Motor Carrier Hazardous Materials Safety Permits (HMSP) Study

Please note that there have been changes to the HMSP program that flowed from recommendations in the draft report and the summary report to Congress drawn from it. The changes are noted in italicized text throughout this brief and the final report. The combination of the italicized and un-italicized text reflects the circumstances and findings of the current HMSP program.

OVERVIEW

Motor carriers that transport congressionally specified quantities and types of hazardous materials (HM) are required to register as an HM transporter with the Pipeline and Hazardous Materials Safety Administration (PHMSA) and obtain a Hazardous Materials Safety Permit (HMSP) from the Federal Motor Carrier Safety Administration (FMCSA). An HMSP is valid for 2 years from its date of issuance unless suspended or revoked.

To obtain or renew an HMSP, carriers must meet certain regulatory requirements, including: proof of financial responsibility, registration with PHMSA as an HM carrier, a satisfactory security program, and a communications plan. In addition, carriers also must meet four HMSP safety fitness thresholds for Crash rate and Driver, Vehicle, and HM out of service (OOS) rates (the "HMSP thresholds").

A 2015 Federal Register notice changed compliance with HMSP standards to be subject to enhanced monthly monitoring by the Safety Management System (SMS). Under certain conditions of the enhanced monitoring, an HMSP carrier can be identified to receive a comprehensive investigation (CI), formerly called a "comprehensive review." Otherwise, to keep their HMSP, carriers need to update their MCSA-1 Census information at least every 2 years.

The HMSP thresholds in 49 CFR 385.407 are now only employed at initial application. Otherwise, HMSP carriers are monitored using the SMS Behavior Analysis and Safety Improvement Categories (BASICs) at the HazMat level.

Section 33014 of the Moving Ahead for Progress in the 21st Century Act (MAP-21) required the Secretary of Transportation to conduct a review of the HMSP program and report the findings to Congress. MAP-21 also required the Secretary to, after submitting the summary letter report to Congress, either institute a rulemaking to make any necessary improvements to the HMSP program or publish in the Federal Register a justification for why rulemaking is not necessary. Additionally, FMCSA was petitioned in 2010 by five industry associations representing private HMSP carriers. This report explains changes in the program which had already addressed some of the petition's concerns and alternatives for addressing outstanding requests in the petition and other issues identified by the review.

As noted, several policy changes were made in June 2015.

STUDY APPROACH

First, the Agency conducted interviews with Federal subject matter experts, industry associations representing HMSP holders, and FMCSA personnel administering the HMSP program. Second, FMCSA reviewed all available data on the HMSP program, conducted extensive analysis of the safety performance data available, and studied the applicability of the Compliance, Safety, Accountability (CSA) SMS to the HMSP program. Alternative carrier performance evaluation methods were also tested.

FINDINGS

Key findings are listed in Table 1.

Table 1. Key Findings

Topic	Findings
Concerns from the "Petition for Rulemaking—Hazardous Materials Safety Permit," dated December 21, 2010	Many requests in the petition have already been resolved or were determined to be unwarranted. For instance, when the petitioners criticized the HMSP threshold calculation rate based on language in the FMCSRs, they were not aware of information published online in MCMIS regarding how FMCSA actually calculated these thresholds.
Interviews with industry representatives.	The for-hire carrier organization representatives were largely pleased with the HMSP program's standards, even recommending making them stricter, while the private carrier organization representatives were dismissive of the program's need and usefulness.
Interviews with Federal employees	Internal Federal interviewees were largely supportive of the current program in terms of its safety standards. The HM regulations requiring an HMSP were widely accepted, and mandated by Congress. The biggest complaints were generally related to FMCSA information technology issues.
Information Technology (IT)	The current software and database structure used for the program are adequate for only some functions but are seriously lacking for other operational and monitoring functions.

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Different methods for evaluating HMSP carriers' performances, including the SMS BASICs, were tested against a snapshot of MCMIS data. The study developed and tested a set of 1) modified HMSP thresholds and 2) a proposed analysis process termed Standard Deviation Analysis (SDA).

