch facilities through SCADA (see ROE map in Appendix A)
  - Low Pressure Alarm: 350 psi
  - High Pressure Alarm: 880 psi
- The 12-inch steel buried pipeline crossing public roads will have a .281 wall thickness and the 16-inch steel buried pipeline crossing public roads will have a .375 wall thickness. In addition to the increased wall thickness, the wall pipe used in the road crossings will be coated with 12 to 14 mills of Fusion Bond Epoxy on the bare pipe with an additional 30 mls of Powercrete or Lilly coating providing a total of 42 mills of coating in the crossings. Powercrete or Lilly coating is a highly

abrasion and impact resistant coating designed and approved for use in bored crossings. This coating is designed to be resistant to scratches and coating damage during the installation process of the pipe under the public roads.

- Along the pipeline rights-of-way the pipe will be buried a minimum of 4' in depth to aid in preventing accidental excavation accidents. The pipe will be at least 4' deeper than the lowest point of any road crossing.
- Corrosion Protection will be utilized to ensure the integrity of the 12 and 16-inch lines. Pipelines will be continuously chemically treated for corrosion protection and monitored with corrosion coupons.

### **SECURITY & SIGN PROVISION**

The Linam Ranch and Monument Facilities are manned 24 hours/day and is fenced.

For buried lines DCP will comply with the following:

- A marker sign will be installed at public road crossings and will contain sufficient information to establish the ownership and existence of the line and will indicate by the use of the words "Poison Gas" that a potential danger exists.
- Marker signs will be installed along the line, when it is located within a public area or along a public road, at intervals frequent enough in the judgment of the operator so as to provide warning to avoid the accidental rupturing of line by excavation.

### **Sign requirement:**

- Sign will be of sufficient size to be readable at a reasonable distance from the facility.
- Signs will be constructed and use the language of "Caution" and "Poison Gas" with a black and yellow color contrast. Colors will satisfy Table I of American National Standard Institute Standard 253.1-1967. Signs will be compatible with the regulations of the federal Occupational Safety and Health Administration.

## **EMERGENCY NOTIFICATIONS**

### **PLAN ACTIVATION**

The Hydrogen Sulfide Reaction Plan will be activated when the Incident Commander (IC) believes that a release creates a concentration of hydrogen sulfide that exceeds or is likely to exceed the following activation levels:

- 100 ppm radius of exposure is in excess of 50 feet and includes any part of a "public area" except a public road;
- 500 ppm radius of exposure is greater than 50 feet and includes any part of a public road;
- 100 ppm radius of exposure is greater than 3,000 feet.

### **NOTIFICATION OF THE OIL CONSERVATION COMMISSION**

The Oil Conservation Commission shall be notified immediately as follows:

- immediately in the case of an accidental release if the public could be or is affected;
- immediately in the case of any hydrogen sulfide related accident;
- as soon as possible before or after an unplanned intentional release made in an emergency situation to prevent a possible uncontrolled release but no more than 4 hours after plan activation;
- 12 hours in advance of an intentional release or as soon as a decision is made to release if such decision could not reasonably have been made more than 12 hours prior to the release.

---

A written report shall be provided to the Division 1 office within 15 days of release of hydrogen sulfide gas, whether it be from an accidental or intentional release.

NM Conservation Commission District Office 575-370-3186	24/7
---	------

### **COORDINATION WITH LOCAL RESPONDERS**

This Hydrogen Sulfide Plan will be coordinated with the New Mexico Oil Conservation Commission and with the Sheriff Department for Lea County.





**DCP EMPLOYEE EMERGENCY CONTACT NUMBERS**

Use the following phone numbers in the event of a catastrophic release and/or emergency situation.

**24 HOUR GAS CONTROL NUMBER 1-800-435-1679**

Fullerton Plant Office Number: 432-596-2701  
Health & Safety Manager -  
Operations Vice President – Ronnie Trammell 432-620-4066

Work Group Supervisor	Office #	Cell #
Fullerton Gas Plant Brent Sharp	432-596-2704	432-556-5774
Monument Facility Polo Rendon	575-391-5720	575-390-5707
Linam Ranch Facility		
	575-391-5720	
Construction & Maintenance Joe Terry	432-580-5117 or 432-445-1051	432-556-3257
SENM Asset Manager Kelly Jamerson	575-397-5539	325-226-3357
Goldsmith/Fullerton Asset Manager Mike Betz	432-827-1970	432-238-8875
Health & Safety Manager Glen Bowhay	432-620-4009	432-425-7635

*Remember – DCP's Four Objectives in an Emergency:*

1. Life Safety.
2. Environmental Protection.
3. Protection of Company and Public Property.
4. Preventing interruption of business and public services such as Highway Access, Water & Utilities.

