# EVENT SPECIFIC JUSTIFICATIONS FORM

**Facility:** South Hobbs Unit

**Start Date:** 07/02/2021 @ 06:11 PM **End Date:** 07/02/2021 @ 07:50 PM

**Cause:** THE SOUTH PLANT FLARED DUE TO LOW INLET GAS RATES FROM SEVERE STORMS, AND TRAINS "A" AND "B" WERE SHUT DOWN UNTIL THE GAS RATES CAME BACK UP.
**Duration of event:** 1:39 hours

**Method of Flared Gas Measurement:** Flare Meter

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## 1. Reason why this event was beyond Operator's control:

The emissions event was caused by the unforeseen, unexpected, sudden, and unavoidable breakdown of equipment or process that was beyond the owner/operator's control, and did not stem from activity that could have been foreseen and avoided, and could not have been avoided by good design, operation, and preventative maintenance practices. It is OXY's policy to route all stranded sales gas to a flare during an unforeseen and unavoidable emergency or malfunction, in order to minimize emissions as much as possible. The flare is regularly monitored to the ensure flame is lit and meeting opacity requirements.

This event was a sudden and unforeseeable compressor malfunction of the South Plant Unit. Oxy operators were alerted to a malfunction of all compressors malfunctioning of the unit due to severe storms. After inspecting and troubleshooting the compressor units, operations brought the unit back to normal working service. OXY personnel were in place and available at the facility location when compressor unit was returned to working service.

Notwithstanding proper gas compressor design and operation, various forms of mechanical or technical issues can be sudden, reasonably unforeseeable and unexpected which can cause compressor unit malfunctions to occur without warning or advance notice. OXY made every effort to control and minimize emissions as much as possible during this event.

## 2. Steps Taken to limit duration and magnitude of venting or flaring:

The emissions event was caused by the unforeseen, unexpected, sudden, and unavoidable breakdown of equipment or process that was beyond the owner/operator's control, and did not stem from activity that could have been foreseen and avoided, and could not have been avoided by good design, operation, and preventative maintenance practices. It is OXY's policy to route all stranded sales gas to a flare during an unforeseen and unavoidable emergency or malfunction, in order to

minimize emissions as much as possible. The flare is regularly monitored to the ensure flame is lit and meeting opacity requirements.

In this case, the steps taken to limit duration and magnitude of flaring was for Oxy operators to quickly respond to the compression equipment malfunction alarms by quickly contacting the field of that a malfunction alarm was occurring. In addition to the compressors shutting down, OXY routed all the stranded sales gas to a flare with a 98% combustion efficiency in order to lessen emissions as much as possible. The flare is regularly monitored to ensure the flame is lit and meeting opacity requirements. After inspecting and troubleshooting the compressor unit, operations brought the unit back to normal working service.

Notwithstanding proper gas compressor design and operation, various forms of mechanical or technical issues can be sudden, reasonably unforeseeable and unexpected which can cause compressor unit malfunctions to occur without warning or advance notice. OXY made every effort to control and minimize emissions as much as possible during this event.

**3. Corrective Actions taken to eliminate the cause and reoccurrence of venting or flaring:**

The emissions event was caused by the unforeseen, unexpected, sudden, and unavoidable breakdown of equipment or process that was beyond the owner/operator's control, and did not stem from activity that could have been foreseen and avoided, and could not have been avoided by good design, operation, and preventative maintenance practices. It is OXY's policy to route all stranded sales gas to a flare during an unforeseen and unavoidable emergency or malfunction, in order to minimize emissions as much as possible. The flare is regularly monitored to the ensure the flame is lit and meeting opacity requirements.

