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# *Office of Inspector General*

# *Audit Report*

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## **PHMSA HAS ADDRESSED MOST WEAKNESSES WE IDENTIFIED IN ITS SPECIAL PERMIT AND APPROVAL PROCESSES**

*Pipeline and Hazardous Materials Safety Administration*

*Report Number: MH-2014-064*

*Date Issued: July 17, 2014*





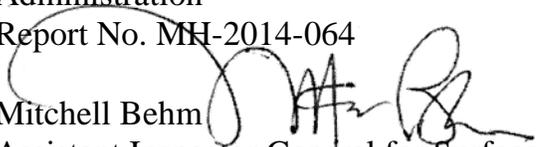
# Memorandum

U.S. Department of  
Transportation

Office of the Secretary  
of Transportation  
Office of Inspector General

Subject: **ACTION:** PHMSA Has Addressed Most  
Weaknesses We Identified In Its Special Permit  
and Approval Processes  
Pipeline and Hazardous Materials Safety  
Administration  
Report No. MH-2014-064

Date: July 17, 2014

From: Mitchell Behm   
Assistant Inspector General for Surface  
Transportation Audits

Reply to  
Attn. of: JA-30

To: Pipeline and Hazardous Materials Safety Administrator

The Pipeline and Hazardous Materials Safety Administration (PHMSA) regulates about 1 million transports of hazardous materials (hazmat) a day under its Hazardous Material Regulations (HMR).<sup>1</sup> However, numerous businesses and Government agencies move many of these materials by truck, rail, and other transportation modes under special permits from PHMSA that provide exceptions to requirements in the HMR. Similarly, entities that want to perform functions that require prior consent under the HMR, such as classifying explosives and manufacturing cylinders for transport, must first receive written approval from PHMSA's Associate Administrator for Hazardous Materials Safety.

In 2009 and 2010, we reported on weaknesses in PHMSA's processes for granting special permits and approvals.<sup>2</sup> These weaknesses raised questions about the effectiveness of PHMSA's oversight of hazmat transport safety. Specifically, we found that PHMSA: (1) did not review incident and enforcement records to establish applicants' fitness for conducting activities authorized by special permits and approvals; (2) had little or no evidence of its evaluations of applicants'

<sup>1</sup> 49 CFR Parts 171-180.

<sup>2</sup> *PHMSA's Process for Granting Special Permits and Approvals for Transporting Hazardous Materials Raises Safety Concerns*, OIG Report Number CC-2009-096, September 10, 2009; *New Approaches Needed In Managing PHMSA's Special Permits And Approvals Program*, OIG Report Number AV-2010-045, March 4, 2010; *Actions Taken and Needed To Improve Management and Oversight of PHMSA's Hazardous Materials Special Permits and Approvals Program*, OIG Report Number CC-2010-044, April 22, 2010. OIG reports are available on our Web site, [www.oig.dot.gov](http://www.oig.dot.gov).

proposed measures for safely transporting hazmat; (3) rarely coordinated applications with affected operating administrations (OA) before issuing special permits and approvals; (4) had not inspected explosives testing laboratories in 10 years; and (5) did not adequately plan to address necessary information technology improvements within the Agency.

Before we completed our prior work, PHMSA had developed—but not fully implemented—standard operating procedures (SOP) for issuing special permits and approvals. PHMSA also developed action plans to improve its special permit and approval processes and related data collection and analysis activities. We conducted this audit to assess PHMSA’s progress in addressing the issues highlighted in our previous work. Specifically, we assessed whether PHMSA (1) implemented SOPs and addressed weaknesses highlighted in our prior reports, and (2) has improved information technology that supports its special permit and approval processes.

We conducted this audit from July 2013 through June 2014 in accordance with generally accepted Government auditing standards. To conduct this audit, we reviewed supporting documentation for samples of 71 special permits and 78 approval applications submitted to PHMSA from July 2011 through December 2012. We interviewed staff involved in the review of special permit and approval applications at PHMSA, other OAs, and the U.S. Coast Guard. We also interviewed PHMSA staff involved in the development of information technology. See exhibit A for additional details on our scope and methodology and exhibit B for a list of the organizations we visited or contacted. See exhibit C for explanations of special permit types—new, renewal, modification, party-to, and emergency—and approval categories—registration, classification (of explosives and fireworks), cylinders, third-party certification agencies, general approvals, and radiation.

