

3rd Quarterly Report

PUBLIC REPORT

Date of Report: May 6, 2019

Agreement Number: **693JK31810002**

Prepared for: US DOT/PHMSA

Project Title: **On-Board Power and Thrust Generation for the Explorer Family of Robots for the for the Inspection of Unpiggable Natural Gas Pipelines**

Prepared by: NYSEARCH/Northeast Gas Association

Contact Information: Daphne D’Zurko; 973-265-1900, ext. 214; ddzurko@northeastgas.org

For quarterly period ending: April 30, 2019

Results and Conclusions: Technical work continued with the completion of the analysis of various concepts for the energy and thrust generating module to be integrated on the Explorer 20/26, and the selection of the final concept. The detailed design of the module was initiated immediately thereafter. A failure mode analysis was completed, as was the design of the laboratory testing facilities. The design of the turbine system is also nearing completion.

Plans for Future Activity: In the next reporting period, we expect to finalize the design of the module and initiate its manufacturing and assembly.