Oxy cannot take any corrective actions to eliminate the cause and potential reoccurrence of compressor malfunctions as notwithstanding proper gas compressor design and operation, various forms of mechanical or technical issues can be sudden, reasonably unforeseeable and unexpected which can cause compressor unit malfunctions to occur without warning or advance notice. Oxy continually strives to maintain and operate its facility equipment in a manner consistent with good practices for minimizing emissions and reducing the number of emission events. The South Plant was working as designed and operated normally prior to the sudden and without warning malfunction of the compressor units. Oxy has a strong and positive compression equipment preventative maintenance program in place. This incident was completely out of OXY's control to prevent from happening as it was determined the malfunction occurred due to severe storms. OXY made every effort to control and minimize emissions as much as possible during this event. The only actions that Oxy can take and handle that is within its control, is to keep continue with its compression equipment preventative maintenance program for this unit.

# OCCIDENTAL PERMIAN LTD.

**Event ID:** 114700
**Reporting Employee:** RICHARD ALVARADO
**Lease Name:** SOUTH HOBBS UNIT RCF
**Account Number:** 33207
**Equipment:** Plant Inlet
**NSR Permit Number:** 5418-R2
**EPN:** RCF - FLARE - MALF
**Title V Permit Number:**
**EPN Name** RCF flare - Malfunctions
**Reg Lease Number:**
**Flare Point:** Plant Inlet

**Explanation of the Cause:**

THE SOUTH PLANT FLARED DUE TO LOW INLET GAS RATES, AND TRAINS "A" AND "B" WERE SHUT DOWN UNTIL THE GAS RATES CAME BACK UP.

**Event Type**

Malfunction
Malfunction
Malfunction

**Corrective Actions Taken to Minimize Emissions:**

OPERATIONS WORKED EFFICIENTLY TO GET THE UNITS BACK ONLINE AFTER GAS RATES CAME BACK UP.

**Actions taken to prevent recurrence:**

OPERATIONS WORKED EFFICIENTLY TO GET THE UNITS BACK ONLINE AFTER GAS RATES CAME BACK UP.

| Emission Start Date | Emission End Date | Duration |
|---|---|---|
| 7/2/2021 6:11:00 PM | 7/2/2021 7:50:00 PM | 1:39 hh:mm |

## NMED

| Pollutant | Duration (hh:mm) | Avging Period | Excess Emission | | Number of Exceedances | Permit Limit | Average Emission Rate | | Total Pounds | Tons Per Year | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | | | | Total | Next Drop off Date | Date Permit Exceeded |
| CO | 1:39 | 1 | 0 | LBS | 0 | 448.60 | 112.58 | LBS/HR | 185.77 | 0.092885 | 7/10/2021 | |
| H2S | 1:39 | 1 | 0 | LBS | 0 | 38.90 | 3.33 | LBS/HR | 5.5 | 0.002752 | 7/10/2021 | |
| NOX | 1:39 | 1 | 0 | LBS | 0 | 79.30 | 13.13 | LBS/HR | 21.66 | 0.010833 | 7/10/2021 | |
| SO2 | 1:39 | 1 | 0 | LBS | 0 | 3659.00 | 307.64 | LBS/HR | 507.61 | 0.253809 | 7/10/2021 | |
| VOC | 1:39 | 1 | 0 | LBS | 0 | 520.30 | 33.53 | LBS/HR | 55.33 | 0.027668 | 7/10/2021 | |

**Reporting Status:** Non-Reportable

## NMOCD

| Flare Stream Total | Total MCF | EPN | Latitude | Longitude | Reporting Status |
|---|---|---|---|---|---|
| 490 **MCF** | 740 **MCF** | RCF flare - Malfunctions | 32°40'40.890 | 103°9'35.360 | Major Release |

## LEPC

| Total MCF | H2S % | Unit Letter | Section | Township | | Range | |
|---|---|---|---|---|---|---|---|
| 740 | 0.626 | E | 09 | 19 | S | 39 | E |

| Pollutant | Emission rate | Reportable Qty |
|---|---|---|
| SO2 | 507.61 LBS/DAY | 500 LBS/DAY |
| SO2 | 507.61 LBS/DAY | 500 LBS/DAY |
| SO2 | 507.61 LBS/DAY | 500 LBS/DAY |