## **RESULTS IN BRIEF**

PHMSA has implemented SOPs and addressed weaknesses that we found during our previous audit work. The SOPs describe processes for assessing the fitness of entities applying for special permits and approvals and evaluating measures for achieving safety levels required by the HMR. For example, the SOP for processing approvals directs PHMSA project officers to use a multi-phase process to assess applicant fitness and document their safety evaluations using standard forms. Based on our samples, PHMSA processed all of the special permit applications and most of the approval applications in accordance with the SOPs. However, files for 13 explosives classification approval applications lacked technical evaluation forms that document the reasons for technical officers’ safety recommendations. In response to our identification of the missing forms, PHMSA took steps during

the audit to address this internal control weakness. The Agency is also coordinating applications with other OAs based on the SOPs' criteria when applications are mode-specific, precedent setting, or meet a specific condition, such as transporting lithium ion batteries by air. Finally, PHMSA has conducted inspections and taken other steps to strengthen its oversight of third-party agencies that inspect cylinder applicants, test explosives, and certify hazmat packaging on PHMSA's behalf.

PHMSA has begun improving the information technology that supports the special permit and approval processes, but has delayed implementation of one system, the Portal, because of issues with the module for processing special permit applications. Agency documents state that the module was completed in 2011, but staff currently use only some of its capabilities. The module is designed to process all types of special permit applications. However, PHMSA deactivated the module's capability for processing new and modified special permits because users found it difficult to accurately identify applicant companies and their operating locations. Additionally, the Agency's current method of identifying companies is not sufficient when an applicant has a complex structure. PHMSA is working to resolve this issue, but Agency representatives state that they will need to analyze new data sources and secure additional funding. As a result, the Agency is not benefitting from the Portal's more efficient processes or improved analytical capabilities, thus affecting PHMSA's ability to use its resources most effectively.

We are making recommendations to assist the Agency in its ongoing efforts to improve internal controls and effectively use the PHMSA Portal.

## **BACKGROUND**

PHMSA's Approvals and Permits Division manages the review of special permit and approval applications, to include conducting fitness and safety evaluations. After determining that an application includes all required data, project officers determine whether the applicant is fit to carry out the conditions of the special permit or approval application. When requested, PHMSA Field Operations Division staff conduct fitness reviews by examining documentation and perform on-site inspections. PHMSA's Engineering and Research Division staff conduct safety evaluations of special permit and approval applications that require technical analyses. Private laboratories and companies also may act on PHMSA's behalf by testing and recommending classification of explosives, inspecting cylinder manufacturers and cylinder repair/rebuild and test facilities, and certifying certain types of hazmat packaging.

When special permit and approval applications meet certain conditions, such as transporting lithium ion batteries by air, PHMSA coordinates them with the

Federal Aviation Administration (FAA), the Federal Motor Carrier Safety Administration (FMCSA), or the Federal Railroad Administration (FRA). The Agency also coordinates applications with the U.S. Coast Guard within the U.S. Department of Homeland Security.

PHMSA uses information systems to process applications and determine applicant fitness. The Hazardous Materials Information System (HMIS) serves as a document management system for applications and maintains data that includes special permits and approvals, a registry of hazmat shippers and carriers, incidents, and enforcement actions. PHMSA is replacing HMIS with the Portal, which is being designed to support both PHMSA hazmat and pipeline safety processes. PHMSA and other OAs also use the Hazmat Intelligence Portal (HIP), which contains hazmat safety and compliance data from PHMSA, FAA, FMCSA, FRA, and other sources.

## **PHMSA ACTIONS ADDRESS WEAKNESSES IN ITS APPLICATION PROCESSES**

PHMSA has implemented SOPs that address weaknesses we found in 2009 and 2010. The SOPs describe processes for assessing the fitness of entities applying for special permits and approvals and evaluating applicants' measures for achieving safety levels equivalent to HMR requirements. They also identify conditions for PHMSA's coordination on applications with other OAs. PHMSA processed the special permit and approval applications in our sample in accordance with the SOPs with few exceptions. Finally, since our last audit, PHMSA has taken actions to enhance oversight of third-party inspection and testing agencies.

### **Use of SOPs Has Improved PHMSA's Assessments of Applicant Fitness and Safety and the Agency's Coordination With Other OAs**

#### *SOPs Address Issues in Evaluating Applicant Fitness*

Previously, we found that PHMSA did not conduct complete fitness reviews for most applications we examined. During this current audit, we found that PHMSA had published SOPs documenting a process for assessing applicant fitness and utilizing pass/fail criteria and that PHMSA staff followed the SOPs with few exceptions.

