

IPANA/RIPA

Annual Meeting

Dr. Rachel A. Meidl

Deputy Associate Administrator

Office of Hazardous Materials Safety

Pipeline and Hazardous Materials Safety Administration (PHMSA)

October 27, 2016



U.S. Department of Transportation
Pipeline and Hazardous Materials
Safety Administration

To Protect People and the Environment From the Risks of
Hazardous Materials Transportation



PHMSA's Mission

Protect people and the environment by advancing the safe transportation of energy and other hazardous materials that are essential to our daily lives.



U.S. Department of Transportation
Pipeline and Hazardous Materials
Safety Administration

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Hazardous Materials Transportation



PHMSA Leadership



Administrator
Marie Therese
Dominguez



Deputy
Administrator
John Drake



Chief Counsel
Teresa Gonsalves



Interim
Executive
Director/Acting
Chief Safety
Officer
Pamela Whitley



U.S. Department of Transportation
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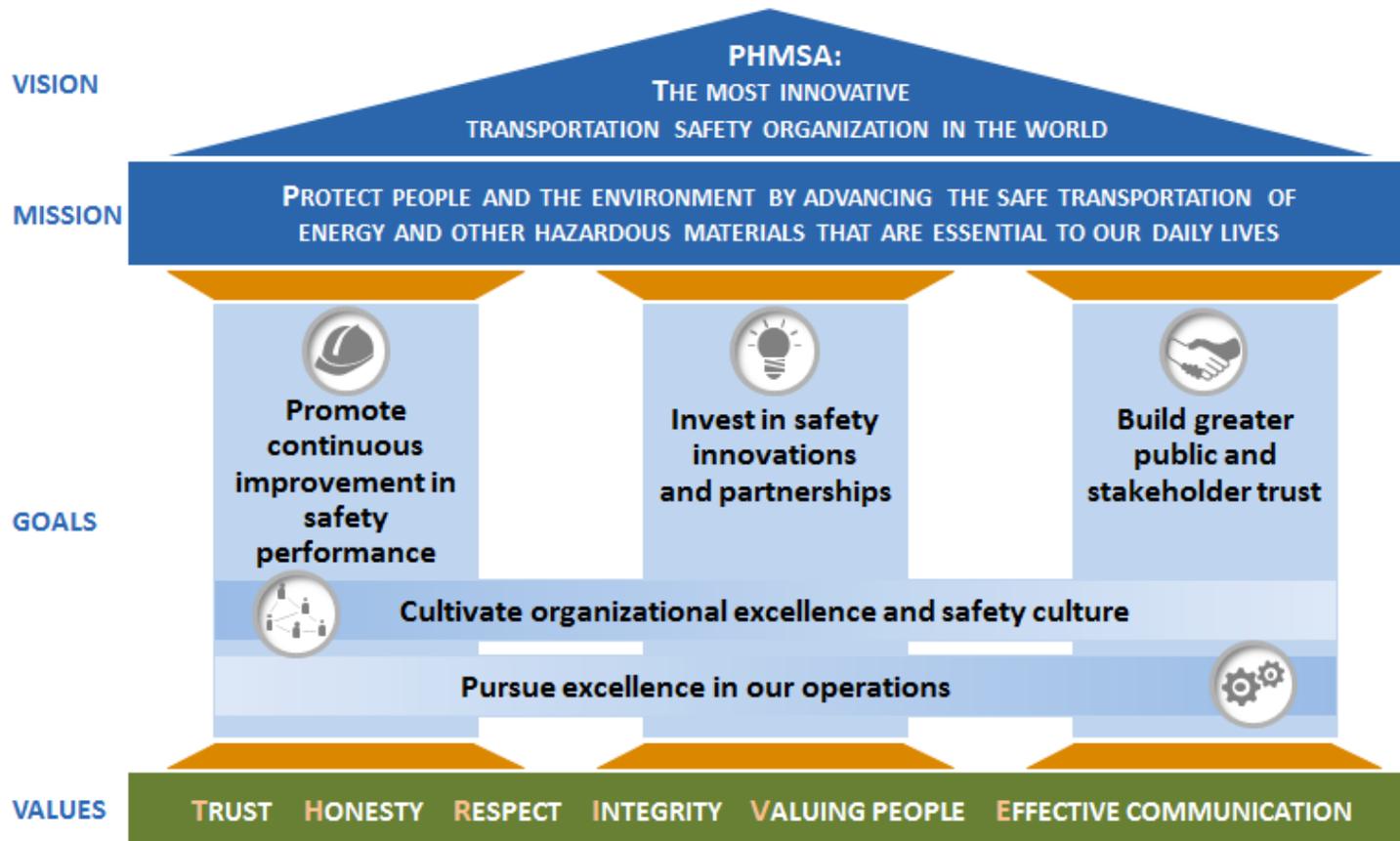


Retirement of Dr. El-Sibaie

- Dr. Magdy El-Sibaie joined PHMSA in 2009
- His accomplishments include:
 - The streamlining of special permit and approval processes
 - The development of the High Hazard Flammable Train rulemaking
 - The recent hazardous materials safety reauthorization with the passage of the FAST Act



