



**1<sup>st</sup> QUARTERLY REPORT – PUBLIC**  
GTI PROJECT NUMBER 22647

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# **Evaluation of the Efficacy and Treatment of Hazard Mitigation Measures for LNG Facilities**

**Report Issued:**

December 23, 2019

**Prepared For:**

U.S. Department of Transportation  
Pipeline and Hazardous Materials Safety Administration  
Office of Pipeline Safety  
DOT PHMSA Agreement #693JK31910003POTA

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## 1: Items Completed During this Quarterly Period

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**Table 1** shows the items and deliverables (from Attachment #3 of Agreement) that were completed during this Quarter.

Item #	Task #	Activity/Deliverable	Payable Milestone Title	Federal Cost	Cost Share
1	1	Form Technical Advisory Panel (TAP), Identify Key Stakeholders and Gather Initial Input	Notes of Project Kick-Off Teleconference with PHMSA and TAP	\$10,043	\$0
2	9	Project Management Activities	Written confirmation that subcontract between GTI and Blue Engineering and Consulting has been established	\$1,270	\$0
3	9	Project Management Activities	1st Quarterly Report	\$4,712	\$1,852

**Table 1 – Items Completed During this Quarterly Period**

## 2: Items Not Completed During this Quarterly Period

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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

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The contract for this research effort is fixed price, with milestone/deliverable payments. **Figure 1** shows the projected invoicing upon delivery of this quarter's invoice, which reflects Quarterly Payable Milestones in Table 1 for this quarter.

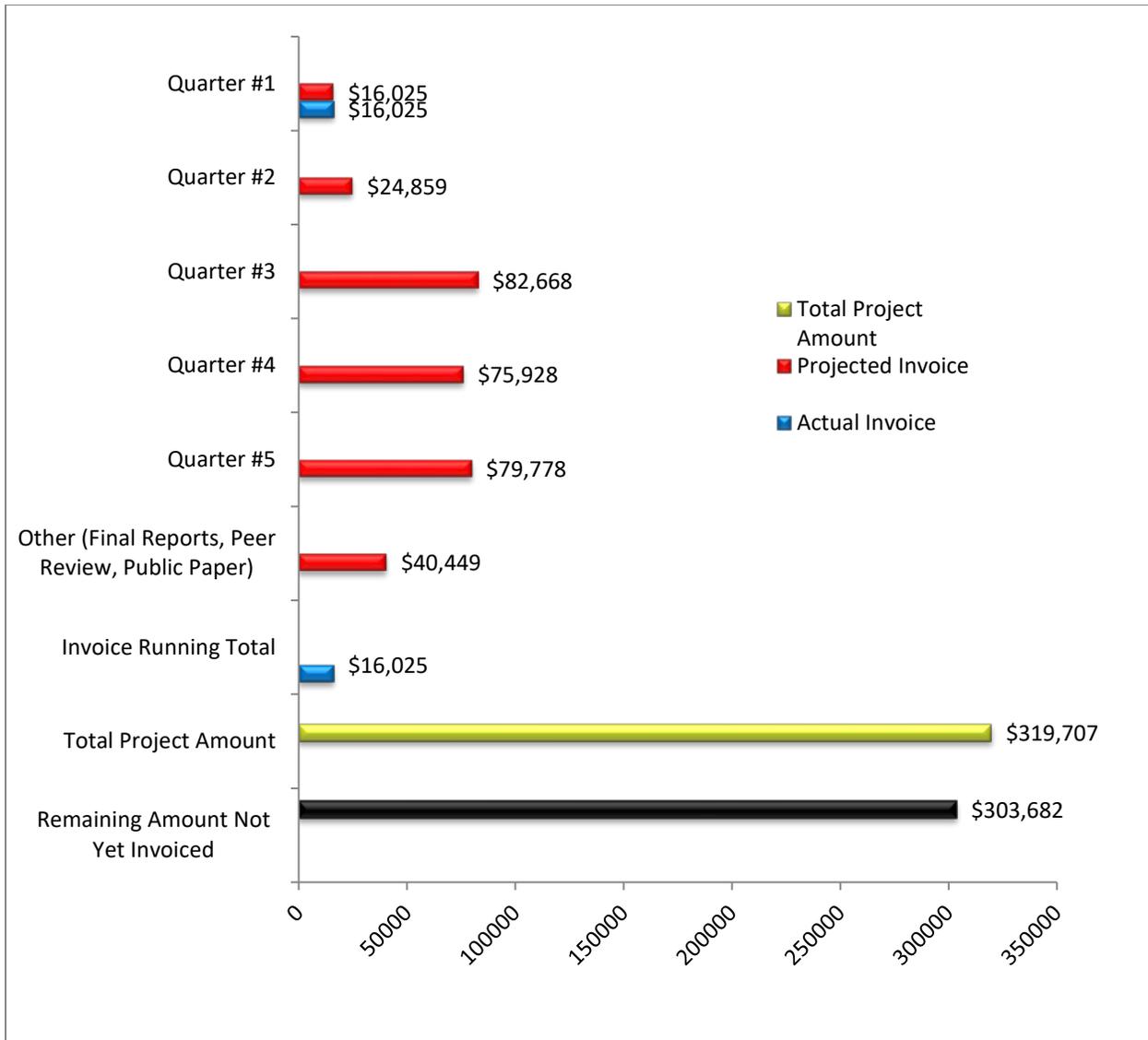


Figure 1. Quarterly Payable Milestones/Invoices

#### 4: Project Technical Status

##### **Activity: Task 1 – Form Technical Advisory Panel (TAP), Identify Key Stakeholders and Gather Initial Input**

The project team began and completed Task 1:

- Formed a TAP that consisted of PHMSA’s Agreement Officer Representative and four knowledgeable operators of LNG facilities, some of which have in-depth experience with several of the LNG hazard mitigation devices that this project is evaluating.
- Conducted a project kick-off teleconference on Dec. 11, 2019 that lasted one hour.
- Issued the notes of the project kick-off teleconference on Dec. 18, 2019.

### ***Activity: Task 2 – Identify Mitigation Measures to be Evaluated***

The project team began working on Task 2:

- Began gathering and assessing a significant amount of background literature and references relevant to the hazard mitigation devices that this project is evaluating:
  - Water Curtains
  - High Expansion Foam
  - Insulating Polymer Concrete
  - Insulating Floating Foam/Cellular Glass Blocks
  - Minimizing Release Duration (i.e. control system enhancements)
  - Up to one additional measure TBD (active or passive device)

### ***Activity: Task 9 – Project Management***

The project team began working on Task 9:

- Established subcontract between GTI and Blue Engineering and Consulting Co.
- Submitted first quarterly report.

## **5: Project Schedule**

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The project is on track and no changes in the project schedule are anticipated.

The project team remains highly engaged and stable (with no changes in personnel).

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**END OF REPORT**