In 2010, we reported that for the 99 special permits and 56 approvals we examined, PHMSA did not conduct complete fitness reviews by examining applicants' incident and compliance records. Instead, the Agency examined only the safety of actions described in applications. According to PHMSA officials at

the time, incident and compliance histories had no bearing on applicants' abilities to safely carry hazardous materials.

PHMSA's current SOPs address these concerns by directing PHMSA's project officers to perform multi-phased fitness reviews of applicants. A Phase 1 review includes gathering information from HIP<sup>3</sup> about an applicant's incident and enforcement histories and assessing the information according to published pass/fail criteria. Applicants that fail Phase 1 reviews are referred to PHMSA's Field Operations staff or OAs for more thorough Phase 2 reviews, which may involve reviewing additional documentation from applicants. If they cannot make a fitness determination based on a Phase 2 review, Field Operations staff may recommend that applicants receive on-site inspections, known as Phase 3 reviews.

Based on our sample of applications, PHMSA used its special permit and approval SOPs<sup>4</sup> to appropriately assess applicants' fitness except for two approval applications. One file lacked a fitness evaluation form, even though the applicant passed the Phase 1 review. Another lacked both an evaluation form and a HIP fitness report, and the applicant was not forwarded to Field Operations for a Phase 2 review. As illustrated in table 1, all sample special permits and approvals underwent Phase 1 reviews as required. Twenty of the special permits (about 30 percent) and 2 of the approvals (about 4 percent) that we reviewed underwent Phase 2 and Phase 3 reviews.

**Table 1: Fitness Reviews by Phase**

Application Type	Total	Phase 1 (History Review)	Phase 2 (Document Review)	Phase 3 (On-Site Inspection)
Special Permit	71	67 <sup>a</sup>	20	10
Approval	78	45 <sup>b</sup>	2	1

Source: OIG analysis of PHMSA data

<sup>a</sup> Four of 71 special permit applications were submitted by Federal agencies, which under the HMR are not required to undergo fitness reviews.

<sup>b</sup> Thirty-three of 78 approval applications were for classifying explosives or fireworks, for which PHMSA no longer requires fitness reviews.

In accordance with the SOPs, PHMSA denied 2 of the 67 special permit applications in our sample based on determinations that the applicants were unfit. One applicant failed the Phase 1 fitness evaluation because it had more than one

<sup>3</sup> While we assessed PHMSA's compliance with its SOPs, we did not assess the quality of HIP data used in fitness reviews or inspections conducted during advanced fitness reviews. That work was outside the scope of our audit.

<sup>4</sup> *Special Permits Program Standard Operating Procedures*, Version 1.0, October 2009; *Approvals Program Standard Operating Procedures*, version 2.0, June 2011; *Certification Agency Approvals, Standard Operating Procedures*, version 2.0, June 2011.

hazmat incident involving a cargo tank or other bulk packaging. This applicant also did not respond after PHMSA Field Operations contacted it in order to conduct a Phase 2 review. For the other special permit, the applicant failed a Phase 1 fitness review and a Phase 3 FMCSA on-site inspection. PHMSA did not deny any of the 45 approval applications based on fitness.

Finally, as required by the Moving Ahead for Progress in the 21st Century Act, known as MAP-21, PHMSA plans among other things to publish its criteria for evaluating the fitness of special permit and approval applicants in the HMR. According to PHMSA officials, the Agency will do this through a rulemaking that also incorporates policy changes, such as not performing fitness evaluations for classification approvals. According to DOT's May 2014 report on significant rulemakings, PHMSA plans to publish a notice of proposed rulemaking in September 2014.

### *Use of SOPs Has Improved PHMSA's Assessments of Proposed Safety Measures*

Previously, we found that PHMSA lacked evidence that it had performed safety reviews. During this audit, we found that PHMSA had established SOPs that require staff to document safety reviews and include reasons for denying applications, and that staff followed the SOPs on most applications we reviewed.

In 2010, we reported that PHMSA's reviews of 65 percent of the special permits and all of the approvals in our sample were either incomplete, lacked evidence of an adequate level of safety, or simply did not exist. As a result, PHMSA granted special permits and approvals without sufficient data or analyses to confirm that applicants' proposed level of safety was at least equal to what the HMR requires.