The proposed modified HMSP thresholds required a statistically significant pattern of poor behavior in a carrier's safety record before taking any action. For example, if a carrier had five vehicle inspections and three ended in vehicle OOS orders, this would be a significant pattern of behavior. However, if the carrier had eight vehicle inspections and three ended in vehicle OOS orders, this would not be a statistically significant pattern of behavior.

The proposed SDA would measure a carrier's performance in each of the HMSP thresholds to see how far it deviated from average. The carriers whose performance deviated the worst would be identified for intervention. Hazardous materials program experts reviewed the list of carriers identified by SDA and believed that this proposed approach would produce a reasonable assessment for identifying HMSP carriers with poor safety performance with limited performance data.

The existing SMS is effective at ranking medium and larger carriers, as they receive sufficient safety performance data for evaluation. But SMS has difficulty in ranking smaller carriers, due to insufficient roadside inspections data being received for the many small HMSP carriers. Use of SMS would avoid the complications of implementing an entirely new program.

Use of the existing CI process based on SMS ranking has the added benefit of already possessing a second level of review, i.e., it has an appeal process.

RECOMMENDATIONS

- Lower the SMS BASICs thresholds for identifying HMSP high-risk carriers to the passenger carrier level (higher standard).

  Federal Register Notice (Vol. 80, No.118, p. 35253) issued on June 19th, 2015 implemented use of the SMS BASICs at the hazmat threshold level.

- Evaluate modified HMSP thresholds as part of monthly SMS updates. If carrier exceeds either the modified HMSP or BASIC thresholds for 3 consecutive months, the carrier should be identified for intervention. Small carriers without a pattern of behavior significantly different from average HSMP carriers should not be targeted for intervention, regardless of threshold scores.

- Consider use of a new tool like SDA in conjunction with the modified HMSP thresholds. This combination would powerfully complement known flaws in the SMS BASICs for small carriers for whom not enough data is received.

  Due to IT budget and time limitations for rolling out the Unified Registration System (URS), it was not possible to implement either of the two new recommended analysis tools (SDA or the modified HMSP thresholds) as part of the monthly SMS BASICs monitoring with the June 2015 policy changes. Based on IT budget funding availability, the SDA and the modified HMSP thresholds may be added to the monthly monitoring in the future for better detecting poorly performing small carriers with limited safety performance data.

- Conduct a CI when an HMSP carrier is identified as high-risk.

- Institute an ongoing requirement to conduct CIs for HMSP carriers with insufficient data.

  A version of this recommendation was implemented as part of the enhance monitoring in the June 2015 policy and was subsequently mandated in the Fixing America's Surface Transportation (FAST) Act signed December 4, 2015. Carriers must be ranked in at least one SMS BASIC at least once every 4 years, or else they will need to undergo a CI.

- Evaluate the potential for an automated process for monitoring compliance with the financial responsibility requirement.

- Improve User Interface and Help for the MCS-150

  The new MCSA-1 form replaced and solved the MCS-150 and MCS-150B issues. It was rolled out for new applicants in December 2015 and renewals later in 2016.

- At a minimum, upgrade the file structures and supporting software used for the HMSP program to:

  - Enable capturing data regarding specific actions on permits and archive history of all actions taken on each permit.
  - Capture the reason for each action taken on a permit.
  - Retain history of all business action activities.
  - Allow having both an active permit and a submitted renewal application simultaneously.

- Revise 49 CFR part 350 conditions for receiving MCSAP funds to require States to adopt and enforce 49 CFR 385 subpart E. This would require States, as part of roadside inspections, to systematically begin identifying motor carriers subject to the HMSP program who either do not have an HMSP or have a permit suspended or revoked.

  FMCSA is working on a rulemaking to issue a revised part 350 in the foreseeable future which should include implementation of this recommendation in that effort.

- Either revise the USDOT number field on the PHMSA registration form to make it mandatory or make it a requirement under the HMSP application and renewal process that the applicant provides it to PHMSA.

  FMCSA plans to implement required actions from MAP-21 via a rulemaking. That rulemaking will include requiring HMSP carriers to provide their USDOT numbers to PHMSA. So, by FMCSA requirement for HMSP carriers, the USDOT number will indirectly become a required field for the PHMSA database.

To read the complete report, please visit: https://doi.org/10.21949/1503445.