



State of Washington

2016 NASCIO Award Nomination

Project Title	Emergency Planning & Community Right-to-Know Act (EPCRA) Mobile Application
Nomination Category	Information Communications Technology (ICT) Innovations
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Agency	Department of Ecology
Project Manager	Jean Rushing
Project Initiation	September 2014
Project Completion	April 2015

I. EXECUTIVE SUMMARY

The mission of the Washington Department of Ecology is to protect, preserve, and enhance Washington's land, air, and water for current and future generations. That includes managing data about chemical hazards under the Emergency Planning & Community Right-to-Know Act (EPCRA) on behalf of the State Emergency Response Commission (SERC).

The Department of Ecology collects data from facilities that store hazardous materials on site then distributes the data to emergency planners and responders so they will know about chemical hazards in their communities. This data not only helps keep responders safe during an event, it also helps them protect communities. First responders need to know in advance of arriving on a scene if hazardous chemicals are present in a facility.

For nearly thirty years, the data was distributed to emergency responders via paper or scanned reports. Retrieving and reviewing paper documents in an emergency situation, however, is not efficient. In 2014, a team of information technology and EPCRA specialists at the Department of Ecology set out to make the hazardous chemical data accessible via mobile devices to first responders statewide, regardless of the availability of Wi-Fi or data connections.

Upon request from the Washington State Emergency Response Commission, the Department of Ecology team developed the “WA EPCRA” mobile application—the agency’s first-ever mobile app—that gives first responders rapid access to critical chemical information and facility emergency contacts during an event. The app is the first of its kind in the United States.

During the pilot project, feedback was sought from local and tribal government users. Revisions were made based on feedback to enhance usability.

WA EPCRA is now available as a free download in the Apple Store and Google Play. Features of the application include:

- Data security to ensure that only authorized personnel have access.
- Chemical specific information, including physical and health hazards, quantities, and locations of chemicals on the site.
- Information for each facility’s 24-hour emergency contacts.
- Access to information, even if Wi-Fi or data connections are not available.
- A mapping feature to help responders quickly get to the scene of the event.

The agency is actively marketing the application to get it out to all authorized personnel; hundreds of first responders have already downloaded the app.

II. CONCEPT

Under the Emergency Planning & Community Right-to-Know Act (EPCRA), state law mandates the Washington State Department of Ecology to manage chemical inventory reports submitted to the State Emergency Response Commission by facilities that store and release hazardous materials.

Ecology compiles the data received from 4,771 facilities reporting 18,307 hazardous substances in 34,256 locations. WA EPCRA allows emergency responders to download and view the most current data set.

Ecology utilized Visual Studio 2013 with VS Tools for Apache Cordova, Team Foundation Server, SQL Server, web services, and FORTRESS to build WA EPCRA. The Agile approach for developing EPCRA Viewer was Scrum.

Stakeholders' needs and recommended solutions were defined during business analysis. The project team utilized User Stories, Brainstorming, Decision Analysis, Focus Group, Prototyping, Story Mapping, and Storyboard while performing business analysis. The team created a prioritized list of the features and other capabilities (product backlog) needed for development of a successful EPCRA Viewer.

The project team included an experienced Product Owner, a ScrumMaster, and a senior Developer. The project included three releases with multiple Sprints each. Activities included Sprint Planning and workload estimation using Planning Poker, Daily Scrum, Sprint execution, Sprint review, and retrospective. Product backlog was groomed after each Sprint. The first release had minimum releasable features. Second and third release addressed specific features such as search capabilities, calling, and mapping.

WA EPCRA, the Department of Ecology's first mobile app, gives first responders access to chemical storage information and facility emergency contacts wherever they may be when a call comes in.

The application is free and easily downloaded onto mobile devices via Google Play and Apple Store.

To ensure secure access, the department provides authorized users with a key code required to access the application data.

III. SIGNIFICANCE

First responders can better plan their response, protect themselves, and keep communities safer when they know what chemicals are likely to be present at the scene of an explosion or burning facility.

Every moment counts for first responders. There's often no time to retrieve paper reports before responding to the scene of an event, but for nearly thirty years, local first-responder agencies only had access to paper or scanned reports.

