

	Develop an Evaluation Protocol for Non-LNG Release Hazards – Modeling	03903-QRP-002
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Develop an Evaluation Protocol for Non-LNG Release Hazards – Modeling

Agreement #693JK31910009POTA

Quarterly Status Report – Q2

Public

March 28, 2019

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1 Items Completed During this Quarterly Period

The performance period for the research project “Develop an Evaluation Protocol for Non-LNG Release Hazards – Modeling” (Project) is 22 months, from September 30, 2019 through July 31, 2021 as outlined in PHMSA Agreement #693JK31910009POTA (Agreement). The current quarter closes on March 29, 2020. The PHMSA Agreement Officer’s Representative (AOR) for this project is Mr. Thach Nguyen.

Table 1-1 shows the items and deliverables completed to date; the items in gray were completed during earlier quarters, while the items in green were completed during this Quarter.

Table 1-1. Items Completed

Item No.	Task No.	Activity	Deliverable	Due Quarter No.	Completion %
1	1	Conduct kick-off Team meeting to review scope, tasks, deliverables and schedule, and to gather initial insights.	Kick-Off meeting minutes	1	100%
2	8	1st Quarterly Status Report	Submit 1st quarterly report	1	100%
3	2	Review literature on model evaluation and validation requirements; develop Model Evaluation methodology	Model Evaluation methodology report	2	100%
4	8	2nd Quarterly Status Report	Submit 2nd quarterly report	2	100%

2 Items Not Completed During this Quarterly Period

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

3 Project Financial Tracking During this Quarterly Period

The contract for this research project is fixed-price. 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.

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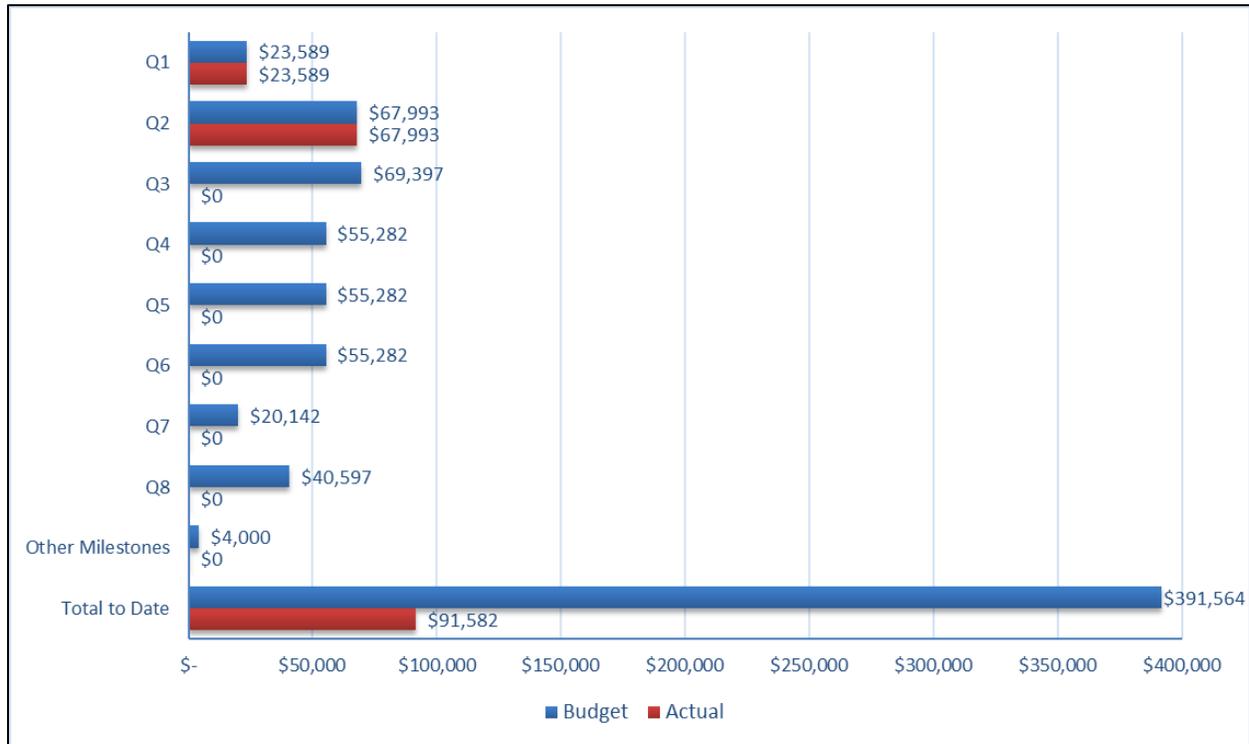


