

Photo Courtesy of Kyle Korienek

SPRING 2023 MRA RAIL UPDATE

A publication of the
Michigan Railroads Association

FREIGHT RAIL SAFETY INSPECTIONS

"Thanks in part to rail's multi-layered inspection practices, FRA data show that the last decade has been the safest ever for railroads, with the Class I railroads' mainline train accident rate at an all-time low and down 49% since 2000."

Across the network, railroads employ thousands of well-trained inspectors – qualified per Federal Railroad Administration (FRA) regulations – who monitor and assess the health and safety of the equipment that moves essential goods and materials and the track that spans nearly 140,000 miles. There are prescribed training standards for any employee who inspects or performs tasks covered by a federal rule, including those who inspect such things as signals, tracks, railcars, locomotives and bridges. In addition to conducting the various inspections required by FRA, railroads have, for decades, voluntarily invested in testing, implementing and advocating for advanced inspection technology to supplement manual inspections.

Every day, around the clock, thousands of sensors throughout the rail network collect billions of data points that generate alerts for issues that require immediate attention.

Furthermore, advanced computer programs, machine learning and AI analyze the data,

identifying patterns and predicting what network elements may soon need repair or replaced days or even months in advance. These elements include tracks, wheels, bearings, locomotive components and more. This information helps give railroads lead time to proactively schedule maintenance and fix issues before they become dangerous.



Laser-guided Safety

To be sure wheels are in a safe working condition, track-embedded lasers provide an individual profile for each wheel, often exceeding 1,000 images per train.

FREIGHT RAILROAD TRACK INSPECTIONS

"Track inspection technologies have helped railroads achieve substantial safety gains in recent years, with 2022 marking the lowest-ever rate of track-related accidents."

The American Society of Civil Engineers (ASCE) has repeatedly awarded railroads the highest grade in their Infrastructure Report Card. ASCE cited sustained private investments by the nation's freight railroads as the primary reason for the network's good condition. From 1980 to

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Jon Cool, President
@MI_FreightRail

FROM THE PRESIDENT

As the new legislative session gets moving, we wanted to note valuable conversations with the new House & Senate Transportation Committee Chairs. In the House, Rep. Nate Shannon from Macomb County is heading up the House Transportation & Infrastructure Committee. Sen. Erika Geiss from Wayne County is leading the upper chamber's Transportation & Infrastructure Committee. We appreciate our communication

in the early days of 2023 and look forward to a strong partnership.

Rail safety, preparedness and the safe movement of hazardous goods is being discussed in the halls of Congress and at state capitols around the county. And this is a necessary and helpful conversation. More than 99.9% of all hazardous material (hazmat) cars moved by rail reaches its destination without a release caused by a train accident, making rail a responsible transportation choice.

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FREIGHT RAIL SAFETY INSPECTIONS

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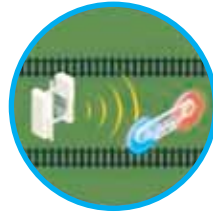
2021, America's privately owned freight railroads spent about \$760 billion – averaging well over \$20 billion per year – to maintain and improve their network. That investment breaks down to more than \$260,000 spent on average per mile of the freight rail network. Inspections and maintenance make up a significant amount of spending.

All disciplines perform, at a minimum, the federally required inspections as well as additional inspections as called for in each railroad's maintenance rules. On top of these federally required visual inspections, there are also federally mandated internal rail inspections, bridge inspections, signal, crossing and geometry inspections. Many railroads do each of these at a higher frequency than prescribed by the regulations, and advanced technologies increase the speed of these inspections while improving their quality.

For example, track geometry and ultrasonic track inspections help pinpoint defects that are usually not visible to the human eye or can only be identified when the track is in use. They also allow railroads to inspect more track in less time and provide data to schedule maintenance proactively.

FREIGHT TRAIN & EQUIPMENT INSPECTIONS

"Railroads have significantly invested in testing and deploying equipment inspection technologies without federal requirements. FRA research shows these devices help enhance safety. Since 2000, the equipment-caused accident rate is down 21%."



Network Sensors Talk to Each Other

Track-side infrared, laser and acoustical sensors share information with centralized databases where the health of locomotives and cars is tracked, and equipment can be sent to repair before it reaches a safety limit.

