

COMMONWEALTH OF MASSACHUSETTS
DEPARTMENT OF PUBLIC UTILITIES

RESPONSE OF COLUMBIA GAS OF MASSACHUSETTS TO THE
FIRST SET OF INFORMATION REQUESTS FROM THE D.P.U.
PIPELINE ENGINEERING AND SAFETY DIVISION

D.P.U. 19-PL-07 – Merrimack Valley Incident (9/13/18)

Date: September 26, 2019

Responsible: Robert V. Mooney, V.P. Engineering and Construction

- IR-PL-1-14: Please provide the following information regarding the Salem Street @ South Union Street Tie-in project that occurred on September 13, 2018:
- a) Scope of work to be performed;
 - b) Tie-in plan;
 - c) All procedures/plans provided to the tie-in crew;
 - d) Explain whether the abandonment procedure addressed the isolation of the cast iron main prior to abandonment (i.e., from the regulator station)? If so, provide the relevant procedure. If not, explain why it is not in the procedure;
 - e) Explain whether the CMA tie-in crew followed company main tie-in procedures;
 - f) Explain whether the CMA tie-in crew followed company abandonment procedures;
 - g) Specific requirements for the abandonment of a main that is connected to a regulator station;
 - h) Any information provided to the tie-in crew regarding the location of sensing lines on the cast iron main to be abandoned;
 - i) Operational notes and any supporting documentation used;
 - j) Names, titles, employing companies, and responsibilities of all personnel involved in the South Union Street Tie-in project from planning to completion, including the following:
 - i) Engineer;
 - ii) Inspector;
 - iii) Contracting crew;
 - iv) Any other personnel involved;
 - k) OQ records for all personnel referred to in IR-PL 1-10(j);
 - l) Post-incident Drug and Alcohol test results for personnel referred to in IR-PL 1-10(j);
 - m) Detailed timeline from start of workday until time of incident on September 13, 2018;
 - n) Detailed statement of what occurred on September 13, 2018, from each person referred to in IR-PL 1-10(j);
 - o) Actions taken by personnel referred to in IR-PL 1-10(j) upon discovery of incident, including how the tie-in crew determined that there was overpressurization and actions taken upon discovery of an overpressurization situation; and
 - p) All SCADA reports, trends, and logs from 13 Sept 2018 @ 1200 to 14 Sept 2018 @ 1200

Response:

a) Scope of work to be performed;

The Salem Street tie-in plan, found in the South Union Street Project work order packet for Job Order #16-0849062-00 at Attachment IR-PL-1-6(a) Pages 1383-1384 and 1418-1419, reflects the scope of work to be performed for the Salem Street @ South Union Street tie-in that occurred on September 13, 2018. As reflected in that tie-in plan, as a general matter, the scope of the work was to tie-in the Salem Street main to the new plastic main on South Union Street and disconnect the Salem Street main from the old cast-iron main.

b) Tie-in plan;

The executed tie-in plan for the Salem Street tie-in is found at Attachment IR-PL-1-6(c) at Pages 55-56.

c) All procedures/plans provided to the tie-in crew;

The tie-in plans and tie-in procedures cited in subpart (a) and subpart (b) were accessible to the Inspector who was on site with the tie-in crew on September 13, 2018.

d) Explain whether the abandonment procedure addressed the isolation of the cast iron main prior to abandonment (i.e., from the regulator station)? If so, provide the relevant procedure. If not, explain why it is not in the procedure;

The tie-in crew did not execute abandonment procedures on the cast iron main. The distribution system became over-pressurized shortly after the cast iron main was disconnected from the distribution system.

The Tie-In/Bypass Coversheet for the South Union Street Project included abandonment procedures in steps 9 through 12. Attachment IR-PL-1-6(c) at Page 32. The Tie-In/Bypass Coversheet also incorporated by reference the abandonment procedures stated in GS 1740.010(MA) ("Abandonment of Facilities").

e) Explain whether the CMA tie-in crew followed company main tie-in procedures;

Based on the testimony provided to the NTSB by the individuals on the tie-in crew, that crew appears to have followed the Salem Street tie-in plan. The NTSB testimony transcripts are available to DPU as a party to the NTSB investigation.

f) Explain whether the CMA tie-in crew followed company abandonment procedures;

As noted in response subpart (d) above, the tie-in crew did not execute abandonment procedures on the cast iron main. The distribution system became over-pressurized shortly after the cast iron main was disconnected from the distribution system.