The current SOPs require PHMSA staff to use standard forms to document their evaluations of the safety measures described in special permit and approval applications. For example, the form for new special permit applications requires staff to list the hazmat being shipped, the applicant's justification for the request, the benefit to the public of granting the special permit, an overall safety assessment based on information in the application, and a basis for approving or denying the application.<sup>5</sup>

Based on our review of sample applications, PHMSA considered all special permit and most approval applicants' proposed safety measures in accordance with the SOPs. We found that safety evaluation forms had been completed and that the

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<sup>5</sup> Not all applications undergo safety evaluations. For example, safety reviews for party-to special permit applications are based on the safety review of the original special permit.

forms were supported by documentary evidence. PHMSA denied 1 of the 71 special permit applications and 11 of the 78 approval applications based on safety evaluations.

However, for 13 of the 78 approvals—all of them explosives classifications—the files lacked technical evaluation forms that document the reasons for technical officers' safety recommendations. PHMSA did not have an official form for explosives classification approvals, even though a technical officer developed one that was used intermittently. Based on these 13 approvals, we project that files for 1,815 explosives classification approval applications, or 52 percent of a universe of 3,490, lacked these forms.<sup>6</sup> While files for the 13 applications included information demonstrating that technical officers had reviewed the safety measures, the lack of complete evaluations contradicts the approvals SOP and represents an internal control weakness. A lack of sufficient documentary evidence that PHMSA had conducted these evaluations could make it difficult for the Agency to support its decisions should a safety incident occur.

During the course of our audit, we alerted PHMSA to this weakness and the Agency took action to address it. In March 2014, the Agency verbally directed its technical staff to use a new explosives safety evaluation form and reiterated those instructions in an email 1 month later. PHMSA has not included this requirement in the approvals SOP but plans to do so in internal guidance it is developing.

### *Use of SOPs Has Refined PHMSA's Coordination of Applications with Other OAs*

In our previous work, we found that PHMSA did not coordinate special permit and approval applications with OAs that may have had relevant data on applicants. During our current audit, we found that PHMSA's SOPs established criteria for coordinating applications and that PHMSA staff followed the SOPs in their reviews of the applications that we examined.

In 2010, we reported that PHMSA did not coordinate with FAA, FMCSA, or FRA, even though these OAs may have had critical safety information on applicants seeking special permits. PHMSA did not coordinate with OAs on 90 percent of the new and party-to permits or any of the special permit renewals or approvals OIG reviewed. We reported that, while we agreed with PHMSA that it did not need to coordinate with its partner agencies on every approval, it should on those applications that provide exceptions to regulatory requirements or

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<sup>6</sup> We selected a statistical, stratified sample of 78 out of 32,327 approval applications, and within this sample, 25 applications represented 3,490 total applications for explosives classifications. We estimate that 1,815 (52 percent) of the explosives approvals did not include the required safety evaluation forms. This estimate has a precision (or margin of error) of +/- 16.7 percentage points at the 90-percent confidence level.

prohibitions, such as authorizations to transport lithium batteries in certain quantities.

Two SOPs—one on special permits and one on approvals<sup>7</sup>—describe conditions under which PHMSA should coordinate with its partner OAs on applications. The special permit SOP calls for coordination on applications that: (1) set precedents; (2) involve only one mode of transportation; or (3) meet specific conditions. For approvals, the SOP directs PHMSA to coordinate mode-specific approvals and applications involving five commodities, including radioactive materials and chemical oxygen generators.

Within our sample of applications, PHMSA implemented these SOPs. Sixteen of our 71 sample special permit applications met the SOP's criteria for coordination, and PHMSA coordinated all 16. For example, PHMSA coordinated with FMCSA on an application from a carrier with a high hazmat out-of-service rate.<sup>8</sup> After reviewing its records and conducting an on-site inspection, FMCSA concluded the carrier was fit and sent its findings to PHMSA. In each of the 16 cases, PHMSA accepted the OA's recommendation on whether to grant the application.

We sent 14 special permit applications to OAs—applications that PHMSA had not coordinated—for their opinions on whether PHMSA should have coordinated with them. The OAs concurred with PHMSA's decision not to coordinate the applications. None of the 78 approvals in our sample required coordination with PHMSA's partner OAs.

PHMSA and the OAs have recently taken an additional step to coordinate their reviews by signing an interagency agreement. The agreement establishes a steering committee and includes processes, detailed coordination criteria, and other material. For example, the agreement establishes a dispute resolution process to address any unresolved issues between PHMSA and the OAs.