PHMSA2021



U.S. Department of Transportation
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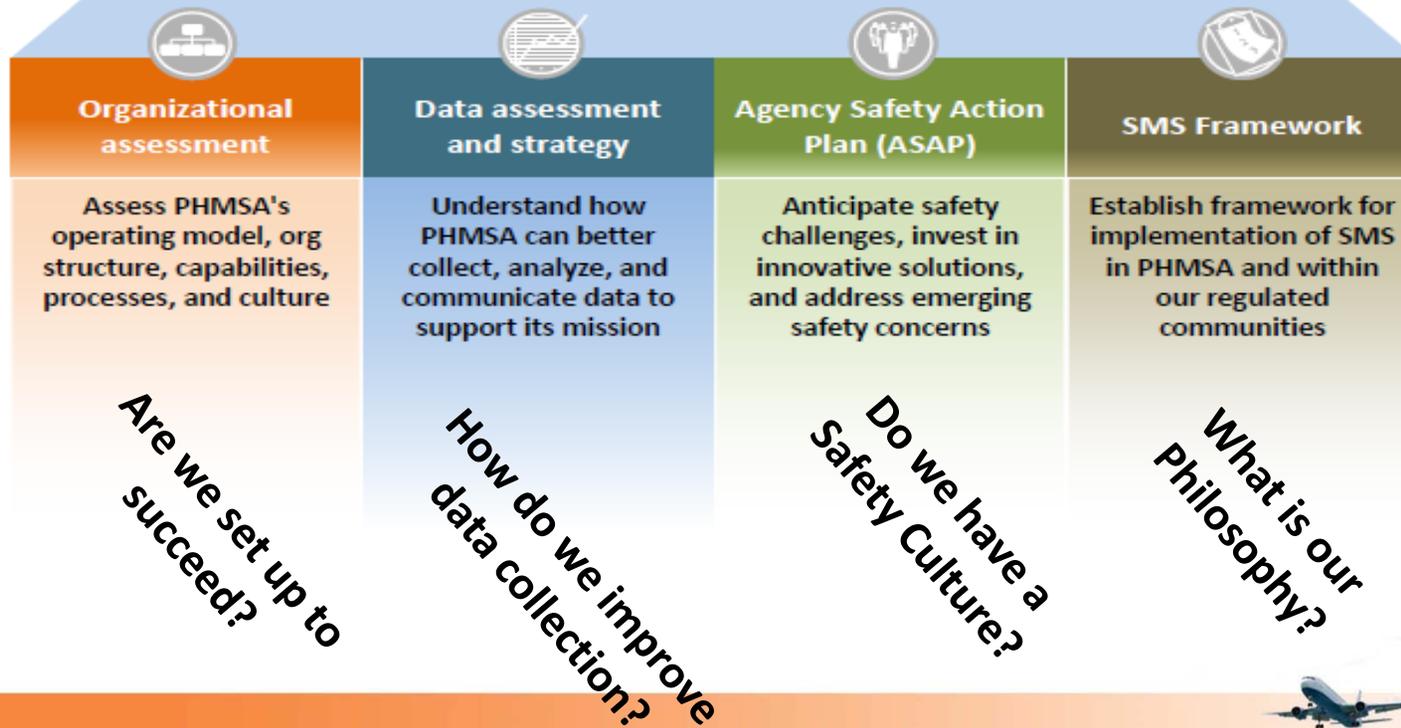
To Protect People and the Environment From the Risks of
Hazardous Materials Transportation



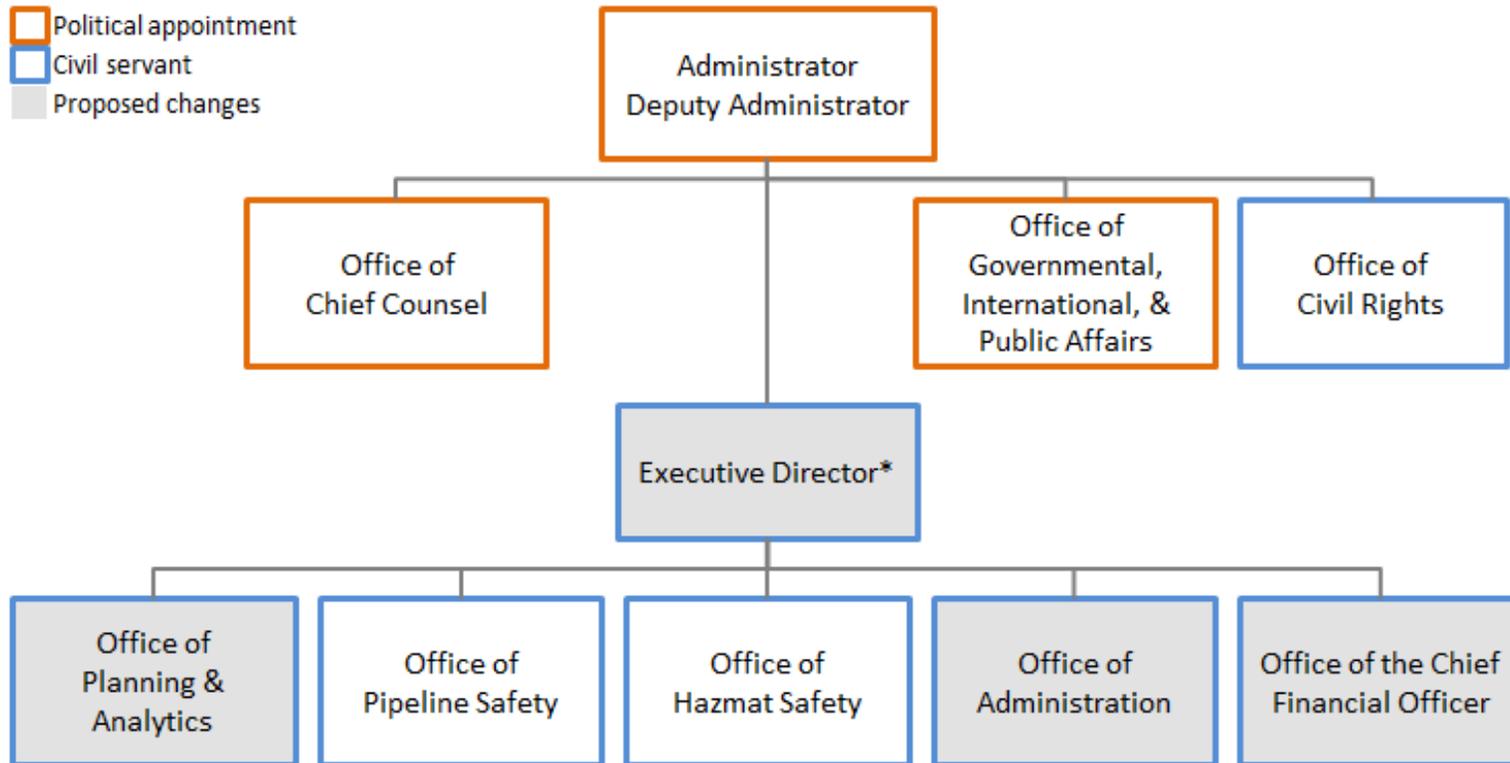
Four Key Initiatives to Enable PHMSA2021

PHMSA – The most innovative transportation safety organization in the world

To protect people and the environment by advancing the safe transportation of energy and other hazardous materials that are essential to our daily lives.



