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Robert R. Scott

EXECUTIVE DIRECTOR
Debra A. Howland

STATE OF NEW HAMPSHIRE



PUBLIC UTILITIES COMMISSION
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Website:
www.puc.nh.gov

June 10, 2015

Her Excellency, Governor Margaret Wood Hassan
and the Honorable Council
State House
Concord, NH 03301

Your Excellency and Honorable Councilors:

REQUESTED ACTION

Authorize the New Hampshire Public Utilities Commission (NHPUC) to amend an accept and expend request of \$20,265 in grant funds from the U.S. Department of Transportation - Pipeline and Hazardous Materials Safety Administration (PHMSA) for implementation of new technology to improve the enforcement of the Underground Utility Damage Prevention System by extending the completion date by three months from September 30, 2015 to December 31, 2015 and reallocating \$10,076 in administrative costs effective upon Governor and Council approval through December 31, 2015. The original accept and expend request was approved by Governor and Executive Council, Item #52, on December 3, 2014. 100% Federal Funds.

These federal grant funds are to be budgeted in an existing account entitled State Dmge Prevent Prgm Yr 01 as follows:

Fiscal Year Summary								
02-81-81-810510-74910000 State Dmge Prevent Prgm Yr 01								
Class	Description	Original FY 2015	Inc/(Dec)	Modified FY 2015	Original FY 2016	Inc/(Dec)	Modified FY 2016	TOTAL
030-500310	Equipment New Replacement	14,825	(10,076)	4,749			-	4,749
039-500180	Telecommunications	1,288		1,288	552	250	802	2,090
41-500801	Audit Fund Set Aside	20	1	21			-	21
50-500109	Personnel Services -Part Time Salaries	1,777	3,500	5,277	850	3,325	4,175	9,452
60-500601	Benefits	635	1,500	2,135	318	1,500	1,818	3,953
Totals:		18,545	(5,075)	13,470	1,720	5,075	6,795	20,265

Source of Funds								
Class	Description	Original FY 2015	Inc/(Dec)	Modified FY 2015	Original FY 2016	Inc/(Dec)	Modified FY 2016	TOTAL
000-407733	State Dmge Prevent Prgm Yr 01	18,545	(5,075)	13,470	1,720	5,075	6,795	20,265
Totals:		18,545	(5,075)	13,470	1,720	5,075	6,795	20,265

EXPLANATION

The statutory provisions for the Underground Utility Damage Prevention System, commonly referred to as DigSafe, are found in RSA 374:48 through RSA 374:56. The NHPUC, by Order No. 24,347 in Docket DM 04-119, authorized the Safety Division to administer and enforce the DigSafe program. In 2013, Dig Safe Systems, Inc., New Hampshire's one call center, was granted an award by PHMSA for software and hardware upgrades. The upgrades are complete and the NHPUC Safety Division staff can connect to Dig Safe Systems, Inc. and access or update DigSafe information in real time. This grant provided the NHPUC Safety Division with funds to purchase the necessary hardware and mobile internet connections to interface with the one call center while on-site at an excavation location.

The original technology plan was to purchase five Microsoft Pro 3 tablets at a cost of \$14,825. After further review of the hardware, support and connectivity requirements with the state's Department of Information Technology (DoIT), five Apple iPad tablets were purchased instead at a savings of over \$10,000. The NHPUC Safety Division has submitted a request to PHMSA for an extension to the grant due to the delay in purchasing the equipment and for a revision to personnel costs using the equipment savings for additional monitoring of the effectiveness of the real time, on-site access to the one call center. The mid-term progress report submitted to PHMSA is attached for reference.

In the event that Federal Funds are no longer available, General Funds will not be requested to support these expenditures.

Your consideration of our request is appreciated.

