

**GW - 026**

**H2S CONTINGENCY  
PLAN**

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



**MARCH 20, 2014**

Ms. Cindy Klein  
ES&H Specialist  
Targa Midstream Services LLC  
P.O. Box 1689  
Lovington, NM 88260

**RE: Targa Midstream Services LLC (H2S-47): "Saunders Gas Plant Hydrogen Sulfide Contingency Plan" dated March 3, 2014, in Lea County, New Mexico**

Dear Ms. Klein:

The Oil Conservation Division (OCD) is in receipt of Targa Midstream Services LLC's (Targa) "Saunders Gas Plant Hydrogen Sulfide Contingency Plan" (plan) dated March 3, 2014. The plan was submitted subsequent to receipt of the OCD "Checklist" dated January 10, 2014 with review comments on the previous plan.

OCD has completed its review of the plan and finds that it appears to meet the intent of the OCD "Hydrogen Sulfide" Regulations (19.14.11 NMAC). Therefore, OCD hereby **accepts** the plan for record with the following conditions:

1. 19.15.11.9 (H) NMAC Annual Inventory: Please adhere to this section of the regulation. Place the name with contact address information of the appointed Targa Representative in the plan.
2. 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 with ROE100 transecting a public road or public area.

*Please be advised that OCD acceptance of this plan does not relieve the owner/operator of responsibility should their operations fail to adequately investigate and remediate contamination that poses a threat to ground water, surface water, human health or the environment. In addition, OCD acceptance of this plan does not relieve owner/operator of responsibility for compliance with any other federal, state, or local laws and/or regulations*

If you have any questions, please contact Carl Chávez 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.

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



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

## **Targa Saunders Gas Plant**

*owned by*  
**Versado Gas Processors, L.L.C.**

*operated by*  
**Targa Midstream Services LLC**

**March 3, 2014**

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# 1. OPERATOR – QUICK REFERENCE

## TARGA SAUNDERS GAS PLANT

### Level 1 Response

- H<sub>2</sub>S of 10 ppm or greater release is detected by fixed monitors and Plant Operator activates Plan.  
- Plant Operator sounds Plant Emergency Siren to initiate Plant Emergency and Evacuation.

- EVACUATE to Assembly Area 1 by moving upwind, crosswind (Appendix D).  
- Initiate Incident Command System  
- Notify Plant Management  
- Notify OCD of plan activation within 4 hours.

- Account for on-site personnel from sign-in sheet

- IC monitors gas levels with multimeter to determine if H<sub>2</sub>S is 10 ppm or greater and assess situation & instructs rescue/response team to don 30 min. SCBAs, if necessary for rescue.  
- IC directs road block at Targa entrance (cattle guard at Hwy 457 and County Rd. 117) so no one can enter area (See App C for roadblock locations)

- IC commander assess if ESD of Plant and equipment is required (App D for ESD station locations)  
- Continuously monitor H<sub>2</sub>S at Assembly Area 1 (Appendix C) to determine if H<sub>2</sub>S 10 ppm or greater

If H<sub>2</sub>S < 10 ppm and leak is isolated and controlled

If 10 ppm or greater at Assembly Area 1 move to Assembly area 2.  
If H<sub>2</sub>S of 10 ppm or greater is continuously released then initiate Level 2 Response.

- Release resolved if H<sub>2</sub>S less than 10 ppm  
- Signals all clear  
- Remove roadblock

Begin Level 2 Plan Response

## 2. OPERATOR – QUICK REFERENCE

### TARGA SAUNDERS GAS PLANT

#### Level 2 Response

- Corrective actions at Level 1 unsuccessful
- H<sub>2</sub>S of 10 ppm or greater
- Emergency Plant Siren continue
- Assembly Area 1 is 10 ppm or greater and moving to Assembly area 2.

- Incident Commander determines if Plant should be shut-down. Shut all ESD and block valves as needed to isolate leak source.

- IC instructs notification and evacuation of any parties working within the 500 and 100 ppm ROE.
- Simultaneous notification is made per Appendix F (Emergency Responders Notification List) and Appendix E (Targa Notification List).
- The move to Assembly Area 2 is complete and set-up roadblocks as needed to prevent public from entering affected areas. See App C for suggested roadblock locations.

- IC monitors gas levels for 10 ppm or greater with multimeter at Assembly Area 2 and implemented roadblocks and assess situation & instructs further evacuation. If 10 ppm or greater evacuate to Assembly Area 3 and implement recommended road block locations found in Appendix C. Continue to monitor for 10 ppm or greater at implemented roadblocks.

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

#### Release resolved

- IC Signals all clear
- Remove roadblocks
- Personnel return to work
- Notify parties on Appendix E & F of all clear status.

If H<sub>2</sub>S is 10 ppm or greater continue monitoring at roadblock locations until all gas is flared, system is de-pressurized, and alarms and sirens cease.

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

#### Release resolved

- IC Signals all clear
- Remove roadblocks
- Personnel return to work
- Notify parties on Appendix E & F of all clear status.

**AGENCY/EMERGENCY RESPONDERS NOTIFICATION LIST (also in Appendix F)**

**Call 911**

<b>State Police</b>	<b>575-392-5588</b>
<b>Lovington Fire Dept.</b>	<b>575-397-4166/575-393-4339</b>
<b>Hobbs - Sheriff</b>	<b>575-396-3611</b>
Hobbs – Police	575-397-9265
Hobbs – Fire Dept.	575-397-9265
Hobbs – Ambulance	575-397-9265
Eunice – Police	575-394-2112
Eunice – Fire Dept.	575-394-3258
Lovington – Sheriff	575-396-3611
Lovington – Police	575-396-2811
Lovington – Fire Dept	575-396-2359
Lovington - Ambulance	575-396-2811

**STATE AGENCIES**

Oil Conservation Division, Santa Fe	505-476-3440
Oil Conservation Division – District Office, Hobbs	575-393-6161
Environmental Department – Air Quality Bureau, Santa Fe	505-827-1494

**FEDERAL AGENCY**

U. S. EPA – Region VI Office, Dallas, TX	800-887-6063
National Response Center	800-424-8202
New Mexico Public Regulation Commission Office of Public Safety (Pipeline Release)	505-476-0253/505-946-8314

**TARGA SAUNDERS NOTIFICATION LIST (also in Appendix E)**  
**COMPANY PERSONNEL**

Call the following persons in the order listed until one is notified of the emergency:

**1. Area Management**

*Saunders Plant*

Tim Jordan, Saunders Plant Area Manager

Office: (575) 396-3221, ext. 31

Home: (575) 396-0189

Mobile: (575) 631-7091

Alternate:

David Byrd, Saunders Plant Operation Supervisor

Office: (575) 396-3221, ext. 25

Home: (575) 396-6366

Mobile: (806) 789-0528

Alternate:

Gordon Altstatt, Saunders Maintenance Supervisor

Office: (575) 396-3221, ext. 27

Home: (575) 631-2757

Mobile: (575) 631-2757

Alternate:

Ralph England, Saunders Field Supervisor

Office: (575) 396-3221, ext. 24

Home: (575) 760-3407

Mobile: (575) 441-4653

Alternate:

Bill Little, Eunice Plant Area Manger (Eunice, NM)

Office: (575) 394-2534, Ext. 226

Home: (575) 396-2997

Mobile: (575) 631-7099

Alternate:

Todd Young, Director of Operations

Office: (575) 394-2516 ext. 329

Home: (432) 523-3770

Mobile: (575) 441-1645

## **2. ES&H Group**

Cal Wrangham, ES&H Manager

Office: (432) 688-0542 Midland, TX

Home: (432) 697-6580 Midland, TX

Mobile: (432) 425-7072

Cindy Klein, ES&H Specialist

Office: (575) 396-3221, ext. 38

Home: (575) 398-6670

Mobile: (575) 631-7093

Rebecca Woodell, ES&H Specialist

Office: (575) 394-2534, ext. 239

Home: (575) 394-2280

Mobile: (575) 631-7085

## **3. Region Manager**

Clark White, Vice President and Region Manager

Office: (713) 584-1525 Houston, TX

## **4. Field Operators**

Alfredo Corral

Mobile: (575) 631-1432

Home: (575) 396-2960

Tomas Espinoza

Mobile: (575) 631-8912

Home: (575) 396-6690

## **Call company support personnel in Houston, TX, as needed:**

Vice President – ES&H

Jessica Keiser

Office: (713) 584-1084

Cell Phone: (713) 818-8209

Corporate Security

Weldon Green

Office: 713-584-1301

Cell Phone: 281-802-5351

## IMMEDIATE ACTION PLAN

**Targa Saunders Plant Incident Commander (IC) is authorized to elevate the level of response based on observed conditions if a lower level response may not be effective in protecting personnel, the public or the environment.**

There are no public areas, businesses or parties within the 100 and 500 ppm ROE's.

The following outlines the immediate action Plan as provided in the Flow Diagrams in Section 1. When the individual hears, sees, or feels an alert as is recognized by audible, visual, or personal monitor vibration the individual is to proceed to safety as soon as possible which entails evacuation and donning 30-minute SCBA if escape is warranted. 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.

Some steps may be taken simultaneously.

- A. Request assistance, if needed.
  - **EVACUATE** - move away from the source and get away from the affected area (upwind and out of low-lying areas).
  - Don personal protective breathing equipment (30-minute SCBA) for escape.
  - From any location in the facility proceed to the designated Emergency Assembly Area and notify supervisor or incident commander you are accounted for. See Appendix C for locations of Assembly Areas.
  - Assist personnel in distress as directed by the Incident Commander with proper PPE, i.e., 30-minute SCBA unit.
  - Accounting for on-site personnel will be directed by the Incident Commander using the sign-in log at Assembly Area 1, 2, and 3 depending on the "Level Response" outline beginning on Section 1 Flow Diagrams. The sign-in log is brought to the initial Assembly Area by the office personnel as they proceed to that area.
- B. After an Incident Commander is designated, at the IC's direction, the emergency responder will don a 30-minute SCBA and take immediate measures to control the presence of or potential H<sub>2</sub>S discharge and to eliminate possible ignition sources. Emergency shutdown procedures should be initiated as deemed necessary to correct or control the specific situation.
- C. The Incident Commander is responsible for all notifications including government agencies and the effected parties that may be working in the area. There are no public areas, businesses or parties within the 100 and 500 ppm ROE's. The IC may designate another Targa employee to make these notifications to initiate the evacuation of those

within the exposure area.

- D. The IC will contact the Area Manager or first available person on the Appendix E Targa Saunders notification list. Notify them of the circumstances and whether or not immediate assistance is needed. The Area Manager should notify (or arrange for notification of) other supervisors and other appropriate personnel on the Appendix E call list, as necessary.
- E. Cordon off the exposure area to prevent entry, make recommendations to public officials regarding blocking unauthorized access to the unsafe area, and assist as appropriate (Appendix C).
- F. IC or designee will notify, as required, state and local officials and the National Response Center to comply with release reporting requirements. See Appendix F.
- G. First Aid Kits are located in the Assembly Area 1 (Break Room), Plant Office building, Control Room, and in Targa Field Operator vehicles (See Appendix D). Field Operator vehicles will be used for roadblocks. H<sub>2</sub>S monitors will be brought from the control room by the operators and from the field office by the field operators to any roadblocks or Assembly Areas being used. Monitoring will occur continuously at these sites to ensure H<sub>2</sub>S is less than 10 ppm.
- H. If alarms have ceased, monitor the ambient air in the area of exposure for 10 ppm or greater (after following abatement measures) to determine when it is safe for re-entry.
- I. Return the situation to normal. Normal conditions are those in which the ambient air quality is below 10 ppm of hydrogen sulfide and sustained without fluctuation to higher levels and the alarms and sirens have ceased. The IC will determine when safe entry conditions are reached for re-entry into the area.

### 3. EMERGENCY RESPONSE

This section explains the procedures and decision 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.

#### 3.1 Objective

All Area employees shall be prepared to respond to an H<sub>2</sub>S or SO<sub>2</sub> emergency at the facility. Emergency response actions may be taken for a variety of situations that may occur. The Plan is activated in based on the concentration of H<sub>2</sub>S that has been released. The hydrogen sulfide concentration of 10 ppm or greater alerts any Targa employee via their personal monitor as well as H<sub>2</sub>S fixed monitors/detectors. Ten ppm or greater activates the Plan Level 1 response and the situation is assessed immediately by the hydrogen sulfide concentration reported to the control room.

- Emergency alarm sounded and are activated for H<sub>2</sub>S at 10 ppm or greater,
- Plan activation in 100 ppm in any public area, or
- Plan activation in 500 ppm at any public road, or
- Plan activation when a 100 ppm concentration of H<sub>2</sub>S exceeds 3,000 feet from the site of the release.

#### Definitions:

19.15.11.7. I NMAC "Public area" means a building or structure that is not associated with the well, facility or operation for which the radius of exposure is being calculated and that is used as a dwelling, office, place of business, church, school, hospital or government building, or a portion of a park, city, town, village or designated school bus stop or other similar area where members of the public may reasonably be expected to be present. There are no Public areas, businesses or parties within the 100 and 500 ppm ROE's.

19.15.11.7.J NMAC "Public road" means a federal, state, municipal or county road or highway.

As soon as the Plan has been activated based on the criteria above, the Area Manager, or their designee, shall be notified. In the absence of the Area Manager or their relief the Targa employee (first responder) at the site shall assume the role of Incident Commander. It is the responsibility of the Incident Commander to ensure control of the emergency response management system and if necessary to coordinate these efforts with any state or local emergency plans. As Identified in Appendix C, State Road 457 falls into the 100 PPM ROE.

#### 3.2 Response Levels

There are two response levels for the facility described in the Flow Diagrams provided at the beginning of the Plan (Section 1). Any individual encountering a situation where their personal H<sub>2</sub>S monitors are alarming or hears the Plant Siren must evacuate the affected area

immediately. The individual must move upwind and out of low lying areas to safety per evacuation route arrows shown on Appendix D to the appropriate Assembly Area as directed by the Incident Commander. See Appendix C. Once safety is ensured the Levels 1 and 2 discussed in the Flow Diagrams (Section 1) should be followed which entail alerting the supervisor of your current situation and whereabouts and pertinent information regarding the release area. This allows the supervisor to account for you and the other individuals whom are evacuating and assembling to Assembly Area 1 (Plant Break Room, Appendix C). If a release cannot be controlled and is more the 10 PPM, then level 2 will be initiated.

In summary, the Levels provide for immediate action to be taken in an organized fashion in the event of a release of H<sub>2</sub>S at a level of 10 ppm or greater and are conducted to mitigate negative impact to the welfare of individuals and the environment.

### **3.3 Evacuation and Emergency Assembly Areas**

When the emergency alarm or siren is activated all Targa personnel, contractors, and any visitors in the facility are to stop work, check the prevailing wind direction by looking at the nearest wind sock and immediately proceed along designated evacuation routes (Appendix D) and/or upwind to the pre-designated Emergency Assembly Area 1 (Plant Break Room) as shown in Appendix C. Monitoring at Assembly Area 1 will be conducted to determine if it is safe to remain (10 ppm or less) or if the concentration of H<sub>2</sub>S is increasing at the plant requiring movement to Assembly Area 2 or Assembly Area 3. All personnel will check in at the Assembly Area and be accounted for using the daily sign-in log. The sign-in log is brought to the Assembly Area by the office personnel as they proceed to that area. The Incident Commander then determines if any personnel are not accounted for and if immediate rescue is needed and directs any rescue personnel to don 30-minute SCBA's and respond. Emergency services (911) will be contacted if there are injuries or as otherwise deemed necessary. The IC will direct operations to don 30-minute SCBA's and investigate the cause of the release. The recommended sequence of actions is: move away from source, don PPE, alert others, assist the distressed, evacuate to designated Assembly Area, monitor for H<sub>2</sub>S (10ppm or greater), and account for personnel.

<p><b>Emergency Assembly Area 1</b> <b>-Plant Break Room-</b> <b>(Appendix C)</b></p> <p><b>Emergency Assembly Area 2</b> <b>Cattle guard at intersection of State Rd. 457 and County Rd. 117</b> <b>(Appendix C)</b></p> <p><b>Emergency Assembly Area 3</b> <b>One mile south of the intersection (assembly area 2) on State Rd. 457</b> <b>(Appendix C)</b></p>
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### **3.4 Emergency Shut-down**

The Plant has emergency shutdown stations (ESD's) designed to isolate gas, and systems to depressurize by routing gas to flares. Note: Burning the H<sub>2</sub>S in the flare will generate SO<sub>2</sub> so monitor for both H<sub>2</sub>S and SO<sub>2</sub> to determine if it is safe to return. These ESD's can be activated by plant operator in the control room or by remote ESD Stations located in the facility (See Appendix D). Inlet gas could be shut in from entering the plant at the inlet scrubbers by manually blocking the scrubber valves. This action would be implemented by the Incident Commander as warranted in an emergency. The inlet gas would then be automatically routed to a plant flare for safe disposal. These valves and the ESD Stations are depicted on Appendix D. All H<sub>2</sub>S alarms are activated at 10 ppm.

### **3.5 Post-Emergency Actions**

In the event this plan is activated, the following post-emergency actions shall be taken in an effort to reduce the possibility of a recurrence of the type of problem that required its activation and to assure that any future activation will be as effective as possible:

- Ensure all previously notified or evacuated persons have been advised that the emergency condition has ended.
- Ensure all agency notifications have been completed and follow-up with any written notification requirements.
- Clean up, recharge, restock, repair, and replace emergency equipment, as necessary, and return it to its original location.
- Review the cause of the emergency and modify operating maintenance and other surveillance procedures, if needed.
- Critique all actions and procedures, providing additional training to employees if need is indicated. Modify the contingency plan as provided in the NMAC rulings if there is any change in plant operations which require a new ROE to be established, changes to the plant facilities, training requirements, contact information, equipment lists, assembly area or roadblocks, and the public areas including roads, businesses, or residents. The plan will be redistributed to those persons/entities provided in the "Distribution List" of Appendix A.

### **3.6 Notification and Reports**

The Plant has various notification and reporting obligations. Some are related to its state air quality permit that is overseen by New Mexico Environmental Department (NMED) as well as well as state and federal spill reporting obligations. In addition to the regulatory obligations

noted above, Plant personnel also have internal and external notification and reporting obligations associated with the activation of this Plan.

The New Mexico Oil Conservation Division (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 which is detection of 10 ppm or greater H<sub>2</sub>S. 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 (Appendix G).

The Incident Commander or their designee will conduct required notifications based on the situation (Appendix E and F). After the Area Manager or their designee is contacted, they will notify the appropriate Targa Corporate Management, EHS personnel, Plant emergency response personnel, and advise them of the existing emergency condition of 10 ppm or greater.

### **3.7 Response Details**

#### **Plan activation (10 ppm or greater).**

Any employee who finds her or himself in an emergency situation involving the escape of hydrogen sulfide gas of 10 ppm or greater shall notify the Control Room Operator by the fastest means. The Control Room Operator becomes the Incident Commander until relieved by someone else, which may be an Area Manager, Plant Supervisor, or Public Official.

The IC will refer to flow diagram for Level Responses (Section 1). The Incident Commander is responsible to direct the alerting of all persons who are within the exposure areas which are areas of 10 ppm or greater. See Appendix C for the 100 and 500 ppm ROE locations. The IC will also contact and advise the Area Manager, or alternate, of the location and nature of the emergency and if assistance is needed (Appendix E). The Area Manager or their designee will assist in requesting additional assistance if necessary (Appendix E).

The recommended sequence of actions is: move away from source, don PPE, alert others, assist the distressed, evacuate to designated Assembly Area and monitor for H<sub>2</sub>S (10ppm or greater), and account for personnel.

#### **Stop the Escape of Hydrogen Sulfide**

After the plan is activated so all personnel are evacuated and accounted for, the IC should take the necessary steps to stop the escape of hydrogen sulfide by activating the block valves and ESD shutdown stations that are accessible using SCBA's and other proper protective equipment as necessary.

#### **Cordon off the Exposure Area to Prevent Entry and/or Make Roadblocks and Evacuation Recommendations**

Place roadblocks outside the area of exposure on all routes to prevent entry into the area. The Targa Saunders Plant will be road blocked at the cattle guard to prevent entry as the condition warrants based on the Level 1 response (Section 1). Recommended roadblock locations for Targa and law enforcement personnel to prevent entry are provided in Appendix C. As the IC

assigns personnel to set-up roadblocks he or she will give the assigned persons their phone or radio contact information so they can communicate with the IC. The persons manning the roadblocks must be equipped with hydrogen sulfide measuring devices and two-way radios or cell phones to be able to communicate with the IC. Roadblocks should be placed a safe distance away from the potential exposure area and should be monitored for Hydrogen Sulfide to ensure levels are less than 10 ppm. Roadblocks can consist of a vehicle blocking the path with hazard signals, emergency responders motioning to stop, orange cones, emergency tape, or any other equipment device which blockades the area in a manner sufficient of notifying an individual to not pass. Monitor for H<sub>2</sub>S at roadblocks and if levels are 10 ppm or greater notify IC and relocate to next Roadblock (Appendix C) and update the Incident Commander.

Based on all information available and the calculated potential exposure information listed in Appendix B and C, public officials are notified of the suggested locations of roadblocks to keep the public from entering a potentially hazardous area. Proper caution should be used for shifting changes in wind direction. Refer to Appendix C.

#### **Complete Notifications as Required**

Incident Commander will initiate notification of Affected Parties, Emergency Responders, Targa Management, and Government Agencies (Appendix E, and F).

The IC or their designee shall contact OCD no later than 4 hours after plan activation (the first detection of 10 ppm or greater) at the facility. The Area Manager or their designee shall submit a full report of the incident to the division on form C-141 (Appendix G) no later than 15 days following the release.