Organizational Chart

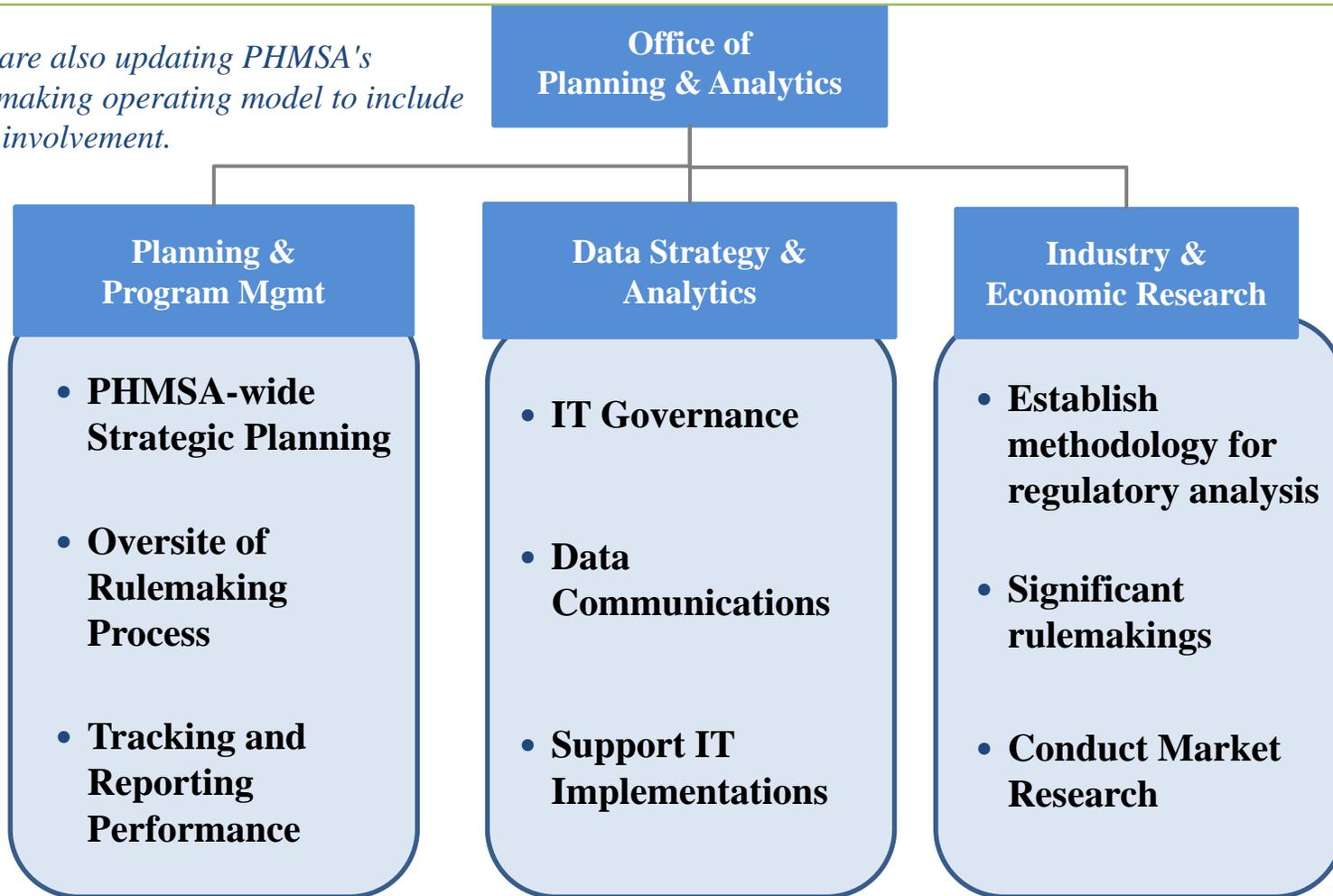


**The Executive Director will also serve as the statutorily-required Assistant Administrator for Pipeline and Hazardous Materials Safety and Chief Safety Officer.*

