

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 that such violation persists except that the maximum civil penalty shall not exceed \$1,000,000 as provided in 49 USC 60122.

OMB NO: 2137-0522
EXPIRATION DATE: 8/31/2020



U.S Department of Transportation
Pipeline and Hazardous Materials Safety Administration

Original Report
Date:

10/21/2020

No.

20200101- 34454

(DOT Use Only)

INCIDENT REPORT - GAS DISTRIBUTION SYSTEM

A federal agency may not conduct or sponsor, and a person is not required to respond to, nor shall a person be subject to a penalty for failure to comply with a collection of information subject to the requirements of the Paperwork Reduction Act unless that collection of information displays a current valid OMB Control Number. The OMB Control Number for this information collection is 2137-0522. All responses to this collection of information are mandatory. Send comments regarding the burden or any other aspect of this collection of information, including suggestions for reducing the burden to: Information Collection Clearance Officer, PHMSA, Office of Pipeline Safety (PHP-30) 1200 New Jersey Avenue, SE, Washington, D.C. 20590.

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 PHMSA Pipeline Safety Community Web Page at <http://www.phmsa.dot.gov/pipeline/library/forms>.

PART A - KEY REPORT INFORMATION

Report Type: (select all that apply)	Original:	Supplemental:	Final:
		Yes	Yes
Last Revision Date	10/29/2020		
1. Operator's OPS-issued Operator Identification Number (OPID):	30750		
2. Name of Operator	MIDAMERICAN ENERGY COMPANY		
3. Address of Operator:			
3a. Street Address	401 DOUGLAS STREET PO BOX 778		
3b. City	SIOUX CITY		
3c. State	Iowa		
3d. Zip Code	51102		
4. Local time (24-hr clock) and date of the Incident:	09/24/2020 21:36		
5. Location of Incident:			
5a. Street Address or location description	400 Beach Avenue		
5b. City	Dell Rapids		
5c. County or Parish	Minnehaha		
5d. State:	South Dakota		
5e. Zip Code:	57022		
5f. Latitude / Longitude	43.82347, -96.70168		
6. National Response Center Report Number:	1288248		
7. Local time (24-hr clock) and date of initial telephonic report to the National Response Center:	09/25/2020 11:33		
8. Incident resulted from:	Unintentional release of gas		
9. Gas released:	Natural Gas		
- Other Gas Released Name:			
10. Estimated volume of gas released - Thousand Cubic Feet (MCF):	10.700		
11. Were there fatalities?	No		
- If Yes, specify the number in each category:			
11a. Operator employees			
11b. Contractor employees working for the Operator			
11c. Non-Operator emergency responders			
11d. Workers working on the right-of-way, but NOT associated with this Operator			
11e. General public			
11f. Total fatalities (sum of above)			
12. Were there injuries requiring inpatient hospitalization?	No		
- If Yes, specify the number in each category:			
12a. Operator employees			
12b. Contractor employees working for the Operator			
12c. Non-Operator emergency responders			
12d. Workers working on the right-of-way, but NOT associated with this Operator			
12e. General public			
12f. Total injuries (sum of above)			
13. Was the pipeline/facility shut down due to the incident?	Yes		
- If No, Explain:			
- If Yes, complete Questions 13a and 13b: (use local time, 24-hr clock)			

