

H₂S Contingency Plan

H₂S Contingency Plan Holders:

Attached is an H₂S Contingency Plan for COPC Permian Drilling working in the West Texas and Southeastern New Mexico areas operated by ConocoPhillips Company.

If you have any questions regarding this plan, please call Jet Brown at ConocoPhillips Company, 432.688.6849.

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HYDROGEN SULFIDE (H₂S) OPERATIONS

Contingency Plan
For
Permian Drilling Operations

ConocoPhillips Company Mid-Continent Business Unit Permian Asset Area

I. PURPOSE

The purpose of this Contingency Plan is to provide an organized plan of action for alerting and protecting the public following the release of a potentially hazardous volume of hydrogen sulfide. This plan prescribes mandatory safety procedures to be followed in the event of a release of H_2S into the atmosphere from exploration and production operations included in the scope of this plan. The extent of action taken will be determined by the supervisor and will depend on the severity and extent of the H_2S release. Release of H_2S must be reported to the Drilling Superintendent and documented on the IADC report and in Wellview.

II. SCOPE

This Contingency plan shall cover the West Texas and Southeastern New Mexico areas, which contain H2S gas and could result in a release in which the 100 ppm radius of exposure is greater than 50' yet less than 3000' and does not include a public area, and in which the 500 ppm radius of exposure does not include a public road. Radius of exposure is defined as the maximum distance from the source of release that a specified calculated average concentration of H_2S could exist under specific weather conditions.

III. PROCEDURES

First Employee on Scene Assess the incident and ensure your own safety. Note the following: — Location of the incident. Nature of the incident. Wind direction and weather conditions. ____ Other assistance that may be needed. Call local supervisory personnel (refer to Section V: Emergency Call List) until personal contact is made with a person on the list. Perform emergency assessment and response as needed. The response may include rescue and/or evacuation of personnel, shutting in a system and/or notification of nearby residents/public (refer to Section VII: Public Notification/Evacuation). Secure the site. Follow the direction of the On-scene Incident Commander (first ConocoPhillips supervisor arriving on-scene). First Supervisor on Scene (ConocoPhillips On-scene Incident Commander) - Becomes ConocoPhillips' On-scene Incident Commander upon arrival to location. - Follow the principles of the **D.E.C.I.D.E.** process below to assess the incident. (Note wind direction and weather conditions and ensure everyone's safety). **D**ETECT the problem ESTIMATE likely harm without intervention CHOOSE response objectives **IDENTIFY** action options **D**O the best option **E**VALUATE the progress Complete the Preliminary Emergency Information Sheet (refer to Section VIII: Forms/Reports). ____ Call your supervisor (refer to Section V: Emergency Call List).

- 11-	Perform emergency response as necessary. (This may include notification & evacuation of all personnel and/or nearby residents/public (refer to Section VII: Public Notification/Evacuation), requesting assistance from ConocoPhillips personnel or outside agencies (refer to Section V: Emergency Call List) and obtaining any safety equipment that may be required (refer to Section IV: Emergency Equipment and Maintenance).				
	Notify appropriate local emergency response agencies of the incident as needed. Also notify the appropriate regulatory agencies. (refer to Section V: Emergency Call List).				
	Ensure site security.				
	— Set barricades and /or warning signs at or beyond the calculated 100 ppm H ₂ S radius of exposure (ROE). All manned barricades must be equipped with an H ₂ S monitor and a 2-way radio.				
	— Set roadblocks and staging area as determined.				
	— Establish the Incident Command Structure by designating appropriate on-sceresponse personnel as follows:				
	Recording Secretary Public Information Officer Safety/Medical Officer Decontamination Officer				
	Have the "Recording Secretary" begin documenting the incident on the "Incident Log" (refer to Section VIII: Forms/Reports).				
	 If needed, request radio silence on all channels that use your radio tower stating that, until further notice, the channels should be used for emergency communications only. 				
	Perform a Site Characterization and designate the following:				
	Hot Zone Hazardous Area Warm Zone Preparation & Decontamination Area Cold Zone Safe Area				

