

Hydrogen Sulfide (H₂S) Contingency Plan

25262728293031-12345678-101112131415161718192021222324

41
SEP 2005
Received
60

And

C:\Documents and Settings\stephenm\Local Settings\Temporary Internet Files\OLK1\CP NHU 19-943.docdated 02/09/04
Page of 16

TABLE OF CONTENTS

<u>ITEM</u>	<u>PAGE</u>
PREFACE	3
LOCATION MAP.....	4
RIG SKETCH.....	5
EMERGENCY RESPONSE ACTIVATION AND GENERAL RESPONSIBILITIES	6
SPECIFIC EMERGENCY GUIDANCE	
- H2S Release	8
- Well Control.....	10
PUBLIC RELATIONS	13
PHONE CONTACTS – OP DOWNHOLE SERVICES GROUP	14
EMERGENCY PERSONELL NOTIFICATION NUMBERS.....	15
PHONE CONTACTS – OP PRODUCTION AND PLANT PERSONNEL	16
PHONE CONTACTS – OP HES PERSONNEL	16

PREFACE

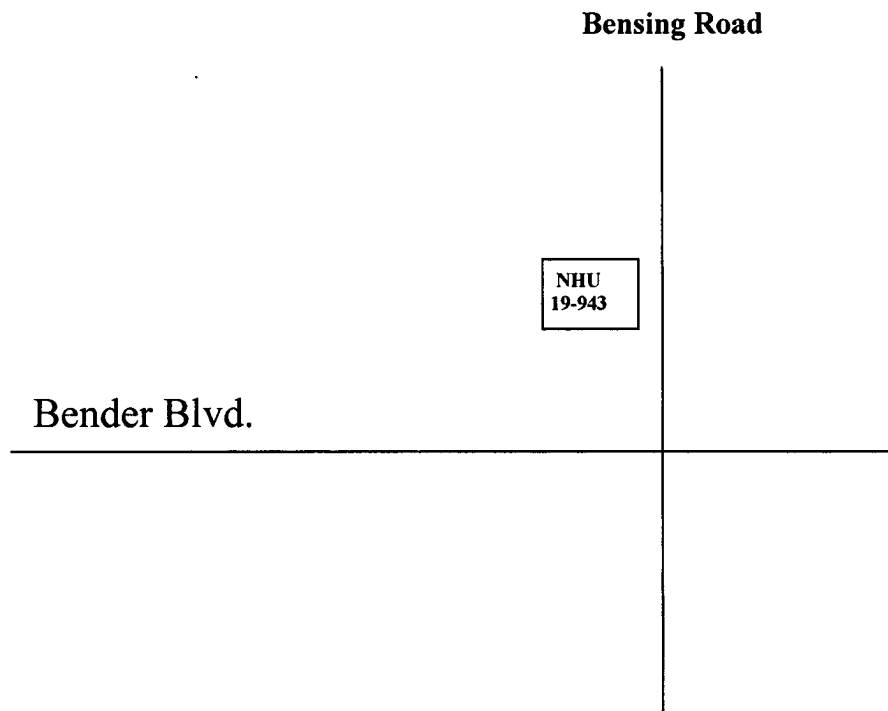
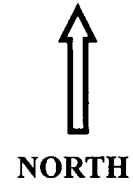
An effective and viable Contingency Plan is intended to provide prior planning and guidance in responding to emergency incidents. The primary considerations in its development are protection of personnel, the public, company and public property, and the environment.

Although the plan addresses varied emergency situations which may occur, it recognizes that flexibility and the use of the organization's knowledge and experience is critical to safe resolution of emergency incidents. Response actions outlined in the plan provide a framework, which may be placed into operation without confusion. These actions should promote quick and decisive actions during the critical initial period and immediately following an emergency. As the response progresses, additional guidelines and procedures may need to be implemented as the situation dictates. In addition, all emergency incidents must be properly reported per the Oxy Incident Reporting and Notification Policy, state and federal requirements, etc.

This Contingency Plan is intended for use on Oxy Downhole Services Group projects and the operations within their area of responsibility, such as drilling, critical well work, etc.

A copy of the Plan shall be maintained in the Top Dog House, Rig Managers trailer, and Company Representative's trailer if applicable.