#### **Monitor for Safe Re-entry**

Ensure complete and permanent stoppage of the release is supported by verification that the fixed monitors and alarms have ceased alerting/sounding at the release site. Allow time for residual H<sub>2</sub>S to leave the area and at the direction of the IC begin monitoring evacuated areas for hydrogen sulfide and combustible gas concentrations of less than 10 ppm (with multimeter). Monitor wind direction by using the nearest wind sock. Monitor safely using a 30-minute SCBA if situation dictates) the ambient air in the area of exposure only after following abatement measures, to determine when it is safe for re-entry. Re-entry is established when hydrogen sulfide concentrations are below 10 ppm and are confirmed to remain at this level without fluctuation to a level above 10 ppm. Note: Burning the H<sub>2</sub>S in the flare will generate SO<sub>2</sub> so if flaring monitor for both H<sub>2</sub>S and SO<sub>2</sub> to determine if it is safe to return.

#### **Return of the Situation to Normal**

No re-entry will be allowed until ambient conditions have been assessed and verified that levels are less than 10 ppm. Communications for re-entry will be coordinated through the Incident Commander (IC). When total absence of hydrogen sulfide and combustible gas is confirmed throughout the evacuated area, notify any public official or emergency responders participating so that they may be informed of the situation. Advise all parties previously notified that the emergency has ended. Remove any roadblocks that were set up.

## 4. SCOPE

The Saunders Gas Plant is a natural gas processing plant which processes gas that contains hydrogen sulfide and/or sulfur dioxide. This Hydrogen Sulfide Contingency Plan (Plan) has been developed to serve as a guidance document to protect the welfare of individuals and the environment in the event of a hazardous hydrogen sulfide release. The Plan satisfies and conforms to promulgated New Mexico Administrative Code rules and industry standards of facility handling of hydrogen sulfide:

- New Mexico Oil Conservation Division Rule 11 (NMAC, 2008);
- American Petroleum Institute's "Recommended Practices for Oil and Gas Producing and Gas Processing Plant Operations Involving Hydrogen Sulfide," Recommended Practice 55 (API, 2007).

Specifically, the Plan details, site-specific hydrogen sulfide release 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.

### 4.1 PLANT LOCATION

The Saunders Gas Plant is located 11 miles west on Highway 82 and 11 miles north on Highway 457 from Lovington, Lea County, New Mexico. It is owned by Versado Gas Processors, LLC and operated by Targa Midstream Services, Limited Partnership.

More specifically, the Plant is located in Section 34, Township 14S, Range 33E in NMPM, Lea County, New Mexico.

1. Plant approximate coordinates are:  
**Latitude: N33.057324 Longitude: W103.607739**
2. Plant physical address is:  
11 miles W on Hwy 82 and 11 miles N on Hwy 457  
Lovington, New Mexico
3. Plant mailing address is:

P. O. Box 1689  
Lovington, New Mexico 88260

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

From the intersection of Main Street and Avenue D (Highway US 82), travel west on Highway 82 (approximately 11 miles) to the intersection of US 82 and State Road 457. Travel north on State Road 457 (approximately 11 miles). Turn left onto County Road 117 (Warren Road) and travel west approximately 0.5 mile to the entrance to the Saunders Gas Plant.

**The location of the Plant is illustrated herein on Figure 1.**

Figure 1: Saunders Gas Plant, Lea County, New Mexico

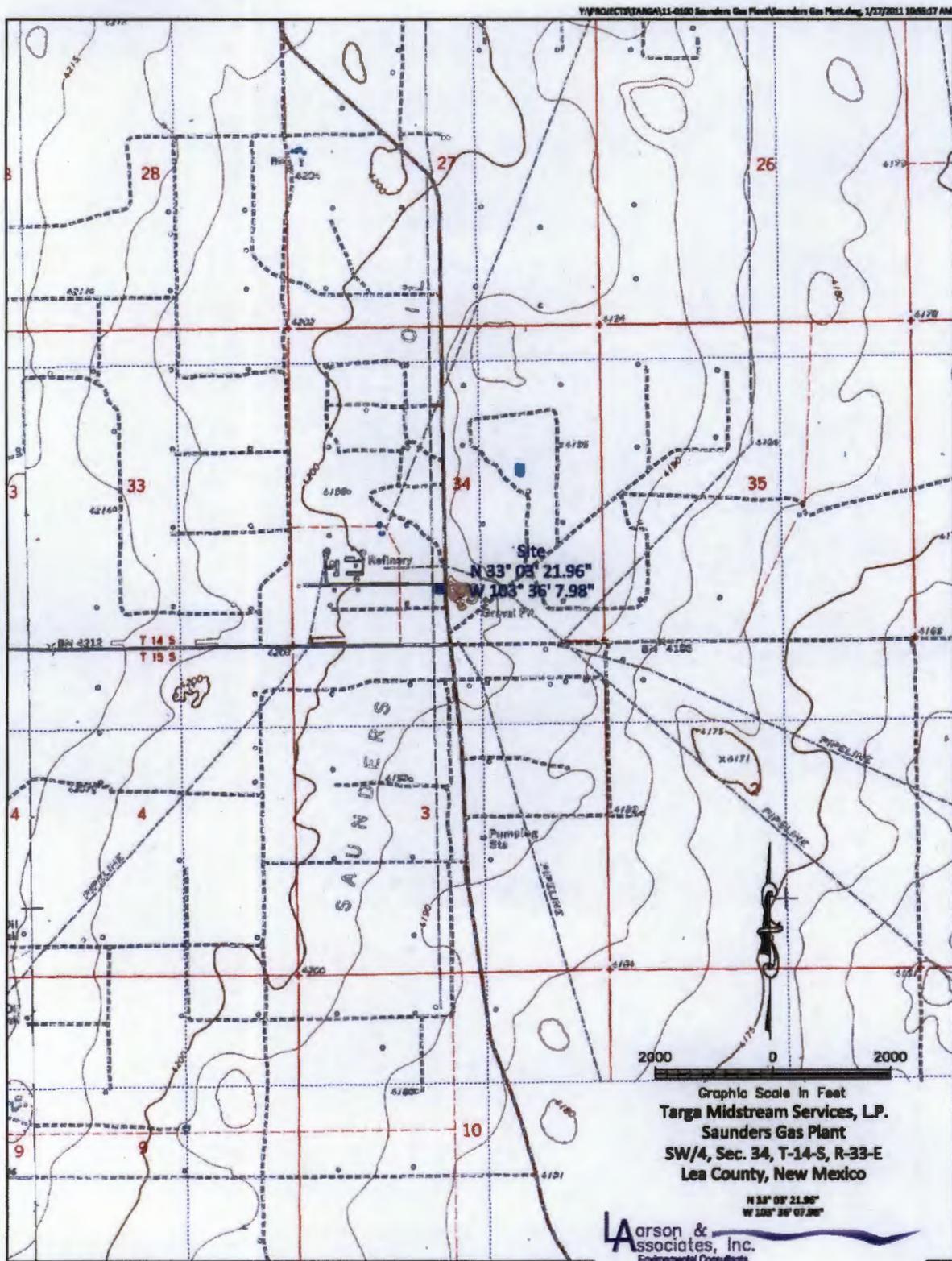


Figure 1 - Topographic Map

### **4.3 DESCRIPTION OF PLANT OPERATIONS AND PROCESSES**

The Plant operations include gas processing, and compression, as well as gathering lines and storage tanks. The Plant gathers and processes produced natural gas from the surrounding area. Once gathered at the Plant, the produced natural gas is compressed; treated in an amine process for the removal of carbon dioxide and hydrogen sulfide; and dehydrated to remove the water content. The processed natural gas and recovered gas liquids are shipped to various customers.

Because the natural gas that is gathered at the Plant contains hydrogen sulfide, it must be treated or processed to remove these and other impurities. The carbon dioxide and hydrogen sulfide (H<sub>2</sub>S) stream that is removed from the natural gas in the amine treating process is routed (directed) to the sulfur recovery unit. The raw field inlet gas enters the Saunders Plant at a flow rate of approximately 47 mmcf/d.

Signs are present at the Saunders Plant which warn of hydrogen sulfide gas stating “poison gas” and complies with current ANSI standard Z535.1-2002 for safety color coding.

Wind direction indicators known as wind socks are located at the Plant site so that one or more are visible from all principal working areas at all times (Appendix D).

### **4.5 FUNCTION OF SIGN-IN LOG SHEET**

- In order to have an accurate listing of all Targa personnel, contractors, and vendors on-site a daily sign-in log sheet located in the Plant Office is used. The sign-in log sheet includes at a minimum the person's name, the company name, the time of arrival, and the time of departure.
- Signs are located at the Plant gate entrances indicating that all visitors are to sign in on the daily sign-in log sheet located in at the Plant office.
- Anytime the Plan is activated (10 ppm or greater) this sign-in log sheet will be used by the IC to account for all people that maybe in the facility. This accounting for on-site personnel will be directed by the Incident Commander using the daily sign-in log at Assembly Area 1, 2, and 3 depending on the “Level Response” outline beginning on Section 1 Flow Diagrams. The sign-in log is brought to the initial Assembly Area by the office personnel as they proceed to that area.

### **4.6 SIGNS & MARKERS**

The facility entrances and storage tanks that contain H<sub>2</sub>S within the facility have warning signs indicating the presence of H<sub>2</sub>S/Poisonous Gas and high pressure gas (which comply with ANSI standard Z525.1-2002) Emergency phone numbers are posted at the entrance to the Plant.

## 5. RADII OF EXPOSURE (ROE)

For the existing operations, the Radius of Exposure for both 500-ppm and 100-ppm of H<sub>2</sub>S gas was determined using the Pasquill-Gifford derived equation, as defined by NMAC, which uses the maximum daily rate of the gaseous mixture that is handled by the Saunders Gas Plant.

The rates and other variables used to calculate the ROE is discussed in greater detail in **Appendix B - ROE calculations. Also refer to Appendix C - map showing 500-ppm ROE and the 100-ppm ROE.**

<b>500 ppm ROE – public road</b>	<b>924 feet</b>
<b>100 ppm ROE – public area</b>	<b>2,022 feet</b>

## 6. TRAINING/DRILLS/EDUCATION

### 6.1 TRAINING

A critical portion of this plan is the emergency procedures and preparedness. To ensure the most effective implementation of these procedures, pre-emergency measures are taken to maintain a state of preparedness. These actions are as follows:

- As part of training an annual mock emergency drill is held annually which include Saunders emergency responders and public officials (Appendix E and F). These drills will include a briefing on issues such as evacuation measures to be taken in the event of a release.
- Every employee is to be completely familiar with the contents and location of the contingency plan.
- Surveillance and preventative maintenance to minimize the possibility of an accidental release of gas.
- Training and drills will be conducted as further described below.
- All SCBA's are maintained and ready for use.
- This Plan is made available to appropriate public response officials and shall be reviewed and discussed thoroughly with the Saunders area emergency response officials.

- Targa will use brochures, public notices, or other means, as deemed appropriate and practical, to alert, educate and train the public officials (Appendix F). These training brochures are mailed to the public officials annually advising them on the hazards of a H<sub>2</sub>S release, response instructions including evacuation or shelter in place information on closing all windows and shutting off furnace and air conditioning systems/swamp coolers that may draw air into a dwelling, and information on hydrogen sulfide characteristics.

All training records for the Plant are maintained at the Plant. Training is documented on training forms as in Appendix H. The following is a limited list and summary of the training programs that relate to the H<sub>2</sub>S Plan and Emergency Response:

**Plant Orientation Training** - All Plant personnel, visitors, and contractors must attend a Plant overview orientation prior to obtaining permission to enter the Plant. A refresher course on this training is required annually for all persons. This training also complies with the requirements of the Targa Safety Standards Manual.

**Respirator Training and Mask Fit Testing** - All Plant personnel receive annual training for proper selection and operation of respirators per OSHA regulations and standards.

**Hydrogen Sulfide and Sulfur Dioxide Training** – All Plant personnel receive annual refresher training on hydrogen sulfide and sulfur dioxide, which is conducted by the Targa Training Group. If an individual is unable to attend, they may be required to attend a third party training session. All contract employees and visitors are required to have had hydrogen sulfide training and to provide the Plant a copy of their certification card prior to obtaining permission to enter the Plant.

**Fire Extinguishers** - All Plant personnel are trained annually on fire extinguisher selection and use.

**Hazard Communication** - All Plant personnel are trained annually on Hazard Communication and SARA Title III Right-to-Know information. The annual training includes, at a minimum, a review of material safety data sheets (MSDS) for those materials that are present at the Plant and labeling.

**Personal Protective Equipment (PPE)** - All Plant personnel are trained annually on the Targa 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 task.

## 6.2 EMERGENCY RESPONSE DRILLS

A critical portion of this plan is the emergency procedures and preparedness. To ensure the most effective implementation of these procedures, pre-emergency measures are taken to maintain a state of preparedness. The Plant conducts emergency drills. Multiple drills during

the year may be scheduled at the discretion of the Area Manager or Public Emergency Response Agencies.

These emergency drills are designed to exercise this Plan. Area Public Emergency Response Agencies (Appendix F) are notified and invited to participate in the drills. The drills will also include briefing of public officials on Saunders facility operations.

Drill training will be documented per a documentation form as in Appendix H and those records will be maintained at the 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; and
- Post drill de-briefs and reviews to determine effectiveness and follow up to correct any deficiencies and/or ways to improve the response procedures.
- Surveillance and preventative maintenance to minimize the possibility of an accidental release of gas.

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

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

- Targa Midstream Safety & Health Manual;
- Targa Midstream, Saunders Plant Emergency Response and Oil Spill Contingency Plan; and
- Targa Midstream Environmental Policies and Programs.

### **6.4 REVISIONS TO THE PLAN**

The H<sub>2</sub>S Plan will be reviewed annually and revised as necessary to address changes to the plant facilities, operations, or training requirements, contact information and the public areas including roads, businesses, or residents potentially affected by the operations of the Plant, specifically those areas within the radii-of-exposure. If any revisions are made to the plan, redistribute the revised plan per Appendix A.

### **6.5 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 Plant in the Area Manager's office, Assembly Area 1 (Break Room), Control Room, all Plant Supervisors, and Field Operator vehicles. See Appendix A for the H<sub>2</sub>S Distribution List, which lists all the additional entities that have been provided a copy of the H<sub>2</sub>S Plan.

## 6.6 EMERGENCY RESPONSE ORGANIZATION

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

In the event of an accidental release that results in the activation of the H<sub>2</sub>S Plan (10 ppm or greater) The Plant Operator will be the On-Scene Incident Commander (IC). Under certain conditions, the Area Manager or New Mexico State Police responding to the emergency may elect to assume the position of IC or they may establish a Unified Command of which the Targa employees may be key members. The responsibility of the IC is to ensure control of the emergency incident.

## 6.7 CHARACTERISTICS OF H<sub>2</sub>S, SO<sub>2</sub> AND CARBON DIOXIDE

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

#### Saunders Plant

The proposed inlet gas streams into the Plant will contain approximately 2,567 ppm (or 0.26 mole percent) of hydrogen sulfide based on data generated from the sampling of the inlet gas on June 1, 2013. The gas flow rate for the inlet to the plant is 47 mmcf/d.

Hydrogen sulfide is a colorless, toxic and flammable gas, and 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.

<b>Hydrogen Sulfide Properties &amp; Characteristics</b>	
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	.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 & 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

### 6.7.2 Sulfur Dioxide (SO<sub>2</sub>)

Sulfur dioxide is produced as a by-product of H<sub>2</sub>S combustion. The waste gas stream consisting of hydrogen sulfide and carbon dioxide is routed to the plant acid gas flare during abnormal conditions when the acid gas injection equipment is out of service. Waste gas is routed to the acid gas flare during maintenance operations.

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

Sulfur dioxide is heavier than air, but will 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 &amp; Characteristics</b>	
CAS No.	7446-09-5
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	49.1 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 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 (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.

### 6.7.3 Carbon Dioxide

The current inlet gas streams to the Plant contain approximately 2.52% carbon dioxide based on an inlet sample collected on Jun 1, 2013.

Carbon dioxide gas is colorless, odorless, and non-flammable. Carbon dioxide 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
TWA	5,000 ppm
STEL	30,000 ppm
IDLH	40,000 ppm
Specific Gravity (air = 1.0)	1.5197
Boiling Point	-109.12°F
Freezing Point	-69.81°F
Vapor Pressure	830 psia
Auto Ignition Temperature	N/A
Lower Flammability Limit	N/A
Upper Flammability Limit	N/A
Stability	Stable
pH in saturated solution	3.7
Corrosivity	dry gas is relatively inert & not corrosive; can be corrosive to mild steels in aqueous solutions

<b>Physical Effects of Carbon Dioxide</b>		
<b>Concentration</b>	<b>Concentration</b>	<b>Effect</b>
1.0 %	10,000 ppm	Breathing rate increases slightly
2.0 %	20,000 ppm	Breathing rate increases to 50% above normal level. Prolonged exposure can cause headache, tiredness
3.0 %	30,000 ppm	Breathing rate increases to twice normal rate and becomes labored. Weak narcotic effect. Impaired hearing, headache, increased blood pressure and pulse rate
4 – 5 %	40,000 – 50,000 ppm	Breathing increases to approximately four times normal rate, symptoms of intoxication become evident, and slight choking may be felt
5 – 10 %	50,000 – 100,000	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 %	100,000 – 1,000,000 ppm	Unconsciousness occurs more rapidly above 10% level. Prolonged exposure to high concentrations may eventually result in death from asphyxiation

## **7. PUBLIC AWARENESS AND COMMUNICATION**

Public awareness and communication is a primary function of the H<sub>2</sub>S Plan. The Company has compiled a list of contacts that are to be notified at various phases during the activation of the Plan. Refer to the lists in Appendix F.

### **7.1 MEDIA**

At no time shall any representative from the media be allowed any closer to the facility than the designated safe (by monitoring) Assembly Areas 2 or 3.

If possible assemble all Media in a group in a safe area away from the emergency so Corporate Communications (Houston) can issue a statement.

All media inquiries should be directed to Corporate Communications in Houston. The IC or their designee will provide Corporate Communications with periodic updates and will take their direction with regard to any onsite communication with the media.

### **7.2 PUBLIC AREAS, BUSINESSES, AND RESIDENTS**

There are no Public areas, businesses or parties within the 100 and 500 ppm ROE's. The contact information for local and state agencies is contained in Appendix F. The IC is responsible for all required notifications.

19.15.11.7.I NMAC "Public area" means a building or structure that is not associated with the well, facility or operation for which the radius of exposure is being calculated and that is used as a dwelling, office, place of business, church, school, hospital or government building, or a portion of a park, city, town, village or designated school bus stop or other similar area where members of the public may reasonably be expected to be present.

Contact notification will include:

- The nature and extent of the release/emergency at the facility and recommendations for protective actions, such as evacuation or shelter-in-place;
- Any other event specific information that is necessary to protect the public; and
- 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. A safe return would be directed by the Incident Commander after alarms have ceased and on ambient air condition sampling of less than 10 ppm.

### **7.3 PUBLIC ROADS**

Depending on the level of response, roadblocks will be established pursuant to Section 1 Flow Charts and Appendix D locations.

19.15.11.7.I NMAC "Public road" means a federal, state, municipal or county road or highway. As Identified in Appendix C, State Road 457 falls into the 100 PPM ROE.

