

Quarterly Report – Public Page

Date of Report: *1st Quarterly Report – December 31, 2020*
Contract Number: *693JK32010005POTA*
Prepared for: *DOT PHMSA*
Project Title: *Procedures for Retrofitting indoor Gas Service Regulators*
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For quarterly period ending *December 31, 2020*

1: Items Completed During this Quarterly Period

Task 1- Conduct Kick-off Meeting and Form Technical Advisory Panel (TAP): This task is complete and consisted of the following:

- Finalize project scope and analytical procedures.
- Form Technical Advisory Panel (TAP): The project team contacted industry experts and formulated the TAP members. The TAP currently consists of 6 LDC members, one ANSI/AGA representative, one manufacturer, Operation Technology Development (OTD) representative, GTI, and PHMSA AOR. Additional members may be added throughout the project tasks.
- Kickoff Meeting: Conducted the kickoff meeting on November 18, 2020.

2: Items Not-Completed During this Quarterly Period

Started working on Task-2: Evaluate Current Practices and Technologies. Task-2 deliverable is due in the 2nd Quarter.

3: Project Technical Status

- The project objective is to provide natural gas Local Distribution Companies (LDCs) with best practices and guidelines for the inspection and retrofitting of inside gas service regulators and associated piping. This will be achieved by: (a) Providing a procedural roadmap for a consistent decision making tool when a gas service regulator needs to stay inside, (b) Identifying equipment and devices to manage vented natural gas and provide warning and emergency shutoff if gas accumulates indoors, and (c) Establishing best practices for the inspection, recording, and maintenance of gas regulators and utility indoor piping systems.
- Retrofitting is needed for indoor regulators to provide an equivalent level of safety to outside installations. Best practice procedures for retrofitting, inspection, and record verification of indoor regulators and meter sets would help providing guidance to establish the safety levels and assessment of different installations.

- General requirements for the placement of gas meters and regulators are provided in the Code of Federal Regulations 49 CFR Part 192 in § 192.353 - Customer meters and regulators, § 192.355 Customer meters and regulators - Protection from damage, and § 192.357 - Customer meters and regulators – Installation.
- There have been several incidents caused by regulator over-pressurization, improper installation, improper maintenance, and corrosion of vent lines of indoor regulators and meter sets that were reported by PHMSA in their incident records. Various threats on the indoor sets include regulator leak in confined space, atmospheric corrosion, Improper installation, maintenance and access, and outside force such as flood and damage to vents.
- On September 29, 2020, PHMSA issued an Advisory Bulletin titled Pipeline Safety: Inside Meters and Regulators [Docket No. PHMSA–2020–0115] alerting owners and operators of natural gas distribution pipelines to the consequences of failures of inside meters and regulators.
- Various technology improvements in regulator’s design currently exist to reduce hazardous gas from escaping the regulator and meter sets. Devices are being designed for smart shut-off technologies, to detect hazardous levels of methane, and to provide an alert system when these leaks are detected.

4: Project Schedule

The following figure shows the project schedule and progress as of the end of this quarter.

Task	Task Description	1	2	3	4	5
1	Project Scoping and Technical Advisory Panel	★				
2	Evaluate Current Practices and Technologies		★			
3	Inspection and Retrofitting of Indoor Regulators			★		
4	Inspection and Rehabilitation of Piping System				★	
5	Best Practice Guidelines and Recommendations					
6	Technology Transfer and Final Report					
7	Project Management					

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