FRA regulations and AAR interchange standards establish stringent thresholds to ensure the health and safety of the more than 1.6 million railcars (and 12 million wheels) traveling across the country daily. Rail employees visually inspect each train before departure in accordance with those standards. If a car does not meet those standards, railroads make appropriate repairs to ensure safety. The customer owns more than 99.9% of all tank cars, while entities other than railroads own more than 80% of all covered hopper cars, such as all cars that carry plastic pellets.

Some defects can only be identified when the asset moves, which only technology can

accomplish. This technology also helps increase the safety of the inspector.

To ascertain the equipment's current condition, wayside detectors use various technologies – such as infrared and lasers – to assess the health and safety of locomotives and railcars as they travel along the national network. They alert railroads to anomalies or troubles with locomotive or railcar components that could affect their performance, damage track or become a safety hazard. The Asset Health Strategic Initiative, a program developed in the mid-2000s and led by AAR and its data management subsidiary, Railinc, maintains the "Equipment Health Management System (EHMS). Through the EHMS, Railinc collects and centralizes detector-generated data to help car owners and railroads see alerts and proactively repair equipment based on AAR or FRA rules. Here are just a few examples of the wayside detectors railroads use:

- Locomotive sensors monitor individual components.
- Machine visioning inspects passing trains
- Lasers and scanners measure the wheel profiles of moving trains.
- Hot bearing detectors sense overheating bearings.
- Wheel impact load detectors reduce broken rails and wheel and bearing failures.

Source: AAR

FROM THE PRESIDENT

► CONTINUED FROM PAGE 1

From the chlorine used to purify drinking water to the chemicals used in fertilizers, railroads provide a safe solution for moving the hazardous hazmat essential to daily life.

How does the rail industry prepare and train our local Michigan first responders?

The railroad industry helped build and still supports the Michigan State Police hazmat training facility outside of Lansing. Hundreds of Michigan firefighters receive specialized training at this outstanding facility annually. We look forward to supporting enhanced training opportunities at this nationally recognized facility.

Railroads also host & support unique training opportunities across Michigan. From mock training drills with local first responders to bringing in special rail tanker training cars, railroads provide

a multitude of training opportunities.

The MRA looks to build upon our current efforts to share railroad emergency contact information with a new partnership with the Michigan Emergency Management Association. Look for more news on this front in the months to come.

On the legislative front, the MRA wants to extend continued appreciation to Sen. Darrin Camilleri for his leadership on creating a new Local Grade Separation Program. (SB124-125). Grade separation stakeholders thank him for his tireless efforts.

Also engaged in this effort are Reps. Samantha Steckloff (MDOT budget) and Jaime Churches (HB4152-4153). This is a strong partnership to get this public infrastructure program to the Governor's desk and your work is applauded. Thank you!

The MRA will be opposing a couple of new bills (SB100 & SB139). They are known as the Train Length bill and Crew Size Mandate bill.

Arbitrarily limiting the length of trains that Michigan's economy depends on is problematic policy. This effort would lead to more (shorter) trains, more commercial trucks, and increased air pollution. This bill would negatively impact the movement of goods and supply chain.

Crew Size is an issue that plays out between unions and railroad companies. State Legislatures should not get in the way of this traditionally negotiated matter. Recently, a federal court agreed that a state law mandating crew size violates the U.S. Interstate Commerce Clause. The member companies of the MRA encourage opposition to these bills (SB100 & SB139).