### *SOPs Will Serve as the Basis for Detailed Internal Guidance*

PHMSA plans to use its SOPs to develop detailed internal guidance for its staff and to share the SOPs with the public. The Agency plans to convert its current SOPs into detailed desk guides that will contain internal guidance for its project and technical officers. In addition, PHMSA plans to add its special permit and approval SOPs to the HMR by publishing its entire process for assessing applications: a completeness review, fitness and/or safety equivalency evaluations,

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<sup>7</sup> *Standard Operating Procedures for the Coordination of Approvals with Modal Administrations*, January 2009. The approvals SOP says little about coordinating such applications.

<sup>8</sup> A motor vehicle is declared "out-of-service" when FMCSA declares its mechanical condition or loading to be so imminently hazardous that operating it would likely cause an accident or a breakdown.

notices in the Federal Register (special permits only), and disposition. PHMSA will also include recent updates to its processes in the published SOPs, including changes to the fitness policy and criteria.

### **PHMSA Has Taken Actions to Improve its Oversight of Third-Parties**

In our earlier work, we found that PHMSA had not inspected explosives testing laboratories. During our current audit, we found that PHMSA had conducted these inspections and taken other steps to oversee such third-party labs and agencies.

In 2010, we reported that for 10 years, PHMSA had not conducted fitness inspections or safety reviews at any of its 4 approved explosives testing labs. Moreover, one lab had not submitted to PHMSA its annual activity report for the last 5 years and the Agency could not locate the annual reports for the other 3 labs. We reported that PHMSA's lack of oversight of its testing labs' operations put the integrity of the explosives classification program at risk.

Since 2010, PHMSA has taken actions to improve its oversight of explosives testing labs and other third-party certification agencies. Specifically, PHMSA has:

- Inspected its 4 approved explosives testing labs in 2010 and plans to re-inspect them when their approvals are renewed in 2015;
- Revised and reissued approvals for the 4 explosive testing labs, 9 independent inspection agencies, and 16 of 18 package testing labs;
- Published a separate SOP for processing certification agency approvals and overseeing them;<sup>9</sup>
- Developed evaluation forms to guide its review process and established criteria used during reviews of certification agencies' compliance with approval requirements;
- Increased the requirements for laboratories and other third-party agency approvals by (1) requiring personnel qualification plans; (2) clarifying testing and inspection procedures; and (3) updating reporting requirements; and
- Met regularly with certification agencies to improve communications so that the agencies understand their roles as PHMSA's representatives and their approval requirements.

Finally, PHMSA is establishing a network of fireworks certification agencies (FCA) that will allow fireworks manufacturers an alternative to submitting classification requests to PHMSA. In turn, PHMSA's oversight

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<sup>9</sup> *Certification Agency Standard Operating Procedures*, Version 1.0, June 2011.

responsibilities will increase. Unlike other third-party agencies, FCAs will have the authority to issue fireworks certifications directly to applicants—after PHMSA acknowledges having received documentation from the FCA. PHMSA is currently revising its certification agency SOP to include processes for overseeing both domestic and foreign FCAs.

## **PHMSA CONTINUES TO DELAY THE IMPLEMENTATION OF ITS NEW INFORMATION SYSTEM**

During our prior audit, PHMSA had not fully planned improvements to the information systems supporting the special permits and approval processes. During this audit, we found that PHMSA had developed—but not yet fully implemented—a new system for processing special permit applications.

In 2010, PHMSA initiated the development of Portal to improve its hazmat safety data collection and analysis. The Agency estimated that it would need 5 years and \$25 million to complete the system—part of the modernization of PHMSA’s information technology and an important step toward developing risk-based, data-driven oversight of pipeline and hazmat safety. At that time, the Agency was uncertain whether funding would be available and had not developed a funding contingency plan.

PHMSA has implemented and uses a module in Portal to process applications for some renewal and party-to special permits, on which PHMSA already has validated applicant information in its information systems. PHMSA spent at least \$3.5 million to develop this module. The Agency also reported that it has implemented additional Portal modules supporting hazmat enforcement and the collection of pipeline operators’ annual reports.