**Life Safety Will Always Remain the First and Highest Priority!**

## RESPONSE PROCEDURES FOR INTENTIONAL RELEASES

If an H<sub>2</sub>S intentional release is planned, the following emergency plan of action should be put into effect to adequately ensure the safety of , contractors and the public. These response sequences should be altered to fit the prevailing situation and event/site-specific requirements. No one will be intentionally exposed to H<sub>2</sub>S concentrations in excess of 10 ppm without proper Personal Protection Equipment (PPE) and Incident Commander authorization.

1. Notify the Southern Division Health & Safety Manager, Glen Bowhay 432-620-4009 (office) or 432-425-7635 (cell). Assistance will be provided to ensure all proper notifications and reporting is made to local, state and federal agencies.
  - Upon knowing a release is intended, the NM Oil Conservation Commission will be contacted for consultation. Information to be passed along to the NM OCC is to include: an estimate of the volume and release rate based on the gas contained in the system elements to be de-pressured.
2. Notify the Western Region Vice-President of Operations, Ronnie Trammell at (office) 432-620-4066 prior to an intentional release.
3. Prior to release, alert personnel in the immediate area. If possible, take measures to eliminate possible ignition sources, utilizing lockout/tagout procedures. Establish Incident Command and continually assess the situation and direct further actions to be taken. If assistance is required from law enforcement, safety or medical agencies, consult the emergency services telephone listing in this plan.
4. The H<sub>2</sub>S boundary shall be delineated by using a calibrated gas monitor. Trained personnel will continuously monitor H<sub>2</sub>S concentrations, wind direction and area of exposure and will advise the IC on current conditions. Protective measures shall be maintained until the threat of injury to the public from H<sub>2</sub>S poisoning has been eliminated. Personnel should enter the area from upwind of the site. The area must be checked with monitoring equipment and cleared below 10 ppm before allowing entry without proper PPE. If a reading of 10 ppm or higher of H<sub>2</sub>S is obtained, then respiratory equipment will be required. If an H<sub>2</sub>S reading of 100 ppm or more is obtained, respirator equipment and backup personnel will be required.
5. If the IC deems it necessary, steps will be taken to stop traffic through the area, most importantly, public road/highway traffic. Roadblocks will be set up at the 10-ppm H<sub>2</sub>S boundary.
6. Initiate evacuation of nearby residents, if deemed necessary. Coordinate with emergency services.

## **RESPONSE PROCEDURES FOR UNINTENTIONAL / ACCIDENTAL RELEASES**

If an H<sub>2</sub>S leak is detected as a result of an accidental release, the following emergency plan of action should be put into effect to adequately ensure the safety of DCP employees, contractors and the public. These response sequences should be altered to fit the prevailing situation and event/site-specific requirements.

1. Upon detecting a leak, immediately move away from the source and attempt to get out of the affected area by moving upwind or cross wind. Proceed to a designated safe assembly area.
2. Alert other personnel in the area. Don proper personal breathing equipment.
3. If injury or death has occurred, immediately call emergency services (911). Assist personnel in distress if this can be done without endangering yourself.
4. Assume the role of Incident Commander (IC) and if possible, take immediate measures to control present or potential discharge and to eliminate possible ignition sources.
5. Notify the DCP Supervisor. Upon arriving at the scene, the Supervisor should formally assume the role of the IC.
6. The IC will assess the situation and direct further actions to be taken. If assistance is required from law enforcement, safety or medical agencies, call 911.
7. Notify the Western Region Vice-President of Operations, Ronnie Trammell at (office) 432-620-4066.
8. If the IC deems it necessary, ensure that steps are taken to stop traffic through the area. Roadblocks will be set up at the 10-ppm H<sub>2</sub>S boundary. The H<sub>2</sub>S boundary shall be delineated by using a calibrated gas monitor. Call emergency services (911) for assistance in quarantining the area, if needed.
9. Initiate evacuation of nearby residents, if deemed necessary. Coordinate with emergency services and local responders.
10. Notify the Southern Division Health & Safety Manager, Glen Bowhay 432-620-4009 (office) or 432-425-7635 (cell). Assistance will be provided to ensure all proper notifications and reporting are made to local, state and federal agencies.

