

# LEGISLATIVE AUDIT DIVISION

Angus Maciver, Legislative Auditor  
Deborah F. Butler, Legal Counsel



Deputy Legislative Auditors:  
Cindy Jorgenson  
Joe Murray

## MEMORANDUM

**TO:** Legislative Audit Committee Members

**FROM:** Diedra Murray, Information Systems Audit Manager

**CC:** Major General Matthew Quinn, Adjutant General, Department of Military Affairs  
Sundi West, Deputy Director, Department of Military Affairs  
Delila Bruno, Disaster & Emergency Services Division Administrator,  
Department of Military Affairs  
Brad Johnson, Chairman, Montana Public Service Commission  
Will Rosquist, Regulatory Division Administrator, Montana Public Service  
Commission

**DATE:** June 2017

**RE:** Performance Audit Follow-Up (17SP-28): Railroad Safety (14P-13)

**ATTACHMENTS:** Original Performance Audit Summary

### Introduction

The *Railroad Safety* report was issued to the Committee in November 2015. The audit included two recommendations to the Montana Public Service Commission (PSC) and three recommendations to the Department of Military Affairs (DMA). In May 2017, we conducted follow-up work to assess implementation of the report recommendations. This memorandum summarizes the results of our follow-up work.

### **Overview**

Our review of Railroad Safety focused on three risk areas, including emergency response planning and capability with respect to derailments and HAZMAT events; review of the state's ability to inspect rail activity in Montana; and review of safety of highway rail crossings in Montana. The audit report contained two recommendations to the Public Service Commission related to becoming more active in its administration of rail safety in Montana and three recommendations to the Department of Military Affairs to improve the planning and response capability to a train derailment with a HAZMAT component at both the state and local levels. Based on our follow-up work, we determined the Public Service Commission has made improvements to its administration of rail safety in Montana; however, additional work needs to be completed before the recommendations are fully implemented. The Department of Military Affairs has completed work on all three recommendations: fully implementing one, partially implementing one, and working towards implementation on the last one.

### Background

Nationwide interest in railroad safety continued to grow after several major rail accidents across Canada and the United States involving transport of crude oil by rail resulted in catastrophic fires, fatalities, and

destruction of homes, businesses, and in one incident, an entire Canadian town center. Montana recently saw an increase in the volume of railroad traffic transiting the state. Some of the increase was due to higher volumes of coal being transported from mines in Montana and other states, but part was also due to increasing volumes of crude oil being shipped by rail. U.S. crude oil production had risen sharply, with much of the increased output moving by rail. In 2008, railroads originated 9,500 carloads of crude oil; in 2013, 407,761 carloads; and in the first half of 2014, it was 229,798 carloads. Currently, 183,047 Montana residents, nearly 20 percent of the state's population, live in evacuation zones for an oil train derailment. These various concerns prompted our audit of railroad safety issues and the state's ability to respond to an incident. Our audit work reviewed rail safety program administration at PSC; statewide emergency planning, training and equipping, and hazardous materials response at the DMA; and the Department of Transportation's Highway-Rail Crossing Inventory System, which we determined was accurate and valuable in ensuring highway-rail crossing safety in Montana. Therefore, no recommendations were made to the Department of Transportation.

### **Audit Follow-Up Results**

As part of our follow-up work, we interviewed PSC and DMA staff, interviewed the president of the Association of Rail Safety Managers, reviewed PSC financial transactions, reviewed the Montana rail safety risk assessment, reviewed PSC and State Emergency Response Commission (SERC) meeting minutes, and reviewed the Montana Emergency Response Framework (MERF) and corresponding Emergency Support Function (ESF) annexes. Additionally, we reviewed and monitored House Bill 296 throughout the 65th Legislative Session. The bill specifically discussed our audit findings related to the lack of statewide emergency planning for hazardous material incidents and would have established a response and preparedness task force. However, the bill died in committee. The following sections summarize the progress toward implementation of the report recommendations.

### **RECOMMENDATION #1**

**We recommend the Public Service Commission actively administer rail safety in Montana to include:**

- A. Active involvement in the Association of State Rail Safety Managers to ensure Montana has a voice at the national level.**
- B. Conduct a state rail safety risk assessment; establish rail safety goals and objectives; and develop a rail safety plan for Montana that is reviewed annually with the Federal Railroad Administration.**
- C. Actively engage with Montana Disaster and Emergency Services, and the other state and federal agencies, in emergency planning to ensure the rail safety program is proactively addressing risk in the state.**

### **Implementation Status – Being Implemented**

- A. The PSC is becoming more involved with the Association of State Rail Safety Managers. The Commission arranged for its staff to attend the Association's annual meeting in November 2016. Additionally, the rail safety inspectors have been in contact with the North Dakota State rail manager and have been coordinating an inspection plan along the Hi-Line.
- B. In April 2016, the PSC tasked its staff with undertaking a state rail safety risk assessment to develop an action plan by November 1, 2016. The risk assessment was completed in October 2016 and as the document states, staff applied a qualitative risk assessment methodology to identify high-risk areas within the state including a review of the type and frequency of hazardous materials transported over major rail routes, review of historical rail incidents, and vulnerabilities along rail routes. The risk assessment identified that the rail line along the Hi-Line is indeed the highest risk and that the PSC should focus on making operational improvements to

its existing program. This includes returning inspection capability to the prior baseline of two full-time certified Motive Power & Equipment (MP&E) inspectors, dedicating additional resources to program management functions, working to transition the program management to one of the inspectors, setting goals and objectives, integrating program management with the Federal Railroad Administration's (FRA) risk assessment and inspection planning, and reporting annually to the PSC.