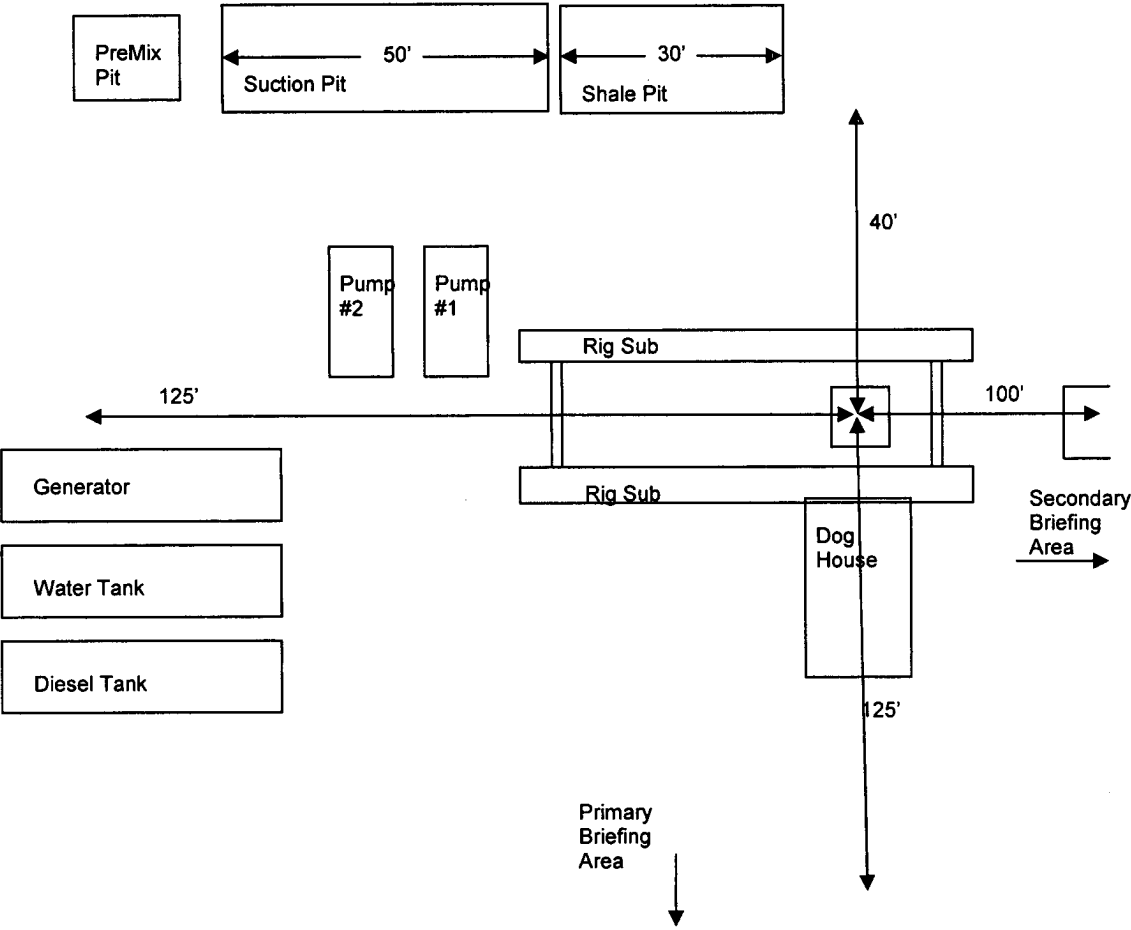
Oxy Permian 19-943
Lat. 32°43'59.94" N
Long. 103°10'46.29" W
NAD 27 NME
Y = 632424.0 N
X = 854808.4 E



DIRECTIONS TO LOCATION:

**FROM THE INTERSECTION OF BENDER BLVD. AND
BENSING RD., GO NORTH ON BENSING RD. FOR
APPROX. 0.5 MILES. THIS LOCATION IS APPROX.
250' WEST.**

Patterson/UTI 65



EMERGENCY RESPONSE ACTIVATION AND GENERAL RESPONSIBILITIES

Activation of the Emergency Action Plan

- A. In the event of any emergency situation, all personnel on location should first ensure that the following items are initiated. After that, they should refer to the appropriate Specific Emergency Guidance sections on pages ten (10) through twelve (12) in this document for further responsibilities:
 - 1. Notify the senior ranking contract representative on site.
 - 2. Notify Oxy representative in charge.
 - 3. Notify civil authorities if the Oxy Representative can not be contacted and the situation dictates.
 - 4. Perform rescue and first aid as required (without jeopardizing additional personnel).