MOVING MICHIGAN

FEATURING

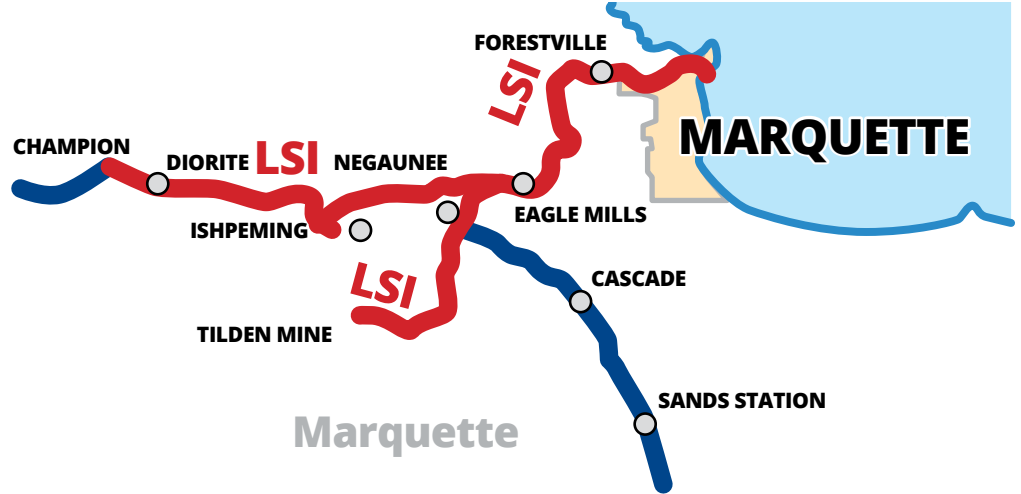


LAKE SUPERIOR & ISHPeming RAILROAD

The Lake Superior & Ishpeming Railroad (LS&I) has been part of the North Central Upper Peninsula of Michigan since it was organized in 1893 as a subsidiary of the Cleveland-Cliffs Iron Company. From the start, the LS&I's primary business was to transport iron ore from the Marquette Iron Range to the railroad's dock located on the shores of Marquette, MI. From there, the iron ore is loaded onto shipping vessels and transported to steel mills on the lower Great Lakes. Despite significant changes to the iron and steel industry over the years, the LS&I is still in operation today and continues to play an integral role in the success of Cleveland-Cliffs Inc.

Headquartered at the Eagle Mills location in Negaunee, MI, the LS&I Railroad is classified as a Class 2 railroad and is a wholly owned subsidiary of Cleveland-Cliffs Inc. It only serves Cliffs' Tilden Mine in Palmer, MI, which produces approximately 7.8 million tons of iron ore pellets annually. While the LS&I primarily ships iron ore pellets, it is also utilized to deliver some materials to Tilden that are used in the pellet making process.

The LS&I line is known as the Ore Subdivision, and it consists of approximately 20 miles of main line track and 30 miles of yard track that run from the Tilden processing plant in Negaunee to the ore dock in Marquette. The railroad operates a



fleet of 956 ore cars that are maintained with its locomotive fleet in the Eagle Mills yard. Currently the LS&I locomotive roster consists of a combination of six General Electric AC 4400's, two of the old BN U-30-C and one C-30-7.

The LS&I also has its own engineering dept that is located at the Eagle Mills location. They are responsible for maintaining the track system and major structures that include the ore dock and two trestles located along the route. The trestles include the Morgan Bridge, constructed in 1896 and the Dead River Bridge, which was originally constructed in 1895-96 and rebuilt in

1916. The Dead River Bridge is 600 feet long and stands 107 feet above the Dead River.

On September 21, 2022, the LS&I Ore Dock reached a milestone when it loaded the 500,000,000th ton of iron ore into the M/V Hon. James L. Oberstar. The load of 29,963 was delivered to Cleveland-Cliffs Middletown Works in Southwest Ohio.

With its current skilled work force of approximately 100 employees, the LS&I will continue to provide a safe, cost effective, and efficient service to the iron and steel industry for many years to come.



Photo courtesy of Tom Carella, michiganrailroads.com
LS&I 3004, the Hill Job, on the Dead River Trestle near Negaunee.

L-R - Kendall Vanlandschoot, Section Manager Maintenance - Transportation; Dean Schultz, Ore Dock Laborer; Kevin Carr, Section Manager Operations - Transportation; Eric Beckman, Shift Manager Operations - Transportation; Dustin Darby, Master, Hon. James L. Oberstar; and Ryan Korpela, General Manager Michigan, Iron Ore Operations.

HOW FREIGHT RAIL SUPPORTS & TRAINS FIRST RESPONDERS

For decades, freight railroads have shared with first responders a fundamental commitment to the safety of the communities they serve across the country.

By working with government and industry partners to train first responders and develop new ways of mitigating the potential risks of moving hazardous materials (hazmat) by rail, railroads support local communities and the men and women who protect them – before, during and after a railroad incident.