***Appendix A***

***H2S Plan Distribution List***

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New Mexico Oil & Gas Conservation Division – Santa Fe, New Mexico

New Mexico Oil & Gas Conservation Division – Hobbs, New Mexico

New Mexico Department of Public Safety (State Office)

New Mexico State Police

New Mexico Department of Homeland Security and Emergency Management

Lovington Fire Department

Lea County Local Emergency Planning Committee

Lea County Sherriff Department

Saunders Gas Plant Manager and Supervisors

Targa Saunders Plant Control Room, Assembly Area 1, Field Operator Vehicles

Targa Midstream Office (Midland, TX)

The formulas for calculating the ROEs for the Saunders Plant were calculated in accordance with the rulings as specified by the New Mexico Administrative Code Pasquill-Gifford Equation:

**500-ppm RADIUS OF EXPOSURE CALCULATION**

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

**100-ppm RADIUS OF EXPOSURE CALCULATION**

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

Where:

X = Radius of exposure in feet

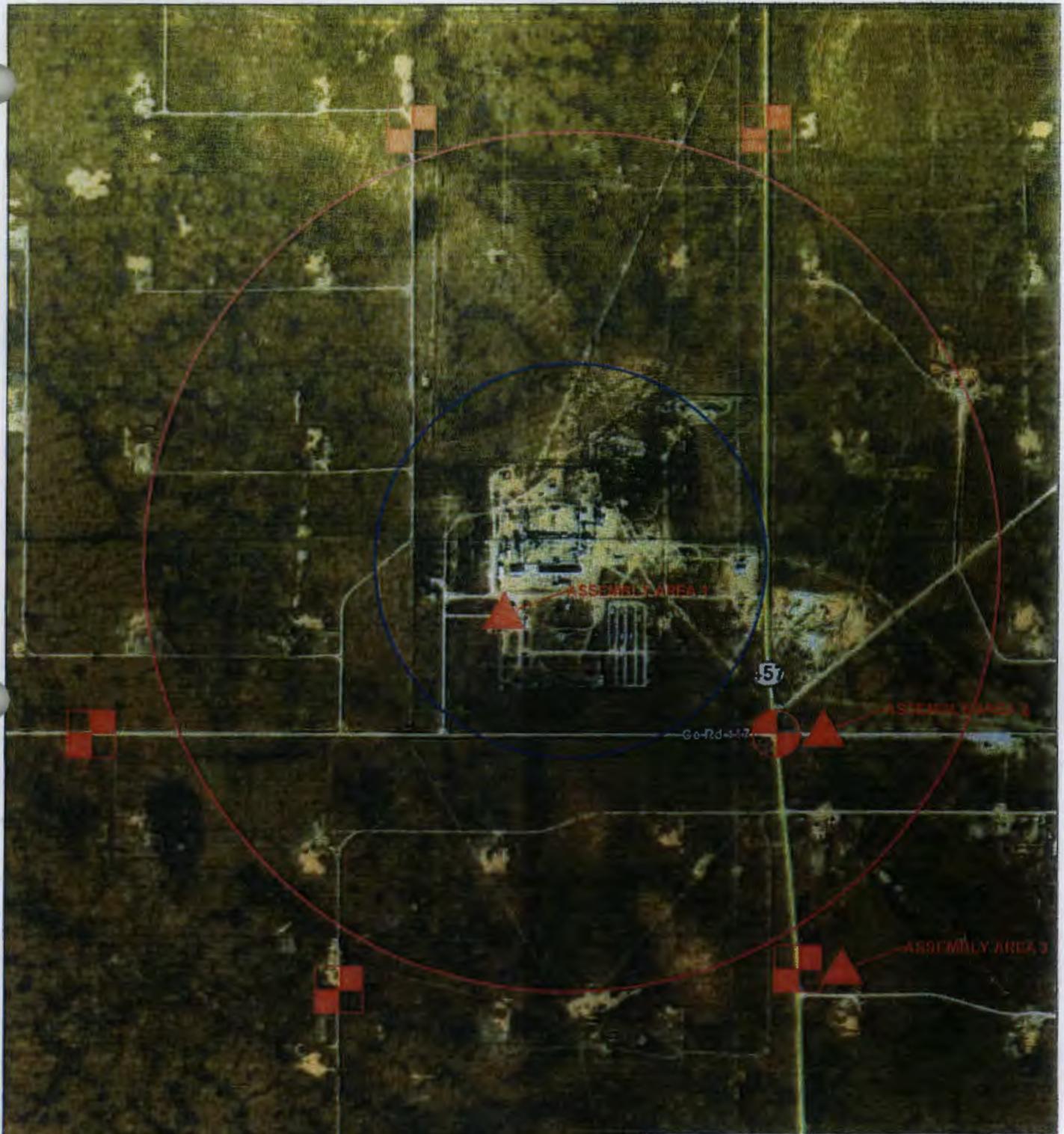
Hydrogen Sulfide Concentration = Decimal equivalent of mole or volume fraction of hydrogen sulfide in the gaseous mixture

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

- For existing facilities or operations, the escape rate (Q) is the maximum daily rate of the gaseous mixture produced or handled or the best estimate thereof.
  - *Saunders Plant-*  
The volume used for the ROE calculation is 100 mmcf/d as the inlet to the Plant with a hydrogen sulfide concentration of 2567 ppm:

*Using flow rate* Q = 47 mmcf/d and  
H<sub>2</sub>S concentration = 2,567 ppm

<b>500 ppm ROE – public road</b>	<b>924 feet</b>
<b>100 ppm ROE – public area</b>	<b>2,022 feet</b>



**Legend**

- -500 ppm ROE = 924 feet
- -100 ppm ROE = 2,022 feet
-  - RECOMMENDED EMERGENCY RESPONDER ROAD BLOCK
-  - TARGA EMERGENCY RESPONDER ROAD BLOCK
-  - ASSEMBLY AREA

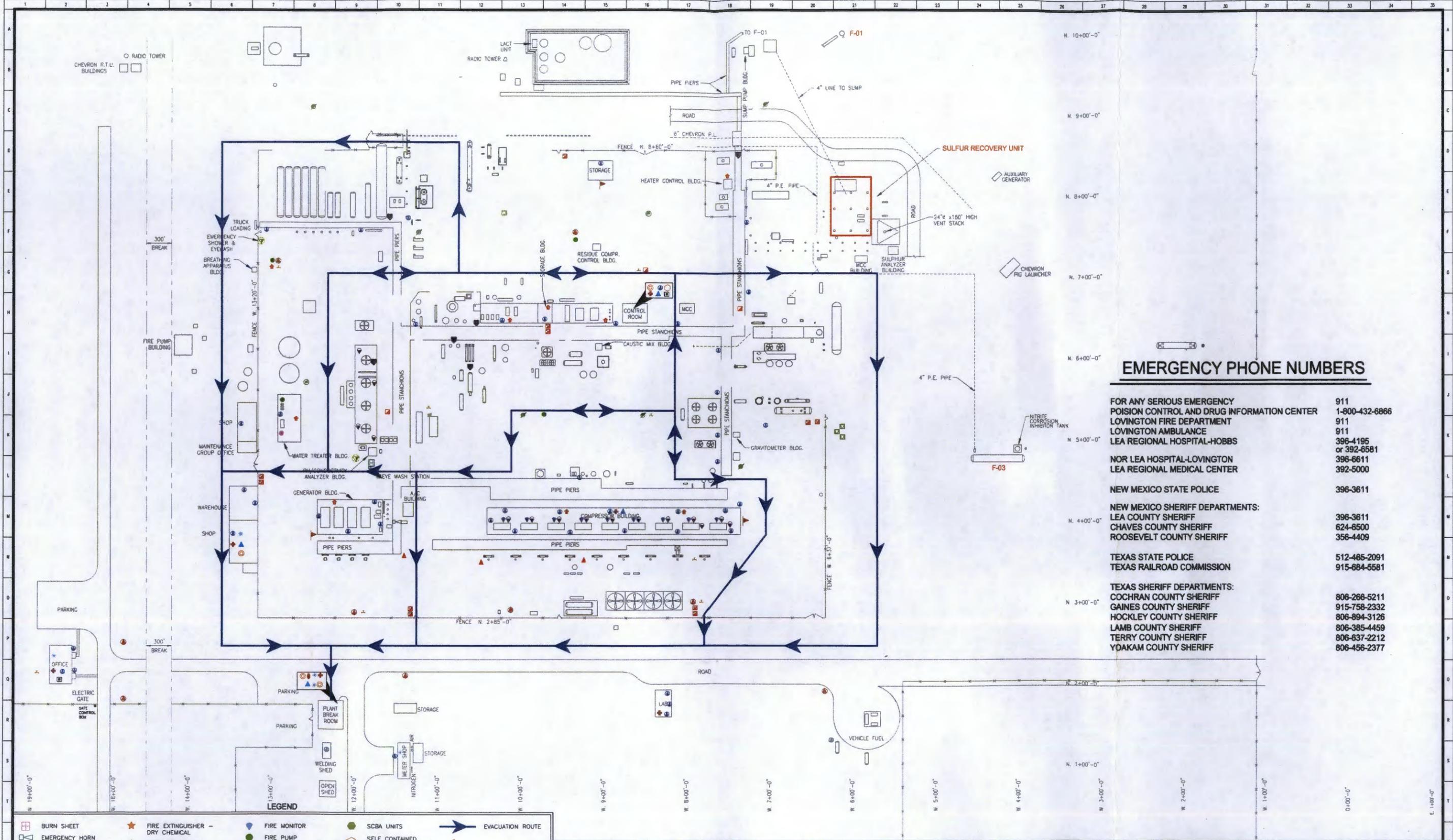


Graphic Scale in Feet  
 Targa Midstream Services, L.P.  
 Saunders Gas Plant  
 SW/4, Sec. 34, T-14-S, R-33-E  
 Lea County, New Mexico

N 33° 03' 21.96"  
 W 103° 36' 07.98"

**L**arson &  
 Associates, Inc.  
 Environmental Consultants

Figure 2 - Radius Of Exposure



### EMERGENCY PHONE NUMBERS

- FOR ANY SERIOUS EMERGENCY 911  
 POISON CONTROL AND DRUG INFORMATION CENTER 1-800-432-6866  
 LOVINGTON FIRE DEPARTMENT 911  
 LOVINGTON AMBULANCE 911  
 LEA REGIONAL HOSPITAL-HOBBS 396-4195 or 392-6581  
 NOR LEA HOSPITAL-LOVINGTON 396-6611  
 LEA REGIONAL MEDICAL CENTER 392-5000
- NEW MEXICO STATE POLICE 396-3611
- NEW MEXICO SHERIFF DEPARTMENTS:  
 LEA COUNTY SHERIFF 396-3611  
 CHAVES COUNTY SHERIFF 624-6500  
 ROOSEVELT COUNTY SHERIFF 356-4409
- TEXAS STATE POLICE 512-465-2091  
 TEXAS RAILROAD COMMISSION 915-684-5581
- TEXAS SHERIFF DEPARTMENTS:  
 COCHRAN COUNTY SHERIFF 806-268-5211  
 GAINES COUNTY SHERIFF 915-758-2332  
 HOCKLEY COUNTY SHERIFF 806-894-3126  
 LAMB COUNTY SHERIFF 806-385-4459  
 TERRY COUNTY SHERIFF 806-637-2212  
 YOAKAM COUNTY SHERIFF 806-456-2377

#### LEGEND

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REFERENCE DWG.	REV	DESCRIPTION	DWN	CHKD	DATE	REV	DESCRIPTION	DWN	CHKD	DATE
						1	REVISED - PER C. KLEIN	FRD	TRA	2/26/14
						0	H2S ROUTES UPDATED	FRD	CDK	9/25/13

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SCALE: 1"=50'-0"	DATE: 9/25/13
DWN BY: FRD	
CHKD BY:	
ENGR.:	
APPRV.:	

**TARGA**

SAUNDERS GAS PLANT  
 LEA CO., NM

DRAWING NUMBER: 146-100-E12A  
 CAD FILE NAME: SU100E12A  
 REVISION: 1

PLOT PLAN  
 H2S CONTINGENCY PLAN  
 WITH EVACUATION ROUTES

## Appendix E

## Targa Notification List

### **TARGA SAUNDERS NOTIFICATION LIST**

#### **COMPANY PERSONNEL**

Call the following persons in the order listed until one is notified of the emergency:

#### **Area Management**

##### *Saunders Plant*

Randy Duncan, Saunders Plant Area Manager

Office: (575) 396-3221, ext. 31

Home: (575) 396-3744

Mobile: (575) 631-7065

Alternate:

Gordon Altstatt, Saunders Maintenance Supervisor

Office: (575) 396-3221, ext. 27

Home: (575) 631-2757

Mobile: (575) 631-2757

Alternate:

Ralph England, Saunders Field Supervisor

Office: (575) 396-3221, ext. 24

Home: (575) 760-3407

Mobile: (575) 441-4653

Alternate:

Bill Little, Eunice Plant Area Manger (Eunice, NM)

Office: (575) 394-2534, Ext. 226

Home: (575) 396-2997

Mobile: (575) 631-7099

Alternate:

Todd Young, Director of Operations (Lovington, NM)

Office: (575) 394-2516 ext. 329

Home: (432) 523-3770

Mobile: (575) 441-1645

## **ES&H Group**

Cal Wrangham, ES&H Manager  
Office: (432) 688-0542 Midland, TX  
Home: (432) 697-6580 Midland, TX  
Mobile: (432) 425-7072

Cindy Klein, ES&H Specialist  
Office: (575) 396-3221, ext. 38  
Home: (575) -398-6670  
Mobile: (575) 631-7093

Rebecca Woodell, ES&H Specialist  
Office: (575) 394-2534, ext. 239  
Home: (575) 394-2280  
Mobile: (575) 631-7085

## **Region Manager**

Clark White, VP and Region Manager  
Office: (713) 584-1525 Houston, TX

## **Field Operators**

Alfredo Corral  
Mobile: (575) 631-1432  
Home: (575) 396-2960

Tomas Espinoza  
Mobile: (575) 631-8912  
Home: (575) 396-6690

## **Call company support personnel in Houston, TX, as needed:**

### **Vice President**

Jessica Keiser  
Office: (713) 584-1084  
Cell Phone: (713) 818-8209

### **Corporate Security**

Weldon Green  
Office: (713) 584-1301  
Cell Phone: (281) 802-5351

## Appendix F

## Emergency Responder List

### AGENCY/EMERGENCY RESPONDERS NOTIFICATION LIST

#### Call 911

State Police	575-392-5588
Lovington Fire Dept.	575-397-4166/575-393-4339
Hobbs - Sheriff	575-396-3611
Hobbs – Police	575-397-9265
Hobbs – Fire Dept.	575-397-9265
Hobbs – Ambulance	575-397-9265
Eunice – Police	575-394-2112
Eunice – Fire Dept.	575-394-3258
Lovington – Sheriff	575-396-3611
Lovington – Police	575-396-2811
Lovington – Fire Dept	575-396-2359
Lovington - Ambulance	575-396-2811

### STATE AGENCIES

Oil Conservation Division, Santa Fe	505-476-3440
Oil Conservation Division – District Office, Hobbs	575-393-6161
Environmental Department – Air Quality Bureau, Santa Fe	505-827-1494

### FEDERAL AGENCY

U. S. EPA – Region VI Office, Dallas, TX	800-887-6063
National Response Center	800-424-8202
New Mexico Public Regulation Commission Office of Public Safety (Pipeline Release)	505-476-0253/505-946-8314

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

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

Form C-141  
Revised October 10, 2003

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

**Release Notification and Corrective Action**

**OPERATOR**

Initial Report  Final Report

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

**LOCATION OF RELEASE**

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

Latitude \_\_\_\_\_ Longitude \_\_\_\_\_

**NATURE OF RELEASE**

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

If a Watercourse was Impacted, Describe Fully.\*

Describe Cause of Problem and Remedial Action Taken.\*

Describe Area Affected and Cleanup Action Taken.\*

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

**OIL CONSERVATION DIVISION**

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

Attach Additional Sheets If Necessary

## TRAINING DOCUMENTATION FORM

COURSE TITLE \_\_\_\_\_ VIDEO \_\_\_\_\_ DATE \_\_\_\_\_

CLASS LENGTH (HRS) \_\_\_\_\_ CLASS LOCATION \_\_\_\_\_ TRAINERS \_\_\_\_\_

VENDOR TRAINING: COMPANY \_\_\_\_\_ ADDRESS \_\_\_\_\_ PHONE NO. \_\_\_\_\_

Grade Pass/Fail	Signature	Print Name	Social Security No. <i>(Last 4 Numbers)</i>	Job Title	Location
1					
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## Chavez, Carl J, EMNRD

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**From:** Klein, Cindy D. <CynthiaKlein@targaresources.com>  
**Sent:** Tuesday, October 01, 2013 2:47 PM  
**To:** Chavez, Carl J, EMNRD  
**Cc:** Wrangham, Calvin W.  
**Subject:** RE: H2S CP Checklists  
**Attachments:** Saunders Plant H2S Contingency Plan 2013.pdf; OCD H2S Contingency Plan checklist 9-1-2011-Targa.xls

Carl,

Thank you for the H2S Plan checklist. Regarding our conversation this morning, I have attached a pdf file containing the Saunders Plant H2S Contingency Plan along with a completed H2S checklist.

I will send you a hard copy of the plan as well. I will send it, certified mail no: 7012 1640 0000 6603 1782. Please let me know if you have any questions. Thank you again for your help.

Cindy Klein  
ES&H Specialist  
(575) 631-7093, Cell  
(575) 396-3221 ext. 38, Office  
[cklein@targaresources.com](mailto:cklein@targaresources.com)

---

**From:** Chavez, Carl J, EMNRD [<mailto:CarlJ.Chavez@state.nm.us>]  
**Sent:** Tuesday, October 01, 2013 11:34 AM  
**To:** Klein, Cindy D.  
**Subject:** H2S CP Checklists

Cindy:

Good morning. Please find attached the OCD "H2S Checklists" (with and without AGI Well)". One of the checklists is an example of when an AGI Well is involved in an OCD Review.

For some reason, I was getting error messages when attempting to open the spreadsheets. Please let me know if you have problems viewing the files.

Thank you.

Carl J. Chavez, CHMM  
New Mexico Energy, Minerals & Natural Resources Department  
Oil Conservation Division, Environmental Bureau  
1220 South St. Francis Drive, Santa Fe, New Mexico 87505  
Office: (505) 476-3490  
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, please go to: “Pollution Prevention & Waste Minimization” at <http://www.emnrd.state.nm.us/oed/environmental.htm#environmental>

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

Operator Name: Targa Midstream Services LLC - Saunders Plant  
 Facility Name w/ Permit Number: H2S No. 47  
 Date: 10/1/2013

<b>Contingency Plan Requirements Checklist</b>				
<b>19.15.11.9.B NMAC Requirement</b>	<b>Included?</b>	<b>Page in Document?</b>		<b>Notes</b>
<b>Emergency Procedures</b>				
Responsibilities & duties of personnel during emergency	Yes	Page 1-2 Quick Reference Flow Chart Page 6-7 Immediate Action Plan		
Immediate action plan	Yes	Page 6-7 Immediate Action Plan		
Evacuation and shelter in place plans	Yes	Page 9, 3.3 Evacuation and Emergency Assembly Areas		
Telephone numbers of emergency responders	Yes	Page 3 Appendix F		
Telephone numbers of public agencies	Yes	Page 3 Appendix F		
Telephone numbers of local government	Yes	Page 3 Appendix F		
Telephone numbers of appropriate public authorities	Yes	Page 3 Appendix F		
Location of potentially affected public areas Also see 19.15.11.12.B & D	Yes	Page 6		Statement on Page 6 and 25, No public areas with the 100 and 500 PPM ROE's.
Location of potentially affected public roads	Yes	Appendix C		
Proposed evacuation routes, with locations of road blocks	Yes	Appendix C		
Procedures for notifying the public	Yes	Page 6-7 Immediate Action Plan Page 25 7. Public Awareness and Communication		
Availability and location of safety equipment and supplies Also see 19.15.11.12.C	Yes	Page 7 - Immediate Action Plan Appendix D		
<b>Characteristics of hydrogen sulfide and sulfur dioxide</b>				
Discussion of characteristics	Yes	Page 20-24		
<b>Maps and Drawings</b>				
Area of exposure	Yes	Appendix C		
Public areas within area of exposure	Yes	Appendix C		No public areas with the 100 and 500 PPM ROE's.
Public roads within area of exposure	Yes	Appendix C		
<b>Training and Drills</b>				
Training of personnel to include responsibilities, duties, hazards, detection, personal protection and contingency procedure	Yes	6.2 Emergency Response Drills Page 18		
Periodic drills or exercises that simulate a release	Yes	Page 18 6.2 Emergency Response Drills		
Documentation of training, drills, & attendance	Yes	Page 19 6.2 Emergency Response Drills		
Training of residents on protective measures	No			No residents
Briefing of public officials on evacuation or shelter-in-place plans	Yes	Page 19 6.2 Emergency Response Drills		
<b>Coordination with state emergency plans</b>				
How emergency response actions will coordinate with OCD and the state police response plans	Yes	Page 20 6.6 Emergency Response Organization		
<b>Activation Levels</b>				
Activation Levels and description of events which may lead to a release in excess of activation level	Yes	Page 1-2 Quick Reference Flow Chart Page 6-7 Immediate Action Plan Page 13 Scope		
<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	Yes	Page 1-2 Quick Reference Flow Chart Page 6-7 Immediate Action Plan Page 25 7.2 Public Areas Page 26 7.3 Public Roads		No Public Areas
Commitment to activate contingency plan whenever H2S concentration of more that 100 ppm 3000 feet from the site of release	Yes	Page 1-2 Quick Reference Flow Chart Page 6-7 Immediate Action Plan		



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

## **Targa Saunders Gas Plant**

*owned by*

**Versado Gas Processors, L.L.C.**

*operated by*

**Targa Midstream Services LLC**

**September 9, 2013**

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- Appendix B Radii of Exposure Calculation including Gas Analysis
- Appendix C Radii of Exposure Map, Emergency Assembly Areas and Roadblocks
- Appendix D Plot Plan, Evacuation Routes, Safety Equipment and ESD Stations
- Appendix E Targa Personnel Notification List
- Appendix F Agency/Emergency Responders and Contractor Support Notification List
- Appendix G C-141
- Appendix H Employee Training Documentation Form

# 1. OPERATOR – QUICK REFERENCE

## TARGA SAUNDERS GAS PLANT

### Level 1 Response

- H<sub>2</sub>S of 10 ppm or greater release is detected by fixed monitors and Plant Operator activates Plan.  
- Plant Operator sounds Plant Emergency Siren to initiate Plant Emergency and Evacuation.

- EVACUATE to Assembly Area 1 by moving upwind, crosswind (Appendix D).  
- Initiate Incident Command System  
- Notify Plant Management  
- Notify OCD of plan activation within 4 hours.

- Account for on-site personnel from sign-in sheet

- IC monitors gas levels with multimeter to determine if H<sub>2</sub>S is 10 ppm or greater and assess situation & instructs rescue/response team to don 30 min. SCBAs, if necessary for rescue.  
- IC directs road block at Targa entrance (cattle guard at Hwy 457 and County Rd. 117) so no one can enter area (See App C for roadblock locations)

- IC commander assess if ESD of Plant and equipment is required (App D for ESD station locations)  
- Continuously monitor H<sub>2</sub>S at Assembly Area 1 (Appendix C) to determine if H<sub>2</sub>S 10 ppm or greater

If H<sub>2</sub>S < 10 ppm and leak is isolated and controlled

If 10 ppm or greater at Assembly Area 1 move to Assembly area 2.  
If H<sub>2</sub>S of 10 ppm or greater is continuously released then initiate Level 2 Response.

- Release resolved if H<sub>2</sub>S less than 10 ppm  
- Signals all clear  
- Remove roadblock

Begin Level 2 Plan Response

## 2. OPERATOR – QUICK REFERENCE

### TARGA SAUNDERS GAS PLANT

#### Level 2 Response

-Corrective actions at Level 1 unsuccessful  
- H<sub>2</sub>S of 10 ppm or greater  
-Emergency Plant Siren continue  
- Assembly Area 1 is 10 ppm or greater and moving to Assembly area 2.

- Incident Commander determines if Plant should be shut-down.  
Shut all ESD and block valves as needed to isolate leak source.

- IC instructs notification and evacuation of any parties working within the 500 and 100 ppm ROE.  
-Simultaneous notification is made per Appendix F (Emergency Responders Notification List) and Appendix E (Targa Notification List).  
-The move to Assembly Area 2 is complete and set-up roadblocks as needed to prevent public from entering affected areas. See App C for suggested roadblock locations.

