

UNITED STATES DEPARTMENT OF THE INTERIOR -
BUREAU OF SAFETY AND ENVIRONMENTAL ENFORCEMENT -
GULF OF MEXICO REGION -

ACCIDENT INVESTIGATION REPORT

For Public Release

1. OCCURRED

DATE: 02-FEB-2015 TIME: 0230 HOURS

2. OPERATOR: Stone Energy Corporation

REPRESENTATIVE:

TELEPHONE:

CONTRACTOR: -

REPRESENTATIVE:

TELEPHONE:

3. OPERATOR/CONTRACTOR REPRESENTATIVE/SUPERVISOR
ON SITE AT TIME OF INCIDENT:

4. LEASE: G01665

AREA: MP LATITUDE: 29.23983794 -
BLOCK: 288 LONGITUDE: -88.40948497 -

5. PLATFORM: - A

RIG NAME:

6. ACTIVITY: EXPLORATION (POE)
 DEVELOPMENT/PRODUCTION
(DOCD/POD)

7. TYPE:

HISTORIC INJURY -

- REQUIRED EVACUATION
- LTA (1-3 days)
- LTA (>3 days)
- RW/JT (1-3 days)
- RW/JT (>3 days)
- Other Injury -

- FATALITY
- POLLUTION
- FIRE
- EXPLOSION

- LWC - HISTORIC BLOWOUT
- UNDERGROUND
 - SURFACE
 - DEVERTER
 - SURFACE EQUIPMENT FAILURE OR PROCEDURES

COLLISION HISTORIC >\$25K <=\$25K

- STRUCTURAL DAMAGE
- CRANE
- OTHER LIFTING DEVICE
- DAMAGED/DISABLED SAFETY SYS.
- INCIDENT >\$25K
- H2S/15MIN./20PPM
- REQUIRED MUSTER
- SHUTDOWN FROM GAS RELEASE
- OTHER

6. OPERATION:

- PRODUCTION
- DRILLING
- WORKOVER
- COMPLETION
- HELICOPTER
- MOTOR VESSEL
- PIPELINE SEGMENT NO.
- OTHER

8. CAUSE:

- EQUIPMENT FAILURE
- HUMAN ERROR
- EXTERNAL DAMAGE -
- SLIP/TRIP/FALL
- WEATHER RELATED
- LEAK
- UPSET H2O TREATING
- OVERBOARD DRILLING FLUID
- OTHER _____

9. WATER DEPTH: 393 FT.

10. DISTANCE FROM SHORE: 35 MI.

11. WIND DIRECTION: -
SPEED: M.P.H.

12. CURRENT DIRECTION:
SPEED: M.P.H.

13. SEA STATE: FT.

On 2-2-2015 a flash fire occurred on Stone Energy's OCS-G 01665, Main Pass 288-A Platform. The BSEE investigation team arrived on location to investigate the cause of the Incident. It was made known from the operators that at the time of the Incident, the (Primary Protection), Temperature Safety High (TSH) and Pressure Safety High (PSH) on the BAP-1500 Line Heater sensors on the fired components did not shut off the fuel supply and inflow of the combustible fluids. This caused an excessive temperature boiling out of hatch of vessel over drenching platform with chemicals (antifreeze and Glycol) dripping onto Compressor exhaust causing a flash fire. Photos of the scene were taken from a high point on the platform Helideck showing there was still a presence of Antifreeze and Glycol Mixture covering the top deck. The BSEE team asked the operators to test the Level Safety Low (LSL) and the Pressure Safety High (PSH) to ensure the components were in working condition; all components passed the test. During the safety walkthrough of the BAP-1500 Line Heater, it was found that the air intake of the natural draft burner port was blocked with the metal plate from when the vessel was shipped to the platform after previous repairs. With the metal plate covering the port, there was no way to view the burner for maintenance or to check for abnormal conditions such as "hot spots" in the fire tube. The unit was shut-in until the manufactured sight glass port was installed. Operators mentioned that they had to rebuild the temperature controller after the incident.

During the interviews with both Night Operators whom were involved in the flash fire incident, the Operators were explaining that they were setting up to test the Pressure Safety High Low (PSHL) pilots on the Compressor #1, as they were walking around the cooler they felt drops of what they thought were raindrops. After they figured it was not raindrops, they ran upstairs and noticed the Line Heater was boiling over a Glycol and Antifreeze Mixture from the top hatch of the Line Heater. The Operators shut the hatch of the Line Heater. Unsure of the cause at that time, the Operators shut the Line Heater down and secured the vessel. Later determining that it was caused by excessive temperature, spilling/boiling over through the grating downstairs. After the Line Heater was shut down, the Operator went downstairs to grab an extra water hose to wash down the Antifreeze and Glycol. By the time he was half way down the stairs, the Operator noticed that the insulation of the exhaust on the compressor was smoking. The Operator immediately shut the Compressor down, grabbed a fire extinguisher, and put the flame out. The Operator called for help and used the water hose to saturate the insulation on the exhaust that was smoking. The Foreman and Lead Operator were notified at the time of the fire.

The Operators later discovered that the "Kimray Temperature Controller" was not working properly and caused the temperature to rise above the normal setting of 150 degrees. The Kimray Temperature Controller was repaired before the vessel was placed back in service.

18. LIST THE PROBABLE CAUSE(S) OF ACCIDENT:

1. Kimray Temperature Controller malfunctioned.
2. Temperature Safety High (TSH) on BAP-1500 did not activate in order to shut down the vessel and all associated components.
3. High Temperature caused the Glycol and Antifreeze to boil over and out the top hatch, spilling down to lower deck onto the Compressor exhaust.