Respectfully submitted,



Martin P. Honigberg
Chairman

Attachments: Original G&C request
Grant progress report

STATE OF NEW HAMPSHIRE

COMMISSIONERS
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Martin P. Honigberg

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PUBLIC UTILITIES COMMISSION
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12/3/14
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November 18, 2014

Her Excellency, Governor Margaret Wood Hassan
and the Honorable Council
State House
Concord, NH 03301

Your Excellency and Honorable Councilors:

REQUESTED ACTION

Authorize the New Hampshire Public Utilities Commission (NHPUC) to accept and expend \$20,265 in grant funds from the U.S. Department of Transportation - Pipeline and Hazardous Materials Safety Administration (PHMSA) for implementation of new technology to improve the enforcement of the Underground Utility Damage Prevention System effective upon Governor and Council approval through September 30, 2015. 100% Federal Funds.

These federal grant funds are to be budgeted in an existing account entitled State Dmge Prevent Prgm Yr 01 as follows:

Fiscal Year Summary				
02-81-81-810510-74910000 State Dmge Prevent Prgm Yr 01				
Class	Description	FY 2015	FY 2016	TOTAL
030-500310	Equipment New Replacement	14,825		14,825
039-500180	Telecommunications	1,288	552	1,840
41-500801	Audit Fund Set Aside	20		20
50-500109	Personnel Services -Part Time Salaries	1,777	850	2,627
60-500601	Benefits	635	318	953
Totals:		18,545	1,720	20,265

Source of Funds				
Class	Description	FY 15		TOTAL
000-407735	State Dmge Prevent Prgm Yr 01	18,545	1,720	20,265
Totals:		18,545	1,720	20,265

EXPLANATION

The statutory provisions for the Underground Utility Damage Prevention System, commonly referred to as DigSafe, are found in RSA 374:48 through RSA 374:56. The NHPUC, by Order No. 24,347 in Docket DM 04-119, authorized the Safety Division to administer and enforce the DigSafe program. In 2013, Dig Safe Systems, Inc., New Hampshire's one call center, was granted an award by PHMSA for software and hardware upgrades. The upgrades are complete and the NHPUC Safety Division staff can connect to Dig Safe Systems, Inc. and access or update DigSafe information in real time. This grant provides the NHPUC Safety Division with funds to purchase the necessary hardware and mobile internet connections to interface with the one call center while on-site at an excavation location.

The NHPUC requests authorization to accept and expend \$20,265 in PHMSA grant funds for hardware and mobile internet and to budget the funds as follows:

- Class 030-500310 Equipment New Replacement will be used purchase five tablets with the necessary peripherals/accessories needed for field work.
- Class 039-500180 Telecommunication will be used to provide the mobile internet connections and the state's telecommunication charge for the tablets.
- Class 041-500801 Audit Set Aside Fund will be used to cover the 0.1% charge of the \$20,265 awarded in federal grant funds.
- Class 050-500109 Personnel Services – Part Time Salaries will be used to support the portion of salary costs for current staff associated with administering this grant. This will include progress and program evaluation reports. The estimated time required is forty hours in FY 15 and twenty hours in FY 16. No new employees will be hired.
- Class 060-500601 Benefits will be used to cover the benefits costs associated with the time spent on administering this grant..

In the event that Federal funds are no longer available, General Funds will not be requested to support these expenditures.

Your consideration of our request is appreciated.