During the testing of the special permit module, external and internal users found it difficult to accurately identify companies applying for special permits. External users, such as businesses with multiple locations where a special permit would be needed, had difficulty identifying the locations where a special permit would be used because the module allowed users to identify only one location. Internal users also found it difficult to accurately correct company identifier information that applicants had entered incorrectly when applying online. As a result of these issues, PHMSA deactivated the module’s application processing capability for new and modified special permits. The Agency continues to process these types of applications, as well as renewal and party-to applications in HMIS.

The current method of acquiring unique identifiers for companies—using Dun and Bradstreet’s Data Universal Numbering System—is insufficient for PHMSA’s needs. Agency officials stated that unique numbers can be generated for all

applicant entities and their locations. However, the Agency lacks a method for associating related locations and entities, such as entities with parent-subordinate relationships or doing business under a different name, to capture all available data about an applicant's fitness. PHMSA officials also informed us that, before activating the module's capabilities for new, modified, and emergency applications, they want to develop a multi-modal system for accurately identifying companies that would better connect data maintained by PHMSA, FAA, FMCSA, FRA, U.S. Coast Guard (USCG), and other sources.

PHMSA officials stated further that the Agency has begun to resolve the company identifier issue. The Agency is acquiring and analyzing more complete company data—such as parent-subsidiary relationships among companies and information on company locations—to determine whether that data could be the basis for unique company identifiers. The Agency is also pursuing other actions to resolve the issue, such as broadening the types of entities that must obtain a PHMSA hazmat registration number. PHMSA officials also stated that they need time and additional funding to resolve the issue, but have not established a plan for selecting and implementing a multimodal company identifier or estimated its cost.

Due to these issues, PHMSA has delayed the full implementation of Portal, even though the Agency's fiscal year 2014 budget estimate states that the special permit module was completed in August 2011. As a result, PHMSA is not fully benefitting from its investment's full efficiencies and capabilities. The special permits module saves staff time by automatically screening applications submitted online for completeness. That savings could be significant, given the large number of applications that must be rejected. For example, in our sample, PHMSA project officers using HMIS rejected about 40 percent of special permit applications for lack of completeness.<sup>10</sup> Furthermore, the lack of a well working company identifier undermines PHMSA's ability to use the entire special permits module, develop Portal's approvals module, and connect all company data residing in its databases—data that is necessary for developing better company risk profiles and using Agency resources most effectively.

## **CONCLUSION**

Regulating and monitoring the movement of hazardous materials is an important part of ensuring the safety of the Nation's transportation system. It is PHMSA's role to properly assess risk before it allows entities to participate in this transport under special permits and approvals. By implementing SOPs, PHMSA has established a stable foundation for reviewing special permit and approval

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<sup>10</sup> We examined another 46 special permit applications that did not undergo fitness evaluations, but did not include them in our sample because PHMSA rejected them for lack of data or timeliness or applicants withdrew them.

applications. However, the lack of a fully functioning information system undermines PHMSA's ability to accurately regulate entities seeking to transport hazmat under conditions not specified in the HMR and to perform functions important to the safe transport of hazmat.

## **RECOMMENDATIONS**

We recommend that Pipeline and Hazardous Materials Safety Administrator:

1. Include in the planned approvals desk guide a requirement to use technical safety evaluation forms to document analyses for explosive classification applications.
2. Develop and implement a plan—including milestones and funding requirements—for resolving the company identifier issue.

## **AGENCY COMMENTS AND OFFICE OF INSPECTOR GENERAL RESPONSE**

We provided PHMSA with a copy of our draft report on June 9, 2014, and received its response—which is included as an appendix to this report—on July 2, 2014. PHMSA concurred with our two recommendations, which we consider resolved but open pending completion of the planned action. For recommendation 1, the Agency did not include a completion date for its planned action in its response, but subsequently informed us that it would complete the action by January 15, 2015.

We appreciate the courtesies and cooperation of Department of Transportation representatives during this audit. If you have any questions concerning this report, please call me at (202) 366-5630, or Ms. Toayoa Aldridge, Program Director, at (202) 366-2081.

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## EXHIBIT A. SCOPE AND METHODOLOGY

We conducted our work from July 2013 through June 2014 in accordance with generally accepted Government auditing standards for performance audits. Those standards require that we plan and perform the audit to obtain sufficient, appropriate evidence to provide a reasonable basis for our findings and conclusions based on our audit objectives. We believe that the evidence obtained provides a reasonable basis for our findings and conclusions based on our audit objectives.