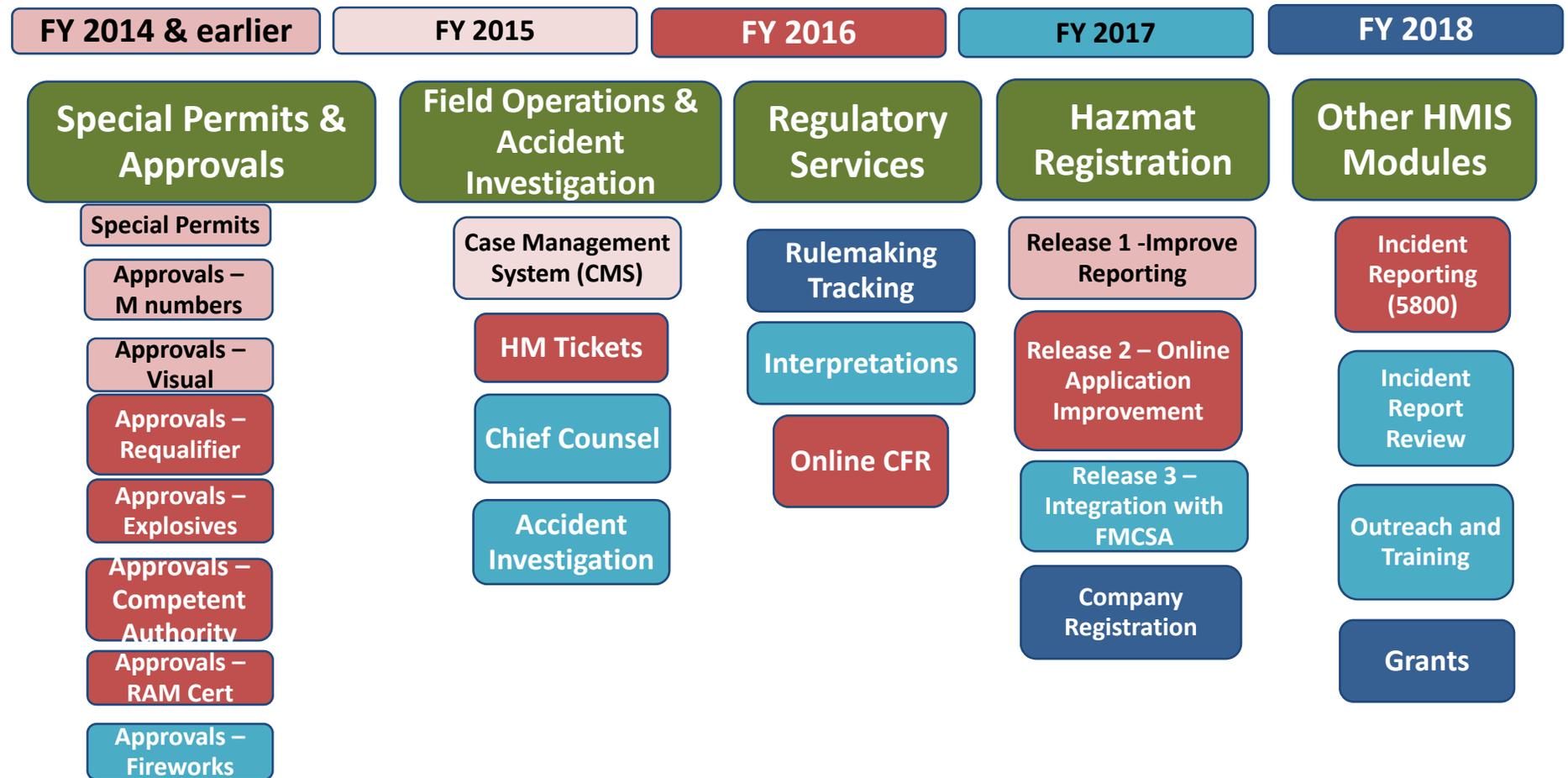


New Office of Planning & Analytics

**We are also updating PHMSA's Rulemaking operating model to include OPA involvement.*



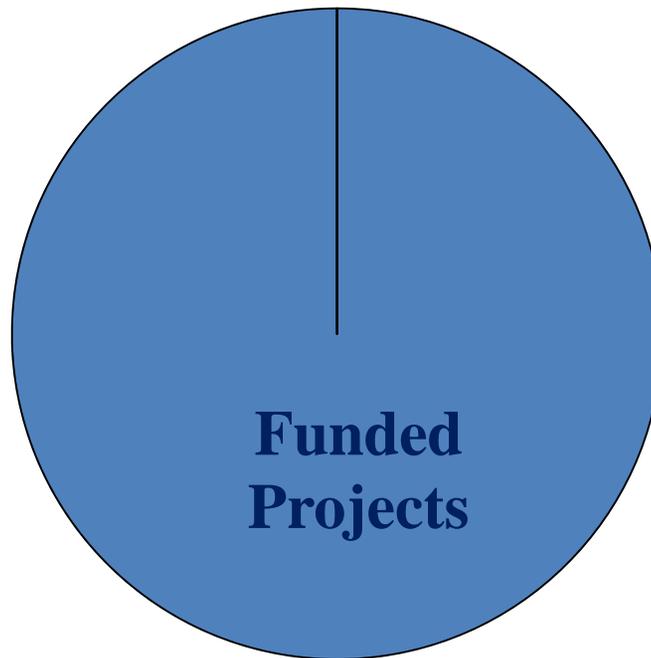
Hazmat IT Modernization



- Safety Performance Monitoring
- Itinerary Planner (IP)
- Hazmat Intelligence Portal (HIP)
- Integrate Risk Management Framework Model
- Data Visualization & Risk Modeling



R&D Funding 2014-2016



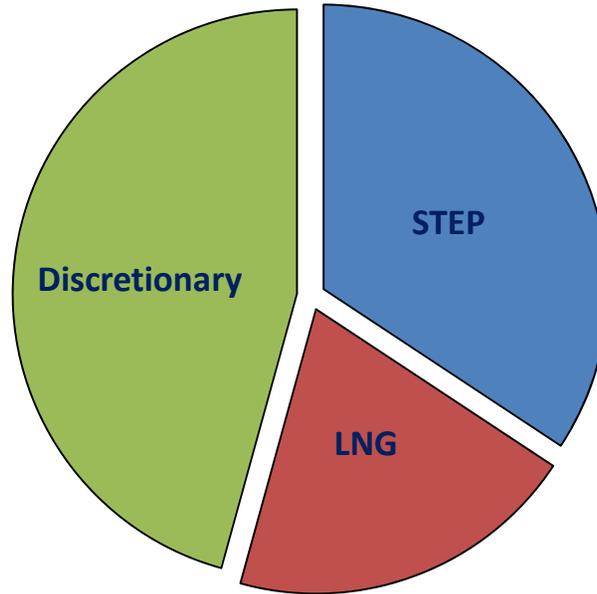
Projects

Princeton Cylinder Failure
Princeton Valve Failure
SCBA Cylinder Carryover
Chain Shell Testing Carryover
Large Format Li Batteries
Thermal Runaway Li Batteries
2016 ERG Closeout
Insurance/Liability Study
ECP Braking Testing
Black Powder Equivalency
Crude Classification, W-ink
Additional Chain Shell Test
Metallic Foam Testing
Jack Rabbit II Chlorine Testing
SBIR



R&D Funding 2015-2017

COMPLETED:
FY15 SBIR Program
2020 ERG Reactivity Studies
CARRY OVER:
Large Format Li Battery
Thermal Runaway Li Battery
Metallic Foam Research
DESIGNATED:
HM-ACCESS Phase II
2020 ERG Support
Airbag, Component, Propellant Testing
Oil Classification, W-ink
Hydrogen Embrittlement
Evaluation of IME-22 Box
Classification of Shape Charges
2016 SOO/BAA Program

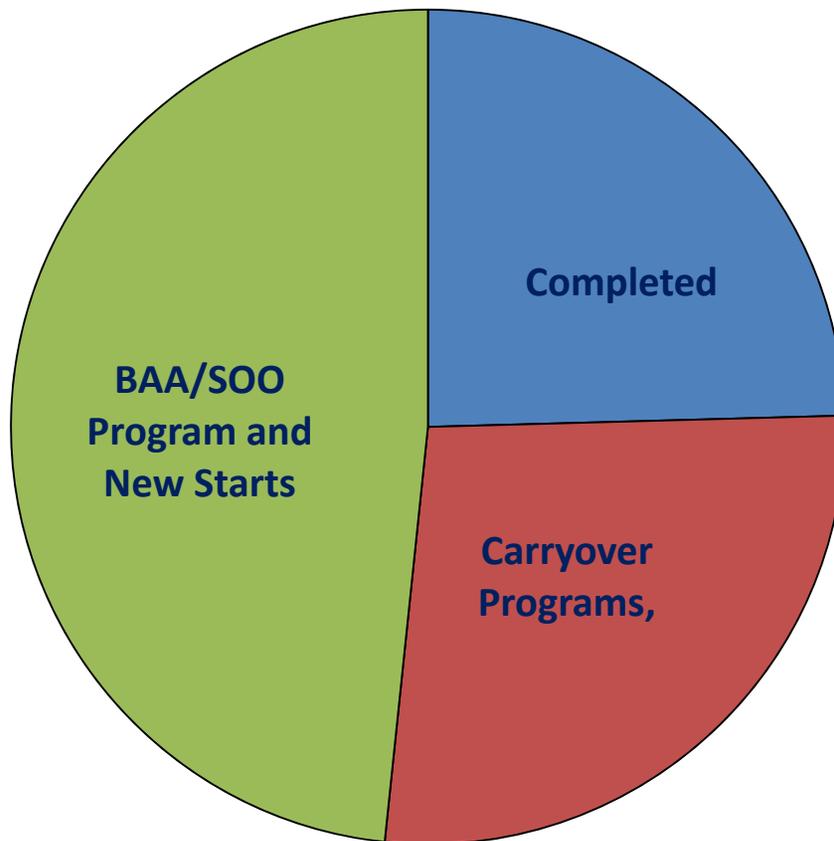


DOT/DOE/SNL Program
Volpe Facilitation in FY16
Volpe Facilitation in FY17

Small LNG Facilities Risk
Lit. Review of LNG Testing of LNG
Thermal and Impact Testing
Risk Analysis