13a. Local time and date of shutdown:	09/24/2020 23:15
13b. Local time pipeline/facility restarted:	09/25/2020 17:00
- Still shut down? (* Supplemental Report Required)	
14. Did the gas ignite?	Yes
15. Did the gas explode?	No
16. Number of general public evacuated:	3
17. Time sequence (use local time, 24-hour clock):	
17a. Local time operator identified Incident - effective 10-2014, "Incident" changed to "failure"	09/24/2020 21:36
17b. Local time operator resources arrived on site:	09/24/2020 22:17
PART B - ADDITIONAL LOCATION INFORMATION	
1. Was the Incident on Federal land?	No
2. Location of Incident	Public property
3. Area of Incident:	Underground
Specify:	Under soil
If Other, Describe:	
Depth of Cover:	1
4. Did Incident occur in a crossing?	No
- If Yes, specify type below:	
- If Bridge crossing –	
Cased/ Uncased:	
- If Railroad crossing –	
Cased/ Uncased/ Bored/drilled	
- If Road crossing –	
Cased/ Uncased/ Bored/drilled	
- If Water crossing –	
Cased/ Uncased	
Name of body of water (If commonly known):	
Approx. water depth (ft):	
PART C - ADDITIONAL FACILITY INFORMATION	
1. Indicate the type of pipeline system:	Investor Owned
- If Other, specify:	
2. Part of system involved in Incident:	Main
- If Other, specify:	
2a. Year "Part of system involved in Incident" was installed:	1994
3. When "Main" or "Service" is selected as the "Part of system involved in Incident" (from PART C, Question 2), provide the following:	
3a. Nominal diameter of pipe (in):	2
3b. Pipe specification (e.g., API 5L, ASTM D2513):	ASTM D2513
3c. Pipe manufacturer:	Plexco
3d. Year of manufacture:	1993
4. Material involved in Incident:	Plastic
- If Other, specify:	
4a. If Steel, Specify seam type:	
None/Unknown?	
4b. If Steel, Specify wall thickness (inches):	
4c. If Plastic, Specify type:	Polyethylene (PE)
- If Other, describe:	
4d. If Plastic, Specify Standard Dimension Ratio (SDR):	11.0
Or wall thickness:	
4e. If Polyethylene (PE) is selected as the type of plastic in Part C, Question 4.c:	
- Specify PE Pipe Material Designation Code (i.e. 2406, 3408, etc.)	2406
Unknown?	
5. Type of release involved :	Mechanical Puncture
- If Mechanical Puncture - Specify Approx size:	
Approx. size: in. (axial):	21.00
in. (circumferential):	1.50
- If Leak - Select Type:	
- If Other, Describe:	
- If Rupture - Select Orientation:	
- If Other, Describe:	
Approx. size: (widest opening):	
(length circumferentially or axially):	
- If Other - Describe:	

PART D - ADDITIONAL CONSEQUENCE INFORMATION	
1. Class Location of Incident :	Class 3 Location
2. Estimated Property Damage :	
2a. Estimated cost of public and non-Operator private property damage paid/reimbursed by the Operator – effective 6-2011, "paid/reimbursed by the Operator" removed	\$ 350,000
Estimated cost of gas released – effective 6-2011, moved to item 2f	
2b. Estimated cost of Operator's property damage & repairs	\$ 679
2c. Estimated cost of Operator's emergency response	\$ 4,576
2d. Estimated other costs	\$ 0
- Describe:	
2e. Property damage subtotal (sum of above)	\$ 355,255
Cost of Gas Released	
2f. Estimated cost of gas released	\$ 22
Total of all costs	\$ 355,277
3. Estimated number of customers out of service:	
3a. Commercial entities	1
3b. Industrial entities	0
3c. Residences	0
PART E - ADDITIONAL OPERATING INFORMATION	
1. Estimated pressure at the point and time of the Incident (psig):	43.00
2. Normal operating pressure at the point and time of the Incident (psig):	45.00
3. Maximum Allowable Operating Pressure (MAOP) at the point and time of the Incident (psig):	50.00
4. Describe the pressure on the system relating to the Incident:	Pressure did not exceed MAOP
5. Was a Supervisory Control and Data Acquisition (SCADA) based system in place on the pipeline or facility involved in the Incident?	No
- If Yes:	
5a. Was it operating at the time of the Incident?	
5b. Was it fully functional at the time of the Incident?	
5c. Did SCADA-based information (such as alarm(s), alert(s), event (s), and/or volume or pack calculations) assist with the detection of the Incident?	
5d. Did SCADA-based information (such as alarm(s), alert(s), event (s), and/or volume calculations) assist with the confirmation of the Incident?	
6. How was the Incident initially identified for the Operator?	Notification from Emergency Responder
- If Other, Specify:	
6a. If "Controller", "Local Operating Personnel, including contractors", "Air Patrol", or "Ground Patrol by Operator or its contractor" is selected in Question 6, specify.	
7. Was an investigation initiated into whether or not the controller(s) or control room issues were the cause of or a contributing factor to the Incident?	No, the facility was not monitored by a controller(s) at the time of the Incident
- If "No, the operator did not find that an investigation of the controller(s) actions or control room issues was necessary due to:" (provide an explanation for why the operator did not investigate)	
- If Yes, Specify investigation result(s) (select all that apply):	
- Investigation reviewed work schedule rotations, continuous hours of service (while working for the Operator), and other factors associated with fatigue	
- Investigation did NOT review work schedule rotations, continuous hours of service (while working for the Operator), and other factors associated with fatigue	
- Provide an explanation for why not:	
- Investigation identified no control room issues	
- Investigation identified no controller issues	
- Investigation identified incorrect controller action or controller error	
- Investigation identified that fatigue may have affected the controller (s) involved or impacted the involved controller(s) response	
- Investigation identified incorrect procedures	
- Investigation identified incorrect control room equipment operation	
- Investigation identified maintenance activities that affected control room operations, procedures, and/or controller response	
- Investigation identified areas other than those above	

Describe:	
PART F - DRUG & ALCOHOL TESTING INFORMATION	
1. As a result of this Incident, were any Operator employees tested under the post-accident drug and alcohol testing requirements of DOT's Drug & Alcohol Testing regulations?	No
- If Yes:	
1a. How many were tested:	
1b. How many failed:	
2. As a result of this Incident, were any Operator contractor employees tested under the post-accident drug and alcohol testing requirements of DOT's Drug & Alcohol Testing regulations?	No
- If Yes:	
2a. How many were tested:	
2b. How many failed:	
PART G - CAUSE INFORMATION	
<i>Select only one box from PART G in shaded column on left representing the Apparent Cause of the Incident, and answer the questions on the right. Describe secondary, contributing, or root causes of the Incident in the narrative (PART H).</i>	
Apparent Cause:	G3 - Excavation Damage
G1 - Corrosion Failure – only one sub-cause can be picked from shaded left-hand column	
Corrosion Failure Sub-Cause:	
- If External Corrosion:	
1. Results of visual examination:	
- If Other, Specify:	
2. Type of corrosion:	
- Galvanic	
- Atmospheric	
- Stray Current	
- Microbiological	
- Selective Seam	
- Other	
- If Other, Describe:	
3. The type(s) of corrosion selected in Question 2 is based on the following:	
- Field examination	
- Determined by metallurgical analysis	
- Other	
- If Other, Describe:	
4. Was the failed item buried under the ground?	
- If Yes:	
4a. Was failed item considered to be under cathodic protection at the time of the incident?	
- If Yes, Year protection started:	
4b. Was shielding, tenting, or disbonding of coating evident at the point of the incident?	
4c. Has one or more Cathodic Protection Survey been conducted at the point of the incident?	
If "Yes, CP Annual Survey" – Most recent year conducted:	
If "Yes, Close Interval Survey" – Most recent year conducted:	
If "Yes, Other CP Survey" – Most recent year conducted:	
- If No:	
4d. Was the failed item externally coated or painted?	
5. Was there observable damage to the coating or paint in the vicinity of the corrosion?	
6. Pipeline coating type, if steel pipe is involved:	
- If Other, Describe:	
- If Internal Corrosion:	
7. Results of visual examination:	
- If Other, Describe:	
8. Cause of corrosion <i>(select all that apply)</i> :	
- Corrosive Commodity	
- Water drop-out/Acid	
- Microbiological	

- Erosion	
- Other	
- If Other, Specify:	
9. The cause(s) of corrosion selected in Question 8 is based on the following: <i>(select all that apply)</i> :	
- Field examination	
- Determined by metallurgical analysis	
- Other	
- If Other, Describe:	
10. Location of corrosion <i>(select all that apply)</i> :	
- Low point in pipe	
- Elbow	
- Drop-out	
- Other	
- If Other, Describe:	
11. Was the gas/fluid treated with corrosion inhibitor or biocides?	
12. Were any liquids found in the distribution system where the Incident occurred?	
Complete the following if any Corrosion Failure sub-cause is selected AND the "Part of system involved in incident" (from PART C, Question 2) is Main, Service, or Service Riser.	
13. Date of the most recent Leak Survey conducted	
14. Has one or more pressure test been conducted since original construction at the point of the Incident?	
- If Yes:	
Most recent year tested:	
Test pressure:	
G2 – Natural Force Damage – only one sub-cause can be picked from shaded left-handed column	
Natural Force Damage – Sub-Cause:	
- If Earth Movement, NOT due to Heavy Rains/Floods:	
1. Specify:	
- If Other, Specify:	
- If Heavy Rains/Floods:	
2. Specify:	
- If Other, Specify:	
- If Lightning:	
3. Specify:	
- If Temperature:	
4. Specify:	
- If Other, Specify:	
- If Other Natural Force Damage:	
5. Describe:	
Complete the following if any Natural Force Damage sub-cause is selected.	
6. Were the natural forces causing the Incident generated in conjunction with an extreme weather event?	
6.a If Yes, specify <i>(select all that apply)</i> :	
- Hurricane	
- Tropical Storm	
- Tornado	
- Other	
- If Other, Specify:	
G3 – Excavation Damage – only one sub-cause can be picked from shaded left-hand column	
Excavation Damage – Sub-Cause:	Excavation Damage by Third Party
- If Previous Damage due to Excavation Activity: Complete the following ONLY IF the "Part of system involved in Incident" (from Part C, Question 2) is Main, Service, or Service Riser.	
1. Date of the most recent Leak Survey conducted	
2. Has one or more pressure test been conducted since original construction at the point of the Incident?	
- If Yes:	
Most recent year tested:	
Test pressure:	
Complete the following if Excavation Damage by Third Party is selected.	

3. Did the operator get prior notification of the excavation activity?	No
3a. If Yes, Notification received from: <i>(select all that apply)</i> :	
- One-Call System	
- Excavator	
- Contractor	
- Landowner	
Complete the following mandatory CGA-DIRT Program questions if any Excavation Damage sub-cause is selected.	
4. Do you want PHMSA to upload the following information to CGA-DIRT (www.cga-dirt.com)?	Yes
5. Right-of-Way where event occurred <i>(select all that apply)</i> :	
- Public	Yes
- If Public, Specify:	City Street
- Private	
- If Private, Specify:	
- Pipeline Property/Easement	
- Power/Transmission Line	
- Railroad	
- Dedicated Public Utility Easement	
- Federal Land	
- Data not collected	
- Unknown/Other	
6. Type of excavator :	Contractor
7. Type of excavation equipment :	Unknown/Other
8. Type of work performed :	Curb/Sidewalk
9. Was the One-Call Center notified?	No
9a. If Yes, specify ticket number:	
9b. If this is a State where more than a single One-Call Center exists, list the name of the One-Call Center notified:	
10. Type of Locator:	
11. Were facility locate marks visible in the area of excavation?	
12. Were facilities marked correctly?	
13. Did the damage cause an interruption in service?	Yes
13a. If Yes, specify duration of the interruption:	18
14. Description of the CGA-DIRT Root Cause <i>(select only the one predominant first level CGA-DIRT Root Cause and then, where available as a choice, the one predominant second level CGA-DIRT Root Cause as well)</i> :	
- Root Cause Description:	One-Call Notification Practices Not Sufficient
- If One-Call Notification Practices Not Sufficient, specify:	No notification made to the One-Call Center
- If Locating Practices Not Sufficient, specify:	
- If Excavation Practices Not Sufficient, specify:	
- If Other/None of the Above, explain:	
G4 - Other Outside Force Damage - only one sub-cause can be selected from the shaded left-hand column	
Other Outside Force Damage – Sub-Cause:	
- If Damage by Car, Truck, or Other Motorized Vehicle/Equipment NOT Engaged in Excavation:	
1. Vehicle/Equipment operated by:	
- If Damage by Boats, Barges, Drilling Rigs, or Other Maritime Equipment or Vessels Set Adrift or Which Have Otherwise Lost Their Mooring:	
2. Select one or more of the following IF an extreme weather event was a factor:	
- Hurricane	
- Tropical Storm	
- Tornado	
- Heavy Rains/Flood	
- Other	
- If Other, Specify:	
- If Previous Mechanical Damage NOT Related to Excavation: Complete the following ONLY IF the "Part of system involved in Incident" (from Part C, Question 2) is Main, Service, or Service Riser.	
3. Date of the most recent Leak Survey conducted:	
4. Has one or more pressure test been conducted since original construction at the point of the Incident?	
- If Yes:	
Most recent year tested:	
Test pressure (psig):	
- If Intentional Damage:	
5. Specify:	

	- If Other, Specify:	
- If Other Outside Force Damage:		
6. Describe:		
G5 - Pipe, Weld, or Joint Failure - only one sub-cause can be selected from the shaded left-hand column		
Pipe, Weld or Joint Failure – Sub-Cause:		
- If Body of Pipe:		
1. Specify:		
	- If Other, Describe:	
- If Butt Weld:		
2. Specify:		
	- If Other, Describe:	
- If Fillet Weld:		
3. Specify:		
	- If Other, Describe:	
- If Pipe Seam:		
4. Specify:		
	- If Other, Describe:	
- If Mechanical Fitting:		
5. Specify the mechanical fitting involved:		
	- If Other, Describe:	
6. Specify the type of mechanical fitting:		
	- If Other, Describe:	
7. Manufacturer:		
8. Year manufactured:		
9. Year installed:		
10. Other attributes:		
11. Specify the two materials being joined:		
11a. First material being joined:		
	- If Other, Specify:	
11b. If Plastic, specify:		
	- If Other Plastic, specify:	
11c. Second material being joined:		
	- If Other, Specify:	
11d. If Plastic, specify:		
	- If Other Plastic, Specify:	
12. If used on plastic pipe, did the fitting – as designed by the manufacturer – include restraint?		
12a. If Yes, specify:		
- If Compression Fitting:		
13. Fitting type:		
14. Manufacturer:		
15. Year manufactured:		
16. Year installed:		
17. Other attributes:		
18. Specify the two materials being joined:		
18a. First material being joined:		
	- If Other, specify:	
18b. If Plastic, specify:		
	- If Other Plastic, specify:	
18c. Second material being joined:		
	If Other, specify:	
18d. If Plastic, specify:		
	- Other Plastic, specify:	
- If Fusion Joint:		
19. Specify:		
	- If Other, Specify:	
20. Year installed:		
21. Other attributes:		
22. Specify the two materials being joined:		
22a. First material being joined:		
	- If Other, Specify:	
22b. Second material being joined:		