**Reporting Status:** Reportable

**Emissions Calculations:**

**NOx = MCF flared x NOx factor from RG-109 x BTU/scf x 1000 scf/MCF x MMBTU/1000000 BTU**
**CO = MCF flared x CO factor from RG-109 x BTU/scf x 1000 scf/MCF x MMBTU/1000000 BTU**
**Gas was flared to reduce the hydrocarbon and/or H2S emissions to the atmosphere.**
**NMNE NG = MCF flared x 50 lb/mole x mole/.379 MCF x mol % NMNE NG x 0.02**
**NMNE NG % = 100% - Methane % - Ethane % - Carbon Dioxide % - Nitrogen %**
**H2S = MCF flared x 34 lb/mole x mole/.379 MCF x mol % H2S/100 x 0.02**
**SO2 = MCF flared x 64 lb/mole x mole/.379 MCF x mol % H2S/100 x 0.98**

**District I**
1625 N. French Dr., Hobbs, NM 88240
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**District II**
811 S. First St., Artesia, NM 88210
Phone:(575) 748-1283 Fax:(575) 748-9720
**District III**
1000 Rio Brazos Rd., Aztec, NM 87410
Phone:(505) 334-6178 Fax:(505) 334-6170
**District IV**
1220 S. St Francis Dr., Santa Fe, NM 87505
Phone:(505) 476-3470 Fax:(505) 476-3462

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

QUESTIONS

Action 36180

## QUESTIONS

| | |
|---|---|
| Operator:<br>OCCIDENTAL PERMIAN LTD<br>P.O. Box 4294<br>Houston, TX 772104294 | OGRID:<br>157984 |
| | Action Number:<br>36180 |
| | Action Type:<br>[C-129] Venting and/or Flaring (C-129) |

**QUESTIONS**

| **Determination of Reporting Requirements** | |
|---|---|
| *Answer all questions that apply. The Reason(s) statements are calculated based on your answers and may provide addional guidance.* | |
| Was or is this venting or flaring caused by an emergency or malfunction | Yes |
| Did or will this venting or flaring last eight hours or more cumulatively within any 24-hour period from a single event | No |
| Is this considered a submission for a notification of a major venting or flaring | **Yes, major venting or flaring of natural gas.** |
| ***The operator shall file a form C-141 instead of a form C-129 for a release that includes liquid during venting or flaring that is or may be a major or minor release under 19.15.29.7 NMAC.*** | |
| Was there or will there be **at least 50 MCF** of natural gas vented or flared during this event | Yes |
| Did this venting or flaring result in the release of **ANY** liquids (not fully and/or completely flared) that reached (or has a chance of reaching) the ground, a surface, a watercourse, or otherwise, with reasonable probability, endanger public health, the environment or fresh water | No |

| **Unregistered Facility Site** | |
|---|---|
| *Please provide the facility details, if the venting or flaring occurred or is occuring at a facility that does not have an Facility ID (f#) yet.* | |
| Facility or Site Name | *Not answered.* |
| Facility Type | *Not answered.* |

| **Equipment Involved** | |
|---|---|
| Primary Equipment Involved | *Not answered.* |
| Additional details for Equipment Involved. Please specify | *Not answered.* |

| **Representative Compositional Analysis of Vented or Flared Natural Gas** | |
|---|---|
| *Please provide the mole percent for the percentage questions in this group.* | |
| Methane (CH4) percentage | 4 |
| Nitrogen (N2) percentage, if greater than one percent | 0 |
| Hydrogen Sulfide (H2S) PPM, rounded up | 1 |
| Carbon Dioxide (C02) percentage, if greater than one percent | 0 |
| Oxygen (02) percentage, if greater than one percent | 0 |
| ***If you are venting and/or flaring because of Pipeline Specification, please provide the required specifications for each gas.*** | |
| Methane (CH4) percentage quality requirement | *Not answered.* |
| Nitrogen (N2) percentage quality requirement | *Not answered.* |
| Hydrogen Sufide (H2S) PPM quality requirement | *Not answered.* |
| Carbon Dioxide (C02) percentage quality requirement | *Not answered.* |
| Oxygen (02) percentage quality requirement | *Not answered.* |