19. LIST THE CONTRIBUTING CAUSE(S) OF ACCIDENT: -

1. The MSDS sheet for the Triethylene Glycol (section 3 Physical Data) Boiling Point - 760 mm Hg: 550 Deg. F
2. The MSDS sheet for the Gulfcool EG-50 Hazards Rating System has a Fire Hazard Flash Point of 1 above 200 Degrees F
3. The BAP-1500 shipped with the cover on the burner port to protect from damages to the sight glass. Later revealed by Investigation team that the sight glass was never installed posing a risk of rendering the Flame Arrestor (FA) on the air intake ~~deeming it to be inoperable by not~~ allowing a path for natural air to enter.

1. Construction crew installed flat bar around the Compressor hatch to prevent any further leakage to the lower deck.
2. Operators shut down Line heater, removed metal plate and replaced with manufactured sight glass to view the burner.
3. BSEE witnessed the testing of the LSL and PSH on the vessel checked hatch on Line Heater.
4. Operators installed new Kimray Temperature Controller to replace the rebuilt one on site Temperature Controller.
5. Corrective actions taken to prevent a reoccurrence 1) A containment barrier was installed around hatch cover to prevent any fluids from leaking onto the compressor exhaust. 2) The Level Safety Low (LSL) was lowered approximately 4 inches to allow for level to come in service & Glycol to expand once heated. 3) A sight glass was ordered, and will be installed next to LSL to have a visual on the fluid level inside the media. Please accept this statement as final report.

21. PROPERTY DAMAGED:

N/A

NATURE OF DAMAGE:

N/A

ESTIMATED AMOUNT (TOTAL):

22. RECOMMENDATIONS TO PREVENT RECURRANCE NARRATIVE:

The BSEE New Orleans District makes no recommendations to the Agency.

23. POSSIBLE OCS VIOLATIONS RELATED TO ACCIDENT: YES

24. SPECIFY VIOLATIONS DIRECTLY OR INDIRECTLY CONTRIBUTING. NARRATIVE:

G-111 250.107 - During the Preliminary Investigation, the BAP-1500 Line Heater was

found with the air intake of the natural draft burner port was blocked with the metal plate from when the vessel was shipped to the platform after previous repairs. With the metal plate covering the port, there was no way to view the burner for maintenance to check for abnormal conditions such as "hot spots" in the fire tube. The unit was shut-in until the manufactured sight glass port was installed. That posed an unsafe situation and immediate threat to personnel, other equipment and the environment.

* ThBAP-1500 Line Heater was shipped with the cover on the burner sight glass posed a risk of rendering the FA on the air intake inoperable by allowing a path for air to enter the fire tube from a location other than the protected normal intake spot.

P520 250.802(b) - PRESSURE SAFETY HIGH (PSH) DID NOT FUNCTION AT THE TIME OF THE INCIDENT CAUSING HIGH PRESSURE IN THE VESSEL (BAP-1500) CAUSING A UNSAFE SITUATION THAT POSED AN IMMEDIATE DANGER TO PERSONNEL, OTHER EQUIPMENT, AND THE ENVIRONMENT.

P524 250.802 (b) TEMPURTURE SAFETY HIGH (TSH) DID NOT FUNTION AT THE TIME OF THE INCIDENT CAUSING HIGH TEMPURTURE IN THE VESSEL (BAP-1500), BOILING OVER LIQUIDS TO THE DECK BELOW ONTO THE COMPRESSOR EXSUST FLARING UP CAUSING A UNSAFE SITUATION THAT POSED AN IMMEDIATE DANGER TO PERSONNEL, OTHER EQUIPMENT, AND THE ENVIRONMENT.

25. DATE OF ONSITE INVESTIGATION:

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03-FEB-2015

26. ONSITE TEAM MEMBERS:

Pierre Lanoix / Hayes Terrence /

29. ACCIDENT INVESTIGATION

PANEL FORMED: NO

OCS REPORT:

30. DISTRICT SUPERVISOR:

David Trocquet

APPROVED

DATE: 30-JUL-2015

FIRE/EXPLOSION ATTACHMENT

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1. SOURCE OF IGNITION: **Exhaust on Compressor -**

2. TYPE OF FUEL:
- GAS
 - OIL
 - DIESEL
 - CONDENSATE
 - HYDRAULIC
 - OTHER **Antifreeze and Glycol**

3. FUEL SOURCE: **Natural Gas**

4. WERE PRECAUTIONS OR ACTIONS TAKEN TO ISOLATE KNOWN SOURCES OF IGNITION PRIOR TO THE ACCIDENT ? **YES**

5. TYPE OF FIREFIGHTING EQUIPMENT UTILIZED:
- HANDHELD
 - WHEELED UNIT
 - FIXED CHEMICAL
 - FIXED WATER
 - NONE
 - OTHER

INJURY/FATALITY/WITNESS ATTACHMENT

INJURY/FATALITY/WITNESS ATTACHMENT

For Public Release

OPERATOR REPRESENTATIVE INJURY
 CONTRACTOR REPRESENTATIVE FATALITY
 OTHER _____ WITNESS

NAME:

HOME ADDRESS:

CITY:

STATE:

WORK PHONE:

TOTAL OFFSHORE EXPERIENCE:

YEARS

EMPLOYED BY: Stone Energy Corporation / 01834

BUSINESS ADDRESS:

CITY:

STATE:

ZIP CODE:

OPERATOR REPRESENTATIVE INJURY
 CONTRACTOR REPRESENTATIVE FATALITY
 OTHER _____ WITNESS

NAME:

HOME ADDRESS:

CITY:

STATE:

WORK PHONE:

TOTAL OFFSHORE EXPERIENCE:

YEARS

EMPLOYED BY: Wood Group Production Services / 21503

BUSINESS ADDRESS:

CITY:

STATE:

ZIP CODE: