

ATTACHMENT E



RECEIVED

JAN 05 2012

PUBLIC SERVICE
COMMISSION

January 5, 2012

Mr. John Shupp
Manager Electrical Branch
Division of Engineering
Kentucky Public Service Commission
211 Sower Blvd.
P.O. Box 615
Frankfort, KY 40602

LG&E and KU Energy LLC
Law Department
220 West Main Street
P.O. Box 32030
Louisville, Kentucky 402
www.lge-ku.com

Jim Dimas
Senior Corporate Attorney
T 502-627-3712
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Jim.dimas@lge-ku.com

**Re: 5206 River Trail Place
Louisville, KY 40299
11-ED-G- 031**

Dear Mr. Shupp:

I am forwarding the attached Investigation Report prepared by Keith McBride and Brian Claypool regarding the above-referenced incident. This report is being submitted as required by Section 26 of 807 KAR 5:006. Please return in the enclosed self addressed stamped envelope a copy of the filed report.

If you need additional information concerning this incident, please contact me at (502) 627-3712 so I can direct your request to the appropriate person.

Sincerely,

A handwritten signature in black ink that reads 'Jim Dimas / mn'.

Jim Dimas

JD/mn

Enclosure

KPSC INVESTIGATION REPORT

Fire / Explosion Investigation

Type of Report

11-ED-G- 031

Report Number

Keith McBride / Brian Claypool

Investigator

December 6, 2011

Date of Fire / Incident

Reference: **Fire / Explosion Involving Natural Gas**

RECEIVED

Location: **5206 River Trail Place, Jefferson County
Louisville, Kentucky 40229**

JAN 05 2012

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Case Summary

On December 6, 2011 at 03:54 Louisville Gas and Electric Company ("LG&E") received a phone call reporting a possible natural gas leak outside a residence at 5202 River Trail Place. A Gas Trouble Technician was dispatched to the address at 03:57.

At approximately 07:03 an explosion occurred at 5206 River Trail Place.

Keith McBride, LG&E Fire and Security Investigator notified the Kentucky Public Service Commission of the incident.

Response and Actions

On December 6, 2011 at 03:54 LG&E received a phone call reporting a possible natural gas leak outside a residence at 5202 River Trail Place. A Gas Trouble Technician was dispatched to the address at 03:57.

Prior to arriving on scene, the Gas Trouble Technician, Kenneth Peavler, spoke with a woman at 5202 River Trail Place over the phone and she advised him that she detected an odor of natural gas outside in front of the home. The Gas Trouble Technician arrived on scene at 04:30.

Mr. Peavler stated that he used a GMI/GT First Responder unit to check for natural gas leaks at and around the meter and along the service line at 5202 River Trail

Place. He stated that he did not detect any natural gas at this address. Mr. Peavler stated that he then went to the adjoining properties to the left and right of 5202 River Trail Place and again, did not detect any natural gas.

Mr. Peavler stated that as he was crossing the street to check for any odor of natural gas, he detected a strong odor of natural gas coming from the intersection of River Trail Place and Queens Castle Road. He stated that he tested the sanitary sewers and did not detect any natural gas. Mr. Peavler stated that he did detect high readings of natural gas in the storm sewer catch basins in front of 5206 River Trail Place.

Mr. Peavler stated that he returned to the truck and brought the system map up on his computer. He stated that he found that there were no natural gas services in the area where he had detected high readings of natural gas.

Mr. Peavler stated that at approximately 05:12, he requested a Gas Distribution Construction Crew to be sent to 5206 River Trail Place to assist. Mr. Peavler stated that he returned to the truck and called 811 for an emergency underground utility locate.

The two man LG&E construction crew consisting of Steve Sumner, LG&E Gas Distribution Crew Leader and Roderick Allen, LG&E Gas Distribution Mechanic-A, arrived on scene at approximately 06:52. After Mr. Peavler and the construction crew surveyed the area, the Crew Leader, Mr. Sumner, decided to call for an additional construction crew to the scene and was checking the system map to see where any fittings were on the natural gas main. While Mr. Sumner was on the phone with his Supervisor at approximately 07:03, an explosion occurred at 5206 River Trail Place. Mr. Sumner's Supervisor notified 911.

After the explosion Mr. Sumner and Mr. Allen ran to the house. Both stated that the garage had exploded and they thought that there were people inside of the vehicles that were located inside of the garage. Mr. Sumner stated that after finding no one inside of either vehicle, a small fire was seen burning to the right of the garage on the front porch. Both Mr. Sumner and Mr. Allen went to retrieve a fire extinguisher from a truck but, when they returned to the house, the fire was too large. Both Mr. Sumner and Mr. Allen stated that all three occupants of the house came out of the house via the front door. The three appeared to be uninjured.

Additional crews responded to the scene to allow for the natural gas mains to be excavated and crimped off at three different locations. The crimping involved one

four inch polyethylene (“PE”) main and one two inch PE main. The natural gas leak was mitigated at 08:20 and fires near the street subsided quickly and self extinguished.

Leak / Incident Investigation

Once the fires were extinguished and the natural gas system was shut down, an investigation into the source of the natural gas began.

During the scene investigation, it was discovered that water was coming from the natural gas regulator at 5206 River Trail Place, which was damaged in the explosion. Louisville Water Company representatives that were on scene were asked to test the water to see if this water contained chlorine. The water tested positive for chlorine indicating that the water was coming from the domestic water service. After separating the four inch main in front of 5202 River Trail Place, water was also found. Representatives of the Louisville Water Company tested this water and it tested positive for chlorine.

LG&E tested the natural gas at the site and measured appropriate levels of odorant. Results of these tests, along with other requested system and site documentation, were provided to the KPSC staff on December 14, 2011.

Investigators then began a search for a natural gas leak. The location of the first excavation in the search for the leak was in the area where the two inch main tied to the four inch main running in front of 5206 River Trail Place. Excavation uncovered the connection between the two and four inch natural gas mains and no damage to the natural gas mains at that location was found and no leaks were found at any of the fittings. No water was observed in this excavation.

A second excavation was started south of the first excavation closer to the street. The sidewalk running alongside of the street on the north side was excavated. When the sidewalk was broken, it exposed a large void under the sidewalk. Further excavation uncovered a portion of the four inch natural gas main and a portion of a three quarter inch copper Louisville Water Company service line. The PE natural gas main and the water service line were in a trench consisting of gravel, sand, and at least one brick.

Investigation of the natural gas main and water service found that the water service was running just beneath the PE natural gas main. The copper water service had a hole, approximately one half inch, and a crack, approximately one and a half inch.

The natural gas main had an oval hole in it on the side of the natural gas main facing the hole and crack found in the water service. The hole in the natural gas main was approximately one half inch. Further examination of the PE natural gas main found that, the area closest to the Louisville Water Company's leaking service had sustained severe exterior abrasions.

This Investigator has concluded that the abrasive and sandblasting power of the leaking water service line combined with the gravel, sand, and brick found in the utility trench eroded the exterior wall of the PE natural gas main causing the hole in the gas main.

END OF REPORT

DATE OF REPORT: JANUARY 5, 2012

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: 01/31/2014



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

Report Date:

01/05/2012

No.

20120001- 15375

(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. Public reporting for this collection of information is estimated to be approximately 10 hours per response, including the time for reviewing instructions, gathering the data needed, and completing and reviewing the collection of information. All responses to this collection of information are mandatory. Send comments regarding this burden estimate or any other aspect of this collection of information, including suggestions for reducing this 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>.