Release resolved  
- IC Signals all clear  
- Remove roadblocks  
- Personnel return to work  
- Notify parties on Appendix E & F of all clear status.

- IC monitors gas levels for 10 ppm or greater with multimeter at Assembly Area 2 and implemented roadblocks and assess situation & instructs further evacuation. If 10 ppm or greater evacuate to Assembly Area 3 and implement recommended road block locations found in Appendix C. Continue to monitor for 10 ppm or greater at implemented roadblocks.

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

If H<sub>2</sub>S of 10 ppm or greater continues maintain evacuation levels until all gas is flared, system is de-pressurized, and alarms and sirens cease.

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

Release resolved  
- IC Signals all clear  
- Remove roadblocks  
- Personnel return to work  
- Notify parties on Appendix E & F of all clear status.

**AGENCY/EMERGENCY RESPONDERS NOTIFICATION LIST (also in Appendix F)**

**Call 911**

<b>State Police</b>	<b>575-392-5588</b>
<b>Lovington Fire Dept.</b>	<b>575-397-4166/575-393-4339</b>
<b>Hobbs - Sheriff</b>	<b>575-396-3611</b>
Hobbs – Police	575-397-9265
Hobbs – Fire Dept.	575-397-9265
Hobbs – Ambulance	575-397-9265
Eunice – Police	575-394-2112
Eunice – Fire Dept.	575-394-3258
Lovington – Sheriff	575-396-3611
Lovington – Police	575-396-2811
Lovington – Fire Dept	575-396-2359
Lovington - Ambulance	575-396-2811

**STATE AGENCIES**

Oil Conservation Division, Santa Fe	505-476-3440
Oil Conservation Division – District Office, Hobbs	575-393-6161
Environmental Department – Air Quality Bureau, Santa Fe	505-827-1494

**FEDERAL AGENCY**

U. S. EPA – Region VI Office, Dallas, TX	800-887-6063
National Response Center	800-424-8202
New Mexico Public Regulation Commission Office of Public Safety (Pipeline Release)	505-476-0253/505-946-8314

**TARGA SAUNDERS NOTIFICATION LIST (also in Appendix E)**  
COMPANY PERSONNEL

Call the following persons in the order listed until one is notified of the emergency:

**1. Area Management**

*Saunders Plant*

Tim Jordan, Saunders Plant Area Manager

Office: (575) 396-3221, ext. 31

Home: (575) 396-0189

Mobile: (575) 631-7091

Alternate:

David Byrd, Saunders Plant Operation Supervisor

Office: (575) 396-3221, ext. 25

Home: (575) 396-6366

Mobile: (806) 789-0528

Alternate:

Gordon Altstatt, Saunders Maintenance Supervisor

Office: (575) 396-3221, ext. 27

Home: (575) 631-2757

Mobile: (575) 631-2757

Alternate:

Ralph England, Saunders Field Supervisor

Office: (575) 396-3221, ext. 24

Home: (575) 760-3407

Mobile: (575) 441-4653

Alternate:

Bill Little, Eunice Plant Area Manger (Eunice, NM)

Office: (575) 394-2534, Ext. 226

Home: (575) 396-2997

Mobile: (575) 631-7099

Alternate:

Todd Young, Director of Operations

Office: (575) 394-2516 ext. 329

Home: (432) 523-3770

Mobile: (575) 441-1645

## **2. ES&H Group**

Cal Wrangham, ES&H Manager

Office: (432) 688-0542 Midland, TX

Home: (432) 697-6580 Midland, TX

Mobile: (432) 425-7072

Cindy Klein, ES&H Specialist

Office: (575) 396-3221, ext. 38

Home: (575) 398-6670

Mobile: (575) 631-7093

Rebecca Woodell, ES&H Specialist

Office: (575) 394-2534, ext. 239

Home: (575) 394-2280

Mobile: (575) 631-7085

## **3. Region Manager**

Clark White, Vice President and Region Manager

Office: (713) 584-1525 Houston, TX

## **4. Field Operators**

Alfredo Corral

Mobile: (575) 631-1432

Home: (575) 396-2960

Tomas Espinoza

Mobile: (575) 631-8912

Home: (575) 396-6690

## **Call company support personnel in Houston, TX, as needed:**

Vice President – ES&H

Jessica Keiser

Office: (713) 584-1084

Cell Phone: (713) 818-8209

Corporate Security

Weldon Green

Office: 713-584-1301

Cell Phone: 281-802-5351

## IMMEDIATE ACTION PLAN

**Targa Saunders Plant Incident Commander (IC) is authorized to elevate the level of response based on observed conditions if a lower level response may not be effective in protecting personnel, the public or the environment.**

There are no public areas, businesses or parties within the 100 and 500 ppm ROE's.

The following outlines the immediate action Plan as provided in the Flow Diagrams in Section 1. When the individual hears, sees, or feels an alert as is recognized by audible, visual, or personal monitor vibration the individual is to proceed to safety as soon as possible which entails evacuation and donning 30-minute SCBA if escape is warranted. 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.

Some steps may be taken simultaneously.

- A. Request assistance, if needed.
  - **EVACUATE** - move away from the source and get away from the affected area (upwind and out of low-lying areas).
  - Don personal protective breathing equipment (30-minute SCBA) for escape.
  - From any location in the facility proceed to the designated Emergency Assembly Area and notify supervisor or incident commander you are accounted for. See Appendix C for locations of Assembly Areas.
  - Assist personnel in distress as directed by the Incident Commander with proper PPE, i.e., 30-minute SCBA unit.
  - Accounting for on-site personnel will be directed by the Incident Commander using the sign-in log at Assembly Area 1, 2, and 3 depending on the "Level Response" outline beginning on Section 1 Flow Diagrams. The sign-in log is brought to the initial Assembly Area by the office personnel as they proceed to that area.
- B. After an Incident Commander is designated, at the IC's direction, the emergency responder will don a 30-minute SCBA and take immediate measures to control the presence of or potential H<sub>2</sub>S discharge and to eliminate possible ignition sources. Emergency shutdown procedures should be initiated as deemed necessary to correct or control the specific situation.
- C. The Incident Commander is responsible for all notifications including government agencies and the effected parties that may be working in the area. There are no public areas, businesses or parties within the 100 and 500 ppm ROE's. The IC may designate another Targa employee to make these notifications to initiate the evacuation of those

within the exposure area.

- D. The IC will contact the Area Manager or first available person on the Appendix E Targa Saunders notification list. Notify them of the circumstances and whether or not immediate assistance is needed. The Area Manager should notify (or arrange for notification of) other supervisors and other appropriate personnel on the Appendix E call list, as necessary.
- E. Cordon off the exposure area to prevent entry, make recommendations to public officials regarding blocking unauthorized access to the unsafe area, and assist as appropriate (Appendix C).
- F. IC or designee will notify, as required, state and local officials and the National Response Center to comply with release reporting requirements. See Appendix F.
- G. First Aid Kits are located in the Assembly Area 1 (Break Room), Plant Office building, Control Room, and in Targa Field Operator vehicles (See Appendix D). Field Operator vehicles will be used for roadblocks. H<sub>2</sub>S monitors will be brought from the control room by the operators and from the field office by the field operators to any roadblocks or Assembly Areas being used. Monitoring will occur continuously at these sites to ensure H<sub>2</sub>S is less than 10 ppm.
- H. If alarms have ceased, monitor the ambient air in the area of exposure for 10 ppm or greater (after following abatement measures) to determine when it is safe for re-entry.
- I. Return the situation to normal. Normal conditions are those in which the ambient air quality is below 10 ppm of hydrogen sulfide and sustained without fluctuation to higher levels and the alarms and sirens have ceased. The IC will determine when safe entry conditions are reached for re-entry into the area.

### 3. EMERGENCY RESPONSE

This section explains the procedures and decision 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.

#### 3.1 Objective

All Area employees shall be prepared to respond to an H<sub>2</sub>S or SO<sub>2</sub> emergency at the facility. Emergency response actions may be taken for a variety of situations that may occur. The Plan is activated in based on the concentration of H<sub>2</sub>S that has been released. The hydrogen sulfide concentration of 10 ppm or greater alerts any Targa employee via their personal monitor as well as H<sub>2</sub>S fixed monitors/detectors. Ten ppm or greater activates the Plan Level 1 response and the situation is assessed immediately by the hydrogen sulfide concentration reported to the control room.

- Emergency alarm sounded and are activated for H<sub>2</sub>S at 10 ppm or greater,
- Plan activation in 100 ppm in any public area, or
- Plan activation in 500 ppm at any public road, or
- Plan activation when a 100 ppm concentration of H<sub>2</sub>S exceeds 3,000 feet from the site of the release.

Definitions:

19.15.11.7. I NMAC "Public area" means a building or structure that is not associated with the well, facility or operation for which the radius of exposure is being calculated and that is used as a dwelling, office, place of business, church, school, hospital or government building, or a portion of a park, city, town, village or designated school bus stop or other similar area where members of the public may reasonably be expected to be present. There are no Public areas, businesses or parties within the 100 and 500 ppm ROE's.

19.15.11.7.J NMAC "Public road" means a federal, state, municipal or county road or highway.

As soon as the Plan has been activated based on the criteria above, the Area Manager, or their designee, shall be notified. In the absence of the Area Manager or their relief the Targa employee (first responder) at the site shall assume the role of Incident Commander. It is the responsibility of the Incident Commander to ensure control of the emergency response management system and if necessary to coordinate these efforts with any state or local emergency plans.

#### 3.2 Response Levels

There are two response levels for the facility described in the Flow Diagrams provided at the beginning of the Plan (Section 1). Any individual encountering a situation where their personal H<sub>2</sub>S monitors are alarming or hears the Plant Siren must evacuate the affected area

immediately. The individual must move upwind and out of low lying areas to safety per evacuation route arrows shown on Appendix D to the appropriate Assembly Area as directed by the Incident Commander. See Appendix C. Once safety is ensured the Levels 1 and 2 discussed in the Flow Diagrams (Section 1) should be followed which entail alerting the supervisor of your current situation and whereabouts and pertinent information regarding the release area. This allows the supervisor to account for you and the other individuals whom are evacuating and assembling to Assembly Area 1 (Plant Break Room, Appendix C).

In summary, the Levels provide for immediate action to be taken in an organized fashion in the event of a release of H<sub>2</sub>S at a level of 10 ppm or greater and are conducted to mitigate negative impact to the welfare of individuals and the environment.

### **3.3 Evacuation and Emergency Assembly Areas**

When the emergency alarm or siren is activated all Targa personnel, contractors, and any visitors in the facility are to stop work, check the prevailing wind direction by looking at the nearest wind sock and immediately proceed along designated evacuation routes (Appendix D) and/or upwind to the pre-designated Emergency Assembly Area 1 (Plant Break Room) as shown in Appendix C. Monitoring at Assembly Area 1 will be conducted to determine if it is safe to remain (10 ppm or less) or if the concentration of H<sub>2</sub>S is increasing at the plant requiring movement to Assembly Area 2 or Assembly Area 3. All personnel will check in at the Assembly Area and be accounted for using the daily sign-in log. The sign-in log is brought to the Assembly Area by the office personnel as they proceed to that area. The Incident Commander then determines if any personnel are not accounted for and if immediate rescue is needed and directs any rescue personnel to don 30-minute SCBA's and respond. Emergency services (911) will be contacted if there are injuries or as otherwise deemed necessary. The IC will direct operations to don 30-minute SCBA's and investigate the cause of the release. The recommended sequence of actions is: move away from source, don PPE, alert others, assist the distressed, evacuate to designated Assembly Area, monitor for H<sub>2</sub>S (10ppm or greater), and account for personnel.

<p><b>Emergency Assembly Area 1</b> <b>-Plant Break Room-</b> <b>(Appendix C)</b></p> <p><b>Emergency Assembly Area 2</b> <b>Cattle guard at intersection of State Rd. 457 and County Rd. 117</b> <b>(Appendix C)</b></p> <p><b>Emergency Assembly Area 3</b> <b>One mile south of the intersection (assembly area 2) on State Rd. 457</b> <b>(Appendix C)</b></p>
--

### **3.4 Emergency Shut-down**

The Plant has emergency shutdown stations (ESD's) designed to isolate gas, and systems to depressurize by routing gas to flares. Note: Burning the H<sub>2</sub>S in the flare will generate SO<sub>2</sub> so monitor for both H<sub>2</sub>S and SO<sub>2</sub> to determine if it is safe to return. These ESD's can be activated by plant operator in the control room or by remote ESD Stations located in the facility (See Appendix D). Inlet gas could be shut in from entering the plant at the inlet scrubbers by manually blocking the scrubber valves. This action would be implemented by the Incident Commander as warranted in an emergency. The inlet gas would then be automatically routed to a plant flare for safe disposal. These valves and the ESD Stations are depicted on Appendix D. All H<sub>2</sub>S alarms are activated at 10 ppm.

### **3.5 Post-Emergency Actions**

In the event this plan is activated, the following post-emergency actions shall be taken in an effort to reduce the possibility of a recurrence of the type of problem that required its activation and to assure that any future activation will be as effective as possible:

- Ensure all previously notified or evacuated persons have been advised that the emergency condition has ended.
- Ensure all agency notifications have been completed and follow-up with any written notification requirements.
- Clean up, recharge, restock, repair, and replace emergency equipment, as necessary, and return it to its original location.
- Review the cause of the emergency and modify operating maintenance and other surveillance procedures, if needed.
- Critique all actions and procedures, providing additional training to employees if need is indicated. Modify the contingency plan as provided in the NMAC rulings if there is any change in plant operations which require a new ROE to be established, changes to the plant facilities, training requirements, contact information, equipment lists, assembly area or roadblocks, and the public areas including roads, businesses, or residents. The plan will be redistributed to those persons/entities provided in the "Distribution List" of Appendix A.

### **3.6 Notification and Reports**

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

The New Mexico Oil Conservation Division (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 which is detection of 10 ppm or greater H<sub>2</sub>S. 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 (Appendix G).

The Incident Commander or their designee will conduct required notifications based on the situation (Appendix E and F). After the Area Manager or their designee is contacted, they will notify the appropriate Targa Corporate Management, EHS personnel, Plant emergency response personnel, and advise them of the existing emergency condition of 10 ppm or greater.

### **3.7 Response Details**

#### **Plan activation (10 ppm or greater).**

Any employee who finds her or himself in an emergency situation involving the escape of hydrogen sulfide gas of 10 ppm or greater shall notify the Control Room Operator by the fastest means. The Control Room Operator becomes the Incident Commander until relieved by someone else, which may be an Area Manager, Plant Supervisor, or Public Official.

The IC will refer to flow diagram for Level Responses (Section 1). The Incident Commander is responsible to direct the alerting of all persons who are within the exposure areas which are areas of 10 ppm or greater. See Appendix C for the 100 and 500 ppm ROE locations. The IC will also contact and advise the Area Manager, or alternate, of the location and nature of the emergency and if assistance is needed (Appendix E). The Area Manager or their designee will assist in requesting additional assistance if necessary (Appendix E).

The recommended sequence of actions is: move away from source, don PPE, alert others, assist the distressed, evacuate to designated Assembly Area and monitor for H<sub>2</sub>S (10ppm or greater), and account for personnel.

#### **Stop the Escape of Hydrogen Sulfide**

After the plan is activated so all personnel are evacuated and accounted for, the IC should take the necessary steps to stop the escape of hydrogen sulfide by activating the block valves and ESD shutdown stations that are accessible using SCBA's and other proper protective equipment as necessary.

#### **Cordon off the Exposure Area to Prevent Entry and/or Make Roadblocks and Evacuation Recommendations**

Place roadblocks outside the area of exposure on all routes to prevent entry into the area. The Targa Saunders Plant will be road blocked at the cattle guard to prevent entry as the condition warrants based on the Level 1 response (Section 1). Recommended roadblock locations for Targa and law enforcement personnel to prevent entry are provided in Appendix C. As the IC assigns personnel to set-up roadblocks he or she will give the assigned persons their phone or radio contact information so they can communicate with the IC. The persons manning the

roadblocks must be equipped with hydrogen sulfide measuring devices and two-way radios or cell phones to be able to communicate with the IC. Roadblocks should be placed a safe distance away from the potential exposure area and should be monitored for Hydrogen Sulfide to ensure levels are less than 10 ppm. Roadblocks can consist of a vehicle blocking the path with hazard signals, emergency responders motioning to stop, orange cones, emergency tape, or any other equipment device which blockades the area in a manner sufficient of notifying an individual to not pass. Monitor for H<sub>2</sub>S at roadblocks and if levels are 10 ppm or greater notify IC and relocate to next Roadblock (Appendix C) and update the Incident Commander.

Based on all information available and the calculated potential exposure information listed in Appendix B and C, public officials are notified of the suggested locations of roadblocks to keep the public from entering a potentially hazardous area. Proper caution should be used for shifting changes in wind direction. Refer to Appendix C.

### **Complete Notifications as Required**

Incident Commander will initiate notification of Affected Parties, Emergency Responders, Targa Management, and Government Agencies (Appendix E, and F).

The IC or their designee shall contact OCD no later than 4 hours after plan activation (the first detection of 10 ppm or greater) at the facility. The Area Manager or their designee shall submit a full report of the incident to the division on form C-141 (Appendix G) no later than 15 days following the release.

### **Monitor for Safe Re-entry**

Ensure complete and permanent stoppage of the release is supported by verification that the fixed monitors and alarms have ceased alerting/sounding at the release site. Allow time for residual H<sub>2</sub>S to leave the area and at the direction of the IC begin monitoring evacuated areas for hydrogen sulfide and combustible gas concentrations of less than 10 ppm (with multimeter). Monitor wind direction by using the nearest wind sock. Monitor safely using a 30-minute SCBA if situation dictates) the ambient air in the area of exposure only after following abatement measures, to determine when it is safe for re-entry. Re-entry is established when hydrogen sulfide concentrations are below 10 ppm and are confirmed to remain at this level without fluctuation to a level above 10 ppm. Note: Burning the H<sub>2</sub>S in the flare will generate SO<sub>2</sub> so if flaring monitor for both H<sub>2</sub>S and SO<sub>2</sub> to determine if it is safe to return.

### **Return of the Situation to Normal**

No re-entry will be allowed until ambient conditions have been assessed and verified that levels are less than 10 ppm. Communications for re-entry will be coordinated through the Incident Commander (IC). When total absence of hydrogen sulfide and combustible gas is confirmed throughout the evacuated area, notify any public official or emergency responders participating so that they may be informed of the situation. Advise all parties previously notified that the emergency has ended. Remove any roadblocks that were set up.

## 4. SCOPE

The Saunders Gas Plant is a natural gas processing plant which processes gas that contains hydrogen sulfide and/or sulfur dioxide. This Hydrogen Sulfide Contingency Plan (Plan) has been developed to serve as a guidance document to protect the welfare of individuals and the environment in the event of a hazardous hydrogen sulfide release. The Plan satisfies and conforms to promulgated New Mexico Administrative Code rules and industry standards of facility handling of hydrogen sulfide:

- New Mexico Oil Conservation Division Rule 11 (NMAC, 2008);
- American Petroleum Institute's "Recommended Practices for Oil and Gas Producing and Gas Processing Plant Operations Involving Hydrogen Sulfide," Recommended Practice 55 (API, 2007).

Specifically, the Plan details, site-specific hydrogen sulfide release 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.

### 4.1 PLANT LOCATION

The Saunders Gas Plant is located 11 miles west on Highway 82 and 11 miles north on Highway 457 from Lovington, Lea County, New Mexico. It is owned by Versado Gas Processors, LLC and operated by Targa Midstream Services, Limited Partnership.

More specifically, the Plant is located in Section 34, Township 14S, Range 33E in NMPM, Lea County, New Mexico.

1. Plant approximate coordinates are:

**Latitude: N33.057324 Longitude: W103.607739**

2. Plant physical address is:

11 miles W on Hwy 82 and 11 miles N on Hwy 457  
Lovington, New Mexico

3. Plant mailing address is:

P. O. Box 1689  
Lovington, New Mexico 88260

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

From the intersection of Main Street and Avenue D (Highway US 82), travel west on Highway 82 (approximately 11 miles) to the intersection of US 82 and State Road 457. Travel north on State Road 457 (approximately 11 miles). Turn left onto County Road 117 (Warren Road) and travel west approximately 0.5 mile to the entrance to the Saunders Gas Plant.