AND

On-Scene Incident Cor Public Relations Briefi Staging Area Triage Area Decontamination Area	ing Area	(Cold Zone) (Cold Zone) (Cold Zone) (Cold Zone) (Warm Zone)
	nel to ConocoPhillips' O n VI: Public Media Rela	n-Scene Public Information ations).
upstream and downstre or clamping leaks. Ign used ONLY AS A LAS	eam valves to shut-off gas iting escaping gas to redu ST RESORT. (It must for g into consideration if the	S. You should consider closing s supply sources, and/or plugging uce the toxicity hazard should be first be determined if the gas can ere is a possibility of a widespread
Once the emergency is	over, return the situation	to normal by:
Confirming the al	bsence of H ₂ S and combi	ustible gas throughout the area,
Discontinuing the incident is over,	radio silence on all char	nnels, stating that the emergency
Removing all barr	ricades and warning sign	s,
Allowing evacuee	es to return to the area, ar	nd
Advising all partic	es previously notified that	at the emergency has ended.
Ensure the proper regula to Section V: Emergence		are notified of the incident (refer
Clean up the site. (Be su HAZWOPER training.)	ure all contractor crews h	ave had appropriate
	e cleanup to the Asset En eport this to the proper St	vironmentalist. tate and/or Federal agencies.)

Fill out all required incident reports and send originals to the Safety Department. (Keep a copy for your records.) Company employee receiving occupational injury or illnesses. • Company employee involved in a vehicle accident while driving a company vehicle. Company property that is damaged or lost. Accident involving the public or a contractor; includes personal injuries, vehicle accidents, and property damage. Also includes any situation which could result in a claim against the Company. • Hazardous Material Spill/Release Report Form Emergency Drill Report Assist the Safety Department in the investigation of the incident. Review the factors that caused or allowed the incident to occur, and modify operating, maintenance, and/or surveillance procedures as needed. Make appropriate repairs and train or retrain employees in the use and operation of the system. If this incident was simulated for practice in emergency response, complete the Emergency Drill Report found in Section VIII: Forms/Reports and submit a copy to the Drilling Manager. (Keep one copy in area files to document exercising of the plan.)

Emergency Procedures Responsibility

In the event of a release of potentially hazardous amounts of H2S, all personnel will immediately proceed upwind/ crosswind to the nearest designated briefing area. The COPC Drilling Rep. will immediately, upon assessing the situation, set this into action by taking the proper procedures to contain the gas and notify appropriate people and agencies.

- 1. In an emergency situation, the Drilling Rep. on duty will have complete responsibility and will take whatever action is deemed necessary to ensure the personnel's safety, to protect the well, and to prevent property damage.
- 2. The Toolpusher will assume all responsibilities of the Drilling Rep. in an emergency situation in which the Drilling Rep. becomes incapacitated.
- 3. Advise each contractor, service company, and all others entering the site that H2S may be encountered and of the potential hazards that may exist.
- 4. Authorize the evacuation of local residents if H2S threatens their safety.
- 5. Keep the number of persons on location to a minimum during hazardous operations.
- 6. Direct corrective actions to control the flow of gas.
- 7. The COPC Drilling Rep. has full responsibility for igniting escaping gas to reduce the toxicity hazard. This should be used **ONLY AS A LAST RESORT**.

IV. EMERGENCY EQUIPMENT and MAINTENANCE

Emergency Equipment Suppliers

DXP Safety International - Odessa, TX

H₂S monitors
Breathing air including cascade systems
First aid and medical supplies
Safety equipment
H2S Specialist

432.580.3770

EnerSafe Inc. - Odessa, TX

H₂S monitors (personal and fixed) Breathing air including cascade systems First aid and medical supplies Safety equipment 432.550.0600

Indian Fire & Safety - Hobbs, NM

 $\rm H_2S$ monitors Breathing air including cascade systems (trailer mounted) 30 minute air packs Safety Equipment 575.393.3093

Emergency Equipment and Maintenance (continued)

General Information

Materials used for repair should be suitable for use where H_2S concentrations exceed 100 ppm. In general, carbon steels having low yield strengths and a hardness below RC-22 are suitable. The engineering staff should be consulted if any doubt exists on material specifications.

Appropriate signs should be maintained in good condition at location entrance and other locations as specified in Texas Rule 36 and NMOCD Rule 118.

All notification lists should be kept current with changes in names, telephone numbers, etc.

All shutdown devices, alarms, monitors, breathing air systems, etc., should be maintained in accordance with applicable regulations.

All personnel working in H_2S areas shall have received training on the hazards, characteristics, and properties of H_2S , and on procedures and safety equipment applicable for use in H_2S areas.

