****

**Quarterly Progress Report 1**

Project Title: Characterizing In-Cab Air Quality in Heavy Duty Diesel Construction Equipment

Project Number: TTI-01-11

Principal Investigator(s) *(name and email):* Phil Lewis (phil.lewis@tamu.edu)

Period Covered: February 1, 2018 through January 31, 2019

Project Period of Performance: February 1, 2018 through March 15, 2018

Reports should not exceed three pages. Completed progress reports should be submitted electronically to CARTEEH and to the applicant’s institutional CARTEEH lead.

**Progress in Previous Quarter**

Scheduled activities for Quarter 1 included completing the Tasks associated with *Objective 1: Analyze an existing dataset of tailpipe pollutant emissions from HDD equipment*. The respective Tasks and their percentage completion are:

* Task 1.1 Compile data sets (100%)
* Task 1.2 Characterize the pollutant concentration data (100%)
* Task 1.3 Assess relationships between tailpipe pollutant concentrations and equipment use (50%)
* Task 1.4 Reporting – Quarter 1 Report (100%)

Other scheduled activities for Quarter 1 included *Objective 2: Collect preliminary data related IAQ inside of HDD equipment cabs; Task 2.1 Identify field locations for study*. Task 2.1 is 100% complete. We have identified HDD equipment to test from two local equipment fleet owners including Larry Young Paving Inc. and Kelly Burt Dozer Inc. We will continue to search for additional equipment in order to expand our dataset.

The primary scheduled milestone for Quarter 1 was Quarterly 1 Report, which is complete.

The project team has biweekly meetings, typically every second Friday, to discuss previous accomplishments and the upcoming work schedule. The project team includes one graduate student, Mr. Sherif El Khouly (MS Construction Management), who completed most of Tasks 1.1-1.3. The work performed on this project will be the basis for Mr. El Khouly’s thesis.

**Budget, Timeline, and Issues Encountered**

The project is currently on time and within budget. We have not identified any obstacles or unanticipated events thus far. An updated project work plan is not necessary at this time.

**Planned Activities for Upcoming Quarter**

Scheduled activities for Quarter 2 include working on Tasks associated with *Objective 2: Collect preliminary data related to IAQ inside of HDD equipment cabs* and *Objective 3: Collect qualitative characteristics of HDD construction equipment operational profiles*. During Quarter 2, we will work on the following Tasks:

* Task 2.1 Identify field locations for study
* Task 2.2 Collect field measurements of IAQ inside the cab of HDD equipment
* Task 2.3 Analyze the data, identify trends
* Task 2.4 Reporting
* Task 3.1 Collect operational data from the HDD construction equipment
* Task 3.2 Analyze the data, identify trends

The key milestone for Quarter 2 is Quarterly 2 Report.

**Other Information Not Addressed Above**

**submit**

There is no other information to report for Quarter 1.