General Responsibilities

Oxy Permian Personnel:

- A. Operations Specialist: The Oxy Drilling/Critical Well Servicing Operations Specialist or contract personnel serving in that capacity will serve as Operations Chief Officer for all emergency incidents. The Operations Chief Officer is responsible for:
 - 1. Notification to the Downhole Services Team Leader of the incident occurrence.
 - 2. Notification to the local RMT/PMT leader of the incident occurrence, and the need for the designated local RMT/PMT Incident Commander to act in that capacity for the response effort.
 - 3. Sole control of all tactical activities directed toward reducing the immediate hazard, establishing situational control and restoring the operations to a non-emergency state.
- B. Local RMT/PMT Designated Incident Commander: The Oxy local RMT/PMT Designated Incident Commander will serve as the overall Incident Commander for the drilling or critical well servicing emergency incident. The Incident Commander is responsible for:
 - 1. Coordinating with the Downhole Services Team Leader for notification to the Oxy Crisis Management team of the incident occurrence.
 - 2. Establishing and managing the overall incident command structure and response from inception through restoration of normal activities in the area.
- C. Downhole Services HES Tech: The Downhole Services HES Tech (or his designate) is responsible for reporting to the incident as soon as reasonably possible, to provide support to the response effort as required by the Operations Chief Officer or the Incident Commander.

Contract Drilling Personnel will immediately report to their assigned stations and perform their duties as outlined in the appropriate Specific Emergency Guidance sections on pages ten (10) through twelve (12) in this document.

Other Contractor Personnel will report to the safe briefing area to assist Oxy personnel and civil authorities as requested when it is safe to do so and if they have been adequately trained in their assigned duties.

Civil Authorities (Law Enforcement, Fire, and EMS) will be responsible for:

1. Establishing membership in the Unified Incident Command.
2. As directed by the Incident Commander and the Unified Command, control site access, re-route traffic, and provide escort services for response personnel.
3. Perform all fire control activities in coordination with the Unified Command.
4. Initiate public evacuation plans as instructed by the Incident Commander.
5. Perform rescue or recovery activities with coordination from the Unified Command.
6. Provide medical assistance as dictated by the situation at hand.

H2S RELEASE

The following procedures and responsibilities will be implemented on activation of the H2S siren and lights.

All Personnel:

1. On alarm, don escape unit (if available) and report to upwind briefing area.

Rig Manager/Tool Pusher:

1. Check that all personnel are accounted for and their condition.
2. Administer or arrange for first aid treatment, and /or call EMTs as needed.
3. Identify two people best suited to secure well and perform rescue, and instruct them to don SCBA.
4. Notify Contractor management and Oxy Representative.
5. Remain at the briefing area, assess and monitor personnel and overall situation for hazards or conditions that might warrant a change in the action plan.

Two People Responsible For Shut-in and Rescue:

1. Don SCBA and acquire tools to secure well and perform rescue, i.e., wrenches, retrieval ropes, etc.
2. Utilize the buddy system to secure well and perform rescue(s).
3. Return to the briefing area and stand by for further instructions.

All Other Personnel:

1. Isolate the area and prevent entry by other persons into the 100 ppm ROE. Additionally the first responder(s) must evacuate any public places encompassed by the 100 ppm ROE. First responder(s) must take care not to injure themselves during this operation. Company and/or local officials must be contacted to aid in this operation. Evacuation of the public should be beyond the 100 ppm ROE.

Oxy Representative:

1. Remain at the briefing area, assess and monitor personnel and overall situation for hazards or conditions that might warrant a change in the action plan.
2. Notify Operation Specialists or Team Leader and RMT Leader or Local Incident Commander, and Police, Fire Department, or other local emergency services as required.

Training

There will be an initial training session prior to encountering a known or probable H₂S zone (within 3 days or 500 feet) and weekly H₂S and well control drills for all personnel in each crew. The initial training session shall include a review of the site specific H₂S Drilling Operations Plan and the Public Protection Plan (Contingency Plan). This plan shall be available at the well site. All personnel will be required to carry documentation that they have received the proper training.

Ignition of Gas Source

Should control of the well be considered lost and ignition considered, take care to protect against exposure to Sulfur Dioxide (SO₂). Intentional ignition must be coordinated with the NMOCD and local officials. Additionally the NM State Police shall be the Incident Command of any major release. Ignition of the well will be with the concurrence of the drilling team leader and the Oxy Crisis Management Team as time allows.