Figure 3-1: Project Financial Tracking

4 Project Technical Status

4.1 Task 2 – Model Evaluation Methodology

Task 2 was completed on schedule. BLUE performed a comprehensive literature review on existing model evaluation protocols, prepared a summary of the findings, and developed a proposed model evaluation methodology. Preliminary information was distributed to the TAP for review and comment prior to preparing a report for Task 2. A draft of the summary report was sent to the TAP for review and comment; all comments received from TAP members were addressed and incorporated in the final version of the report. The report was uploaded to the project’s page on March 28, 2020.

4.2 Task 3 – Uncertainty Quantification (UQ) Protocol

Work on Task 3 is ongoing; this task is led by GTI. GTI is reviewing publicly available literature and developing a preliminary UQ methodology, using the dispersion modeling as the test case. Work on this task will continue as detailed in the project schedule.

4.3 Task 4 – Model Validation Databases

Task 4 is subdivided into four separate subtasks.

4.3.1 Task 4.1 – MVD for the Dispersion of non-LNG Flammable Releases

Work on Task 4.1 is ongoing; the task is due to be completed during the third quarter. BLUE has identified several experimental data sets that may be suitable for this database and has reached out to different organizations to obtain the test data. The next steps will consist of: finalizing the experimental data sets to be included in the database; performing the data processing necessary to extract the relevant data from the tests; developing a proper format for the spreadsheet that will include the validation data and the model predictions; and preparing a summary report to accompany the database. Work on this task will continue as detailed in the project schedule.

4.4 Task 8 – Project Management

The next phone call with the project Technical Advisory Panel (TAP) is planned for the month of April 2020. The second quarterly report was submitted on March 28, 2020.

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).

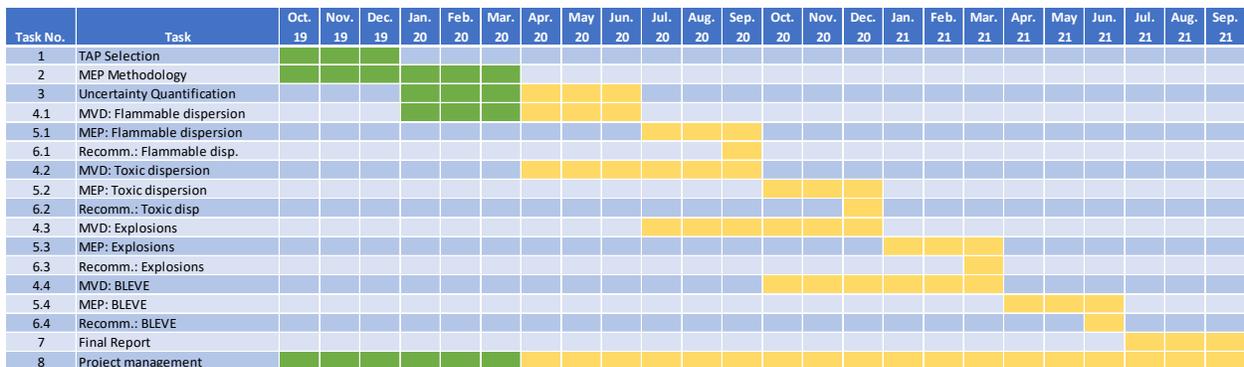


Figure 5-1: Project Schedule

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5.1 Future Activities

Project team resources in Quarter 3 will be focused on completing Tasks 3 ‘Uncertainty Quantification Protocol’ and Task 4.1 “Model Validation Database for Non-LNG Flammable Dispersion”, and starting work on Task 4.2 “Model validation database for dispersion of toxic releases”.