Respectfully submitted,



Martin P. Honigberg
Commissioner

ASSISTANCE AGREEMENT

1. Award No. DTPH5614GPPS14		2. Modification No.		3. Effective Date 09/22/2014		4. CFDA No. 20.720		
5. Awarded To NEW HAMPSHIRE PUBLIC UTILITIES COMMISSION Attn: Randall Knepper 21 S. Fruit Street Suite 10 Concord NH 03301-2428				6. Sponsoring Office Program Development 1200 New Jersey Avenue, SE E21-321 Washington DC 20590			7. Period of Performance 09/22/2014 through 09/21/2015	
8. Type of Agreement <input checked="" type="checkbox"/> Grant <input type="checkbox"/> Cooperative Agreement <input type="checkbox"/> Other		9. Authority 49 U.S.C. 60134 State Damage Prevention Programs			10. Purchase Request or Funding Document No. 956-14-0038			
11. Remittance Address NEW HAMPSHIRE PUBLIC UTILITIES COMMISSION Attn: Randall Knepper 21 S. Fruit Street Suite 10 Concord NH 03301-2428				12. Total Amount Govt. Share: \$20,265.00 Cost Share : \$0.00 Total : \$20,265.00		13. Funds Obligated This action: \$20,265.00 Total : \$20,265.00		
14. Principal Investigator Randall Knepper (603) 271-6026 randy.knepper@puc.nh.gov		15. Program Manager Annmarie Robertson Phone: 317-253-1622 annmarie.robertson@dot.gov			16. Administrator Acquisition Services Division US DOT/PHMSA/PHA-30 1200 New Jersey Avenue, SE E22-317 Washington DC 20590-0001			
17. Submit Payment Requests To US DOT/PHMSA/Financial Operations, AMK-316 P.O. Box 269039 (MMAC) Oklahoma City OK 73126-9039			18. Paying Office US DOT/PHMSA/Financial Operations, AMK-316 P.O. Box 269039 (MMAC) Oklahoma City OK 73126-9039			19. Submit Reports To See Article IX- Reports		
20. Accounting and Appropriation Data 5172314DAO.2014.PSGRT03020.50D0204000.41050								
21. Research Title and/or Description of Project NEW HAMPSHIRE PUBLIC UTILITIES COMMISSION STATE DAMAGE PREVENTION GRANT								
For the Recipient				For the United States of America				
22. Signature of Person Authorized to Sign <i>Randall S. Knepper</i>				25. Signature of Grants/Agreements Officer <i>Warren D Osterberg</i>				
23. Name and Title RANDALL S KNEPPER DIRECTOR OF SAFETY NH PUC.		24. Date Signed 9/22/14		26. Name of Officer WARREN OSTERBERG		27. Date Signed 9/23/14		

CONTINUATION SHEET

REFERENCE NO. OF DOCUMENT BEING CONTINUED

DTPH5614GPPS14

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NAME OF OFFEROR OR CONTRACTOR

NEW HAMPSHIRE PUBLIC UTILITIES COMMISSION

ITEM NO. (A)	SUPPLIES/SERVICES (B)	QUANTITY (C)	UNIT (D)	UNIT PRICE (E)	AMOUNT (F)
0001	New Hampshire Public Utilities Commission State Damage Prevention Grant Obligated Amount: \$20,265.00 The total amount of award: \$20,265.00. The obligation for this award is \$20,265.00.				20,265.00

2014 State Damage Prevention Program Grants Progress Report
CFDA Number: 20.720

Award Number: DTPH5614GPPS14
Project Title: New Hampshire Public Utilities Commission State Damage Prevention Grant
Date Submitted: 4/30/15
Submitted by: Mr. Randall Knepper

Specific Objective(s) of the Agreement

Under this grant agreement, the NHPUC will:

- Develop and implement methods for effective communication
- Reviewing the adequacy of internal performance measures
- Resolving disputes to define State authority's role
- Laws and regulations of the damage prevention process
- Foster and promote the use of improving technologies
- Review the effectiveness of Damage Prevention Programs

Workscope

Under the terms of this grant agreement, the Recipient will address the following elements listed in the approved application as stated in 49 U.S.C. §60134 (b).

