Woodard, Marina (UTC)

From: Faulkenberry, Mike [mike.faulkenberry@avistacorp.com]
Sent: Friday, January 23, 2009 1:22 PM
To: Woodard, Marina (UTC)
Subject: Avista Utilities Reportable Incident, December 27, 2008
Attachments: Document.pdf

<<Document.pdf>>
Marina:

Attached is a written report for an Avista Reportable Incident.

Mike Faulkenberry, P.E.
Chief Gas Engineer, Avista Utilities
Office Phone (509) 495-8499
Cell Phone (509) 990-2386
mike.faulkenberry@avistacorp.com

1411 E. Mission St.
PO Box 3727
Spokane, WA 99220-3727

RECEIVED via email
JAN 23 2009
WUTC
Pipeline Safety Division

January 23, 2009

Ms. Anne Soiza
Director of Pipeline Safety
Washington Utilities and Transportation Commission
P.O. Box 47250
Olympia, WA. 98504-7250

Re: December 27th, 2008 Telephonic report, Avista Utilities

Dear Ms. Soiza,

This written response addresses the telephonic recorded message report Terry Barry of my staff made to the incident reporting hot line at 02:11 on December 27, 2008. This incident was assigned to Al Jones of your staff. Enclosed also is a copy of Form RSPA F 7100.1, Incident Report – Gas Distribution System, as submitted to the U.S. Department of Transportation. Additional information requested by Al Jones and David Lykken regarding this incident will be submitted at a later date under separate cover.

At approximately 22:15 on December 26, 2008, Avista Dispatch received a report of a structure fire and explosion at 206 N. Birch St. in Odessa, WA, Lincoln County. Avista personnel were dispatched at 22:17 and arrived at approximately 23:45. The leak was investigated, located, and secured by squeezing at 07:00 on December 27, 2008.

On December 26, 2008, a natural gas explosion occurred in a detached garage structure. Two individuals were injured directly by this incident, Roger Reyes, with severe burns requiring hospitalization and Cassandra McClure, requiring out-patient care . A third individual, Donald Hart, may have indirect personal injuries related to being evacuated from a neighboring residence. In addition, there is property damage to the garage and several vehicles, and possibly a dog. It appears that escaping natural gas migrated beneath frozen soil to the area of a garage

where it was ignited from an ignition source, suspected to be a cigarette. The building involved was not served with natural gas.

Avista personnel performed odorometer readings and a leak investigation and determined that gas was present in the surrounding soil. The two-inch diameter Aldyl PE gas main in the alley was found to have a crack as the result of suspected rock impingement. The damaged section of main was cut out and the remaining pipe was capped and abandoned in place. The system was operating at 40 psig at the time and has a 60 psig MAOP.

Several other structures and vehicles in the immediate area sustained damages. As outstanding claims against Avista exist, estimated costs are unavailable at this time, but are in excess of $50,000.

Respectfully yours

Micheal J. Faulkenberry
Chief Gas Engineer

Cc: Engineering Correspondence File
Randy Chandler

Enclosure

NOTICE: This report is required by 49 CFR Part 191. Failure to report can result in a civil penalty not to exceed $100,000 for each violation for each day the violation continues up to a maximum of $1,000,000 for any related series of violations as provided in 49 USC 60122. Form Approved OMB No. 2137-0522

U.S. Department of Transportation
Research and Special Programs Administration

INCIDENT REPORT - GAS DISTRIBUTION SYSTEM

Report Date Jan 20,2009
No. 20090007 - 3728
(DOT Use Only)

INSTRUCTIONS

Important: *Please read the separate instructions for completing this form before you begin. They clarify the information requested and provide specific examples. If you do not have a copy of the instructions, you can obtain one from the Office Of Pipeline Safety Web Page at .*

PART A – GENERAL REPORT INFORMATION Check: [x] Original Report [ ] Supplemental Report [ ] Final Report

1. Operator Name and Address

a. Operator's 5-digit Identification Number 31232

b. If Operator does not own the pipeline, enter Owner's 5-digit Identification Number

c. Name of Operator AVISTA CORP

d. Operator street address E. 1411 MISSION AVE

e. Operator address SPOKANE SPOKANE WA 99220
City, County or Parish, State and Zip Code

2. Time and date of the incident
2215 hr | 12/26/2008 month day year

3. Incident Location
a. 206 N. BIRCH ST
Street or nearest street or road
b. ODESSA LINCOLN
City and County or Parish
c. WA 99159
State and Zip Code
d. Latitude: 47.33 Longitude: -118
(if not available, see instructions for how to provide specific location)
e. Class location description
○ Class 1 ○ Class 2 ● Class 3 ○ Class 4
f. Incident on Federal Land ○ Yes ● No