**The location of the Plant is illustrated herein on Figure 1.**

Figure 1: Saunders Gas Plant, Lea County, New Mexico

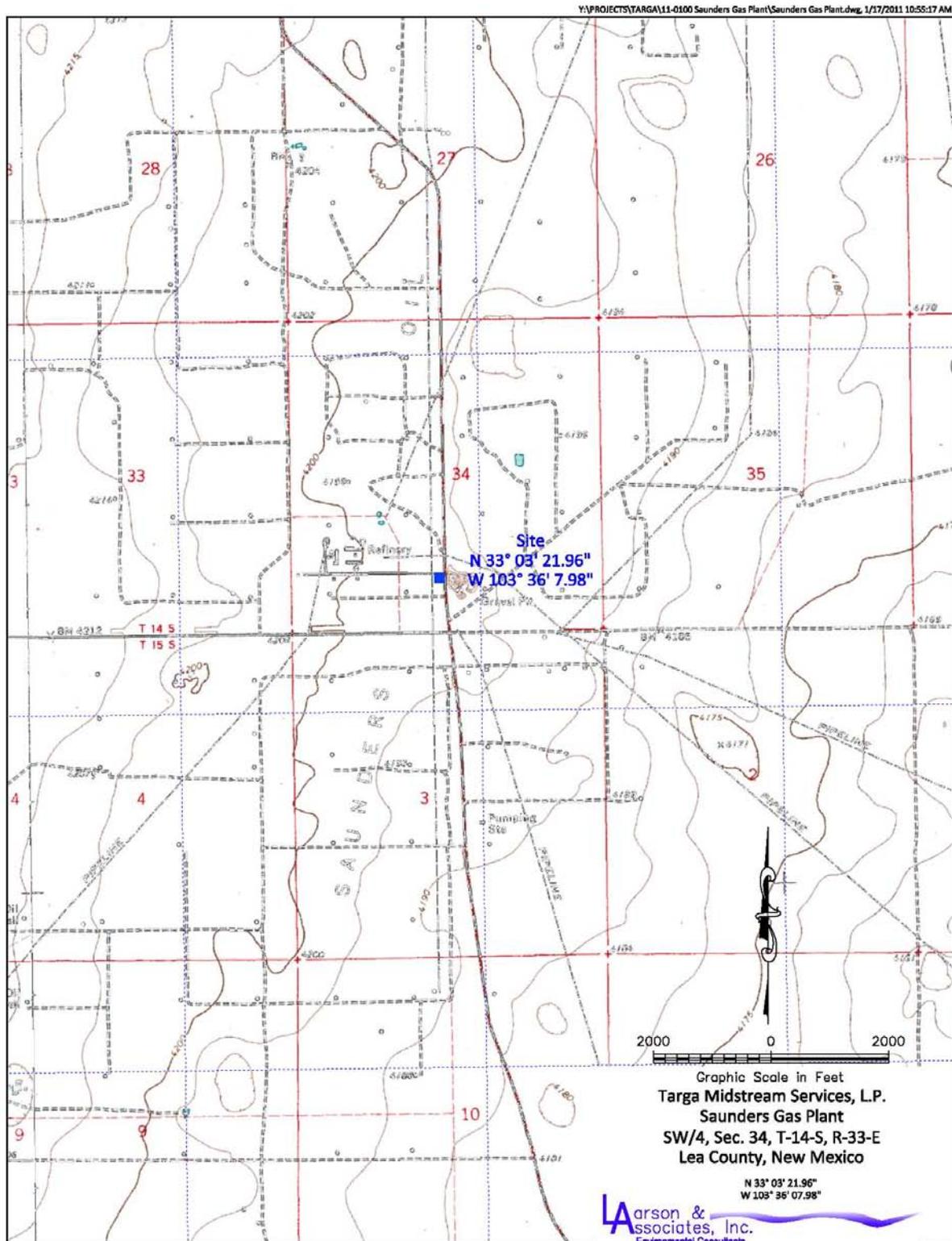


Figure 1 - Topographic Map

### 4.3 DESCRIPTION OF PLANT OPERATIONS AND PROCESSES

The Plant operations include gas processing, and compression, as well as gathering lines and storage tanks. The Plant gathers and processes produced natural gas from the surrounding area. Once gathered at the Plant, the produced natural gas is compressed; treated in an amine process for the removal of carbon dioxide and hydrogen sulfide; and dehydrated to remove the water content. The processed natural gas and recovered gas liquids are shipped to various customers.

Because the natural gas that is gathered at the Plant contains hydrogen sulfide, it must be treated or processed to remove these and other impurities. The carbon dioxide and hydrogen sulfide (H<sub>2</sub>S) stream that is removed from the natural gas in the amine treating process is routed (directed) to the sulfur recovery unit. The raw field inlet gas enters the Saunders Plant at a flow rate of approximately 47 mmcf/d.

Signs are present at the Saunders Plant which warn of hydrogen sulfide gas stating “poison gas” and complies with current ANSI standard Z535.1-2002 for safety color coding.

Wind direction indicators known as wind socks are located at the Plant site so that one or more are visible from all principal working areas at all times (Appendix D).

### 4.5 FUNCTION OF SIGN-IN LOG SHEET

- In order to have an accurate listing of all Targa personnel, contractors, and vendors on-site a daily sign-in log sheet located in the Plant Office is used. The sign-in log sheet includes at a minimum the person's name, the company name, the time of arrival, and the time of departure.
- Signs are located at the Plant gate entrances indicating that all visitors are to sign in on the daily sign-in log sheet located in at the Plant office.
- Anytime the Plan is activated (10 ppm or greater) this sign-in log sheet will be used by the IC to account for all people that maybe in the facility. This accounting for on-site personnel will be directed by the Incident Commander using the daily sign-in log at Assembly Area 1, 2, and 3 depending on the “Level Response” outline beginning on Section 1 Flow Diagrams. The sign-in log is brought to the initial Assembly Area by the office personnel as they proceed to that area.

### 1.6 SIGNS & MARKERS

The facility entrances and storage tanks that contain H<sub>2</sub>S within the facility have warning signs indicating the presence of H<sub>2</sub>S/Poisonous Gas and high pressure gas (which comply with ANSI standard Z525.1-2002) Emergency phone numbers are posted at the entrance to the Plant.

## 5. RADII OF EXPOSURE (ROE)

For the existing operations, the Radius of Exposure for both 500-ppm and 100-ppm of H<sub>2</sub>S gas was determined using the Pasquill-Gifford derived equation, as defined by NMAC, which uses the maximum daily rate of the gaseous mixture that is handled by the Saunders Gas Plant.

The rates and other variables used to calculate the ROE is discussed in greater detail in **Appendix B - ROE calculations. Also refer to Appendix C - map showing 500-ppm ROE and the 100-ppm ROE.**

<b>500 ppm ROE – public road</b>	<b>924 feet</b>
<b>100 ppm ROE – public area</b>	<b>2,022 feet</b>

## 6. TRAINING/DRILLS/EDUCATION

### 6.1 TRAINING

A critical portion of this plan is the emergency procedures and preparedness. To ensure the most effective implementation of these procedures, pre-emergency measures are taken to maintain a state of preparedness. These actions are as follows:

- As part of training an annual mock emergency drill is held annually which include Saunders emergency responders and public officials (Appendix E and F). These drills will include a briefing on issues such as evacuation measures to be taken in the event of a release.
- Every employee is to be completely familiar with the contents and location of the contingency plan.
- Surveillance and preventative maintenance to minimize the possibility of an accidental release of gas.
- Training and drills will be conducted as further described below.
- All SCBA's are maintained and ready for use.
- This Plan is made available to appropriate public response officials and shall be reviewed and discussed thoroughly with the Saunders area emergency response officials.

- Targa will use brochures, public notices, or other means, as deemed appropriate and practical, to alert, educate and train the public officials (Appendix F). These training brochures are mailed to the public officials annually advising them on the hazards of a H<sub>2</sub>S release, response instructions including evacuation or shelter in place information on closing all windows and shutting off furnace and air conditioning systems/swamp coolers that may draw air into a dwelling, and information on hydrogen sulfide characteristics.

All training records for the Plant are maintained at the Plant. Training is documented on training forms as in Appendix H. The following is a limited list and summary of the training programs that relate to the H<sub>2</sub>S Plan and Emergency Response:

**Plant Orientation Training** - All Plant personnel, visitors, and contractors must attend a Plant overview orientation prior to obtaining permission to enter the Plant. A refresher course on this training is required annually for all persons. This training also complies with the requirements of the Targa Safety Standards Manual.

**Respirator Training and Mask Fit Testing** - All Plant personnel receive annual training for proper selection and operation of respirators per OSHA regulations and standards.

**Hydrogen Sulfide and Sulfur Dioxide Training** – All Plant personnel receive annual refresher training on hydrogen sulfide and sulfur dioxide, which is conducted by the Targa Training Group. If an individual is unable to attend, they may be required to attend a third party training session. All contract employees and visitors are required to have had hydrogen sulfide training and to provide the Plant a copy of their certification card prior to obtaining permission to enter the Plant.

**Fire Extinguishers** - All Plant personnel are trained annually on fire extinguisher selection and use.

**Hazard Communication** - All Plant personnel are trained annually on Hazard Communication and SARA Title III Right-to-Know information. The annual training includes, at a minimum, a review of material safety data sheets (MSDS) for those materials that are present at the Plant and labeling.

**Personal Protective Equipment (PPE)** - All Plant personnel are trained annually on the Targa 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 task.

## 6.2 EMERGENCY RESPONSE DRILLS

A critical portion of this plan is the emergency procedures and preparedness. To ensure the most effective implementation of these procedures, pre-emergency measures are taken to maintain a state of preparedness. The Plant conducts emergency drills. Multiple drills during

the year may be scheduled at the discretion of the Area Manager or Public Emergency Response Agencies.

These emergency drills are designed to exercise this Plan. Area Public Emergency Response Agencies (Appendix F) are notified and invited to participate in the drills. The drills will also include briefing of public officials on Saunders facility operations.

Drill training will be documented per a documentation form as in Appendix H and those records will be maintained at the 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; and
- Post drill de-briefs and reviews to determine effectiveness and follow up to correct any deficiencies and/or ways to improve the response procedures.
- Surveillance and preventative maintenance to minimize the possibility of an accidental release of gas.

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

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

- Targa Midstream Safety & Health Manual;
- Targa Midstream, Saunders Plant Emergency Response and Oil Spill Contingency Plan; and
- Targa Midstream Environmental Policies and Programs.

### **6.4 REVISIONS TO THE PLAN**

The H<sub>2</sub>S Plan will be reviewed annually and revised as necessary to address changes to the plant facilities, operations, or training requirements, contact information and the public areas including roads, businesses, or residents potentially affected by the operations of the Plant, specifically those areas within the radii-of-exposure. If any revisions are made to the plan, redistribute the revised plan per Appendix A.

### **6.5 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 Plant in the Area Manager’s office, Assembly Area 1 (Break Room), Control Room, all Plant Supervisors, and Field Operator vehicles. See Appendix A for the H<sub>2</sub>S Distribution List, which lists all the additional entities that have been provided a copy of the H<sub>2</sub>S Plan.

## 6.6 EMERGENCY RESPONSE ORGANIZATION

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

In the event of an accidental release that results in the activation of the H<sub>2</sub>S Plan (10 ppm or greater) The Plant Operator will be the On-Scene Incident Commander (IC). Under certain conditions, the New Mexico State Police responding to the emergency may elect to assume the position of IC or they may establish a Unified Command of which the Targa employees may be key members. The responsibility of the IC is to ensure control of the emergency incident.

## 6.7 CHARACTERISTICS OF H<sub>2</sub>S, SO<sub>2</sub> AND CARBON DIOXIDE

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

#### Saunders Plant

The proposed inlet gas streams into the Plant will contain approximately 2,567 ppm (or 0.26 mole percent) of hydrogen sulfide based on data generated from the sampling of the inlet gas on June 1, 2013. The gas flow rate for the inlet to the plant is 47 mmcf/d.

Hydrogen sulfide is a colorless, toxic and flammable gas, and 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 & 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	.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 & 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

### 6.7.2 Sulfur Dioxide (SO<sub>2</sub>)

Sulfur dioxide is produced as a by-product of H<sub>2</sub>S combustion. The waste gas stream consisting of hydrogen sulfide and carbon dioxide is routed to the plant acid gas flare during abnormal conditions when the acid gas injection equipment is out of service. Waste gas is routed to the acid gas flare during maintenance operations.

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

Sulfur dioxide is heavier than air, but will 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 &amp; Characteristics</b>	
CAS No.	7446-09-5
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	49.1 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 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 (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.

### 6.7.3 Carbon Dioxide

The current inlet gas streams to the Plant contain approximately 2.52% carbon dioxide based on an inlet sample collected on Jun 1, 2013.

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

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

Physical Effects of Carbon Dioxide		
Concentration	Concentration	Effect
1.0 %	10,000 ppm	Breathing rate increases slightly
2.0 %	20,000 ppm	Breathing rate increases to 50% above normal level. Prolonged exposure can cause headache, tiredness
3.0 %	30,000 ppm	Breathing rate increases to twice normal rate and becomes labored. Weak narcotic effect. Impaired hearing, headache, increased blood pressure and pulse rate
4 – 5 %	40,000 – 50,000 ppm	Breathing increases to approximately four times normal rate, symptoms of intoxication become evident, and slight choking may be felt
5 – 10 %	50,000 – 100,000	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 %	100,000 – 1,000,000 ppm	Unconsciousness occurs more rapidly above 10% level. Prolonged exposure to high concentrations may eventually result in death from asphyxiation

## **7. PUBLIC AWARENESS AND COMMUNICATION**

Public awareness and communication is a primary function of the H<sub>2</sub>S Plan. The Company has compiled a list of contacts that are to be notified at various phases during the activation of the Plan. Refer to the lists in Appendix F.

### **7.1 MEDIA**

At no time shall any representative from the media be allowed any closer to the facility than the designated safe (by monitoring) Assembly Areas 2 or 3.

If possible assemble all Media in a group in a safe area away from the emergency so Corporate Communications (Houston) can issue a statement.

All media inquiries should be directed to Corporate Communications in Houston. The IC or their designee will provide Corporate Communications with periodic updates and will take their direction with regard to any onsite communication with the media.

### **7.2 PUBLIC AREAS, BUSINESSES, AND RESIDENTS**

There are no Public areas, businesses or parties within the 100 and 500 ppm ROE's. The contact information for local and state agencies is contained in Appendix F. The IC is responsible for all required notifications.

19.15.11.7.I NMAC "Public area" means a building or structure that is not associated with the well, facility or operation for which the radius of exposure is being calculated and that is used as a dwelling, office, place of business, church, school, hospital or government building, or a portion of a park, city, town, village or designated school bus stop or other similar area where members of the public may reasonably be expected to be present.

Contact notification will include:

- The nature and extent of the release/emergency at the facility and recommendations for protective actions, such as evacuation or shelter-in-place;
- Any other event specific information that is necessary to protect the public; and
- 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. A safe return would be directed by the Incident Commander after alarms have ceased and on ambient air condition sampling of less than 10 ppm.

### **7.3 PUBLIC ROADS**

Depending on the level of response, roadblocks will be established pursuant to Section 1 Flow Charts and Appendix D locations.

19.15.11.7.I NMAC "Public road" means a federal, state, municipal or county road or highway.

# Appendix A

***Appendix A***

***H2S Plan Distribution List***

New Mexico Oil & Gas Conservation Division – Santa Fe, New Mexico

New Mexico Oil & Gas Conservation Division – Hobbs, New Mexico

New Mexico Department of Public Safety (State Office)

New Mexico Department of Homeland Security and Emergency Management

Lovington Fire Department

Lea County Local Emergency Planning Committee

Lea County Sherriff Department

Saunders Gas Plant Manager and Supervisors

Targa Saunders Plant Control Room, Assembly Area 1, Field Operator Vehicles

Targa Midstream Office (Midland, TX)

## Appendix B

The formulas for calculating the ROEs for the Saunders Plant were calculated in accordance with the rulings as specified by the New Mexico Administrative Code Pasquill-Gifford Equation:

**500-ppm RADIUS OF EXPOSURE CALCULATION**

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

**100-ppm RADIUS OF EXPOSURE CALCULATION**

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

Where:

X = Radius of exposure in feet

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

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

- For existing facilities or operations, the escape rate (Q) is the maximum daily rate of the gaseous mixture produced or handled or the best estimate thereof.

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The volume used for the ROE calculation is 100 mmcf as the inlet to the Plant with a hydrogen sulfide concentration of 2567 ppm:

Using flow rate Q = 47 mmcf and  
H<sub>2</sub>S concentration = 2,567 ppm

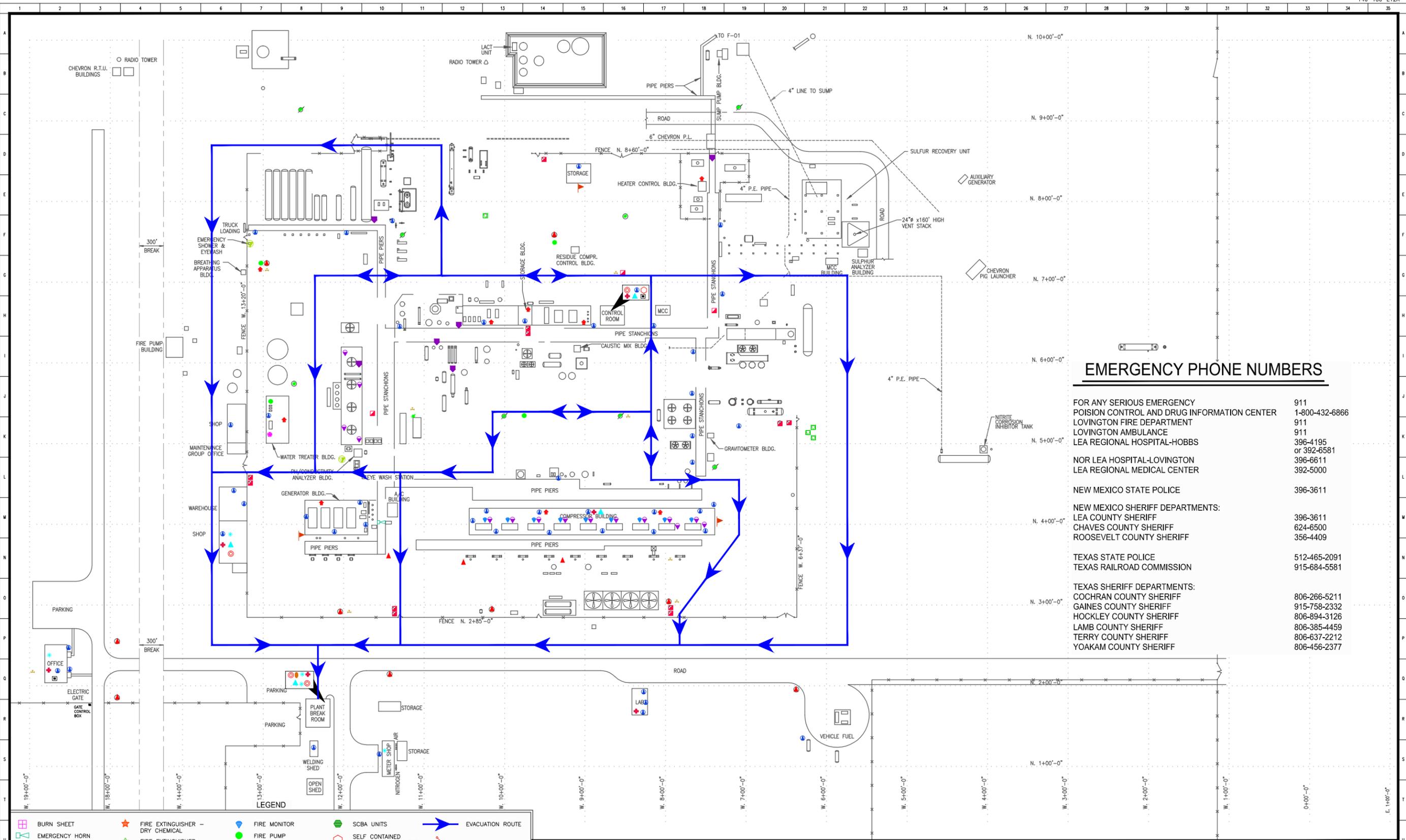
<b>500 ppm ROE – public road</b>	<b>924 feet</b>
<b>100 ppm ROE – public area</b>	<b>2,022 feet</b>

## Appendix C



Figure 2 - Radius Of Exposure

## Appendix D



### EMERGENCY PHONE NUMBERS

- FOR ANY SERIOUS EMERGENCY  
 POISON CONTROL AND DRUG INFORMATION CENTER 911  
 LOVINGTON FIRE DEPARTMENT 911  
 LOVINGTON AMBULANCE 911  
 LEA REGIONAL HOSPITAL-HOBBS 396-4195  
 or 392-6581  
 NOR LEA HOSPITAL-LOVINGTON 396-6611  
 LEA REGIONAL MEDICAL CENTER 392-5000
- NEW MEXICO STATE POLICE 396-3611
- NEW MEXICO SHERIFF DEPARTMENTS:  
 LEA COUNTY SHERIFF 396-3611  
 CHAVES COUNTY SHERIFF 624-6500  
 ROOSEVELT COUNTY SHERIFF 356-4409
- TEXAS STATE POLICE 512-465-2091  
 TEXAS RAILROAD COMMISSION 915-684-5581
- TEXAS SHERIFF DEPARTMENTS:  
 COCHRAN COUNTY SHERIFF 806-266-5211  
 GAINES COUNTY SHERIFF 915-758-2332  
 HOCKLEY COUNTY SHERIFF 806-894-3126  
 LAMB COUNTY SHERIFF 806-385-4459  
 TERRY COUNTY SHERIFF 806-637-2212  
 YOAKAM COUNTY SHERIFF 806-456-2377

### LEGEND

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REFERENCE DWGS.	REV	DESCRIPTION	DWN	CHKD	DATE	REV	DESCRIPTION	DWN	CHKD	DATE

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PREPARED BY: \_\_\_\_\_ PROJECT NUMBER: \_\_\_\_\_

SCALE: 1"=50'-0"	DATE: 9/25/13		DRAWING NUMBER: 146-100-E12A
DWN BY: FRD			CAD FILE NAME: SU100E12A
CHKD BY:			REVISION: 0
FINAL CK:			
ENGR.:		PLOT PLAN H2S CONTINGENCY PLAN WITH EVACUATION ROUTES	
APPRY:			
PLANT NAME: SAUNDERS GAS PLANT LEA CO., NM			

## Appendix E

**TARGA SAUNDERS NOTIFICATION LIST**

**COMPANY PERSONNEL**

Call the following persons in the order listed until one is notified of the emergency:

**Area Management**

*Saunders Plant*

Tim Jordan, Saunders Plant Area Manager

Office: (575) 396-3221, ext. 31

Home: (575) 396-0189

Mobile: (575) 631-7091

Alternate:

David Byrd, Saunders Plant Operation Supervisor

Office: (575) 396-3221, ext. 25

Home: (575) 396-6366

Mobile: (806) 789-0528

Alternate:

Gordon Altstatt, Saunders Maintenance Supervisor

Office: (575) 396-3221, ext. 27

Home: (575) 631-2757

Mobile: (575) 631-2757

Alternate:

Ralph England, Saunders Field Supervisor

Office: (575) 396-3221, ext. 24

Home: (575) 760-3407

Mobile: (575) 441-4653

Alternate:

Bill Little, Eunice Plant Area Manger (Eunice, NM)

Office: (575) 394-2534, Ext. 226

Home: (575) 396-2997

Mobile: (575) 631-7099

Alternate:

Todd Young, Director of Operations (Lovington, NM)

Office: (575) 394-2516 ext. 329

Home: (432) 523-3770

Mobile: (575) 441-1645

## **ES&H Group**

Cal Wrangham, ES&H Manager  
Office: 432-688-0542 Midland, TX  
Home: 432-697-6580 Midland, TX  
Mobile: 432-425-7072

Cindy Klein, ES&H Specialist  
Office: 575-396-3221, ext. 38  
Home: 575-398-6670  
Mobile: 575-631-7093

Rebecca Woodell, ES&H Specialist  
Office: 575-394-2534, ext. 239  
Home: 575-394-2280  
Mobile: 575-631-7085

## **Region Manager**

Clark White, VP and Region Manager  
Office: 713-584-1525 Houston, TX

## **Field Operators**

Alfredo Corral  
Mobile: (575) 631-1432  
Home: (575) 396-2960

Tomas Espinoza  
Mobile: (575) 631-8912  
Home: (575) 396-6690

## **Call company support personnel in Houston, TX, as needed:**

Vice President  
Jessica Keiser  
Office: 713-584-1084  
Cell Phone: 713-263-4537

Corporate Security  
Weldon Green  
Office: 713-584-1301  
Cell Phone: 281-802-5351

## Appendix F

## ***Appendix F***

## ***Emergency Responder List***

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### **AGENCY/EMERGENCY RESPONDERS NOTIFICATION LIST**

#### **Call 911**

<b>State Police</b>	<b>575-392-5588</b>
<b>Lovington Fire Dept.</b>	<b>575-397-4166/575-393-4339</b>
<b>Hobbs - Sheriff</b>	<b>575-396-3611</b>
Hobbs – Police	575-397-9265
Hobbs – Fire Dept.	575-397-9265
Hobbs – Ambulance	575-397-9265
Eunice – Police	575-394-2112
Eunice – Fire Dept.	575-394-3258
Lovington – Sheriff	575-396-3611
Lovington – Police	575-396-2811
Lovington – Fire Dept	575-396-2359
Lovington - Ambulance	575-396-2811

#### **STATE AGENCIES**

Oil Conservation Division, Santa Fe	505-476-3440
Oil Conservation Division – District Office, Hobbs	575-393-6161
Environmental Department – Air Quality Bureau, Santa Fe	505-827-1494

#### **FEDERAL AGENCY**

U. S. EPA – Region VI Office, Dallas, TX	800-887-6063
National Response Center	800-424-8202
New Mexico Public Regulation Commission Office of Public Safety (Pipeline Release)	505-476-0253/505-946-8314

## Appendix G

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

State of New Mexico  
Energy Minerals and Natural Resources

Form C-141  
Revised August 8, 2011

Oil Conservation Division  
1220 South St. Francis Dr.  
Santa Fe, NM 87505

Submit 1 Copy to appropriate District Office in  
accordance with 19.15.29 NMAC.