KEY TAKEAWAYS

The North American Class I railroads:

- Train tens of thousands of first responders each year. In 2023, the railroads will train roughly 20,000 first responders in local communities across the country on accident mitigation. In addition, the industry will facilitate the training of 2,000 first responders at the Security and Emergency Response Training Center (SERTC) facility in Colorado, which includes enhanced scenario planning and training at a new facility.
- Railroads partner with Michigan State Police to train firefighters here in Michigan at the MSP hazmat training facility outside of Lansing.
- Closely collaborate with industry and government partners, including the Federal Railroad Administration (FRA), the



Photo Courtesy of CN.

Pipeline and Hazardous Materials Safety Administration (PHMSA), the Transportation Security Administration (TSA) and the Federal Emergency Management Agency (FEMA).

- Provide 24-hour emergency hotlines for first responders and the public.
- Have 24/7 hazmat safety teams and emergency

response experts strategically located throughout the nearly 140,000-mile freight rail network.

- Helped develop the free mobile AskRail™ app, which helps emergency responders effectively and safely respond to an incident by providing immediate information about railcars carrying hazmat.

ASLRRA AND MEMBER PARTNERS ADVANCE WORK ON GRANT-FUNDED EMISSIONS STUDY

Last year, ASLRRA received funding through a Federal Railroad Administration (FRA) grant to study short line locomotive emissions and the use of fuel additives and fuel injectors. The project is called the “Evaluation of Non-traditional Methods of Reducing Locomotive Emissions for Short Line Railroads.”

The project has two phases. The first phase includes a survey and inventory of the short line locomotive fleet, along with emissions testing.

Specifically, the project will measure the exhaust emission profiles of common diesel-electric switcher and line-haul locomotives through field testing of non-traditional fuel technologies, including but not limited to additives and injectors. ASLRRA is working with Michigan Technological University and members Lake State Railway and Chicago South Shore and South Bend Railroad in phase one. Phase-one testing is underway at Lake State Railway with Michigan Tech researchers

on-site and initial results will be shared with the industry next year.

ASLRRA plans to conduct the survey portion of the study soon. The Association’s railroad members should expect to receive a survey in mid-April. ASLRRA encourages all recipients to aid these research efforts by completing the survey. Data collected will also be used to further the Association’s government affairs priorities in Washington, D.C.

The second phase of the study will include more rigorous testing of locomotive emissions, with the goal to demonstrate more clearly the impact of emission-reducing technology through the use of controlled experiments and increased emphasis on scientific method and instrumentation accuracy.

The Association thanks Lake State Railway and Chicago South Shore and South Bend Railroad for volunteering their time to conduct research that will benefit the entire short line community.

Source: ASLRRA



Emissions testing being conducted on a Lake State Railway locomotive. Photo courtesy of ASLRRA

MICHIGAN OPERATION LIFESAVER UPDATE



The goal of Michigan Operation Lifesaver is to reduce and eliminate highway/rail crashes and trespasser/pedestrian incidents in Michigan by emphasizing the “three E’s,” Education, Engineering and Enforcement.

Operation Lifesaver Inc. is now in its 51st year and has seen a reduction of over 80% in railroad tragedies, nationwide. Highway/rail crashes in Michigan decreased by 9% in 2022 over 2021. There were 4 people killed in crashes.

Trespasser fatalities increased in 2022 over 2021, with 9, as opposed to 6 in 2021. Nationally, there were 246 fatalities in 2022, up from 223 in 2021.

Some of OL’s activities in Michigan:

- The Rail Investigation Safety Course (RISC) is now available for presentations to law enforcement and fire departments.
- A class was held for new Operation Lifesaver Authorized Volunteers (OLAV) with nine new volunteers. They will now be able to make presentations.
- MI-OL received a grant from the Posner

Foundation, a major supporter of Operation Lifesaver for several years. Henry Posner is a former Penn Central and Conrail railroader who has helped promote OLI causes and event for many years. ‘Thank You’ to Henry.