To determine whether PHMSA implemented the SOPs and addressed weaknesses highlighted in prior OIG reports, we:

- Selected a stratified random sample of 71 out of 2,305 special permit applications where the strata consisted of the following 5 application types: (1) Modification, (2) New, (3) Renewal, (4) Party-To, and (5) Emergency.<sup>11</sup> We also selected a stratified random sample of 78 out of 32,327 approval applications where the strata consisted of the following 6 application types: (1) Competent Authority, (2) Cylinder Requalifier (Visual), (3) Explosive, (4) Firework, (5) Manufacturer Symbol, and (6) Requalifier.

We limited our sample to special permit and approval applications received by PHMSA between July 1, 2011 (i.e., to capture applications under the second version of the approvals SOP), and December 31, 2012 (i.e., to allow time for PHMSA to finish processing the applications). Moreover, 14 applications in our samples completed the review process in 2013.

- For each of the applications in our samples, we reviewed supporting documentation to determine whether PHMSA followed the SOPs regarding fitness and safety evaluations, as well as coordination with other OAs and the USCG. To acquire the documentation, we accessed files in HMIS and the PHMSA Portal. In addition, we interviewed PHMSA project and technical officers, as well as officials from FMCSA FAA, FRA, and USCG.

To test PHMSA's decision not to coordinate special permit applications with operating administrations, we selected a subsample of applications not sent to FAA, FRA, and USCG. We did not develop one for FMCSA because it has a very close working relationship with PHMSA. For the three operating administrations, we selected the first two applications of each type (i.e., modified, new, party-to, and renewed) and emergency processing. That resulted in our sending 9 applications approvals to FAA, 10 to FRA, and 10 to USCG. We asked each

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<sup>11</sup> Emergency special permits refer to special permit applications submitted with a request for emergency processing.

agency whether they concurred with PHMSA's decision not to coordinate the subsample of applications and other questions.

To examine PHMSA's oversight of third-party inspection and testing agencies, we conducted interviews with PHMSA staff and reviewed available documentation. Using third-party labs and inspection agencies associated with our approvals sample, we queried PHMSA's database to verify that approvals for these entities were reissued with additional requirements and verified that annual/biannual reports were submitted and reviewed by the Agency. This included 2 of 18 third-party packaging labs, 4 of 6 explosive labs, and 6 of 9 independent inspection agencies.

Regarding our projection that 1,815 explosives classification approval applications lacked technical safety evaluation forms. Within our sample of 78 approval applications, 25 represented 3,490 applications for explosives classifications. Based on our finding, we estimate that 1,815 (52 percent) of the explosives approvals did not include the required safety evaluation forms. Our estimate has a precision (or margin of error) of +/- 16.7 percentage points at the 90-percent confidence level.

To test the reliability for completeness of the data contained in HMIS and the Portal, we searched special permit and approval numbers, and the special permit and approval application numbers immediately before and after the numbers in our sample. Despite some missing special permit and approval numbers, we considered HMIS and the Portal sufficiently reliable for testing whether PHMSA staff followed the SOPs to process applications.

To determine whether PHMSA has improved information technology that supports its special permit and approval processes, we interviewed officials from the Office of the PHMSA CIO and the Approvals and Permits Division, as well as FMCSA and FAA. We also reviewed PHMSA budgetary and program documents.

**EXHIBIT B. ACTIVITIES VISITED OR CONTACTED****PHMSA**

Approvals and Permits Division  
Engineering and Research Division  
Field Operations Division  
Office of the Chief Information Officer

**Other Operating Administrations**

Federal Aviation Administration, Office of Hazardous Materials Safety  
Federal Motor Carrier Safety Administration, Hazardous Materials Division  
Federal Railroad Administration, Hazardous Materials Division

**U.S. Department of Homeland Security**

U.S. Coast Guard, Hazardous Materials Division

## EXHIBIT C. TYPES OF SPECIAL PERMITS AND CATEGORIES OF APPROVAL APPLICATIONS

Special Permit Type	Definition
New	Application for alternatives, or variances, to the requirements in the HMR. Federal hazmat transportation law (49 U.S.C. § 5117) authorizes PHMSA to issue such variances.
Renewal	Application to renew an existing special permit.
Modification	Application to modify an existing special permit.
Party-To	Application to become a party to, or "piggyback," an existing special permit.

