

## White Paper

### Paperless Hazard Communications Pilot Program (HM-ACCESS)

January 13, 2014

#### Purpose

The purpose of this paper is to communicate background and status information on the Paperless Hazard Communications Pilot Program research effort, also known as the Hazardous Materials Automated Cargo Communications for Efficient and Safe Shipments (HM-ACCESS).

#### Background

The Hazardous Materials Regulations (HMR; 49 CFR Parts 171–180) require a person who offers HM for transportation in commerce to describe the HM on a shipping paper in the manner required in 49 CFR Part 172, Subpart C. The shipping paper requirements identify key hazard communication information and, unless an exception from the shipping paper requirements is provided in the regulations, a paper copy of the shipping paper must accompany HM during transportation. The rationale behind a paper-based system is to convey the necessary information in a consistent manner that is widely understood and accepted by all regulated entities, law enforcement, and emergency responders.

Electronic images are currently allowed to document shipping paper retention requirements after HM are no longer in transportation<sup>1</sup>. Consideration for allowing the use of electronic communication while HM are actually in transportation is the next step in the evolution of hazard communication. Section 33005 of the “Moving Ahead for Progress in the 21st Century Act” (MAP-21) authorizes PHMSA to conduct a pilot program to evaluate the feasibility and effectiveness of using paperless hazard communications systems (e-systems).

The HM-ACCESS initiative was established by PHMSA in 2008 to identify and eliminate barriers to the use of paperless hazard communication technologies to improve the delivery of critical HM safety information throughout the transportation chain. In 2009, PHMSA’s Office of Hazardous Materials Safety (OHMS) held a public meeting to discuss the purpose and objective of this initiative. An interagency agreement was established with the Volpe National Transportation Systems Center (US DOT, RITA) September 2011 for the purpose of assisting PHMSA in implementation of the HM-ACCESS initiative.

#### Analysis

From 2011 to present, PHMSA conducted actions to implement paperless hazard communications, including:

- Collaborating on two Transportation Research Board (TRB) Hazardous Materials Cooperative Research Program (HMCRP) reports (Reports 4 and 8) to examine better approaches to communicate HM information to emergency responders during transportation; Assessing operational and technological requirements through data

gathering with HM stakeholders (Federal and State authorities, emergency responders, law enforcement, and the HM industry);

- Hosting workshops with stakeholders to communicate and obtain feedback on information obtained regarding operational and technological requirements;
- Publishing e-HM information papers highlighting the collective HM transportation community's priorities, gaps, and concerns for implementing paperless hazard communications;
- Defining and communicating data collection plan for testing e-system performance and for analyzing impacts (safety, security, benefits, and costs);
- Publishing 60-Day Federal Register Notice (July 19, 2013) to notify stakeholders and the public of the pilot tests, seek pilot test volunteers, and request comments on planned data collection activities; and
- Publishing 30-Day Federal Register Notice (Nov 25, 2013) to address stakeholder comments received on the 60-Day Notice, and identify specific data collection questions.

The pilot tests will be conducted in 2014, following approval of the 60- and 30-Day Federal Register Notices<sup>ii</sup> by the Office of the Secretary of Transportation (OST) and the Office of Management and Budget (OMB). Pilot tests will occur in at least three U.S. regions possessing high concentrations of hazardous materials registrants and presenting historically high numbers of HM incidents resulting in deaths and injuries; a rural area in at least one region will also be included. The pilot tests will focus on the use of e-systems to communicate HM shipping paper information while shipping HM from origin to final destination and during law enforcement inspections and emergency response simulations.

## **Summary**

MAP-21 specifies that, upon completion of the pilot projects, PHMSA's Secretary must report to Congress by October 1, 2014 an evaluation of the performance of the e-systems; an assessment of the safety and security impacts of using e-systems; an analysis of the associated benefits and costs; and a recommendation whether e-systems should be permanently incorporated into the Federal HM regulations.

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<sup>i</sup> 49 U.S.C. 5110(e), added by Pub. L. 103-311, Title I, § 115, 108 Stat. 1678 (Aug. 26, 1994)

<sup>ii</sup> Docket No. PHMSA-2013-0124, Notice No. 13-7