- C. PSC staff regularly participates in the SERC meetings. Additionally, staff have participated in the Disaster Emergency Services (DES) drills and are working on better after-hour communication with derailments.

### **RECOMMENDATION #2**

**We recommend the Public Service Commission increase its railroad safety inspection capability across the state through increased inspection coverage and frequency.**

#### **Implementation Status – Being Implemented**

When working through the Executive Planning Process for the 65<sup>th</sup> Legislative Session in August 2016, PSC included an increase in state special revenue to fund personal services for the addition of 1.00 FTE to address workload issues in the railroad safety program (DP 201704). The PSC stated it would be willing to execute any mandate from the legislature regarding rail safety, with the caveat that sufficient resources for executing increased workload accompany any mandate. The narrative also references the PSC staffs' rail safety risk assessment that would be finalized in November 2016. In regards to increasing inspection capability through FTE, PSC staff concluded in its risk assessment that it is premature to increase FTE and focused more on operational improvements. The PSC did not seek FTE outside of a request if a mandate was made by the legislature and the joint subcommittee on Judicial Branch, Law Enforcement, and Justice did not approve the request. PSC has not increased its FTE tied to railroad safety inspections.

Since the audit, FTE assigned to railroad safety has been restored to two full-time MP&E inspectors certified in both rail cars and locomotives. This is an improvement since the audit, as the inspector on the western region of the state was certified to inspect only rail cars. Additionally, workload has been reviewed and the inspectors are sharing workload in Helena, Great Falls, and Havre to bring up the inspection numbers in those specific areas.

The PSC staffs' risk assessment makes recommendations to continue work towards dedicating additional resources to program management functions, setting specific goals and objectives for the Montana rail safety program, and integrating Montana's rail safety risk assessment with FRA's risk assessment and inspection planning. The risk assessment has been provided to the Commission; however, at this time, it has not been scheduled for Commission consideration or action.

### **RECOMMENDATION #3**

**We recommend the Department of Military Affairs complete all Emergency Support Functions and set a cyclical update process for the Montana Emergency Response Framework and the annexes.**

#### **Implementation Status – Implemented**

A work group under the SERC was established and tasked with reviewing and updating the state's MERF and associated Emergency Support Function (ESF) annexes. The work group is referred to as the MERF & ESF committee and was provided guidelines for ESF based on Federal Emergency Management Agency's Comprehensive Planning Guide criteria. The committee met on October 6, 2016, to finalize ESFs in the new format and align all ESFs with the new MERF. The MERF was finalized in January 2017 and is currently available online. Additionally, the MERF & ESF committee presents committee

reports to the SERC on a semiannual basis or upon request. At the most recent SERC committee in March 2017, the committee reported on the completion of the MERF, state agencies assigned to each ESF, including contacts, and exercises. Completed exercises include June 8, 2016, to test ESF 2 and 5; August 31, 2016, to test ESF 1, 5, 7, and 12; October 24, 2016, to test all ESFs; and November 17, 2016, to test ESF 1, 6, 8, and 12.

#### **RECOMMENDATION #4**

**We recommend Department of Military Affairs:**

- A. Establish a system for determining local jurisdiction capability statewide in order to address capability limitations at the local, county, and regional level.**
- B. Seek statutory authority that supports a system whereby local governments report local jurisdiction capability to Disaster and Emergency Services on an annual basis.**

#### **Implementation Status – Partially Implemented**

The PSC established a work group under the SERC referred to as the HAZMAT committee. The committee is comprised of local and state preparedness and response partners to best determine local capability limitations. However, in its initial response, the DMA partially concurred with the recommendation based on the interpretation that the recommendation exceeds its authority. Therefore, while the DMA agrees it has a coordinating role and obtaining an understanding of local response capabilities would be beneficial, it is limited to the information provided by local jurisdictions. Additionally, they did not and do not plan to seek statutory authority that would support a system where local governments report local jurisdiction capability.

#### **RECOMMENDATION #5**

**We recommend the Department of Military Affairs develop and test hazardous materials response capabilities for Northeastern Montana that mirrors the typical response window of four to six hours.**

#### **Implementation Status – Being Implemented**

The DMA conducted ‘Operation Forging Steel’ in April 2017. The exercise was designed to test the response capability of hazardous material response teams and the Montana Civil Support Team to a train derailment in Sheridan County (northeastern Montana). Multiple agencies participated in the exercise, including the Town of Plentywood, Sheridan County, Burlington Northern Santa Fe Railway, Sheridan Memorial Hospital, and the Montana National Guard. From initial discussions with the DMA, a positive outcome that would allow for a response window of 4 to 6 hours exists. However, the final After Action Review will be completed in summer of 2017, and the official result of the exercise will be reported in this review.