PART A - KEY REPORT INFORMATION

Report Type: (select all that apply)	Original:	Supplemental:	Final:
	Yes		Yes
Last Revision Date			
1. Operator's OPS-issued Operator Identification Number (OPID):	11824		
2. Name of Operator	LOUISVILLE GAS & ELECTRIC CO		
3. Address of Operator:			
3a. Street Address	220 W MAIN ST, PO BOX 32010		
3b. City	LOUISVILLE		
3c. State	Kentucky		
3d. Zip Code	40232		
4. Local time (24-hr clock) and date of the Incident:	12/06/2011 07:03		
5. Location of Incident:			
5a. Street Address or location description	5206 River Trail Place		
5b. City	Louisville		
5c. County or Parish	Jefferson		
5d. State:	Kentucky		
5e. Zip Code:	40299		
5f. Latitude:	38.10537		
Longitude:	-85.66293		
6. National Response Center Report Number:	997289		
7. Local time (24-hr clock) and date of initial telephonic report to the National Response Center:	12/06/2011 09:46		
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):	26.00		
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:	12/06/2011 08:20
13b. Local time pipeline/facility restarted:	12/07/2011 06:30
- Still shut down? (* Supplemental Report Required)	
14. Did the gas ignite?	Yes
15. Did the gas explode?	Yes
16. Number of general public evacuated:	10
17. Time sequence (use local time, 24-hour clock):	
17a. Local time operator identified Incident:	12/06/2011 07:03
17b. Local time operator resources arrived on site:	12/06/2011 07:03

PART B - ADDITIONAL LOCATION INFORMATION

1. Was the Incident on Federal land?	No
2. Location of Incident	Utility Right-of-way / Easement
3. Area of Incident:	Underground
	Specify: Under soil
	If Other, Describe:
	Depth of Cover:
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:	Natural Gas Distribution, privately 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:	2001
	Unknown?
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):	4
3b. Pipe specification (e.g., API 5L, ASTM D2513):	ASTM D2513
	Unknown?
3c. Pipe manufacturer:	Unknown?
	Yes
3d. Year of manufacture:	2000
	Unknown?
4. Material involved in Incident:	Plastic
	- If Other, specify:
4a. If Steel, Specify seam type:	None/Unknown?
4b. If Steel, Specify wall thickness (inches):	Unknown?
4c. If Plastic, Specify type:	Polyethylene (PE)
	- If Other, describe:
4d. If Plastic, Specify Standard Dimension Ratio (SDR):	11.5
	Or wall thickness:
	Unknown?
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 :	Other
- If Mechanical Puncture - Specify Approx size:	
	Approx. size: in. (axial):
	in. (circumferential):
- 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:	The natural gas main had an oval hole in it on the side of the natural gas main facing the hole and crack found in the [adjacent] water service. The hole in the natural gas main was approximately one half inch.

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	\$ 0
2b. Estimated cost of Operator's property damage & repairs	\$ 23,166
2c. Estimated cost of Operator's emergency response	\$ 2,784
2d. Estimated other costs	\$ 0
	- Describe:
2e. Total estimated property damage (sum of above)	\$ 25,950

Cost of Gas Released

2f. Estimated cost of gas released	\$ 122
3. Estimated number of customers out of service:	
3a. Commercial entities	0
3b. Industrial entities	0
3c. Residences	3

PART E - ADDITIONAL OPERATING INFORMATION

1. Estimated pressure at the point and time of the Incident (psig):	59.00
2. Normal operating pressure at the point and time of the Incident (psig):	60.00
3. Maximum Allowable Operating Pressure (MAOP) at the point and time of the Incident (psig):	60.00
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?	Yes
- If Yes:	
5a. Was it operating at the time of the Incident?	Yes
5b. Was it fully functional at the time of the Incident?	Yes
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?	No
5d. Did SCADA-based information (such as alarm(s), alert(s), event(s), and/or volume calculations) assist with the confirmation of the Incident?	No
6. How was the Incident initially identified for the Operator?	Local Operating Personnel, including contractors
6a. If "Controller", "Local Operating Personnel, including contractors", "Air Patrol", or "Ground Patrol by Operator or its contractor" is selected in Question 6, specify the following:	Operator employee
	- If Other, 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 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 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)	The incident investigation did not indicate any contributing factors that could be related to the control room or the controller.
- 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?	Yes
- If Yes:	
1a. Specify how many were tested:	3
1b. Specify how many failed:	0
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. Specify how many were tested:	
2b. Specify 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:	G4 - Other Outside Force 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 (select all that apply):	
- 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: (select all that apply):	
- Field examination	
- Determined by metallurgical analysis	
- Other	
	- If Other, Describe:
10. Location of corrosion (select all that apply):	
- 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 High Winds:	
- 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 (select all that apply):	
- 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:	
- If Excavation Damage by Operator (First Party):	
- If Excavation Damage by Operator's Contractor (Second Party):	