- Element 1 (Effective Communications):** Participation by operators, excavators, and other stakeholders in the development and implementation of methods for establishing and maintaining effective communications between stakeholders from receipt of an excavation notification until successful completion of the excavation, as appropriate.
- Element 3 (Operator Internal Performance Measurement):** A process for reviewing the adequacy of a pipeline operator's internal performance measures regarding persons performing locating services and quality assurance programs.
- Element 6 (Dispute Resolution):** A process for resolving disputes that defines the State authority's role as a partner and facilitator to resolve issues.
- Element 7 (Enforcement):** 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 8 (Technology):** A process for fostering and promoting the use, by all appropriate stakeholders, of improving technologies that may enhance communications, underground pipeline locating capability, and gathering and analyzing information about the accuracy and effectiveness of locating programs.
- Element 9 (Damage Prevention Program Review):** 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 Article IX, Section 9.01 Progress Report: "A comparison of actual accomplishments to the objectives established for the period.")

Overall Description:

The Safety Division of the New Hampshire Public Utilities Commission (NHPUC) was awarded this State Damage Prevention Grant on September 19, 2014 to purchase five mobile tablets and peripheral equipment for use by Safety Division personnel while in the field to educate and

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ATTACHMENT 2A**

enforce underground damage prevention program rules and statutes. The Safety Division was required by New Hampshire agency policies to:

- 1) get prior authorization from the Governor and Council to spend monies awarded in the grant; and
- 2) coordinate and work through the State of New Hampshire Department of Information Technology (DoIT) related to information technology (IT) security and system compatibility protocols.

These administrative process imposed unanticipated delays and necessitated a change in tablet technology from the proposed Microsoft Windows Surface Tablets to the actual purchase of five Apple iPad Tablets. The mobile devices were acquired in late January 2015. The tablets then needed to be set up for access to NHPUC network and email servers with compatible security applications. This was required because some of the field information gathered would eventually tie back to NHPUC networks and required secured mobile devices. This initial setup work was done by DoIT technicians in February (but is not charged to the grant). Cellular internet connection capability has been established for each device through a data sharing plan with Verizon Wireless.

Each designated Safety Division Staff member received the mobile tablets in late February 2015. A work group was established for purposes of training and final setup to install the tools needed for using the devices in the field. We installed both the Dig Safe Quick Ticket Application and the RSS feed link to each tablet. The RSS feed allows each user to be able access and perform adhoc querying to ensure excavation site compliance verifications to see if valid notifications are in place in real time.

It has taken several months from the time of the grant approval, researching qualified vendors, and completing purchasing that met state specifications for network security. The Safety Division was able to acquire, set up and get familiar with how to use this new technology but this did not occur until late February 2015. During the winter months there is less excavation activity being done because of the significant depth of frost in the ground as well as snow accumulation in our region. Excavation activity began to increase during March 2015, allowing our designated Staff to be able to begin using the new technology as intended: to provide awareness and information related to our underground damage prevention program, related statutes and regulations; to *educate*; and to *enforce* existing underground damage prevention program statutes and regulations.

Accomplishments as it relates to the Workscope:

- Element 1 – Effective Communication
The new technology has provided the Safety Division enforcement Staff instant field communications with the Dig Safe call center. This allows for a more effective response in the field to situations where there has been a lack of communication such as no call to the Dig Safe Call Center and no ticket, necessary for legal excavation per State Statues and Rules. Once these situations are found instant communications can be made to the Excavator to help educate them of the requirements as well as to the safety concerns. Also Operators can be communicated with at the same time regarding potential risks and hazards to their unmarked facilities.

Our enforcement Staff, including our pipeline safety inspectors and others who have requirements that involve field work are finding additional versatility to using the new technology as an effective communications tool (both direct and indirect). By using the

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RSS feed on site it is a simple matter to confirm whether or not proper notifications are in place at excavation sites. Beyond that, while talking with the various stakeholders that our enforcement Staff encounter we are able to quickly confirm the accuracy of other important pieces of information on the ticket related to the site such as the site address, excavator name, the type of excavation activity, that the site description matches those that have been pre-marked by the locating service and that all associated utilities have been notified. Operators and Excavators are able to see first-hand how easily tickets can be verified and our enforcement Staff are able to show the various stakeholders unfamiliar with the Quick Ticket mobile App how they too can use the technology to quickly open, review and update a Dig Safe ticket during a visit to a site. The tablets have proved to be very valuable during on site field communications and educational effort as the screens are large enough for excavator and safety division to look at simultaneously in reviewing Quick Ticket Mobile applications as compared to peering at a small smart phone.

