

Exercise

Overview

Electronic resources are useful tools for emergency responders and others with potential exposures to hazardous materials. In this exercise you will use several online resources to gather information needed in response to a scenario.

Objectives

When complete, participants will better be able to:

- Access electronic resources
- Demonstrate the use of online resources to gather information and complete a worksheet in response to a scenario

Facilitator Information

Time Requirement: 2 hours

Number of Instructors: 1 or more, consistent with ratio in Minimum Criteria

Resources

- Participant Guides and worksheets
- Whiteboard or equivalent; markers
- Laptops/tablets/devices to access the internet

Websites could include, but are not limited to:

- CAMEO: <http://www.epa.gov/cameo>
- Emergency Response Guidebook (ERG):
<https://www.phmsa.dot.gov/hazmat/erg/emergency-response-guidebook-erg>
- NIOSH Pocket Guide online: <http://www.cdc.gov/niosh/npg/>

Resources that can be accessed using a mobile device such as a smartphone or tablet include:

- DOT Emergency Response Guidebook
- SAFER Mobile Response
- Chemical Safety Data Sheets – ICSC
- CAMEO Chemicals
- NIOSH Pocket Guide to Chemical Hazards

Note: Most of these resources are available as free smartphone applications on the Google Play and Apple App Stores. Because they are free, copycats are also on these stores trying to trick people into buying or subscribing to a potentially (probably) inferior product. Care must be taken to select the correct app name and publisher/developer. Below are the most commonly used apps and their correct publisher:

ERG 2020 - PHMSA

CAMEO Chemicals - NOAA ORR

NIOSH Mobile Pocket Guide - Centers for Disease Control and Prevention

Using Electronic Resources to Gather Hazmat Information - Facilitator Guide

Preparation

- Prepare multiple laptops/tablets/devices for participant use
- Ensure websites work
- Download any software in advance if it will be used
- Ensure internet access is available
- Complete the worksheet for the scenario

Presentation of the Exercise

Explain the uses and applications of electronic resources for hazardous substance releases or other incidents. Discuss resources that could prove useful for hazmat incidents. Discuss which positions within the Incident Command System would be principal “customers” for data obtained from these databases.

Demonstrate:

CAMEO: <http://www.epa.gov/cameo>

ERG: <https://www.phmsa.dot.gov/hazmat/erg/emergency-response-guidebook-erg>

NPG: <http://www.cdc.gov/niosh/npg/>

Form small groups of 4-6 participants. Assign each group a different resource to use to fill out the worksheet. This will allow for a discussion on the strengths and shortcomings of each resource. Most of these resources are excellent, but none is perfect.

A scenario is provided below for emergency responders. You can modify the scenario to better meet the needs of your participants. For example, two chemicals could be spilling into one another, which would display the utility of the CAMEO Chemicals resource and force students to think analytically about the reactivity information they get from their SDSs. The scenario could also be modified for non-emergency responders. If you modify the scenario, think through the new expected responses to discussion questions.

“Your emergency response team has been called to the chemical supply room at your manufacturing facility. The area supervisor indicates that a 400 gallon intermodal container, or tote containing (acetone or other flammable liquid) has developed a significant leak around its valve assembly. All workers have been evacuated from the area, but a large pool of product, estimated to be approximately 100 gallons, is on the floor.”

Using Electronic Resources to Gather Hazmat Information - Facilitator Guide

Ask each group to report back on what went well or less well with their data gathering for the scenario, as well as the discussion questions. Retain the 'what went well/not so well' feedback to share with other facilitators using the exercise.

Representative responses to Discussion Questions may include:

- Who would compile the information in the worksheet? (Safety Officer or Planning section Chief)
- How would information developed on this form be used in the Incident Command System or at your workplace? (in briefing personnel, selecting PPE, hazard control, evacuation planning)
- Using information from the worksheet, prepare an entry briefing for your staff.
- What information on this form would be of value for making strategic decisions regarding:
 - PPE? (Corrosive Properties, Toxicity Properties, Recommended PPE)
 - DECON? (Physical Properties such as solubility, Reactivity Properties, Corrosive Properties, Toxicity Properties)
 - Evacuation? (Shelter, Protection, Evacuation Procedures)
 - Hazard Control? (Flammability Properties, Reactivity Properties, Corrosive Properties, Radioactive Properties, Toxicity Properties)

Developed by University of Tennessee trainers