Characteristics of H₂S and SO₂

Common Name	Chemical Formula	Specific Gravity	Threshold Limit	Hazardous Limit	Lethal Concentration
Hydrogen Sulfide	H ₂ S	1.189 Air = 1	10 ppm	100 ppm	600 ppm
Sulfur Dioxide	SO ₂	2.21 Air = 1	2 ppm	N/A	1000 ppm

Contacting Authorities

Oxy Permian personnel must liaison with local and state agencies to ensure a proper response to a major release. Additionally, the OCD must be notified of the release as soon as possible but no later than 4 hours. Agencies will ask for information such as; type and volume of release, wind direction, location of release, etc. Be prepared with all information available. The following call list of essential and potential responders has been prepared for use during a release. This response plan must be in coordination with the State of New Mexico's 'Hazardous Materials Emergency Response Plan' (HMER).

WELL CONTROL

The following procedures will be implemented when a loss of primary control is indicated. Indicators of loss of primary control are flow from the well, an increase in pit volume, or when the drilling fluid used to fill the hole on trips is less than the calculated pipe displacement volume. The emergency signal for well control procedures will be a single long blast of the rig air horn.

Kick While Drilling - Procedures And Responsibilities

Driller:

1. Stop the rotary and hoist the kelly above the rotary table.
2. Stop the mud pump(s).
3. Check for flow.
4. If flowing, sound the alarm immediately.
5. Ensure that all crew members fill their responsibilities to secure the well.
6. Record drill pipe and casing shut-in pressures and pit volume increase and begin kill sheet.

Derrickman:

1. Go to BOP/choke manifold area.
2. Open choke line valve on BOP.
3. Signal to Floorman #1 that the choke line is open.
4. Close chokes after annular or pipe rams are closed.
5. Record shut-in casing pressure and pit volume increase.
6. Report readings and observations to Driller.
7. Verify actual mud weight in suction pit and report to Driller.
8. Be readily available as required for additional tasks.

Floorman # 1:

1. Go to accumulator control station and await signal from Derrickman.
2. Close annular preventer and HCR on signal (if available, if not then close pipe rams).
3. Record accumulator pressures and check for leaks in the BOP or accumulator system.
4. Report to Driller, and be readily available as required for additional tasks.

Floorman # 2:

1. Start water on motor exhausts.
2. Notify Contractor Tool Pusher or Rig Manager of well control situation.
3. Check location for ignition sources and extinguish or turn off, and stop any welding in progress.
4. Report to Driller, and be readily available as required for additional tasks.

Floorman # 3:

1. Stand-by with Driller, and be readily available as required for additional tasks.

Tool Pusher/Rig Manager:

1. Notify Oxy Representative and report to rig floor.
2. Review and verify all pertinent information.
3. Communicate information to Oxy Representative, and confer on an action plan.
4. Finalize well control worksheets, calculations and preparatory work for action plan.
5. Initiate and ensure the action plan is carried out.
6. Communicate any changes in well or site conditions, or any indications that the action plan needs to be revised to the Oxy representative.

Oxy Representative:

1. Notify Operation Specialists or Team Leader and RMT Leader or Local Incident Commander, and Police, Fire Department, or other local emergency services as required.

Kick While Tripping - Procedures and Responsibilities

Driller:

1. Sound the alarm immediately when pipe displacement volume is less than 75% of calculated.
2. Position the upper tool joint just above rotary table and set slips.
3. Check for flow.
4. Ensure that all crew members fill their responsibilities to secure the well.
5. Record drill pipe and casing shut-in pressures and pit volume increase, and begin kill sheets.

Derrickman: (same as while drilling)

Floor Man # 1:

1. Install full opening valve (with help from Floorman #2) in top drill string connection.
2. Tighten valve with make up tongs.
3. Go to accumulator control station and await signal from Derrickman.
4. Close annular preventer and HCR valve on signal (if available, if not then close pipe rams).
5. Record accumulator pressures and check for leaks in the BOP and accumulator system.
6. Report to Driller, and be readily available as required for additional tasks.

Floor Man # 2:

1. Assist installing full opening valve in drill string.
2. Position back-up tongs for valve make-up.
3. Start water on motor exhausts.
4. Notify Contractor Tool Pusher or Rig Manager of well control situation.
5. Check location for ignition sources and extinguish or turn off, and stop any welding in progress.
6. Report to Driller, and be readily available as required for additional tasks.