11. The H<sub>2</sub>S boundary, cause and extent of the leak shall be delineated by using a calibrated gas monitor. Trained personnel will continuously monitor H<sub>2</sub>S concentrations, wind direction and area of exposure and will advise public safety and emergency personnel on current conditions. Protective measures shall be maintained until the threat of injury from H<sub>2</sub>S poisoning has been eliminated. Personnel should enter the area from upwind of the site. The area must be checked with monitoring equipment and cleared below 10 ppm before allowing entry without proper PPE. If a reading of 10 ppm or higher of H<sub>2</sub>S is obtained, then supplied air will be required. If an H<sub>2</sub>S reading of 100 ppm or more is obtained, breathing air and backup personnel will be required. Note: No one will be intentionally exposed to H<sub>2</sub>S concentrations in excess of 10 ppm without proper Personal Protection Equipment (PPE), IC authorization and backup personnel.
12. If possible, de-energize all sources of ignition, using lockout/tagout procedures.
13. If possible, perform shutdown on appropriate equipment and systems.
14. Trained personnel will continuously monitor H<sub>2</sub>S concentrations, wind direction and area of exposure and will advise public safety and emergency personnel on current conditions.
15. Protective measures shall be maintained until the threat of injury to the public from H<sub>2</sub>S poisoning has been eliminated. The area must be checked with monitoring equipment and cleared below 10 ppm before allowing entry without proper PPE.

### **EMERGENCY INCIDENT MANAGEMENT AND RESPONSE**

Emergency incident management will follow the Incident Command System (ICS) as described by the Federal Emergency Management Act (FEMA). The intent of using ICS for all emergency incidents provides automatic continuity with outside agencies and assists in establishing a "unified command" of the incident. DCP provides instruction and training on the ICS. The ICS is described in the DCP Fullerton Asset Emergency Response Plan.

For incidents such as those described in this plan, it seems likely that the basic Incident Command System would be comprised of: 1) Command; 2) Operations Chief; and 3) Safety Officer. Larger incidents may require additional positions such as Public Information Officer; Logistics Chief; Planning Chief; Finance Chief; and Environmental Group Supervisor. The exact number and combination of positions will vary depending upon the type, size and duration of the incident.

In every incident, command must first be established. The first person to discover the problem is, by default, the Incident Commander (IC) until this responsibility is transferred to someone else. This responsibility should be formally transferred to the Plant or Field Supervisor as soon as practical.

DCP will take the necessary actions required to safeguard DCP personnel and the public from emergency incidents. In the event of an emergency incident, DCP personnel will

take prompt action within their immediate work area to ensure that appropriate DCP personnel and the public are notified.

Whenever possible, DCP personnel will take immediate action to limit the effects of the emergency. Four objectives will be considered when developing an appropriate emergency response.

These objectives are:

- Life safety.
- Environmental protection.
- Protection of company and public property.
- Preventing interruption of business and public services such as highway access, water, and utilities.

While all four of the above objectives are important, life safety will always remain the first and highest priority.

Emergency response actions taken by individuals should be within their level of training, experience and physical abilities. Most DCP plant and field employees are trained to the HAZWOPER Operations level with select employees trained to the Incident Commander level. At no time will DCP employees or contractors assume an unreasonable risk during an emergency response. An unreasonable risk exists when:

- The task exceeds the physical abilities of the individual;
- The individual is not properly trained to complete the task; or
- The individual does not have adequate experience to complete the task.

### **TRAINING AND DRILLS**

Hydrogen Sulfide safety training for DCP personnel will be conducted when their job entails working in or around operations which contain hydrogen sulfide in excess of 10 ppm.

This training will include:

- hazards and characteristics of hydrogen sulfide (see below)
- safety precautions
- operation of safety equipment and life support systems
- effects of hydrogen sulfide on metal components in the system
- corrective action and shutdown procedures
- this plans parameters and requirements

All training will be documented and training records will be maintained on file in the Goldsmith/Fullerton Asset Safety Files.