WA EPCRA was the Department of Ecology's first mobile application and the first of its kind in the nation. The launch of this mobile application required collaboration with the State Emergency Response Commission, local Emergency Planning Committees, local and tribal fire departments, law enforcement officers, Ecology Spill Response personnel, and others.

IV. IMPACT

The State Emergency Response Commission, the agency, team, and users agree this mobile application will help save lives. The WA EPCRA provides timely and critical safety information for first responders and helps protect the public. As soon as it was released, it proved its usefulness at several major fires in Eastern Washington.

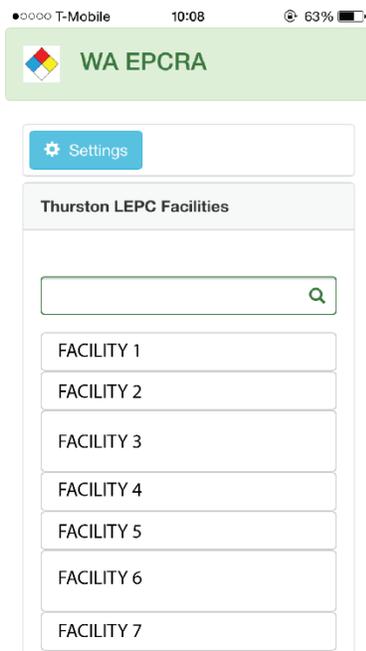
When the Ecology Spills Program was activated for the Sleepy Hollow Fire, the Department of Ecology's Spill Response Manager, Dave Byers, was able to access the chemical storage data and share the chemical/contact information immediately with Wenatchee firefighters and agency spill responders while they were mobilizing.

"Thanks to a nifty mobile phone app," said Dave, "we also have the hazmat chemical inventory of all the facilities around Chelan at the swipe of our fingers!"

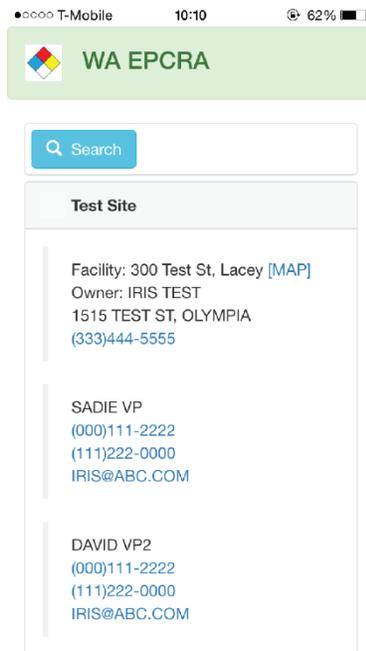
WA EPCRA serves a vital function while also providing:

- **Data Security:** Any first responder must contact the app administrator to receive the key access code before data can be downloaded to their device.
- **Accessibility:** After the data is downloaded, the authorized user will have access to this critical information with their Android or iPhone device and benefit from the application. Features such as important emergency contact information for facility representatives and specific chemical information are available even without a data connection.
- **Ease of Use:** Great detail was paid to create a consistent, user friendly experience across Android and iPhone platforms despite differences in operating systems, screen sizes, and native applications.

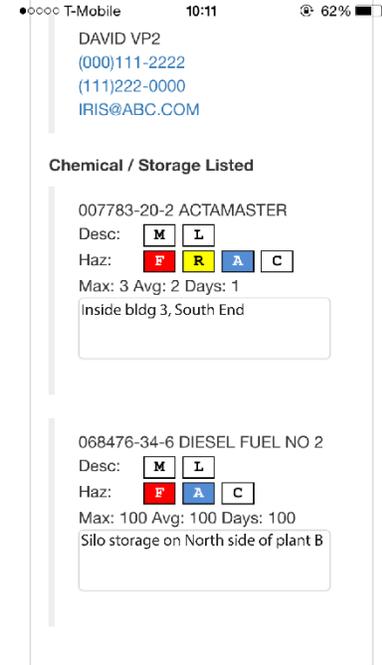
Search



Call, Email, or Map



Review chemicals



“I believe it will help save lives,” said Chief Bill Whealan, chairman of the State Emergency Response Commission. *“It’s about safety and being as prepared as possible. I’m excited to share this with our fire chiefs, battalion chiefs, and emergency medical services personnel.”*