R&D Funding 2016-2018

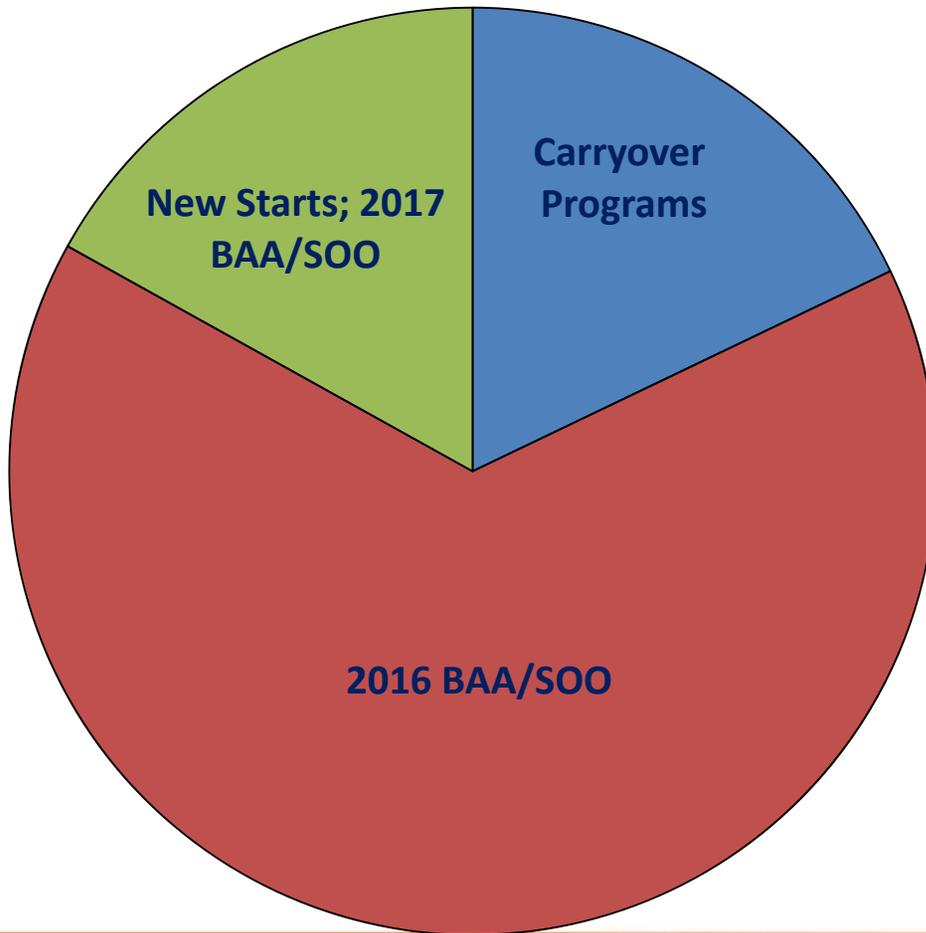


Projects

Crude Oil Classification
FY17 SBIR
HM-ACCESS 2.0
Large Format Li Battery
Thermal Runaway Li Battery
2020 ERG Support
IDIQ Deterministic
IDIQ Analytical
Metallic Foam Research
Hydrogen Embrittlement
2016 BAA/SOO Program
Cylinder Testing (Composite and Metal)
Additional DOT/DOE/SNL Tasks
Testing of Bulk LNG Packaging
Risk Model for LNG and Hazmat



R&D Funding (ESTIMATE) 2017-2019



Projects

SBIR Program
HM-ACCESS 2.0
2020 ERG Support
Emerging Analysis
Emerging Testing
Hydrogen Embrittlement



Research & Development (R&D)

R&D Forum

- Held in March 2016
- Evaluating Research Needs Statements
- Next Forum February or March 2017

Planned 2016 R&D Initiatives

- Crude Oil Classification
- Emerging Transport Risks Associated with Energy Products
- Lithium Battery Thermal Runaway
- Tape Study
- Bottle Study

Research Needs Statement

- Visit our website and complete a Research Needs Statement if you have a research idea or know of a critical research gap that should be pursued.



R&D Website: <http://www.phmsa.dot.gov/hazmat/engineering-research/research-and-development>

Research Needs Statement Form:

http://www.phmsa.dot.gov/staticfiles/PHMSA/DownloadableFiles/Files/Research_and_Development_RNS_template.docx



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Validation Testing Program

- Promote safety of U.S. system
 - Failures in PHMSA validation testing lead to better packaging designs by manufacturers
- Protect U.S. industry intellectual property
 - Prosecution of counterfeit designs and symbols
 - Testing of foreign packaging
- Improved industry testing programs
 - Alternative validation testing provides the best opportunity to help testers improve operations



Validation Testing Program

- Promote safety of packages
 - There are 40 companies that have been identified for potential inspection and AVT testing.
 - These companies have packages tested by third party labs, have had no inspection history, and have a higher number of incidents.
 - We will inspect the companies and then select packages for AVT testing.
 - If there are failures during AVT, the next step is Corrective Action Testing after the company does a SMS redesign.



PHMSA Inspection Program

- FY17 PHMSA inspections focus areas:
 - Packaging inspections (Non-Bulk & IBC)
 - Package test labs & requalifiers
 - Cylinder manufacturers & RINs (Domestic, International)
 - Explosive/Firework approval holders
 - Special permit holders select agent labs (Third Party Labs)
- Updating IT systems to reflect this new focus



Common Packaging Concerns

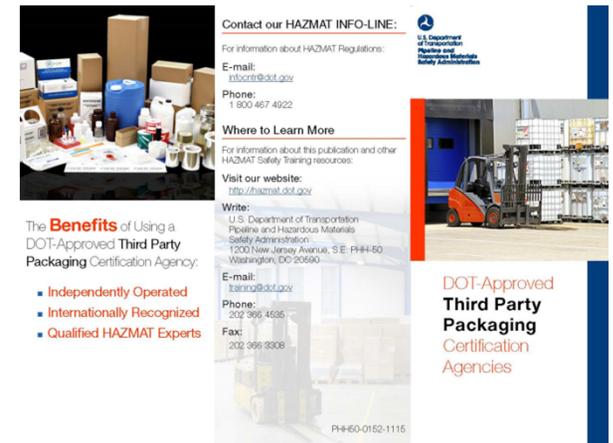
- Failure to provide function specific training
 - Employees need to know specifics on packaging designs/preparation & use
 - Purchasing; sales; design; regulatory compliance.
- Assembly and Closure
 - User instructions for consistent repeatable means to prepare package as it was prepared for testing.
 - Unrepeatable instructions and lack of specifics on components can lead to improper preparation and failure in transport.