| **Date(s) and Time(s)** | |
|---|---|
| Date venting or flaring was discovered or commenced | 07/02/2021 |
| Time venting or flaring was discovered or commenced | 06:11 PM |
| Is the venting or flaring event complete | Yes |
| Date venting or flaring was terminated | 07/02/2021 |
| Time venting or flaring was terminated | 07:50 PM |
| Total duration of venting or flaring in hours, if venting or flaring has terminated | 0 |
| Longest duration of cumulative hours within any 24-hour period during this event | 0 |

| **Measured or Estimated Volume of Vented or Flared Natural Gas** | |
|---|---|
| Natural Gas Vented (Mcf) Details | *Not answered.* |
| Natural Gas Flared (Mcf) Details | *Not answered.* |
| Other Released Details | Cause: Lightning \| Other (Specify) \| Natural Gas Flared \| Spilled: 740 Mcf \| Recovered: 0 Mcf \| Lost: 740 Mcf ] |
| Additional details for Measured or Estimated Volume(s). Please specify | *Not answered.* |
| Is this a gas only submission (i.e. only Mcf values reported) | **Yes, according to supplied volumes this appears to be a "gas only" report.** |

| **Venting or Flaring Resulting from Downstream Activity** | |
|---|---|
| Was or is this venting or flaring a result of downstream activity | *Not answered.* |
| Date notified of downstream activity requiring this venting or flaring | *Not answered.* |
| Time notified of downstream activity requiring this venting or flaring | *Not answered.* |

| **Steps and Actions to Prevent Waste** |
|---|

| | |
|---|---|
| For this event, the operator could not have reasonably anticipated the current event and it was beyond the operator's control. | True |
| Please explain reason for why this event was beyond your operator's control | The emissions event was caused by the unforeseen, unexpected, sudden, and unavoidable breakdown of equipment or process that was beyond the owner/operator's control, and did not stem from activity that could have been foreseen and avoided, and could not have been avoided by good design, operation, and preventative maintenance practices. It is OXY's policy to route all stranded sales gas to a flare during an unforeseen and unavoidable emergency or malfunction, in order to minimize emissions as much as possible. The flare is regularly monitored to the ensure flame is lit and meeting opacity requirements. |
| Steps taken to limit the duration and magnitude of venting or flaring | The emissions event was caused by the unforeseen, unexpected, sudden, and unavoidable breakdown of equipment or process that was beyond the owner/operator's control, and did not stem from activity that could have been foreseen and avoided, and could not have been avoided by good design, operation, and preventative maintenance practices. It is OXY's policy to route all stranded sales gas to a flare during an unforeseen and unavoidable emergency or malfunction, in order to minimize emissions as much as possible. The flare is regularly monitored to the ensure flame is lit and meeting opacity requirements. |
| Corrective actions taken to eliminate the cause and reoccurrence of venting or flaring | The emissions event was caused by the unforeseen, unexpected, sudden, and unavoidable breakdown of equipment or process that was beyond the owner/operator's control, and did not stem from activity that could have been foreseen and avoided, and could not have been avoided by good design, operation, and preventative maintenance practices. It is OXY's policy to route all stranded sales gas to a flare during an unforeseen and unavoidable emergency or malfunction, in order to minimize emissions as much as possible. The flare is regularly monitored to the ensure the flame is lit and meeting opacity requirements. |

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CONDITIONS

Action 36180

## CONDITIONS

| | |
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**CONDITIONS**

| Created By | Condition | Condition Date |
|---|---|---|
| system | If the information provided in this report requires an amendment, submit a [C-129] Request to Amend Venting and/or Flaring Incident, utilizing your incident number from this event. | 7/13/2021 |