This mobile technology has already allowed the Safety Division to expanded our outreach and drives more excavator communication occurring in the field.

- **Element 3 – Operator Internal Performance Measurement**

The new technology has provided the ability to research in the field, existing tickets and perform real time random analysis of pre-marks by the Excavator and the subsequent locate marks done by the locators for the Operators and determine if both meet the applicable Statues and Rules.

As the Safety Division becomes more familiar with the new mobile technology that this grant has afforded us, our enforcement Staff are now stepping up its efforts to seek out opportunities to evaluate pipeline operators' internal performance. Our Staff are able to use the mobile technology and RSS feeds in the field to search for other possible open tickets in the general area that are associated with a pipeline operator. As a result, we have increased our unscheduled visits to pipeline operator excavation sites, giving us more opportunity to evaluate the adequacy of operator's internal performance measures regarding its employees and supervisors responsible for locating services and quality assurance programs. As of March 31, 2015 we have gone to approximately 100 sites for investigation and have found all sites premarked as required and all operators' locate marks were in compliance with rules regarding, facility identification including:

- Width
- color code,
- operator of underground facility,
- function of the underground utility,
- changes in directions of marks,
- termination of marks and
- 18" tolerance zones on each side of facility.

Photo documentation was taken to confirm. This "no findings" of violations was not anticipated and the Safety Division will see if this trend continues.

- **Element 6 – Dispute Resolution**

The new mobile technology has provided us with the ability to collect real time information in the field, relating to Probably Violations of the Underground Damage Prevention Statues and Rules which in turn provides for more efficient and expedient resolution of Probable Violations. As of March 31, 2015 we have not found many

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violations so the Dispute Resolution has not been exercised. We will monitor to see if future trends develop.

- **Element 7 - Enforcement**

The tablet technology hardware with cellular mobile internet connectivity provide our designated NHPUC Safety Division Staff the ability to more efficiently increase enforcement activity at excavation sites by allowing Staff in a more streamlined manner to stop more at more excavation sites with the information required to confirm that Underground Damage Prevention Regulations are being adhered to. On-site access to all excavation request information contained in the Dig Safe database is now readily available with to our Staff.

The mobile devices provide us with the ability to instantly determine if a violation has occurred and to address that violation at that time rather than 30 to 60 days later when it has been reported by the operator. It can also be used as a training tool in the field when talking to small excavators such as home owners, tent, fence and landscape companies that do not have the same opportunity to learn about underground damage safety as the large excavation companies.

As of March 31, 2015 no increased enforcement actions have been taken as a direct result of the mobile access technology used during site visits.

The Safety Division anticipates going forward that a 10% increase in enforcement actions will occur as the construction activity increases through our New Hampshire construction season (April through December) .

- **Element 8 – Technology**

The new technology and mobile connectivity use the web based Dig Safe System software in combination with Apple iPad devices using the IOS operating system and Verizon Wireless mobile cellular data link hardware and bandwidth. This technology provides the NHPUC Safety Division Staff with the ability to access through a dynamic link to the private Dig Safe one call center data base and screens. These are the same screens that One Call Center customer service representatives have available, but instead of being exclusively a back office access to the information, the Safety Division Staff has access to the same information from anywhere, including on-site excavation locations. This new ability to access the information allows the Safety Division Staff to efficiently review and update the optimized Quick Ticket entry application.

The mobile devices provide us with the opportunity to communicate and demonstrate the advantages of technology in the field and how it provides the opportunities to be more efficient and improve the excavators ability to be safer and communicate with the locator of the operator.

The high resolution digital camera built into each device is an added bonus, enabling each of the Safety Division Staff using the tablets to take digital photographs of the job sites, equipment, underground damage, correct and/or incorrect job site markings, etc. while at excavation sites.