Third Party Packaging Labs

- Currently 21 labs in-network
- New approval terms issued in late 2015 and mid-2016
- One new lab in 2015 and one new lab in 2016
- Third Party Labs are:
 - Reviewed for qualifications
 - Test design types they have appropriate equipment for and experience in
 - Routinely audited

http://www.phmsa.dot.gov/staticfiles/PHMSA/DownloadableFiles/Files/final_web.pdf



Contact our HAZMAT INFO-LINE:
For information about HAZMAT Regulations:
E-mail: info@hazmat.dot.gov
Phone: 1 800 467 4922

Where to Learn More
For information about this publication and other HAZMAT Safety Training resources:
Visit our website: <http://hazmat.dot.gov>

Write:
U.S. Department of Transportation
Pipeline and Hazardous Materials
Safety Administration
1200 New Jersey Avenue, S.E. PHH-60
Washington, DC 20590

E-mail: phmsa@dot.gov
Phone: 202 366 4635
Fax: 202 366 3308

The Benefits of Using a DOT-Approved Third Party Packaging Certification Agency:

- Independently Operated
- Internationally Recognized
- Qualified HAZMAT Experts

DOT-Approved Third Party Packaging Certification Agencies

PHH-60-0162-1115



RIPA Recommendations

1. “Limit role of Tobyhanna to cases in which testing is required for highly suspect packaging or those that present immediate threat to safety.”
2. “Do not display data at all; or, revise substantially how data is displayed.”



Short Title	HM-#	Stage	Docket #: PHMSA-	Target Publication Date
MBTs	HM-233D	Final Rule	2011-0345	Published 12/21/2015
Wetlines	HM-213D	Withdrawal	2009-0303	Published 12/30/2015
SPCP	HM-233F	Final Rule	2013-0042	Published 01/21/2016
Reverse Logistics	HM-253	Final Rule	2011-0143	Published 03/31/2016
IBR 2015 ASME	HM-261	DFR	2015-0271	Published 04/29/2016
ASME	HM-241	SNPRM	2010-0019	Published 04/29/2016
Battery Powered E-Smoking Devices	HM-262	Final Rule	2015-0165	Published 05/19/2016
Miscellaneous	HM-218H	Final Rule	2013-0225	Published 06/02/2016
Revisions of Max/Min Civil Penalties	HM-258D	IFR	2016-0041	Published 06/29/2016
Petitions	HM-219A	NPRM	2015-0102	Published 06/30/2016
Cylinders	HM-234	NPRM	2011-0140	Published 07/26/2016
Oil Spill / Info Sharing HHFT	HM-251B	NPRM	2014-0105	Published 07/29/2016
FAST Act Flam. Liq. / Tank Cars	HM-251C	Final Rule	2016-0011	Published 08/15/2016
Int'l Harmonization	HM-215N	NPRM	2015-0273	Published 09/07/2016
Grants Revisions	HM-209A	NPRM	2015-0272	Published 10/11/2016
NOTOC / Air Petitions	HM-259	NPRM	2015-0100	Fall 2016
Volatility Unrefined Petro. & Class 3	HM-251D	ANPRM	2016-0077	Fall 2016
PIPES Act - 172.336 ID Numbers	HM-213E	ANPRM	2016-0079	Fall 2016
Revised Lithium Battery	HM-224I	IFR	2016-0014	Fall 2016
Int'l Harmonization	HM-215N	Final Rule	2015-0273	January 1, 2017
ERI / Fusion Centers	HM-263	NPRM	2016-0015	2017
ASME	HM-241	Final Rule	2010-0019	2017
Petitions	HM-219A	Final Rule	2015-0102	2017
Cylinders	HM-234	Final Rule	2011-0140	2017
Oil Spill / Info Sharing HHFT	HM-251B	Final Rule	2014-0105	2017
Miscellaneous; Response to Appeals	HM-218H	Final Rule	2013-0225	2017
Rail Part 174	HM-251A	NPRM	2014-0031	2017

Rulemakings

- HM-219A –Miscellaneous Petitions for Rulemaking NPRM
- HM-234 – Miscellaneous Amendments Pertaining to DOT Specification Cylinders Final Rule
- HM-209A – Revisions to Hazardous Materials Grants Requirements NPRM
- HM-215N Harmonization with International Standards NPRM



UN TDG Sub-Committee

- 50th Session, November 28 – December 6, 2016
- 4th meeting of four in the 2015-2016 Biennium
- 37 working papers submitted



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Crude by Rail



Lac-Mégantic, Quebec



Mosier, Oregon



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HM-ACCESS

Hazardous Materials Automated Cargo Communications for Efficient and Safe Shipments

- Mandated under Section 33005 of the Moving Ahead for Progress in the 21st Century Act (MAP-21)
- Analysis and testing have been completed and the report has been transmitted to Congress
- PHMSA is in the planning stages of Phase 2 of the project



Online Code of Federal Regulations (oCFR)

- Interactive Web-based application that automates the accessibility of 49 CFR parts 171-180
- Released March 25, 2016
- https://portal.phmsa.dot.gov/ecfr/faces/pages/ecfr.jspx?_afLoop=3208619122040806&_afWindowMode=0&_adf.ctrl-state=qf9dnrwdp_4

Navigate Between Related Content:

- *CFR*
- *Rulemakings*
- *Letters of Interpretation*
- *Petitions*
- *Approvals & Special Permits*
- *Enforcement Cases*



Grants

Hazardous Material Emergency Preparedness (HMEP) Grant

- \$20M awarded on September 2016 to States, Territories, and Tribes

Hazardous Materials Instructor Training (HMIT) Grant

- \$3.4M awarded in June 2016

Supplemental Public Sector Training (SPST)