**Release Notification and Corrective Action**

**OPERATOR**

Initial Report  Final Report

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

**LOCATION OF RELEASE**

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

Latitude \_\_\_\_\_ Longitude \_\_\_\_\_

**NATURE OF RELEASE**

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

If a Watercourse was Impacted, Describe Fully.\*

Describe Cause of Problem and Remedial Action Taken.\*

Describe Area Affected and Cleanup Action Taken.\*

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

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

\* Attach Additional Sheets If Necessary

## Appendix H

# TRAINING DOCUMENTATION FORM

COURSE TITLE \_\_\_\_\_ VIDEO \_\_\_\_\_ DATE \_\_\_\_\_

CLASS LENGTH (HRS) \_\_\_\_\_ CLASS LOCATION \_\_\_\_\_ TRAINERS \_\_\_\_\_

VENDOR TRAINING: COMPANY \_\_\_\_\_ ADDRESS \_\_\_\_\_ PHONE NO. \_\_\_\_\_

Grade Pass/Fail	Signature	Print Name	Social Security No. <i>(Last 4 Numbers)</i>	Job Title	Location
1					
2					
3					
4					
5					
6					
7					
8					
9					
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14					
15					
16					
17					
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21					
22					
23					
24					
25					

## Chavez, Carl J, EMNRD

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**From:** Chavez, Carl J, EMNRD  
**Sent:** Thursday, September 22, 2011 9:32 AM  
**To:** 'Klein, Cindy D.'  
**Cc:** Wrangham, Calvin W.  
**Subject:** RE: Targa Saunders Gas Plant (GW-026) H2S Contingency Plan Review

Cindy:

Ok. I'll place this msg. in the file and on my calendar. 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/>

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

---

**From:** Klein, Cindy D. [<mailto:CynthiaKlein@targaresources.com>]  
**Sent:** Thursday, September 22, 2011 9:15 AM  
**To:** Chavez, Carl J, EMNRD  
**Cc:** Wrangham, Calvin W.  
**Subject:** RE: Targa Saunders Gas Plant (GW-026) H2S Contingency Plan Review

Good Morning Carl,

Per our conversation yesterday (September 21, 11), the proposed date for the submittal of our revised H2S Contingency Plan for the Saunders Plant will be on or before Friday, November 4, 2011.

Thank You for your assistance,

Cindy Klein  
Compliance Specialist, ES&H  
(575) 396-3221 ext. 38 Office  
(575) 631-7093 Cell  
[cklein@targaresources.com](mailto:cklein@targaresources.com)

---

**From:** Chavez, Carl J, EMNRD [mailto:CarlJ.Chavez@state.nm.us]  
**Sent:** Wednesday, September 21, 2011 10:30 AM  
**To:** Wrangham, Calvin W.; Klein, Cindy D.  
**Cc:** Sanchez, Daniel J., EMNRD; VonGonten, Glenn, EMNRD; Gonzales, Elidio L, EMNRD  
**Subject:** RE: Targa Saunders Gas Plant (GW-026) H2S Contingency Plan Review

Cal and Cindy:

Good morning. Please propose a date for submittal of your H2S Contingency Plan for the Saunders GP/Vada CS to the OCD by COB this coming Friday so the OCD can track progress.

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  
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---

**From:** Wrangham, Calvin W. [mailto:CalvinWrangham@targaresources.com]  
**Sent:** Tuesday, September 13, 2011 7:17 AM  
**To:** Chavez, Carl J, EMNRD; Klein, Cindy D.  
**Cc:** Jordan, Tim J  
**Subject:** RE: Targa Saunders Gas Plant (GW-026) H2S Contingency Plan Review

Thanks Carl. This checklist will be a great tool. We recently finished the plan for the Eunice Plant and AGI working with Brad and worked thru the rule requirements, some of which you noted below. We are in the process of updating the Contingency Plan for our Monument Plant to include the acid gas injection well that is currently being constructed, and then plan to go back and revise this Saunders Plan as needed.

*Cal Wrangham*

Targa Resources  
ES&H Manager  
6 Desta Dr. Suite 3300  
Midland, TX. 79705  
(432) 688-0542

---

**From:** Chavez, Carl J, EMNRD [mailto:CarlJ.Chavez@state.nm.us]  
**Sent:** Friday, September 09, 2011 3:52 PM  
**To:** Chavez, Carl J, EMNRD; Klein, Cindy D.  
**Cc:** Wrangham, Calvin W.; Jordan, Tim J  
**Subject:** RE: Targa Saunders Gas Plant (GW-026) H2S Contingency Plan Review

Cindy, Cal, et al.:

Good afternoon. I've been side tracked. I am working to complete an internal checklist (see attachment) on your H2S CP. As soon as I complete it, I will direct it to you for a telephone conference call and for you to review your sections to make sure the content is satisfactory.

I will be asking about the highlighted (yellow) sections below, since these gas gathering lines containing sour gas present concerns to public areas, but don't seem to be adequately addressed by some sort of activation level that would identify when there is a leak and then what would then trigger implementation of your H2S CP along the line. But I will be reading the CP to see if I find this information.....

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**Sent:** Tuesday, September 13, 2011 7:17 AM  
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**Cc:** Jordan, Tim J  
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*Cal Wrangham*

Targa Resources  
ES&H Manager  
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Midland, TX. 79705  
(432) 688-0542

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**From:** Chavez, Carl J, EMNRD  
**Sent:** Wednesday, August 31, 2011 8:27 AM  
**To:** 'Klein, Cindy D.'

**Cc:** Wrangham, Calvin W.; Jordan, Tim J  
**Subject:** RE: Targa Saunders Gas Plant (GW-026) H2S Contingency Plan Review

Cindy:

Ok. Just give me a call, I'm in at 6 a.m. GMT. Thanks.

Carl J. Chavez, CHMM  
New Mexico Energy, Minerals & Natural Resources Dept.  
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**From:** Klein, Cindy D. [<mailto:CynthiaKlein@targaresources.com>]  
**Sent:** Wednesday, August 31, 2011 8:26 AM  
**To:** Chavez, Carl J, EMNRD  
**Cc:** Wrangham, Calvin W.; Jordan, Tim J  
**Subject:** RE: Targa Saunders Gas Plant (GW-026) H2S Contingency Plan Review

Mr. Chavez,

Cal is in meetings in Houston this week. He and I spoke this morning about your email concerning the H2S Contingency Plan review. We will look into the questions/concerns that you have listed in your email and will be in touch with you when you return, after September 7<sup>th</sup>. Please let me know if you have any questions.

Thank You,

Cindy Klein  
Compliance Specialist, ES&H  
(575) 396-3221 ext. 38 Office  
(575) 631-7093 Cell  
[cklein@targaresources.com](mailto:cklein@targaresources.com)

---

**From:** Wrangham, Calvin W.  
**Sent:** Wednesday, August 31, 2011 7:44 AM  
**To:** Klein, Cindy D.; Jordan, Tim J  
**Subject:** Fw: Targa Saunders Gas Plant (GW-026) H2S Contingency Plan Review

---

**From:** Chavez, Carl J, EMNRD [<mailto:CarlJ.Chavez@state.nm.us>]  
**Sent:** Wednesday, August 31, 2011 07:27 AM  
**To:** Wrangham, Calvin W.

**Subject:** Targa Saunders Gas Plant (GW-026) H2S Contingency Plan Review

Cal:

Re:

- **GW-026 Targa Saunders Gas Plant H2S CP**

- On 8/19 began review of H2S CP received on 8/16 covering GWs 26 (Saunders GP) & 27 (Vada CS) and other non-permitted booster and compressor stations. Entered into tracking system and scanned into OCD Online. Ok.
- On 9/1 developing draft letter to send operator for telephone conference call on OCD's preliminary review of H2S CP listed above. Ok.

Good morning,  
out.

we should be able to work something

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I'm free to discuss your H2S CP on 9/1 and then I will be out of the office until next Wednesday, Sept. 7<sup>th</sup>.

Thank you.

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## Chavez, Carl J, EMNRD

---

**From:** Chavez, Carl J, EMNRD  
**Sent:** Friday, September 09, 2011 2:39 PM  
**To:** Chavez, Carl J, EMNRD; 'Klein, Cindy D.'  
**Cc:** 'Wrangham, Calvin W.'; 'Jordan, Tim J'  
**Subject:** RE: Targa Saunders Gas Plant (GW-026) H2S Contingency Plan Review  
**Attachments:** H2S Contingency Plan checklist 9-1-2011.xls

Cindy, Cal, et al.:

Good afternoon. I've been side tracked. I am working to complete an internal checklist (see attachment) on your H2S CP. As soon as I complete it, I will direct it to you for a telephone conference call and for you to review your sections to make sure the content is satisfactory.

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**From:** Chavez, Carl J, EMNRD  
**Sent:** Wednesday, August 31, 2011 8:27 AM  
**To:** 'Klein, Cindy D.'  
**Cc:** Wrangham, Calvin W.; Jordan, Tim J  
**Subject:** RE: Targa Saunders Gas Plant (GW-026) H2S Contingency Plan Review

Cindy:

Ok. Just give me a call, I'm in at 6 a.m. GMT. Thanks.

Carl J. Chavez, CHMM  
New Mexico Energy, Minerals & Natural Resources Dept.  
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**Sent:** Wednesday, August 31, 2011 8:26 AM

**To:** Chavez, Carl J, EMNRD  
**Cc:** Wrangham, Calvin W.; Jordan, Tim J  
**Subject:** RE: Targa Saunders Gas Plant (GW-026) H2S Contingency Plan Review

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Thank You,

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**Sent:** Wednesday, August 31, 2011 7:44 AM  
**To:** Klein, Cindy D.; Jordan, Tim J  
**Subject:** Fw: Targa Saunders Gas Plant (GW-026) H2S Contingency Plan Review

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**From:** Chavez, Carl J, EMNRD [mailto:CarlJ.Chavez@state.nm.us]  
**Sent:** Wednesday, August 31, 2011 07:27 AM  
**To:** Wrangham, Calvin W.  
**Subject:** Targa Saunders Gas Plant (GW-026) H2S Contingency Plan Review

Cal:

Re:

- **GW-026 Targa Saunders Gas Plant H2S CP**
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I'm free to discuss your H2S CP on 9/1 and then I will be out of the office until next Wednesday, Sept. 7<sup>th</sup>.

Thank you.

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

<Company Name>  
 FACILITY NAME  
 <Date>

<b>Contingency Plan Requirements Checklist</b>				
<b>19.15.11.9:B NMAC Requirement</b>	<b>Included?</b>	<b>Page in Document?</b>		<b>Notes</b>
<b>Emergency Procedures</b>				
Responsibilities & duties of personnel during emergency				
Immediate action plan				
Evacuation and shelter in place plans				
Telephone numbers of emergency responders				
Telephone numbers of public agencies				
Telephone numbers of local government				
Telephone numbers of appropriate public authorities				
Location of potentially affected public areas Also see 19.15.11.12.B & D				
Location of potentially affected public roads				
Proposed evacuation routes, with locations of road blocks				
Procedures for notifying the public				
Availability and location of safety equipment and supplies Also see 19.15.11.12.C				
<b>Characteristics of hydrogen sulfide and sulfur dioxide</b>				
Discussion of characteristics				
<b>Maps and Drawings</b>				
Area of exposure				
Public areas within area of exposure				
Public roads within area of exposure				
<b>Training and Drills</b>				
Training of personnel to include responsibilities, duties, hazards, detection, personal protection and contingency procedure				
Periodic drills or exercises that simulate a release				
Documentation of training, drills, & attendance				
Training of residents on protective measures				
Briefing of public officials on evacuation or shelter-in-place plans				
<b>Coordination with state emergency plans</b>				
How emergency response actions will coordinate with OCD and the state police response plans				
<b>Activation Levels</b>				
Activation Levels and description of events which may lead to a release in excess of activation level				
<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				
Commitment to activate contingency plan whenever H2S concentration of more that 100 ppm 3000 feet from the site of release				

## Chavez, Carl J, EMNRD

---

**From:** Chavez, Carl J, EMNRD  
**Sent:** Wednesday, August 31, 2011 6:27 AM  
**To:** 'Wrangham, Calvin W.'  
**Subject:** Targa Saunders Gas Plant (GW-026) H2S Contingency Plan Review

Cal:

Re:

- **GW-026 Targa Saunders Gas Plant H2S CP**
  - On 8/19 began review of H2S CP received on 8/16 covering GWs 26 (Saunders GP) & 27 (Vada CS) and other non-permitted booster and compressor stations. Entered into tracking system and scanned into OCD Online. Ok.
  - On 9/1 developing draft letter to send operator for telephone conference call on OCD's preliminary review of H2S CP listed above. Ok.

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Thank you.

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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>)



**TARGA**

Targa Midstream Services Limited Partnership  
6 Desta Drive, Suite 3300  
Midland, TX 79705  
432.688.0555

[www.targaresources.com](http://www.targaresources.com)

Certified Mail: 7008 1830 0004 2693 2276

August 8, 2011

Mr. Daniel Sanchez  
Acting Division Director  
Oil Conservation Division  
1220 South St. Francis Drive  
Santa Fe, NM 87505

RE: Targa Midstream Services Limited Partnership  
Saunders Plant GW-026  
Vada CS GW-027  
H2S Contingency Plan

RECEIVED OOD  
2011 AUG 12 P 2:11

Dear Sir:

Targa Midstream Services Limited Partnership received your letter addressed to Ms. Cindy Klein dated March 1, 2011 referring to Dynege Saunders Plant (GW-026).

Per notification on November 4, 2005 to Mr. Roger Anderson Environment Bureau Chief from Mr. Clark White Targa Vice-President the Saunders Plant is owned by Versado Gas Processors, L. L. C. and operated by Targa Midstream Services Limited Partnership.

After the effective date of March 2, 2003 of Rule 118 per NMAC 19.15.3.118 Dynege (former facility operator) submitted a Rule 118 CP per the rule to the Division. The CP was updated May 25, 2006 to reflect the operator name change to Targa.

Per your request please find enclosed a new CP per rule Title 19 Chapter 15 Part 11 dated January 18, 2011.

A separate notification was received referring to the Vada Gas Plant (GW-027) The Plant operations were shutdown in 1998 and the facility converted to a compressor station consisting of 2 generators and 3 gas compressors feeding inlet gas to the Saunders Plant. This compressor station and the others in the Saunders Plant gathering system are included in the Saunders Plant CP.

If you have any questions, or need additional information, please contact me at (432)-688-0542.

Sincerely,

Cal Wrangham  
Targa ES&H Manager

cc: T. Jordan-Saunders Area Manager  
C. Klein-ES&H Specialist  
J. Keiser-Assistant Vice-President ES&H



**TARGA**

**HYDROGEN SULFIDE  
CONTINGENCY PLAN**

*for*

**SAUNDERS PLANT (GW-026)  
ASSOCIATED COMPRESSOR STATIONS  
AND GATHERING SYSTEM**

**TITLE 19 NATURAL RESOURCES AND WILDLIFE  
CHAPTER 15 OIL AND GAS  
PART 11 HYDROGEN SULFIDE GAS**

**VERSADO GAS PROCESSORS, L. L. C.  
*operated by*  
TARGA MIDSTREAM SERVICES,  
LIMITED PARTNERSHIP**

**July 13, 2011**

2011 AUG 12 P 2 11

RECEIVED 003

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Appendix C	Radii of Exposure Map
Appendix D	Emergency Assembly Area Map
Appendix E	Emergency Notification List
Appendix F	State and Federal Agency List

# 1. INTRODUCTION

The Saunders Gas Plant, Associated Compressor Stations, and Gathering System consist of a natural gas processing plant and system which handles and/or generates hydrogen sulfide and/or sulfur dioxide; therefore this Hydrogen Sulfide Contingency Plan (H<sub>2</sub>S Plan or Plan) has been developed:

1. to satisfy the New Mexico Oil Conservation Division Rule 11 (effective 12/08);
2. to conform with API "Recommended Practice for Oil and Gas Producing and Gas Processing Plant Operations Involving Hydrogen Sulfide," Recommended Practice 55 (reaffirmed 3/07); and
3. to create a site-specific hydrogen sulfide contingency plan that outlines the emergency response procedures that will be implemented to ensure a coordinated, efficient and immediate action Plan for alerting and protecting operating personnel and the public as well as to prevent or minimize environmental hazards and damage to property.

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

## 1.1 SAUNDERS GAS PLANT, ASSOCIATED COMPRESSOR STATIONS, AND GATHERING SYSTEM DESCRIPTION

The Saunders Gas Plant is located 11 miles west on Highway 82 and 11 miles north on Highway 457 from Lovington, Lea County, New Mexico. It is owned by Versado Gas Processors, LLC and operated by Targa Midstream Services, Limited Partnership.

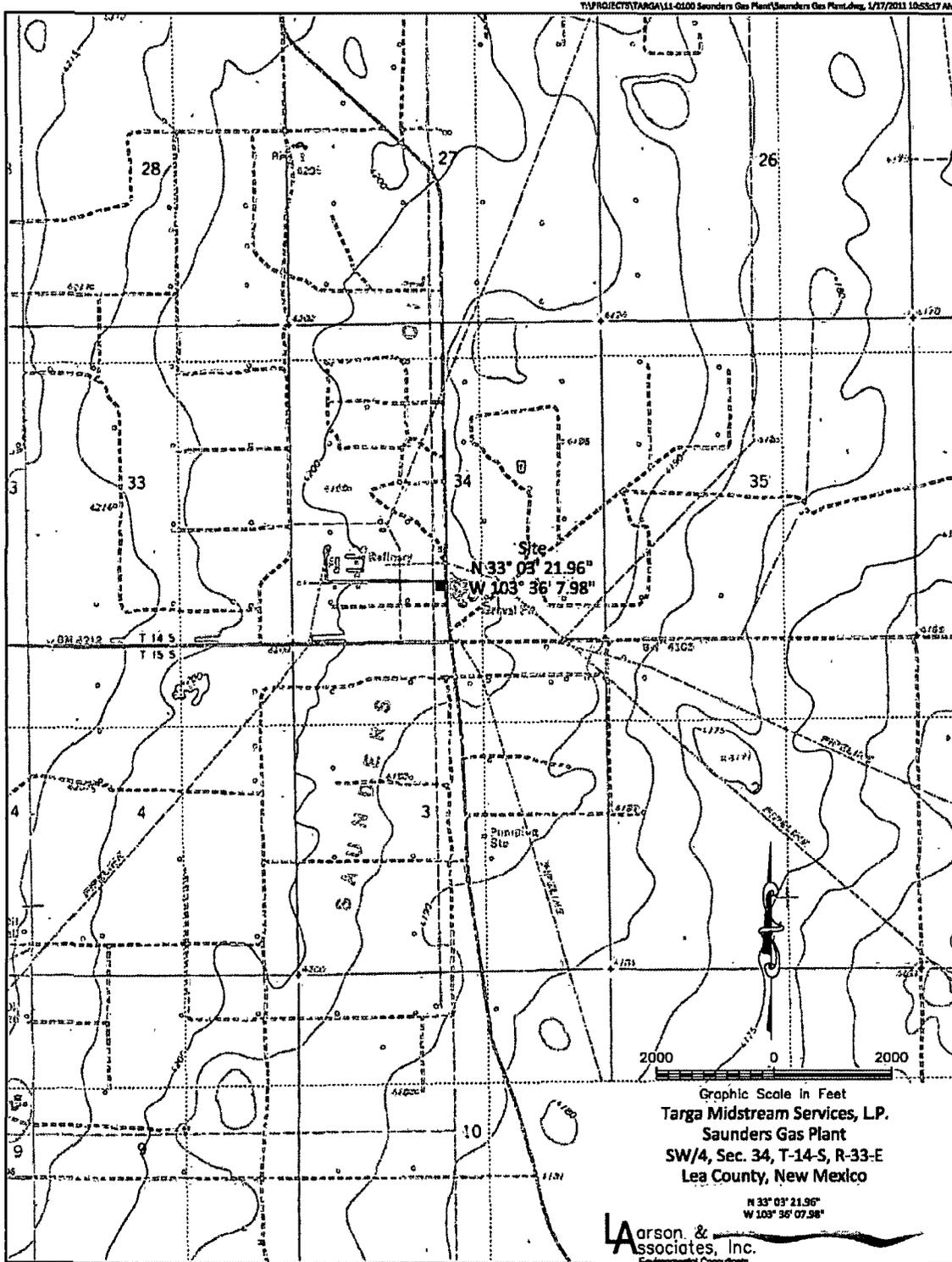
More specifically, the Plant is located in Section 34, Township 14S, Range 33E in NMPM, Lea County, New Mexico.