Floorman # 3, Rig Manager/Tool Pusher, and Oxy Representative: (same as while drilling)

PUBLIC RELATIONS

Oxy recognizes that the news media have a legitimate interest in incidents at Oxy facilities that could affect the public. It is to the company's benefit to cooperate with the news media when incidents occur because these media are our best liaison with the public.

Our objective is to see that all reports of any emergency are factual and represent the company's position fairly and accurately. Cooperation with news media representatives is the most reliable guarantee that this objective will be met.

All contract and Oxy employees are instructed **NOT** to make any statement to the media concerning the emergency incident. If a media representative contacts any employee, they should refer them to the designated Emergency Command Center where they should contact the Incident Commander or his designated relief for any information concerning the incident.

OXY PERMIAN DOWNHOLE SERVICES GROUP

	LOCATION	OFFICE	HOME	CELL	PAGER
Manager Operations Support					
Hardesty, Steve	Midland	432-685-5880	432/694-6441	713-560-8095	
Team Leader					
Pennington, Randy	Midland	432-685-5684	432/689-7642	432-556-0207	
			Toledo Bend =	318-590-2349	
Operations Specialists					
Mike Murray	Midland	432-685-5718	432-689-2592	432-556-6792	
HES Tech					
Thompson, Don	Midland	432-685-5719	432/684-3900	432-556-1505	

Emergency Notification Numbers

Public Authorities		
New Mexico State Police	Artesia	505/746-2704
New Mexico State Police	Carlsbad	505/885-3137
New Mexico State Police	Hobbs	505/392-5588
Eddy County Sheriff's Office	Artesia	505/746-2704
Eddy County Sheriff's Office	Carlsbad	505/887-7551
Lea County Sheriff's Office	Hobbs	505/393-2515
Local Emergency Planning Center	Eddy County	505/887-9511
Local Emergency Planning Center	Lea County	505/397-9231
New Mexico Oil & Gas Commission	Artesia	505/748-1283
New Mexico Oil & Gas Commission	Hobbs	505/393-6161
NM Emergency Response Center	Hobbs	505/827-9222

Emergency Services		
Fire Fighting, Rescue, Ambulance, Police	Artesia	911
Fire Fighting, Rescue, Ambulance, Police	Carlsbad	911
Fire Fighting, Rescue, Ambulance, Police	Hobbs	911
Flight For Life	Lubbock	806/743-9911
Aerocare	Lubbock	806/7478923
Med Flight Air Ambulance	Albuquerque	505/842-4433

Other Emergency Services		
Boots and Coots		1/800-256-9688
Cudd Pressure Control	Midland	432/699-0139
B.J. Services	Artesia	505/746-3569
Halliburton	Artesia	505/746-2757

OXY Permian Production and Plant Personnel
OXY Permian Crisis Team Hotline Notification (713) 935-7210

PERSON	LOCATION	OFFICE	FAX	CELL	PAGER
--------	----------	--------	-----	------	-------

Asset Management-Operations Areas

OXY Permian General Manager: Tom Menges	Houston	(281) 552-1147	(281) 552-1484	(713) 560-8038	
North Permian Asset: Harry Hufft	Houston	(713) 3665002		(713) 560-8071	

PERSON	LOCATION	OFFICE	FAX	CELL	PAGER
--------	----------	--------	-----	------	-------

Production Coordinators: S. Permian Asset

Hobbs RMT: Gary Bullock	Hobbs	(505) 397-8203	(505) 397-8204	(505) 390-9144	
-------------------------	-------	-------------------	-------------------	-------------------	--

OXY Permian HES Personnel
OXY Permian Crisis Team Hotline Notification (713) 935-7210

PERSON	LOCATION	OFFICE	FAX	CELL	PAGER
--------	----------	--------	-----	------	-------

HES Coordinators & Area of Responsibility

Rickie Tyler	Midland	432 685-5707		432 556-6790	
--------------	---------	-----------------	--	-----------------	--

HES Techs & Area of Responsibility

Hobbs RMT: Steve Bishop	Hobbs	(505) 397-8251	(505) 397-8204	(505) 390-4784	(877) 339-1954- 1118#
Frontier-New Mexico: Rick Kerby	Hobbs	(505) 393-2174	(505) 393-2671	(505) 390-8639	(505) 370-6527