- Nearly \$1M awarded in June 2016

Community Safety Grant

- \$1M awarded in September 2016



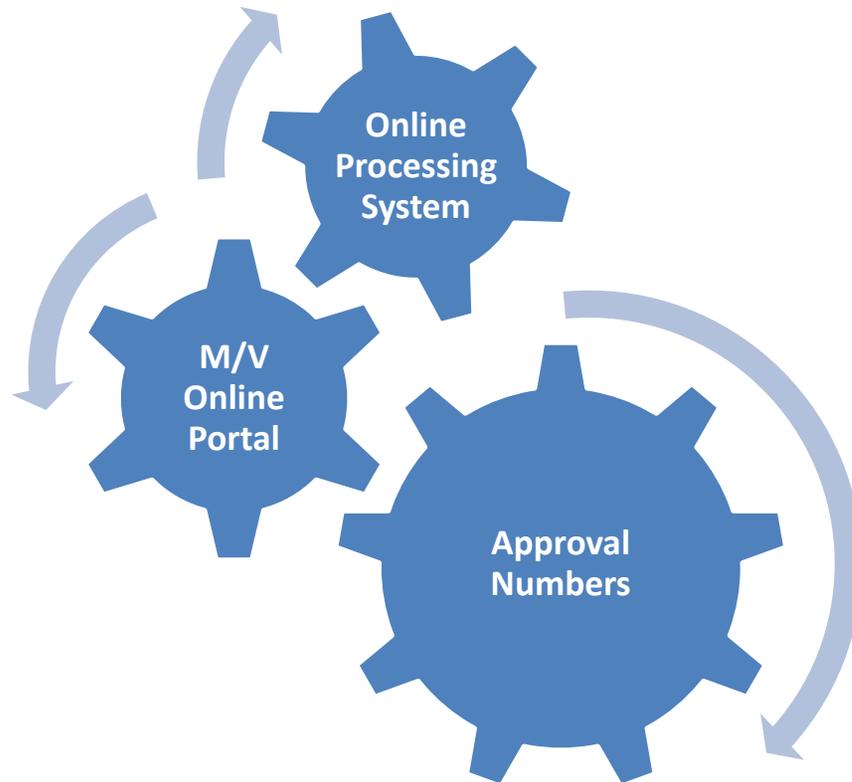
Community Safety Grant



- Not derived from registration fees
- \$1 million to two non-profit organizations: the Commercial Vehicle Safety Alliance and the Sustainable Workplace Alliance



Approvals and Permits



Updates to Functionalities

- Online Processing of Applications:
<https://portal.phmsa.dot.gov/portal>
- M-Number Approval and Visual-Only Requalifier (VIN) Approval Portal
- Updated Approvals Numbers



GAO Classification Audit

Recommendation 1:

- To improve PHMSA's oversight of the explosives classification process, the Secretary of Transportation should direct the PHMSA Administrator to develop and implement a systematic approach for improving the guidance PHMSA provides test labs.

Recommendation 2:

- To improve PHMSA's oversight of the explosives classification process, the Secretary of Transportation should direct the PHMSA Administrator to develop a written plan describing information requirements for PHMSA's new data system. Such a data plan should include information requirements needed to meet PHMSA's goals and address risks.



Data Operations – ISO-9001

- ISO-9001 Certification for a Data Operations Quality Management System (QMS)
 - Standardizes processes and procedures in a systematic approach.
 - Based on the principles of strong customer focus, top management engagement, the process approach, and continual improvement.
 - QMS targets and minimizes risks related to non-standard procedures & practices, staff competencies, accountability, resource issues, oversight, and quality assurance.
 - OHMS expects this effort to improve processing times and efficiencies, resource use, stakeholder satisfaction, and data quality and consistency.



Smart Incident Management System

Project Goal: Replace the current data collection with the Smart Incident Management System

Improve how the data is collected and validated based on current and new business rules

Simplifies reporting process of an incident, eliminates the need for submission of multiple reports for a single incident

Enforces data correctness completeness

Aligns with agency strategic goals
Data Assessment and Strategy

Integrates with other PHMSA portal based systems

Automation and other efficiencies that will improve the user experience for stakeholders



Potential Future Projects

U.S. Department of Transportation
Pipeline and Hazardous Materials
Safety Administration

**Hazardous Materials
Incident Report**

Form Approval OMR No. 2137-0039

According to the Paperwork Reduction Act of 1995, no persons are required to respond to a collection of information unless it displays a valid OMB control number. The valid OMB control number for this information collection is 2137-0039. The filling out of this information is mandatory and will take 96 minutes to complete.

INSTRUCTIONS: Submit this report to the Information Systems Manager, U.S. Department of Transportation, Pipeline and Hazardous Materials Safety Administration, Office of Hazardous Materials Safety, OHS-403, Washington, D.C. 20590-0001. If space provided for any item is inadequate, use a separate sheet of paper, identifying the entry number being completed. Copies of this form and instructions can be obtained from the Office of Hazardous Materials Website at <http://hazmat.dot.gov>. If you have any questions, you can contact the Hazardous Materials Information Center at 1-800-468-6322 (1-800-467-6322) or online at <http://hazmat.dot.gov>.

PART I - REPORT TYPE

1. This is to report: A) A hazardous material incident B) An undeclared shipment with no release
 C) A specification cargo tank 1,000 gallons or greater containing any hazardous materials that (1) received structural damage to the loading retention system or damage that requires repair to a system intended to protect the loading retention system and (2) did not have a release.

2. Indicate whether this is: An initial report A supplemental (follow-up) report Additional Pages

PART II - GENERAL INCIDENT INFORMATION

3. Date of Incident: _____ 4. Time of Incident (use 24-hour time): _____

5. Enter National Response Center Report Number (if applicable): _____

6. If you submitted a report to another Federal DOT agency, enter the agency and report number: _____

7. Location of Incident: City: _____ County: _____ State: _____ ZIP Code (if known): _____
Street Address/Mile Marker/Farmland/Airport/Body of Water/River Mile _____

8. Mode of Transportation Air Highway Rail Water

9. Transportation Phase In Transit Loading Unloading In Transit Storage

10. Carrier/Reporter Name _____
Street _____
City _____ State _____ ZIP Code _____
Federal DOT ID Number _____ Hazmat Registration Number _____

11. Shipper/Officer Name _____
Street _____
City _____ State _____ ZIP Code _____
Waybill/Shipping Paper _____ Hazmat Registration Number _____

12. Origin (if different from shipper address) Street _____
City _____ State _____ ZIP Code _____

13. Destination Street _____
City _____ State _____ ZIP Code _____

14. Proper Shipping Name of Hazardous Material: _____

15. Technical/Trade Name: _____

16. Hazardous Class/Division: _____ 17. Identification Number: _____ 18. Packing Group: _____ 19. Quantity Released: _____
(e.g. UN2716, NA 2009) (if applicable) (Exclude measurement units)

20. Was the material shipped as a hazardous waste? Yes No If yes, provide the EPA Manifest Number: _____

21. Is this a Toxic by Inhalation (TIH) material? Yes No If yes, provide the Hazard Zone: _____

22. Was the material shipped under an Exemption, Approval, or Component Authority Certificate? Yes No
If yes, provide the Exemption, Approval, or CA number: _____

23. Was this an undeclared hazardous materials shipment? Yes No

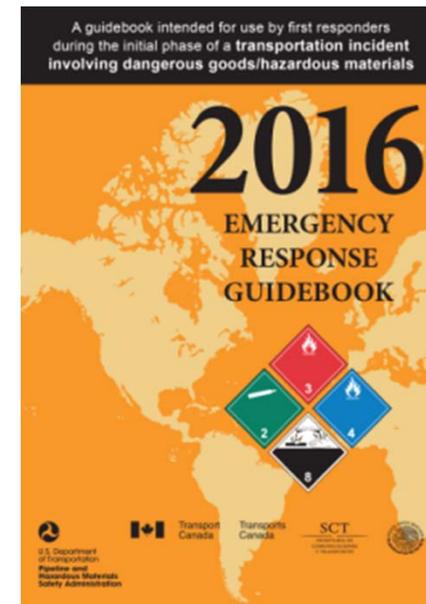
Form DOT F 5800.1 (01-2004) Page 1 Reproduction of this form is permitted

- Require a meta-analysis and review of how data elements are used, confidence issues with data fields, and recommendations for improvements for DOT Form 5800.1 content and design, including potential changes requiring a rulemaking that would provide a measurable benefit over, and above, the status quo.