4. Type of leak or rupture
○ Leak ○ Pinhole ○ Connection Failure *(complete sec. F5)*
○ Puncture, diameter or cross section *(inches)* ____
○ Rupture (if applicable):
○ Circumferential – Separation
○ Longitudinal
- Tear/ Crack, length *(inches)* ____
- Propagation Length, total, both sides *(feet)* ____
○ N/ A
● Other: ROCK IMPINGEMENT CRACK

5. Consequences *(check and complete all that apply)*
a. [ ] Fatality Total number of people: 0
Employees: 0 *General Public:* 0
Non-employee Contractors: 0
b. [x] Injury requiring inpatient hospitalization
Total number of people: 1
Employees: 0 *General Public:* 1
Non-employee Contractors: 0
c. [x] Property damage/ loss *(estimated)* Total $ 55200
Gas loss $ 200 Operator damage $ 5000
Public private property damage $ 50000
d. [x] Gas ignited ● Explosion ○ No Explosion
e. [ ] Gas did not ignite ○ Explosion ○ No Explosion
f. [x] Evacuation *(general public only)* 5 people
Evacuation Reason:
○ Unknown
○ Emergency worker or public official ordered, precautionary
○ Threat to the public
● Company policy

6. Elapsed time until area was made safe:
8 hr. 45 min.

7. Telephone Report
893436 NRC Report Number | 12/27/2008 month day year

8. a. Estimated pressure at point and time of incident:
40 *PSIG*
b. Max. allowable operating pressure *(MAOP)*: 60 *PSIG*
c. MAOP established by:
● Test Pressure 90 psig
○ 49 CFR § 192. 619 (a)(3)

PART B – PREPARER AND AUTHORIZED SIGNATURE

MIKE FAULKENBERRY
(type or print) Preparer's Name and Title

5094958499
Area Code and Telephone Number

MIKE.FAULKENBERRY@AVISTACORP.COM
Preparer's E-mail Address

Area Code and Facsimile Number

Authorized Signature (type or print) Name and Title Date Area Code and Telephone Number

PART C - ORIGIN OF THE INCIDENT

1 Incident occurred on
- ● Main
- ○ Meter Set
- ○ Service Line
- ○ Other: _____
- ○ Pressure Limiting and Regulating Facility

2 Failure occurred on
- ● Body of pipe
- ○ Pipe Seam
- ○ Joint
- ○ Component
- ○ Other: _____

3 Material involved *(pipe, fitting, or other component)*
- ○ Steel
- ○ Cast /Wrought Iron
- ● Polyethelene Plastic (complete all items that apply in a-c)
- ○ Other Plastic (complete all items that apply in a-c)
  - Plastic failure was: ☒ a.ductile ☐ b.brittle ☐ c.joint failure
- ○ Other material: _____

4 Year the pipe or component which failed was installed: 1981

PART D – MATERIAL SPECIFICATION (if applicable)

1 Nominal pipe size *(NPS)* 2 in.

2 Wall thickness .22 in.

3 Specification PE 2406 SMYS

4 Seam type _____

5 Valve type _____

6 Pipe or valve manufactured by UPONOR in year 1981

PART E – ENVIRONMENT

1. Area of incident
   - ○ Under pavement
   - ○ Under ground
   - ● Inside under building
   - ○ In open ditch
   - ○ Above ground
   - ○ Under water
   - ○ Other: _____
2. Depth of cover: 35 inches

PART F – APPARENT CAUSE

Important: There are 25 numbered causes in this section. Check the box to the left of the primary cause of the incident. Check one circle in each of the supplemental items to the right of or below the cause you indicate. See the instructions for this form for guidance.

F1 – CORROSION

If either F1 (1) External Corrosion, or F1 (2) Internal Corrosion is checked, complete all subparts a – e.

1 ○ External Corrosion

a. Pipe Coating
- ○ Bare
- ○ Coated
- ○ Unknown

b. Visual Examination
- ○ Localized Pitting
- ○ General Corrosion
- ○ Other: _____

c. Cause of Corrosion
- ○ Galvanic
- ○ Stray Current
- ○ Improper Cathodic Protection
- ○ Microbiological
- ○ Other: _____

d. Was corroded part of pipeline considered to be under cathodic protection prior to discovering incident?
○ No ○ Yes ○ Unknown Year Protection Started:

2 ○ Internal Corrosion

e. Was pipe previously damaged in the area of corrosion?
○ No ○ Yes ◉ Unknown How long prior to incident: _____ *years* _____ *months*

F2 – NATURAL FORCES

3 ○ Earth Movement ⇒ ○ Earthquake ○ Subsidence ○ Landslide ○ Other: _____

4 ○ Lightning

5 ○ Heavy Rains Floods ⇒ ○ Washouts ○ Flotation ○ Mudslide ○ Scouring ○ Other: _____