- An Officer on the Train (OOTT) Snowmobile Enforcement detail was held in the Grayling/Gaylord area with the cooperation and support of the Lake State Railway in February. A reporter from WPBN TV in Traverse City (channel 4/7) made the trip along with several law enforcement and DNR officers. Three warnings were issued showing that compliance is improving each year. A trooper commented that ‘compliance is a good thing.’
- Curtis Stewart - State Coordinator and former Lansing city fire captain has been selected by OLI to help set up a new rail safety program for fire fighters.
- Other recent events include: The Great American Train Show at the Suburban Collection, with over 6,000 people in attendance and 1,500



L- R David Salamis - CN Police Officer, Sam Crowl - MI-OL, Robert Brancheau - Chief of Police Great Lakes Central Railroad, at Michigan Association of Chiefs of Police Conference in Grand Rapids, MI February 2023. Photo courtesy of Robert Stevenson (MACP).

that visited the MI-OL booth; “Safety Day” at the Durand Schools for over 600 students; Boy Scouts Safety Day in Northville for over 200 attendees; Ann Arbor Train Show where over 1,220 people stopped by the MI-OL booth; 3 bus driver training classes for SMART drivers in Mt Clemens; Michigan Association of Chiefs of Police conference in Grand Rapids; and presentations in Ann Arbor, Detroit, Fenton, Flint, Iron Mountain, Lansing, Sterling Heights, Taylor & more.

Upcoming events across the state include: the MI-OL regular meeting on April 21, 2023, at the Washtenaw County Sheriff’s Office in Ann Arbor and a training class for new Operation Lifesaver Volunteers (OLAV) in June. For more information about Operation Lifesaver and its many programs and happenings – see www.oli.org, or contact: frmn2009@sbcglobal.net, Curtis Stewart 517.974.1737.



OL-MI joined with Lake State Railway, DNR, and law enforcement agencies for Officer on a Train enforcement detail. Photo courtesy of Lake State Railway.

CONG. JOHN JAMES NAMED TO COMMITTEE ON TRANSPORTATION AND INFRASTRUCTURE

Congressman John James (R-Farmington Hills), recently elected to represent a Southeast Michigan district, will serve on the esteemed Transportation and Infrastructure Committee. This is great news for Michigan. James participated in a T&I hearing with Ian Jefferies, AAR President, pertaining to the state of transportation infrastructure and supply chain challenges. We look forward to working with Cong. James in the years to come on railroad and infrastructure issues.

Congressman John James (R- Farmington Hills). Photo courtesy of US House of Representatives.



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Members of the Michigan Railroads Association are: Adrian & Blissfield Railroad Co., Ann Arbor Railroad, CPKC, Charlotte Southern Railroad Co., CN, Consolidated Rail Corp. (Conrail), CSX Transportation, Delray Connecting Railroad, Detroit Connecting Railroad Co., Escanaba & Lake Superior Railroad, Grand Elk Railroad, Grand Rapids Eastern Railroad, Great Lakes Central Railroad, Hamilton Northwestern Railroad Co., Huron & Eastern Railway, Indiana Northeastern Railroad, Jackson & Lansing Line, Lake State Railway Co., Lake Superior & Ishpeming Railroad, Lapeer Industrial Railroad Co., Marquette Rail, Michigan Shore Railroad, Michigan Southern Railroad, Mid-Michigan Railroad, Mineral Range, Inc., Norfolk Southern Corp. and West Michigan Railroad Co.

RAILROADS PILOT RAIL EMERGENCY DISPATCHING SYSTEM TO INCREASE FIRST RESPONDER INFORMATION ACCESS

The Association of American Railroads (AAR), in partnership with local emergency management agencies, have piloted the addition of AskRail data to their emergency management dispatching system to ensure all first responders have accurate, timely information in the event of a rail emergency.

Developed by the freight rail industry and the first responder community in 2014, AskRail has served as an on-the-

ground, front-line tool to give first responders vital information about rail car contents and emergency response guides so they can swiftly and safely manage a rail accident. By training and working with dispatch centers, every first responder who arrives at the scene of a rail emergency can be assured they will have the right information to respond to the incident effectively.

The AskRail app continues to be

a part of the standard training emergency responders receive from the freight railroads and at the Security and Emergency Response Training Center. It also remains available for download through the Apple App Store and Google Play to qualified first responders. Through these combined efforts, the AAR plans to double the number of first responders who have access to the tool by the end of 2023.



<http://askrail.us/>