### **CHARACTERISTICS OF HYDROGEN SULFIDE**

At normal atmospheric conditions hydrogen sulfide (H<sub>2</sub>S) is a colorless gas. It is commonly referred to by other names such as Rotten Egg Gas, Acid Gas, Sour Gas, Sewer Gas, Poison Gas and Sulfur Gas. It has a characteristic "rotten egg" smell at low

concentrations. At higher concentrations, it has a sweet odor. At still higher concentrations, an odor cannot be detected at all due to olfactory nerve anesthesia. Odor must *not* be used as means of determining the concentration of H<sub>2</sub>S gas! Hydrogen sulfide can form explosive mixtures at concentrations between 4.3% and 46%, by volume. Its auto-ignition temperature is 500 degrees F (260 degrees C). When burning, its flame is practically invisible. It is denser than air (1.19 times heavier than air) and may accumulate in low places. Hydrogen sulfide gas tends to interact with high carbon steel, causing embitterment and fine fractures in metal components and piping.

H<sub>2</sub>S acts as a chemical asphyxiate, preventing the body from utilizing oxygen in the tissue. Breathing may stop after a few seconds of exposure to H<sub>2</sub>S gas in concentrations of 600-700 ppm. This produces symptoms such as panting, pallor, cramps, dilation of eye pupils and loss of speech. This is generally followed by immediate loss of consciousness. Death may occur quickly from respiratory paralysis and cardiac arrest.

### **DCP EVACUATION PROCEDURE**

Evacuation may become necessary to protect personnel and the public from hazards associated with an H<sub>2</sub>S incident. Orderly evacuation is essential to protect the general public as well as DCP personnel and property. In the event of a release that could be hazardous to the public within the ROE for the Fullerton pipeline system, the DCP Incident Commander in conjunction with the County Incident Commander will either assist with evacuation of the public or advise the public to shelter in place. DCP personnel have determined the safe evacuation routes and assembly areas to reduce confusion if evacuation becomes necessary. The DCP IC may assign runners to direct evacuation and account for personnel during emergencies. Designated Assembly Areas shall be at a safe distance from the incident in an appropriate direction (upwind or crosswind). If the Assembly Areas do not provide adequate shelter, transportation to a central shelter should be arranged after all personnel are accounted for. As the incident progresses, the IC will continuously evaluate the adequacy of the assembly area and necessity of the shelter. In the event the evacuation is around a gathering or discharge line, the area may not be entered unless the Incident Commander authorizes essential personnel to enter.

With respect to plant and booster evacuation alarms, any number of methods are acceptable as a backup alarm, such as a bullhorn, an assigned runner, even radios or cell phones as long as everyone in the area can be notified. It all depends on the circumstances.

In cases involving system bypass or removal from service for repair/maintenance, the DCP By-pass Permit policy requires precautions be put in place to compensate for the system taken out of service. This could be accomplished with the aforementioned methods and/or keeping "nonessential" personnel" out of the area if the bypass is of relatively short duration. A back up evacuation alarm/method is also a regulatory requirement in this situation (29 CFR 1910.165(d)(3)). If the designated evacuation alarm is going to be out of service, it is important to document the evacuation procedure and communicate and/or train as deemed necessary. The backup does not have to be an alternate source of electricity.

In the event of an evacuation alarm failing at the onset of an emergency (for example due to loss of electricity) runners and/or the use of a bull horn may be used to notify personnel

in the area to evacuate to a safe assembly area. This, in conjunction with local sign-in and accounting procedures, will help to account for all personnel in the plant. The reaction to a plant ESD (flare and silence) may also be used as an indicator for a facility evacuation. To recap, for those areas that have an employee evacuation alarm, there must be an alternate alarm system if the original is removed from service for maintenance.

DCP personnel evacuating their work areas should evacuate the area, notify Fullerton Facility personnel, and proceed to the designated assembly area. The IC or his designee will account for all personnel, ensure the evacuated area is secured and report the status of the evacuation to management. Evacuated personnel shall remain at the assembly area or shelter until directed otherwise by the IC.

#### **DCP EMERGENCY SHUTDOWN EQUIPMENT**

DCP has installed an emergency shutdown system (ESD) on the Fullerton - Linam pipeline system at the Fullerton, Monument and Linam Ranch Facilities. In addition block valves have been installed to allow for isolation of pipeline sections to prevent further release of natural gas containing H<sub>2</sub>S. The Plant Operator and/or Incident Commander may use these systems to shutdown and isolate the pipeline. This is a fail safe system that will allow for the pipeline to be isolated and shutdown if any portion of the system fails.