- g) Specific requirements for the abandonment of a main that is connected to a regulator station;**

The Company's abandonment procedures are provided in the Response to IR-PL-1-5.

- h) Any information provided to the tie-in crew regarding the location of sensing lines on the cast iron main to be abandoned;**

The Company's Response to IR-PL-1-8 sets out the sensing line location information for the South Union @ Winthrop regulator station that was readily available through multiple documentary and departmental resources in CMA's Lawrence Operations Center, including to the project Inspectors who supervised the work of the construction crews and other Construction personnel. This sensing line location information was available to the Inspector who was on site with the tie-in crew on September 13, 2018, as were the as-built drawings from the work that was done on the South Union Street Project in 2016.

- i) Operational notes and any supporting documentation used;**

The documentation available to the Inspector who was overseeing the Salem Street tie-in work on September 13, 2018 is found in Attachment IR-PL-1-6(a), Attachment IR-PL-1-6(c), and Attachment IR-PL-1-6(d).

- j) Names, titles, employing companies, and responsibilities of all personnel involved in the South Union Street Tie-in project from planning to completion, including the following:**

- i) Engineer;**
- i) Inspector;**
- ii) Contracting crew;**
- iii) Any other personnel involved;**

The personnel primarily involved in the South Union Street tie-in from planning to completion includes:

Name	Title/Company	Employing Company	Responsibilities
	Field Engineer	Columbia Gas of Massachusetts	Attachments IR-PL-1-8(a) and (b)
	Inspector	Columbia Gas of Massachusetts	Attachment IR-PL-1-8(e)
	Construction Foreman	Feeney Brothers	Attachment IR-PL-1-8(f)
	Lead Laborer	Feeney Brothers	Execution of the work as reflected in the work in the work packet.
	Laborer	Feeney Brothers	
	Truck Driver	Feeney Brothers	

k) OQ records for all personnel referred to in IR-PL 1-10(j);

Operator qualification records for the personnel referred to in IR-PL 1-14(j) who are required to have operation qualifications are provided in Attachment IR-PL-1-8(k) (REDACTED), Attachment IR-PL-1-8(m) (REDACTED), Attachment IR-PL-1-14(a) (REDACTED), Attachment IR-PL-1-14(b) (REDACTED), and Attachment IR-PL-1-14(c) (REDACTED).

l) Post-incident Drug and Alcohol test results for personnel referred to in IR-PL 1-10(j);

Post-incident Drug and Alcohol test results for the personnel referenced in IR-PL-1-14(j) can be found at Attachment IR-PL-1-14(d).

m) Detailed timeline from start of workday until time of incident on September 13, 2018;

The NTSB interviewed nearly all of the individuals referred to in IR-PL-1-14(j). Those NTSB interview transcripts are available to DPU as a party to the NTSB investigation.

n) Detailed statement of what occurred on September 13, 2018, from each person referred to in IR-PL 1-10(j);

The NTSB interviewed nearly all of the individuals referred to in IR-PL-1-14(j). Those NTSB interview transcripts are available to DPU as a party to the NTSB investigation.

o) Actions taken by personnel referred to in IR-PL 1-10(j) upon discovery of incident, including how the tie-in crew determined that there was overpressurization and actions taken upon discovery of an overpressurization situation; and

Once the construction personnel referred to in IR-PL-1-14(j) recognized the over-pressure situation, they acted immediately to contain the gas from dispersing into the air and contacted the Lawrence Operations Center. Thereafter, as set forth in more detail in the responses to IR-PL-1-19 and IR-PL-1-20, CMA personnel worked to shut down the low-pressure system. CMA shut down the South Union @ Winthrop regulator station by about 4:30 p.m. (within 25 minutes of being notified) and the entire low-pressure distribution system by approximately 7:17 p.m.

p) All SCADA reports, trends, and logs from 13 Sept 2018 @ 1200 to 14 Sept 2018 @ 1200

Please see Attachments IR-PL-1-14(e)-(i) for SCADA reports, trends, and logs from September 13, 2018.