

Technology Innovation Project



*Closing
Project Brief*

TIP 412: Lone Worker Locator Project

Context

In 2014, a Bonneville Power Administration (BPA) employee was severely injured while working alone. The injury left the employee unable to call out or move. An assessment was conducted, which identified many organizations having employees that work alone in remote or isolated areas within BPA's service territory. These areas were outside of cell phone range or the range of other emergency calling devices. As a result, a need for a Lone Worker Program was identified. The program's purpose is to ensure that employees who are working alone or in an isolated group have reasonable access to assistance in the event of an emergency.

Description

AlertMedia is an emergency communication software company. The company provides a free cellphone-based emergency notification application called SafeSignal that can be used on BPA provided cell phones. The SafeSignal app is used during work hours to help track employees when they are in remote areas. The end user has the option to turn-off the application and also to self-initiate (e.g. employees are able to turn off the app after hours).

This project tested the app with BPA staff who travel alone as part of their work responsibilities. The project evaluated whether workers who work alone can be located using their BPA cell phone via the application. This system's potential to complement the notification procedure as outlined in BPA Policy 420-606 was also evaluated.

The project addressed the following issues:

- Confirm AlertMedia has operable communications coverage in all areas that were tested earlier in the use cases.
- Confirm that outside of cell phone coverage, the mobile app is still useful.
- Determine whether or not employee perception is positive. "Positive" is defined as the application is not perceived as an invasion of privacy.
- Other outcomes could be identified once a detailed test plan is developed.

The project also compared the use of the AlertMedia mobile phone application to other location tracking devices currently in use by various work groups within BPA. A further outcome of this project was to provide guidance on the appropriate usage of an application or device that may be implemented by a work group to comply with BPA Policy 420-606.

Benefits

While processes currently exist to avoid the possibility of another Lone Worker event, adding an emergency communication component would add another layer of protection for employees working in isolated areas. The existing processes are defined in BPA Policy 420-606.

According to the company, the SafeSignal app can be used during Emergency Response situations where multiple resources over a large geographic area are coordinated. The adoption of a reliable emergency communication system could be used by Incident Command Teams to better coordinate resources. The company believes its emergency communications system can provide detailed location information for remote workers who may be uncertain of their position in unfamiliar areas, or their position with respect to other response resources.

Accomplishments

This project tested an emergency communications system to determine if and under what conditions the AlertMedia mobile application could meet the objectives of BPA's Lone Worker Program. Although results were negative, the project accomplished its goal.

Deliverables

Deliverables from this project include the following:

- Report that describes and analyzes the results of demonstration project (including recommendations concerning evaluation of other systems)

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Project Start Date: March, 2019

Project End Date: January, 2020

For More Information Contact:

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Participating Organizations

BPA IT Field Support Services (JNRF)
BPA Safety (NF)
BPA Construction and Maintenance Services (THF)

Reports & References

[BPA Lone Worker Policy](#)

Conclusions

In 2016, BPA implemented a lone worker program with the objective of ensuring that employees who are working alone or in an isolated group have reasonable access to assistance in the event of an emergency. Investigation showed that part of this policy, The Lone Worker Program (420-606,) dealing with remote communications has not been adequately addressed.

In this Technology Innovation project, six BPA employees who work in remote locations conducted a field test of the cellphone-based emergency notification application SafeSignal from the company AlertMedia. The results of this test demonstrated that the application was inadequate for users who travel in and out of cellphone coverage areas and for workers outside of cellphone coverage. The application did not provide any additional benefit to the communication plans developed by the workers organization.

During the test plan design, the working group discovered that multiple emergency communication approaches existed across the agency. Some organizations have recognized the gap of relying on cellphone means for communicating scheduled check-ins with their supervisor or POC. To address this gap, various organizations have used different GPS satellite-based devices. Standardization of GPS devices and protocols across the Agency has been proposed. These have been included in the technical review as alternatives to be considered in the future.