	- If Other, Specify:	
- If Other Pipe, Weld, or Joint Failure:		
23. Describe:		
Complete the following if any Pipe, Weld, or Joint Failure sub-cause is selected.		
24. Additional Factors (<i>select all that apply</i>):		
- Dent		
- Gouge		
- Pipe Bend		
- Arc Burn		
- Crack		
- Lack of Fusion		
- Lamination		
- Buckle		
- Wrinkle		
- Misalignment		
- Burnt Steel		
- Other		
	- If Other, Specify:	
25. Was the Incident a result of:		
- Construction defect		
	Specify:	
- Material defect		
	Specify:	
	- If Other, Specify:	
- Design defect		
- Previous damage		
26. Has one or more pressure test been conducted since original construction at the point of the Incident?		
- If Yes:		
	Most recent year tested:	
	Test pressure:	
G6 - Equipment Failure - only one sub-cause can be selected from the shaded left-hand column		
Equipment Failure – Sub-Cause:		
- If Malfunction of Control/Relief Equipment:		
1. Specify:		
- Control Valve		
- Instrumentation		
- SCADA		
- Communications		
- Block Valve		
- Check Valve		
- Relief Valve		
- Power Failure		
- Stopple/Control Fitting		
- Pressure Regulator		
- Other		
	- If Other, Specify:	
- If Threaded Connection Failure:		
2. Specify:		
	- If Other, Specify:	
- If Non-threaded Connection Failure:		
3. Specify:		
	- If Other, Specify:	
- If Valve:		
4. Specify:		
	- If Other, Specify:	
4a. Valve type:		
4b. Manufactured by:		
4c. Year manufactured:		
- If Other Equipment Failure:		
5. Describe:		

G7 - Incorrect Operation - only one sub-cause can be selected from the shaded left-hand column	
Incorrect Operation Sub-Cause:	
- If Other Incorrect Operation:	
1. Describe:	
Complete the following if any Incorrect Operation sub-cause is selected.	
2. Was this Incident related to: (select all that apply)	
- Inadequate procedure	
- No procedure established	
- Failure to follow procedure	
- Other	
- If Other, Describe:	
3. What category type was the activity that caused the Incident:	
4. Was the task(s) that led to the Incident identified as a covered task in your Operator Qualification Program?	
4a. If Yes, were the individuals performing the task(s) qualified for the task(s)?	
G8 - Other Incident Cause - only one sub-cause can be selected from the shaded left-hand column	
Other Incident Cause – Sub-Cause:	
- If Miscellaneous:	
1. Describe:	
- If Unknown:	
2. Specify:	
PART H - NARRATIVE DESCRIPTION OF THE INCIDENT	
<p>BX Civil & Construction (third party contractor) was doing fine grading in preparation for installing curb and gutter along Beach Avenue in Dell Rapids, South Dakota on the evening of September 24, 2020. Previous street grading by Zacharias Construction, Inc. had lowered the street grade significantly (approximately 36") and reduced the cover over a two inch plastic natural gas main to approximately one inch. MidAmerican Energy was not aware that the street grade had been reduced to a level that would conflict with the existing facilities prior to the event. The machine scraped along the top of the main until it broke through releasing natural gas at 43 psig under the machine. The gas ignited and the fire department responded. MidAmerican Energy was notified at 21:36 and arrived on site at 22:17. The main was squeezed off at approximately 23:15 shutting off the flow of gas to the fire.</p> <p>The excavator's equipment, 5700C Power Curber, was assessed for damage the next morning and it was determined that the extent of damage was estimated to be \$350,000. Once the estimate of damage was determined to be in excess of \$50,000, the NRC was notified (report 1288248). There were no injuries, the gas did not explode, and one house was evacuated by the excavator as a precaution.</p> <p>Subsequent NRC reports associated with this incident are 1288388 for a correction on the date and 1288446 for the 48 hour follow up.</p>	
PART I - PREPARER AND AUTHORIZED SIGNATURE	
Preparer's Name	Christopher R. Payer
Preparer's Title	Senior Engineer
Preparer's Telephone Number	712-277-7941
Preparer's E-mail Address	Chris.Payer@midamerican.com
Preparer's Facsimile Number	
Authorize Signature's Name	Dehn Stevens
Authorized Signature's Title	Vice President Gas Delivery
Authorized Signature's Email Address	Dehn.Stevens@midamerican.com