

**2008 State Damage Prevention Program Grants Progress Report**  
**Funding Opportunity Number: DTPH56-08-SN-0001**  
**CFDA Number: 20.720**

**Award Number:** DTPH56-08-G-PHPS06  
**Project Title:** State Damage Prevention Project  
**Date Submitted:** November 14, 2008  
**Submitted by:** Elizabeth Skalnek

**Specific Objective(s) of the Agreement**

Under this grant award the Minnesota Department of Public Safety will upgrade its data management system, which is utilized for enforcement activities, analysis, and documentation. The required upgrade will improve the portability of all compliance and enforcement activities common to state pipeline safety programs, while ensuring consistency with other systems. The current system is at least a generation behind currently available technology. The system has been in place for several years and modifications are necessary to maximize effectiveness. Modifications utilizing the older technology are impractical.

**Workscope**

Under the terms of this agreement, the Grantee will address the following elements listed in 49 USC §60134 through the actions it has specified in its Application.

- ⌚ *Element (3):* A process for reviewing the adequacy of a pipeline operator's internal performance measures regarding persons performing locating services and quality assurance programs.
- ⌚ *Element (5):* A process for fostering and ensuring active participation by all stakeholders in public education for damage prevention activities.
- ⌚ *Element (6):* A process for resolving disputes that defines the State authority's role as a partner and facilitator to resolve issues.
- ⌚ *Element (7):* Enforcement of State damage prevention laws and regulations for all aspects of the damage prevention process, including public education, and the use of civil penalties for violations assessable by the appropriate State authority.
- ⌚ *Element (9):* A process for review and analysis of the effectiveness of each program element, including a means for implementing improvements identified by such program reviews.

**Accomplishments for this period (Item 1 under Agreement Section 9.01 Progress Report: "A comparison of actual accomplishments to the objectives established for the period.")**

During the performance of the grant, the Grantee must provide a letter-type written report to the AOTR and the AA. The report must include the following:

1. A comparison of actual accomplishments to the objectives established for the period.

*[How are you progressing on each of the elements provided in the "Specific Objectives" and "Workslope"? Start with overall description, followed by item by item or element by element detail if possible]*

All objectives established for this time period have been met.

All components of the OPS System 2008 data management system have been delivered to MNOPS. The new system is in the final stages of user acceptance testing and debugging.

The new system was written using Visual Basic.net C-sharp. The new system uses Sequel Server 2000, which will continue to be supported by Microsoft through mid-2009.

Sequel Server 2000 was originally created for developers; therefore, no database size limit was established so developers could replicate entire databases to their laptops so they could work on them at home. Later versions of Sequel Server limit storage to between 2-4 gigs. Minnesota currently stores nearly 9 gigs of data within the OPS System 2008.

**Quantifiable Metrics/Measures of Effectiveness (Item 2 under Agreement Section 9.01 Project Report: "Where the output of the project can be quantified, a computation of the cost per unit of output.")**

2. Where the output of the project can be quantified, a computation of the cost per unit of output.

Minnesota has offered the database without cost to all other state pipeline safety programs. Seventeen state programs participated in the recent OPS System 2008 web-demo; at least two other states intend to implement the system. PHMSA's investment in Minnesota's database, through natural gas, hazardous liquid and the damage prevention grants, is likely to pay off in Michigan and Kansas in the near term; other states, such as Massachusetts and Oklahoma, have expressed serious interest in the system and are likely to sign on as soon as the no-cost licensing agreements are offered. Minnesota is committed to providing PHMSA with the highest possible return on its investment.

The new system will be deployed shortly. The new OPS System 2008 will have identical functionality to the existing database system used to manage the Minnesota pipeline safety and damage prevention programs; Minnesota's implementation of elements 3, 5, 6, 7, and 9 all rely upon the data management system to be effective. The project funded by this eliminated the risk that an unsupported VB6 problem could disable the system and bring the work of the Minnesota Office of Pipeline Safety to a halt.