Approval Category (No. of Sub-Categories)	Examples of Sub-Categories	Definition
Registration (2)	M numbers (used in place of manufacturer's name and address)	Stamped on hazmat packaging to identify the manufacturer.
	Visual identification number	Used to certify visually inspected low pressure cylinders.
Classification (4)	Explosives (assigned an EX number)	- Assigns a hazard class for shipping; - Requires third-party testing by an explosives laboratory.
	Fireworks (assigned an EX number)	Assigns a hazard class for shipping.
Cylinders (6)	Domestic cylinder repair/rebuild companies	Repairs/rebuilds DOT specification cylinders.
	Foreign cylinder requalifiers	Inspects and certifies DOT specification cylinders.
Third-Party Certification Agencies (6)	Independent inspection agencies	Perform and verify tests and inspections of cylinders.
	Explosives examination agencies	Tests explosives and issues classification recommendations.
General Approvals (4)	General Approval (Competent Authority Approval)	Competent authority approvals for a variety of activities, including manufacturing certain types of hazmat packaging.
	Lithium batteries (Competent Authority Approval)	Alternate testing and transporting of lithium batteries.
Radiation (0)	Radioactive material package designs and classifications	Certifies package design or assigns a hazard class for shipment.

### Exhibit C. Types of Special Permits and Categories of Approval Applications

**EXHIBIT D. MAJOR CONTRIBUTORS TO THIS REPORT**

<b>Name</b>	<b>Title</b>
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## APPENDIX. AGENCY COMMENTS



**U.S. Department of  
Transportation**  
Office of the Secretary  
of Transportation

# Memorandum

Subject: INFORMATION: Management Comments –  
Office of Inspector General (OIG) Draft Report on  
PHMSA Special Permits

Date: JUL 02 2014

From: Brodi Fontenot   
Assistant Secretary for Administration

To: Mitchell Behm  
Assistant Inspector General for Surface Transportation Audits

The mission of the Pipeline and Hazardous Materials Safety Administration (PHMSA), Office of Hazardous Materials Safety (OHMS) is to protect people and the environment from the risks inherent in the transportation of hazardous materials. In the United States there are approximately one million shipments of regulated hazardous materials each day. Most of these shipments are made using the standards and safety regulations prescribed by PHMSA's Hazardous Materials Regulations (HMR). Although the HMR provides a comprehensive system of transportation safety that accounts for transport scenarios and alternatives, certain circumstances, new technologies, or conditions may not be authorized. In these cases shippers or transporters may seek an alternative method of transport or require prior approval by PHMSA, which manages, processes, and ensures safety compliance through formal processes. The Approvals and Permits Division within OHMS oversees the issuance of Special Permits and Approvals, including the coordination of technical and operational controls to ensure safety and modal concurrence. Over the last few years, OHMS has worked hard to improve its processes and ensure consistent implementation by:

- Performing over 20,000 Approvals and Special Permit actions per year;
- Drafting and implementing Standard Operating Procedures for all Approvals and Special Permit actions;
- Instituting an applicant fitness program to ensure that all parties are fit to conduct the activity authorized;
- Improving oversight of all third party entities, including Explosive Laboratories, Packaging Laboratories, Independent Inspections Agencies and Designated Approval Agencies;

- Creating and implementing a new type of third party entity, Firework Certification Agencies for review of consumer firework applications;
- Drafting an Operational Workflow Document (OWD) to clarify roles and responsibilities of PHMSA, the Federal Aviation Administration, the Federal Motor Carrier Safety Administration, the Federal Railroad Administration and the United States Coast Guard on processing and reviewing Approval and Special Permit actions. Each of these entities approved and signed the OWD;
- Reviewing all existing (approximately 1,350 Special Permits) to ensure they had appropriate safety evaluations and met an equivalent level of safety to current regulations; and
- Continuing efforts to convert long standing Special Permits into regulations.

The OIG draft report included recommendations to (1) include in the planned approvals desk guide a requirement to use technical safety evaluation forms to document analyses for explosive classification applications, and (2) develop and implement a plan – including milestones and funding requirements – for resolving the company identifier issue.

Based upon our review of the recommendations in the draft report, PHMSA agrees to implement both OIG recommendations. Recommendation (1) has already been implemented into PHMSA processes and will be included in the future approvals desk guide. Recommendation (2) is a very complex issue that will take considerable time to resolve; however, PHMSA anticipates completing a draft plan by October 1, 2014.

PHMSA appreciates the opportunity to offer comments on the OIG draft report. Minor technical comments on the report will also be provided to OIG from the program staff. Please contact Martin Gertel on (202) 366-5145 with any questions or if OIG would like additional detail.