

General Environmental Incident Summary

Incident: 2034 **Date/Time Notice:** 8/30/2013 1715 **DEM Incident No:**
Responsible Party: Montana-Dakota Utilities Co.
Date Incident: 8/29/2013 **Time Incident:** 0300 **Duration:** 9 hours
County: Morton **Twp:** 139 **Rng:** 88 **Sec:** 26 **Qtr:**
Lat: 46.82627 **Long:** -101.74940 **Method:** Derived from TRS
Location Description: 4090 62nd Avenue, Glen Ullin, ND 58631 - MDU CS-6 Recovered Energy Generation Facility - next to Northern Border Compressor Station 6 near Glen Ullin.

Submitted By: Abbie Krebsbach **Affiliation:**

Address:

City: **State:** **Zip:**

Received By:

Contact Person: Abbie Krebsbach
400 N 4th Street
Bismarck, ND 58501

Distance Nearest Occupied Building: 1 Miles

Type of Incident: Turbine high vibration trip causing slow pentane leak

Description of Released Contaminant: Pentane (CAS#109-66-0)

Volume Spilled: 14040.00 pounds **Ag Related:** No

EPA Extremely Hazardous Substance: No **Reported to NRC:** No

Cause of Incident:

At about 3am on 8/29/2013 a high vibration trip occurred. The bypass valve for the pentane was slow to open causing pressure to build, which triggered the rupture disk to rupture as it should do in that situation. The process safety valve above the rupture disk then opened as it should. When the process safety valve closed, a piece of the rupture disk was in the way and prevented the valve from sealing closed, causing a slow pentane leak to occur. The crews were not aware of the pentane leak until 11:00 when they smelled a pentane odor at the site. The process safety valve was investigated. The rupture disk debris was removed and the valve was sealed by 11:40am. The pentane leak was reported to supervision at that time.

Risk Evaluation:

Pentane is a flammable vapor/liquid, a volatile organic compound.

of Fatalities: 0 **# of Injuries:** 0 **Affected Medium:** 01 - air

Potential Environmental Impacts:

No environmental impacts were observed or noted during the incident.

Action Taken or Planned:

Normally a trip situation would result in only a small pentane release since the valves are to close immediately after a trip. No release reporting is done of these small and usually rare occurrences. The timing of opening the turbine bypass valve was the main issue that created the slow leak of pentane. The turbine bypass valve has already been recalibrated to open faster in these instances and will be recalibrated again in September as the pressure safety valve is serviced and calibrated. Ormat and Montana-Dakota are also considering other changes to ensure the turbine bypass valve opens quickly to prevent pressure building in the system on hard trips.

Wastes Disposal Location: No wastes will be recovered - this was a release to ambient air.

Agencies Involved:

Updates

Date: 8/30/2013 **Status:** Reviewed - Assigned to NDDoH Division **Author:** Roberts, Kris

Updated Volume:

Notes:

Release to ambient air only. No Environmental Response Team follow-up anticipated. Report forwarded to AQ for any attention needed.