1. Plant approximate coordinates are:  
**Latitude: 33° 3' 21.96" N Longitude: 103° 36' 7.98" W**
2. Plant physical address is:  
11 miles W on Hwy 82 and 11 miles N on Hwy 457  
Lovington, New Mexico
3. Plant mailing address is:  
P. O. Box 1689  
Lovington, New Mexico 88260
4. Driving Directions from Lovington, New Mexico to the Plant:

From the intersection of Main Street and Avenue D (New Mexico Highway 82), travel west on Highway 82 (approximately 11 miles) to the intersection of US Hwy 457. Travel north on Highway 457 (approximately 11 miles). Turn left onto County Road 117 and travel west approximately 0.5 mile to the entrance to the Saunders Gas Plant.

**The location of the Plant is illustrated herein on Figure 1.**

**Figure 1  
Saunders Gas Plant**



Associated Compressor Stations and Gathering System are provided in detail in Appendix C. Specifically, natural gas converges to the Saunders Gas Plant through a series of lines, compressors and/or booster stations. For illustration, one of the compressor stations, Vada Compressor Station is located approximately 27 miles north from the Saunders Plant in Section 23, Township 10S, Range 33E in NMPM, Lea County, New Mexico.

1. Vada Compressor Station approximate coordinates are:

**Latitude: 33° 25' 59.60" N Longitude: 103° 32' 45.95" W**

2. Vada Compressor Station driving directions from Tatum, New Mexico to the Compressor Station:

Proceed west on Highway 380 approximately 15 miles to Highway 457 (Nine Mile Ranch Road). Turn right, heading north, onto Highway 457 and proceed north to Epperson Road (pavement ends). Proceed north for approximately 3.3 miles to plant on east side of road.

**Gathering System and Compressor Stations' locations are provided in detail in Appendix C.**

The lines follow a circular layout: from the Vada Compressor Station northeast, approximately 20 miles, to the Bluit Booster Discharge area, following a southward projection of approximately 40 miles through the Gladiola/King Lines to the Dean Caudill Booster Station area approximately nine miles southwest to Townsend Booster. Lines project from the Townsend Booster northwest to the Saunders Plant.

## **1.2 DESCRIPTION OF OPERATIONS**

1. The Plant operations include gas processing, conditioning and compression, as well as flow lines and storage tanks. The Plant gathers and processes produced natural gas from Lea and Eddy Counties, New Mexico via a pipeline system and compressor stations. Once gathered at the Plant, the produced natural gas is compressed; treated in an amine process for the removal of carbon dioxide and hydrogen sulfide; and dehydrated to remove the water content. The processed natural gas and recovered gas liquids are sold and shipped to various customers.
2. Because the natural gas that is gathered at the Plant contains hydrogen sulfide, it must be treated or processed to remove these and other impurities. The carbon dioxide and hydrogen sulfide (H<sub>2</sub>S) stream that is removed from the natural gas in the amine treating process is sent to the sulfur recovery unit whereby sulfur is removed, which results in the generation of molten elemental sulfur.

## **2. THE PLAN**

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

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

- Targa Midstream Safety & Health Manual;
- Targa Midstream Saunders Plant Emergency Response, Groundwater Discharge Plan and Oil Spill Contingency Plan; and
- Targa Midstream Environmental Policies and Programs.

### **2.2 REVISIONS TO THE PLAN**

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

### **2.3 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 Plant in the Area Manager's office, control room and all Plant Supervisors. See Appendix A for the H<sub>2</sub>S Distribution List, which lists all the additional entities that have been provided a copy of the H<sub>2</sub>S Plan.

### **2.4 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 H<sub>2</sub>S or SO<sub>2</sub> release that may pose a threat to the Plant, public or public areas;
2. The characteristics of H<sub>2</sub>S and SO<sub>2</sub>;
3. A facility description, map and/or drawings; and
4. Information regarding training and drills to be conducted related to this Plan.

### 3. PLAN DESIGN CONSIDERATIONS

#### 3.1 CHARACTERISTICS OF H<sub>2</sub>S, SO<sub>2</sub> AND CARBON DIOXIDE

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

The proposed inlet gas streams into the Plant will contain approximately 4,300 ppm (or 0.43 mole percent) of hydrogen sulfide based on data generated from the sampling of the inlet gas on weekly monitoring.

Hydrogen sulfide is a colorless, toxic and flammable gas, and 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 & 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	.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 & 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

### 3.1.2 Sulfur Dioxide (SO<sub>2</sub>)

Sulfur dioxide is produced as a by-product of H<sub>2</sub>S combustion. The waste gas stream consisting of hydrogen sulfide and carbon dioxide is routed to the plant acid gas flare during abnormal conditions when the sulfur recovery unit is out of service. Waste gas is routed to the acid gas flare during maintenance operations.

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

Sulfur dioxide is heavier than air, but will 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 &amp; Characteristics</b>	
CAS No.	7446-09-5
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	49.1 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 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 (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.

### 3.1.3 Carbon Dioxide

The current inlet gas streams to the Plant contain approximately 1.5% carbon dioxide based on an inlet sample collected on December 29, 2010.

Carbon dioxide gas is colorless, odorless, and non-flammable. Carbon dioxide 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
TWA	5,000 ppm
STEL	30,000 ppm
IDLH	40,000 ppm
Specific Gravity (air = 1.0)	1.5197
Boiling Point	-109.12°F
Freezing Point	-69.81°F
Vapor Pressure	830 psia
Auto Ignition Temperature	N/A
Lower Flammability Limit	N/A
Upper Flammability Limit	N/A
Stability	Stable
pH in saturated solution	3.7
Corrosivity	dry gas is relatively inert & not corrosive; can be corrosive to mild steels in aqueous solutions

<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

### **3.2 RADII OF EXPOSURE (ROE)**

For the existing operations, the Radius of Exposure for both 500-ppm and 100-ppm of H<sub>2</sub>S gas was determined using the Pasquill-Gifford derived equation, as defined by NMAC, which uses the maximum daily rate of the gaseous mixture that is handled by the Saunders Gas Plant.

The rates and other variables used to calculate the ROE is discussed in greater detail in **Appendix B - ROE calculations. Also refer to Appendix C - map showing 500-ppm ROE and the 100-ppm ROE.**

<b>500 ppm ROE – public road</b>	<b>1,447 feet</b>
<b>100 ppm ROE – public area</b>	<b>3,167 feet</b>

## **4. EMERGENCY ACTION PROCEDURES**

### **4.1 EMERGENCY RESPONSE ORGANIZATION**

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

In the event of an accidental release that results in the activation of the H<sub>2</sub>S Plan and all personnel have been evacuated out of the affected area, the Area Manager, or his designee, will be the On-Scene Incident Commander (IC in this Plan). Upon notification of an emergency the Area Manager or his relief will serve as the Field Incident Commander (FIC). Under certain conditions, the New Mexico State Police responding to the emergency may elect to assume the position of FIC or they may establish a Unified Command of which the Targa Area Manager may be a key member. The responsibility of the FIC is to ensure control of the emergency incident. The IC will contact and coordinate with Targa's management in corporate office.

The Area Manager or his designee shall determine:

1. Plant Shutdowns;
2. Isolation of pipeline segments; and
3. Repairs, tests or restarts as required.

If an emergency occurs, the Area Manager, or his designee, shall be notified first. The Area Manager, or his designee, shall notify Targa's Office in Midland, Texas. If any person in this chain of command is unavailable, the Targa employee shall elevate the communication to the next level.

### **4.2 EMERGENCY RESPONSE**

This section explains the procedures and decision 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.

#### **4.2.1 Objective**

All Area employees shall be prepared to respond to an H<sub>2</sub>S or SO<sub>2</sub> emergency at the Plant, Associated Compressors, and Gathering System lines. Emergency response actions may be taken for a variety of situations that may occur in the Plant. The Plan is activated based on the concentration of H<sub>2</sub>S that has been released.

- Plant - Emergency alarm sounded and/or flashing red beacons activated for H<sub>2</sub>S greater than 10 ppm,

- 100 ppm in any public area, or
- 500 ppm at any public road, or
- When a 100 ppm ROE is greater than 3,000 feet from the site of the release.

As soon as the Plan has been activated, based on the criteria above, the Area Manager, or his designee, shall be notified. In the absence of the Area Manager or his relief the Targa employee (first responder) at the site shall assume the role of FIC and determine whether or not to activate the Contingency Plan. It is the responsibility of the FIC to ensure control of the emergency response management system and if necessary to coordinate these efforts with any state or local emergency plans.

#### **4.2.2 Evacuation and Emergency Assembly Areas**

Evacuation to the assembly point for all visitors and Plant personnel begins when the emergency alarm is activated. After assembly, if necessary, the Plant operators are to put on the 30-min SCBA to rescue any personnel that are in distress and assist any distressed personnel in evacuating to Emergency Assembly Area 1.

Emergency services (911) will be contacted if there are injuries or as otherwise deemed necessary. The operators will then, wearing the SCBA, investigate the cause of the release. At the sound of the alarm and/or flashing red beacons, all other personnel in the Plant are to stop work, check the prevailing wind direction and immediately proceed along designated evacuation routes and/or upwind to the pre-designated Emergency Assembly Area (Change Room Building) as shown in Appendix D.

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

The Plant shows evacuation routes to be determined on wind direction and windsocks.

**Emergency Assembly Area**  
**Change Room Building of the Plant**  
**Main Office Building of the Plant**  
**See Appendix D**

Roll call shall be conducted at the Emergency Assembly Area to assure all personnel have evacuated safely. This facility requires all visitors check in before entering the Plant, thus the check-in sheet will be used at the Emergency Assembly Areas to make a full accounting of all personnel and visitors.

### 4.2.3 Immediate Action Plans/Initial Responses

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

The following outlines the immediate action Plan. This is to be used when responding to an H<sub>2</sub>S release occurring at the Plant, acid gas pipeline or the acid gas well. 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.

Some steps may be taken simultaneously.

- A. Request assistance, if needed.
  - 1. Alert and account for facility personnel
  - 2. Move away from the source and get away from the affected area
  - 3. Don personal protective breathing equipment
  - 4. Alert other affected personnel
  - 5. Assist personnel in distress
  - 6. Proceed to the designated emergency assembly area
  - 7. Account for on-site personnel
  
- B. Take immediate measures to control the presence of or potential H<sub>2</sub>S discharge and to eliminate possible ignition sources. Emergency shutdown procedures should be initiated as deemed necessary to correct or control the specific situation. When the required action cannot be accomplished in time to prevent exposing operating personnel or the public to hazardous concentrations of H<sub>2</sub>S, proceed to the following steps, as appropriate for the site-specific conditions.
  
- C. Alert the public (directly or through appropriate government agencies) that they may be subjected to an atmosphere exceeding 30 ppm of H<sub>2</sub>S. Initiate evacuation of those within the exposure area.
  
- D. Contact the Area Manager or first available person on the call list. Notify them of the circumstances and whether or not immediate assistance is needed. The Area Manager should notify (or arrange for notification of) other supervisors and other appropriate personnel (including public officials) on the call list, as necessary.
  
- E. Cordon off the exposure area to prevent entry, make recommendations to public officials regarding blocking unauthorized access to the unsafe area, and assist as appropriate. Make recommendations to public officials regarding evacuating the public and assist as appropriate.

- F. Notify, as required, state and local officials and the National Response Center to comply with release reporting requirements.
- G. Monitor the ambient air in the area of exposure (after following abatement measures) to determine when it is safe for re-entry.
- H. Return the situation to normal.

#### **4.2.4 Expansion on Immediate Action Plan**

The following discussion expands on the emergency actions in the order in which they were previously listed. Ideally, some of these actions, after the first, will be performed simultaneously. There may be situations where actions must be performed in a different sequence from those listed. The employee first knowing about the potential hazard (First Responder) will take the first action(s). Subsequent actions will generally be taken by or assisted by those dispatched to help.

##### **A. Request Assistance if Needed**

Any employee who finds himself in an emergency situation involving the escape of hydrogen sulfide gas that would pose a hazard to the public shall notify the Area Manager, or his designated alternate, by the fastest means. The employee will advise the Area Manager, or alternate, of the location and nature of the emergency and the assistance needed. He will also state the actions taken and those he will be taking while waiting for assistance. The Area Manager is directly responsible for requesting the assistance needed. He will also proceed with the appropriate notifications. Please refer to Appendix B of this Plan for a list of emergency telephone numbers.

##### **B. Stop the Escape of Hydrogen Sulfide**

Isolate the leak by closing the upstream and downstream valves. If necessary, initiate emergency shutdown (ESD) procedures for the equipment.

##### **C. Alert the Public and Evacuate Those Within the Exposure Area**

Alert all persons who are within the exposure area. Refer to the map and list of ROEs in Appendix C. In the event a leak causes a potentially hazardous volume public, notification must be made immediately by the employee who discovers (or arrives first at the leak site) and judges the situation serious enough to require immediate evacuation. If it is determined that the notification proceeding shall not be immediate the Area Manager is the designated employee to initiate evacuations. Whether by the first person at the scene or by the Area Manager, notification to the public shall be made by the fastest possible means.

In the event that complete or partial evacuation becomes necessary, evacuation must be confirmed by personal observations, which should include repeat visits to the area to confirm that persons have not entered the evacuated area. If evacuation is deemed

prudent, advise persons and/or assist them to leave the area without delay by the fastest, safest route out of the exposure area. In populated areas such as the City of Lovington, evacuations will be conducted by city officials with the aid of Targa employees, if requested.

- First, evacuation should be from the 500 ppm exposure area, giving priority to the downwind position.
- Next, evacuate those within the potential exposure area, giving priority to the downwind position.
- Monitor ambient hydrogen sulfide concentrations in adjacent areas to ensure that any exposed residents are evacuated.
- Always wear a breathing apparatus.

#### **D. Contact the Area Manager**

The Targa employee (first responder) responding to or receiving notification of an emergency situation shall immediately proceed to the location and attempt to assess the situation, notify the Area Manager or his relief, and take the following actions:

- Provide the Area Manager with as much data possible concerning the location, the extent of emergency and need for additional assistance.
- Warn others in the area of situation, evacuate if necessary.
- Remain at the site, at a safe distance, and available for communication. Wait for assistance to arrive before attempting to enter into any potentially hazardous area.
- Initiate rescue and first aid as the situation dictates.

#### **E. Cordon off the Exposure Area to Prevent Entry and/or Make Barricade and Evacuation Recommendations**

Place barricades outside the area of exposure on all routes to prevent entry into the area. Barricades must be manned by Targa and/or law enforcement personnel to prevent entry. The persons manning the barricades must be equipped with a protective breathing apparatus, hydrogen sulfide measuring devices, and two-way radios or cell phones. Barricades should be placed a safe distance away from the potential exposure area and should be monitored for Hydrogen Sulfide.

Based on all information available and the calculated potential exposure information listed in Appendix B, make recommendations to public officials for the strategic placing barricades, for evacuating the public, and assist as needed. Priority should be given to those areas in the 500 ppm radius of exposure, then the 100 ppm radius of exposure, with consideration given to the wind direction. Proper caution should be used for shifting changes in wind direction.

#### **F. Complete Notifications as Required**

Generally, some notifications will have been made under Steps A or D.. Any of the following notifications that were not made must be made as soon as possible. Normally the Region ES&H Advisors will complete the agency notifications.

- Complete the chain of notification within the company.
- The local public safety officials not already notified who need to be aware of the situation.
- New Mexico Oil Conservation Division – Notification to the OCD should be made as soon as possible, but must be made no more than 4 hours after a Plan evacuation. A full report of the incident must be submitted to the Division on Form C-141 no later than 15 days following the release.
- Environmental Protection Agency Regional Office.

#### **G. Monitor for Safe Re-entry**

As soon as the complete and permanent stoppage of the release is confirmed, begin monitoring evacuated areas for hydrogen sulfide and combustible gas concentrations. Monitor the ambient air in the area of exposure only after following abatement measures, to determine when it is safe for re-entry.

#### **H. Return of the Situation to Normal**

No re-entry will be allowed until ambient conditions have been assessed and verified. Communications for re-entry should be coordinated through the Area Manager assuming the role of Field Incident Commander (FIC). When total absence of hydrogen sulfide and combustible gas is confirmed throughout the evacuated area, notify the sheriff's office so that they may be informed of the situation. Advise all parties previously notified that the emergency has ended.

#### **4.2.5 Post-Emergency Actions**

In the event this plan is activated, the following post-emergency actions shall be taken in an effort to reduce the possibility of a recurrence of the type of problem that required its activation and to assure that any future activation will be as effective as possible:

- Clean up, recharge, restock, repair, and replace emergency equipment, as necessary, and return it to its original location.
- Critique all actions and procedures, providing additional training to employees if need is indicated. Modify contingency plan, if necessary.
- Review the cause of the emergency and modify operating maintenance and other surveillance procedures, if needed.

- Ensure all agency notifications have been completed and follow-up with any written notification requirements.
- Ensure all previously notified or evacuated persons have been advised that the emergency situation has ended.

### **4.3 EMERGENCY SHUT DOWN SYSTEM**

The Plant has extensive Emergency Shutdown (ESD) and Process Shutdown (PSD) systems designed to isolate out-going gas and product streams releases, containing hydrocarbon and H<sub>2</sub>S, and safely depressurize equipment to flares. These systems are automatically and manually initiated, depending on process conditions. There are manually activated ESD buttons located at exit locations at the Plant. A diagram is presented in Appendix D.

### **4.4 NOTIFICATION AND REPORTS**

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

The New Mexico Oil Conservation Division (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.

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

All Plant personnel who perform operations, maintenance and/or repair work within the Plant must 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, personnel shall notify the Area Manager, or his designee and convey, at a minimum, the following information:

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

- Location of the emergency (area/block, mile markers, latitude & longitude, or building), and the distance to surrounding equipment and/or structures; and
- The cause of the spill or leak, name and quantity of material released, and extent of the affected area including the degree of environmental hazard; and
- Description of injuries and report of damage to property and structures; and
- Initiate and maintain a Chronological Record of Events log. This record should record the time, date, and a summary of the event.

If personnel detect H<sub>2</sub>S levels greater than 10 ppm either as a result of his/her personal monitoring device or hearing the emergency alarm, Plant operators are to contact their immediate supervisor for assistance and put on the 30-min SCBA for rescue if necessary.

All non essential persons shall be notified of the release and evacuated from the area. Responding operators wearing the SCBAs are to first assist any persons requiring assistance during the evacuation, then attempt to resolve the issue. The Plant operator is then responsible for notifying the Area Manager or his designee so that the IC system can be implemented and H<sub>2</sub>S Plan activated if necessary.

Once the Area Manager is contacted, he or his designee is to notify the appropriate corporate management, EHS personnel, Plant emergency response personnel, and advise them of the existing emergency situation. Corporate management will then conduct the reporting up that is necessary based on the situation.

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

#### **4.5 PUBLIC AWARENESS AND COMMUNICATION**

Public awareness and communication is a primary function of the H<sub>2</sub>S Plan. The Company 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 Emergency Notification List in Appendix E that indicates when certain entities are to be contacted in event of activation of this Plan.

Company will inform all state and local response organizations of its Plan as well as those businesses that fall within its 500-ppm and 100-ppm ROE as illustrated in Appendix C.

#### **4.5.1 Public Areas, Nearby Businesses and Residents**

The contact information for local and state agencies and contractors is contained in Appendix F. All entities within the 500 ppm and 100 ppm radius of exposure will be contacted by Plant personnel as designated by Area Manager if the Plan is activated and based on response level as described in the Immediate Action Plan and advised of the following:

- The nature and extent of the release/emergency at the Plant, acid gas pipeline or acid gas well and recommendations for protective actions, such as evacuation or shelter-in-place;
- Any other event specific information that is necessary to protect the public; and
- 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.

#### **4.5.2 Residences or Public Roads**

Public County Road 117 and HWY 457 are within the 100 ppm radius of exposure, along with several county and lease roads. Several residences are included within the 100 ppm radius of exposure.