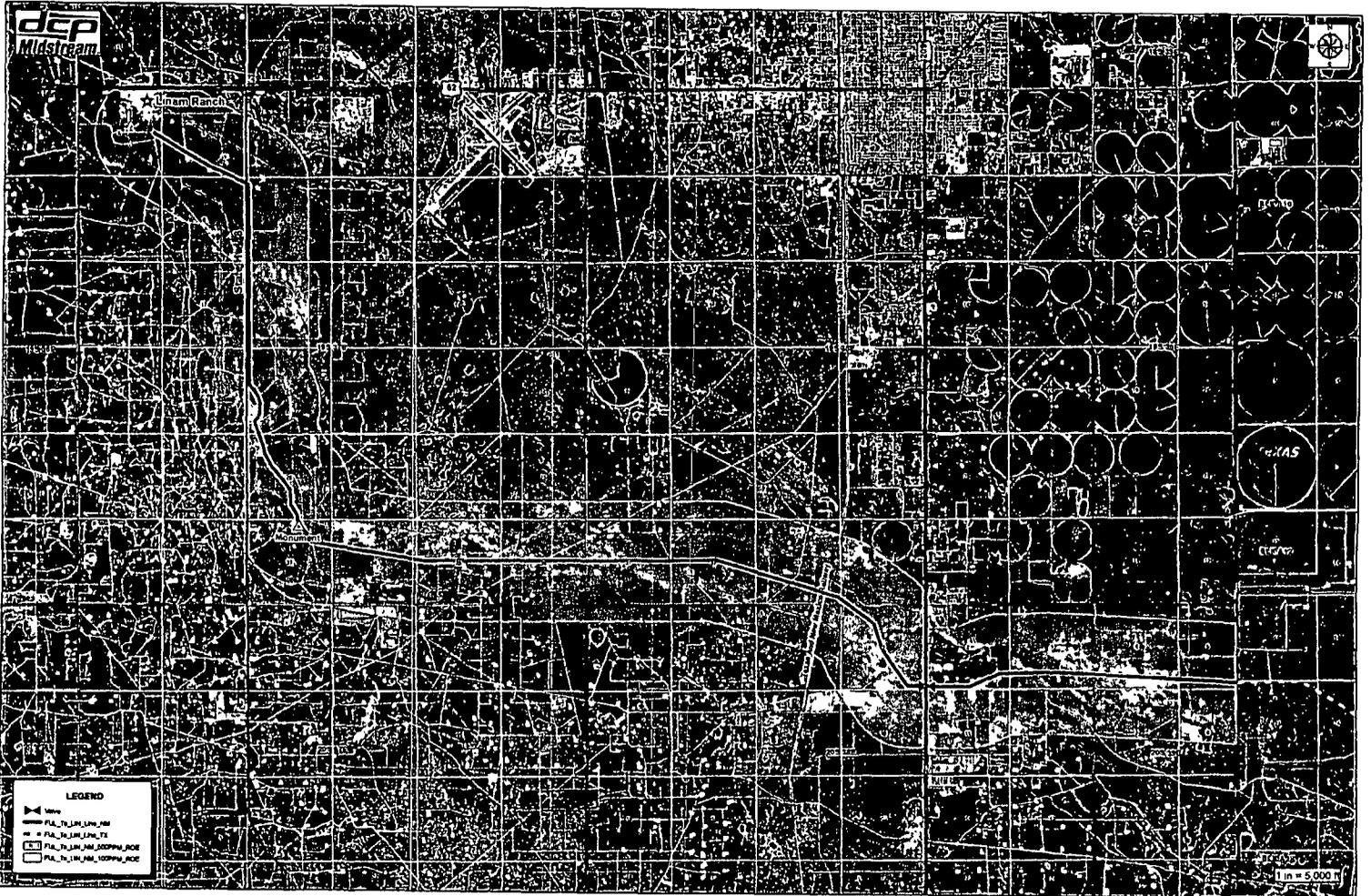
When activated, the ESD shuts automatic valves on all inlet gas feed streams.

#### **DCP Vehicles and Equipment**

All DCP field personnel are equipped with personal H<sub>2</sub>S monitors and designated employees are equipped with portable gas detection devices and 30-minute SCBA's. Communications to DCP field personnel is via cellular telephones or two-way radios and each DCP field truck is also equipped with a fire extinguisher.

APPENDIX A





**APPENDIX B**