Outreach and Training

- **2016 Emergency Response Guidebook (ERG)**
 - Printed and distributed over 1.5 million copies
 - Mobile application available
- **New and Improved Hazardous Materials Transportation Training Program**
 - Free Hazardous Materials Transportation Training Modules available on PHMSA's website
 - <http://dothazmat.vividlms.com/>



Outreach Initiatives Approvals and Permits

*“Guidance for U.S. DOT
Competent Authority Approval
Holders regarding Organic
Peroxides and Self-Reactive
Substances Packing Group
Designations after HM-218H”*



**Compressed Gas
Cylinder Webinar
November 17, 2016**

Brochure:

[http://www.phmsa.dot.gov/staticfiles/PHMSA/DownloadableFiles/Files/SafetyGuidance Organic Peroxides and Self Reactives Substance HM218 H.pdf](http://www.phmsa.dot.gov/staticfiles/PHMSA/DownloadableFiles/Files/SafetyGuidance%20Organic%20Peroxides%20and%20Self%20Reactive%20Substance%20HM218%20H.pdf)



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Packaging Program Outreach

- LOGSA Tours Prior to 2015
 - Primarily offered to trade groups, and UN package manufacturers to examine test samples after validation testing
- New outreach program designed for:
 - Private one-on-one visits for manufacturers
 - Perfect for company testing personnel, quality control, regulatory affairs
 - Customized to suit needs and interests
 - Demonstration testing w/your pkg.
 - Sharing of best practices for testing



Hazmat Conference



- Annual two-day conference on hazma and modal policies and initiatives.
- The conference will be free of charge for participants.



Joint PHMSA/OSHA Memo



U.S. Department of Transportation
Pipeline and Hazardous Materials Safety Administration



September 19, 2016

Labeling of Hazardous Chemicals for Bulk Shipments

Joint Guidance Memorandum

Prepared by PHMSA's Office of Hazardous Materials Safety and OSHA

Introduction

The U.S. Department of Transportation's (DOT) Pipeline and Hazardous Materials Safety Administration (PHMSA) and the U.S. Department of Labor's Occupational Safety and Health Administration (OSHA) are responsible for enforcing distinct and separate safety standards that address appropriate labeling of chemical hazards in transportation (PHMSA) and in the workplace¹ (OSHA). PHMSA's labeling requirements are contained in the U.S. Hazardous Materials Regulations (HMR; 49 CFR Parts 100-180) and apply to transportation² of hazardous materials in commerce. OSHA's labeling requirements are specific to the workplace and are found in the Hazard Communication Standard (HCS 2012), 29 CFR § 1910.1200. For the purposes of this memorandum, labeling also includes DOT placarding, signs, and other markings.

PHMSA and OSHA are aware of a number of questions from stakeholders concerning the labeling required by each agency. The purpose of this memorandum is to provide clarity on the

Memo:

http://www.phmsa.dot.gov/staticfiles/PHMSA/DownloadableFiles/Files/joint_phmsa_memo_09192016.pdf

- DOT has full jurisdiction over hazcom in transport.
- Hazcom conforming to GHS such as that required by OSHA's regs is optional in transport and not required.
- Confusing or contradictory hazcom not conforming to GHS is prohibited in transport
- OSHA has full jurisdiction in the workplace.
- OSHA is open to considering modernized mechanisms that ensure information is available to workers in the workplace based on new technologies.

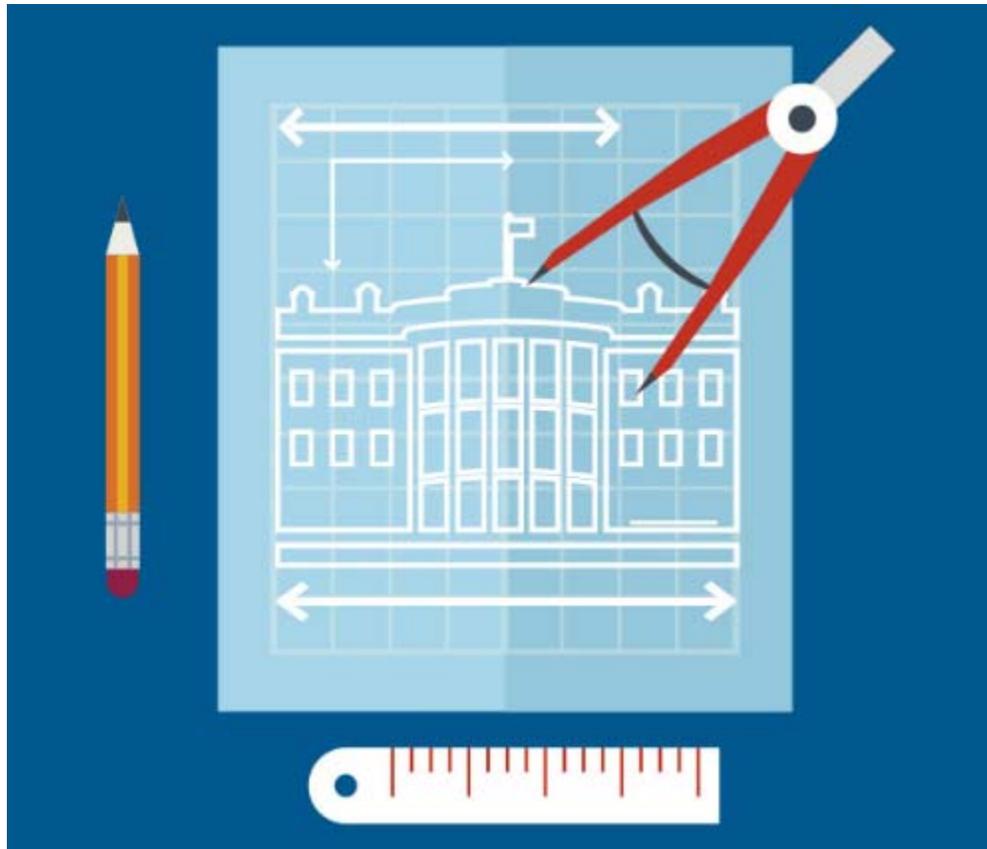


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Transition



Questions?



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