#### **4.5.3 Businesses or Other Public Areas**

All businesses included within the ROE will be provided with a copy of the H<sub>2</sub>S Plan and will be contacted about participation when local emergency response training events or drills occur.

### **4.6 SITE SECURITY**

- A. In order to have an accurate listing of all personnel on-site in the event of an emergency, a daily sign-in log sheet shall be utilized. The sign-in log sheet shall include at a minimum the person's name, the company name, the time of arrival, and the time of departure.
- B. The Incident Commander shall be responsible to assure that all personnel sign-in upon arrival and sign-out upon departure from the job site.
- C. The Incident Commander may at his discretion assign the responsibilities for the daily sign-in log sheet to the individual designated as the Record Keeper or another designee.
- D. At the discretion of the Incident Commander, a security coordinator and/or a security team may be established, and the access to the job site restricted.

E. Road blocks will occur as outlined in the Response Level detail for the Plant, road crossing, pipeline, or acid gas well sites.

#### **4.7 SIGNS & MARKERS**

The Plant has numerous warning signs indicating the presence of H<sub>2</sub>S/Poisonous Gas and high pressure gas at the entrance to the Plant and along pipeline right away. Emergency response phone numbers are posted at the entrance to the Plant and acid gas well. Acid gas pipeline markers also include emergency response numbers.

Signs are located at the Plant and acid gas well gate entrances indicating that all visitors are to sign in at the Plant office.

#### **4.8 FIRST AID STATION**

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

<b>FIRST AID KITS are located:</b>
<b>Plant Office Building Change Room Building Each Company Vehicle</b>

#### **4.9 MEDIA SITE**

At no time shall any unescorted representative from the media be allowed in the Plant, unless approved by the Incident Commander and the Safety Officer has approved their entry.

Media personnel shall not be allowed to enter Targa Midstream property without the approval of Targa Midstream Area Manager or his designee, and shall be escorted by Targa Midstream personnel at all times.

All media inquiries should be directed to Corporate Communications in Houston. The FIC or his designee will provide Corporate Communications with periodic updates and will take their direction with regard to any onsite communication with the media.

## 5. TRAINING/DRILLS/EDUCATION

### 5.1 TRAINING

Targa recognizes that the most critical portion of this plan is Emergency Procedures. To ensure the most effective implementation of these procedures, pre-emergency measures shall be completed to attain a state of preparedness. These actions are as follows:

- Every employee is to be completely familiar with the contents and location of the contingency plan.
- Surveillance and preventative maintenance to minimize the possibility of an accidental release of gas.
- Training and drills will be conducted as further described below.
- All emergency breathing equipment is maintained and ready for use.
- This Plan is made available to appropriate public response officials and shall be reviewed and discussed thoroughly with the City of Lovington emergency response officials.
- Targa will use brochures, public notices, or other means, as deemed appropriate and practical, to alert and educate any persons who reside within the potential areas of exposure.

All training records for the Plant are maintained at the Plant. The following is a limited list and summary of the training programs that relate to the H<sub>2</sub>S Plan and Emergency Response:

***Plant Orientation Training*** - All Plant personnel, visitors, and contractors must attend a Plant overview orientation prior to obtaining permission to enter the Plant. A refresher course on this training is required annually for all persons. This training also complies with the requirements of the Targa Safety Standards Manual.

***Hydrogen Sulfide and Sulfur Dioxide Training*** – All Plant personnel receive annual refresher training on hydrogen sulfide and sulfur dioxide, which is conducted by the Targa Training Group. If an individual is unable to attend, they may be required to attend a third party training session. All contract employees working in the facilities are required to have had hydrogen sulfide training and to provide the Plant a copy of their certification card prior to obtaining permission to enter the Plant.

***Respirators*** - All Plant personnel are trained annually on the proper use of SCBA respirators. In addition to the annual training, all Plant personnel are fit tested annually on the respirators per OSHA Rules.

**Hazard Communication** - All Plant personnel are trained annually on Hazard Communication and SARA Title III Right-to-Know information. The annual training includes, at a minimum, a review of material safety data sheets (MSDS) for those materials that are present at the Plant and labeling.

**Personal Protective Equipment (PPE)** - All Plant personnel are trained annually on the Targa 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.

## **5.2 EMERGENCY RESPONSE DRILLS**

The Plant will conduct, at least, a tabletop drill annually. Multiple drills during the year may be scheduled at the discretion of the Area Manager or as part of the Emergency Response Agencies.

The annual drill will exercise this Plan and include, at a minimum, contacting the entities that are identified as being within the 500-ppm ROE and the Local Emergency Response contacts. The drills will also include briefing of public officials on issues such as evacuation or shelter-in-place plans.

Drill training will be documented and those records will be maintained at the 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; and
- Post drill de-brief and reviews.

New Mexico Oil & Gas Conservation Division, Santa Fe, NM

New Mexico Oil & Gas Conservation Division, Hobbs, NM

Lovington Fire Department

Lea County Local Emergency Planning Committee

Lovington Police

Tatum Police

Tatum Fire Department

Saunders Gas Plant Supervisors

Saunders ES&H Specialist

Control Room

Targa Midstream Office (Midland, TX)

The formulas for calculating the two ROEs (as specified by OCD Rule 118, Pasquill-Gifford Equation) are as follows:

**500-ppm RADIUS OF EXPOSURE CALCULATION**

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

**100-ppm RADIUS OF EXPOSURE CALCULATION**

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

Where:

X = Radius of exposure in feet

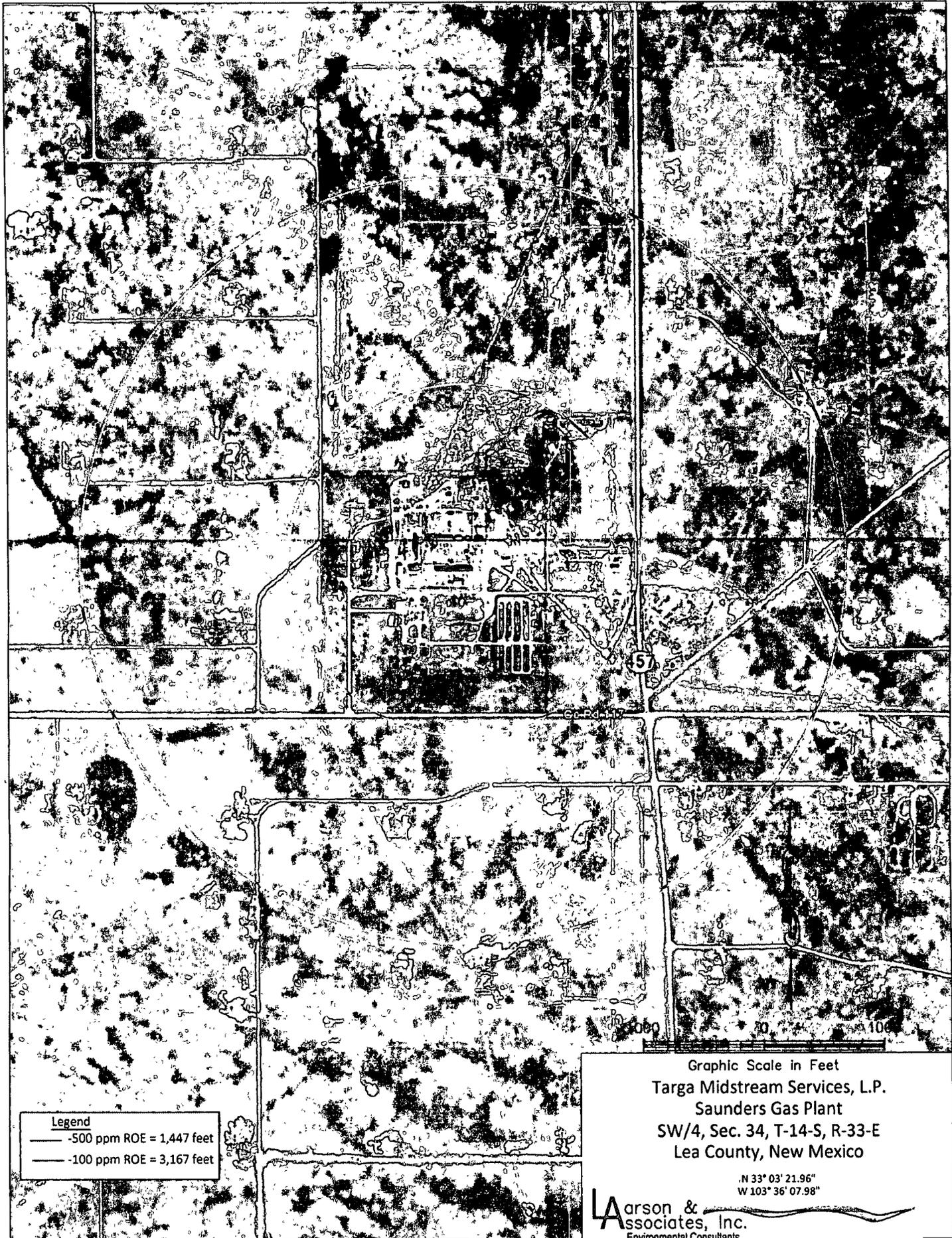
Hydrogen Sulfide Concentration = Decimal equivalent of mole or volume fraction of hydrogen sulfide in the gaseous mixture

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

- For existing facilities or operations, the escape rate (Q) is the maximum daily rate of the gaseous mixture produced or handled or the best estimate thereof. For the Lovington Plant, the Company is using for contingency planning purposes an “escape rate” equal to the anticipated (maximum) inlet gas volume of 57,455 MSCFD. The (actual) inlet gas volume at the Plant will be somewhat variable and is continuously metered. The assumed 57,455 MSCFD inlet gas volume has been selected as the “escape rate” because it is the highest anticipated inlet volume that the Plant would handle under its proposed operations and is considered worst case interpretation of the volume of gas. It should be noted that the plan will remain effective as long as the processed volume and H<sub>2</sub>S content equate to the same ROE. As addressed below.
- As to hydrogen sulfide concentration of the inlet gas, daily monitoring data of current operations indicates variable concentrations, but concentration will not exceed 4,300 ppm or 0.43 mole percent. Therefore, 4,300 ppm or 0.43 mole percent has been used in the worst case scenario for contingency planning purposes.

**500-ppm ROE = 1,447 feet**

**100-ppm ROE = 3,167 feet**



**Legend**  
— -500 ppm ROE = 1,447 feet  
— -100 ppm ROE = 3,167 feet

Graphic Scale in Feet  
Targa Midstream Services, L.P.  
Saunders Gas Plant  
SW/4, Sec. 34, T-14-S, R-33-E  
Lea County, New Mexico

N 33° 03' 21.96"  
W 103° 36' 07.98"

**Arson &**  
Associates, Inc.  
Environmental Consultants

Figure 2 - Radius Of Exposure



**COMPANY PERSONNEL**

Call the following persons in the order listed until one is notified of the emergency:

**1. Area Management**

*Saunders Plant*

Tim Jordan, Area Manager  
Office 575-396-3221, ext. 31  
Mobile 575-631-7091  
Home 575-396-0189

Alternate:

Ralph England, Field Supervisor  
Office 575-396-3221, ext. 24  
Home 575-760-3407  
Mobile 575-441-4653

**2. ES&H Group**

Cal Wrangham, ES&H Manager  
Office 432-688-0542 Midland, TX  
Home 432-697-6580 Midland, TX  
Mobile 432-425-7072

Cindy Klein, ES&H Compliance Specialist  
Office 575-396-3221, ext. 38  
Home 575-398-6670  
Mobile 575-631-7093

**3. Region Manager**

Clark White, Permian Basin Region Manager  
Office 713-584-1525 Houston, TX

**4. Field Operators**

*Lovington Area*

Alfredo Corral	575-631-1432
Tomas Espinoza	575-607-7307

**Call company support personnel in Houston, TX, as needed:**

Assistant V-P ES&H

Jessica Keiser	713-584-1084
Cell Phone	832-603-2277

Corporate Security

Weldon Green	713-584-1301
Cell Phone	281-802-5351

**LAW ENFORCEMENT AND EMERGENCY SERVICES**

<b>STATE POLICE</b>	New Mexico	575-392-5588
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**LOCAL AGENCIES FOR LEA COUNTY**

Lovington – Sheriff	575-396-3611
Lovington – Police	575-396-2811
Lovington – Fire Dept	575-396-2359
Lovington – Ambulance	575-396-2811
Tatum – Police Dept	575-398-4444
Tatum – Fire Dept	575-398-5555

**STATE AGENCIES**

Oil Conservation Division, Santa Fe	505-476-3440
Oil Conservation Division – District Office, Hobbs	575-393-6161
Environmental Department – Air Quality Bureau, Santa Fe	505-827-1494

**FEDERAL AGENCY**

U. S. EPA – Region VI Office, Dallas, TX	800-887-6063
National Response Center	800-424-8802

**CONTRACTOR SUPPORT****ELECTRIC SERVICE COMPANIES**

Lea county Electric Coop., Inc.	575-396-3631
Kay and Company	806-592-3513
Tessco	432-682-1991

**WATER SERVICE AND VACUUM TRUCKS**

Gandy Corporation – Lovington, NM	575-396-4948 24 hour
State Line Trucking – Lubbock, TX	806-771-3818

**ROUSTABOUT CREWS**

Flint Energy Services – Odessa, TX	432-332-0687 24 hour
Gandy Corporation – Lovington, NM	575-396-4948 24 hour
Watson Construction – Hobbs, NM	575-391-0537 24 hour

**DIRT WORK EQUIPMENT**

Watson Construction – Hobbs, NM	575-391-0537 24 hour
Ferguson Construction – Lovington, NM	575-396-3689 24 hour
Gandy Corporation – Lovington, NM	575-396-4948 24 hour

**WELDERS**

Watson Construction – Hobbs, NM	575-391-0537 24 hour
Flint Energy Services – Odessa, TX	432-332-0687 24 hour
Ferguson Construction – Lovington, NM	575-396-3689 24 hour

**SAFETY EQUIPMENT**

Total Safety Equip. – Hobbs, NM	575-392-2973 24 hour
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## **Chavez, Carl J, EMNRD**

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**From:** Wrangham, Calvin W. [CalvinWrangham@targaresources.com]  
**Sent:** Thursday, March 31, 2011 12:32 PM  
**To:** Chavez, Carl J, EMNRD; Hudson, Matt  
**Cc:** VonGonten, Glenn, EMNRD; Lowe, Leonard, EMNRD; Griswold, Jim, EMNRD  
**Subject:** RE: GW-003 and GW-004 H2S CPs

Carl,  
Targa is the operator of the Targa Eunice Plant (GW-005), Eunice North Compressor Station (GW-345), and South Eunice Compressor Station (GW-344). As you stated below these facilities are covered in an already submitted H2S CP.

The original GW Discharge plans for North CS (GW-004) and South CS (GW-003) were retained by Chevron to cover the environmental projects occurring at those two sites. New DP numbers were issued to Targa for the current operations, North CS (GW-345 and for South CS GW-344).

As stated above the current operations at these facilities concerning H2S CP are covered by Targa's Plan referring to GW-005, GW-344 and 345.

Targa is in the process of adding a acid gas injection well at the Monument Plant (GW-025) and are in the process of renewing the H2S CP for that facility to cover the existing and new processes. The Buckeye Compressor Station (GW-029) is part of the Monument Plant gathering system so that facility will be included in the Monument H2S CP.

Targa also operates The Saunders Plant (GW-026) and are in the process of renewing the H2S CP for that facility. The Vada Compressor Station (GW-027) is part of the Saunders Plant gathering system so that facility will be included in the Saunders H2S CP.

Hope this helps clarify the plans and facilities covered.

Thanks, Cal.

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**From:** Chavez, Carl J, EMNRD [<mailto:CarlJ.Chavez@state.nm.us>]  
**Sent:** Thursday, March 31, 2011 12:08 PM  
**To:** Hudson, Matt  
**Cc:** Wrangham, Calvin W.; VonGonten, Glenn, EMNRD; Lowe, Leonard, EMNRD; Griswold, Jim, EMNRD  
**Subject:** GW-003 and GW-004 H2S CPs

Matt:

Good morning. Subsequent to our meeting with Chevron USA, Inc. (Chevron) this morning regarding the above subject facilities, please find attached the letters that were mailed to you, but as you indicated, Chevron deals with just the environmental aspects of the facilities and Targa is the operator who would be responsible for any H2S CP. In addition, as we discussed, Targa has already submitted an H2S CP for the GW-005 Middle GP, which will cover all of the above subject facilities including possibly GWs-29 344 of Targa.

Please respond to this e-mail with any clarifications of Chevron's involvement with the H2S CP aspects at the facilities mentioned above. Please contact me if you have questions. Thank you.

Xc: OCD Online "GWs 3, 4, 29 and 344" at "H2S Contingency Plan" Thumbnail

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/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>)

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# New Mexico Energy, Minerals and Natural Resources Department

**Susana Martinez**  
Governor

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

**Daniel Sanchez**  
Acting Division Director  
Oil Conservation Division



March 1, 2011

Ms. Cindy Klein  
ES&H Specialist  
Targa Midstream Services, L.P.  
6 Desta Drive Suite 3300  
Midland, TX 79705

Dear Ms. Klein:

**Re: Dynegy Saunders Gas Plant (GW-026) Oil and Gas Facilities/Operations that may Vent and/or Flare H<sub>2</sub>S Gas**

The New Mexico Oil Conservation Division (OCD) is writing to operators of the above-referenced types of facilities or operations that may have New Mexico Environmental Department (NMED) - Air Quality Bureau (AQB) Oil and Gas type Permits. The purpose of this communication is to inform operators of such facilities regarding OCD Rules that may be applicable to gas plant operators and/or oil and gas facilities/operations in the hope that it provides some clarification regarding the applicability of these rules, and to ultimately increase overall compliance

In New Mexico, the OCD Rules that pertain to Hydrogen Sulfide (H<sub>2</sub>S) Gas are provided at § 19.15.11 *et seq.* NMAC (Hydrogen Sulfide Gas). The OCD Oil and Gas Rules that address “No-Flare” and the OCD Form C-129 process are provided at § 19.15.7.37 *et seq.* NMAC (Application for Exception to No-Flare). Gas plants have gas gathering pipelines with meters connected to operators who then either sell or vent casinghead gas into the gas gathering pipelines that feed into the plants. The OCD Rules that pertain to “Casinghead Gas” are provided at § 19.15.18.12 *et seq.* NMAC (Production Operating Practices).

This letter was precipitated by a recent event where a gas plant operator shut-in a “gas gathering pipeline.” This “shutting-in” of the pipeline impacted approximately thirty individually-metered operators who may have continued operating instead of “shutting-in” their well(s). In spite of the fact that approximately thirty operators were impacted, the OCD observed that only one of those thirty operators contacted the OCD via Form C-129 as required under the OCD Rules to obtain approval of their application for an “exception to no-flare.” (The operator initially had contacted the OCD to request approval to vent H<sub>2</sub>S gas into the air rather than shut-in the well.) The OCD has serious public safety concerns when operators do not properly shut-in their wells when gas gathering pipelines and/or meters are shut-in, especially where the wells are near populated and/or agricultural areas due to the potential for loss of life from toxic gas.

In subsequent communications with gas plant operators who flare gas, the OCD discovered that the operators were under the impression that if their facility has an NMED- AQB Construction Permit which includes a provision to flare/emit gas, then this is all that is needed to operate in New Mexico. This is actually only partially

Oil Conservation Division  
1220 South St. Francis Drive • Santa Fe, New Mexico 87505  
Phone (505) 476-3440 • Fax (505) 476-3462 • [www.emnrd.state.nm.us/OCD](http://www.emnrd.state.nm.us/OCD)



Ms. Cindy Klein  
Targa Midstream Services, L.P.  
March 1, 2011  
Page 2 of 2

correct because operators are also required to comply with the requirements set out in the OCD Rules regarding flaring and venting. For example, in the situation where a gas plant operator has notified connected well operators of a gas-gathering pipeline shut-down, each of those well operators is required to shut-in its well(s) or to obtain OCD District Supervisor approval to flare via an OCD C-129 Form. Operators who do not comply are illegally venting and/or flaring gas under OCD Rules.

In addition, gas plants and/or oil and gas operators may be required to satisfy OCD § 19.15.11 et seq. NMAC (Hydrogen Sulfide Gas) Contingency Plan requirements for facilities and wells in cases where 100 ppm or greater H<sub>2</sub>S concentrations may impact public areas. OCD records indicate that Targa Midstream Services, L.P. does not currently have an H<sub>2</sub>S Contingency Plan (CP) on file with the OCD. If you do not have an approved CP under § 19.15.11 et seq. NMAC (Hydrogen Sulfide Gas) for your gas plant yet, please submit your CP to the OCD Environmental Bureau in Santa Fe on or before August 11, 2011. *(The OCD notes that it is aware of some operators who have recently submitted CPs to the OCD that are currently under review. Please advise if this is the case for Targa Midstream Services).*

The OCD recognizes that when multiple sets of Rules, Regulations and Statutes apply, it can sometimes be tricky to definitively determine which requirements apply, to whom and in what circumstances. Operators must, however, take all care to ensure that they are at all times operating in compliance with all applicable state, federal and/or local rules and regulations. In this instance, this means that operators are subject not only to the requirements imposed by the NMED-AQB permitting structure, but also to those set forth in the OCD Rules.

We hope that this communication has helped to clarify the issue regarding the applicability of the OCD Rules in these situations, regardless of the existence of a valid NMED-AQB permit. Please contact Carl Chavez of my staff at (505) 476-3490 if you have questions or need assistance with the CP. The OCD looks forward to bringing your facility into compliance with OCD Rules if it is not currently already in compliance. Thank you for your cooperation in this matter.

Sincerely,



Daniel Sanchez,  
Compliance & Enforcement Manager

xc: Richard Goodyear, NMED- AQB  
OCD Environmental Bureau  
OCD District Offices