

	Develop a Risk-Based Approach and Criteria for Hazard Detection Layout	03902-QR-002
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Develop a Risk-Based Approach and Criteria for Hazard Detection Layout

Agreement #693JK31910008POTA

Quarterly Status Report – Q2

Public

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1 Items Completed During this Quarterly Period

The performance period for the research project “Develop a Risk-Based Approach and Criteria for Hazard Detection Layout” (Project) is September 30, 2019 through March 31, 2021 as outlined in PHSMA Agreement #693JK31910008POTA (Agreement). The current quarter closes on March 29, 2020. The PHMSA Agreement Officer's Representative (AOR) for this project is Ms. Chau Tran.

Table 1-1 shows the items and deliverables that were completed during this Quarter.

Table 1-1. Items Completed During This Quarterly Period

Item	Task	Deliverable	Quarter	Federal Payment	Cost Share
3	2	Literature Review Summary	2	\$22,016	\$5,504
4	8	Quarterly Status Report and Project Management	2	\$6,478	\$494

2 Items Not Completed During this Quarterly Period

There were no items or deliverables scheduled to be completed during this Quarter that were not completed.

3 Project Financial Tracking During this Quarterly Period

The current project financial tracking is shown in Figure 3-1. Work for the project is currently on schedule and projected to remain on schedule.

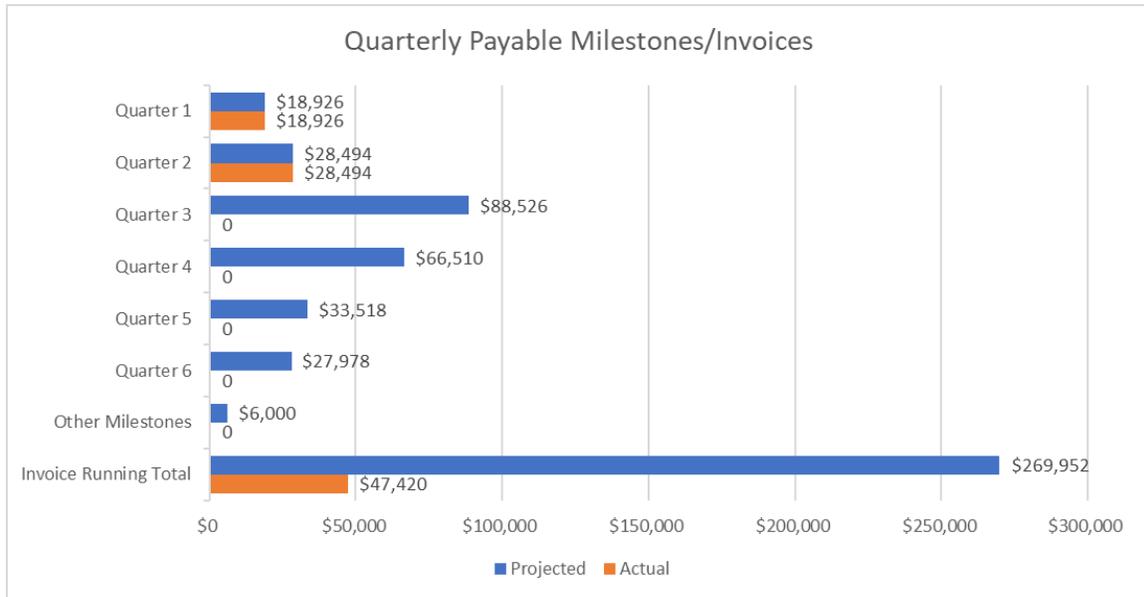


Figure 3-1: Project Financial Tracking

4 Project Technical Status

4.1 Task 2 – Literature Review

BLUE conducted a comprehensive literature review of applicable industry standards and best practices for hazard detection layouts, as summarized in report 03902-RP-001 dated March 27, 2020. A conference call with PHMSA and the TAP was held on March 4, 2020 via WebEx (meeting minutes are included in Attachment #1). During this meeting, BLUE presented the findings of the literature review and gathered input from the TAP. The TAP also had the opportunity to review and comment on a draft version of the report prior to submission to PHMSA.

4.2 Task 3 – Establish Performance Targets

The literature review conducted in Task 2 compiled available guidance on the placement of hazard detection devices, however, no references were found to contain well-defined performance targets that could be used to evaluate and optimize hazard detection layouts at LNG facilities. Under Task 3, BLUE has begun to evaluate the hazards (i.e. flash fire, jet fire, pool fire, vapor cloud explosion) present in each Detection Area typical of LNG facilities. Looking at the potential for cascading hazards and impacts to personnel and the public, quantifiable performance targets will be established for each Detection Area. This work will continue into the next quarter and will be detailed in a summary report at the end of Quarter 3.

4.3 Task 8 – Project Management

BLUE has continued the effort to build a well-rounded and knowledgeable TAP. During this quarter, two additional TAP members have committed to the project: Simon Pate with Det-Tronics and Dave Opheim with MSA. The expertise of the new TAP members will be a vital resource for this research project. A full list of TAP commitments is given in Table 4-1. The project has continued to receive strong support and participation from the TAP.

Table 4-1: TAP Commitments

TAP Member	Organization
Brady Dague	Federal Energy Regulatory Commission
Sue Stritter	Distrigas
Richard Rogers	Southern Company Gas
Pat Outtrim	Tellurian
Kevin Ritz	Baltimore Gas & Electric
Justin Perry	Dominion Energy
Josh Cardoso	National Grid
Simon Pate	Det-Tronics
Dave Opheim	MSA

5 Project Schedule

The project team's efforts to advance the project schedule are summarized below:

- The project is on schedule;
- The overall schedule shown in Figure 5-1 remains on track and no changes in the project schedule have been required;
- The project team remains highly engaged and stable (with no changes in personnel).

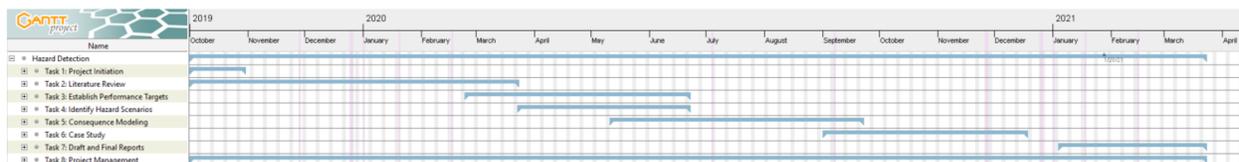


Figure 5-1: Project Schedule

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6 Status Report Summary

Two payable milestones were completed in the current quarter:

- 1) Literature review summary
- 2) Quarterly status report

Work for the project is currently on schedule and projected to remain on schedule.