6 ○ Temperature ⇒ ○ Thermal stress ○ Frost heave ○ Frozen components ○ Other: _____

7 ○ High Winds

F3 – EXCAVATION

8 ○ Operator Excavation Damage *(including their contractors)*/ Not Third Party

9 ○ Third Party Excavation Damage *(complete a-d)*

a. Excavator group
○ General Public ○ Government ○ Excavator other than Operator subcontractor

b. Type: ○ Road Work ○ Pipeline ○ Water ○ Electric ○ Sewer ○ Phone/ Cable Fiber ○ Landowner ○ Railroad
○ Building Construction ○ Other: _____

c. Did operator get prior notification of excavation activity?
○ No ○ Yes: Date received:
Notification received from: ○ One Call System ○ Excavator ○ General Contractor ○ Landowner

d. Was pipeline marked?
○ No ○ Yes *(If Yes, check applicable items i – iv)*
- i. Temporary markings: ○ Flags ○ Stakes ○ Paint
- ii. Permanent markings: ○ Yes ○ No
- iii. Marks were *(check one)* ○ Accurate ○ Not Accurate
- iv. Were marks made within required time? ○ Yes ○ No

F4 – OTHER OUTSIDE FORCE DAMAGE

10 ○ Fire/Explosion as primary cause of failure ⇒ Fire Explosion cause: ○ Man made ○ Natural *Describe in Part G*

11 ○ Car, truck or other vehicle not relating to excavation activity damaging pipe

12 ○ Rupture of Previously Damaged Pipe

13 ○ Vandalism

F5 – MATERIAL OR WELDS

Material

11. ● Body of Pipe ⇒ ○ Dent ○ Gouge ○ Wrinkle Bend ○ Arc Burn ● Other: ROCK IMPINGEMENT CRACK

15. ◘ Component ⇒ ○ Valve ○ Fitting ○ Vessel ○ Extruded Outlet ○ Other: _____

16. ○ Joint ⇒ ○ Gasket ○ O-Ring ○ Threads ○ Fusion ○ Other: _____

Weld

17. ○ Butt ⇒ ○ Pipe ○ Fabrication ○ Other: _____

18. ○ Fillet ⇒ ○ Branch ○ Hot Tap ○ Fitting ○ Repair Sleeve ○ Other: _____

19. ○ Pipe Seam ⇒ ○ LF ERW ○ HF ERW ○ DSAW ○ SAW ○ Seamless ○ Spiral ○ Flash Weld ○ Other: _____

*Complete a-f if you indicate **any** cause in part F5.*

a. Type of failure:

✕ Construction Defect ⇒ ● Poor Workmanship ○ Procedure not followed ○ Poor Construction Procedures

Material Defect

b. Was failure due to pipe damage sustained in transportation to the construction or fabrication site? ○ Yes ● No

c. Was part which leaked pressure tested before incident occurred? ● Yes, *complete d-f, if known* ○ No

d. Date of test: 8/11/1981

e. Time held at test pressure: _____ hr

f. Estimated test pressure at point of incident: 90 *PSIG*

F6 – EQUIPMENT OR OPERATIONS

20. ○ Malfunction of Control /Relief Equipment ⇒ ○ Valve ○ Instrumentation ○ Pressure Regulator ○ Other: _____

21. ○ Threads Stripped, Broken Pipe Coupling ⇒ ○ Nipples ○ Valve Threads ○ Mechanical Couplings ○ Other: _____

22. ○ Leaking Seals

23. ○ Incorrect Operation

a. Type: ○ Inadequate Procedures ○ Inadequate Safety Practices ○ Failure to Follow Procedures ○ Other: _____

b. Number of employees involved in incident who failed post-incident drug test: _____ Alcohol test:

c. Was person involved in incident qualified per OQ rule? ○ Yes ○ No d. Hours on duty for person involved:

F7 – OTHER

24. ○ Miscellaneous, *describe:* _____

25. ○ Unknown

○ Investigation Complete ○ Still Under Investigation *(submit a supplemental report when investigation is complete)*

PART G – NARRATIVE DESCRIPTION OF FACTORS CONTRIBUTING TO THE EVENT *(Attach additional sheets as necessary)*

ROCK IMPINGEMENT APPEARS TO HAVE CAUSED CRACK IN P.E. PIPE WALL. SNOW AND FROST IN GROUND CAUSED GAS TO MIGRATE TO NEARBY STRUCTURE. GAS ACCUMULATED IN UNDERGROUND AREA OF STRUCTURE AFTER PASSING THROUGH CRACK IN WALL. ONE RESIDENT STATED THAT HE ENTERED GARAGE STRUCTURE AND LIT A CIGARETTE WHICH IS ASSUMED TO BE THE IGNITION SOURCE.