- If 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?	
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)?	
5. Right-of-Way where event occurred <i>(select all that apply)</i> :	
- Public	
- If Public, Specify:	
- 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 :	
7. Type of excavation equipment :	
8. Type of work performed :	
9. Was the One-Call Center notified?	
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?	
13a. If Yes, specify duration of the interruption:	
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:	
- If One-Call Notification Practices Not Sufficient, specify:	
- If Locating Practices Not Sufficient, specify:	
- If Excavation Practices Not Sufficient, specify:	
- If Other/None of the Above (explain), specify:	
G4 - Other Outside Force Damage - only one sub-cause can be selected from the shaded left-hand column	
Other Outside Force Damage – Sub-Cause:	Other Outside Force Damage
- If Nearby Industrial, Man-made, or Other Fire/Explosion as Primary Cause of Incident:	
- 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 Routine or Normal Fishing or Other Maritime Activity NOT Engaged in Excavation:	
- If Electrical Arcing from Other Equipment or Facility:	
- If Previous Mechanical Damage NOT Related to Excavation:	
<i>Complete the following ONLY IF the "Part of system involved in Incident" (from Part C, Question 2) is Main, Service, or Service Riser.</i>	
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:	<p>Examination of the PE natural gas main found that, the area closest to the Louisville Water Company's leaking service had sustained severe exterior abrasions.</p> <p>This investigation has concluded that the abrasive and sandblasting power of the leaking water service line combined with the gravel, sand, and brick found in the utility trench eroded the exterior wall of the PE natural gas main causing the hole in the gas main.</p>
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 Threaded Metallic Pipe:	
- 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 jointed:	
- Steel	
- Cast/Wrought Iron	
- Ductile Iron	
- Copper	

- Plastic	
- Unknown	
- Other	
	- If Other, Specify:
11b. If Plastic, specify:	
	- If Other Plastic, specify:
11c. Second material being joined:	
- Steel	
- Cast/Wrought Iron	
- Ductile Iron	
- Copper	
- Plastic	
- Unknown	
- Other	
	- 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:	
- Steel	
- Cast/Wrought Iron	
- Ductile Iron	
- Copper	
- Plastic	
- Unknown	
- Other	
	- If Other, specify:
18b. If Plastic, specify:	
	- If Other Plastic, specify:
18c. Second material being joined:	
- Steel	
- Cast/Wrought Iron	
- Ductile Iron	
- Copper	
- Plastic	
- Unknown	
- Other	
	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 (select all that apply):	
- Dent	
- Gouge	
- Pipe Bend	
- Arc Burn	

- Crack	
- Lack of Fusion	
- Lamination	
- Buckle	
- Wrinkle	
- Misalignment	
- Burnt Steel	
- Other	
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:	
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G7 - Incorrect Operation - only one sub-cause can be selected from the shaded left-hand column

Incorrect Operation Sub-Cause:

- If Damage by Operator or Operator's Contractor NOT Related to Excavation and NOT due to Motorized Vehicle/Equipment Damage:
- If Valve Left or Placed in Wrong Position, but NOT Resulting in an Overpressure:
- If Pipeline or Equipment Overpressured:
- If Equipment Not Installed Properly:
- If Wrong Equipment Specified or Installed:

- 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			
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PART I - PREPARER AND AUTHORIZED SIGNATURE			
Preparer's Name	Jim Dimas		
Preparer's Title	Senior Corporate Attorney		
Preparer's Telephone Number	502-627-3712		
Preparer's E-mail Address	jim.dimas@lge-ku.com		
Preparer's Facsimile Number	502.627-3367		
Authorized Signature			
Authorize Signature's Name	Jim Dimas		
Authorized Signature's Title	Senior Corporate Attorney		
Authorized Signature Telephone Number	502-627-3712		
Authorized Signature's Email Address	jim.dimas@lge-ku.com		
Date	01/05/2012		