H2S Safety Equipment and Monitoring Systems

An H2S emergency response package will be maintained at locations requiring H2S monitoring. The package will contain at a minimum the following:

- 3 Fixed H2S sensors located as follows:
 - 1 -on the rig floor
 - 1 at the Bell Nipple
 - 1 at the Shale Shaker or Flowline
- 1 Entrance Warning Sign located at the main entrance to the location, with warning signs and colored flags to determine the current status for entry into the location.
- $2 \underline{\text{Windsocks}}$ that are clearly visible.
- 1 Audible warning system located on rig floor
- 2 <u>Visual</u> warning systems (Beacon Lights)
 - 1 -located at the rig floor
 - 1 located in the mud mixing room

Note: All alarms (audible and visual) should be set to alarm at 10 ppm.

- 2 Briefing areas clearly marked
 - 2 SCBA's at each briefing area
 - 1- SCBA located at the Drilling Rep's office

Note:

- 1. All SCBA's must be positive pressure type only.
- 2. All SCBA's must be either Scott or Drager brand.
- 3. All SCBA's face pieces should be <u>size large</u>, unless otherwise specified by the Drilling Supervisor.
- 5 <u>Emergency Escape Packs</u> located at Top Doghouse.

Note: Ensure provisions are included for any personnel working above rig floor in derrick.

 $1 - \underline{\text{Tri or Quad gas monitor}}$ located at the Drilling Rep's office. This will be used to determine if the work area is safe to re-enter prior to returning to work following any alarm.

V. EMERGENCY CALL LIST:

The following is a priority list of personnel to contact in an emergency situation:

Supervisory Personnel	Office No.	Home	Cellular
Sam Hyden Permian Drilling Supt.	432.688.9163	432.561.9958	432.557.1999
Tim Garrett Jerry Moore Terry Brumley	432.688.9057 432.688.9057 432.688.6850		505.330.5638 806.683.6852 432.238.9069
Permian Drilling Field Supt. Jet Brown WSER	432.688.6849		432.638.0509
R.E. (Gene) True Operations Manager, Permian Conventional Asset	432.688.9050	281.546.1034	281.217.8492
Kyle O'Dell Safety and Environmental Coordinator	432.688.9051		432.250.4912
Gene Schwall Drilling Mngr.	281.206.5159	281.579.2914	713.301.7590

EMERGENCY CALL LIST: State Officials

Regulatory Agencies

Texas Railroad Commission

512.463.6838

1701 N. Congress

24 Hour Emergency: 512.463.6788

Austin, TX 78701

New Mexico Oil Conservation Commission

Office: 575.393.6161

P. O. Box 1980

Hobbs, New Mexico 88240-1980

Bureau of Land Management

Carlsbad Field Office

Office: 575.234.5972

620 E. Greene St.

Fax: 575.885.9264

Carlsbad, NM 88220

BLM 24 Hr on call # Lea County: 575-393-3612

EMERGENCY CALL LIST: Local Officials

Refer to the <u>Location Information Sheet</u>
Note: The LIS should include any area residents (i.e. rancher's house, etc)

ConocoPhillips Emergency Call List and Location Information Sheet

ConocoPhillips- 281-293-3600

Drilling Superintendent	Sam Hyden	Office: 432-688-9163
		Cell: 432-557-1999
Safety (WSER)	Jet Brown	Office: 432-688-6849
		Cell: 432-638-0509
Drilling Engineer	Cord Denton	Office: 281-206-5406
		Cell: 832-754-7363
	Stephanie Basse	Office: 281-206-5239
		Cell: 832-231-1159
	Fred Ahmadi Fard	Office: 281-206-5241
		Cell: 281-253-6152
Regulatory Contact	Susan Maunder	Office: 281-206-5281
		Cell: 432-269-4378

Emergency Numbers

Number of Residences within 1 mile of Well: There are no residences within one mile of the well to be drilled.

VI. Public Media Relations

The **Public Information Officer** becomes the ConocoPhillips on-scene contact (once designated by the ConocoPhillips On-Scene Incident Commander).

The Public Information Officer confers with Houston Office's Human Relations Representative, who is responsible for assisting in the coordination of local public relations duties.

If you are the Public Information Officer, answer media questions honestly and <u>only with</u> <u>facts</u>, do not speculate about the cause, amount of damage, or the potential impact of the incident on the community, company, employees, or environment. (This information will be formally determined in the incident investigation.)

If you are not comfortable answering a question or if you are unsure of the answer, use terms such as the following:

- "I do not know. I will try to find out."
- I am not qualified to answer that question, but I will try to find someone who is."
- "It is under investigation."