Cellular technology provided through a Verizon Wireless shared data plan that was offered to the State of New Hampshire provides the link necessary for the Safety Division Staff, using the iPad tablet hardware to access the Dig Safe System database while

conducting on-site enforcement activity. The two-year, multi Gigabyte data service plan will sufficiently provide each tablet with access to the RSS feeder for researching Dig Safe documents 24/7 without limitations or location. This tool is a major advancement in enforcement of the one-call laws and improves the availability of enforcement documentation.

The purchase price of the tablets resulted in a much lower cost than when the application was originally proposed.

- Element 9 – Damage Prevention Program Review

Not enough data has been collected to date under this grant program to make a determination of where to increase educational efforts or enforcement actions.

Quantifiable Metrics/Measures of Effectiveness (Item 2 under Article IX, Section 9.01 Progress Report: “Where the output of the project can be quantified, a computation of the cost per unit of output.”)

As noted above in the overall description, it has taken several months from the time of the grant approval to when the Safety Division was able to acquire, set up and get familiar with how to use this new technology. Excavation activity began to pick up during the month of March, allowing Safety Division Staff to begin using the new technology as intended: to 1) provide *awareness* and *information* related to our underground damage prevention program, related statutes and regulations; 2) to *educate* by being able to demonstrate at the job sites, the easy access to information by using this technology; and 3) to *enforce* existing underground damage prevention program statutes and regulations, in real time, when it is determined that an excavator does not have a valid Dig Safe ticket, or when it an operator has not marked its underground facilities correctly.

The Safety Division Staff that have been assigned these tablets, always have the devices with them when traveling throughout the State, including commutes to and from home and office. As excavation activity is observed in these travels, it is now a simple matter of minutes to be able to determine if valid Dig Safe tickets are in place. The Safety Division expects this increased visibility and the impromptu checks will result in more enforcement actions. A side benefit will be the additional awareness by the excavators of how easy it is to open a Dig Safe ticket, or how easy it is for Safety Division Staff to verify on-site whether or not there is a valid Dig Safe tick for the location.

Because we have just begun using the new technology, it is too early to report any noticeable increase in enforcement actions. As we move forward with the use of the new technology we will compare current year violation data with that of previous years in order to evaluate the effectiveness of our program with the mobile devices and to fine tune the applicable use of the technology for field application going forward.

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

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The project is progressing as expected and as explained in detail above. We expect most of our enforcement activity to be during the second half of the grant period, which coincides with the majority of the excavation and construction activity in New Hampshire.

Mid-term Financial Status Report

See attached Form SF-425

	Grant Amount	3/31/15 Expenses	
Personnel	\$2,000.00	\$1,597.26	
Fringe Benefits	\$700.00	\$615.20	
Travel	0.00	0.00	
Equipment	\$13,365.00	\$4,749.00	
Supplies	0.00	0.00	
Contractual	\$4,200.00	\$434.12	
Construction	0.00	0.00	
Other	0.00	0.00	
Total Direct Charges	\$20,265.00	\$7,395.58	
Indirect Charges	0.00	0.00	
Total	\$20,265.00	\$7,395.58	

Plans for Next Period (Remainder of Grant)

It is anticipated during the second half of the grant that more personnel time and associated fringe benefits will be applied to the grant for tracking, administrative documentation, developing easier drop down menus for field personnel to use based on initial feedback.

We plan to utilize this new technology as described above and collect more data and analyze for trends

Requests of the AOR and/or PHMSA

The New Hampshire Public Utilities Commission would like to request an extension of the grant period for an additional 3 months (12/31/2015) because of the delays in purchasing and enable the Safety Division to fully develop the use of the new technology in its underground damage prevention program for a complete construction season. (April through December for New Hampshire) The request for an extension of the grant period is due to the initial delay in being able to expend the awarded grant money, and because of the shorter excavation seasons in New Hampshire because of winter conditions.