



C³RS DEMONSTRATION WITH SLSI SERVING IN THE ROLE OF THE PEER REVIEW TEAM

SUMMARY

The Federal Railroad Administration (FRA) is testing a new model for enabling railroads with very small numbers of employees to join the Confidential Close Call Reporting System (C³RS). This model adopts an additional third party to support event analysis when small railroads lack the resources to conduct their own and/or where it would be difficult to establish confidentiality for their employees.

In this model, the Short Line Safety Institute (SLSI) serves as the third party to analyze events. SLSI conducts the event analysis and shares their results in a newsletter to all the participating railroads.

This Research Results describes some of the challenges faced by SLSI in conducting their event analysis and sharing the results with the participating railroads.

BACKGROUND

Following a demonstration from 2007-2014 (Ranney et al., 2019) to test the feasibility and benefits of a voluntary system for reporting close calls, FRA began operating C³RS in 2014. Twenty eight passenger and freight railroads currently participate in the program.

An important element of C³RS is the event analysis conducted by the Peer Review Team (PRT). The PRT represents a group of railroad employees with railroad domain subject matter expertise that work together to understand the factors that contribute to these close call events. Railroads with very small numbers of employees may lack the human resources to devote to event report analysis. To enable these smaller railroads to evaluate their own reports, FRA

began a new demonstration in 2023 to test the feasibility of using a third party to review the submitted event reports on their behalf. For some smaller short line railroads, the small number of employees also makes it challenging to provide confidentiality when an employee submits a report. Enabling a third party to review these reports could also provide a greater level of confidentiality for these employees.

OBJECTIVES

The purpose of this demonstration was to assess a method for enabling short line railroads with very small numbers of employees to participate in C³RS by using a third party, SLSI, to perform the event analysis. By serving in the role of the PRT, SLSI can perform the event analysis that these railroads lack the resources to conduct and better protect employee's confidentiality. The demonstration assessed the ability of SLSI to conduct the event analysis, make recommendations for corrective actions, and act on those recommendations.

METHODS

For this demonstration, employees submit close call reports to the National Aeronautics and Space Administration (NASA) via the NASA website (Figure 1). To ensure confidentiality of the employee(s), the name of the railroad(s) involved, and any third-party reference (including anyone mentioned in the original C³RS report), NASA processes the de-identified reports and makes them available to the SLSI PRT via online portal. When a report is received, the PRT meets to review the report and offer recommendations to address the event. During the review, the PRT uses the Multiple Cause Incident Analysis (MCIA) method to identify



contributing and causal factors. Based on the factors identified, they recommend corrective actions to share with the participating railroads.



Figure 1. NASA home page for C³RS

All PRT members have railroad safety culture expertise, and some have experience working on short line railroads. They use this knowledge along with any materials provided by the participating railroads to inform their review of the event reports.

To assist in the demonstration, the Volpe Center provided formative feedback through observation of the SLSI PRT MCIA work and reviewed the materials shared with the railroads in the form of newsletters.

RESULTS

FRA trained the SLSI PRT in event analysis in September 2022 in preparation for short line employees to begin using C³RS. Four short line railroads volunteered to participate in the demonstration, and their employees were eligible to begin reporting in February 2023. During the program rollout, FRA's Voluntary Safety Program Division staff met with each participating railroad to introduce the program and explain how the program would work. FRA staff explained how to submit a report and what would happen following report submission.

As of February 2024, NASA processed nine reports for SLSI PRT review. SLSI met four times since the inception of the program to review the event reports, both in person and virtually. SLSI documented its work in FRA's software tool that supports the MCIA investigation process (Figure 2). As the number

of reports increases, the SLSI PRT can track and identify trends in the pattern of event reports.

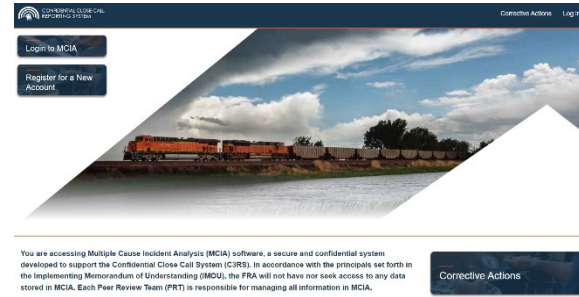


Figure 2. Home page for C³RS MCIA software

SLSI experienced several challenges in reviewing the submitted reports. Some lacked details that made it challenging to obtain a full understanding of how the event unfolded. The railroad for which the employees worked was not indicated in the reports, making it challenging to understand the practices and operating rules by which the railroad operated. Similarly, the lack of specificity made it difficult to craft corrective actions tailored to the needs of the railroad(s) that experienced the event.

After completing their work analyzing the event reports and recommending corrective actions, the SLSI PRT created a newsletter (Figure 3) to share with the participating railroads that describes the corrective actions the participating railroads may consider in addressing the event reports.

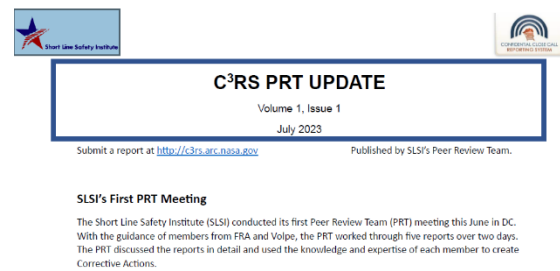


Figure 3. SLSI Newsletter format for participating railroads

A key challenge for this demonstration was managing the trade-off between keeping the



information confidential and performing an effective event analysis. When the SLSI PRT receives reports, it does not know the railroad from which the report came. Without knowledge of the railroad's operations, it is more difficult to identify the factors that contributed to the event. In addition, lack of knowledge as to which railroad to direct the analysis and any corrective actions means that the participating railroads do not know whether the event applies to them and whether considering the SLSI recommendations makes sense. This may contribute to a reluctance to implement the corrective action.

Finally, the lack of information about the railroad's operation resulted in recommended corrective actions that may be insufficiently specific for the railroad to implement. Managing this balance between employee confidentiality, building trust with the participating railroads, and sufficient information to effect positive change is a significant challenge.

Another challenge of this model is SLSI's ability to collect feedback from participating railroads. If this feedback is not delivered to SLSI in a timely fashion, the SLSI PRT may be unaware whether a railroad has implemented a corrective action nor can they know the impact of that corrective action. The SLSI PRT also may not know whether the participating railroads share the newsletters with all of the employees at each railroad.

CONCLUSIONS

Addressing these challenges will require the participating stakeholders, FRA, SLSI, and the railroads to jointly identify ways to find solutions. While the use of a third party to report close calls assisted by the SLSI PRT establishes trust, the PRT would benefit from more detailed information in the reports and from the railroads to provide actionable corrective actions to the railroads. Going forward, C³RS stakeholders can

determine solutions that may work to address these challenges.

FUTURE ACTION

The demonstration of C³RS will continue to evolve as more short line railroads join the program and the process by which the SLSI PRT and NASA interact with the participating railroads is further developed.

REFERENCES

Ranney, J., Davey, M., Morell, J., Zuschlag, M., & Kidida, S. (2019). *Confidential Close Call Reporting System (C3RS) Lessons Learned Evaluation - Final Report* (Report No. DOT/FRA/RPD-19/01). FRA: Washington, DC.

Short Line Safety Institute (2024). [Short Line Safety Institute Home Page](#).

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