Metrics: the metrics used to gage the success of the project include system functionality and performance; the new OPS System 2008 will have the same level of functionality as the old system without any deterioration in performance. MNOPS staff devoted hundreds of hours to verifying functionality and identified nearly 300 flaws over the course of the project. All flaws are expected to be remedied within the next week or two. Performance tests indicate that the new system performs operations faster than the legacy system.

**Issues, Problems or Challenges (Item 3 under Agreement Section 9.01 Project Report: “The reasons for slippage if established objectives were not met. “)**

There are no issues, problems or challenges to report.

**Other pertinent information including, when appropriate, actions taken to address the recommendations PHMSA provided in correspondence dated [Different for each] (Item 4 under Agreement Section 9.01).**

3b. Recommendations:

1. Solicitation, Section 6.01, Criteria (6) states, “A commitment to quality controls in timing, personnel, and costs for deliverables offered in exchange for the grant.” We would like to see more detail on your commitment to this criterion.

**MNOPS response to 3b1:**

*Commitment to quality controls in:*

*Timing: The project closely adhered to the timeline proposed in the Statement of Work. Slight interim deliverable date adjustments were made as needed to address risks without significant slippage in the overall project timeline. The project was delivered by the target project completion date of October 31, 2008; however, a few bugs were identified and resolved subsequent to the delivery date. MNOPS staff dedicated over 600 hours to user acceptance testing to keep the project on track.*

*Personnel: MNOPS expected to dedicate up to two hundred hours of user acceptance testing time for this project; the time commitment required to identify and resolve defects exceeded original estimates by a factor of 3+.*

*Costs for deliverables offered in exchange for the grant: The OPS System 2008 was developed per a fixed price agreement. The original cost of \$230,000 for the delivered product will not be exceeded under any circumstances.*

3b. Recommendations:

2. The validity of the statistics provided was questioned, specifically whether one-week or even a few months of analysis represents a valid sample for a whole year. We would like to see more detail clarifying this timeframe, and specifying the time of year this sampling will take place.

**MNOPS response to 3b2:**

*This comment was addressed prior to grant approval: the scope of the project excludes all references to the “Slice of Minnesota” project element. These comments pertain to*

*the excluded project element. In an email sent by Chief Engineer Elizabeth Skalnek to Karina Munoz on 4/11/05, the following was stated:*

*"I agree completely with the reviewer's skepticism on the validity of "slice of Minnesota" proposal. I had my staff remove all references to this proposed study from the final proposal. Unfortunately, a clerical error and unfamiliarity with the Grants.gov attachment process resulted in an earlier version being submitted. I have attached the final version of our grant request narrative to this email.*

*The initial estimate of \$100,000 to rewrite our OPS system was increased to \$200,000 when all functions, including our non-damage prevention functions, were included. It would be impractical and imprudent to attempt to separate the functions for our system. We also learned of another imminent staff retirement last week. We have decided to use \$100,000 of our salary savings (2 staff) to pay for the balance of the mission critical rewrite of our system. Our hiring process will be somewhat delayed by a State of Minnesota hiring freeze, so we will be short staffed for most of the remainder of 2008.*

*Because of the short staffing and the additional cost to rewrite our entire OPS program, I do not expect to have available staff or budget to conduct the "slice of Minnesota" study. Please use the attached document, in lieu of the original incorrectly submitted document, to monitor our promised deliverables should you elect to approve our grant request."*

*The actual total fixed price project cost totaled \$230,000 for all functions (damage prevention and pipeline safety.) Zach Barrett, Director of State Programs, approved charging the remaining \$130,000 to the CY08 natural gas and hazardous liquid pipeline safety base grants.*

#### **Mid-term Financial Status Report**

The mid-term financial report has been sent as a separate attachment to the AA.

SF-424A breaks down the entire \$100,000 into the Contractual category (f).

#### **Plans for next period (remainder of grant)**

The remaining time period will be devoted to final debugging and deployment of the program. Deployment will include assistance to other state programs as time permits.

#### **Requests of the AOTR and/or PHMSA**

No actions requested at this time.