Note:

Do Not Say "No Comment." (This implies a cover-up.)

Do Not Disclose Names of Injured or Dead! Confer with the Houston Office's Human Relations Representative, who is responsible for providing that information.

VII. Public Notification/Evacuation

Alert and/or Evacuate People within the Exposure Area

1. <u>Public Notification</u> – If the escape of gas could result in a hazard to area residents, the general public, or employees, the person <u>first</u> observing the leak should take <u>immediate</u> steps to cause notification of any nearby residents. The avoidance of injury or loss of life should be of prime consideration and given top priority in all cases. If the incident is of such magnitude, or at such location as to create a hazardous situation, local authorities will be requested to assist in the evacuation and roadblocks of the designated area until the situation can be returned to normal.

Note: Bilingual employees may be needed to assist in notification of residents.

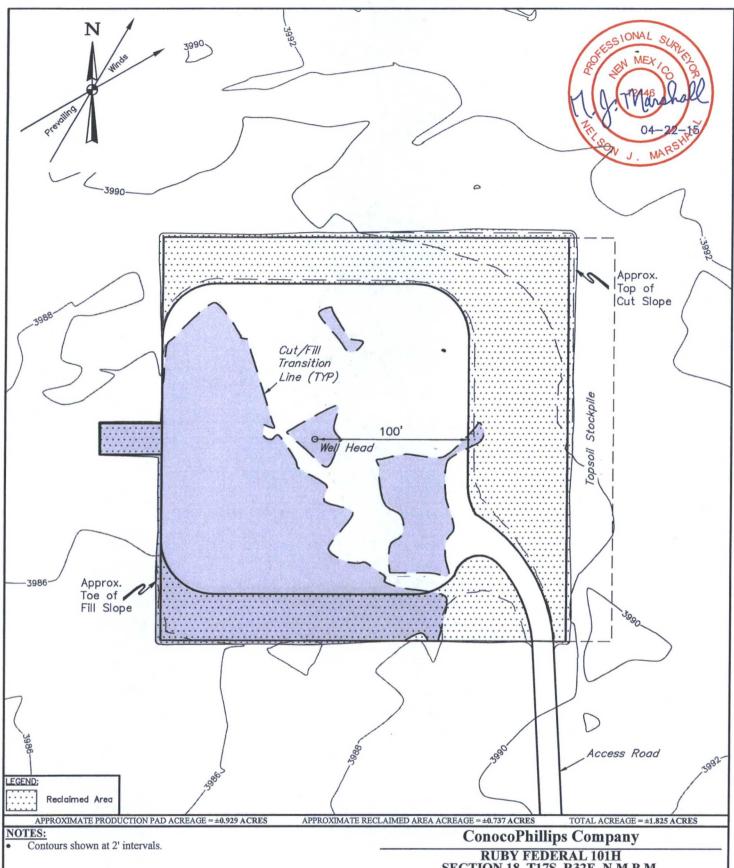
2. Evacuation Procedures – Evacuation will proceed upwind from the source of the release of H₂S. Extreme caution should be exercised in order to avoid any depressions or low-lying areas in the terrain. The public area within the radius of exposure should be evacuated in a southwesterly and southeasterly direction so as to avoid the prevailing southern wind direction.

Roadblocks and the staging area should be established as necessary for current wind conditions.

Note: In all situations, consideration should be given to wind direction and weather conditions. H₂S is heavier than air and can settle in low spots. Shifts in wind direction can also change the location of possible hazardous areas.

VIII. FORMS & REPORTS

- I. Incident Log
- II. Preliminary Emergency Information Sheet
- III. Emergency Drill Report
- IV. Onshore Hazardous Material Spill/Release Report Form
- V. Immediate Report of Occupational Injury or Illness Report of Accident-Public Contractor Report of Loss or Damage to Company Property Report of Automotive Incident



UNTAH ENGINEERING & LAND SURVEYING

UELS, LLC Corporate Office * 85 South 200 East Vernal, UT 84078 * (435) 789-1017 RUBY FEDERAL 101H SECTION 18, T17S, R32E, N.M.P.M. 330' FNL 1650' FEL LEA COUNTY, NEW MEXICO

DRAWN BY: T.E. DATE DRAWN: 04-15-15

SCALE: 1" = 60' REVISED: 00-00-00

RECLAMATION DIAGRAM | FIGURE #4